VENTURA WATER SUPPLY PROJECTS

EIR Appendices

Prepared for
Ventura Water
501 Poli Street, Room 120
Ventura, CA 93002-0099

March 2019

ESA

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TABLE OF CONTENTS

Ventura Water Supply Projects

Appendix A: Notice of Preparation and Comments Received

Appendix B: Air Quality and Greenhouse Gas Emissions Data Sheets

Appendix C: Ventura Water Supply Projects Biological Technical Study

Appendix D: Modeling Outfalls for Ventura Water Supply Projects-Plume Model

Appendix A

Notice of Preparation and Comments Received

Notice of Preparation

Date November 1, 2017

To: California Office of Planning and Research, Responsible and Trustee Agencies and Interested Parties

Subject: Notice of Preparation of a Draft Environmental Impact Report

Project: Ventura Water Supply Projects

Lead Agency: City of San Buenaventura

Review Period: November 1, 2017, through December 1, 2017

This Notice of Preparation (NOP) has been prepared to notify the public, responsible and trustee agencies that the City of San Buenaventura (City of Ventura/City) as the Lead Agency will prepare an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) for implementation of the Ventura Water Supply Projects. The projects would develop new water supplies to augment the City's water supply portfolio consistent with the City's recently completed 2017 Comprehensive Water Resources Report (CWRR) and 2015 Urban Water Management Plan (UWMP). Some of these projects also constitute "Diversion Infrastructure Projects" as that term is defined in the Consent Decree, filed with the U.S. Central California District Court February 3, 2012 between the City, Wishtoyo Foundation/Ventura Coastkeeper, and Heal the Bay for the protection of the Santa Clara River Estuary. A Diversion Infrastructure Project as defined in the Consent Decree is essentially a project, including Treatment Wetlands, that would divert tertiary treated flows currently discharged to the Estuary to water reclamation uses, including use for local water supply augmentation and reliability.

The EIR will analyze certain water supply/diversion infrastructure alternatives outlined in the CWRR and UWMP including maximizing potable reuse of recycled water through implementation of the VenturaWaterPure Project, accessing imported water through the State Water Interconnection Project, providing groundwater treatment, and implementing an ocean desalination facility. The EIR will analyze implementation of all water supply projects at a "program level," and, in addition, will analyze those project alternatives that constitute Diversion Infrastructure Projects, namely the Treatment Wetlands and the potable reuse project, including development of VenturaWaterPure facilities, at a "project level," since design details will be available for those facilities.

Currently, the City conveys wastewater to the Ventura Water Reclamation Facility (VWRF). Tertiary-treated effluent from the VWRF meets unrestricted non-potable reuse standards (Title 22 tertiary treatment). Some of the flow is currently used for non-potable uses, such as irrigation of two golf courses, a City park, and landscape areas, while most of the flow is dechlorinated and discharged into the Santa Clara River Estuary (SCRE). The EIR will evaluate implementation of the VenturaWaterPure Project that would include diversion of the tertiary treated flows to a new purification plant, and construction of a new advanced water purification facility (AWPF) to produce highly purified water for indirect or direct potable reuse, providing a drought resilient water supply source to the City. The EIR will evaluate construction and operation of the AWPF and associated facilities that will include a product water conveyance system, groundwater injection and extraction wells, a concentrate discharge system, and reconfigured and potentially new freshwater treatment wetlands for any remaining discharges.

Implementation of a potable reuse project would divert flows from the SCRE and convey disinfected tertiary recycled water to the new AWPF. The SCRE provides a special-status habitat that supports endangered aquatic and avian species. The City has committed to identifying and

diverting to water reclamation uses the maximum environmentally protective diversion volume (MEPDV) that will ensure sufficient tertiary-treated flows remain available to protect the ecology of the SCRE and provide support to endangered species and habitat within the SCRE. The volume of water available for potable reuse is contingent on the MEPDV. Depending on the MEPDV, additional sources of water may be sent to the AWPF to help meet water quality goals for the City's supplies. Supplemental water would consist of treating a portion of existing groundwater supplies.

If the MEPDV does not provide enough water to meet long term supply needs, the Ocean Desalination Project would treat ocean water to produce purified water at consistent flows. Each of the water supply projects would establish a reliable source of water to provide resiliency during prolonged drought while improving water supply quality.

VenturaWaterPure Project Location: The AWPF would be constructed within the City of Ventura or in nearby Unincorporated Ventura County within a 5-20 acre site yet to be determined. The product water conveyance pipeline would be installed within the existing rights-of-way of City and County roads, where feasible, in order to connect the existing VWRF, the new AWPF, the Bailey Water Conditioning Facility (WCF) and/or the Saticoy WCF, and the proposed groundwater extraction and injection wells. Several alternative purification plant locations and conveyance routes will be identified and analyzed as part of the environmental review process. The project also includes construction of a new concentrate discharge pipeline, with an outfall to the ocean.

Ocean Desalination Project Location: The Ocean Desalination Project would be sited at the same location as the VenturaWaterPure AWPF described above. Ocean water would be collected through intake facilities that conform to the California Ocean Plan requirements for ocean desalination structures. The product water would be blended with groundwater prior to delivery to the potable water system through pipelines located within existing right-of-ways of City and County roads, where feasible. The new concentrate discharge pipeline and outfall described above would also be used to discharge brine from the desalination facility.

State Water Interconnection Location: The preferred alignment for the State Water Interconnection pipeline would connect to Calleguas Municipal Water District's system near the Springville Reservoir, in the southwestern end of the Camarillo Hills, and trend northwesterly to the east end of the City to connect to the City's water system at Henderson Road, northeast of Saticoy Avenue. The pipeline would be approximately 8 miles in length and, except for the portions within the cities of Ventura and Camarillo, would primarily be located within Unincorporated Ventura County. Within Unincorporated Ventura County, the preferred alignment would be located primarily within farm roads on private agricultural parcels and within County of Ventura Watershed Protection District Channel roads. The Project would also include a Santa Clara River crossing. CEQA review for this Project will be analyzed at the "project level" in a separate document.

About the Lead Agency: The City of Ventura water and wastewater department (Ventura Water) provides water and wastewater services to approximately 112,500 persons through 32,000 customer connections within its water and wastewater service areas. Ventura Water is responsible for supply and delivery of potable water to its customers and also operates the VWRF which provides tertiary treatment of the wastewater from the wastewater service area. Since the City may be pursing state and federal funding for the projects through grants and loans from the State Water Resources Control Board (SWRCB) Water Recycling Fund and the U.S. Bureau of Reclamation (USBR) Title XVI Water Reclamation and Reuse Program, and since federal permits, including those under the federal Endangered Species Act, are required for its implementation, the information included in the EIR may be used by the federal responsible agencies in developing their own environmental analysis and documentation to comply with the National Environmental Policy Act (NEPA). In addition, the EIR will be prepared to comply with the SWRCB's CEQA-Plus Guidelines to facilitate processing of State Revolving Fund (SRF) loan applications, as well as support state regulatory permits required from the SWRCB, Regional

Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and other state responsible and trustee agencies.

Public Comments: The City of Ventura is soliciting the views of responsible and trustee agencies, as well as other members of the public, including interested persons, organizations, and agencies, as to the scope and content of the environmental information to be evaluated in the EIR. In accordance with CEQA, state and federal responsible, and trustee agencies are specifically requested to review the project description in this NOP and provide their comments on environmental issues related to the statutory responsibilities of the agency. The EIR will be used by the City Council when considering approval of the projects and any related discretionary approvals, as well as by state and federal agencies in considering discretionary permits and approvals for project(s) implementation.

All comments to the NOP are due no later than December 1, 2017. Please send your comments to the mailing address or email address shown below. Include a return address or email address and a contact name in your agency or group with your comments.

City of Ventura
Gina Dorrington,
501 Poli Street, Room 120
Ventura, CA 93002-0099
gdorrington@venturawater.net

Scoping Meeting: A scoping meeting will be held to receive comments regarding the scope and content of the EIR. The scoping meeting will include a brief presentation providing an overview of the proposed water supply projects and the CEQA process. After the presentation, oral comments will be accepted. Written comment forms will be supplied for those who wish to submit comments in writing at the scoping meetings. Written comments also may be submitted any time prior to the NOP comment due date. The scoping meeting will be held as follows:

Date	November 15, 2017
Time	6:00 P.M.
Address	City Hall Council Chambers 501 Poli Street Ventura, CA 93001

Introduction

The City of San Buenaventura (City of Ventura/City) water and wastewater department (Ventura Water) provides water and wastewater services to residents and businesses within the City (see **Figure 1**). The City's water service area is comprised of areas within the City limits plus additional areas within unincorporated Ventura County. The City provides wastewater collection and treatment services for approximately 98 percent of City residences as well as McGrath State Beach Park and the north coast communities (County Service Area No. 29). Sources of current (normal) water supply are summarized in **Table 1**. The City currently has rights to, but does not receive imported water, and its local water sources are subject to drought, anticipated regulatory restrictions, water quality, legal constraints, and environmental concerns. Lake Casitas and the Ventura River are reliant on rainfall within the watershed, and supplies can be significantly reduced during multiple dry years. Similarly, local groundwater basins experience high demands and lowering water levels during periods of drought and can exhibit poor water quality. This paired with new regulations to manage groundwater basins sustainably may lead to future reductions in groundwater supply reliability. To meet future water demands, the City is proposing to develop additional water supply sources. The City's 2017 Comprehensive Water Resources Report (CWRR) and 2015 Urban Water Management Plan (UWMP) identify several potential future water supply sources including, but not limited to, recycled water, imported water via the State Water Project (SWP), and ocean desalination. The CWRR also highlights water conservation measures and describes the City's water shortage task force and other programs designed to manage water shortages. The CWRR projects a future water supply deficit as demands increase in the City and supplies remain relatively static.

In 2015, the City initiated a pilot project to test the feasibility of constructing an advanced water purification facility to maximize beneficial use of treated effluent produced by the Ventura Water Reclamation Facility (VWRF) and to optimize or remove discharges to the SCRE. The pilot facility operated for one year and produced favorable results. As a result, the City is proposing to construct a full-scale advanced water purification facility (AWPF) and implement the VenturaWaterPure Project (proposed project) to augment the City's water supplies and increase local water supply reliability to meet projected future demands.

TABLE 1
SUMMARY OF NORMAL WATER SUPPLY

Water Supply Source Current Supply	Acre-feet per year (AFY)
Casitas Municipal Water District [1]	5,251
Ventura River / Foster Park	4,200
Mound Groundwater Basin	4,000
Oxnard Plain Groundwater Basin	4,100
Santa Paula Groundwater Basin [2]	3,006
City-Acquired Water Rights in 2016 (Santa Paula Basin) [3]	35.1
Recycled Water	700
TOTAL	**21,292**

[1] The five year average normal water supply from Casitas is estimated to be 5,062 AFY. Adding in development under construction (estimated to be 189 AFY) brings the total normal year supply to 5,251 AFY.

[2] Includes 3,000 AF of original City allocation and 5.8 AF of water rights acquired for the past development of Tract 4632.

[3] 12.0 AF of water rights acquired for the development of Phase 1 of Tract 5632 in 2016 and 23.1 AF of water rights acquired for the development of Tract 5774 in 2016.

SOURCE: Table 4-1, 2017 Comprehensive Water Resources Report, City of Ventura

In conjunction with the development of the VenturaWaterPure Project, the City is pursuing other water supply options to increase water supply reliability that include constructing a pipeline to access imported water (State Water Project allocations) from the Calleguas Municipal Water District (Calleguas) as well as constructing an ocean desalination facility. The EIR will evaluate each of these water supply opportunities as described below.

Project Objectives

The key objectives of the Projects are:

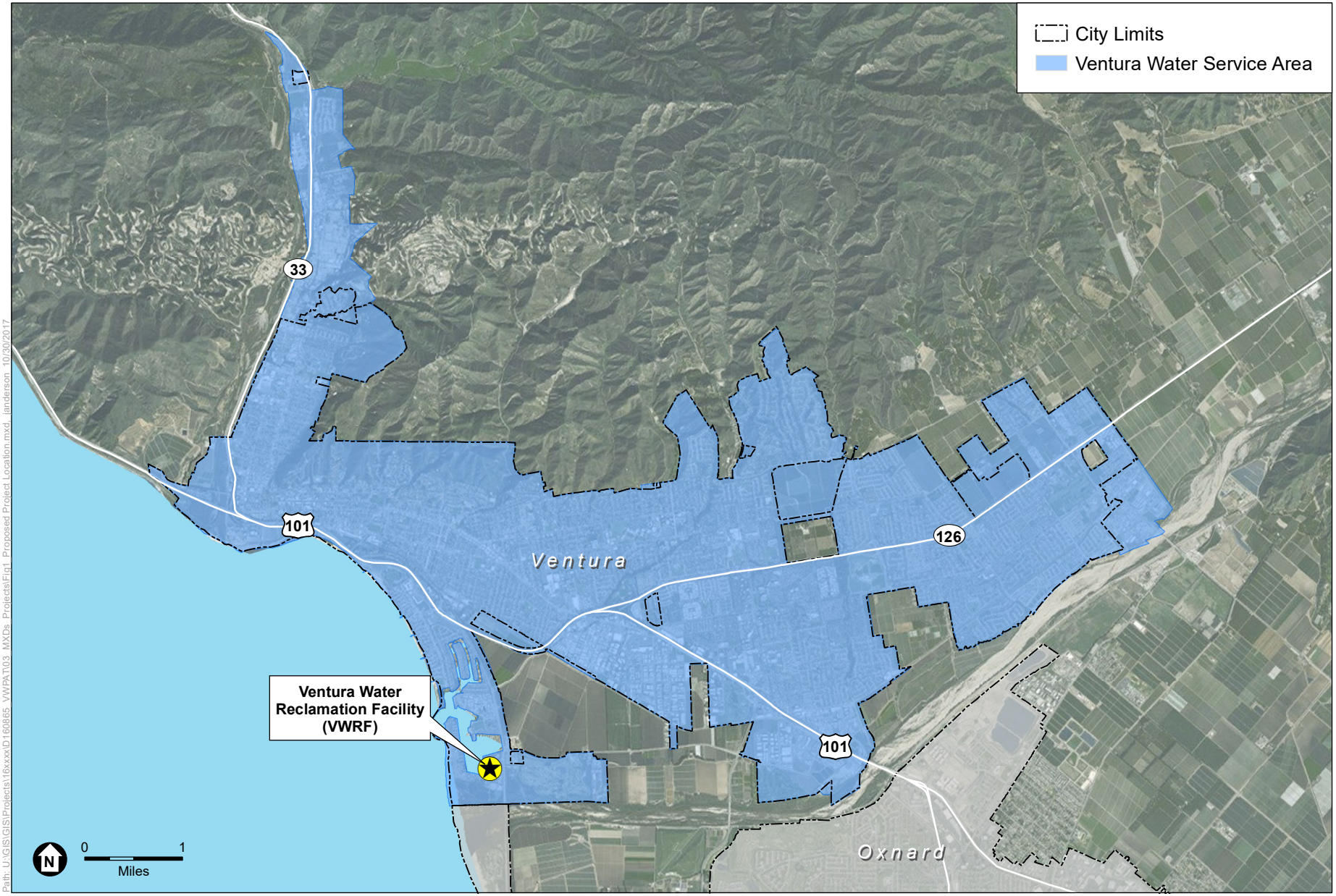
- Augment local water supply in an environmentally responsible and cost efficient manner.
- Protect, maintain, and improve ecological resources and related beneficial uses of the Santa Clara River Estuary and adjacent sensitive habitat.
- Improve surface water and groundwater quality within the service area.
- Maintain compliance with the City of Ventura's National Pollutant Discharge Elimination System (NPDES) permit.

Project Background

Ventura Water operates the VWRF which is designed to treat up to 14 million gallons per day (mgd) and is permitted to discharge an annual average of up to 9 mgd. The VWRF discharges less than this during drought conditions. The City's wastewater collection system consists of approximately 290 miles of gravity sewers, approximately 10 miles of forcemain, and 11 lift stations. Tertiary-treated effluent from the VWRF meets unrestricted non-potable reuse standards (Title 22 Standards) and approximately eight percent of the water is used to irrigate local golf courses and for landscaping. The treated water that is not reused is discharged into the Santa Clara River Estuary (SCRE). **Figure 1** shows the location of the VWRF.

In 2008, the Los Angeles Regional Water Quality Control Board (RWQCB) approved the renewal of VWRF's NPDES permit (Order No. R4-2008-0011, NPDES No. CA0053651) to discharge tertiary-treated effluent to the SCRE. However, the permit was challenged in court by local interest groups demanding that the City discontinue releasing water to the SCRE altogether, while the National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife (CDFW) opined that the City must maintain a sufficient supply of freshwater contributions to the estuary to avoid significant adverse impacts to, and potential prohibited "take" of listed species that occupy and use the SCRE. To resolve these challenges and actions, the City entered into a Tertiary Treated Flows Consent Decree and Stipulated Dismissal with

Heal the Bay and Wishtoyo Foundation/Ventura Coastkeeper, effective March 30, 2012 (Consent Decree). The Consent Decree requires the City to conduct studies necessary to identify the Maximum Ecologically Protective Diversion Volume (MEPDV), which is the maximum amount of treated effluent that can be diverted from discharge to the SCRE while still protecting the ecology of the SCRE and avoiding "take" of the special status species that occupy and use it. The City completed Phase 1 and Phase 2 SCRE Estuary Studies and is currently completing a Phase 3 Estuary Study, which will recommend an MEPDV. The RWQCB has required that the City identify a recommended MEPDV by January 2018.



Path: U:\GIS\GIS\Projects\16xxxx\D160865_VWPAT\03_MXDs_Projects\Fig1_Proposed Project Location.mxd_landerson_10/30/2017

SOURCE: ESRI

Ventura Water Pure Advanced Treatment

Figure 1
Proposed Project Location

ESA

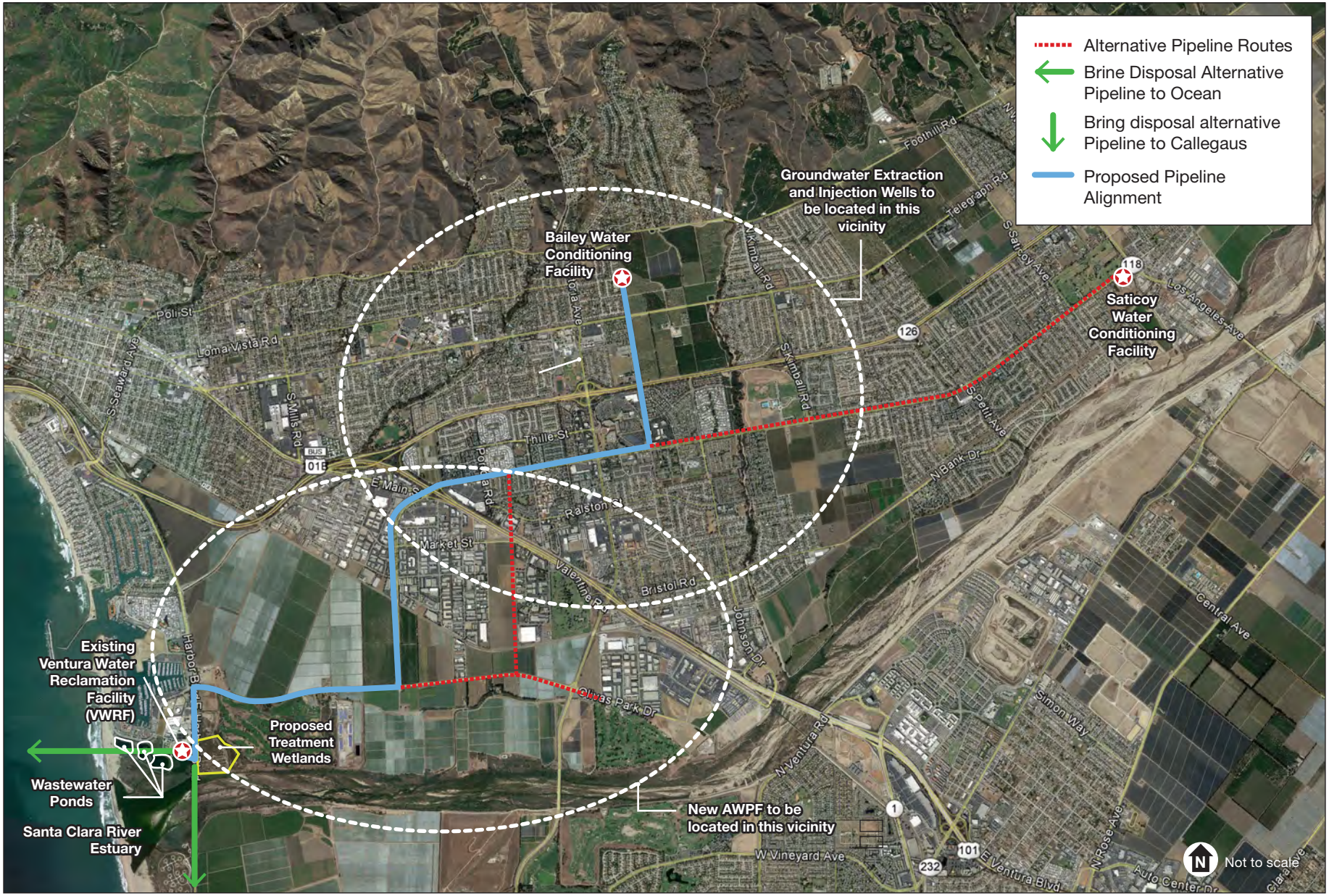
Potable Reuse VenturaWaterPure Project Components

The projects would include construction of multiple components including an AWPF, a product water conveyance system, groundwater injection and extraction system, concentrate discharge facility, and freshwater treatment wetlands. The projects would be located within the City of Ventura and in nearby Unincorporated Ventura County (**Figure 2)**. The exact locations of the project components are dictated by physical project facility requirements, but are still being studied and are subject to change. The following sections describe each component of the proposed projects.

Water Reuse Alternatives

The existing VWRF supplies approximately 700 AFY tertiary-treated effluent to irrigation users. This volume and delivery could potentially change over time and based on project outcomes. The remaining water available for purification and potable reuse would depend on the MEPDV. The Phase 3 Estuary Study, which must be completed by January 2018 to comply with the VWRF NPDES permit, will recommend an MEPDV for consideration by the RWQCB and other responsible agencies beginning in July 2018.

It is currently anticipated that discharge reductions up to 50 to 100 percent will be evaluated in the EIR, subject to the conclusions and recommendations of the Phase 3 Estuary Study. A diversion range of between 2,000 and 9,000 AFY will be considered in the EIR. The diverted water will be conveyed to the AWPF for purification, and then used to supplement the City's water supply through a potable reuse program that combines both indirect potable reuse (IPR) and direct potable reuse (DPR) methods of delivery. IPR is a method of injecting purified municipal wastewater into a groundwater basin that is later extracted for purposes of use in the domestic water supply. IPR for the proposed project would occur through subsurface injection wells into a local groundwater basin, Mound Subbasin (Mound Basin). Purified water would be conveyed to injection wells and injected into the groundwater basin pursuant to Title 22 regulations. The injected water would remain underground for a sufficient period of time to meet regulatory requirements before being available for extraction. The proposed project would install extraction wells and pipelines to convey the extracted groundwater to a blending station for inclusion in the City's potable water supply distribution system. Operation of the system would be subject to permit requirements established by the State Water Resources Control Board (SWRCB) and its Division of Drinking Water (DDW).



SOURCE: ESA, 2016

Ventura Water Supply Projects

Figure 2
Proposed Potable Reuse Project

ESA

DPR is the incorporation of highly purified water directly into the water supply, blending with other City water supplies. This concept would not inject the highly purified water into the groundwater aquifer prior to use – e.g., without injection into the Mound Basin first – but instead would convey the water directly to a WCF, blend it with other supplies, and then distribute it into the water supply system. The proposed potable reuse project would construct a conveyance system from the AWPF to blending locations such as the Bailey WCF or Saticoy WCF. Operation of this system would require approvals from the SWRCB and DDW. Currently, regulations have not been finalized to achieve DPR permit approvals, but the SWRCB is actively in the process of developing regulations that may be in place concurrently with the development of the proposed project.

Advanced Water Purification Facility

The proposed AWPF would be designed to comply with Groundwater Recharge Reuse Regulations (Title 22) for IPR including microfiltration/ultrafiltration (MF/UF), reverse osmosis (RO), and ultraviolet light advanced oxidation process (UV AOP) technology. The AWPF would produce full advanced treated water and a smaller amount of concentrate as a byproduct of the RO treatment. The initial treatment capacity of the facility is expected to be between 4-5 mgd (4,500 to 5,600 AFY), subject to change based on the recommended MEPDV. However, the AWPF will be planned for an ultimate future capacity of 12 mgd to accomplish 100 percent diversion of tertiary treated flows from the SCRE, subject to MEPDV and Resources Agency approval. To implement a DPR project, additional treatment would be provided. Additional processes would be added to treat to a higher standard, and may include granular activated carbon (GAC), an engineered storage buffer (ESB) and an ultrafiltration (UF) water treatment plant as shown in **Figure 3a**. An alternative treatment train for DPR will also be considered including ozone (O_3) and Biological Active Filters (BAF) as shown in **Figure 3b**. For potable reuse, a pump station and conveyance system would be constructed to convey tertiary-treated effluent from the VWRF to the new AWPF location. **Figure 4** displays the project's schematic of the treated water traveling from the existing VWRF to the AWPF, then, being conveyed to the water supply system via the potable reuse alternative.

Product Water Conveyance System

The purified water produced by the AWPF would be conveyed either to injection wells for IPR in the Mound Basin or directly to the existing Bailey or Saticoy WCFs for blending and then to the distribution systems for DPR. The pipelines would be constructed within public rights-of-way where feasible. A pump station would be constructed at the AWPF to pump the water to the injection wells and Bailey WCF.

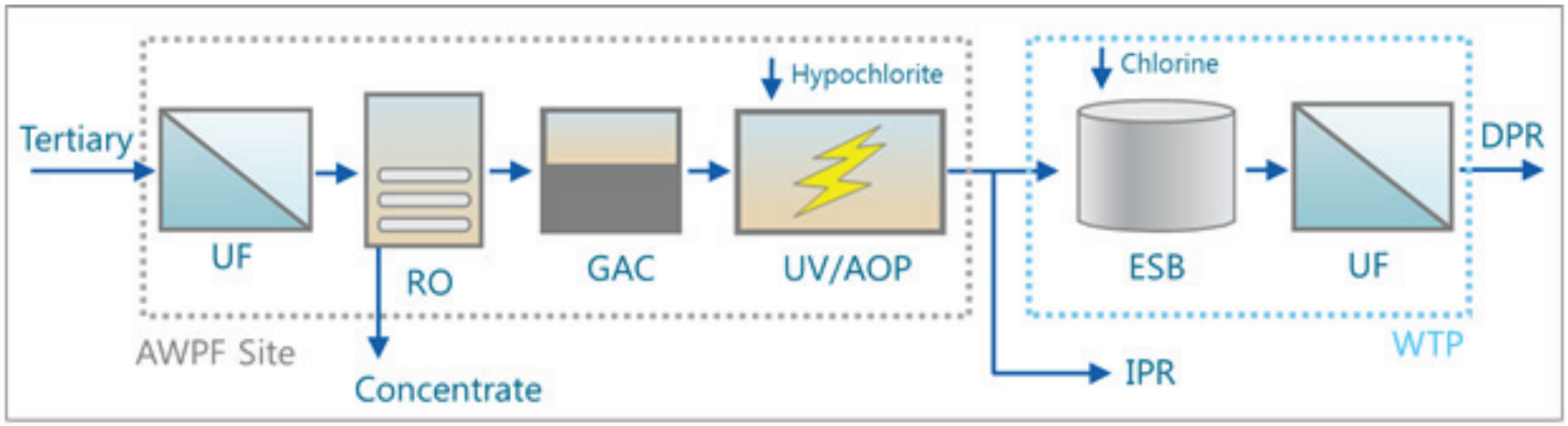


Figure 3a

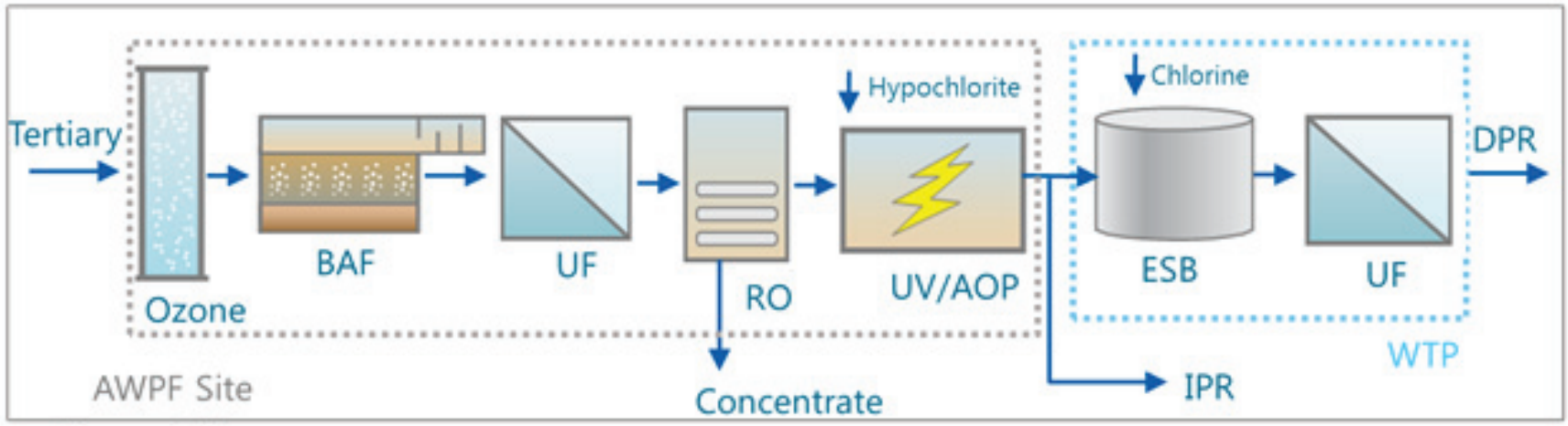


Figure 3b

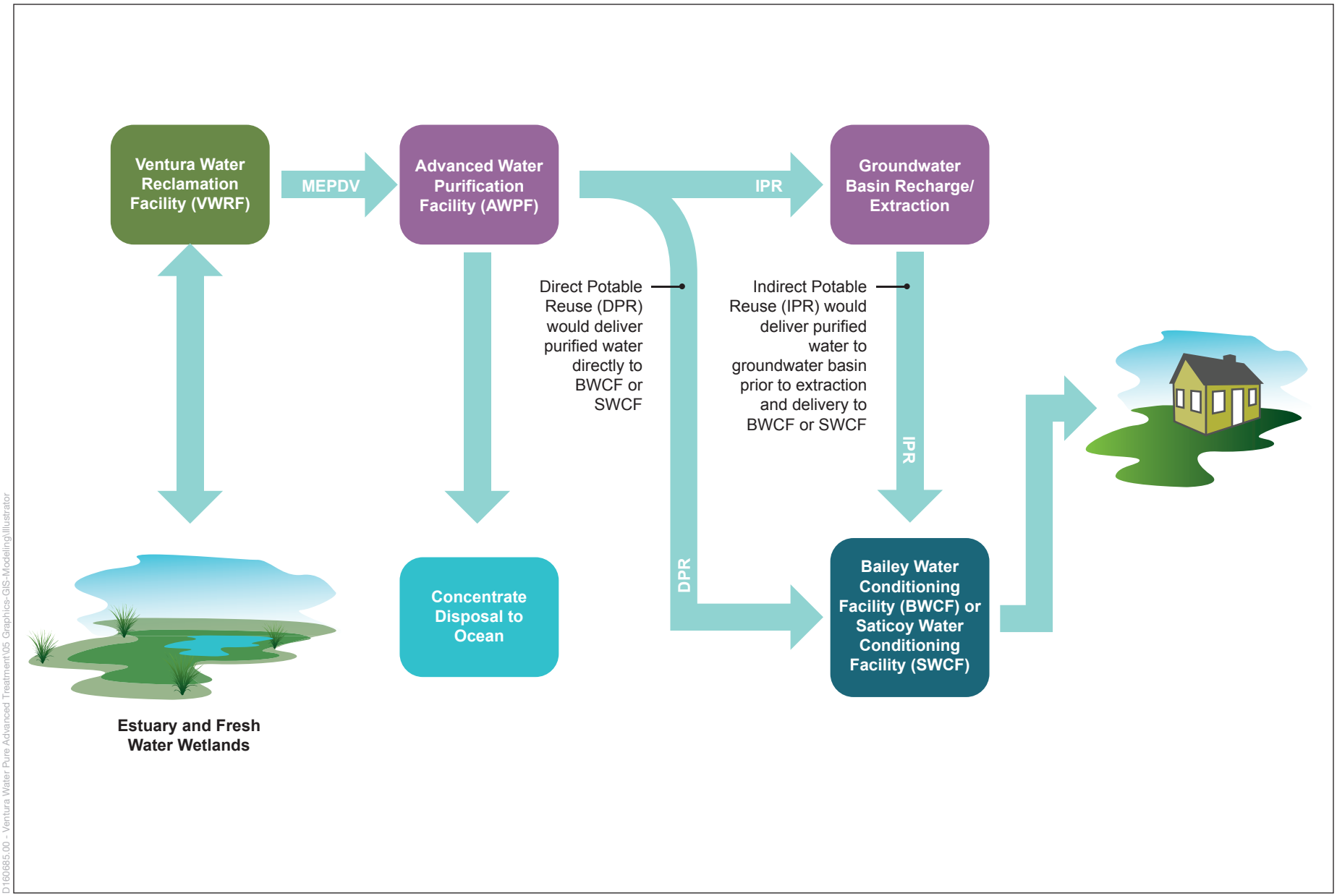
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SOURCE: Carollo, 2017

Ventura Water Supply Projects

Figure 3
Proposed AWPF Treatment Process

ESA



D160685.00 - Ventura Water Pure Advanced Treatment\05 Graphics-GIS-Modeling\Illustrator

SOURCE: ESA, 2017

Ventura Water Supply Projects

Figure 4
Proposed Project Schematic

ESA

Groundwater Injection and Extraction System

To implement an IPR project, up to six new groundwater injection wells would be constructed in the area shown in Figure 2. Each well would be planned to have capacity to inject between 1.4 and 2.9 mgd into the Mound Basin. The wells would be completed to a depth of approximately 1,500 feet into the Lower Aquifer System (LAS). Extraction wells would be installed down-gradient from the array of injection wells in locations selected to capture the injected water effectively. Currently, there are two existing groundwater wells that withdraw water from the Mound Basin, Victoria Well No. 2 and Mound Well No. 1. Water extracted from these wells is conveyed to the Bailey WCF. These wells and pipeline connections would be used as part of the extraction well array. Another configuration that may be considered is Aquifer Storage and Recovery (ASR) where the same wells are used to inject as well as extract after an appropriate holding time. Both types of groundwater recharge systems will be evaluated in the EIR. A system of monitoring wells also would be required for either well configuration to meet potable reuse permitting requirements and to monitor water quality in the groundwater basin.

Freshwater Treatment Wetlands

Currently, treated wastewater from the VWRF is conveyed to a 20-acre system of freshwater wildlife/water quality ponds prior to discharge to the SCRE. The effluent is discharged through the existing outfall junction system (OJS) to the SCRE via an effluent channel. The existing wildlife/water quality ponds have a capacity to store approximately 34 million gallons (MG) of water.

If the MEPDV is found to be less than 100 percent diversion per the Consent Decree, any tertiary-treated flow not recycled would be conveyed through treatment wetlands prior to discharge to the estuary. The proposed project would reconfigure the existing freshwater wildlife ponds and/or establish new treatment wetlands to achieve additional water quality improvement. Implementation of the constructed Treatment Wetlands would help reduce nutrients in the VWRF tertiary treated discharge which would improve receiving water quality. Depending on the discharge volume, either the existing wildlife ponds would be reconfigured to perform better as treatment wetlands or a new 29-acre treatment wetlands would be constructed on City owned property adjacent to the VWRF or at other locations. The existing wildlife/water quality ponds and proposed wetlands locations are shown in **Figure 2.**

Concentrate Discharge Facility

The AWPF would produce a byproduct as a result of treating the discharge, known as brine or concentrate. A discharge facility would be required to dispose of the concentrate in compliance with the toxicity and other water quality standards for ocean discharge. As a result, the projects would include the construction and operation of a discharge facility to dispose up to 3.3 mgd of concentrate to the ocean. The EIR will evaluate two potential alternatives for the concentrate discharge facility, described below:

- Alternative 1 New Outfall: Construction of a new ocean outfall that would discharge into the ocean near the City of Ventura. This proposed outfall would include a pipeline from the

AWPF to the ocean where the concentrate would be discharged through an outfall. The pipeline would be constructed within public rights-of-way where feasible. The outfall into the ocean would be installed pursuant to Ocean Plan requirements to maximize dilution rates.

- Alternative 2 Calleguas Salinity Management Pipeline (SMP): Construct a new concentrate pipeline from the proposed AWPF to the existing Calleguas SMP ocean outfall. The pipeline would be constructed within public rights-of-way where feasible. The concentrate would be discharged to the ocean through the existing SMP ocean outfall, subject to SMP capacity availability and approval from Calleguas.

VenturaWaterPure Project Alternatives

To accomplish the purposes of the Consent Decree, the City will evaluate a minimum of three VenturaWaterPure Project Alternatives in addition to assessing the "no project" alternative:

- Alternative 1: Purification and Local Reuse at Mound Basin and Bailey WCF
- Alternative 2: Purification and Local Reuse at Mound Basin, Saticoy WCF, and Bailey WCF
- Alternative 3: Conveyance of tertiary effluent to Oxnard Wastewater Treatment Plant (this Alternative would not augment the City's water supply)

The EIR will evaluate each of these VenturaWaterPure Project Alternatives. In addition to these recycled water alternatives, the City is considering other water supply alternatives that will be evaluated in the EIR at a "program" level.

State Water Interconnection

As discussed in the CWRR, the City has a 10,000 acre-foot per year allocation from the California State Water Project (SWP) per the 1971 agreements executed between the City, Casitas Municipal Water District (Casitas), and the Department of Water Resources (DWR). To date, the City has not constructed the infrastructure necessary to receive delivery of its allocation.

Ventura Water currently is studying a SWP connection with Calleguas that would connect Ventura Water to the Calleguas potable water system. The connection would allow for water conveyance through and between both water systems. Ventura Water is also negotiating a wheeling agreement with Metropolitan Water District of Southern California (MWD) for the conveyance of SWP water to Calleguas.

The City is currently evaluating a siting and alignment study to determine how the interconnection project can be designed and operated to supply water to serve the regional needs of the City, Calleguas, Casitas Municipal Water District, and United Water Conservation District (United). The alignment study will determine the amount of water that Calleguas can wheel through its system without adversely affecting its customers. The State Water Interconnection Project would provide access to another water supply, thereby increasing reliability and resiliency during prolonged drought or in the event of other local supply cutbacks. The SWP provides a new water source but not an additional supply as the SWP water would be replacing other supplies that are not available in all hydrologic and climatic conditions. The SWP also would improve

water quality. The SWP water also would not replace the need for the potable reuse water supply project. On a separate but coordinated track, the City will conduct CEQA review to analyze the State Water Interconnection Project, which will have incidental benefits for potable reuse in providing reliable backup supply (interconnection).

Ocean Desalination

The City's 2015 UWMP includes seawater desalination as a potential future part of the City's long term water supply portfolio and as an additional emergency water supply during times of drought. The desalination facility would be designed with a delivery capacity of up to 2.7 mgd or 3,000 AFY. The treatment processes required for ocean desalination would be similar to the AWPF facility proposed for the potable reuse project within roughly the same footprint, by increasing treatment processes and facilities within the AWPF. Therefore, the location of the ocean desalination facility and conveyance system requirements would be similar to the proposed potable reuse project. Co-location of these two facilities increases efficiencies in operations and maintenance. The desalination facility would require construction of an ocean water intake system and a brine discharge system discussed above. Both the intake and the outfall would be constructed in accordance with Ocean Plan requirements.

The Ocean Desalination Project would allow ocean water to be used in lieu of tertiary treated flow from the VWRF to produce potable water should the agencies determine that the MEPDV is less than 100% diversion. The Ocean Desalination Project would also establish a reliable source of water to provide resiliency during prolonged drought. Since details of the Ocean Desalination Project are in a preliminary stage, the EIR will evaluate the proposed future water supply alternative at a "program-level" of detail.

Groundwater Treatment

Another opportunity to enhance water supply reliability is to improve groundwater quality using the AWPF to reduce salts from the City's existing groundwater supplies to meet secondary standards. Currently, some City wells exhibit high levels of total dissolved solids (TDS). Providing RO treatment to groundwater would improve the City's potable water quality, although no additional volume would be made available. To implement groundwater treatment, pipelines would be constructed from the extraction wells to the AWPF where the water would be treated to remove TDS. Product water would then be available for conveyance to either of the WCFs for blending and distribution.

Potential Environmental Impacts

The EIR will assess the physical changes to the environment that would likely result from the construction and operation of the VenturaWaterPure Project, including direct, indirect, and cumulative impacts. The EIR will also evaluate potential direct, indirect, and cumulative impacts of the State Water Interconnection Project, Groundwater Treatment, and the Ocean Desalination Project at a program-level of detail. Potential impacts are summarized below. The EIR will identify and analyze a reasonable range of alternatives and avoidance, minimization, and

mitigation measures, if necessary, to avoid, minimize, and offset potentially significant impacts of the projects.

Aesthetics

Potential direct and indirect impacts could occur both during construction and after the water supply facilities and related infrastructure are built and operating. The EIR will identify the visible changes to the natural and man-made environment resulting from the development of the AWPF, water conveyance system, groundwater injection and extraction system, ocean water intake system, concentrate discharge facility, freshwater wetlands, State Water Interconnection and ancillary facilities within the local viewshed. The EIR will evaluate the potential effects of this new infrastructure on scenic vistas including light and glare impacts, and will assess the potential for altering the character of the surrounding area. The EIR will develop mitigation measures if necessary to reduce potential impacts.

Air Quality

Construction and operation of the projects would generate air emissions from construction equipment exhaust, ground disturbance, material hauling, employee-commute travel, vehicle operational maintenance trips, and delivery vehicle trips. Operation of the AWPF, concentrate discharge facility, conveyance system, extraction wells, ocean desalination, and State Water Interconnection would increase energy use that would result in increased operational emissions from off-site sources. The EIR will estimate pollutant emissions from construction and operational activities including from the increased energy consumption and will evaluate potential impacts to regional air quality as well as to local sensitive receptors. The EIR will develop mitigation measures if necessary to reduce potential impacts.

Biological Resources

Construction of the AWPF, concentrate discharge facility, conveyance systems, wells, ocean desalination/intake, and State Water Interconnection could affect wildlife habitat and disturb sensitive species.

Reconstructing the wildlife/water quality ponds would temporarily affect existing habitat used by sensitive species. The effects to estuarine habitat within the SCRE from reduced discharge to the SCRE from implementation of the VenturaWaterPure Project could modify water quantity, stage, and quality and other SCRE characteristics that could affect sensitive aquatic species and critical habitats of the tidewater goby, the Southern California steelhead, the western snowy plover, and the California least tern. In addition, the ocean intakes could affect marine environment through increased entrainment of larvae and other small-scale biota. Ocean discharge of brine could adversely affect marine water quality and biological resources through salinity and turbulence caused by discharge pressures.

The EIR will summarize biological setting including terrestrial environments, freshwater wetlands, estuarine, and marine environments. The EIR will include information compiled in the Phase 3 Estuary Study regarding the impacts to the estuary, and will evaluate the potential for construction and operation of the projects to affect biological resources. The EIR will also discuss

local ordinances and state and federal regulations governing biological resources. The EIR will develop mitigation measures as necessary to avoid, minimize, and offset potential impacts.

Cultural Resources

The projects would require construction of facilities and pipelines that could disturb known or unknown archeological sites, paleontological resources, and/or human remains where groundbreaking activities occur. The EIR will assess the potential effects of the projects on cultural resources, including archaeological, historic, paleontological, and Native American resources. Mitigation measures will be identified if necessary to reduce potential impacts.

Geology, Soils, and Seismicity

The projects are to be located within a region of California that is seismically active. The proposed project would construct the AWPF, groundwater wells, ocean desalination facilities, State Water Interconnection, and associated facilities that could be subject to potential seismic and geologic hazards, including ground shaking, liquefaction, soil instability, soil erosion, expansive soils, and landslides. The EIR will identify geologic hazards and will describe local and state-wide building codes and policies that would apply to the projects that could mitigate or avoid potentially significant effects. The EIR will identify mitigation measures if necessary to reduce potential impacts.

Greenhouse Gas Emissions

Implementation of the projects could result in the generation of greenhouse gas (GHG) emissions associated with construction and operations, including increased energy usage. The EIR will estimate construction-related emissions and long-term operational emissions of the AWPF, ocean desalination facility, groundwater wells, and State Water Interconnection, including total CO_2-equivalent emissions for evaluating the effects of GHGs. The EIR will examine the projects' effects on global climate change and evaluate consistency of the projects with the State's GHG emissions reduction goals.

Hazards and Hazardous Materials

Excavation during construction of the AWPF, the ocean desalination facility, groundwater wells, and State Water Interconnection could uncover contaminated soils or hazardous substances that pose a substantial hazard to human health or the environment. Construction activities could result in the release of hazardous materials. The EIR will evaluate whether the projects would be located on sites identified by the California SWRCB GeoTracker and the California Department of Toxic Substances Control (DTSC) Envirostor databases as hazardous release sites. The EIR also will evaluate the potential for the project to result in the release of hazardous materials during construction and operation. Mitigation measures will be proposed if necessary to reduce potential impacts.

The EIR will evaluate potential impacts of sea level rise resulting from climate change. The EIR will identify the potential hazards and evaluate resiliency of proposed facility designs to withstand future sea level estimates.

Hydrology and Water Quality

Implementation of the VenturaWaterPure project may change hydrology (stage hydraulics), and water quality in the SCRE and the wildlife/water quality ponds due to reduced discharge of tertiary-treated flows. The EIR will describe relevant federal, state, and local regulations and agencies, including provisions of the federal Clean Water Act, the state Porter-Cologne Water Quality Control Act, and the permitting and regulatory authority of the RWQCB and SWRCB. The EIR will characterize the anticipated nitrogen removal water quality benefits of the proposed freshwater treatment wetlands. The EIR will also characterize marine water quality impacts in the ocean within the zone of initial dilution associated with brine discharge.

The EIR will summarize the results of the Phases 3 Estuary Study and will analyze the impacts to receiving water hydrology and quality for the wildlife/water quality ponds and the SCRE from reduced discharge into SCRE. In addition, the EIR will evaluate effects to ocean water quality of discharging concentrate through a new ocean outfall for the VenturaWaterPure Project and the ocean desalination facility.

The EIR will identify the potential for construction or operational stormwater quality impacts and evaluate stormwater quality protection measures required during construction and operation of proposed project and program facilities and develop mitigation strategies if necessary to avoid significant impacts.

The EIR will also evaluate the potential effect to groundwater quality resulting from the injection of treated water and extraction after residence time. The EIR will include an assessment of potential effects to public health resulting from the addition of purified water into the potable drinking water supply. The EIR will identify mitigation measures if necessary to ensure that potentially significant impacts are mitigated or avoided.

Land Use

The projects would construct facilities within the City where feasible, except that certain pipelines, including concentrate line and pipelines for State Water Interconnection Project intertie may cross municipal lines. The EIR will evaluate the compatibility of the project components including AWPF, the ocean desalination facility, groundwater wells, and State Water Interconnection with adjacent land uses. The EIR will evaluate the need for entitlements, zoning amendments, and development permits from all affected local jurisdictions.

Noise

Implementation of the projects would require construction and operation of project elements that would potentially generate noise and vibration. Construction activities that could be a significant source of noise and vibrations include trucking operations, use of heavy construction equipment (e.g., graders, cranes, and frontend loaders), and pile driving activities. During project operations, fixed sources of noise could be established which could impact sensitive noise receptors including but not limited to residents and sensitive species living within the SCRE ponds and marine environment. The EIR will describe the local noise policies and ordinances. The EIR will identify potential noise impacts associated with construction and operation of the VenturaWaterPure Project, the ocean desalination facility, groundwater wells, and the State

Water Interconnection Project and develop mitigation strategies if necessary to reduce potential impacts.

Population and Housing/Growth Inducement

The projects would provide water supply and wastewater treatment for existing and already anticipated demographic population growth within the service area. The EIR will evaluate the potential for the projects to induce or accommodate growth. The EIR will identify current population and employment projections, analyze the extent to which the projects are needed to service anticipated growth, and identify local planning jurisdictions with the authority to approve growth and mitigate secondary effects of growth.

Public Services

The proposed project would construct a new advanced water purification facility and other infrastructure to augment water supplies for the City. Implementation of the proposed project is unlikely to affect demand for other public services or to require new or expanded facilities. The EIR will assess the potential for the projects to affect police and fire protection services, schools, parks, and recreational facilities.

Traffic and Transportation

Construction of the projects could affect traffic on local roadways as a result of vehicle trips associated with hauling of material and equipment, road closures and detours, increased demand for parking to serve construction workers, and increase in traffic hazards caused by construction activities. Pipeline construction within public rights of way could result in temporary lane closures or full road closures. Marine construction may result in impacts to ocean vessels. The EIR will evaluate the potential for additional construction vehicles, lane closures, or road closures to impact traffic and circulation. The EIR will identify mitigation strategies to reduce any potential effects.

Utilities and Energy

The projects could result in the temporary disruption of services to adjacent land uses. The EIR will describe the existing water, electricity, telecommunications, and gas utilities serving the local communities located around the VenturaWaterPure Project, the ocean desalination facility, groundwater wells, pipelines, and the State Water Interconnection. The EIR will estimate each project's energy usage and assess potential impacts to local and regional energy supplies. Existing and projected regional supplies, demands, and facilities will be described along with any existing constraints or service deficiencies in the region. The EIR will evaluate each of the projects' potential to affect utilities and will identify mitigation measures to minimize the effects, if any.

Cumulative Impacts

The EIR will evaluate potential cumulative impacts associated with the water supply projects including pipelines, groundwater wells, treatment plant facilities, storage facilities, and ocean facilities. The EIR will list projects near proposed project locations and will evaluate the projects' consistency with the City of San Buenaventura General Plan, County of Ventura General Plan and General Plans of other overlying jurisdictions. The analysis will evaluate cumulative impacts associated with all environmental topics when considered with other past, present, and reasonably foreseeable projects in the area.

FOX CANYON GROUNDWATER MANAGEMENT AGENCY

A STATE OF CALIFORNIA WATER AGENCY

BOARD OF DIRECTORS
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EXECUTIVE OFFICER
Jeff Pratt, P.E.

November 21, 2017

City of Ventura
Gina Dorrington
501 Poli Street, Room 120
Ventura, CA 93002-0099

SUBJECT: COMMENTS ON NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT – VENTURA WATER SUPPLY PROJECTS

Dear Ms. Dorrington:

Thank you for the opportunity to review the subject document dated November 1, 2017, and provide comments. We have the following comments:

1. Figure 2 (page 9): The oval indicating the proposed location of the advanced water purification facility (AWPF) includes portions of the Fox Canyon Groundwater Management Agency. Please clarify as to whether any portion of the proposed AWPF site is to be located within the FCGMA boundary. We note that per the Notice of Preparation, the Ocean Desalination Project is to be located at the same site as the AWPF.

2. Potential Environmental Impacts, Hydrology and Water Quality (page 18): Based on the information provided, the proposed DEIR will evaluate impacts to groundwater quality; however, there is no mention of evaluating impacts to groundwater quantity. The proposed projects include injection and extraction of groundwater. The Draft Environmental Impact Report (DEIR) should include a discussion regarding the impact of the projects on groundwater quantity/supply.

If you have any questions please call me at (805) 654-2954.

Sincerely,

Kathleen Riedel

Kathleen Riedel, CEG
Groundwater Specialist

cc: Jeff Pratt, Executive Officer

800 South Victoria Avenue, Ventura, CA 93009-1610
(805) 654-2014 FAX: (805) 654-3350
Website: www.fcgma.org

From: Jeffrey Wiese <jeffwiese@mygait.com>
Date: November 15, 2017 at 2:51:04 PM PST
To: "dorrington, gina" <gdorrington@venturawater.net>

Gina, having bicycled many times past Foster Park--I could never understand why someone hadn`t thought of running a large or several water pipes from the Park up to Casitas dam and catching the sometimes huge Spring water runoff from the Santa Clara River. It doesn`t look like there would be a major right of way problem. A water pump would have to be installed, but the amount of pipe needed would be fairly minimal. Jeffrey Wiese

From: George Maguire <georgeandterri@hotmail.com>
Date: November 15, 2017 at 10:09:10 AM PST
To: "gdorrington@venturawater.net" <gdorrington@venturawater.net>
Subject: Desal Plant

Ms. Dorrington,

Thank you for allowing me to send you questions for the meeting on water. I wish I could attend. My question would be that someone surely knows what it would cost to install a desal plant (I wrote to the Star years ago that it should be near the mouth of the Ventura river and just pipe the fresh water to Lake Casitas.)

Some one must know the approximate cost, how long to have it up and running, and what the impact would be on our monthly water bills.

I have read avidly any article on how long Lake Casitas can be relied upon as a source of our water without a lot of rain. I have read anywhere from three to four to five years left of water depending on conservation measures by each user. So what do we do then?

And I have not read anywhere about any serious plans for the future for desal.

Thanks in advance for raising these questions at the meeting.

George Maguire

Oak View, CA

From: Jon Dettmering <jondettmering@gmail.com>
Date: November 15, 2017 at 7:33:00 AM PST
To: gdorrington@venturawater.net
Subject: Deverting water meeting comments

Gina
Ventura Water, needs to explore, using reclaimed water discharged into the estuary as irrigation water. This would eliminate the necessity of the water pure plant and expense, furnish irrigation to city parks at greatly reduced costs and potentially generate revenues with the sale of reclaimed water for private irritating uses.
Jon DETTMERING

From: "Daniel Cormode" <dcormode@sbcglobal.net>
Date: November 16, 2017 at 10:24:15 AM PST
To: <gdorrington@ci.ventura.ca.us>
Cc: "'DANIEL CORMODE'" <dcormode@sbcglobal.net>
Subject: NOP Scoping Meeting for Ventura Water Projects Public Comments

Gina,

Public comments presented at the NOP Scoping Meeting for Ventura Water Projects are hereby submitted in writing as requested.

The EIR should include a quantitative analysis of both the injected and extracted water from the Mound Basin aquifer.

The EIR should include a discussion of the current Mound Basin which has a 1,600 TDS and a known brackish boom.

Is there sufficient definition of the desalination plant to conduct a proper CEQA analysis?

General locations of the injection and extraction wells and associated pipelines are not defined.

Reference to the pilot demonstration program appears to be no longer applicable since the cogeneration pasteurization process is no longer under consideration.

The overall impact of the advanced water purification facility on the water supply does not appear to be addressed.

The indirect potable reuse process appears to unnecessarily increase the water cost, need additional treatment and is an unnecessary waste of energy.

The 2017 comprehensive water resources report is unrealistic in addressing the transition from the current drought to whatever a normal supply is defined in the future. It is not expected that a 2018 drought condition water supply will morph into a 2020 normal water supply.

Implementation of the state water project will require construction of three pipelines, one from Camarillo to Saticoy, one from Saticoy to Midtown, and one from Midtown to downtown

R/

Daniel Cormode
805-647-4063

From: John & Julie Ueltschi <upigs@pacbell.net>
Date: November 15, 2017 at 10:45:53 AM PST
To: "gdorrington@venturawater.net" <gdorrington@venturawater.net>
Subject: Ventura water projects
Reply-To: John & Julie Ueltschi <upigs@pacbell.net>

Gina,
Attached is an email I sent to the City of Ventura. Let me know if you think this merits further attention?
Thanks
John Ueltschi

FCGMA Challenge Project Preliminary Entry Form and Submittal Guidance

Name	John Ueltschi
Email	upigs@pacbell.net
Project Type:	Water Supply
What best describes your background:	Retired at&t engineer
Are there other benefits beyond water resources your idea would generate?	Watershed habitat or environmental stewardship Reduced flooding Recreation
Are there potential partners who would be involved with this project (e.g. land owners, water districts)?	City of Ventura, Oxnard and the Caligas Saticoy Spreading Grounds.
Final Project Submittal Format (describe your project idea in 450 words or less):	I have always wondered why the City of Ventura has never taken advantage of the Saticoy spreading grounds for a storage facility of the millions of gallons a day that are flushing to the ocean? This could serve several purposes where one of the biggest problems is the flooding of the McGrath State beach campgrounds. This flooding has negated the use of the campground in the summer months when the river builds a berm that doesn't allow the treated sewer water to flow to the ocean. The other benefit would be a possible recreation element where the spreading grounds could be stocked with fish as other northern cities have done. The last purpose

would be the recharging of our aquifer that the City of Ventura and Oxnard rely on for the majority of their water supply, not to mention the water intrusion aspect. This could be easily accomplished by placing a pipeline along the river levy up to a point where there is a culvert that crosses under Vineyard Ave directly to one of the larger spreading ponds. This could also be joint funded with Oxnard as they would also benefit. Please let me know if this idea is already in the works or the reason it won't work?
Thanks
John Ueltschi

Sent from my iPad

From: kathleen susman <susmankathy@yahoo.com>
Date: November 16, 2017 at 10:18:22 AM PST
To: "gdorrington@venturawater.net" <gdorrington@venturawater.net>
Subject: water project
Reply-To: kathleen susman <susmankathy@yahoo.com>

I would opt for the desalination plant just in case we have continuing drought. Kathleen Susman

From: TJ Moran <tj_moran@roadrunner.com>
Date: November 15, 2017 at 8:43:09 AM PST
To: Gina Dorrington <gdorrington@Venturawater.net>
Subject: Written comment for water meeting

Please see attached.
TJ Moran

TJ_Moran@Roadrunner.com

15 November 2017
TJ Moran

I reside in the Ojai Valley north of Ventura California. As we all know, Southern California is in the middle of a serious drought. The Ojai Valley, most of western Ventura county, and the city of Ventura receives its water supplies primarily from Lake Casitas, and ground water pumping. Ground water aquifers are being stressed to the point that many wells have gone dry; and Lake Casitas was recently at an historic low level of around 36% of capacity. Numerous solutions to the water supply crisis existing in Ventura County are being studied; including increased conservation measures, linking up with other sources (such as state water,) digging more wells, tapping into mountain aquifers, and desalination.

As far as I know, one solution to help this problem in the future that has not been discussed is increasing the capacity of Lake Casitas. As the Lake is currently at historic lows, a large area of dry lakebed is now exposed. These areas could be dredged to remove dirt and sediment build-up (which, according to a recent study, has significantly reduced the lake's capacity.) This would deepen the lake overall, increasing storage capacity for the future. The math is basic – for every acre-foot of material removed from the lake bottom, and acre-foot of water storage capacity would be gained.

There are several advantages to this approach:

- No expensive infrastructure improvements are needed such as pumping stations
- No new piping or connections to outside sources
- Water sources (i.e. the existing Ventura watershed) would remain unchanged – no expensive desalination or tie-in to expensive state water
- Existing facilities around the lake shore such as the recreation area would be unaffected, as the highest lake level at a greater full capacity (set by the existing dam spillway) would remain unchanged
- California DF&G should have no issue with increasing the available water for fish and wildlife habitat

Disposing of the dredged material would need to be addressed. Obviously any local projects needing fill dirt would be potential candidates, with the possibility that they share in the costs of the dredging. Filling in remote canyons and valleys as is currently done with refuse landfills is another solution. All the regulatory hurdles associated with dredging would need to be studied and addressed. I believe the lake is currently owned by the US Bureau of Reclamation, and operated under a Master Management Agreement by the Casitas Municipal Water District. It is likely that all work would be done by, or contracted by, the US Army Corps of Engineers. Obtaining the necessary permits from all the various stakeholders would take a considerable amount of time. The permitting process could be structured to allow for dredging over a longer span (read years) of time. Dredging would then only happen when the lake level was low enough to allow effective and efficient use of resources.

JENSEN DESIGN & SURVEY, INC

1672 Donlon Street
Ventura, CA 93003
Local 805 654 6977
State 800 676 1916
FAX 805 654 6979
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WASTEWATER DIVISION

11/13/2017

Ms Gina Dorrington
City of Ventura
501 Poli Street, Room 120
Ventura, Ca.

93002-0099

SUBJECT: Notice of Preparation
VENTURA WATER SUPPLY PROJECTS

We are glad to see the City moving forward with the Environmental review on new water supply projects.

Our comment is that the supply projects should be separated for the purpose of environmental review. The goals described might be mutual but the project are individual.

The individual projects are listed as:

- Ventura Pure Project
- Implement State Water Project
- Groundwater Treatment (more ongoing process rather that a project)
- Ocean Desalinization Project

The City is unlikely to be able to afford to pursue all the ideas at once and the rate payers should have the choice of assisting to determine benefit of pursuing the best project for the money available, a combined EIR may not allow individual project to move unless the project are individually evaluated. Obviously each document would address the other projects in the cumulative evaluation of the CWRR and UWMP so overall, nothing is lost by the individual pursuit of environmental document, and much could be gained.

REGISTERED PROFESSIONAL ENGINEER
DONALD M. JENSEN
No. C046404
Exp. 3/31/19
CIVIL
STATE OF CALIFORNIA

Sincerely,

Donald M. Jensen, P.E.

From: Sue Fisher [mailto:roselee487577@gmail.com]
Sent: Wednesday, November 01, 2017 3:58 PM
To: Dorrington, Gina
Subject: water

I totally agree with a desalination plant even though it will cost a lot of money. This drought is not going away. You need to have suggestions of what people do to save water. My neighbor taught me to wash my car with one bucket of water doing a section at a time and drying each section before going to the next. Then dump the water on your plants. Works great. (I do not use soap but you could) Also allowing people to water lawns twice a week is too much. Sooner or later we will not be able to water lawns at all so why not stop it now. Thank you for allowing this.

Sue Fisher
roselee487577@gmail.com
(805)824-6245

SOUTHERN CALIFORNIA EDISON
An *EDISON INTERNATIONAL* Company

Sent via electronic mail to gdorrington@venturawater.net

November 6, 2017

Gina Dorrington
City of Ventura
501 Poli Street Room 120
Ventura CA 93002-0099

RE: Notice of Preparation for Draft Environmental Impact Report for the Ventura Water Supply Projects

Dear Ms. Dorrington:

Southern California Edison (SCE) is pleased to submit the following comments on the proposed Draft Environmental Impact Report (DEIR) for the Ventura Water Supply Projects. The Projects would develop new water supplies to augment the City's water supply portfolio consistent with the City's recently completed 2017 Comprehensive Water Resources Report (CWRR) and 2015 Urban Water Management Plan (UWMP).

SCE's Electrical Facilities
SCE provides electric service to the City of Ventura and maintains electrical transmission and distribution facilities, as well as substations and supporting appurtenances in the City. Please note that any proposed electrical upgrades or new infrastructure to support the proposed Water Supply Projects should be included in the DEIR and construction activities analyzed for impacts to resources included but not limited to aesthetics, air quality, biology (i.e., nesting birds), noise, transportation and traffic and utilities to avoid a separate California Environmental Quality Act (CEQA) review with the California Public Utilities Commission (CPUC).

Development within SCE's Rights-of-Way and Access Roads
The proposed project should not unreasonably interfere with SCE's ability to access, maintain, and operate its current and future facilities. Additionally, if any development which includes permanent, temporary or grading within the right-of-way (such as bike lanes and landscaping) are planned within SCE's corridors a written consent agreement signed between the developer and SCE is required. Any parkways or pathways (either by foot, bicycles, or other means) that invite the public onto SCE's right-of-way will require the installation of fencing and/or Climbing Discouragers on each transmission line tower at the customer's expense.

SCE's rights-of-way and fee-owned properties are used by SCE to operate and maintain its present and future facilities. SCE will review any proposed use on a case-by-case basis. Approvals or denials will be in writing based upon review of the maps provided by the developer and compatibility with SCE right-of-way constraints and rights. Please forward five (5) sets of plans depicting SCE's facilities and associated land rights to the following location:

Real Properties Department
Southern California Edison Company
2 Innovation Way
Pomona, CA 91768

General Order 131-D
The construction, modification, and relocation of transmission lines, or electrical facilities that are designed to operate at or above 50 kilovolts (kV) may be subject to the California Public Utilities

Commission's (CPUC) General Order 131-D[1]. If the construction, modification, or relocation of transmission lines results in significant environmental impacts, they should be identified and discussed in the draft environmental impact report. If not, and as noted earlier, SCE may be required to pursue a separate, mandatory CEQA review through the CPUC, which could delay approval of the SCE portion of the project for two years or longer.

General Order 95
SCE must comply with General Order (GO) 95, which establishes rules and regulations for the overhead line design, construction, and maintenance. GO 95 also includes vertical clearance requirements from thoroughfares, ground, and railroads, as well as specific minimum clearances from tree branches and vegetation around overhead wires . The project's landscaping should not conflict with SCE's existing and proposed transmission line designs.

Method of Service
In order to determine electrical infrastructure necessary to support the proposed project, the project proponent must submit a signed Method of Service agreement to SCE and pay engineering fees for an electric service study to be completed. Infrastructure necessary to support this project is subject to licensing and permitting authority of the CPUC.

Permit to Construct (PTC) & Certificate of Public Convenience and Necessity (CPCN)
In addition, please note that SCE is subject to California Public Utilities Commission General Order 131-D (GO 131-D). Electric facilities between 50kV and 200kV are subject to the CPUC's Permit to Construct (PTC) review. For facilities subject to PTC review, or for over 200kV electric facilities subject to Certificate of Public Convenience and Necessity (CPCN) requirements, the CPUC reviews utility PTC or CPCN applications pursuant to CEQA and serves as Lead Agency under CEQA.

Catenary Wires
Existing heights of the 66kV and subsequently the 220kV above any overhead catenary wires used to power trains will also likely not meet GO 95 vertical clearance standards and will require SCE to increase the height of several towers along the adjacent right-of-way as well as possibly several towers down-line. Further, based on drawings and plans provided to SCE it is not clear if there is sufficient horizontal clearance for the 220kv towers. Accordingly, this may require the relocation of 66kV or 220kV towers or realignment of the proposed track. As a separate but no less significant issue to SCE, 24-hour access must be provided to SCE employees to repair and maintain all structures and facilities.

SCE appreciates the opportunity to comment on the Ventura Water Supply Projects. SCE looks forward to working and collaborating with the City. If you have any questions regarding this letter, please contact me at heather.neely@sce.com or 626.476.7839.

Regards,

Heather Neely
Third Party Environmental Reviews
Southern California Edison
General Office A#1 Quad 2C
2244 Walnut Grove
Rosemead CA 91770

[1] http://docs.cpuc.ca.gov/PUBLISHED/Graphics/589.PDF

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

November 1, 2017

RECEIVED
NOV 06 2017
WASTEWATER DIVISION

To: Reviewing Agencies

Re: Ventura Water Supply Project
SCH# 2017111004

Attached for your review and comment is the Notice of Preparation (NOP) for the Ventura Water Supply Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Gina Dorrington
City of Ventura
501 Poli Street, Room 120
Ventura, CA 93002-0099

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2017111004
Project Title Ventura Water Supply Project
Lead Agency Ventura, City of

Type NOP Notice of Preparation

Description The projects would develop new water supplies to augment the city's water supply portfolio consistent with the city's recently completed 2017 Comprehensive Water Resources Report and 2015 Urban Water Management Plan. Some of these projects also constitute Diversion Infrastructure Projects as that term is defined in the consent decree, filed with the U.S. Central California District Court February 3, 2012 between the city, Wishtoyo Foundation/Ventura Coastkeeper, and Heal the Bay for the protection of the Santa Clara River Estuary. A diversion infrastructure project as defined in the consent decree is essentially a project, including treatment wetlands, that would divert tertiary treated flows currently discharged to the Estuary to water reclamation uses, including use for local water supply augmentation and reliability.

Lead Agency Contact

Name Gina Dorrington
Agency City of Ventura
Phone 805 658-4720 **Fax**
email
Address 501 Poli Street, Room 120
City Ventura **State** CA **Zip** 93002-0099

Project Location

County Ventura
City Ventura
Region
Cross Streets
Lat / Long
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues Aesthetic/Visual; Air Quality; Biological Resources; Traffic/Circulation; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Water Quality; Landuse; Noise; Population/Housing Balance; Public Services; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Native American Heritage Commission; State Water Resources Control Board, Division of Drinking Water; State Water Resources Control Board, Division of Drinking Water, District 6; State Water Resources Control Board, Divison of Financial Assistance; State Water Resources Control Board, Division of Water Quality; Caltrans, District 7; Regional Water Quality Control Board, Region 4

Date Received 11/01/2017 **Start of Review** 11/01/2017 **End of Review** 11/30/2017

Note: Blanks in data fields result from insufficient information provided by lead agency.

OP Distribution List

County: VENTURA

SCH# 2017111004

ources Agency

- [ ] **Resources Agency** Nadell Gayou
- [ ] **Dept. of Boating & Waterways** Denise Peterson
- [ ] **California Coastal Commission** Allyson Hitt
- [ ] **Colorado River Board** Lisa Johansen
- [ ] **Dept. of Conservation** Crina Chan
- [ ] **Cal Fire** Dan Foster
- [ ] **Central Valley Flood Protection Board** James Herota
- [ ] **Office of Historic Preservation** Ron Parsons
- [ ] **)ept of Parks & Recreation** :nvironmental Stewardship ;ection
- [ ] **S.F. Bay Conservation & Dev't. Comm.** Steve Goldbeck
- [ ] **Dept. of Water Resources** Resources Agency Nadell Gayou

ish and Game

- [ ] **Depart. of Fish & Wildlife** Scott Flint Environmental Services Division
- [ ] **Fish & Wildlife Region 1** Curt Babcock
- [ ] **Fish & Wildlife Region 1E** Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2** Jeff Drongesen
- [ ] **Fish & Wildlife Region 3** Craig Weightman
- [ ] **Fish & Wildlife Region 4** Julie Vance
- [ ] **Fish & Wildlife Region 5** Leslie Newton-Reed Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6** Tiffany Ellis Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M** Heidi Calvert Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M** William Paznokas Marine Region

Other Departments

- [ ] **California Department of Education** Lesley Taylor
- [ ] **OES (Office of Emergency Services)** Monique Wilber
- [ ] **Food & Agriculture** Sandra Schubert Dept. of Food and Agriculture
- [ ] **Dept. of General Services** Cathy Buck Environmental Services Section
- [ ] **Housing & Comm. Dev.** CEQA Coordinator Housing Policy Division

Independent Commissions,Boards

- [ ] **Delta Protection Commission** Erik Vink
- [ ] **Delta Stewardship Council** Kevan Samsam
- [ ] **California Energy Commission** Eric Knight
- [ ] **Native American Heritage Comm.** Debbie Treadway
- [ ] **Public Utilities Commission** Supervisor
- [ ] **Santa Monica Bay Restoration** Guangyu Wang
- [ ] **State Lands Commission** Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)** Cherry Jacques

Cal State Transportation Agency CalSTA

- [ ] **Caltrans - Division of Aeronautics** Philip Crimmins
- [ ] **Caltrans – Planning HQ LD-IGR** Christian Bushong
- [ ] **California Highway Patrol** Suzann Ikeuchi Office of Special Projects

Dept. of Transportation

- [ ] **Caltrans, District 1** Rex Jackman
- [ ] **Caltrans, District 2** Marcelino Gonzalez
- [ ] **Caltrans, District 3** Eric Federicks – South Susan Zanchi - North
- [ ] **Caltrans, District 4** Patricia Maurice
- [ ] **Caltrans, District 5** Larry Newland
- [ ] **Caltrans, District 6** Michael Navarro
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- [ ] **Caltrans, District 8** Mark Roberts
- [ ] **Caltrans, District 9** Gayle Rosander
- [ ] **Caltrans, District 10** Tom Dumas
- [ ] **Caltrans, District 11** Jacob Armstrong
- [ ] **Caltrans, District 12** Maureen El Harake

Cal EPA

Air Resources Board

- [ ] **Airport & Freight** Jack Wursten
  - [ ] **Transportation Projects** Nesamani Kalandiyur
  - [ ] **Industrial/Energy Projects** Mike Tollstrup
- [ ] **California Department of Resources, Recycling & Recovery** Sue O'Leary
- [ ] **State Water Resources Control Board** Regional Programs Unit Division of Financial Assistance
- [ ] **State Water Resources Control Board** Cindy Forbes – Asst Deputy Division of Drinking Water
- [ ] **State Water Resources Control Board** **Div. Drinking Water #** 6
- [ ] **State Water Resources Control Board** Student Intern, 401 Water Quality Certification Unit Division of Water Quality
- [ ] **State Water Resouces Control Board** Phil Crader Division of Water Rights
- [ ] **Dept. of Toxic Substances Control** CEQA Tracking Center
- [ ] **Department of Pesticide Regulation** CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

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- [ ] **RWQCB 2** Environmental Document Coordinator San Francisco Bay Region (2)
- [ ] **RWQCB 3** Central Coast Region (3)
- [ ] **RWQCB 4** Teresa Rodgers Los Angeles Region (4)
- [ ] **RWQCB 5S** Central Valley Region (5)
  - [ ] **RWQCB 5F** Central Valley Region (5) Fresno Branch Office
  - [ ] **RWQCB 5R** Central Valley Region (5) Redding Branch Office
- [ ] **RWQCB 6** Lahontan Region (6)
  - [ ] **RWQCB 6V** Lahontan Region (6) Victorville Branch Office
- [ ] **RWQCB 7** Colorado River Basin Region (7)
- [ ] **RWQCB 8** Santa Ana Region (8)
- [ ] **RWQCB 9** San Diego Region (9)

- [ ] **Other** _____
- [ ] _____ Conservancy

Last Updated 8/3/17

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CHANNELKEEPER

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November 21, 2017

City of Ventura
Attn: Gina Dorrington
501 Poli Street, Room 120
Ventura, CA 93002-0099
Via Email: gdorrington@venturawater.net

Re: Ventura Water Supply Projects Notice of Preparation of a Draft Environmental Impact Report

Dear Ms. Dorrington:

Thank you for the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the Ventura Water Supply Projects, which are hereby submitted by Santa Barbara Channelkeeper ("Channelkeeper"). Channelkeeper is a non-profit organization dedicated to protecting and restoring the Santa Barbara Channel and its watersheds, including the Ventura River.

Channelkeeper supports the City of Ventura's ("City") initiative to develop new sources of water supply to augment its existing water supply portfolio. Channelkeeper is currently challenging the City's pumping and diversion of water from the Ventura River to meet nearly 20% of City customers' demand as a violation of state law that prohibits the waste and unreasonable use of waters of the state. We have been monitoring water quality and flow levels in the Ventura River consistently for the past 17 years and have witnessed firsthand the detrimental impacts of the City's pumping on the river's ecosystem and the web of aquatic life that depends on it, including the endangered steelhead trout. As such, we strongly support the development of new and more sustainable sources of water supply that would ease the burden on the river and would also provide other environmental benefits, such as maximizing potable reuse of recycled water. Recycled water is a highly reliable, local, drought-proof source of water supply that also reduces the costs and environmental and public health impacts associated with discharging treated wastewater into the ocean, and we hope the City will pursue this new source of supply and maximize the amount of potable water it can produce from recycled water. A failure to use available recycled water constitutes "waste" under California law. Channelkeeper would be happy to help with public outreach and education in the community to raise awareness about the benefits of potable reuse and help to reduce/address the "yuck" factor.

However, we do not agree that pursuing ocean desalination will meet the Project's objectives of augmenting supply "in an environmentally responsible and cost efficient manner," protecting ecological resources, or improving water quality. Channelkeeper has done extensive research on the environmental impacts of desalination in light of the fact that the City of Santa Barbara decided to recommission its mothballed desalination plant a few years ago. In 2015-2016, we commissioned a study by a group of Masters students at the University of California Santa Barbara's Bren School of Environmental Science and Management to analyze the financial, energy and environmental costs of the various water supply sources currently used on the South Coast of Santa Barbara County as well as several new supply and demand reduction options that could be developed in the future. Their final report demonstrated that there is significant untapped potential on the South Coast to reduce demand and increase supply by improving water use efficiency,

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capturing rainwater, and recycling and reusing water, while at the same time cutting energy use and greenhouse gas emissions, saving money, reducing pollution, and increasing our preparedness for future droughts. Channelkeeper encourages the City to review their report here.

The report also demonstrated that desalination is the most expensive and environmentally harmful source of water supply there is. Desalinating seawater uses more energy per gallon of water than any other source, increasing greenhouse gas emissions and undermining efforts to mitigate climate change and clean up our air and water, while also making it extremely expensive. It can also cause significant harm to the marine environment through both the intake of marine life with seawater and the discharge of the concentrated brine waste and other chemical byproducts back into the ocean. We therefore strongly urge the City not to pursue desalination.

If the City proceeds to analyze desalination as a potential future source of water supply, Channelkeeper strongly recommends that the CEQA alternatives and mitigation analyses consider whether desalination would allow the ongoing waste and unreasonable use of existing water resources, e.g. stormwater that is not captured, available recycled water that is not re-used or not re-used in a reasonable way, and surface water and groundwater from the Ventura River, which could be used reasonably and not wastefully and with less environmental impact than desalination.

Channelkeeper encourages the City to pursue other alternatives that would better meet the Project's objectives, namely stormwater capture, and increasing conservation and efficiency. Stormwater is an enormous untapped source of water that could be captured and used to significantly increase water supplies. Capturing stormwater also has the added benefits of reducing flood risks and improving water quality by minimizing urban runoff pollution. Stormwater can be captured and reused directly for irrigation (using rain barrels or cisterns) or redirected to open spaces and allowed to infiltrate into the ground to recharge groundwater supplies.

In addition, while the City and its residents have done a commendable job with conservation in response to the recent drought, there is still potential to further reduce demand by continuing to conserve and increasing our water use efficiency. The City has made good progress in replacing older plumbing fixtures and appliances with newer and more efficient technologies, but more water could be saved through further efficiency improvements, such as converting turf lawns to lower water demand landscapes, providing rebates for high-efficiency washing machines and graywater systems, and upgrading older plumbing fixtures and other appliances in the residential and commercial sectors, to name just a few.

Water is a precious resource, and the City's examination of water supply alternatives presents a great opportunity to develop and maximize environmentally sound sources like recycled water and stormwater capture while continuing to reduce demand through increased conservation and efficiency. Channelkeeper appreciates the opportunity to comment on the NOP and hopes the City will address our recommendations outlined above as it proceeds to develop the Draft EIR.

Sincerely,



Kira Redmond, Executive Director

VENTURA LOCAL AGENCY FORMATION COMMISSION
COUNTY GOVERNMENT CENTER • HALL OF ADMINISTRATION
800 S. VICTORIA AVENUE • VENTURA, CA 93009-1850
TEL (805) 654-2576 • FAX (805) 477-7101
WWW.VENTURA.LAFCO.CA.GOV

November 30, 2017

Ms. Gina Dorrington
City of Ventura
501 Poli Street, P.O. Box 99
Ventura, CA 93002

SENT VIA E-MAIL

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for Ventura Water Supply Projects

Dear Ms. Dorrington:

Thank you for providing the Ventura Local Agency Formation Commission (LAFCo) with the opportunity to review the NOP for the Ventura Water Supply Projects. According to the NOP, the EIR will analyze implementation of multiple water supply projects, including; the Potable Reuse VenturaWaterPure project, Ocean Desalination, Groundwater Treatment, and State Water interconnection. The EIR will evaluate only the Potable Reuse VenturaWaterPure project at a "project level", with the remaining projects evaluated at a "program level".

Though it appears that aspects of each of the water supply projects could be subject to LAFCo jurisdiction, potentially making LAFCo a responsible agency, the NOP does not contain adequate information for LAFCo staff to determine what, if any, role LAFCo will have with regard to the various projects. As a result, LAFCo cannot provide meaningful comments. We encourage the City to revise the NOP, as discussed below, and recirculate it for review and comment.

<u>Potable Reuse VenturaWaterPure</u>

Based on the NOP, the EIR will evaluate the Potable Reuse VenturaWaterPure project at a "project level". The project includes the construction of an advanced water purification facility (AWPF) on 5-20 acres. However, the NOP states that the location of the site is "yet to be determined" and does not identify any potential locations for the AWPF that are to be evaluated in the EIR. Instead, the NOP identifies an approximately 4,000-acre area of both incorporated and unincorporated territory somewhere in which the facility is to be constructed. Without specific potential locations identified, we are unable to determine whether LAFCo would be a responsible agency for the project. We are also unable to provide any meaningful

comments about which LAFCo policies might apply to the project nor are we able to identify potential impacts to the environment that should be evaluated in the EIR[1,2].

Ocean Desalination and Groundwater Treatment

The NOP indicates that the Ocean Desalination and Groundwater Treatment supply projects will be evaluated in the EIR at a "program level". Both projects include the construction of the AWPF (and a related desalination facility for the Ocean Desalinization project to be located adjacent to the AWPF). However, as discussed above, the NOP does not identify where any of the potential sites for the AWPF will be located. As a result, LAFCo is unable to provide any meaningful comments.

It appears that the release of the NOP may be premature given that an integral piece of these projects, the potential location(s) of the AWPF, is undefined. This is particularly problematic for the Potable Reuse project which is to be analyzed at a "project level" in the EIR.

State Water Interconnection

The NOP indicates the State Water Interconnection will be evaluated in the EIR at a "program level" and that a subsequent CEQA review will analyze the project at a "project level". According to the NOP, the City is evaluating options to obtain water from the State Water Project (SWP) that includes the construction of a new pipeline that would extend from the City several miles east to connect to an existing pipeline owned by the Calleguas Municipal Water District (Calleguas), a member district of the Metropolitan Water District of Southern California (Metropolitan). Metropolitan would receive the City's water from the SWP which would then be "wheeled" through pipelines owned by Metropolitan and Calleguas to the City's new pipeline.

The NOP does not indicate that because the pipelines that would be used by Metropolitan and Calleguas convey only treated/potable water, the City's SWP water would first need to be treated by Metropolitan before it is delivered to the City. Thus, it appears that the project

[1] California Environmental Quality Act (CEQA) Guidelines § 15082(a)(1)((B) provides, "The notice of preparation shall provide the responsible and trustee agencies and the Office of Planning and Research with sufficient information describing the project and the potential environmental effects to enable the responsible agencies to make a meaningful response. At a minimum, the information shall include:...Location of the project (either by street address and cross street…or by attaching a specific map…)."

[2] In 2013 the City of Camarillo circulated a NOP for a groundwater desalter project to be located on an approximately 5-acre site. Though the actual site had not yet been selected, the NOP identified several specific potential sites for the project (both within and outside city boundaries) that were to be evaluated in the EIR. As a result, LAFCo staff was able to provide meaningful comments specific to each potential site that were addressed in the EIR. We would be happy to provide a copy of Camarillo's NOP if you would find it helpful.

would require Metropolitan to provide a new service (i.e. water treatment) to an agency (the City) located outside its boundaries. Govt. Code § 56133(a) provides that "A city or district may provide new or extended services by contract or agreement outside its jurisdictional boundary only if it first requests and receives written approval from the [local agency formation] commission." Therefore, it appears that LAFCo may be a responsible agency for this water supply project. However, without a more thorough description of the project in the NOP, LAFCo staff is unable to make that determination.

Again, thank you for the opportunity to review the NOP. We regret that we are unable to provide meaningful comments regarding these water supply projects. We hope that the City is open to revising the NOP so that LAFCo is able to provide the City with specific and helpful comments to be addressed in the EIR. Please feel free to contact me with questions or comments.

Sincerely,



Kai Luoma
Executive Officer

c: Susan Mulligan, Calleguas Municipal Water District
Deven Upadhyay, Metropolitan Water District of Southern California

From: "Ciuffetelli, Anthony" <Anthony.Ciuffetelli@ventura.org>
Date: November 30, 2017 at 12:09:00 PM PST
To: "gdorrington@venturawater.net" <gdorrington@venturawater.net>
Subject: Ventura County Agency Comments on Ventura Water Supply Projects

Hello Ms. Dorrington,

Attached to this e-mail are the following items regarding the Notice of Draft Environmental Impact Report for City Water Supply Projects:

-Cover Letter
-Comments from the VC Transportation Division (Public Works Agency)
-Comments from the VC Air Pollution Control District

Please feel free to contact me with any questions regarding this submission.

Regards,

Anthony Ciuffetelli | Planning Technician II
Planning Programs

RESOURCE MANAGEMENT AGENCY

county of ventura

Planning Division
Kimberly L. Prillhart
Director

November 28, 2017

City of Ventura
Attn.: Gina Dorrington
501 Poli St, Rm 120
Ventura, CA 93002

E-mail:

Subject: Ventura Water Supply Projects

Dear Ms. Dorrington

Thank you for the opportunity to review and comment on the subject document. Attached are the comments that we have received resulting from intra-county review of the subject document. Additional comments may have been sent directly to you by other County agencies.

Your proposed responses to these comments should be sent directly to the commenter, with a copy to Anthony Ciuffetelli, Ventura County Planning Division, L#1740, 800 S. Victoria Avenue, Ventura, CA 93009.

If you have any questions regarding any of the comments, please contact the appropriate respondent. Overall questions may be directed to Anthony Ciuffetelli at (805) 654-2443.

Sincerely,

Denice Thomas, Manager
Planning Programs Section

Attachments

County RMA Reference Number 17-025

County of Ventura
PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT
Traffic, Advance Planning & Permits Division
MEMORANDUM

DATE: 11/20/2017

TO: RMA Planning Division
Attention: Anthony Ciuffetelli

FROM: Anitha Balan, Engineering Manager II

SUBJECT: **REVIEW OF DOCUMENT 17-025** NOP
Project: **Ventura Water Supply Projects 17-025**
Lead Agency: **City of San Buenaventura**
City of San Buenaventura will prepare a Draft Environmental Impact Report (DEIR) for Ventura Water Supply Projects.

Pursuant to your request, the Public Works Agency - Transportation Department has reviewed the NOP for the Ventura Water Supply Projects 17-025.

The City of San Buenaventura will prepare a DEIR for the Ventura Water Supply Projects. The projects would develop new water supplies to augment the City's water supply portfolio. The EIR will analyze certain water supply/diversion infrastructure alternatives including maximizing potable reuse of recycled water, accessing imported water, providing groundwater treatment, and implementing an ocean desalination facility. Implementation of a potable reuse project would divert flows from the Santa Clara River Estuary and convey recycled water to the new advanced water purification facility (AWPF).

The AWPF would be constructed within the City of Ventura and Unincorporated Ventura County within a 5-20 acre site yet to be determined. The product water conveyance pipeline would be installed within the existing right-of-way of City and County roads.

We offer the following comment(s):

1. Prior to any work conducted within the County right-of-way, the project proponent shall obtain an encroachment permit from the Transportation Department.

2. Please send us the DEIR when it becomes available for review and comment.

Our review is limited to the impacts this project may have on the County's Regional Road Network.

VENTURA COUNTY
AIR POLLUTION CONTROL DISTRICT

Memorandum

TO: Gina Dorrington, City of Ventura Planning

DATE: November 28, 2017

FROM: Alicia Stratton

SUBJECT: Request for Review of Notice of Preparation of a Draft Environmental Impact Report for the Ventura Water Supply Projects, City of Ventura (RMA Reference 17-025)

Air Pollution Control District staff has reviewed the subject Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR), which is a proposal for development of new water supplies to augment the City's water supply portfolio consistent with the City's recently completed 2017 Comprehensive Water Resources Report and 2015 Urban Water management Plan. Some of these projects also constitute "Diversion Infrastructure Projects" as defined in the Consent Decree filed for protection of the Santa Clara River Estuary. The DEIR will evaluate implementation of the VenturaWaterPure Project that would include diversion of the tertiary treated flows to a new purification plant, and construction of a new advanced water purification facility to water supply source to the City. The project location is either within the City of Ventura or in nearby Unincorporated Ventura County within a 5-20 acre site yet to be determined. The product water conveyance pipeline would be installed within the existing rights-of-way, where feasible. The Ocean Desalination Project would be sited at the same location as VenturaWaterPure.

District staff recommends the DEIR evaluate all potential air quality impacts that may result from the project, both short-term and long-term. Specifically, the air quality assessment should consider reactive organic compound, nitrogen oxide emissions and particulate matter from all project-related motor vehicles and construction equipment.

The DEIR should also include analysis of engines and equipment involved in water pumping and power generation, as well as any standby diesel engines; as such equipment may be subject to APCD permitting requirements. An APCD Authority to Construct shall be obtained for all equipment subject to permit, prior to construction and an APCD Permit to Operate shall be obtained for all equipment or regulated processes subject to permit, prior to operation. To determine if proposed new equipment is subject to APCD

Permitting, the applicant should s contact District Staff at (805) 645-1445 or (805) 645-1401.

Thank you for the opportunity to review this project. If you have any questions, please call me at (805) 645-1426 or email alicia@vcapcd.org.

From: Dylan Lawrence <lawrenced@scag.ca.gov>
Date: December 1, 2017 at 10:11:24 AM PST
To: "gdorrington@venturawater.net" <gdorrington@venturawater.net>
Cc: Ping Chang <CHANG@scag.ca.gov>, Anita Au <au@scag.ca.gov>
Subject: SCAG Comments on the NOP of a DEIR for the Ventura Water Supply Projects [SCAG NO. IGR9444]

Good morning Ms. Dorrington,

Please find attached SCAG Comments on the NOP of a DEIR for the Ventura Water Supply Projects [SCAG NO. IGR9444].

Please contact Anita Au at (213) 236-1874 or au@scag.ca.gov if you have any questions or difficulties with the attached file. Thank you.

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December 1, 2017

Ms. Gina Dorrington
City of Ventura
501 Poli Street, Room 120
Ventura, California 93002
E-mail: gdorrington@venturawater.net

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Ventura Water Supply Projects [SCAG NO. IGR9444]

Dear Ms. Dorrington,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the Ventura Water Supply Projects ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS) pursuant to Senate Bill (SB) 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.[1] SCAG's feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Community Strategies (RTP/SCS) goals and align with RTP/SCS policies.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Ventura Water Supply Projects. The proposed project includes multiple water supply projects to establish a reliable source of water for the City. The first project would treat tertiary-treated effluent from the Ventura Water Reclamation Facility for indirect or direct potable reuse. The second project would collect ocean water through intake facilities and blend with groundwater prior to delivery to the potable water system through pipelines located within existing right-of-ways of City and County roads. The third project would be a new pipeline approximately 8 miles in length and be primarily located within Unincorporated Ventura County.

When available, please send environmental documentation to *SCAG's office in Los Angeles or by email to au@scag.ca.gov* providing, at a minimum, the full public comment period for review. If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Anita Au, Associate Regional Planner, at (213) 236-1874 or au@scag.ca.gov. Thank you.

Sincerely,

Ping Chang
Acting Manager, Compliance and Performance Monitoring

[1] Lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS for the purpose of determining consistency for CEQA. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a determination of consistency with the 2016 RTP/SCS for CEQA.

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE VENTURA WATER SUPPLY PROJECTS [SCAG NO. IGR9444]

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS. For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the RTP/SCS.

2016 RTP/SCS GOALS

The SCAG Regional Council adopted the 2016 RTP/SCS in April 2016. The 2016 RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health (see http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx). The goals included in the 2016 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2016 RTP/SCS are the following:

SCAG 2016 RTP/SCS GOALS	
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*
RTP/SCS G3:	*Ensure travel safety and reliability for all people and goods in the region*
RTP/SCS G4:	*Preserve and ensure a sustainable regional transportation system*
RTP/SCS G5:	*Maximize the productivity of our transportation system*
RTP/SCS G6:	*Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking)*
RTP/SCS G7:	*Actively encourage and create incentives for energy efficiency, where possible*
RTP/SCS G8:	*Encourage land use and growth patterns that facilitate transit and active transportation*
RTP/SCS G9:	*Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies**
	*SCAG does not yet have an agreed-upon security performance measure.

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG 2016 RTP/SCS GOALS		
	Goal	Analysis
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
etc.		etc.

2016 RTP/SCS STRATEGIES

To achieve the goals of the 2016 RTP/SCS, a wide range of land use and transportation strategies are included in the 2016 RTP/SCS. Technical appendances of the 2016 RTP/SCS provide additional supporting information in detail. To view the 2016 RTP/SCS, please visit: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx. The 2016 RTP/SCS builds upon the progress from the 2012 RTP/SCS and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that the SCAG region strives toward a more sustainable region, while the region meets and exceeds in meeting all of applicable statutory requirements pertinent to the 2016 RTP/SCS. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

DEMOGRAPHICS AND GROWTH FORECASTS

Local input plays an important role in developing a reasonable growth forecast for the 2016 RTP/SCS. SCAG used a bottom-up local review and input process and engaged local jurisdictions in establishing the base geographic and socioeconomic projections including population, household and employment. At the time of this letter, the most recently adopted SCAG jurisdictional-level growth forecasts that were developed in accordance with the bottom-up local review and input process consist of the 2020, 2035, and 2040 population, households and employment forecasts. To view them, please visit http://www.scag.ca.gov/Documents/2016GrowthForecastByJurisdiction.pdf. The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts			Adopted City of Ventura Forecasts		
	Year 2020	Year 2035	Year 2040	Year 2020	Year 2035	Year 2040
Population	19,663,000	22,091,000	22,138,800	112,500	122,000	125,300
Households	6,458,000	7,325,000	7,412,300	42,700	46,900	48,400
Employment	8,414,000	9,441,000	9,871,500	62,700	65,200	66,000

MITIGATION MEASURES

SCAG staff recommends that you review the Final Program Environmental Impact Report (Final PEIR) for the 2016 RTP/SCS for guidance, as appropriate. SCAG's Regional Council certified the Final PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on April 7, 2016 (please see: http://scagrtpscs.net/Pages/FINAL2016PEIR.aspx). The Final PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

From: "Daniel Cormode" <dcormode@sbcglobal.net>
Date: December 1, 2017 at 4:01:43 PM PST
To: <gdorrington@venturawater.net>
Cc: "'DANIEL CORMODE'" <dcormode@sbcglobal.net>
Subject: NOP Ventura Water Projects Comments

Gina,

The following additional comments regarding the NOP Ventura Water Projects are forwarded for inclusion with the previously forwarded comments:

- Recommend addressing the economic impact of the anticipated price of water on low income and elderly customers.
- Address the fiscal and environmental impact(energy and water supply) of the need to blend I unit water extracted from the Mound Basin with a TDS of 1,600 with 5.5 units of State Water with an assumed TDS of 300 to attain the 6.5 units of water with a State mandated secondary standard of 500 TDS.

R/

Daniel Cormode
186 Gorrion Ave
Ventura, CA 93004
805-647-4063

From: "Ramos, Jason@SLC" <Jason.Ramos@slc.ca.gov>
To: "Dorrington, Gina" <gdorrington@cityofventura.ca.gov>, "state.clearinghouse@opr.ca.gov" <state.clearinghouse@opr.ca.gov>
Cc: "Borack, Alexandra@SLC" <Alexandra.Borack@slc.ca.gov>, "Connor, Kelly@SLC" <Kelly.Connor@slc.ca.gov>, "Huber, Patrick@SLC" <Patrick.Huber@slc.ca.gov>, "Garrett, Jamie@SLC" <Jamie.Garrett@slc.ca.gov>
Subject: 2017111004 Ventura WSP NOP

Hello Ms. Dorrington,

Please accept the attached comment letter from the California State Lands Commission for the Ventura Water Supply Projects NOP. A hard copy of the letter has also been mailed to the City of Ventura. If you have any questions, please see the contact information at the end of the letter.

Thank You,

Jason Ramos
Senior Environmental Scientist
Division of Environmental Planning & Management Division
CA State Lands Commission
(916) 574-1814

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

Established in 1938

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 *Fax* **(916) 574-1810**
California Relay Service TDD Phone **1-800-735-2929**
from Voice Phone **1-800-735-2922**

***Contact Phone:* (916) 574-1890**
***Contact FAX:* (916) 574-1885**

December 1, 2017

File Ref: SCH # 2017111004

Gina Dorrington
City of Ventura
510 Poli Street, Room 120
Ventura, CA 93002-0099
gdorrington@venturawater.net

Subject: Notice of Preparation (NOP) for a Draft Environmental Impact Report (EIR) for the Ventura Water Supply Projects, Ventura County

Dear Ms. Dorrington:

The California State Lands Commission (Commission) staff has reviewed the subject NOP for a Draft EIR for the Ventura Water Supply Projects (Project), which is being prepared by the City of Ventura (City). The City, as the public agency proposing to carry out the Project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Commission is a trustee agency for projects that could directly or indirectly affect sovereign land and their accompanying Public Trust resources or uses. Additionally, because the Project involves work on sovereign land, the Commission will act as a responsible agency. Commission staff requests that the City consult with us on preparation of the Draft EIR as required by CEQA section 21153, subdivision (a), and the State CEQA Guidelines section 15086, subdivisions (a)(1) and (a)(2).

Commission Jurisdiction and Public Trust Lands

The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat

preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low-water mark and a Public Trust easement landward to the ordinary high-water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

After reviewing the information contained in the NOP, staff has concluded that this Project will extend onto the Pacific Ocean, which is State owned sovereign land. The Project includes an advanced water purification facility (AWPF) that will require construction of a new brine discharge pipeline. The City proposes two alternatives for the pipeline terminus; a new ocean outfall to be constructed near the City, or use of Calleguas Municipal Water District's existing Salinity Management Pipeline (SMP) ocean outfall. If the City selects the new ocean outfall alternative, then any placement of an outfall that extends westward into the Pacific Ocean, including the outfall structure and any associated pipelines, will require a lease from the Commission. If the City decides to use Calleguas Municipal Water District's existing SMP ocean outfall, then a lease will not be required for the onshore portion of the pipeline extension, which would cross the Santa Clara River at a location between Rancho San Miguel and Rancho Rio de Santa Clara, and is outside the Commission's jurisdiction; however, if the existing SMP ocean outfall is currently under lease, a lease amendment may be required. Please contact Kelly Connor, Public Land Management Specialist (see contact information below) once the brine discharge alternative has been selected, to confirm whether any Project components will require a lease or lease amendment.

The Project also includes a seawater desalination facility, which would be co-located with the AWPF. While the conveyance pipeline locations would be similar to those analyzed for the AWPF, the seawater desalination facility would also require an intake structure, either subsurface or a wedgewire screen manifold pursuant to the Ocean Plan, and intake pipelines which would run above or below the Pacific Ocean seafloor. In addition, the NOP is not clear whether the brine discharge outfall for the AWPF would also be able to release the brine generated from the discharge facility. Any placement of intake and outfall structures and pipelines in the Pacific Ocean at the Project location will require a lease from the Commission.

Project Description

The City proposes to construct and implement a full-scale AWPF, and construct both a pipeline to access imported water and a seawater desalination facility. The Project would meet the City's objectives and needs as follows:

- Compliance with the March 30, 2012, Consent Decree that requires identification of the maximum amount of treated effluent that can be diverted to the Santa Clara River Estuary while still protecting the ecology and listed species therein
- Improvement of surface water and groundwater quality in the City's service area
- Augmentation of local water supply in an environmentally responsible and cost-efficient manner

From the NOP, Commission staff understands that the Project would include the following components:

- VenturaWaterPure Project: This component would include the AWPF with its associated conveyance system, a groundwater injection and extraction system, a concentrate discharge facility, and freshwater treatment wetlands.
- State Water Interconnection: This component would include a potential connection from the City's water service area to the existing Calleguas potable water system.
- Ocean Desalination: The proposed seawater desalination facility would be designed to deliver up to 2.7 million gallons per day (MGD) of potable water, and would require an intake and outfall system.

Environmental Review

Commission staff requests that the City consider the following comments when preparing the Draft EIR.

General Comments

1. Programmatic Document: Because the EIR is proposed as both a programmatic and a project-level document, the Commission expects the State Water Interconnection and Ocean Desalination Project components will be presented as a series of distinct, but related sequential activities (i.e., the City's "separate but coordinated" CEQA review for the State Water Interconnection Project, referenced in the NOP). State CEQA Guidelines section 15168, subdivision (c)(5) states that a program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. As such, the program EIR should make an effort to distinguish what activities and their mitigation measures are being analyzed in sufficient detail to be covered under the program EIR without additional project specific environmental review, and what activities will trigger the need for additional environmental analysis (see State CEQA Guidelines, § 15168, subd. (c)). Additionally, please ensure that the Project Description and subsequent environmental analysis continue to clearly distinguish between programmatic analysis and project-level analysis.

2. Project Description: A thorough and complete Project Description should be included in the EIR in order to facilitate meaningful environmental review of potential impacts, mitigation measures, and alternatives. The Project Description should be as precise as possible in describing the details of all allowable activities (e.g., types of equipment or methods that may be used, maximum area of impact or volume of sediment removed or disturbed, seasonal work windows, locations for material disposal, etc.), as well as the details of the timing and length of activities. Thorough descriptions will facilitate Commission staff's determination of the extent and locations of its leasing jurisdiction, make for a more robust analysis of the work that may be performed, and minimize the potential for subsequent environmental analysis to be required. Please also provide additional details of, and maps showing, the Calleguas Municipal Water District's existing SMP ocean outfall.

3. Seawater Desalination Facility: The NOP indicates that the design details for the seawater desalination facility are in a preliminary stage, and that the EIR will evaluate the proposed water supply project at a "program-level" of detail. Commission staff strongly encourages the City to begin joint coordination and consultation with the California Coastal Commission, Los Angeles Regional Water Quality Control Board (LARWQCB), and Commission staffs as soon as possible to ensure that any subsequent regulatory permits or approvals proceed efficiently and in accordance with the Ocean Plan, in particular the 2015 Desalination Amendment.

Biological Resources

4. Special-Status Species and Habitats: The EIR should disclose and analyze all potentially significant effects on sensitive species and habitats in and around the Project area, including special-status wildlife, fish, and plants, and if appropriate, identify feasible mitigation measures to reduce those impacts. The City should conduct queries of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife Service's (USFWS) Special Status Species Database to identify any special-status plant or wildlife species that may occur in the Project area. The EIR should also include a discussion of consultation with the CDFW, USFWS, and National Marine Fisheries Service (NMFS), including any recommended mitigation measures, construction work windows, and potentially required permits identified by these agencies.

5. Invasive Species: One of the major stressors in California waterways is introduced species. Therefore, the EIR should consider the Project's potential to encourage the establishment or proliferation of aquatic invasive species (AIS) or other non-indigenous, invasive species including terrestrial plants. For example, construction boats and barges brought in from long stays at distant projects may transport new species to the Project area via hull biofouling, wherein marine and aquatic organisms attach to and accumulate on the hull and other submerged parts of a vessel. If the analysis in the EIR finds potentially significant AIS impacts, possible mitigation could include contracting vessels and barges from nearby, or requiring contractors to perform a certain degree of hull-cleaning. The CDFW's Invasive Species Program could assist with this analysis as well as with the development of appropriate mitigation (information at www.dfg.ca.gov/invasives/).

   In addition, in light of the recent decline of native pelagic organisms and in order to protect at-risk fish species, the EIR should examine if any elements of the Project would favor non-native fisheries within the Pacific Ocean.

6. Construction Noise: The EIR should also evaluate noise and vibration impacts on fish and birds from in-water construction and dredging activities, and any restoration activities in the water or for land-side supporting structures. Activities of concern include, but are not limited to, pile driving, dredging, welding, installation of subsurface or seabed pipelines, etc. Mitigation measures could include species-specific work windows as defined by CDFW, USFWS, and NMFS. Again, staff recommends early consultation with these agencies to minimize the impacts of the Project on sensitive species.

Climate Change

7. Greenhouse Gas (GHG): A GHG emissions analysis consistent with the California Global Warming Solutions Act (Assembly Bill [AB] 32) and required by the State CEQA Guidelines should be included in the EIR. This analysis should identify a threshold for significance for GHG emissions, calculate the level of GHGs that will be emitted as a result of construction and ultimate build-out of the Project, determine the significance of the impacts of those emissions, and, if impacts are significant, identify mitigation measures that would reduce them to the extent feasible. Please include a full evaluation of all the equipment that could be used for any aspect of construction activities, including marine vessels required for offshore work. Commission staff recommends that the City contact the Ventura County Air Pollution Control District (APCD) to discuss appropriate air impact analysis models for identifying the impacts of the proposed Project.

   The NOP notes that long-term operations of the Project components will result in increased energy usage. Please include an analysis of the indirect GHG emissions associated with the AWPF and seawater desalination facility operations.

8. Sea-Level Rise: A tremendous amount of State-owned lands and resources under the Commission's jurisdiction will be impacted by rising sea levels. With this in mind, the City should consider discussing in the EIR the effects of sea-level rise on all resource categories potentially affected by the proposed Project. Because of their nature and location, these lands and resources are already vulnerable to a range of natural events, such as storms and extreme high tides. Note that the State of California released the final "Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy" (Safeguarding Plan) on July 31, 2014, to provide policy guidance for state decision-makers as part of continuing efforts to prepare for climate risks. The Safeguarding Plan sets forth "actions needed" to safeguard ocean and coastal ecosystems and resources as part of its policy recommendations for state decision-makers.

   In addition, Governor Brown issued Executive Order B-30-15 in April 2015, which directs state government to fully implement the Safeguarding Plan and factor in climate change preparedness in planning and decision making. Please note that when considering lease applications, Commission staff will:

   - Request information from applicants concerning the potential effects of sea-level rise on their proposed projects
   - If applicable, require applicants to indicate how they plan to address sea-level rise and what adaptation strategies are planned during the projected life of their projects
   - Where appropriate, recommend project modifications that would eliminate or reduce potentially adverse impacts from sea-level rise, including adverse impacts on public access

Cultural and Tribal Cultural Resources

9. Submerged Resources: The EIR should evaluate potential impacts to submerged cultural resources in the Project area. The Commission maintains a shipwrecks database that can assist with this analysis. Commission staff requests that the City contact Staff Attorney Jamie Garrett (see contact information below) to obtain shipwrecks data from the database and Commission records for the Project site. The database includes known and potential vessels located on the State's tide and submerged lands; however, the locations of many shipwrecks remain unknown. Please note that any submerged archaeological site or submerged historic resource that has remained in State waters for more than 50 years is presumed to be significant. Because of this possibility, please add a mitigation measure requiring that in the event cultural resources are discovered during any construction activities, Project personnel shall halt all activities in the immediate area and notify a qualified archaeologist to determine the appropriate course of action.

10. Title to Resources: The EIR should also mention that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the California State Lands Commission (Pub. Resources Code, § 6313). Commission staff requests that the City consult with Staff Attorney Jamie Garrett (see contact information below) should any cultural resources on state lands be discovered during construction of the proposed Project.

11. Tribal Resources: The NOP does not indicate whether Tribal cultural resources would be potentially affected and whether the Project would have a potentially significant impact on Tribal resources. Therefore, the NOP does not contain sufficient information as to how the City is complying with Assembly Bill (AB) 52 provisions. These provisions provide procedural and substantive requirements for lead agency consultation with California Native American Tribes, consideration of effects on Tribal cultural resources (as defined in Pub. Resources Code, § 21074), and examples of mitigation measures to avoid or minimize impacts to these resources. Even if no Tribe has submitted a consultation notification request for the Project area covered under the NOP, the City should:

    - Contact the Native American Heritage Commission to obtain a general list of interested Tribes for the Project area
    - Include the results of this inquiry within the Draft EIR
    - Disclose and analyze potentially significant effects to Tribal cultural resources, and avoid impacts where feasible

    Since the NOP does not disclose if notification or outreach to interested Tribes has occurred and does not document their response, Commission staff recommends that the City include this information in the Draft EIR in order to maintain a clear record of the City's efforts to comply with AB 52. This information would aid responsible and trustee agencies in their independent review processes and help eliminate potentially duplicative work. Please include information as to whether there are any anticipated or unanticipated submerged Tribal cultural resources in the Project area,

and provide recommended mitigation measures to reduce or eliminate any potential impacts to those resources.

Mitigation and Alternatives

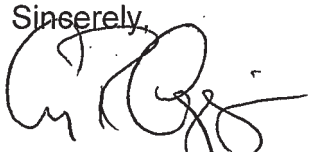
12. Deferred Mitigation: In order to avoid the improper deferral of mitigation, mitigation measures should either be presented as specific, feasible, enforceable obligations, or should be presented as formulas containing "performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (State CEQA Guidelines, §15126.4, subd. (a)).

13. Alternatives: In addition to describing mitigation measures that would avoid or reduce the potentially significant impacts of the Project, the City should identify and analyze a range of reasonable alternatives to the proposed Project that would attain most of the Project objectives while avoiding or reducing one or more of the potentially significant impacts (see State CEQA Guidelines, § 15126.6). The NOP indicates that, in January 2018, the City will provide the LARWQCB with a recommended maximum volume of treated effluent to be discharged into the Santa Clara River Estuary. The EIR should analyze this volume and determine its effect on the Project's need for the State Water Interconnection or the Seawater Desalination Facility.

Thank you for the opportunity to comment on the NOP for the Project. As a trustee and responsible agency, Commission staff requests that you consult with us on this Project and keep us advised of changes to the Project Description and all other important developments. Please send additional information on the Project to the Commission staff listed below as the EIR is being prepared.

Please refer questions concerning environmental review to Alexandra Borack, Environmental Scientist, at (916) 574-2399 or via e-mail at Alexandra.Borack@slc.ca.gov. For questions concerning archaeological or historic resources under Commission jurisdiction, please contact Staff Attorney Jamie Garrett, at (916) 574-0398 or via e-mail at jamie.garrett@slc.ca.gov. For questions concerning Commission leasing jurisdiction, please contact Kelly Connor, Public Land Management Specialist, at (916) 574-0343 or via e-mail at Kelly.Connor@slc.ca.gov.

Sincerely,



Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
A. Borack, CSLC
K. Connor, CSLC
P. Huber, CSLC
J. Garrett, CSLC

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

December 5, 2017

Gina Dorrington
Wastewater Utility Manager
Ventura Water
501 Poli Street, Rm 120
Ventura, California 93002-0099

Dear Ms. Dorrington:

Thank you for your November 1, 2017, letter informing NOAA's National Marine Fisheries Service (NMFS) of the City of Ventura's (City) Notice of Preparation (NOP) for an Environmental Impact Report (EIR) on the proposed Ventura Water Supply Projects. The City desires to expand their water supply through diversion infrastructure that would divert tertiary-treated discharge away from the Santa Clara River Estuary (Estuary) to water-reclamation uses (project). The project is of interest to NMFS because the project area is within range of the Southern California Coast Distinct Population Segment of steelhead (*Oncorhynchus mykiss*) listed as endangered under the Endangered Species Act. Designated critical habitat for this species also occurs within the project area.

We offer the following comments in response to the City's solicitation for views on the scope and content of environmental information to be included in the EIR. Also, on November 8, 2017, the City met with NMFS and U.S. Fish and Wildlife Service to discuss the analysis approach and conclusions of the Draft Phase 3 Estuary Studies Report (Draft Study). In this regard, we will (1) provide general suggestions on the information that should be included in the EIR, (2) highlight specific items to consider when describing effects of the project on endangered steelhead and critical habitat, and (3) memorialize and supplement key messages NMFS conveyed during the meeting.

The following are NMFS' suggestions for the scope and content of the EIR:

- The EIR should provide sufficient detail to allow NMFS to assess the potential effects[1] (offsite, direct, indirect, temporary, and permanent) of each alternative on steelhead and their critical habitat arising from construction (e.g., dewatering, creation of treatment wetlands), discharge operation (e.g., altering discharge percentage, water depth, water quality), and maintenance (e.g., repairs, daily, monthly discharge schedule). Also, the City should include the manner in which the preferred alternative would be implemented (e.g., construction schedule, operation schedule, equipment types, etc.).

- Through the EIR process, alternatives that balance increasing local water supply with measurable and meaningful benefits to endangered steelhead survival and recovery should receive the highest priority for consideration. In this manner, the EIR should contain at least

[1] Include the anticipated amount, frequency, duration and magnitude of effects.

one project alternative that balances the intended increase in local water supply with efforts to avoid or minimize adverse effects to endangered steelhead and its critical habitat. Specifically, we recommend the City choose an alternative that provides for steelhead rearing habitat and unimpeded steelhead migration throughout the project area (i.e., adult/smolts entry from/to the ocean).

- For each alternative, the EIR should describe physical and biological features[2] (PBF) of designated critical habitat that will be disturbed or removed either temporarily, seasonally, or permanently.

- The EIR should include a list of measures for avoiding and minimizing potential negative effects of each alternative on endangered steelhead and critical habitat for this species. For effects that are unavoidable to either the species or its habitat, the EIR should specify the degree and extent of the effects, and describe how conservation measures would reduce the effects.

- The EIR should describe any compensatory mitigation measures that will be employed for each of the alternatives along with proposed mitigation[3] for impacts to steelhead and designated critical habitat.

- For each project alternative, discuss potential benefits that will promote the survival and recovery of endangered steelhead and avoid adverse effects to PBFs of critical habitat for this species (e.g., water quality parameters such as dissolved oxygen, temperature, and nitrogen levels/nutrient loading).

- Within the Cumulative Impacts section of the EIR, the City should consider and discuss any other past, present, and probable future City and non-City projects causing related impacts to endangered steelhead and designated critical habitat within the Estuary (e.g., upstream water operations that may affect magnitude and frequency of flows into the Estuary, State Parks campground, discharge of dredged material in the surf zone that may affect the frequency and duration of lagoon-berm formation).

- When the City initiates the permit application process for this project, the Federal action of issuing a Federal permit may trigger U.S. Endangered Species Act (ESA) Section 7 consultation with NMFS. Section 7 of the ESA requires Federal agencies to insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat designated for the species (Section 7(a)(2)). Therefore, the

[2] The designation of critical habitat for endangered steelhead uses the term primary constituent element (PCE) or essential features. The new critical habitat regulations (81 FR 7414) replace this term with physical or biological features (PBFs). The shift in terminology does not change the approach used in conducting a "destruction or adverse modification" analysis, which is the same regardless of whether the original designation identified primary constituent elements, physical or biological features, or essential features. NMFS uses the term PBF to mean PCE or essential feature, as appropriate for the specific critical habitat.

[3] Specify the number of acres of steelhead habitat impacted, the mitigation ratio, and the location.

EIR should describe the relationship of the project to Section 7 of the ESA as well as disclose whether Section 7 consultation with NMFS is required prior to implementation of project activities (i.e., construction, operation, and maintenance).

Because the City included the Draft Study with the NOP, we provide the following additional, specific comments on the project. These comments are related to the general comments above and should be addressed in the EIR.

- As highlighted in the Draft Study, to assume that the precipitation history between 1873 and 2016 will repeat into future years does not meaningfully approximate the long-term quantity and quality of available steelhead habitat in the Estuary (e.g., water-surface elevation, hydrologic connectivity between the ocean/estuary/lower mainstem river) as a result of the project. Thus, we recommend the City incorporate spatially down-scaled precipitation/streamflow models into the project and describe how these models will be used to adaptively manage implementation of the project given future storm events and duration of hydrologic connectivity between the mainstem and the Estuary. Include a climate analysis that accounts for projections of drier and warmer days (Katz et al. 2012[4]) and the associated effects on the magnitude and frequency of storm events in southern California.

- Given the strong relationship between steelhead behavior, ecology, and ontogeny, and the pattern and magnitude of river discharge (Shapovalov and Taft 1954[5], Richter et al. 1996[6], Richter et al. 1997[7], Lytle and Poff 2004[8]), understanding the possible effects of the project on the Estuary is necessary to inform the potential effects on endangered steelhead. The Draft Study should clarify if any of the discharge scenarios alter the annual hydrograph or if a discharge scenario eliminates or alters the interannual variability of the hydrograph components (see Trush et al. 2000[9]). Clearly describe the expected changes to surface hydrology (e.g., frequency and timing of "natural" breaches) and estuarine processes (e.g., circulation, habitat types, vegetation types, berm dynamics, depth profiles, nutrient loading) as a result of the project. Specifically, the draft EIR should describe the degree and extent to which the project is likely to affect steelhead rearing and migratory behavior.

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[4] Katz, J., P. B. Moyle, R. M. Quiñones, J. Israel, and S. Purdy. 2012. Impending extinction of salmon, steelhead, and trout (Salmonidae) in California. Environmental Biology of Fishes 96(10-11): 1169-1186.

[5] Shapovalov, L., and A. C. Taft. 1954. The life histories of the steelhead rainbow trout (*Salmogairdneri gairdneri*) and silver salmon (*Oncorhynchus kisutch*) with special reference to Waddell Creek, California, and recommendations regarding their management. State of California, Department of Fish and Game, Fish Bulletin 98.

[6] Richter, B. D., J. V. Baumgartner, J. Powell, D. P. Braun. 1996. A Method for Assessing Hydrologic Alteration within Ecosystems. Conservation Biology 10(4): 1163-1174.

[7] Richter, B. D., J. V. Baumgartner, R. Wigington, and D. P. Braun. 1997. How much water does a river need? Special Applied Issues Section. Freshwater Biology 37: 231-249.

[8] Lytle, D. A. and N. L. Poff. 2004. Adaptation to natural flow regimes. Trends in Ecology and Evolution 19(2): 94-100.

[9] Trush, W. J., S. M. McBain, and L. B Leopold. 2000. Attributes of an alluvial river and their relation to water policy and management. Proceedings of the National Academy of Sciences 97: 11858-11863.

Because the City hosted a resources agencies meeting on the Draft Study, we provide the following feedback based on the discussion during the meeting. This feedback is related to the general comments on the Draft Study above and should be addressed in the EIR.

- Using the best, available science, modeling, and gage data, the water-balance model should accurately describe the magnitude and duration of incoming freshwater surface flow to the Estuary under various hydrological conditions (e.g., very wet, wet, normal, below normal, dry, extremely dry) for the following scenarios: (1) pre-1940, (2) post-1960, and (3) with and without major upstream water operations/diversions. We anticipate this analysis will assist the City in making predictions on water-quality status under different discharge scenarios. Water-quality predictions based on the best, available science can then inform the EIR analysis on the degree and extent of effects to steelhead rearing habitat. Additionally to inform future water-quality status of the Estuary throughout the duration of the prosed project, the EIR should predict, evaluate, and explain any assumptions made for future incoming freshwater surface flows including the extent and duration of habitat connectivity between the mainstem and the Estuary.

- The Draft Study suggests a reduction in tertiary-treated discharge will lead to improved water quality albeit there will be a loss of steelhead habitat based on anticipated water depths under different discharge scenarios. In the same manner, the Draft Study generally concludes continued discharge will lower water quality but maintain the maximum amount of steelhead habitat. These conclusions are based on extremely high uncertainty with respect to how water quality will actually change given all other nutrient inputs into the Estuary beyond the City's tertiary-treated discharge. The EIR should clarify the available data that informed the Draft Study do not provide a measure of likelihood or assurance that Estuary water quality would in fact improve.

- Although steelhead are not obligated to rear in the lagoon as the Draft Study describes, this description of rearing steelhead assumes steelhead have access to adjacent habitat in the lower and upper mainstem. The species only has the ability to move and rear in adjacent areas upstream of the lagoon when the requisite hydrologic connectivity is present. Assumptions like these should be avoided because the lower mainstem can become disconnected from the lagoon during summer which limits steelhead movement between the lagoon and mainstem. During dry years or extended drought conditions, it is reasonable to conclude that the lagoon is the only available habitat in this area for the species to rear.

- The EIR should address how the City will respond when actual (future) habitat conditions do not align with expected conditions as characterized by the Draft Study. Specifically, the draft EIR should describe a discharge-response plan or an adaptive-management plan to remediate deviations from predicted or anticipated habitat quality or quantity conditions.

- The definition of "suitable" with respect to suitable steelhead habitat is merely based on a minimum-depth criterion when in reality suitable steelhead habitat is based on various factors such as dissolved oxygen, temperature, and habitat complexity (cover such as overhanging vegetation), thus the amount of suitable steelhead habitat may be overestimated or

underestimated due to high uncertainty in the water-quality predictions described in the Draft Study. The draft EIR should describe how the City will address the level of uncertainty for predicted water-quality outcomes under the Preferred Alternative including ways to minimize uncertainty where possible.

- The draft EIR should clearly describe how altering the volume of tertiary-treated discharge into the Estuary influences the likelihood of avoiding or minimizing unauthorized breaches. This analysis, in part, will assist the City in evaluating which discharge scenario will minimize the risk of stranding juvenile steelhead.

We appreciate the opportunity to provide comments to the City that will support preparation of the EIR, and we look forward to a review of the draft EIR when it becomes available. Please contact Brittany Struck at (562) 432-3905 or via email at Brittany.Struck@noaa.gov if you have a question concerning this letter.

Sincerely,

Anthony P. Spina
Chief, Southern California Branch
California Coastal Area Office

cc: Chris Dellith, USFWS
Mary Larson, CDFW
Aaron Allen, USACE
Administrative File: 151422SWR2011PR00520

State of California – Natural Resources Agency
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EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

RECEIVED
DEC 11 2017
WASTEWATER DIVISION

December 5, 2017

Ms. Gina Dorrington
City of Ventura
501 Poli Street, Room 120
Ventura, CA 93002
(805) 658-4720
gdorrington@ventura.net

Subject: Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Ventura Water Supply Project (SCH # 2017111004)

Dear Ms. Dorrington:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced Notice of Preparation (NOP) circulated by the City of San Buenaventura (Lead Agency) for a Draft Environmental Impact Report (DEIR) for the Ventura Water Supply Project (Project).

The Project proposes the following components:

- Development of new water supplies to augment the city's current ;water supply;
- Installation of new diversion infrastructure projects, including Treatment Wetlands, that would divert tertiary treated flows to water reclamation uses, currently directed to the Santa Clara River Estuary (SCRE);
- Maximizing potable reuse of recycled water through implementation of the VenturaWaterPure project;
- Assessing imported water through the State Water interconnection project;
- Providing groundwater treatment;
- Implementing an ocean desalination facility; and
- Construction and operation of an Advanced Water Purification Facility (AWPF).

The following comments and recommendations have been prepared pursuant to the Department's authority as a Responsible Agency under California Environmental Quality Act (CEQA) Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (CESA; Fish and Game Code § 2050 et seq.) and Fish and Game Code section 1600 et seq., and pursuant to our authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Guidelines § 15386) to assist the Lead Agency in avoiding, minimizing, and mitigating potential project-related impacts on biological resources.

Specific Comments

Southern Steelhead Trout (*Oncorhynchus mykiss*): The SCRE has long been recognized as important habitat for rearing of the federally endangered Southern steelhead trout fingerling until they reach maturity as adults, and can survive the tough conditions of the open Pacific Ocean.

CDFW recommends that all components of the Project are sufficiently analyzed to prevent pre-mature breeches of the sand-berm and prematurely flush immature steelhead smelt and fingerlings into the open ocean.

Tidewater goby *(Eucyclogobius newberryi)*: The SCRE is an important habitat for the federally endangered tidewater goby. Adult tidewater goby depend on the estuary for foraging and breeding habitat. Breeches to the estuary must carefully be considered as adult tidewater goby need to be able to find cover in sustainable submerged estuary plants, during mild breeches, to prevent being flushed into the open ocean.

CDFW recommends that all components of the Project are sufficiently analyzed to prevent pre-mature breeches of the sand-berm.

California Least Tern (*Sternula antillarum browni*) and Western Snowy Plover (*Charadrius alexandrinus nivosus*): The federally listed California least tern and Western snowy plover are primarily attracted to bays, estuaries, and nearshore rock and gravel habitats along the coast of the Pacific Ocean, within a very limited range of Southern California, including the vicinity of the SCRE. However, wintering locations are actually unknown, but suspected to include many areas along the Pacific Coast. Nests sites are commonly situated on barren to sparsely vegetated places near water, normally on sandy or gravelly substrates. Nesting begins by mid-May and is usually complete by mid-June.

CDFW recommends protocol surveys be conducted during the appropriate time of year by a qualified ornithologist prior to adoption of an environmental document and subsequently prior to any ground disturbance activities. The results of the surveys may influence the requirement of additional mitigation measures, and selection of the appropriateness and type of environmental document for the Project. Survey protocol and guidelines for California least tern and Western snowy plover can be located at https://www.wildlife.ca.gov/Conservation/Survey-Protocols.

CDFW recommends that the environmental document include in-depth analyses of how Project-related diversion activities will affect the estuary. Estuary habitats are sensitive to environmental changes and could be permanently impacted by future ongoing diversions; ocean water quality in the SCRE and ocean interface could be dramatically impacted as a reduction in the freshwater tidal interface, and increased concentration of sedimentation and contamination due to runoff from impervious surfaces (Uchiyama, Idica, McWilliams, & Stolzenbach, 2014).

Desalination Entrainment and Impingement: The Department is concerned about the potential effects to marine resources from impingement and entrainment by the proposed open water intake portion of the Project. We prefer the method of drawing salt water from directionally drilled wells (slant wells) for desalination to avoid fish and fish egg and larvae entrainment and impingement that would occur when using direct ocean intakes with wire mesh. We remain concerned with wedge wire screen and other screen technologies claiming to reduce fish production impacts, and we would recommend mitigation for losses to fish production for any proposed direct draw of salt water from the ocean. Impacts to marine organisms other than fish may occur. Additional species impact analysis should be included in the DIER.

Additionally, long-term monitoring, testing and fish impact analysis should be conducted if fish screens and direct ocean draw are proposed alternatives. Additional fish screen monitoring and impact analysis should include the following:

- biofouling of screen technology
- entrainment of organisms smaller than the screen mesh size
- maintenance of the screens

Desalination Brine Discharge and Water Quality: The Department is concerned about the discharge of brine effluent to the marine environment and potential harmful impacts to marine life. We recommend that the Project review the State Water Resources Control Board Ocean Plan Amendment for Desalination. The Project should at a minimum follow the policy detailed in the Desalination Amendment. We prefer that brine discharge impacts be avoided where feasible. Several brine discharge alternatives should be analyzed, pilot tested and chosen based on scientific data indicating that it will avoid marine water quality impacts, and marine species impacts, or based on data showing that impacts will be reduced down to insignificant levels. The DEIR should fully describe potential marine environmental effects from each brine effluent discharge alternative. In addition, a robust monitoring plan is recommended for any alternatives that propose direct ocean discharge of brine waste to insure that the discharged effluent is fully mixed and is properly diluted for protection of marine resources.

Construction and Operational Impacts to Marine Life and Habitat: The Department is concerned about potential Project impacts to kelp, eelgrass, nearshore, intertidal, and rocky substrate habitats, especially from construction and operational activities. We recommend developing a monitoring and mitigation plan for rocky habitat, kelp beds, nearshore, intertidal, surfgrasses and eelgrasses adjacent to any Project construction or operation activities before, during and after construction or operations. The plans should be comprehensive and should be adaptive in nature. Finally, the plans should include elements for impact monitoring, avoidance and minimization (developed in coordination with the Department) for any identified kelp beds, eelgrass, surfgrass, rocky substrate, sensitive or listed fish and invertebrates as well as fish spawning habitat (e.g. California grunion). Should significant and unavoidable construction or operational impacts occur to sensitive marine habitats and species, mitigation will be required.

In addition, the Department is concerned about the short-term impacts from beach excavations and dredging activities should they be proposed for the construction phase. We recommend using all best management practices (BMPs) for dredging, including the use of the clamshell bucket dredge and coordinating with the Department prior to commencing dredging or beach activities.

We are also concerned about the sound levels generated by underwater construction activities. This includes, but not limited to, dredging, pile driving, and directional drilling. The Department is a signatory agency to the Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities, June 12, 2008. The agreed upon sound pressure levels are 206 dB peak and 187 dB accumulated sound exposure level (SEL). We recommend an analysis of potential underwater SELs created by Project activities in the DEIR/DEIS.

Littoral Cell: Coastlines are divided into naturally occurring compartments referred to as littoral cells. Each cell contains a cycle of sedimentation including sources, transport paths, and sinks of sediment, most notably sand material. Littoral cells and their budgets of sediment are essential planning tools for regional and coastal management. The Department recommends that the DEIR include an analysis of the littoral cell and potential impacts to the Project. In particular, we are concerned that sediment transport near the intake may lead to increased potential for fouling of the screen technology.

Sensitive Plant and Animal Species Affected from Project-Related Activities: Most estuary, mudflat, dune and coastal strand alliances are rare. These habitat alliances occur within the proposed Project's far-reaching area of impacts. It is important that these habitat alliances are carefully considered and impacts avoided, minimized, and reduced to the greatest extent possible by the Project-related activities. In addition, the majority of the estuary and confluences with the estuary consists of rare and sensitive brackish water and sandy dunes habitats and associated sensitive animal and plant communities. Including, but not limited to: Mock-heather vegetative alliance that includes coastal wetlands dominated by horsetail (*Genus Equisetum*), dune evening Primrose (*ssp. howellii*), and facultative annual grasses (the herbaceous wetland alliances are easily observed along the outer edges of the willow riparian thickets adjacent the estuary); coastal sage scrubland; coyote brush scrubland; deer-weed scrubland; dune lupine and bush mallow scrubland; poision oak scrubland; dominant willow and mulefat riparian, and disturbed annual grassland.

In addition to sensitive plant communities, many sensitive wildlife species within the project footprint may be impacted by Project-related activities. Wildlife species include, but are not limited to: jumping bristletail (*Family Machilidae*), and numerous important globos dune beetles (*Coelusglobosus spp.*), harvester ant (Genus *Pogonomyrmex*), coach whip (*Masticophis flagellum spp.*), olive green racer (*Coluber constsrictor*), coast horned lizard (*Phrynosoma blainvillii*), silvery legless lizard (*Anniella pulchra pulchra*), saltmarsh bird's beak (and pollinators plants necessary for the animals and plants survival), as well as those focal species mentioned previously in this document.

General Comments

1) Project Description and Alternatives. To enable the Department to adequately review and comment on the proposed project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DEIR:

   a) A complete discussion of the purpose and need for, and description of, the proposed project, including all staging areas and access routes to the construction and staging areas; and,

   b) A range of feasible alternatives to project component location and design features to ensure that alternatives to the proposed project are fully considered and evaluated. The alternatives should avoid or otherwise minimize direct and indirect impacts to sensitive biological resources and wildlife movement areas.

      i. The Department recommends mudflats for nearshore nesting birds remain available and that the reduction in flows does impact important resources for birds, such as reefs, and cover from predators, and nesting materials. In addition, this native and essential scrub plant provides a natural biological barrier to prevent human access into the SCRE. CDFW recommends the impacts reduction of water would have on this buffer be fully analyzed in the DEIR

      ii. The Department recommends that all lighting proposed with any diversion installation, and other areas where project-plans have indicated artificial illumination is necessary, to be cast downward, directional, with no off-cast to

allow nocturnal wildlife to behave naturally in the SCRE, and any adjacent infrastructure proposed near the SCRE.

2) Lake and Streambed Alteration Agreements (LSA). CDFW has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource. For any activity that will substantially divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream or use material from a streambed, the Project applicant must provide written notification to CDFW pursuant to Section 1602 of the Fish and Game Code. Based on this notification and other information, CDFW then determines whether a Lake and Streambed Alteration (LSA) Agreement is required. CDFW's issuance of an LSA Agreement is a project subject to CEQA. To facilitate issuance of a LSA Agreement, if necessary, the environmental document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA Agreement. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. Again, the failure to include this analysis in the Project's environmental document could preclude CDFW from relying on the Lead Agency's analysis to issue a LSA Agreement without CDFW first conducting its own, separate Lead Agency subsequent or supplemental analysis for the Project. Information on submitting a Notification for a LSA Agreement, the current fee schedule, and timelines required in obtaining an Agreement and found using the following URL: https://www.wildlife.ca.gov/Conservation/LSA.

   a) The project area supports aquatic, riparian, and wetland habitats; therefore, a preliminary delineation of the streams and their associated riparian habitats should be included in the DEIR. The delineation should be conducted pursuant to the U. S. Fish and Wildlife Service wetland definition adopted by the CDFW (Cowardin, et al. 1970). Some wetland and riparian habitats subject to the Department's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers' Section 404 permit and Regional Water Quality Control Board Section 401 Certification.

   b) In project areas which may support ephemeral streams, herbaceous vegetation, woody vegetation, and woodlands also serve to protect the integrity of ephemeral channels and help maintain natural sedimentation processes; therefore, the Department recommends effective setbacks be established to maintain appropriately-sized vegetated buffer areas adjoining ephemeral drainages.

   c) Project-related changes in drainage patterns, runoff, and sedimentation should be included and evaluated in the environmental document.

3) Wetlands Resources. The Department, as described in Fish & Game Code section 703(a), is guided by the Fish and Game Commission's policies. The Wetlands Resources policy (http://www.fgc.ca.gov/policy/p4misc.aspx#WETLANDS) of the Fish and Game Commission "...seek[s] to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California. Further, it is the policy of the Fish and Game Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion which would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum,

project mitigation assures there will be "no net loss" of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values".

a) The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. The Department encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. The Department encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, the project must include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions for the benefit to on-site and off-site wildlife populations. The Department recommends mitigation measures to compensate for unavoidable impacts be included in the DEIR and these measures should compensate for the loss of function and value.

b) The Fish and Game Commission's Water policy guides the Department to ensure the quantity and quality of the waters of this state should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage and support programs to maintain or restore a high quality of the waters of this state, and prevent the degradation thereof caused by pollution and contamination; and endeavor to keep as much water as possible open and accessible to the public for the use and enjoyment of fish and wildlife. The Department recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible.

4) California Endangered Species Act (CESA). The Department considers adverse impacts to a species protected by CESA, for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any endangered, threatened, candidate species, or state-listed rare plant species that results from the project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the project, project construction, or any project-related activity during the life of the project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the Department recommends that the project proponent seek appropriate take authorization under CESA prior to implementing the project. Appropriate authorization from the Department may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. (b), (c)). Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of an ITP unless the project CEQA document addresses all project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the

requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

5) Biological Baseline Assessment. To provide a complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, sensitive, regionally and locally unique species, and sensitive habitats. **Absent this information, there may not be substantial evidence in the record to support the findings**. CDFW recommends the DEIR include the following information:

   a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]);

   b) A thorough, recent, floristic-based assessment of special status plants and natural communities, following the Department's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see Native Plants and Natural Communities; https://www.wildlife.ca.gov/Conservation/Plants);

   c) Floristic, alliance-and/or association-based mapping and vegetation impact assessments conducted at the project site and within the neighboring vicinity. *The Manual of California Vegetation*, second edition, should also be used to inform this mapping and assessment (Sawyer et al. 20082). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions;

   d) A complete, recent assessment of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect, including California Species Special Concern (CSSC), and California Fully Protected Species (Fish and Game Code § 3511), such as American peregrine falcon *(Falco peregrinus anatum)*, white-tailed kite (*Elanus leucurus*), and California least tern (*Sterna albifrons browni = Sterna antillarum browni*). Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines § 15380). Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service;

   e) A complete, recent assessment of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511). Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines § 15380). Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service; and,

f) A recent, wildlife and rare plant survey. The Department generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed project may warrant periodic updated surveys for certain sensitive taxa, particularly if build out could occur over a protracted time frame, or in phases.

6) Biological Direct, Indirect, and Cumulative Impacts. To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be addressed in the DEIR:

a) A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage. The latter subject should address project-related changes on drainage patterns and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site. The discussion should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary and the potential resulting impacts on the habitat, if any, supported by the groundwater. Mitigation measures proposed to alleviate such impacts should be included;

b) A discussion regarding indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR;

c) The impacts of zoning of areas for development projects or other uses nearby or adjacent to natural areas, which may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document; and,

d) A cumulative effects analysis, as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

7) Avoidance, Minimization, and Mitigation for Sensitive Plants. The Department generally does not consider wildlife surveys greater than one year old and botanical surveys greater than two years old as representative of current conditions for the purposes of impact assessment, avoidance and mitigation measures. Timely appropriately focused wildlife and botanical surveys should be conducted to capture current conditions at the project site. CDFW Recommends the Lead Agency conduct a recent floristic, alliance-and/or association- based mapping and vegetation impact assessment at the Project site, and within the neighboring vicinity. Evans (2009) *Identification and mapping of rare plant communities* is recommended for mapping an isolated area for unique and rare plants. Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite, such as from hillside slippage caused from vibration. Habitat mapping at the alliance level will help establish baseline vegetation conditions. In

addition, the CDFW website, with regard to Natural Communities, can provide guidance for surveying and mapping sensitive and rare plant communities: https://www.wildlife.ca.gov/Data/VegCAMP/Natural- Communities/List.

a) The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts. The Department considers these communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3 and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in The Manual of California Vegetation (Sawyer et al. 2008).

8) Compensatory Mitigation. The DEIR should include mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

9) Long-Term Management of Mitigation Lands. For proposed preservation and/or restoration, the DEIR should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include, but are not limited to, restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.

10) Nesting Birds. The environmental document must include adequate protection measures to protect impacts to nesting birds during construction. Nesting birds may be affected within sparse tree and shrub habitat on/adjacent to the Project site, directly or indirectly, by noise, dust, or vibration. Nests missed during pre-project surveys could lead to nest abandonment during Project implementation.

a) CDFW recommends avoiding the nesting bird season, which generally runs from February 1st through September 1st (as early as January 1st for some raptors), for all Project-related, activities to avoid take of birds or their eggs. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Title 50, § 10.13, Code of Federal Regulations). Additionally, Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory non-game birds (as listed under the Federal MBTA).

b) If avoidance of the avian breeding season is not feasible, CDFW recommends submittal of a nesting bird management plan to CDFW for review. Additionally, surveys by an ornithologist with experience in conducting breeding bird surveys should be completed to detect bird nests within suitable nesting habitat that is to be disturbed and within 300 feet of the disturbance area (within 500 feet for raptors). Project personnel, including all

contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

11) Translocation/Salvage of Plants and Animal Species. Translocation and transplantation is the process of moving an individual from the project site and permanently moving it to a new location. The Department generally does not support the use of, translocation or transplantation as the primary mitigation strategy for unavoidable impacts to rare, threatened, or endangered plant or animal species. Studies have shown that these efforts are experimental and the outcome unreliable. The Department has found that permanent preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving sensitive plants and animals, and their habitats.

12) Moving out of Harm's Way. The proposed project is anticipated to result in clearing of natural habitats that support many species of indigenous wildlife. To avoid direct mortality, the Department recommends a qualified biological monitor approved by the Department be on site prior to and during ground and habitat disturbing activities to move out of harm's way special status species or other wildlife of low mobility that would be injured or killed by grubbing or project-related construction activities. It should be noted that the temporary relocation of on-site wildlife does not constitute effective mitigation for the purposes of offsetting project impacts associated with habitat loss.

13) Wildlife Movement and Connectivity. The project area supports significant biological resources and is located adjacent to a regional wildlife movement corridor. The project area contains habitat connections and supports movement across the broader landscape, sustaining both transitory and permanent wildlife populations. Onsite features, which contribute to habitat connectivity, should be evaluated and maintained. Aspects of the project could create physical barriers to wildlife movement from direct or indirect project-related activities. Indirect impacts from lighting, noise, dust, and increased human activity may displace wildlife in the general area.

14) Revegetation/Restoration Plan. Plans for restoration and re-vegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

15) Wildlife and Plant Surveys: The Department generally does not consider wildlife surveys greater than one year old and botanical surveys greater than two years old as representative of current conditions for the purposes of impact assessment, avoidance and mitigation measures. Timely appropriately focused wildlife and botanical surveys should be conducted to capture current conditions at the project site.CDFW Recommends the Lead Agency conduct a recent floristic, alliance-and/or association-based mapping and vegetation impact assessment at the Project site, and within the neighboring vicinity. Evans (2009) Identification and mapping of rare plant communities is recommended for mapping an isolated area for unique and rare plants. Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite, such as from hillside slippage caused from vibration. Habitat mapping at the alliance level will help establish baseline vegetation conditions. In addition, the CDFW website, with regard to Natural Communities, can provide guidance for surveying and mapping sensitive and rare plant communities: https://www.wildlife.ca.gov/Data/VegCAMP/Natural- Communities/List.

    a) The Department recommends that local onsite propagules from the project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in the near future in order to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various project components as appropriate.

16) Restoration objectives should include providing special habitat elements where feasible to benefit key wildlife species. These physical and biological features can include, for example, retention of woody material, logs, snags, rocks and brush piles (see Mayer and Laudenslayer, 1988 for a more detailed discussion of special habitat elements).

We appreciate the opportunity to comment on the referenced NOP. Questions regarding this letter and further coordination on these issues should be directed to Ms. Jamie Jackson, Senior Environmental Scientist (Specialist), at (805) 382-6906 or jamie.jackson@wildlife.ca.gov and for marine resources related issues, contact Loni Adams, Environmental Scientist, at (858) 627-3985 or loni.adams@wildlife.ca.gov.

Sincerely,

Betty J. Courtney

Betty J. Courtney
Environmental Program Manager I

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CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

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WASTEWATER DIVISION

Gina Dorrington
City of Ventura
501 Poli Street, Room 120
Ventura, CA 93002

Dear Ms. Dorrington:

NOTICE OF PREPARATION (NOP) FOR CITY OF VENTURA (CITY); VENTURA WATER SUPPLY PROJECT (PROJECT); VENTURA COUNTY; STATE CLEARINGHOUSE NO. 2017111004

We understand that the City may be pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the preparation of the California Environmental Quality Act (CEQA) for the Project.

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 30-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at:
www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml.

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "CEQA-Plus" environmental documentation and review. Three enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit:
http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml. The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoli, at (916) 341-5855.

It is important to note that prior to a CWSRF financing commitment, projects are subject to provisions of the Federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special-status species.

Please be advised that the State Water Board will consult with the USFWS, and/or the NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be financed by the CWSRF Program. The City will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur in the Project site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board has responsibility for ensuring compliance with Section 106 and the State Water Board must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. The City must retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards (http://www.nps.gov/history/local-law/arch_stnds_9.htm) to prepare a Section 106 compliance report.

Note that the City will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should extend to a ½-mile beyond project APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

Other federal environmental requirements pertinent to the Project under the CWSRF Program include the following (for a complete list of all environmental requirements please visit: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf):

A. An alternative analysis discussing environmental impacts of the project in either the CEQA document (Negative Declaration, Mitigated Negative Declaration or Environmental Impact Report) or in a separate report.

B. A public hearing more meeting for adoption/certification of all projects except for those having little or no environmental impact.

C. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State

Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections.

D. Compliance with the Coastal Zone Management Act: Identify whether the Project is within a coastal zone and the status of any coordination with the California Coastal Commission.

E. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.

F. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local and Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.

G. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.

H. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.

I. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

Following are specific comments on the City's NOP:

1. Is the City preparing a programmatic or project level EIR? Please note that the CWSRF cannot not use programmatic documents unless the Project being funded is analyzed in the document at a Project level.

2. Has the United States Bureau of Reclamation (USBR) begun reviewing the Project? Have any consultations with the State Historic Preservation Office, United States Fish and Wildlife Service, or the National Marine Fisheries Service been initiated by the USBR?

Following the preparation of the draft CEQA document for the Project, please provide us a copy of the document to review if the City's is considering CWSRF financing. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review for the Project.

Thank you for the providing us a copy of your NOP, and the consideration of the CWSRF for the financing of the City's Project. If you have any questions or concerns, please feel free to contact
Ahmad Kashkoli at (916) 341-5855, or by email at Ahmad.Kashkoli@waterboards.ca.gov

Sincerely,

Amanda Dwyer
Environmental Scientist

Enclosures (3)

1. Clean Water State Revolving Fund Environmental Review Requirements
2. Quick Reference Guide to CEQA Requirements for State Revolving Fund Loans
3. Basic Criteria for Cultural Resources Reports

Cc: State Clearinghouse
(Re: SCH# 2017111004)
P.O. Box 3044
Sacramento, CA 95812-3044

Bcc: Ahmad Kashkoli, Division of Financial Assistance
Amanda Dwyer, Division of Financial Assistance
Andrew Cooper, Division of Financial Assistance
Janice Clemons, Division of Financial Assistance

Surfrider Foundation

Ventura County Chapter
PO Box 1028, Ventura, CA 93002

January 16, 2018

Gina Dorrington
Ventura Water
501 Poli Street, Room 120
Ventura, CA 93002
via email: gdorrington@venturawater.net

RE: SCRE Special Studies – Water Recycling Opportunity

Dear Ms. Dorrington:

The Ventura County Chapter of the Surfrider Foundation has voiced concerns with water quality at the mouth of the Santa Clara River since our Blue Water Task Force identified high bacteria levels at this popular surfing location in the early 1990's. Recognizing the benefits of integrated water management, the Surfrider Foundation has been a longtime proponent of recycled wastewater to enhance our coastal ecosystems. Wastewater discharges have historically impaired coastal water quality, and even with advances in technology, increased nutrient levels impact receiving waters.

We would like to re-state our **support for 100% recycling of the city's wastewater** to eliminate the discharge into the Santa Clara River Estuary.

We do not concur with the analysis presented at the November stakeholder meeting that oversimplify the ecosystem associated with the Santa Clara River Estuary (SCRE.) Indeed, as other commenters have noted, this system is in fact much more representative of a coastal lagoon, since it does not maintain a perennial opening to the ocean. Indeed, it is this fact that creates the problems with the wastewater discharge. Without a regular exchange between the lagoon and the ocean, nutrient rich wastewater accumulates in an unnatural manner behind the beach berm. Only during large winter storm events or human intervention does this lagoon breach. This results in unnaturally high water levels and poor water quality.

Finding of Enhancement is Flawed:

Any conclusion that determines that the lagoon is enhanced by the wastewater discharge are flawed. Although the resource agencies rightly are concerned for the endangered and special status species that rely on habitat at the mouth of the Santa Clara River, current conditions limit, rather than support those species. The unnaturally high water levels resulting from the discharge create a simplified pond habitat that is subject to episodic draining. Sea water exchange, a necessary part of this ecosystem, is also precluded with the flooded lagoon. The elimination of habitat complexity and poor water quality has created an ideal habitat for non-native species, most prominently carp. From our experience on the Ventura River, carp are the predominant fresh water species below the Ojai Sanitary District discharge on

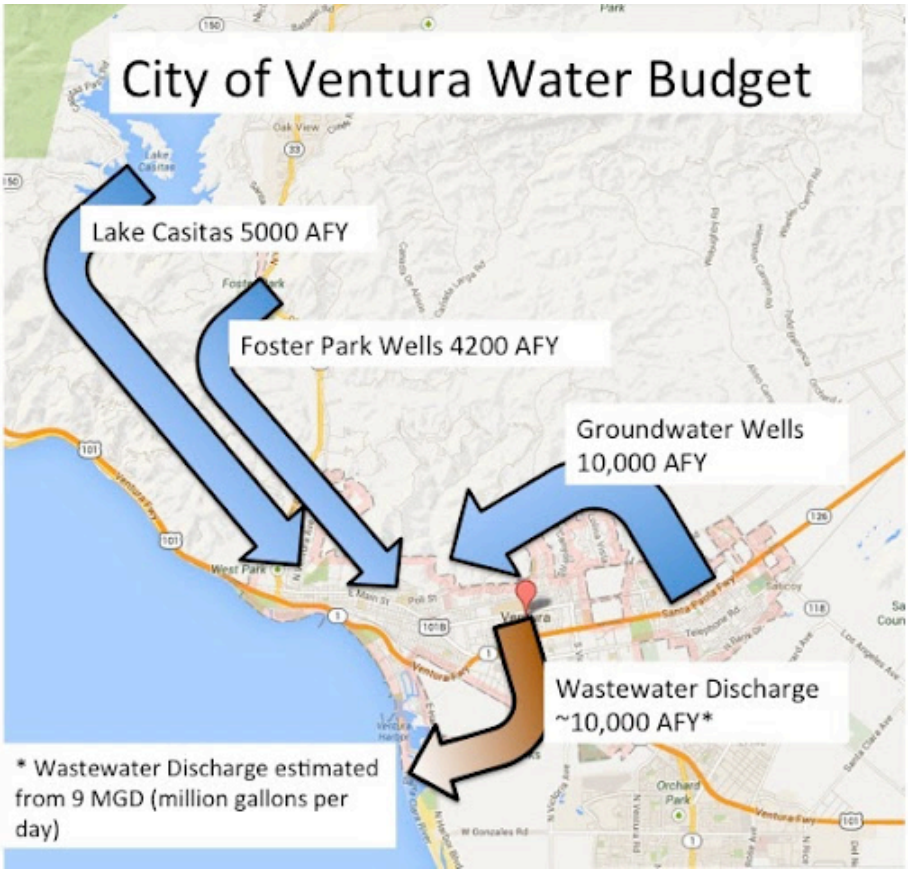
the lower Ventura River, relegating this reach to migratory status for the endangered Southern Steelhead. Steelhead may survive in such an environment, but they certainly wouldn't choose it.

An Opportunity for Ecosystem Benefits:

A more complete ecosystem view of the situation has not been conducted as part of the SCRE analysis. By focusing exhaustively and exclusively on the Santa Clara River Estuary, the potential benefits of eliminating the wastewater discharge have not been fully considered. Consider this fact:

50% or more of the discharge originates from the Ventura River

The City of Ventura relies on a wellfield at Foster Park and surface storage from Lake Casitas for more than half the water supply. Both of these sources are currently stressed from over allocation during the prolonged drought.



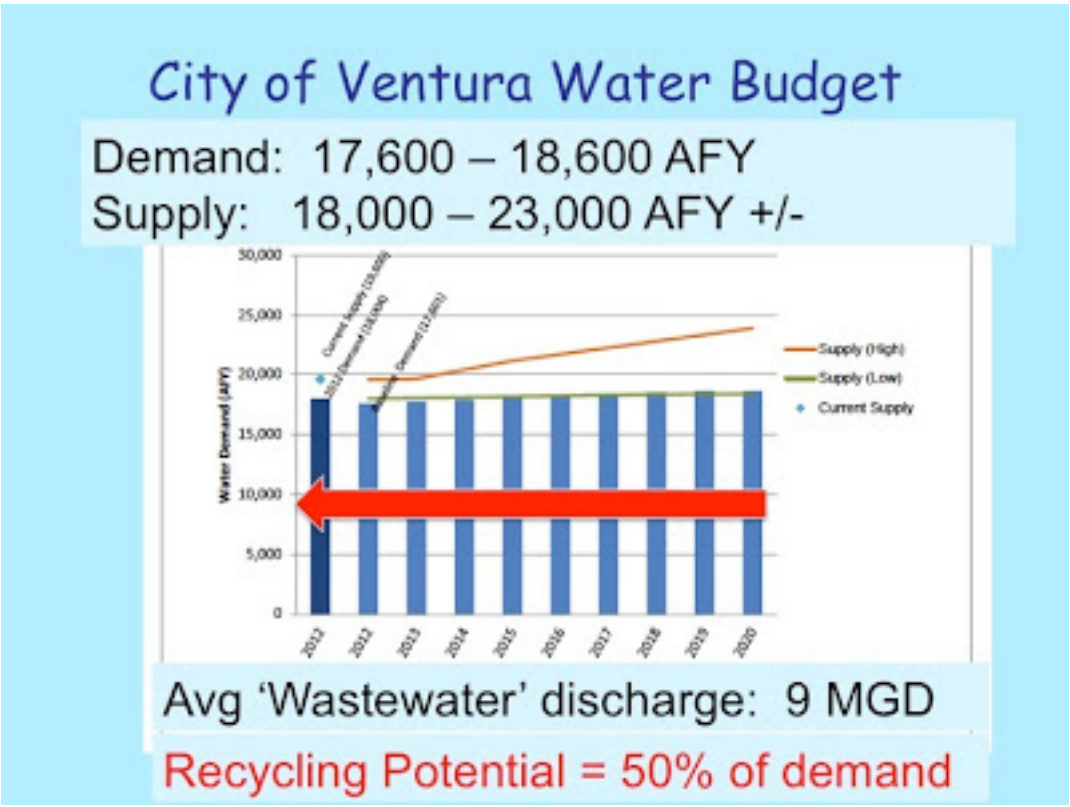
How could a point source discharge directly into the Santa Clara River Estuary be considered to mimic "natural" processes and enhance the habitat, when much of the water originates from the adjacent watershed?

Most significantly, studies have documented the high quality spawning, rearing, and refugia habitat in the Ventura River upstream of the Foster Park wellfield. However, flows in this reach have become seriously impaired by over-extraction of groundwater, to the point that in recent years this refugia habitat has dried

up for extended periods during the critical summer and fall months. It should be noted that this reach of the Ventura River was historically known as the "live reach," for the rising groundwater in the vicinity of Casitas Springs, which was also named for this phenomenon. These are precisely the conditions that favor native species such as the southern steelhead. Indeed, recent population surveys have documented the presence of native trout in this reach.

Water Budget Perspective:

Consider the potential benefits from developing a "new" supply from recycled water.



These slightly outdated supply and demand numbers are taken from the City's 2013 Final Comprehensive Water Resources Report. It is evident from this graph that if 'new' sources of water are not found the city will outgrow its water supply in the near future.

The red arrow shows that the potential for recycled water in Ventura is close to 50% of demand. (Of course the actual volume would be less than this depending on treatment and reuse options, but this demonstrates the overall magnitude.) Therefore water recycling would provide an opportunity to eliminate the flooding problem at McGrath as well as offset municipal water demand (i.e. an 'integrated solution'.)

This demand offset could provide an opportunity to reduce pumping at the Foster Park wellfield during dry months of the year to sustain the critical habitat within the "live reach" of the Ventura River.

Recommendation:

We encourage the City of Ventura and the stakeholder resource agencies to carefully reconsider the potential benefit from maximizing the recycled water potential. Rather than choosing to maintain an artificial pool at the Santa Clara River Estuary, which has very limited habitat benefits, demand offsets gained through recycling 100% of the wastewater effluent may be applied to the enhancement of the comparatively high quality habitat in the Ventura River. In turn, the coastal lagoon will return to a more natural hydrology with improved water quality and habitat, while also eliminating the non-native habitat conditions that are currently degrading the SCRE ecosystem.

Sincerely,



A. Paul Jenkin, M.S.
Ventura Campaign Coordinator, Surfrider Foundation
(805) 205-4953 pjenkin@surfrider.org

cc: SCRE Stakeholder e-mail list

References:

Steelhead Population and Habitat Assessment in the Ventura River / Matilija Creek Basin 2006-2012 FINAL REPORT

Ventura River Ecosystem - wastewater, VenturaRiver.org

Kevin Smith

From: Helle Scharling-Todd <art-glass@sbcglobal.net>
Sent: Monday, November 20, 2017 11:18 AM
To: Armistead, Lauren
Subject: Re: Santa Clara River Estuary Stakeholder Workshop November 15, comments Eric Todd

Dear Lauren Amistead, I am sending you my comments.

Every time I have attended a water workshop at the City, I have raised the question about the identity of the body of water at the outlet of Santa Clara River, it meets all the requirements of a lagoon and not an

estuary.

In the following I will discuss what the criteria of an estuary is:

1: Estuaries are a highly complex ecosystem cohabiting and evolving over thousands of years of stable biology in the sense that the lagoons are not necessarily productive in the way estuaries are, one reason in estuaries

there is stability due to the elimination of waste by the tidal flows. Estuaries are long lived due to the daily flushing of the tides, renewing it's productivity.

2: Estuaries have daily fluctuations of salt and fresh water, leading to a highly complex system, composed of plants and animals and a host of bacterial regeneration which controls the ebb and flow of mineralization and

sources of energy.

3: In an estuary the ecology cannot be more complex, there is a niche for myriads of bacteria, plants and animals. An important feature with this diversity throughout the estuary there are pockets of differentiation which can

arise to meet the needs of these different biology. An easy diagnosis of an estuary is discovered if one tries to traverse one, as one will end up in mud, compared to the ground of a lagoon, which is a sand floor.

4: A lagoon is a simple structure, which is here today and gone tomorrow, for instance the Santa Clara River exited by Port Hueneme area about 200-500 years ago according to geological deposits.

5: An estuary will because of its complexity and stability exist for thousands of years, whereas a lagoon can come and go on a daily basis.

6: The Santa Clara River outlet is filling in and the sand berm is moving inland, and without the reclamation water the lagoon will cease to exist, it will simply dry up.

7: There are no clams in the Santa Clara lagoon, as clams cannot be established due to the fragile connection they have with their environment, that is so changeable.

8: Estuaries on the contrary have clams due to their stable environment.

9: The Santa clara River has never been a nursery possibility for the steelhead trout. Ocean bound steelhead passing through this wasteland of meager sustenance are on their way to the sea, and those returning from the sea

swim upriver looking for spawning possibilities, naturally this is only possible if the berm has been broken by rain water. California Fish and Game should be contacted as they understand the need for spawning sites that

are found higher up in the drainage system, it is here where they have spent millions of dollars of fish ladders. Realize that those steel heads that are stalled in pools that dry up after the rains are gone will perish. it's only

because of their natural drive to leave the lagoon behind and immediately continue to the high reaches of the water sources in the mountains where their development is possible.

10. This lagoon has 12' difference between the low tide and the high tide going over the berm, whereas in an estuary it's almost always level with the ocean and possible to pass upstream.

11. Finally the tide water goby is hardly an endangered specie, and the few there will be lost allowing the river to dry up is insignificant, some areas along the coast have thousands of them, I received a PHD studying gobies,

and I am now writing a paper on a goby from South America so I have an interest and experience in gobies. If the lagoon was indeed an estuary it would be inhabited by a goby Gillictis Mirabiles, however Santa Clara

lagoon doesn't have any of these required salinities which means it is a fresh water lagoon, and not an estuary.

12. In light of the fact that the City of Ventura has decided to spray insecticides in the lagoon to control the Nile river virus mosquitoes, is an illegal act if it was an estuary , but as it is not an estuary it is perfectly o.k.

I recall in Panama when I worked for the Smithsonian Institute that the gobies that I had in custody always died when exposed to very small amounts of insecticides. I wonder how many Tide water gobies have perished

due to the spraying in the lagoon?

13. Another example of misunderstanding the term estuary versus lagoon is that phosphates were low in the lagoon, if it is an estuary there would be higher levels of phosphates, and also it was extensive mentioning of the

lagoon having a sand base, if it was an estuary, it would have a mud base. It is this mud base in estuaries that allows to capture nutrients and to provide for this mosaic of productivity.

I have shown up at these meetings at the city, just to set the record straight, and my hope is that recognition of the true identity of this body of water, Santa Clara lagoon is properly

recognized in Ventura, and not called an estuary since it then falls under a whole different set of regulations. In all due respect to yourself these stated facts are not a matter of opinion. Also I want to lament the fact that

the City of Ventura is now charging us an increasingly larger amount including an estuary fee, which needs an explanation!

I support by the way the reuse of the reclamation water for public use, such as golf courses, parks etc. Please get in touch if you have requests. Yours Eric Todd, Phd.

On Nov 16, 2017, at 1:48 PM, Armistead, Lauren wrote:

> Thank you all who were able to attend our Santa Clara River Estuary Stakeholder Workshop yesterday.
>
> The DRAFT Phase 3 Study and Appendices have been uploaded to the Ventura Water website as of yesterday afternoon. They can be found in our Library of Reports page under Estuary Studies.
>
> The direct links are provided below.
>
> Comments on the Study would be appreciated no later than December 15th.
>
> https://www.cityofventura.ca.gov/DocumentCenter/Home/View/10392
> https://www.cityofventura.ca.gov/DocumentCenter/Home/View/10393
>
> Thank you again
>
> Lauren Armistead
> Management Analyst
> Ventura Water
> 805-677-4128
> larmistead@venturawater.net

Appendix B

Air Quality and Greenhouse Gas Emissions Data Sheets

Ventura Water Pure_ASR&CDF_20180522 - Ventura County APCD Air District, Annual

Ventura Water Pure_ASR&CDF_20180522

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment -

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3069	2.1044	2.0019	5.5900e-003	0.0454	0.0815	0.1269	0.0121	0.0787	0.0908	0.0000	469.5868	469.5868	0.1179	0.0000	472.5332
2022	0.2766	1.7873	1.9645	5.5900e-003	0.0454	0.0679	0.1134	0.0121	0.0657	0.0778	0.0000	468.7156	468.7156	0.1167	0.0000	471.6328
2023	0.2557	1.6575	1.9216	5.5200e-003	0.0450	0.0593	0.1043	0.0120	0.0573	0.0692	0.0000	463.4722	463.4722	0.1145	0.0000	466.3335
Maximum	**0.3069**	**2.1044**	**2.0019**	**5.5900e-003**	**0.0454**	**0.0815**	**0.1269**	**0.0121**	**0.0787**	**0.0908**	**0.0000**	**469.5868**	**469.5868**	**0.1179**	**0.0000**	**472.5332**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3069	2.1044	2.0019	5.5900e-003	0.0454	0.0815	0.1269	0.0121	0.0787	0.0908	0.0000	469.5863	469.5863	0.1179	0.0000	472.5327
2022	0.2766	1.7873	1.9645	5.5900e-003	0.0454	0.0679	0.1134	0.0121	0.0657	0.0778	0.0000	468.7151	468.7151	0.1167	0.0000	471.6322
2023	0.2557	1.6575	1.9216	5.5200e-003	0.0450	0.0593	0.1043	0.0120	0.0573	0.0692	0.0000	463.4717	463.4717	0.1145	0.0000	466.333
Maximum	**0.3069**	**2.1044**	**2.0019**	**5.5900e-003**	**0.0454**	**0.0815**	**0.1269**	**0.0121**	**0.0787**	**0.0908**	**0.0000**	**469.5863**	**469.5863**	**0.1179**	**0.0000**	**472.5327**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	**12-1-2020**	**2-28-2021**	0.3901	0.3901
4	**3-1-2021**	**5-31-2021**	0.6075	0.6075
5	**6-1-2021**	**8-31-2021**	0.6071	0.6071
6	**9-1-2021**	**11-30-2021**	0.6012	0.6012
7	**12-1-2021**	**2-28-2022**	0.5388	0.5388
8	**3-1-2022**	**5-31-2022**	0.5200	0.5200
9	**6-1-2022**	**8-31-2022**	0.5196	0.5196
10	**9-1-2022**	**11-30-2022**	0.5147	0.5147
11	**12-1-2022**	**2-28-2023**	0.4880	0.4880
12	**3-1-2023**	**5-31-2023**	0.4867	0.4867
13	**6-1-2023**	**8-31-2023**	0.4863	0.4863
14	**9-1-2023**	**9-30-2023**	0.1586	0.1586
		Highest	0.6075	0.6075

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2021	12/28/2023	6	936	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Bore/Drill Rigs	4	8.00	231	0.29
Building Construction	Welders	4	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
Building Construction	8	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Building Construction - 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	0.2874	2.0917	1.8631	5.1800e-003		0.0812	0.0812		0.0784	0.0784	0.0000	431.8353	431.8353	0.1169	0.0000	434.7578
Total	**0.2874**	**2.0917**	**1.8631**	**5.1800e-003**		**0.0812**	**0.0812**		**0.0784**	**0.0784**	**0.0000**	**431.8353**	**431.8353**	**0.1169**	**0.0000**	**434.7578**

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	0.0195	0.0126	0.1388	4.2000e-004	0.0454	3.2000e-004	0.0458	0.0121	3.0000e-004	0.0124	0.0000	37.7515	37.7515	9.6000e-004	0.0000	37.7754
Total	**0.0195**	**0.0126**	**0.1388**	**4.2000e-004**	**0.0454**	**3.2000e-004**	**0.0458**	**0.0121**	**3.0000e-004**	**0.0124**	**0.0000**	**37.7515**	**37.7515**	**9.6000e-004**	**0.0000**	**37.7754**

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	0.2874	2.0917	1.8631	5.1800e-003		0.0812	0.0812		0.0784	0.0784	0.0000	431.8348	431.8348	0.1169	0.0000	434.7573
Total	**0.2874**	**2.0917**	**1.8631**	**5.1800e-003**		**0.0812**	**0.0812**		**0.0784**	**0.0784**	**0.0000**	**431.8348**	**431.8348**	**0.1169**	**0.0000**	**434.7573**

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	0.0195	0.0126	0.1388	4.2000e-004	0.0454	3.2000e-004	0.0458	0.0121	3.0000e-004	0.0124	0.0000	37.7515	37.7515	9.6000e-004	0.0000	37.7754
Total	**0.0195**	**0.0126**	**0.1388**	**4.2000e-004**	**0.0454**	**3.2000e-004**	**0.0458**	**0.0121**	**3.0000e-004**	**0.0124**	**0.0000**	**37.7515**	**37.7515**	**9.6000e-004**	**0.0000**	**37.7754**

3.2 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2583	1.7759	1.8362	5.1800e-003		0.0676	0.0676		0.0654	0.0654	0.0000	432.3512	432.3512	0.1158	0.0000	435.2467
Total	**0.2583**	**1.7759**	**1.8362**	**5.1800e-003**		**0.0676**	**0.0676**		**0.0654**	**0.0654**	**0.0000**	**432.3512**	**432.3512**	**0.1158**	**0.0000**	**435.2467**

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	0.0183	0.0114	0.1283	4.0000e-004	0.0454	3.1000e-004	0.0457	0.0121	2.9000e-004	0.0124	0.0000	36.3645	36.3645	8.6000e-004	0.0000	36.3860
Total	**0.0183**	**0.0114**	**0.1283**	**4.0000e-004**	**0.0454**	**3.1000e-004**	**0.0457**	**0.0121**	**2.9000e-004**	**0.0124**	**0.0000**	**36.3645**	**36.3645**	**8.6000e-004**	**0.0000**	**36.3860**

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	0.2583	1.7759	1.8362	5.1800e-003		0.0676	0.0676		0.0654	0.0654	0.0000	432.3507	432.3507	0.1158	0.0000	435.2462
Total	**0.2583**	**1.7759**	**1.8362**	**5.1800e-003**		**0.0676**	**0.0676**		**0.0654**	**0.0654**	**0.0000**	**432.3507**	**432.3507**	**0.1158**	**0.0000**	**435.2462**

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	0.0183	0.0114	0.1283	4.0000e-004	0.0454	3.1000e-004	0.0457	0.0121	2.9000e-004	0.0124	0.0000	36.3645	36.3645	8.6000e-004	0.0000	36.3860
Total	**0.0183**	**0.0114**	**0.1283**	**4.0000e-004**	**0.0454**	**3.1000e-004**	**0.0457**	**0.0121**	**2.9000e-004**	**0.0124**	**0.0000**	**36.3645**	**36.3645**	**8.6000e-004**	**0.0000**	**36.3860**

3.2 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2386	1.6474	1.8044	5.1400e-003		0.0590	0.0590		0.0570	0.0570	0.0000	428.8355	428.8355	0.1137	0.0000	431.6775
Total	**0.2386**	**1.6474**	**1.8044**	**5.1400e-003**		**0.0590**	**0.0590**		**0.0570**	**0.0570**	**0.0000**	**428.8355**	**428.8355**	**0.1137**	**0.0000**	**431.6775**

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	0.0171	0.0102	0.1172	3.8000e-004	0.0450	3.0000e-004	0.0453	0.0120	2.8000e-004	0.0122	0.0000	34.6367	34.6367	7.7000e-004	0.0000	34.6560
Total	**0.0171**	**0.0102**	**0.1172**	**3.8000e-004**	**0.0450**	**3.0000e-004**	**0.0453**	**0.0120**	**2.8000e-004**	**0.0122**	**0.0000**	**34.6367**	**34.6367**	**7.7000e-004**	**0.0000**	**34.6560**

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	0.2386	1.6474	1.8044	5.1400e-003		0.0590	0.0590		0.0570	0.0570	0.0000	428.8350	428.8350	0.1137	0.0000	431.6770
Total	**0.2386**	**1.6474**	**1.8044**	**5.1400e-003**		**0.0590**	**0.0590**		**0.0570**	**0.0570**	**0.0000**	**428.8350**	**428.8350**	**0.1137**	**0.0000**	**431.6770**

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	0.0171	0.0102	0.1172	3.8000e-004	0.0450	3.0000e-004	0.0453	0.0120	2.8000e-004	0.0122	0.0000	34.6367	34.6367	7.7000e-004	0.0000	34.6560
Total	**0.0171**	**0.0102**	**0.1172**	**3.8000e-004**	**0.0450**	**3.0000e-004**	**0.0453**	**0.0120**	**2.8000e-004**	**0.0122**	**0.0000**	**34.6367**	**34.6367**	**7.7000e-004**	**0.0000**	**34.6560**

Ventura Water Pure_ASR&CDF_20180522 - Ventura County APCD Air District, Summer

Ventura Water Pure_ASR&CDF_20180522

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment -

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.9600	13.4369	12.8240	0.0359	0.2957	0.5207	0.8164	0.0784	0.5028	0.5812	0.0000	3,318.8377	3,318.8377	0.8303	0.0000	3,339.5961
2022	1.7663	11.4119	12.5841	0.0358	0.2957	0.4340	0.7297	0.0784	0.4197	0.4982	0.0000	3,312.2799	3,312.2799	0.8221	0.0000	3,332.8321
2023	1.6486	10.6861	12.4280	0.0358	0.2957	0.3826	0.6783	0.0784	0.3696	0.4481	0.0000	3,306.5170	3,306.5170	0.8142	0.0000	3,326.8709
Maximum	**1.9600**	**13.4369**	**12.8240**	**0.0359**	**0.2957**	**0.5207**	**0.8164**	**0.0784**	**0.5028**	**0.5812**	**0.0000**	**3,318.8377**	**3,318.8377**	**0.8303**	**0.0000**	**3,339.5961**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.9600	13.4369	12.8240	0.0359	0.2957	0.5207	0.8164	0.0784	0.5028	0.5812	0.0000	3,318.8377	3,318.8377	0.8303	0.0000	3,339.5961
2022	1.7663	11.4119	12.5841	0.0358	0.2957	0.4340	0.7297	0.0784	0.4197	0.4982	0.0000	3,312.2799	3,312.2799	0.8221	0.0000	3,332.8321
2023	1.6486	10.6861	12.4280	0.0358	0.2957	0.3826	0.6783	0.0784	0.3696	0.4481	0.0000	3,306.5170	3,306.5170	0.8142	0.0000	3,326.8709
Maximum	**1.9600**	**13.4369**	**12.8240**	**0.0359**	**0.2957**	**0.5207**	**0.8164**	**0.0784**	**0.5028**	**0.5812**	**0.0000**	**3,318.8377**	**3,318.8377**	**0.8303**	**0.0000**	**3,339.5961**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2021	12/28/2023	6	936	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Bore/Drill Rigs	4	8.00	231	0.29
Building Construction	Welders	4	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
Building Construction	8	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Building Construction - 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	1.8367	13.3657	11.9046	0.0331		0.5187	0.5187		0.5009	0.5009		3,041.6416	3,041.6416	0.8234		3,062.2262
Total	**1.8367**	**13.3657**	**11.9046**	**0.0331**		**0.5187**	**0.5187**		**0.5009**	**0.5009**		**3,041.6416**	**3,041.6416**	**0.8234**		**3,062.2262**

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	0.1233	0.0712	0.9194	2.7800e-003	0.2957	2.0500e-003	0.2978	0.0784	1.8900e-003	0.0803		277.1961	277.1961	6.9600e-003		277.3699
Total	**0.1233**	**0.0712**	**0.9194**	**2.7800e-003**	**0.2957**	**2.0500e-003**	**0.2978**	**0.0784**	**1.8900e-003**	**0.0803**		**277.1961**	**277.1961**	**6.9600e-003**		**277.3699**

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	1.8367	13.3657	11.9046	0.0331		0.5187	0.5187		0.5009	0.5009	0.0000	3,041.6416	3,041.6416	0.8234		3,062.2262
Total	**1.8367**	**13.3657**	**11.9046**	**0.0331**		**0.5187**	**0.5187**		**0.5009**	**0.5009**	**0.0000**	**3,041.6416**	**3,041.6416**	**0.8234**		**3,062.2262**

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	0.1233	0.0712	0.9194	2.7800e-003	0.2957	2.0500e-003	0.2978	0.0784	1.8900e-003	0.0803		277.1961	277.1961	6.9600e-003		277.3699
Total	**0.1233**	**0.0712**	**0.9194**	**2.7800e-003**	**0.2957**	**2.0500e-003**	**0.2978**	**0.0784**	**1.8900e-003**	**0.0803**		**277.1961**	**277.1961**	**6.9600e-003**		**277.3699**

3.2 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6504	11.3476	11.7330	0.0331		0.4320	0.4320		0.4179	0.4179		3,045.2752	3,045.2752	0.8158		3,065.6702
Total	**1.6504**	**11.3476**	**11.7330**	**0.0331**		**0.4320**	**0.4320**		**0.4179**	**0.4179**		**3,045.2752**	**3,045.2752**	**0.8158**		**3,065.6702**

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	0.1159	0.0643	0.8511	2.6800e-003	0.2957	2.0000e-003	0.2977	0.0784	1.8400e-003	0.0803		267.0047	267.0047	6.2900e-003		267.1619
Total	**0.1159**	**0.0643**	**0.8511**	**2.6800e-003**	**0.2957**	**2.0000e-003**	**0.2977**	**0.0784**	**1.8400e-003**	**0.0803**		**267.0047**	**267.0047**	**6.2900e-003**		**267.1619**

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	1.6504	11.3476	11.7330	0.0331		0.4320	0.4320		0.4179	0.4179	0.0000	3,045.2752	3,045.2752	0.8158		3,065.6702
Total	**1.6504**	**11.3476**	**11.7330**	**0.0331**		**0.4320**	**0.4320**		**0.4179**	**0.4179**	**0.0000**	**3,045.2752**	**3,045.2752**	**0.8158**		**3,065.6702**

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	0.1159	0.0643	0.8511	2.6800e-003	0.2957	2.0000e-003	0.2977	0.0784	1.8400e-003	0.0803		267.0047	267.0047	6.2900e-003		267.1619
Total	**0.1159**	**0.0643**	**0.8511**	**2.6800e-003**	**0.2957**	**2.0000e-003**	**0.2977**	**0.0784**	**1.8400e-003**	**0.0803**		**267.0047**	**267.0047**	**6.2900e-003**		**267.1619**

3.2 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5395	10.6281	11.6414	0.0332		0.3806	0.3806		0.3678	0.3678		3,049.7431	3,049.7431	0.8085		3,069.9551
Total	**1.5395**	**10.6281**	**11.6414**	**0.0332**		**0.3806**	**0.3806**		**0.3678**	**0.3678**		**3,049.7431**	**3,049.7431**	**0.8085**		**3,069.9551**

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	0.1091	0.0580	0.7866	2.5800e-003	0.2957	1.9500e-003	0.2977	0.0784	1.8000e-003	0.0802		256.7739	256.7739	5.6700e-003		256.9158
Total	**0.1091**	**0.0580**	**0.7866**	**2.5800e-003**	**0.2957**	**1.9500e-003**	**0.2977**	**0.0784**	**1.8000e-003**	**0.0802**		**256.7739**	**256.7739**	**5.6700e-003**		**256.9158**

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	1.5395	10.6281	11.6414	0.0332		0.3806	0.3806		0.3678	0.3678	0.0000	3,049.7431	3,049.7431	0.8085		3,069.9551
Total	**1.5395**	**10.6281**	**11.6414**	**0.0332**		**0.3806**	**0.3806**		**0.3678**	**0.3678**	**0.0000**	**3,049.7431**	**3,049.7431**	**0.8085**		**3,069.9551**

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	0.1091	0.0580	0.7866	2.5800e-003	0.2957	1.9500e-003	0.2977	0.0784	1.8000e-003	0.0802		256.7739	256.7739	5.6700e-003		256.9158
Total	**0.1091**	**0.0580**	**0.7866**	**2.5800e-003**	**0.2957**	**1.9500e-003**	**0.2977**	**0.0784**	**1.8000e-003**	**0.0802**		**256.7739**	**256.7739**	**5.6700e-003**		**256.9158**

Ventura Water Pure_ASR&CDF_20180522 - Ventura County APCD Air District, Winter

Ventura Water Pure_ASR&CDF_20180522

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment -

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.9765	13.4492	12.8001	0.0357	0.2957	0.5207	0.8164	0.0784	0.5028	0.5812	0.0000	3,305.4070	3,305.4070	0.8301	0.0000	3,326.1592
2022	1.7822	11.4229	12.5600	0.0357	0.2957	0.4340	0.7297	0.0784	0.4197	0.4982	0.0000	3,299.3504	3,299.3504	0.8219	0.0000	3,319.8967
2023	1.6639	10.6961	12.4036	0.0356	0.2957	0.3826	0.6783	0.0784	0.3696	0.4481	0.0000	3,294.0898	3,294.0898	0.8139	0.0000	3,314.4379
Maximum	**1.9765**	**13.4492**	**12.8001**	**0.0357**	**0.2957**	**0.5207**	**0.8164**	**0.0784**	**0.5028**	**0.5812**	**0.0000**	**3,305.4070**	**3,305.4070**	**0.8301**	**0.0000**	**3,326.1592**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.9765	13.4492	12.8001	0.0357	0.2957	0.5207	0.8164	0.0784	0.5028	0.5812	0.0000	3,305.4069	3,305.4069	0.8301	0.0000	3,326.1592
2022	1.7822	11.4229	12.5600	0.0357	0.2957	0.4340	0.7297	0.0784	0.4197	0.4982	0.0000	3,299.3504	3,299.3504	0.8219	0.0000	3,319.8967
2023	1.6639	10.6961	12.4036	0.0356	0.2957	0.3826	0.6783	0.0784	0.3696	0.4481	0.0000	3,294.0898	3,294.0898	0.8139	0.0000	3,314.4379
Maximum	**1.9765**	**13.4492**	**12.8001**	**0.0357**	**0.2957**	**0.5207**	**0.8164**	**0.0784**	**0.5028**	**0.5812**	**0.0000**	**3,305.4069**	**3,305.4069**	**0.8301**	**0.0000**	**3,326.1592**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2021	12/28/2023	6	936	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Bore/Drill Rigs	4	8.00	231	0.29
Building Construction	Welders	4	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
Building Construction	8	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Building Construction - 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	1.8367	13.3657	11.9046	0.0331		0.5187	0.5187		0.5009	0.5009		3,041.6416	3,041.6416	0.8234		3,062.2262
Total	**1.8367**	**13.3657**	**11.9046**	**0.0331**		**0.5187**	**0.5187**		**0.5009**	**0.5009**		**3,041.6416**	**3,041.6416**	**0.8234**		**3,062.2262**

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	0.1399	0.0834	0.8955	2.6500e-003	0.2957	2.0500e-003	0.2978	0.0784	1.8900e-003	0.0803		263.7653	263.7653	6.7100e-003		263.9330
Total	**0.1399**	**0.0834**	**0.8955**	**2.6500e-003**	**0.2957**	**2.0500e-003**	**0.2978**	**0.0784**	**1.8900e-003**	**0.0803**		**263.7653**	**263.7653**	**6.7100e-003**		**263.9330**

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	1.8367	13.3657	11.9046	0.0331		0.5187	0.5187		0.5009	0.5009	0.0000	3,041.6416	3,041.6416	0.8234		3,062.2262
Total	**1.8367**	**13.3657**	**11.9046**	**0.0331**		**0.5187**	**0.5187**		**0.5009**	**0.5009**	**0.0000**	**3,041.6416**	**3,041.6416**	**0.8234**		**3,062.2262**

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	0.1399	0.0834	0.8955	2.6500e-003	0.2957	2.0500e-003	0.2978	0.0784	1.8900e-003	0.0803		263.7653	263.7653	6.7100e-003		263.9330
Total	**0.1399**	**0.0834**	**0.8955**	**2.6500e-003**	**0.2957**	**2.0500e-003**	**0.2978**	**0.0784**	**1.8900e-003**	**0.0803**		**263.7653**	**263.7653**	**6.7100e-003**		**263.9330**

3.2 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6504	11.3476	11.7330	0.0331		0.4320	0.4320		0.4179	0.4179		3,045.2752	3,045.2752	0.8158		3,065.6702
Total	**1.6504**	**11.3476**	**11.7330**	**0.0331**		**0.4320**	**0.4320**		**0.4179**	**0.4179**		**3,045.2752**	**3,045.2752**	**0.8158**		**3,065.6702**

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	0.1318	0.0753	0.8269	2.5500e-003	0.2957	2.0000e-003	0.2977	0.0784	1.8400e-003	0.0803		254.0752	254.0752	6.0500e-003		254.2265
Total	**0.1318**	**0.0753**	**0.8269**	**2.5500e-003**	**0.2957**	**2.0000e-003**	**0.2977**	**0.0784**	**1.8400e-003**	**0.0803**		**254.0752**	**254.0752**	**6.0500e-003**		**254.2265**

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	1.6504	11.3476	11.7330	0.0331		0.4320	0.4320		0.4179	0.4179	0.0000	3,045.2752	3,045.2752	0.8158		3,065.6702
Total	**1.6504**	**11.3476**	**11.7330**	**0.0331**		**0.4320**	**0.4320**		**0.4179**	**0.4179**	**0.0000**	**3,045.2752**	**3,045.2752**	**0.8158**		**3,065.6702**

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	0.1318	0.0753	0.8269	2.5500e-003	0.2957	2.0000e-003	0.2977	0.0784	1.8400e-003	0.0803		254.0752	254.0752	6.0500e-003		254.2265
Total	**0.1318**	**0.0753**	**0.8269**	**2.5500e-003**	**0.2957**	**2.0000e-003**	**0.2977**	**0.0784**	**1.8400e-003**	**0.0803**		**254.0752**	**254.0752**	**6.0500e-003**		**254.2265**

3.2 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5395	10.6281	11.6414	0.0332		0.3806	0.3806		0.3678	0.3678		3,049.7431	3,049.7431	0.8085		3,069.9551
Total	**1.5395**	**10.6281**	**11.6414**	**0.0332**		**0.3806**	**0.3806**		**0.3678**	**0.3678**		**3,049.7431**	**3,049.7431**	**0.8085**		**3,069.9551**

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	0.1243	0.0680	0.7622	2.4500e-003	0.2957	1.9500e-003	0.2977	0.0784	1.8000e-003	0.0802		244.3467	244.3467	5.4500e-003		244.4828
Total	**0.1243**	**0.0680**	**0.7622**	**2.4500e-003**	**0.2957**	**1.9500e-003**	**0.2977**	**0.0784**	**1.8000e-003**	**0.0802**		**244.3467**	**244.3467**	**5.4500e-003**		**244.4828**

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	1.5395	10.6281	11.6414	0.0332		0.3806	0.3806		0.3678	0.3678	0.0000	3,049.7431	3,049.7431	0.8085		3,069.9551
Total	**1.5395**	**10.6281**	**11.6414**	**0.0332**		**0.3806**	**0.3806**		**0.3678**	**0.3678**	**0.0000**	**3,049.7431**	**3,049.7431**	**0.8085**		**3,069.9551**

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	0.1243	0.0680	0.7622	2.4500e-003	0.2957	1.9500e-003	0.2977	0.0784	1.8000e-003	0.0802		244.3467	244.3467	5.4500e-003		244.4828
Total	**0.1243**	**0.0680**	**0.7622**	**2.4500e-003**	**0.2957**	**1.9500e-003**	**0.2977**	**0.0784**	**1.8000e-003**	**0.0802**		**244.3467**	**244.3467**	**5.4500e-003**		**244.4828**

Ventura Water Pure_AWPF - Ventura County APCD Air District, Annual

Ventura Water Pure_AWPF

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment -

Trips and VMT - Project specific information.

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	110.00	194.00
tblConstructionPhase	NumDays	1,550.00	583.00
tblConstructionPhase	NumDays	155.00	228.00
tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDays	60.00	79.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3.83	0.00
tblEnergyUse	NT24E	1.61	21,284,346.00
tblEnergyUse	T24E	1.63	0.00
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72

tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00

tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblGrading	MaterialExported	0.00	53,560.00

tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00
tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	6,695.00	6,380.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,410.00
tblTripsAndVMT	VendorTripNumber	14.00	260.00
tblTripsAndVMT	WorkerTripNumber	36.00	667.00
tblTripsAndVMT	WorkerTripNumber	7.00	152.00
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	ST_TR	22.75	0.22
tblVehicleTrips	ST_TR	1.32	0.17

tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	256,000.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4119	4.7203	2.6627	5.9900e-003	1.3974	0.2027	1.6001	0.6154	0.1865	0.8019	0.0000	539.7036	539.7036	0.1460	0.0000	543.3543
2021	0.5423	5.9914	3.7618	8.3700e-003	0.7448	0.2549	0.9996	0.2548	0.2346	0.4894	0.0000	750.4157	750.4157	0.2088	0.0000	755.6368
2022	0.7047	6.3611	5.8472	0.0215	1.0812	0.1435	1.2247	0.2931	0.1349	0.4280	0.0000	2,000.0314	2,000.0314	0.1811	0.0000	2,004.5593
2023	1.6610	5.0622	5.7451	0.0210	1.1331	0.1200	1.2530	0.3065	0.1131	0.4196	0.0000	1,950.7993	1,950.7993	0.1649	0.0000	1,954.9226
Maximum	**1.6610**	**6.3611**	**5.8472**	**0.0215**	**1.3974**	**0.2549**	**1.6001**	**0.6154**	**0.2346**	**0.8019**	**0.0000**	**2,000.0314**	**2,000.0314**	**0.2088**	**0.0000**	**2,004.5593**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4119	4.7203	2.6627	5.9900e-003	0.5826	0.2027	0.7853	0.2499	0.1865	0.4364	0.0000	539.7031	539.7031	0.1460	0.0000	543.3538
2021	0.5423	5.9914	3.7618	8.3700e-003	0.3322	0.2549	0.5871	0.1104	0.2346	0.3449	0.0000	750.4150	750.4150	0.2088	0.0000	755.6360
2022	0.7047	6.3611	5.8472	0.0215	1.0812	0.1435	1.2247	0.2931	0.1349	0.4280	0.0000	2,000.0310	2,000.0310	0.1811	0.0000	2,004.5589
2023	1.6610	5.0622	5.7451	0.0210	1.1331	0.1200	1.2530	0.3065	0.1131	0.4196	0.0000	1,950.7989	1,950.7989	0.1649	0.0000	1,954.9221
Maximum	**1.6610**	**6.3611**	**5.8472**	**0.0215**	**1.1331**	**0.2549**	**1.2530**	**0.3065**	**0.2346**	**0.4364**	**0.0000**	**2,000.0310**	**2,000.0310**	**0.2088**	**0.0000**	**2,004.5589**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**28.17**	**0.00**	**24.17**	**34.70**	**0.00**	**23.84**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2020**	**8-31-2020**	1.8373	1.8373
2	**9-1-2020**	**11-30-2020**	2.4405	2.4405
3	**12-1-2020**	**2-28-2021**	2.2955	2.2955
4	**3-1-2021**	**5-31-2021**	2.2002	2.2002
5	**6-1-2021**	**8-31-2021**	1.2323	1.2323
6	**9-1-2021**	**11-30-2021**	1.2192	1.2192
7	**12-1-2021**	**2-28-2022**	1.4538	1.4538
8	**3-1-2022**	**5-31-2022**	1.8003	1.8003
9	**6-1-2022**	**8-31-2022**	1.7938	1.7938
10	**9-1-2022**	**11-30-2022**	1.7870	1.7870
11	**12-1-2022**	**2-28-2023**	1.5805	1.5805
12	**3-1-2023**	**5-31-2023**	1.5690	1.5690
13	**6-1-2023**	**8-31-2023**	1.9737	1.9737

14	**9-1-2023**	**9-30-2023**	0.6436	0.6436
		Highest	2.4405	2.4405

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2020	8/31/2020	6	79	
2	Grading	Grading	9/1/2020	5/24/2021	6	228	
3	Trenching	Trenching	5/25/2021	1/14/2022	6	202	
4	Building Construction	Building Construction	1/15/2022	11/25/2023	6	583	
5	Architectural Coating	Architectural Coating	5/19/2023	12/30/2023	6	194	
6	Paving	Paving	12/8/2023	12/30/2023	6	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 570

Acres of Paving: 31.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 124,440; Non-Residential Outdoor: 41,480; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	3	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	6,380.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	667.00	260.00	1,410.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	152.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 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					0.7136	0.0000	0.7136	0.3923	0.0000	0.3923	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1610	1.6755	0.8498	1.5000e-003		0.0868	0.0868		0.0799	0.0799	0.0000	132.0512	132.0512	0.0427	0.0000	133.1189
Total	**0.1610**	**1.6755**	**0.8498**	**1.5000e-003**	**0.7136**	**0.0868**	**0.8004**	**0.3923**	**0.0799**	**0.4721**	**0.0000**	**132.0512**	**132.0512**	**0.0427**	**0.0000**	**133.1189**

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	2.6200e-003	1.7700e-003	0.0190	5.0000e-005	5.7300e-003	4.0000e-005	5.7700e-003	1.5200e-003	4.0000e-005	1.5600e-003	0.0000	4.9117	4.9117	1.3000e-004	0.0000	4.9150
Total	**2.6200e-003**	**1.7700e-003**	**0.0190**	**5.0000e-005**	**5.7300e-003**	**4.0000e-005**	**5.7700e-003**	**1.5200e-003**	**4.0000e-005**	**1.5600e-003**	**0.0000**	**4.9117**	**4.9117**	**1.3000e-004**	**0.0000**	**4.9150**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					0.2783	0.0000	0.2783	0.1530	0.0000	0.1530	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1610	1.6755	0.8498	1.5000e-003		0.0868	0.0868		0.0799	0.0799	0.0000	132.0510	132.0510	0.0427	0.0000	133.1187
Total	**0.1610**	**1.6755**	**0.8498**	**1.5000e-003**	**0.2783**	**0.0868**	**0.3651**	**0.1530**	**0.0799**	**0.2328**	**0.0000**	**132.0510**	**132.0510**	**0.0427**	**0.0000**	**133.1187**

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	2.6200e-003	1.7700e-003	0.0190	5.0000e-005	5.7300e-003	4.0000e-005	5.7700e-003	1.5200e-003	4.0000e-005	1.5600e-003	0.0000	4.9117	4.9117	1.3000e-004	0.0000	4.9150
Total	**2.6200e-003**	**1.7700e-003**	**0.0190**	**5.0000e-005**	**5.7300e-003**	**4.0000e-005**	**5.7700e-003**	**1.5200e-003**	**4.0000e-005**	**1.5600e-003**	**0.0000**	**4.9117**	**4.9117**	**1.3000e-004**	**0.0000**	**4.9150**

3.3 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					0.6222	0.0000	0.6222	0.2070	0.0000	0.2070	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2336	2.6354	1.6778	3.2600e-003		0.1141	0.1141		0.1050	0.1050	0.0000	286.0425	286.0425	0.0925	0.0000	288.3553

Total	**0.2336**	**2.6354**	**1.6778**	**3.2600e-003**	**0.6222**	**0.1141**	**0.7363**	**0.2070**	**0.1050**	**0.3120**	**0.0000**	**286.0425**	**286.0425**	**0.0925**	**0.0000**	**288.3553**

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	0.0107	0.4050	0.0880	1.1000e-003	0.0475	1.6600e-003	0.0491	0.0124	1.5900e-003	0.0140	0.0000	109.4446	109.4446	0.0105	0.0000	109.7065
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8700e-003	2.6100e-003	0.0280	8.0000e-005	8.4700e-003	6.0000e-005	8.5300e-003	2.2500e-003	6.0000e-005	2.3000e-003	0.0000	7.2536	7.2536	2.0000e-004	0.0000	7.2585
Total	**0.0146**	**0.4076**	**0.1161**	**1.1800e-003**	**0.0559**	**1.7200e-003**	**0.0576**	**0.0146**	**1.6500e-003**	**0.0163**	**0.0000**	**116.6982**	**116.6982**	**0.0107**	**0.0000**	**116.9650**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2426	0.0000	0.2426	0.0807	0.0000	0.0807	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2336	2.6354	1.6778	3.2600e-003		0.1141	0.1141		0.1050	0.1050	0.0000	286.0422	286.0422	0.0925	0.0000	288.3550
Total	**0.2336**	**2.6354**	**1.6778**	**3.2600e-003**	**0.2426**	**0.1141**	**0.3568**	**0.0807**	**0.1050**	**0.1857**	**0.0000**	**286.0422**	**286.0422**	**0.0925**	**0.0000**	**288.3550**

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	0.0107	0.4050	0.0880	1.1000e-003	0.0475	1.6600e-003	0.0491	0.0124	1.5900e-003	0.0140	0.0000	109.4446	109.4446	0.0105	0.0000	109.7065
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8700e-003	2.6100e-003	0.0280	8.0000e-005	8.4700e-003	6.0000e-005	8.5300e-003	2.2500e-003	6.0000e-005	2.3000e-003	0.0000	7.2536	7.2536	2.0000e-004	0.0000	7.2585
Total	**0.0146**	**0.4076**	**0.1161**	**1.1800e-003**	**0.0559**	**1.7200e-003**	**0.0576**	**0.0146**	**1.6500e-003**	**0.0163**	**0.0000**	**116.6982**	**116.6982**	**0.0107**	**0.0000**	**116.9650**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6764	0.0000	0.6764	0.2368	0.0000	0.2368	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2578	2.8536	1.8990	3.8100e-003		0.1221	0.1221		0.1123	0.1123	0.0000	335.1441	335.1441	0.1084	0.0000	337.8540
Total	**0.2578**	**2.8536**	**1.8990**	**3.8100e-003**	**0.6764**	**0.1221**	**0.7985**	**0.2368**	**0.1123**	**0.3491**	**0.0000**	**335.1441**	**335.1441**	**0.1084**	**0.0000**	**337.8540**

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	0.0119	0.4340	0.1025	1.2800e-003	0.0485	1.7200e-003	0.0502	0.0128	1.6400e-003	0.0144	0.0000	126.8244	126.8244	0.0121	0.0000	127.1264
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	4.2500e-003	2.7500e-003	0.0303	9.0000e-005	9.9200e-003	7.0000e-005	9.9900e-003	2.6300e-003	6.0000e-005	2.7000e-003	0.0000	8.2418	8.2418	2.1000e-004	0.0000	8.2470
Total	**0.0161**	**0.4368**	**0.1328**	**1.3700e-003**	**0.0584**	**1.7900e-003**	**0.0602**	**0.0154**	**1.7000e-003**	**0.0171**	**0.0000**	**135.0662**	**135.0662**	**0.0123**	**0.0000**	**135.3735**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2638	0.0000	0.2638	0.0924	0.0000	0.0924	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2578	2.8536	1.8990	3.8100e-003		0.1221	0.1221		0.1123	0.1123	0.0000	335.1437	335.1437	0.1084	0.0000	337.8535
Total	**0.2578**	**2.8536**	**1.8990**	**3.8100e-003**	**0.2638**	**0.1221**	**0.3859**	**0.0924**	**0.1123**	**0.2047**	**0.0000**	**335.1437**	**335.1437**	**0.1084**	**0.0000**	**337.8535**

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	0.0119	0.4340	0.1025	1.2800e-003	0.0485	1.7200e-003	0.0502	0.0128	1.6400e-003	0.0144	0.0000	126.8244	126.8244	0.0121	0.0000	127.1264
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	4.2500e-003	2.7500e-003	0.0303	9.0000e-005	9.9200e-003	7.0000e-005	9.9900e-003	2.6300e-003	6.0000e-005	2.7000e-003	0.0000	8.2418	8.2418	2.1000e-004	0.0000	8.2470

Total	**0.0161**	**0.4368**	**0.1328**	**1.3700e-003**	**0.0584**	**1.7900e-003**	**0.0602**	**0.0154**	**1.7000e-003**	**0.0171**	**0.0000**	**135.0662**	**135.0662**	**0.0123**	**0.0000**	**135.3735**

3.4 Trenching - 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	0.2641	2.6983	1.6996	3.0900e-003		0.1309	0.1309		0.1205	0.1205	0.0000	271.9301	271.9301	0.0880	0.0000	274.1288
Total	**0.2641**	**2.6983**	**1.6996**	**3.0900e-003**		**0.1309**	**0.1309**		**0.1205**	**0.1205**	**0.0000**	**271.9301**	**271.9301**	**0.0880**	**0.0000**	**274.1288**

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	4.2700e-003	2.7700e-003	0.0304	9.0000e-005	9.9600e-003	7.0000e-005	0.0100	2.6500e-003	6.0000e-005	2.7100e-003	0.0000	8.2753	8.2753	2.1000e-004	0.0000	8.2806
Total	**4.2700e-003**	**2.7700e-003**	**0.0304**	**9.0000e-005**	**9.9600e-003**	**7.0000e-005**	**0.0100**	**2.6500e-003**	**6.0000e-005**	**2.7100e-003**	**0.0000**	**8.2753**	**8.2753**	**2.1000e-004**	**0.0000**	**8.2806**

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	0.2641	2.6983	1.6996	3.0900e-003		0.1309	0.1309		0.1205	0.1205	0.0000	271.9298	271.9298	0.0880	0.0000	274.1285
Total	**0.2641**	**2.6983**	**1.6996**	**3.0900e-003**		**0.1309**	**0.1309**		**0.1205**	**0.1205**	**0.0000**	**271.9298**	**271.9298**	**0.0880**	**0.0000**	**274.1285**

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	4.2700e-003	2.7700e-003	0.0304	9.0000e-005	9.9600e-003	7.0000e-005	0.0100	2.6500e-003	6.0000e-005	2.7100e-003	0.0000	8.2753	8.2753	2.1000e-004	0.0000	8.2806
Total	**4.2700e-003**	**2.7700e-003**	**0.0304**	**9.0000e-005**	**9.9600e-003**	**7.0000e-005**	**0.0100**	**2.6500e-003**	**6.0000e-005**	**2.7100e-003**	**0.0000**	**8.2753**	**8.2753**	**2.1000e-004**	**0.0000**	**8.2806**

3.4 Trenching - 2022

Unmitigated Construction On-Site

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

Off-Road	0.0137	0.1375	0.1016	2.0000e-004		6.5500e-003	6.5500e-003		6.0300e-003	6.0300e-003	0.0000	17.1682	17.1682	5.5500e-003	0.0000	17.3070
Total	**0.0137**	**0.1375**	**0.1016**	**2.0000e-004**		**6.5500e-003**	**6.5500e-003**		**6.0300e-003**	**6.0300e-003**	**0.0000**	**17.1682**	**17.1682**	**5.5500e-003**	**0.0000**	**17.3070**

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	2.5000e-004	1.6000e-004	1.7800e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5035	0.5035	1.0000e-005	0.0000	0.5038
Total	**2.5000e-004**	**1.6000e-004**	**1.7800e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5035**	**0.5035**	**1.0000e-005**	**0.0000**	**0.5038**

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	0.0137	0.1375	0.1016	2.0000e-004		6.5500e-003	6.5500e-003		6.0300e-003	6.0300e-003	0.0000	17.1682	17.1682	5.5500e-003	0.0000	17.3070
Total	**0.0137**	**0.1375**	**0.1016**	**2.0000e-004**		**6.5500e-003**	**6.5500e-003**		**6.0300e-003**	**6.0300e-003**	**0.0000**	**17.1682**	**17.1682**	**5.5500e-003**	**0.0000**	**17.3070**

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	2.5000e-004	1.6000e-004	1.7800e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5035	0.5035	1.0000e-005	0.0000	0.5038
Total	**2.5000e-004**	**1.6000e-004**	**1.7800e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5035**	**0.5035**	**1.0000e-005**	**0.0000**	**0.5038**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2568	2.3502	2.4627	4.0500e-003		0.1218	0.1218		0.1146	0.1146	0.0000	348.7465	348.7465	0.0836	0.0000	350.8352
Total	**0.2568**	**2.3502**	**2.4627**	**4.0500e-003**		**0.1218**	**0.1218**		**0.1146**	**0.1146**	**0.0000**	**348.7465**	**348.7465**	**0.0836**	**0.0000**	**350.8352**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3600e-003	0.0833	0.0217	2.7000e-004	0.0107	3.1000e-004	0.0110	2.7900e-003	3.0000e-004	3.0900e-003	0.0000	26.4706	26.4706	2.5100e-003	0.0000	26.5335
Vendor	0.1049	3.5871	0.9743	9.8100e-003	0.2605	9.3100e-003	0.2699	0.0752	8.9000e-003	0.0841	0.0000	959.2209	959.2209	0.0741	0.0000	961.0737
Worker	0.3267	0.2029	2.2852	7.1700e-003	0.8094	5.5700e-003	0.8150	0.2150	5.1300e-003	0.2201	0.0000	647.9217	647.9217	0.0154	0.0000	648.3062
Total	**0.4340**	**3.8733**	**3.2811**	**0.0173**	**1.0806**	**0.0152**	**1.0958**	**0.2929**	**0.0143**	**0.3073**	**0.0000**	**1,633.6132**	**1,633.6132**	**0.0920**	**0.0000**	**1,635.9133**

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	0.2568	2.3502	2.4627	4.0500e-003		0.1218	0.1218		0.1146	0.1146	0.0000	348.7461	348.7461	0.0836	0.0000	350.8348
Total	**0.2568**	**2.3502**	**2.4627**	**4.0500e-003**		**0.1218**	**0.1218**		**0.1146**	**0.1146**	**0.0000**	**348.7461**	**348.7461**	**0.0836**	**0.0000**	**350.8348**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3600e-003	0.0833	0.0217	2.7000e-004	0.0107	3.1000e-004	0.0110	2.7900e-003	3.0000e-004	3.0900e-003	0.0000	26.4706	26.4706	2.5100e-003	0.0000	26.5335

Vendor	0.1049	3.5871	0.9743	9.8100e-003	0.2605	9.3100e-003	0.2699	0.0752	8.9000e-003	0.0841	0.0000	959.2209	959.2209	0.0741	0.0000	961.0737
Worker	0.3267	0.2029	2.2852	7.1700e-003	0.8094	5.5700e-003	0.8150	0.2150	5.1300e-003	0.2201	0.0000	647.9217	647.9217	0.0154	0.0000	648.3062
Total	**0.4340**	**3.8733**	**3.2811**	**0.0173**	**1.0806**	**0.0152**	**1.0958**	**0.2929**	**0.0143**	**0.3073**	**0.0000**	**1,633.6132**	**1,633.6132**	**0.0920**	**0.0000**	**1,635.9133**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0283	2.2904	3.8000e-003		0.0987	0.0987		0.0928	0.0928	0.0000	326.8447	326.8447	0.0778	0.0000	328.7885
Total	**0.2218**	**2.0283**	**2.2904**	**3.8000e-003**		**0.0987**	**0.0987**		**0.0928**	**0.0928**	**0.0000**	**326.8447**	**326.8447**	**0.0778**	**0.0000**	**328.7885**

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	1.5000e-003	0.0510	0.0189	2.4000e-004	0.0106	1.0000e-004	0.0107	2.7600e-003	1.0000e-004	2.8600e-003	0.0000	24.0182	24.0182	2.2200e-003	0.0000	24.0736
Vendor	0.0730	2.5557	0.8265	8.9700e-003	0.2441	3.3000e-003	0.2474	0.0704	3.1600e-003	0.0736	0.0000	878.9141	878.9141	0.0620	0.0000	880.4634
Worker	0.2882	0.1717	1.9750	6.4500e-003	0.7583	5.1000e-003	0.7634	0.2014	4.7000e-003	0.2061	0.0000	583.7775	583.7775	0.0130	0.0000	584.1019
Total	**0.3627**	**2.7784**	**2.8204**	**0.0157**	**1.0130**	**8.5000e-003**	**1.0215**	**0.2746**	**7.9600e-003**	**0.2826**	**0.0000**	**1,486.7098**	**1,486.7098**	**0.0772**	**0.0000**	**1,488.6389**

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	0.2218	2.0283	2.2904	3.8000e-003		0.0987	0.0987		0.0928	0.0928	0.0000	326.8443	326.8443	0.0778	0.0000	328.7881
Total	**0.2218**	**2.0283**	**2.2904**	**3.8000e-003**		**0.0987**	**0.0987**		**0.0928**	**0.0928**	**0.0000**	**326.8443**	**326.8443**	**0.0778**	**0.0000**	**328.7881**

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	1.5000e-003	0.0510	0.0189	2.4000e-004	0.0106	1.0000e-004	0.0107	2.7600e-003	1.0000e-004	2.8600e-003	0.0000	24.0182	24.0182	2.2200e-003	0.0000	24.0736
Vendor	0.0730	2.5557	0.8265	8.9700e-003	0.2441	3.3000e-003	0.2474	0.0704	3.1600e-003	0.0736	0.0000	878.9141	878.9141	0.0620	0.0000	880.4634
Worker	0.2882	0.1717	1.9750	6.4500e-003	0.7583	5.1000e-003	0.7634	0.2014	4.7000e-003	0.2061	0.0000	583.7775	583.7775	0.0130	0.0000	584.1019
Total	**0.3627**	**2.7784**	**2.8204**	**0.0157**	**1.0130**	**8.5000e-003**	**1.0215**	**0.2746**	**7.9600e-003**	**0.2826**	**0.0000**	**1,486.7098**	**1,486.7098**	**0.0772**	**0.0000**	**1,488.6389**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9613					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0186	0.1264	0.1757	2.9000e-004		6.8700e-003	6.8700e-003		6.8700e-003	6.8700e-003	0.0000	24.7666	24.7666	1.4800e-003	0.0000	24.8036
Total	**0.9799**	**0.1264**	**0.1757**	**2.9000e-004**		**6.8700e-003**	**6.8700e-003**		**6.8700e-003**	**6.8700e-003**	**0.0000**	**24.7666**	**24.7666**	**1.4800e-003**	**0.0000**	**24.8036**

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	0.0452	0.0269	0.3096	1.0100e-003	0.1189	8.0000e-004	0.1197	0.0316	7.4000e-004	0.0323	0.0000	91.5204	91.5204	2.0300e-003	0.0000	91.5712
Total	**0.0452**	**0.0269**	**0.3096**	**1.0100e-003**	**0.1189**	**8.0000e-004**	**0.1197**	**0.0316**	**7.4000e-004**	**0.0323**	**0.0000**	**91.5204**	**91.5204**	**2.0300e-003**	**0.0000**	**91.5712**

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	0.9613					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0186	0.1264	0.1757	2.9000e-004		6.8700e-003	6.8700e-003		6.8700e-003	6.8700e-003	0.0000	24.7665	24.7665	1.4800e-003	0.0000	24.8036
Total	**0.9799**	**0.1264**	**0.1757**	**2.9000e-004**		**6.8700e-003**	**6.8700e-003**		**6.8700e-003**	**6.8700e-003**	**0.0000**	**24.7665**	**24.7665**	**1.4800e-003**	**0.0000**	**24.8036**

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	0.0452	0.0269	0.3096	1.0100e-003	0.1189	8.0000e-004	0.1197	0.0316	7.4000e-004	0.0323	0.0000	91.5204	91.5204	2.0300e-003	0.0000	91.5712
Total	**0.0452**	**0.0269**	**0.3096**	**1.0100e-003**	**0.1189**	**8.0000e-004**	**0.1197**	**0.0316**	**7.4000e-004**	**0.0323**	**0.0000**	**91.5204**	**91.5204**	**2.0300e-003**	**0.0000**	**91.5712**

3.7 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	0.0407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0510**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

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	4.6000e-004	2.7000e-004	3.1500e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9311	0.9311	2.0000e-005	0.0000	0.9316
Total	**4.6000e-004**	**2.7000e-004**	**3.1500e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9311**	**0.9311**	**2.0000e-005**	**0.0000**	**0.9316**

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	0.0407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0510**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

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	4.6000e-004	2.7000e-004	3.1500e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9311	0.9311	2.0000e-005	0.0000	0.9316
Total	**4.6000e-004**	**2.7000e-004**	**3.1500e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9311**	**0.9311**	**2.0000e-005**	**0.0000**	**0.9316**

Ventura Water Pure_AWPF - Ventura County APCD Air District, Summer

Ventura Water Pure_AWPF

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment -

Trips and VMT - Project specific information.

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	60.00	79.00
tblConstructionPhase	NumDays	155.00	228.00
tblConstructionPhase	NumDays	1,550.00	583.00
tblConstructionPhase	NumDays	110.00	194.00
tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3.83	0.00
tblEnergyUse	NT24E	1.61	21,284,346.00
tblEnergyUse	T24E	1.63	0.00
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72

tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00

tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblGrading	MaterialExported	0.00	53,560.00

tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00
tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	6,695.00	6,380.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,410.00
tblTripsAndVMT	VendorTripNumber	14.00	260.00
tblTripsAndVMT	WorkerTripNumber	36.00	667.00
tblTripsAndVMT	WorkerTripNumber	7.00	152.00
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	ST_TR	22.75	0.22
tblVehicleTrips	ST_TR	1.32	0.17

tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	256,000.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.7243	57.7768	34.1372	0.0848	18.2141	2.2064	20.4126	9.9699	2.0310	11.9925	0.0000	8,477.9618	8,477.9618	2.1634	0.0000	8,532.0468
2021	4.4500	53.3403	33.0080	0.0845	9.6740	2.0140	11.6880	3.8561	1.8539	5.7100	0.0000	8,449.5587	8,449.5587	2.1602	0.0000	8,503.5635
2022	4.5487	40.9470	38.3697	0.1442	7.3091	1.0932	8.2175	1.9781	1.0058	2.8330	0.0000	14,795.9359	14,795.9359	1.2752	0.0000	14,827.8168
2023	15.7070	35.3871	41.6414	0.1545	8.5621	0.8385	9.4006	2.3104	0.7927	3.1030	0.0000	15,811.0977	15,811.0977	1.2442	0.0000	15,842.2015
Maximum	**15.7070**	**57.7768**	**41.6414**	**0.1545**	**18.2141**	**2.2064**	**20.4126**	**9.9699**	**2.0310**	**11.9925**	**0.0000**	**15,811.0977**	**15,811.0977**	**2.1634**	**0.0000**	**15,842.2015**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.7243	57.7768	34.1372	0.0848	7.1937	2.2064	9.3922	3.9122	2.0310	5.9348	0.0000	8,477.9618	8,477.9618	2.1634	0.0000	8,532.0468
2021	4.4500	53.3403	33.0080	0.0845	4.3631	2.0140	6.3771	1.6592	1.8539	3.5131	0.0000	8,449.5587	8,449.5587	2.1602	0.0000	8,503.5635
2022	4.5487	40.9470	38.3697	0.1442	7.3091	1.0932	8.2175	1.9781	1.0058	2.8330	0.0000	14,795.9359	14,795.9359	1.2752	0.0000	14,827.8168
2023	15.7070	35.3871	41.6414	0.1545	8.5621	0.8385	9.4006	2.3104	0.7927	3.1030	0.0000	15,811.0977	15,811.0977	1.2442	0.0000	15,842.2014
Maximum	**15.7070**	**57.7768**	**41.6414**	**0.1545**	**8.5621**	**2.2064**	**9.4006**	**3.9122**	**2.0310**	**5.9348**	**0.0000**	**15,811.0977**	**15,811.0977**	**2.1634**	**0.0000**	**15,842.2014**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**37.32**	**0.00**	**32.85**	**45.57**	**0.00**	**34.92**	**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	Site Preparation	Site Preparation	6/1/2020	8/31/2020	6	79	
2	Grading	Grading	9/1/2020	5/24/2021	6	228	
3	Trenching	Trenching	5/25/2021	1/14/2022	6	202	
4	Building Construction	Building Construction	1/15/2022	11/25/2023	6	583	
5	Architectural Coating	Architectural Coating	5/19/2023	12/30/2023	6	194	
6	Paving	Paving	12/8/2023	12/30/2023	6	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 570

Acres of Paving: 31.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 124,440; Non-Residential Outdoor: 41,480; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	3	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	6,380.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Trenching	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	667.00	260.00	1,410.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	152.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	0.0658	0.0395	0.4974	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.8868	142.8868	3.8100e-003		142.9822
Total	**0.0658**	**0.0395**	**0.4974**	**1.4300e-003**	**0.1479**	**1.0400e-003**	**0.1489**	**0.0392**	**9.6000e-004**	**0.0402**		**142.8868**	**142.8868**	**3.8100e-003**		**142.9822**

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	0.0658	0.0395	0.4974	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.8868	142.8868	3.8100e-003		142.9822
Total	**0.0658**	**0.0395**	**0.4974**	**1.4300e-003**	**0.1479**	**1.0400e-003**	**0.1489**	**0.0392**	**9.6000e-004**	**0.0402**		**142.8868**	**142.8868**	**3.8100e-003**		**142.9822**

3.3 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					8.7064	0.0000	8.7064	3.6015	0.0000	3.6015			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.7064**	**2.1739**	**10.8803**	**3.6015**	**2.0000**	**5.6015**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.2011	7.5354	1.6262	0.0212	0.9208	0.0313	0.9521	0.2398	0.0300	0.2698		2,313.3334	2,313.3334	0.2167		2,318.7520
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	0.0731	0.0439	0.5527	1.5900e-003	0.1643	1.1600e-003	0.1655	0.0436	1.0700e-003	0.0447		158.7632	158.7632	4.2400e-003		158.8691
Total	**0.2742**	**7.5793**	**2.1789**	**0.0228**	**1.0851**	**0.0325**	**1.1176**	**0.2834**	**0.0310**	**0.3144**		**2,472.0965**	**2,472.0965**	**0.2210**		**2,477.6211**

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					3.3955	0.0000	3.3955	1.4046	0.0000	1.4046			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**3.3955**	**2.1739**	**5.5694**	**1.4046**	**2.0000**	**3.4046**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.2011	7.5354	1.6262	0.0212	0.9208	0.0313	0.9521	0.2398	0.0300	0.2698		2,313.3334	2,313.3334	0.2167		2,318.7520
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	0.0731	0.0439	0.5527	1.5900e-003	0.1643	1.1600e-003	0.1655	0.0436	1.0700e-003	0.0447		158.7632	158.7632	4.2400e-003		158.8691
Total	**0.2742**	**7.5793**	**2.1789**	**0.0228**	**1.0851**	**0.0325**	**1.1176**	**0.2834**	**0.0310**	**0.3144**		**2,472.0965**	**2,472.0965**	**0.2210**		**2,477.6211**

3.3 Grading - 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					
Fugitive Dust					8.7064	0.0000	8.7064	3.6015	0.0000	3.6015			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134

Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.7064**	**1.9853**	**10.6917**	**3.6015**	**1.8265**	**5.4280**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.1903	6.9009	1.6187	0.0209	0.8033	0.0276	0.8309	0.2110	0.0264	0.2374		2,288.5174	2,288.5174	0.2135		2,293.8557
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	0.0685	0.0396	0.5108	1.5500e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		153.9978	153.9978	3.8600e-003		154.0944
Total	**0.2588**	**6.9404**	**2.1295**	**0.0224**	**0.9676**	**0.0287**	**0.9963**	**0.2546**	**0.0274**	**0.2820**		**2,442.5153**	**2,442.5153**	**0.2174**		**2,447.9501**

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					3.3955	0.0000	3.3955	1.4046	0.0000	1.4046			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**3.3955**	**1.9853**	**5.3808**	**1.4046**	**1.8265**	**3.2311**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.1903	6.9009	1.6187	0.0209	0.8033	0.0276	0.8309	0.2110	0.0264	0.2374		2,288.5174	2,288.5174	0.2135		2,293.8557
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	0.0685	0.0396	0.5108	1.5500e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		153.9978	153.9978	3.8600e-003		154.0944
Total	**0.2588**	**6.9404**	**2.1295**	**0.0224**	**0.9676**	**0.0287**	**0.9963**	**0.2546**	**0.0274**	**0.2820**		**2,442.5153**	**2,442.5153**	**0.2174**		**2,447.9501**

3.4 Trenching - 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	2.7803	28.4028	17.8910	0.0326		1.3782	1.3782		1.2680	1.2680		3,155.2803	3,155.2803	1.0205		3,180.7923
Total	**2.7803**	**28.4028**	**17.8910**	**0.0326**		**1.3782**	**1.3782**		**1.2680**	**1.2680**		**3,155.2803**	**3,155.2803**	**1.0205**		**3,180.7923**

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	0.0445	0.0257	0.3320	1.0000e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		100.0986	100.0986	2.5100e-003		100.1614
Total	**0.0445**	**0.0257**	**0.3320**	**1.0000e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**100.0986**	**100.0986**	**2.5100e-003**		**100.1614**

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	2.7803	28.4028	17.8910	0.0326		1.3782	1.3782		1.2680	1.2680	0.0000	3,155.2803	3,155.2803	1.0205		3,180.7923
Total	**2.7803**	**28.4028**	**17.8910**	**0.0326**		**1.3782**	**1.3782**		**1.2680**	**1.2680**	**0.0000**	**3,155.2803**	**3,155.2803**	**1.0205**		**3,180.7923**

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	0.0445	0.0257	0.3320	1.0000e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		100.0986	100.0986	2.5100e-003		100.1614

Total	**0.0445**	**0.0257**	**0.3320**	**1.0000e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**100.0986**	**100.0986**	**2.5100e-003**		**100.1614**

3.4 Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2815	22.9182	16.9294	0.0326		1.0925	1.0925		1.0051	1.0051		3,154.1165	3,154.1165	1.0201		3,179.6192
Total	**2.2815**	**22.9182**	**16.9294**	**0.0326**		**1.0925**	**1.0925**		**1.0051**	**1.0051**		**3,154.1165**	**3,154.1165**	**1.0201**		**3,179.6192**

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	0.0419	0.0232	0.3073	9.7000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		96.4184	96.4184	2.2700e-003		96.4751
Total	**0.0419**	**0.0232**	**0.3073**	**9.7000e-004**	**0.1068**	**7.2000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**96.4184**	**96.4184**	**2.2700e-003**		**96.4751**

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	2.2815	22.9182	16.9294	0.0326		1.0925	1.0925		1.0051	1.0051	0.0000	3,154.1165	3,154.1165	1.0201		3,179.6192
Total	**2.2815**	**22.9182**	**16.9294**	**0.0326**		**1.0925**	**1.0925**		**1.0051**	**1.0051**	**0.0000**	**3,154.1165**	**3,154.1165**	**1.0201**		**3,179.6192**

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	0.0419	0.0232	0.3073	9.7000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		96.4184	96.4184	2.2700e-003		96.4751
Total	**0.0419**	**0.0232**	**0.3073**	**9.7000e-004**	**0.1068**	**7.2000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**96.4184**	**96.4184**	**2.2700e-003**		**96.4751**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0155	0.5418	0.1399	1.7800e-003	0.0721	2.0200e-003	0.0741	0.0189	1.9300e-003	0.0208		195.2037	195.2037	0.0182		195.6578
Vendor	0.6790	23.5993	6.0975	0.0659	1.7578	0.0603	1.8181	0.5058	0.0577	0.5635		7,099.3955	7,099.3955	0.5286		7,112.6100
Worker	2.1480	1.1903	15.7690	0.0496	5.4793	0.0370	5.5163	1.4534	0.0341	1.4875		4,947.0031	4,947.0031	0.1166		4,949.9168
Total	**2.8425**	**25.3314**	**22.0063**	**0.1173**	**7.3091**	**0.0994**	**7.4085**	**1.9781**	**0.0937**	**2.0718**		**12,241.6023**	**12,241.6023**	**0.6633**		**12,258.1846**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0155	0.5418	0.1399	1.7800e-003	0.0721	2.0200e-003	0.0741	0.0189	1.9300e-003	0.0208		195.2037	195.2037	0.0182		195.6578
Vendor	0.6790	23.5993	6.0975	0.0659	1.7578	0.0603	1.8181	0.5058	0.0577	0.5635		7,099.3955	7,099.3955	0.5286		7,112.6100
Worker	2.1480	1.1903	15.7690	0.0496	5.4793	0.0370	5.5163	1.4534	0.0341	1.4875		4,947.0031	4,947.0031	0.1166		4,949.9168
Total	**2.8425**	**25.3314**	**22.0063**	**0.1173**	**7.3091**	**0.0994**	**7.4085**	**1.9781**	**0.0937**	**2.0718**		**12,241.6023**	**12,241.6023**	**0.6633**		**12,258.1846**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.0105	0.3561	0.1312	1.7100e-003	0.0763	7.3000e-004	0.0770	0.0199	7.0000e-004	0.0206		189.0731	189.0731	0.0171		189.5016
Vendor	0.5035	18.0227	5.5603	0.0643	1.7579	0.0228	1.7807	0.5059	0.0218	0.5277		6,943.7598	6,943.7598	0.4733		6,955.5913
Worker	2.0213	1.0753	14.5737	0.0477	5.4793	0.0362	5.5154	1.4534	0.0333	1.4867		4,757.4502	4,757.4502	0.1051		4,760.0781
Total	**2.5353**	**19.4542**	**20.2652**	**0.1137**	**7.3135**	**0.0597**	**7.3732**	**1.9792**	**0.0558**	**2.0350**		**11,890.2831**	**11,890.2831**	**0.5955**		**11,905.1710**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.0105	0.3561	0.1312	1.7100e-003	0.0763	7.3000e-004	0.0770	0.0199	7.0000e-004	0.0206		189.0731	189.0731	0.0171		189.5016

Vendor	0.5035	18.0227	5.5603	0.0643	1.7579	0.0228	1.7807	0.5059	0.0218	0.5277		6,943.7598	6,943.7598	0.4733		6,955.5913
Worker	2.0213	1.0753	14.5737	0.0477	5.4793	0.0362	5.5154	1.4534	0.0333	1.4867		4,757.4502	4,757.4502	0.1051		4,760.0781
Total	**2.5353**	**19.4542**	**20.2652**	**0.1137**	**7.3135**	**0.0597**	**7.3732**	**1.9792**	**0.0558**	**2.0350**		**11,890.2831**	**11,890.2831**	**0.5955**		**11,905.1710**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**10.1020**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.4606	0.2451	3.3211	0.0109	1.2486	8.2400e-003	1.2569	0.3312	7.5900e-003	0.3388		1,084.1566	1,084.1566	0.0240		1,084.7554
Total	**0.4606**	**0.2451**	**3.3211**	**0.0109**	**1.2486**	**8.2400e-003**	**1.2569**	**0.3312**	**7.5900e-003**	**0.3388**		**1,084.1566**	**1,084.1566**	**0.0240**		**1,084.7554**

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	9.9103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**10.1020**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.4606	0.2451	3.3211	0.0109	1.2486	8.2400e-003	1.2569	0.3312	7.5900e-003	0.3388		1,084.1566	1,084.1566	0.0240		1,084.7554
Total	**0.4606**	**0.2451**	**3.3211**	**0.0109**	**1.2486**	**8.2400e-003**	**1.2569**	**0.3312**	**7.5900e-003**	**0.3388**		**1,084.1566**	**1,084.1566**	**0.0240**		**1,084.7554**

3.7 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	4.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0990**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0455**	**0.0242**	**0.3277**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.9891**	**106.9891**	**2.3600e-003**		**107.0482**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Paving	4.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0990**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0455**	**0.0242**	**0.3277**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.9891**	**106.9891**	**2.3600e-003**		**107.0482**

Ventura Water Pure_AWPF - Ventura County APCD Air District, Winter

Ventura Water Pure_AWPF

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment -

Trips and VMT - Project specific information.

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	60.00	79.00
tblConstructionPhase	NumDays	155.00	228.00
tblConstructionPhase	NumDays	1,550.00	583.00
tblConstructionPhase	NumDays	110.00	194.00
tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3.83	0.00
tblEnergyUse	NT24E	1.61	21,284,346.00
tblEnergyUse	T24E	1.63	0.00
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72

tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00

tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblGrading	MaterialExported	0.00	53,560.00

tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00
tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	6,695.00	6,380.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,410.00
tblTripsAndVMT	VendorTripNumber	14.00	260.00
tblTripsAndVMT	WorkerTripNumber	36.00	667.00
tblTripsAndVMT	WorkerTripNumber	7.00	152.00
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	ST_TR	22.75	0.22
tblVehicleTrips	ST_TR	1.32	0.17

tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	256,000.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.7403	57.8734	34.2430	0.0843	18.2141	2.2072	20.4126	9.9699	2.0319	11.9925	0.0000	8,433.6286	8,433.6286	2.1708	0.0000	8,487.8983
2021	4.4650	53.4201	33.1054	0.0840	9.6740	2.0148	11.6888	3.8561	1.8547	5.7108	0.0000	8,405.5547	8,405.5547	2.1671	0.0000	8,459.7327
2022	4.8861	41.0943	38.7265	0.1402	7.3091	1.0932	8.2213	1.9781	1.0058	2.8366	0.0000	14,377.6354	14,377.6354	1.3041	0.0000	14,410.2389
2023	15.7776	35.5122	41.7130	0.1501	8.5621	0.8400	9.4021	2.3104	0.7941	3.1044	0.0000	15,352.4705	15,352.4705	1.2651	0.0000	15,384.0977
Maximum	**15.7776**	**57.8734**	**41.7130**	**0.1501**	**18.2141**	**2.2072**	**20.4126**	**9.9699**	**2.0319**	**11.9925**	**0.0000**	**15,352.4705**	**15,352.4705**	**2.1708**	**0.0000**	**15,384.0977**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.7403	57.8734	34.2430	0.0843	7.1937	2.2072	9.3922	3.9122	2.0319	5.9348	0.0000	8,433.6286	8,433.6286	2.1708	0.0000	8,487.8983
2021	4.4650	53.4201	33.1054	0.0840	4.3631	2.0148	6.3779	1.6592	1.8547	3.5139	0.0000	8,405.5547	8,405.5547	2.1671	0.0000	8,459.7327
2022	4.8861	41.0943	38.7265	0.1402	7.3091	1.0932	8.2213	1.9781	1.0058	2.8366	0.0000	14,377.6354	14,377.6354	1.3041	0.0000	14,410.2389
2023	15.7776	35.5122	41.7130	0.1501	8.5621	0.8400	9.4021	2.3104	0.7941	3.1044	0.0000	15,352.4705	15,352.4705	1.2651	0.0000	15,384.0977
Maximum	**15.7776**	**57.8734**	**41.7130**	**0.1501**	**8.5621**	**2.2072**	**9.4021**	**3.9122**	**2.0319**	**5.9348**	**0.0000**	**15,352.4705**	**15,352.4705**	**2.1708**	**0.0000**	**15,384.0977**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**37.32**	**0.00**	**32.84**	**45.57**	**0.00**	**34.91**	**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	Site Preparation	Site Preparation	6/1/2020	8/31/2020	6	79	
2	Grading	Grading	9/1/2020	5/24/2021	6	228	
3	Trenching	Trenching	5/25/2021	1/14/2022	6	202	
4	Building Construction	Building Construction	1/15/2022	11/25/2023	6	583	
5	Architectural Coating	Architectural Coating	5/19/2023	12/30/2023	6	194	
6	Paving	Paving	12/8/2023	12/30/2023	6	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 570

Acres of Paving: 31.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 124,440; Non-Residential Outdoor: 41,480; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	3	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	6,380.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Trenching	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	667.00	260.00	1,410.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	152.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	0.0746	0.0463	0.4857	1.3700e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		135.9677	135.9677	3.6900e-003		136.0598
Total	**0.0746**	**0.0463**	**0.4857**	**1.3700e-003**	**0.1479**	**1.0400e-003**	**0.1489**	**0.0392**	**9.6000e-004**	**0.0402**		**135.9677**	**135.9677**	**3.6900e-003**		**136.0598**

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	0.0746	0.0463	0.4857	1.3700e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		135.9677	135.9677	3.6900e-003		136.0598
Total	**0.0746**	**0.0463**	**0.4857**	**1.3700e-003**	**0.1479**	**1.0400e-003**	**0.1489**	**0.0392**	**9.6000e-004**	**0.0402**		**135.9677**	**135.9677**	**3.6900e-003**		**136.0598**

3.3 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					8.7064	0.0000	8.7064	3.6015	0.0000	3.6015			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.7064**	**2.1739**	**10.8803**	**3.6015**	**2.0000**	**5.6015**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.2074	7.6245	1.7450	0.0208	0.9208	0.0322	0.9530	0.2398	0.0308	0.2706		2,276.6881	2,276.6881	0.2243		2,282.2950
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	0.0828	0.0515	0.5397	1.5200e-003	0.1643	1.1600e-003	0.1655	0.0436	1.0700e-003	0.0447		151.0752	151.0752	4.0900e-003		151.1776
Total	**0.2902**	**7.6759**	**2.2847**	**0.0223**	**1.0851**	**0.0333**	**1.1184**	**0.2834**	**0.0319**	**0.3153**		**2,427.7633**	**2,427.7633**	**0.2284**		**2,433.4726**

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					3.3955	0.0000	3.3955	1.4046	0.0000	1.4046			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**3.3955**	**2.1739**	**5.5694**	**1.4046**	**2.0000**	**3.4046**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.2074	7.6245	1.7450	0.0208	0.9208	0.0322	0.9530	0.2398	0.0308	0.2706		2,276.6881	2,276.6881	0.2243		2,282.2950
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	0.0828	0.0515	0.5397	1.5200e-003	0.1643	1.1600e-003	0.1655	0.0436	1.0700e-003	0.0447		151.0752	151.0752	4.0900e-003		151.1776
Total	**0.2902**	**7.6759**	**2.2847**	**0.0223**	**1.0851**	**0.0333**	**1.1184**	**0.2834**	**0.0319**	**0.3153**		**2,427.7633**	**2,427.7633**	**0.2284**		**2,433.4726**

3.3 Grading - 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					
Fugitive Dust					8.7064	0.0000	8.7064	3.6015	0.0000	3.6015			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134

Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.7064**	**1.9853**	**10.6917**	**3.6015**	**1.8265**	**5.4280**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.1961	6.9739	1.7295	0.0205	0.8033	0.0284	0.8317	0.2110	0.0271	0.2381		2,251.9749	2,251.9749	0.2206		2,257.4899
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	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.2738**	**7.0203**	**2.2270**	**0.0220**	**0.9676**	**0.0295**	**0.9971**	**0.2546**	**0.0282**	**0.2828**		**2,398.5112**	**2,398.5112**	**0.2243**		**2,404.1193**

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					3.3955	0.0000	3.3955	1.4046	0.0000	1.4046			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**3.3955**	**1.9853**	**5.3808**	**1.4046**	**1.8265**	**3.2311**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.1961	6.9739	1.7295	0.0205	0.8033	0.0284	0.8317	0.2110	0.0271	0.2381		2,251.9749	2,251.9749	0.2206		2,257.4899
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	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.2738**	**7.0203**	**2.2270**	**0.0220**	**0.9676**	**0.0295**	**0.9971**	**0.2546**	**0.0282**	**0.2828**		**2,398.5112**	**2,398.5112**	**0.2243**		**2,404.1193**

3.4 Trenching - 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	2.7803	28.4028	17.8910	0.0326		1.3782	1.3782		1.2680	1.2680		3,155.2803	3,155.2803	1.0205		3,180.7923
Total	**2.7803**	**28.4028**	**17.8910**	**0.0326**		**1.3782**	**1.3782**		**1.2680**	**1.2680**		**3,155.2803**	**3,155.2803**	**1.0205**		**3,180.7923**

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	0.0505	0.0301	0.3234	9.6000e-004	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		95.2486	95.2486	2.4200e-003		95.3091
Total	**0.0505**	**0.0301**	**0.3234**	**9.6000e-004**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**95.2486**	**95.2486**	**2.4200e-003**		**95.3091**

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	2.7803	28.4028	17.8910	0.0326		1.3782	1.3782		1.2680	1.2680	0.0000	3,155.2803	3,155.2803	1.0205		3,180.7923
Total	**2.7803**	**28.4028**	**17.8910**	**0.0326**		**1.3782**	**1.3782**		**1.2680**	**1.2680**	**0.0000**	**3,155.2803**	**3,155.2803**	**1.0205**		**3,180.7923**

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	0.0505	0.0301	0.3234	9.6000e-004	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		95.2486	95.2486	2.4200e-003		95.3091

Total	**0.0505**	**0.0301**	**0.3234**	**9.6000e-004**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**95.2486**	**95.2486**	**2.4200e-003**		**95.3091**

3.4 Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2815	22.9182	16.9294	0.0326		1.0925	1.0925		1.0051	1.0051		3,154.1165	3,154.1165	1.0201		3,179.6192
Total	**2.2815**	**22.9182**	**16.9294**	**0.0326**		**1.0925**	**1.0925**		**1.0051**	**1.0051**		**3,154.1165**	**3,154.1165**	**1.0201**		**3,179.6192**

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	0.0476	0.0272	0.2986	9.2000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		91.7494	91.7494	2.1900e-003		91.8040
Total	**0.0476**	**0.0272**	**0.2986**	**9.2000e-004**	**0.1068**	**7.2000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**91.7494**	**91.7494**	**2.1900e-003**		**91.8040**

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	2.2815	22.9182	16.9294	0.0326		1.0925	1.0925		1.0051	1.0051	0.0000	3,154.1165	3,154.1165	1.0201		3,179.6192
Total	**2.2815**	**22.9182**	**16.9294**	**0.0326**		**1.0925**	**1.0925**		**1.0051**	**1.0051**	**0.0000**	**3,154.1165**	**3,154.1165**	**1.0201**		**3,179.6192**

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	0.0476	0.0272	0.2986	9.2000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		91.7494	91.7494	2.1900e-003		91.8040
Total	**0.0476**	**0.0272**	**0.2986**	**9.2000e-004**	**0.1068**	**7.2000e-004**	**0.1075**	**0.0283**	**6.6000e-004**	**0.0290**		**91.7494**	**91.7494**	**2.1900e-003**		**91.8040**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0159	0.5467	0.1491	1.7500e-003	0.0721	2.0900e-003	0.0742	0.0189	2.0000e-003	0.0209		192.0511	192.0511	0.0187		192.5194
Vendor	0.7223	23.5371	6.8926	0.0643	1.7578	0.0640	1.8218	0.5058	0.0612	0.5670		6,923.8026	6,923.8026	0.5613		6,937.8352
Worker	2.4416	1.3949	15.3214	0.0472	5.4793	0.0370	5.5163	1.4534	0.0341	1.4875		4,707.4481	4,707.4481	0.1122		4,710.2521
Total	**3.1798**	**25.4787**	**22.3631**	**0.1133**	**7.3091**	**0.1031**	**7.4122**	**1.9781**	**0.0973**	**2.0754**		**11,823.3018**	**11,823.3018**	**0.6922**		**11,840.6067**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0159	0.5467	0.1491	1.7500e-003	0.0721	2.0900e-003	0.0742	0.0189	2.0000e-003	0.0209		192.0511	192.0511	0.0187		192.5194
Vendor	0.7223	23.5371	6.8926	0.0643	1.7578	0.0640	1.8218	0.5058	0.0612	0.5670		6,923.8026	6,923.8026	0.5613		6,937.8352
Worker	2.4416	1.3949	15.3214	0.0472	5.4793	0.0370	5.5163	1.4534	0.0341	1.4875		4,707.4481	4,707.4481	0.1122		4,710.2521
Total	**3.1798**	**25.4787**	**22.3631**	**0.1133**	**7.3091**	**0.1031**	**7.4122**	**1.9781**	**0.0973**	**2.0754**		**11,823.3018**	**11,823.3018**	**0.6922**		**11,840.6067**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.0108	0.3572	0.1375	1.6900e-003	0.0763	7.6000e-004	0.0770	0.0199	7.2000e-004	0.0206		185.9702	185.9702	0.0176		186.4097
Vendor	0.5365	17.9203	6.1816	0.0627	1.7579	0.0243	1.7822	0.5059	0.0232	0.5291		6,770.9559	6,770.9559	0.4989		6,783.4292
Worker	2.3034	1.2598	14.1209	0.0454	5.4793	0.0362	5.5154	1.4534	0.0333	1.4867		4,527.2006	4,527.2006	0.1009		4,529.7230
Total	**2.8507**	**19.5372**	**20.4400**	**0.1098**	**7.3135**	**0.0612**	**7.3747**	**1.9792**	**0.0572**	**2.0364**		**11,484.1267**	**11,484.1267**	**0.6174**		**11,499.5619**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.0108	0.3572	0.1375	1.6900e-003	0.0763	7.6000e-004	0.0770	0.0199	7.2000e-004	0.0206		185.9702	185.9702	0.0176		186.4097

Vendor	0.5365	17.9203	6.1816	0.0627	1.7579	0.0243	1.7822	0.5059	0.0232	0.5291		6,770.9559	6,770.9559	0.4989		6,783.4292
Worker	2.3034	1.2598	14.1209	0.0454	5.4793	0.0362	5.5154	1.4534	0.0333	1.4867		4,527.2006	4,527.2006	0.1009		4,529.7230
Total	**2.8507**	**19.5372**	**20.4400**	**0.1098**	**7.3135**	**0.0612**	**7.3747**	**1.9792**	**0.0572**	**2.0364**		**11,484.1267**	**11,484.1267**	**0.6174**		**11,499.5619**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**10.1020**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.5249	0.2871	3.2180	0.0104	1.2486	8.2400e-003	1.2569	0.3312	7.5900e-003	0.3388		1,031.6859	1,031.6859	0.0230		1,032.2607
Total	**0.5249**	**0.2871**	**3.2180**	**0.0104**	**1.2486**	**8.2400e-003**	**1.2569**	**0.3312**	**7.5900e-003**	**0.3388**		**1,031.6859**	**1,031.6859**	**0.0230**		**1,032.2607**

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	9.9103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**10.1020**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.5249	0.2871	3.2180	0.0104	1.2486	8.2400e-003	1.2569	0.3312	7.5900e-003	0.3388		1,031.6859	1,031.6859	0.0230		1,032.2607
Total	**0.5249**	**0.2871**	**3.2180**	**0.0104**	**1.2486**	**8.2400e-003**	**1.2569**	**0.3312**	**7.5900e-003**	**0.3388**		**1,031.6859**	**1,031.6859**	**0.0230**		**1,032.2607**

3.7 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	4.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0990**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Paving	4.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0990**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

Ventura Water Pure_CDF_ProjLevel_20180522 - Ventura County APCD Air District, Annual

Ventura Water Pure_CDF_ProjLevel_20180522

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	0.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project specfic square footage and acreage.

Construction Phase - Project specific construction data.

Off-road Equipment -

Trips and VMT - Project specific construction trips.

Demolition -

Vehicle Trips - Project specific fleet mix.

Energy Use - Project specific energy data.

Water And Wastewater - Project specific water usage.

Solid Waste - Project specific sold waste.

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.1849	11.5383	8.7269	0.0158	0.1200	0.5686	0.6885	0.0258	0.5274	0.5532	0.0000	1,386.5655	1,386.5655	0.3830	0.0000	1,396.14
2022	1.0455	9.9135	8.9162	0.0166	0.1241	0.4786	0.6027	0.0269	0.4441	0.4710	0.0000	1,457.1287	1,457.1287	0.4046	0.0000	1,467.24
2023	0.1342	1.2286	1.2669	2.4300e-003	0.0291	0.0575	0.0866	6.6600e-003	0.0533	0.0600	0.0000	213.2996	213.2996	0.0593	0.0000	214.7819
Maximum	**1.1849**	**11.5383**	**8.9162**	**0.0166**	**0.1241**	**0.5686**	**0.6885**	**0.0269**	**0.5274**	**0.5532**	**0.0000**	**1,457.1287**	**1,457.1287**	**0.4046**	**0.0000**	**1,467.2424**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.1849	11.5383	8.7269	0.0158	0.0881	0.5686	0.6567	0.0210	0.5274	0.5484	0.0000	1,386.5640	1,386.5640	0.3830	0.0000	1,396.14
2022	1.0455	9.9135	8.9162	0.0166	0.0922	0.4786	0.5709	0.0221	0.4441	0.4662	0.0000	1,457.1270	1,457.1270	0.4046	0.0000	1,467.24
2023	0.1342	1.2286	1.2669	2.4300e-003	0.0246	0.0575	0.0821	5.9800e-003	0.0533	0.0593	0.0000	213.2993	213.2993	0.0593	0.0000	214.7817
Maximum	**1.1849**	**11.5383**	**8.9162**	**0.0166**	**0.0922**	**0.5686**	**0.6567**	**0.0221**	**0.5274**	**0.5484**	**0.0000**	**1,457.1270**	**1,457.1270**	**0.4046**	**0.0000**	**1,467.2407**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**24.97**	**0.00**	**4.95**	**17.38**	**0.00**	**0.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	2.7416	2.7416
2	4-1-2021	6-30-2021	3.2966	3.2966
3	7-1-2021	9-30-2021	3.3328	3.3328
4	10-1-2021	12-31-2021	3.3346	3.3346
5	1-1-2022	3-31-2022	2.7015	2.7015
6	4-1-2022	6-30-2022	2.7300	2.7300
7	7-1-2022	9-30-2022	2.7600	2.7600
8	10-1-2022	12-31-2022	2.7615	2.7615
9	1-1-2023	3-31-2023	1.3775	1.3775
		Highest	3.3346	3.3346

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	1/1/2021	2/21/2023	6	670	
2	Excavating/Trenching	Trenching	1/4/2021	2/23/2023	6	670	
3	Paving	Paving	3/19/2021	2/27/2023	6	609	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Excavating/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Excavating/Trenching	Excavators	3	8.00	158	0.38
Excavating/Trenching	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	861.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavating/Trenching	6	15.00	0.00	1,161.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0522	0.0000	0.0522	7.9100e-003	0.0000	7.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4953	4.9205	3.3749	6.0800e-003		0.2428	0.2428		0.2255	0.2255	0.0000	532.1123	532.1123	0.1498	0.0000	535.8565
Total	**0.4953**	**4.9205**	**3.3749**	**6.0800e-003**	**0.0522**	**0.2428**	**0.2950**	**7.9100e-003**	**0.2255**	**0.2334**	**0.0000**	**532.1123**	**532.1123**	**0.1498**	**0.0000**	**535.8565**

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	1.3900e-003	0.0507	0.0120	1.5000e-004	6.4200e-003	2.0000e-004	6.6200e-003	1.6700e-003	1.9000e-004	1.8700e-003	0.0000	14.8212	14.8212	1.4100e-003	0.0000	14.8565
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1200e-003	5.2600e-003	0.0578	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.7298	15.7298	4.0000e-004	0.0000	15.7398
Total	**9.5100e-003**	**0.0560**	**0.0698**	**3.2000e-004**	**0.0254**	**3.3000e-004**	**0.0257**	**6.7000e-003**	**3.1000e-004**	**7.0200e-003**	**0.0000**	**30.5511**	**30.5511**	**1.8100e-003**	**0.0000**	**30.5963**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0204	0.0000	0.0204	3.0900e-003	0.0000	3.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4953	4.9205	3.3749	6.0800e-003		0.2428	0.2428		0.2255	0.2255	0.0000	532.1117	532.1117	0.1498	0.0000	535.8559
Total	**0.4953**	**4.9205**	**3.3749**	**6.0800e-003**	**0.0204**	**0.2428**	**0.2632**	**3.0900e-003**	**0.2255**	**0.2286**	**0.0000**	**532.1117**	**532.1117**	**0.1498**	**0.0000**	**535.8559**

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	1.3900e-003	0.0507	0.0120	1.5000e-004	6.4200e-003	2.0000e-004	6.6200e-003	1.6700e-003	1.9000e-004	1.8700e-003	0.0000	14.8212	14.8212	1.4100e-003	0.0000	14.8565
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1200e-003	5.2600e-003	0.0578	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.7298	15.7298	4.0000e-004	0.0000	15.7398
Total	**9.5100e-003**	**0.0560**	**0.0698**	**3.2000e-004**	**0.0254**	**3.3000e-004**	**0.0257**	**6.7000e-003**	**3.1000e-004**	**7.0200e-003**	**0.0000**	**30.5511**	**30.5511**	**1.8100e-003**	**0.0000**	**30.5963**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0522	0.0000	0.0522	7.9100e-003	0.0000	7.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4130	4.0251	3.2230	6.0800e-003		0.1945	0.1945		0.1808	0.1808	0.0000	531.9471	531.9471	0.1494	0.0000	535.6825
Total	**0.4130**	**4.0251**	**3.2230**	**6.0800e-003**	**0.0522**	**0.1945**	**0.2467**	**7.9100e-003**	**0.1808**	**0.1887**	**0.0000**	**531.9471**	**531.9471**	**0.1494**	**0.0000**	**535.6825**

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	1.3000e-003	0.0460	0.0120	1.5000e-004	6.4200e-003	1.7000e-004	6.5900e-003	1.6700e-003	1.6000e-004	1.8400e-003	0.0000	14.6258	14.6258	1.3900e-003	0.0000	14.6605
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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**8.9400e-003**	**0.0508**	**0.0654**	**3.2000e-004**	**0.0254**	**3.0000e-004**	**0.0257**	**6.7000e-003**	**2.8000e-004**	**6.9900e-003**	**0.0000**	**29.7777**	**29.7777**	**1.7500e-003**	**0.0000**	**29.8214**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0204	0.0000	0.0204	3.0900e-003	0.0000	3.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4130	4.0251	3.2230	6.0800e-003		0.1945	0.1945		0.1808	0.1808	0.0000	531.9464	531.9464	0.1494	0.0000	535.6819
Total	**0.4130**	**4.0251**	**3.2230**	**6.0800e-003**	**0.0204**	**0.1945**	**0.2149**	**3.0900e-003**	**0.1808**	**0.1839**	**0.0000**	**531.9464**	**531.9464**	**0.1494**	**0.0000**	**535.6819**

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	1.3000e-003	0.0460	0.0120	1.5000e-004	6.4200e-003	1.7000e-004	6.5900e-003	1.6700e-003	1.6000e-004	1.8400e-003	0.0000	14.6258	14.6258	1.3900e-003	0.0000	14.6605
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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**8.9400e-003**	**0.0508**	**0.0654**	**3.2000e-004**	**0.0254**	**3.0000e-004**	**0.0257**	**6.7000e-003**	**2.8000e-004**	**6.9900e-003**	**0.0000**	**29.7777**	**29.7777**	**1.7500e-003**	**0.0000**	**29.8214**

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.3400e-003	0.0000	7.3400e-003	1.1100e-003	0.0000	1.1100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.4727	0.4322	8.5000e-004		0.0220	0.0220		0.0204	0.0204	0.0000	74.7826	74.7826	0.0209	0.0000	75.3061
Total	**0.0499**	**0.4727**	**0.4322**	**8.5000e-004**	**7.3400e-003**	**0.0220**	**0.0293**	**1.1100e-003**	**0.0204**	**0.0215**	**0.0000**	**74.7826**	**74.7826**	**0.0209**	**0.0000**	**75.3061**

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	1.2000e-004	4.2300e-003	1.5700e-003	2.0000e-005	5.6900e-003	1.0000e-005	5.7000e-003	1.4100e-003	1.0000e-005	1.4200e-003	0.0000	1.9912	1.9912	1.8000e-004	0.0000	1.9958
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.0000e-004	6.9300e-003	2.0000e-005	2.6600e-003	2.0000e-005	2.6800e-003	7.1000e-004	2.0000e-005	7.2000e-004	0.0000	2.0484	2.0484	5.0000e-005	0.0000	2.0496
Total	**1.1300e-003**	**4.8300e-003**	**8.5000e-003**	**4.0000e-005**	**8.3500e-003**	**3.0000e-005**	**8.3800e-003**	**2.1200e-003**	**3.0000e-005**	**2.1400e-003**	**0.0000**	**4.0396**	**4.0396**	**2.3000e-004**	**0.0000**	**4.0454**

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					2.8600e-003	0.0000	2.8600e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.4727	0.4322	8.5000e-004		0.0220	0.0220		0.0204	0.0204	0.0000	74.7825	74.7825	0.0209	0.0000	75.3060
Total	**0.0499**	**0.4727**	**0.4322**	**8.5000e-004**	**2.8600e-003**	**0.0220**	**0.0248**	**4.3000e-004**	**0.0204**	**0.0209**	**0.0000**	**74.7825**	**74.7825**	**0.0209**	**0.0000**	**75.3060**

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	1.2000e-004	4.2300e-003	1.5700e-003	2.0000e-005	5.6900e-003	1.0000e-005	5.7000e-003	1.4100e-003	1.0000e-005	1.4200e-003	0.0000	1.9912	1.9912	1.8000e-004	0.0000	1.9958
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.0000e-004	6.9300e-003	2.0000e-005	2.6600e-003	2.0000e-005	2.6800e-003	7.1000e-004	2.0000e-005	7.2000e-004	0.0000	2.0484	2.0484	5.0000e-005	0.0000	2.0496
Total	**1.1300e-003**	**4.8300e-003**	**8.5000e-003**	**4.0000e-005**	**8.3500e-003**	**3.0000e-005**	**8.3800e-003**	**2.1200e-003**	**3.0000e-005**	**2.1400e-003**	**0.0000**	**4.0396**	**4.0396**	**2.3000e-004**	**0.0000**	**4.0454**

3.3 Excavating/Trenching - 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	0.4922	4.8890	3.3534	6.0400e-003		0.2412	0.2412		0.2241	0.2241	0.0000	528.7122	528.7122	0.1488	0.0000	532.4325
Total	**0.4922**	**4.8890**	**3.3534**	**6.0400e-003**		**0.2412**	**0.2412**		**0.2241**	**0.2241**	**0.0000**	**528.7122**	**528.7122**	**0.1488**	**0.0000**	**532.4325**

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	1.8600e-003	0.0680	0.0160	2.0000e-004	8.6400e-003	2.7000e-004	8.9100e-003	2.2500e-003	2.6000e-004	2.5100e-003	0.0000	19.8577	19.8577	1.8900e-003	0.0000	19.9050
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0700e-003	5.2200e-003	0.0575	1.7000e-004	0.0188	1.3000e-004	0.0189	5.0000e-003	1.2000e-004	5.1200e-003	0.0000	15.6293	15.6293	4.0000e-004	0.0000	15.6392
Total	**9.9300e-003**	**0.0732**	**0.0735**	**3.7000e-004**	**0.0275**	**4.0000e-004**	**0.0279**	**7.2500e-003**	**3.8000e-004**	**7.6300e-003**	**0.0000**	**35.4870**	**35.4870**	**2.2900e-003**	**0.0000**	**35.5442**

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	0.4922	4.8890	3.3534	6.0400e-003		0.2412	0.2412		0.2241	0.2241	0.0000	528.7116	528.7116	0.1488	0.0000	532.4319
Total	**0.4922**	**4.8890**	**3.3534**	**6.0400e-003**		**0.2412**	**0.2412**		**0.2241**	**0.2241**	**0.0000**	**528.7116**	**528.7116**	**0.1488**	**0.0000**	**532.4319**

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	1.8600e-003	0.0680	0.0160	2.0000e-004	8.6400e-003	2.7000e-004	8.9100e-003	2.2500e-003	2.6000e-004	2.5100e-003	0.0000	19.8577	19.8577	1.8900e-003	0.0000	19.9050
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0700e-003	5.2200e-003	0.0575	1.7000e-004	0.0188	1.3000e-004	0.0189	5.0000e-003	1.2000e-004	5.1200e-003	0.0000	15.6293	15.6293	4.0000e-004	0.0000	15.6392
Total	**9.9300e-003**	**0.0732**	**0.0735**	**3.7000e-004**	**0.0275**	**4.0000e-004**	**0.0279**	**7.2500e-003**	**3.8000e-004**	**7.6300e-003**	**0.0000**	**35.4870**	**35.4870**	**2.2900e-003**	**0.0000**	**35.5442**

3.3 Excavating/Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4130	4.0251	3.2230	6.0800e-003		0.1945	0.1945		0.1808	0.1808	0.0000	531.9471	531.9471	0.1494	0.0000	535.6825
Total	**0.4130**	**4.0251**	**3.2230**	**6.0800e-003**		**0.1945**	**0.1945**		**0.1808**	**0.1808**	**0.0000**	**531.9471**	**531.9471**	**0.1494**	**0.0000**	**535.6825**

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	1.7600e-003	0.0621	0.0161	2.0000e-004	8.6500e-003	2.3000e-004	8.8800e-003	2.2600e-003	2.2000e-004	2.4800e-003	0.0000	19.7219	19.7219	1.8700e-003	0.0000	19.7687
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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**9.4000e-003**	**0.0668**	**0.0696**	**3.7000e-004**	**0.0276**	**3.6000e-004**	**0.0279**	**7.2900e-003**	**3.4000e-004**	**7.6300e-003**	**0.0000**	**34.8738**	**34.8738**	**2.2300e-003**	**0.0000**	**34.9296**

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	0.4130	4.0251	3.2230	6.0800e-003		0.1945	0.1945		0.1808	0.1808	0.0000	531.9464	531.9464	0.1494	0.0000	535.6819
Total	**0.4130**	**4.0251**	**3.2230**	**6.0800e-003**		**0.1945**	**0.1945**		**0.1808**	**0.1808**	**0.0000**	**531.9464**	**531.9464**	**0.1494**	**0.0000**	**535.6819**

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	1.7600e-003	0.0621	0.0161	2.0000e-004	8.6500e-003	2.3000e-004	8.8800e-003	2.2600e-003	2.2000e-004	2.4800e-003	0.0000	19.7219	19.7219	1.8700e-003	0.0000	19.7687
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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**9.4000e-003**	**0.0668**	**0.0696**	**3.7000e-004**	**0.0276**	**3.6000e-004**	**0.0279**	**7.2900e-003**	**3.4000e-004**	**7.6300e-003**	**0.0000**	**34.8738**	**34.8738**	**2.2300e-003**	**0.0000**	**34.9296**

3.3 Excavating/Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0522	0.4941	0.4518	8.9000e-004		0.0229	0.0229		0.0213	0.0213	0.0000	78.1818	78.1818	0.0219	0.0000	78.7291
Total	**0.0522**	**0.4941**	**0.4518**	**8.9000e-004**		**0.0229**	**0.0229**		**0.0213**	**0.0213**	**0.0000**	**78.1818**	**78.1818**	**0.0219**	**0.0000**	**78.7291**

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	1.8000e-004	5.9600e-003	2.2100e-003	3.0000e-005	7.6800e-003	1.0000e-005	7.6900e-003	1.9000e-003	1.0000e-005	1.9200e-003	0.0000	2.8071	2.8071	2.6000e-004	0.0000	2.8136
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0600e-003	6.3000e-004	7.2500e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.1415	2.1415	5.0000e-005	0.0000	2.1427
Total	**1.2400e-003**	**6.5900e-003**	**9.4600e-003**	**5.0000e-005**	**0.0105**	**3.0000e-005**	**0.0105**	**2.6400e-003**	**3.0000e-005**	**2.6800e-003**	**0.0000**	**4.9486**	**4.9486**	**3.1000e-004**	**0.0000**	**4.9563**

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	0.0522	0.4941	0.4518	8.9000e-004		0.0229	0.0229		0.0213	0.0213	0.0000	78.1817	78.1817	0.0219	0.0000	78.7291
Total	**0.0522**	**0.4941**	**0.4518**	**8.9000e-004**		**0.0229**	**0.0229**		**0.0213**	**0.0213**	**0.0000**	**78.1817**	**78.1817**	**0.0219**	**0.0000**	**78.7291**

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	1.8000e-004	5.9600e-003	2.2100e-003	3.0000e-005	7.6800e-003	1.0000e-005	7.6900e-003	1.9000e-003	1.0000e-005	1.9200e-003	0.0000	2.8071	2.8071	2.6000e-004	0.0000	2.8136
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0600e-003	6.3000e-004	7.2500e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.1415	2.1415	5.0000e-005	0.0000	2.1427
Total	**1.2400e-003**	**6.5900e-003**	**9.4600e-003**	**5.0000e-005**	**0.0105**	**3.0000e-005**	**0.0105**	**2.6400e-003**	**3.0000e-005**	**2.6800e-003**	**0.0000**	**4.9486**	**4.9486**	**3.1000e-004**	**0.0000**	**4.9563**

3.4 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	0.1551	1.5955	1.8097	2.8200e-003		0.0837	0.0837		0.0770	0.0770	0.0000	247.2900	247.2900	0.0800	0.0000	249.2894
Paving	0.0165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**1.5955**	**1.8097**	**2.8200e-003**		**0.0837**	**0.0837**		**0.0770**	**0.0770**	**0.0000**	**247.2900**	**247.2900**	**0.0800**	**0.0000**	**249.2894**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4100e-003	4.1500e-003	0.0456	1.4000e-004	0.0149	1.1000e-004	0.0150	3.9700e-003	1.0000e-004	4.0600e-003	0.0000	12.4130	12.4130	3.1000e-004	0.0000	12.4208
Total	**6.4100e-003**	**4.1500e-003**	**0.0456**	**1.4000e-004**	**0.0149**	**1.1000e-004**	**0.0150**	**3.9700e-003**	**1.0000e-004**	**4.0600e-003**	**0.0000**	**12.4130**	**12.4130**	**3.1000e-004**	**0.0000**	**12.4208**

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	0.1551	1.5955	1.8097	2.8200e-003		0.0837	0.0837		0.0770	0.0770	0.0000	247.2897	247.2897	0.0800	0.0000	249.2892
Paving	0.0165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1716**	**1.5955**	**1.8097**	**2.8200e-003**		**0.0837**	**0.0837**		**0.0770**	**0.0770**	**0.0000**	**247.2897**	**247.2897**	**0.0800**	**0.0000**	**249.2892**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4100e-003	4.1500e-003	0.0456	1.4000e-004	0.0149	1.1000e-004	0.0150	3.9700e-003	1.0000e-004	4.0600e-003	0.0000	12.4130	12.4130	3.1000e-004	0.0000	12.4208
Total	**6.4100e-003**	**4.1500e-003**	**0.0456**	**1.4000e-004**	**0.0149**	**1.1000e-004**	**0.0150**	**3.9700e-003**	**1.0000e-004**	**4.0600e-003**	**0.0000**	**12.4130**	**12.4130**	**3.1000e-004**	**0.0000**	**12.4208**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1726	1.7410	2.2819	3.5700e-003		0.0889	0.0889		0.0818	0.0818	0.0000	313.4313	313.4313	0.1014	0.0000	315.9655
Paving	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1935**	**1.7410**	**2.2819**	**3.5700e-003**		**0.0889**	**0.0889**		**0.0818**	**0.0818**	**0.0000**	**313.4313**	**313.4313**	**0.1014**	**0.0000**	**315.9655**

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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**7.6400e-003**	**4.7400e-003**	**0.0534**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.1519**	**15.1519**	**3.6000e-004**	**0.0000**	**15.1609**

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	0.1726	1.7410	2.2818	3.5700e-003		0.0889	0.0889		0.0818	0.0818	0.0000	313.4309	313.4309	0.1014	0.0000	315.9652
Paving	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1935**	**1.7410**	**2.2818**	**3.5700e-003**		**0.0889**	**0.0889**		**0.0818**	**0.0818**	**0.0000**	**313.4309**	**313.4309**	**0.1014**	**0.0000**	**315.9652**

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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**7.6400e-003**	**4.7400e-003**	**0.0534**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.1519**	**15.1519**	**3.6000e-004**	**0.0000**	**15.1609**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0253	0.2497	0.3573	5.6000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	49.0658	49.0658	0.0159	0.0000	49.4625
Paving	3.2700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0286**	**0.2497**	**0.3573**	**5.6000e-004**		**0.0125**	**0.0125**		**0.0115**	**0.0115**	**0.0000**	**49.0658**	**49.0658**	**0.0159**	**0.0000**	**49.4625**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1300e-003	6.7000e-004	7.7200e-003	3.0000e-005	2.9600e-003	2.0000e-005	2.9800e-003	7.9000e-004	2.0000e-005	8.1000e-004	0.0000	2.2812	2.2812	5.0000e-005	0.0000	2.2825
Total	**1.1300e-003**	**6.7000e-004**	**7.7200e-003**	**3.0000e-005**	**2.9600e-003**	**2.0000e-005**	**2.9800e-003**	**7.9000e-004**	**2.0000e-005**	**8.1000e-004**	**0.0000**	**2.2812**	**2.2812**	**5.0000e-005**	**0.0000**	**2.2825**

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	0.0253	0.2497	0.3573	5.6000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	49.0658	49.0658	0.0159	0.0000	49.4625
Paving	3.2700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0286**	**0.2497**	**0.3573**	**5.6000e-004**		**0.0125**	**0.0125**		**0.0115**	**0.0115**	**0.0000**	**49.0658**	**49.0658**	**0.0159**	**0.0000**	**49.4625**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1300e-003	6.7000e-004	7.7200e-003	3.0000e-005	2.9600e-003	2.0000e-005	2.9800e-003	7.9000e-004	2.0000e-005	8.1000e-004	0.0000	2.2812	2.2812	5.0000e-005	0.0000	2.2825
Total	**1.1300e-003**	**6.7000e-004**	**7.7200e-003**	**3.0000e-005**	**2.9600e-003**	**2.0000e-005**	**2.9800e-003**	**7.9000e-004**	**2.0000e-005**	**8.1000e-004**	**0.0000**	**2.2812**	**2.2812**	**5.0000e-005**	**0.0000**	**2.2825**

Ventura Water Pure_CDF_ProjLevel_20180522 - Ventura County APCD Air District, Summer

Ventura Water Pure_CDF_ProjLevel_20180522

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	0.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project specfic square footage and acreage.

Construction Phase - Project specific construction data.

Off-road Equipment -

Trips and VMT - Project specific construction trips.

Demolition -

Vehicle Trips - Project specific fleet mix.

Energy Use - Project specific energy data.

Water And Wastewater - Project specific water usage.

Solid Waste - Project specific sold waste.

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.8940	76.6337	59.1071	0.1062	0.8019	3.7859	4.5878	0.1742	3.5109	3.6851	0.0000	10,296.4126	10,296.4126	2.8554	0.0000	10,367.7969
2022	6.6789	63.3200	57.0071	0.1060	0.8016	3.0582	3.8598	0.1742	2.8377	3.0119	0.0000	10,278.5597	10,278.5597	2.8494	0.0000	10,349.7947
2023	5.8539	53.6774	55.0179	0.1058	1.3086	2.5086	3.8172	0.2986	2.3285	2.6271	0.0000	10,258.4509	10,258.4509	2.8412	0.0000	10,329.4808
Maximum	**7.8940**	**76.6337**	**59.1071**	**0.1062**	**1.3086**	**3.7859**	**4.5878**	**0.2986**	**3.5109**	**3.6851**	**0.0000**	**10,296.4126**	**10,296.4126**	**2.8554**	**0.0000**	**10,367.7969**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.8940	76.6337	59.1071	0.1062	0.5983	3.7859	4.3842	0.1434	3.5109	3.6543	0.0000	10,296.4126	10,296.4126	2.8554	0.0000	10,367.7969
2022	6.6789	63.3200	57.0071	0.1060	0.5980	3.0582	3.6562	0.1433	2.8377	2.9811	0.0000	10,278.5597	10,278.5597	2.8494	0.0000	10,349.7947
2023	5.8539	53.6774	55.0179	0.1058	1.1050	2.5086	3.6136	0.2678	2.3285	2.5963	0.0000	10,258.4509	10,258.4509	2.8412	0.0000	10,329.4808
Maximum	**7.8940**	**76.6337**	**59.1071**	**0.1062**	**1.1050**	**3.7859**	**4.3842**	**0.2678**	**3.5109**	**3.6543**	**0.0000**	**10,296.4126**	**10,296.4126**	**2.8554**	**0.0000**	**10,367.7969**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**20.98**	**0.00**	**4.98**	**14.30**	**0.00**	**0.99**	**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	1/1/2021	2/21/2023	6	670	
2	Excavating/Trenching	Trenching	1/4/2021	2/23/2023	6	670	
3	Paving	Paving	3/19/2021	2/27/2023	6	609	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Excavating/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Excavating/Trenching	Excavators	3	8.00	158	0.38
Excavating/Trenching	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	861.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavating/Trenching	6	15.00	0.00	1,161.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3338	0.0000	0.3338	0.0506	0.0000	0.0506			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.3338**	**1.5513**	**1.8852**	**0.0506**	**1.4411**	**1.4916**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	8.7400e-003	0.3169	0.0743	9.6000e-004	0.0418	1.2700e-003	0.0430	0.0109	1.2100e-003	0.0121		105.0986	105.0986	9.8100e-003		105.3437
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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0601**	**0.3466**	**0.4574**	**2.1200e-003**	**0.1650**	**2.1200e-003**	**0.1671**	**0.0436**	**2.0000e-003**	**0.0456**		**220.5969**	**220.5969**	**0.0127**		**220.9145**

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					0.1302	0.0000	0.1302	0.0197	0.0000	0.0197			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.1302**	**1.5513**	**1.6815**	**0.0197**	**1.4411**	**1.4608**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	8.7400e-003	0.3169	0.0743	9.6000e-004	0.0418	1.2700e-003	0.0430	0.0109	1.2100e-003	0.0121		105.0986	105.0986	9.8100e-003		105.3437
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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0601**	**0.3466**	**0.4574**	**2.1200e-003**	**0.1650**	**2.1200e-003**	**0.1671**	**0.0436**	**2.0000e-003**	**0.0456**		**220.5969**	**220.5969**	**0.0127**		**220.9145**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3338	0.0000	0.3338	0.0506	0.0000	0.0506			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.3338**	**1.2427**	**1.5765**	**0.0506**	**1.1553**	**1.2058**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	8.2100e-003	0.2879	0.0744	9.4000e-004	0.0418	1.0700e-003	0.0429	0.0109	1.0300e-003	0.0119		103.7208	103.7208	9.6500e-003		103.9621
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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0565**	**0.3146**	**0.4290**	**2.0600e-003**	**0.1650**	**1.9000e-003**	**0.1669**	**0.0436**	**1.8000e-003**	**0.0454**		**214.9728**	**214.9728**	**0.0123**		**215.2796**

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					0.1302	0.0000	0.1302	0.0197	0.0000	0.0197			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1302**	**1.2427**	**1.3728**	**0.0197**	**1.1553**	**1.1750**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	8.2100e-003	0.2879	0.0744	9.4000e-004	0.0418	1.0700e-003	0.0429	0.0109	1.0300e-003	0.0119		103.7208	103.7208	9.6500e-003		103.9621
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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0565**	**0.3146**	**0.4290**	**2.0600e-003**	**0.1650**	**1.9000e-003**	**0.1669**	**0.0436**	**1.8000e-003**	**0.0454**		**214.9728**	**214.9728**	**0.0123**		**215.2796**

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3338	0.0000	0.3338	0.0506	0.0000	0.0506			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**0.3338**	**0.9975**	**1.3314**	**0.0506**	**0.9280**	**0.9785**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	5.5700e-003	0.1892	0.0697	9.1000e-004	0.2641	3.9000e-004	0.2645	0.0655	3.7000e-004	0.0658		100.4633	100.4633	9.1100e-003		100.6910
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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0510**	**0.2134**	**0.3975**	**1.9800e-003**	**0.3873**	**1.2000e-003**	**0.3885**	**0.0981**	**1.1200e-003**	**0.0993**		**207.4525**	**207.4525**	**0.0115**		**207.7392**

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					0.1302	0.0000	0.1302	0.0197	0.0000	0.0197			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**0.1302**	**0.9975**	**1.1277**	**0.0197**	**0.9280**	**0.9477**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	5.5700e-003	0.1892	0.0697	9.1000e-004	0.2641	3.9000e-004	0.2645	0.0655	3.7000e-004	0.0658		100.4633	100.4633	9.1100e-003		100.6910
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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0510**	**0.2134**	**0.3975**	**1.9800e-003**	**0.3873**	**1.2000e-003**	**0.3885**	**0.0981**	**1.1200e-003**	**0.0993**		**207.4525**	**207.4525**	**0.0115**		**207.7392**

3.3 Excavating/Trenching - 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	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0118	0.4273	0.1002	1.2900e-003	0.0566	1.7100e-003	0.0583	0.0148	1.6300e-003	0.0164		141.7183	141.7183	0.0132		142.0488
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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0632**	**0.4570**	**0.4833**	**2.4500e-003**	**0.1799**	**2.5600e-003**	**0.1824**	**0.0474**	**2.4200e-003**	**0.0499**		**257.2166**	**257.2166**	**0.0161**		**257.6196**

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	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0118	0.4273	0.1002	1.2900e-003	0.0566	1.7100e-003	0.0583	0.0148	1.6300e-003	0.0164		141.7183	141.7183	0.0132		142.0488
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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0632**	**0.4570**	**0.4833**	**2.4500e-003**	**0.1799**	**2.5600e-003**	**0.1824**	**0.0474**	**2.4200e-003**	**0.0499**		**257.2166**	**257.2166**	**0.0161**		**257.6196**

3.3 Excavating/Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0111	0.3882	0.1003	1.2700e-003	0.0563	1.4500e-003	0.0578	0.0147	1.3900e-003	0.0161		139.8605	139.8605	0.0130		140.1858
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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0594**	**0.4149**	**0.4549**	**2.3900e-003**	**0.1796**	**2.2800e-003**	**0.1818**	**0.0474**	**2.1600e-003**	**0.0495**		**251.1124**	**251.1124**	**0.0156**		**251.5033**

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	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0111	0.3882	0.1003	1.2700e-003	0.0563	1.4500e-003	0.0578	0.0147	1.3900e-003	0.0161		139.8605	139.8605	0.0130		140.1858
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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0594**	**0.4149**	**0.4549**	**2.3900e-003**	**0.1796**	**2.2800e-003**	**0.1818**	**0.0474**	**2.1600e-003**	**0.0495**		**251.1124**	**251.1124**	**0.0156**		**251.5033**

3.3 Excavating/Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	7.5100e-003	0.2552	0.0940	1.2300e-003	0.3410	5.2000e-004	0.3415	0.0846	5.0000e-004	0.0851		135.4680	135.4680	0.0123		135.7750
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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0530**	**0.2794**	**0.4218**	**2.3000e-003**	**0.4642**	**1.3300e-003**	**0.4655**	**0.1172**	**1.2500e-003**	**0.1185**		**242.4571**	**242.4571**	**0.0146**		**242.8232**

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	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	7.5100e-003	0.2552	0.0940	1.2300e-003	0.3410	5.2000e-004	0.3415	0.0846	5.0000e-004	0.0851		135.4680	135.4680	0.0123		135.7750
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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0530**	**0.2794**	**0.4218**	**2.3000e-003**	**0.4642**	**1.3300e-003**	**0.4655**	**0.1172**	**1.2500e-003**	**0.1185**		**242.4571**	**242.4571**	**0.0146**		**242.8232**

3.4 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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3891**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0514**	**0.0297**	**0.3831**	**1.1600e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**115.4984**	**115.4984**	**2.9000e-003**		**115.5708**

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3891**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0514**	**0.0297**	**0.3831**	**1.1600e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**115.4984**	**115.4984**	**2.9000e-003**		**115.5708**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2364**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0483**	**0.0268**	**0.3546**	**1.1200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**111.2519**	**111.2519**	**2.6200e-003**		**111.3175**

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2364**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0483**	**0.0268**	**0.3546**	**1.1200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**111.2519**	**111.2519**	**2.6200e-003**		**111.3175**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1663**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0455**	**0.0242**	**0.3277**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.9891**	**106.9891**	**2.3600e-003**		**107.0482**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1663**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0455**	**0.0242**	**0.3277**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.9891**	**106.9891**	**2.3600e-003**		**107.0482**

Ventura Water Pure_CDF_ProjLevel_20180522 - Ventura County APCD Air District, Winter

Ventura Water Pure_CDF_ProjLevel_20180522

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	0.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project specfic square footage and acreage.

Construction Phase - Project specific construction data.

Off-road Equipment -

Trips and VMT - Project specific construction trips.

Demolition -

Vehicle Trips - Project specific fleet mix.

Energy Use - Project specific energy data.

Water And Wastewater - Project specific water usage.

Solid Waste - Project specific sold waste.

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.9153	76.6569	59.0892	0.1060	0.8019	3.7860	4.5879	0.1742	3.5110	3.6852	0.0000	10,275.6831	10,275.6831	2.8558	0.0000	10,347.0787
2022	6.6993	63.3400	56.9883	0.1058	0.8016	3.0583	3.8599	0.1742	2.8378	3.0120	0.0000	10,258.4639	10,258.4639	2.8498	0.0000	10,329.7092
2023	5.8733	53.6912	54.9952	0.1056	1.3086	2.5087	3.8172	0.2986	2.3285	2.6271	0.0000	10,239.0449	10,239.0449	2.8415	0.0000	10,310.0814
Maximum	**7.9153**	**76.6569**	**59.0892**	**0.1060**	**1.3086**	**3.7860**	**4.5879**	**0.2986**	**3.5110**	**3.6852**	**0.0000**	**10,275.6831**	**10,275.6831**	**2.8558**	**0.0000**	**10,347.0787**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.9153	76.6569	59.0892	0.1060	0.5983	3.7860	4.3843	0.1434	3.5110	3.6544	0.0000	10,275.6831	10,275.6831	2.8558	0.0000	10,347.0787
2022	6.6993	63.3400	56.9883	0.1058	0.5980	3.0583	3.6562	0.1433	2.8378	2.9811	0.0000	10,258.4639	10,258.4639	2.8498	0.0000	10,329.7092
2023	5.8733	53.6912	54.9952	0.1056	1.1050	2.5087	3.6136	0.2678	2.3285	2.5963	0.0000	10,239.0449	10,239.0449	2.8415	0.0000	10,310.0814
Maximum	**7.9153**	**76.6569**	**59.0892**	**0.1060**	**1.1050**	**3.7860**	**4.3843**	**0.2678**	**3.5110**	**3.6544**	**0.0000**	**10,275.6831**	**10,275.6831**	**2.8558**	**0.0000**	**10,347.0787**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**20.98**	**0.00**	**4.98**	**14.30**	**0.00**	**0.99**	**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	1/1/2021	2/21/2023	6	670	
2	Excavating/Trenching	Trenching	1/4/2021	2/23/2023	6	670	
3	Paving	Paving	3/19/2021	2/27/2023	6	609	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Excavating/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Excavating/Trenching	Excavators	3	8.00	158	0.38
Excavating/Trenching	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	861.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavating/Trenching	6	15.00	0.00	1,161.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3338	0.0000	0.3338	0.0506	0.0000	0.0506			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.3338**	**1.5513**	**1.8852**	**0.0506**	**1.4411**	**1.4916**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	9.0100e-003	0.3203	0.0794	9.4000e-004	0.0418	1.3000e-003	0.0431	0.0109	1.2500e-003	0.0121		103.4204	103.4204	0.0101		103.6736
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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0673**	**0.3550**	**0.4526**	**2.0400e-003**	**0.1650**	**2.1500e-003**	**0.1672**	**0.0436**	**2.0400e-003**	**0.0456**		**213.3226**	**213.3226**	**0.0129**		**213.6457**

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					0.1302	0.0000	0.1302	0.0197	0.0000	0.0197			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.1302**	**1.5513**	**1.6815**	**0.0197**	**1.4411**	**1.4608**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	9.0100e-003	0.3203	0.0794	9.4000e-004	0.0418	1.3000e-003	0.0431	0.0109	1.2500e-003	0.0121		103.4204	103.4204	0.0101		103.6736
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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0673**	**0.3550**	**0.4526**	**2.0400e-003**	**0.1650**	**2.1500e-003**	**0.1672**	**0.0436**	**2.0400e-003**	**0.0456**		**213.3226**	**213.3226**	**0.0129**		**213.6457**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3338	0.0000	0.3338	0.0506	0.0000	0.0506			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.3338**	**1.2427**	**1.5765**	**0.0506**	**1.1553**	**1.2058**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	8.4700e-003	0.2905	0.0792	9.3000e-004	0.0418	1.1100e-003	0.0429	0.0109	1.0600e-003	0.0120		102.0457	102.0457	9.9500e-003		102.2945
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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0634**	**0.3219**	**0.4238**	**1.9900e-003**	**0.1650**	**1.9400e-003**	**0.1669**	**0.0436**	**1.8300e-003**	**0.0454**		**207.9103**	**207.9103**	**0.0125**		**208.2222**

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					0.1302	0.0000	0.1302	0.0197	0.0000	0.0197			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1302**	**1.2427**	**1.3728**	**0.0197**	**1.1553**	**1.1750**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	8.4700e-003	0.2905	0.0792	9.3000e-004	0.0418	1.1100e-003	0.0429	0.0109	1.0600e-003	0.0120		102.0457	102.0457	9.9500e-003		102.2945
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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0634**	**0.3219**	**0.4238**	**1.9900e-003**	**0.1650**	**1.9400e-003**	**0.1669**	**0.0436**	**1.8300e-003**	**0.0454**		**207.9103**	**207.9103**	**0.0125**		**208.2222**

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3338	0.0000	0.3338	0.0506	0.0000	0.0506			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**0.3338**	**0.9975**	**1.3314**	**0.0506**	**0.9280**	**0.9785**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	5.7400e-003	0.1898	0.0731	9.0000e-004	0.2641	4.0000e-004	0.2645	0.0655	3.9000e-004	0.0659		98.8146	98.8146	9.3400e-003		99.0481
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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0575**	**0.2181**	**0.3906**	**1.9200e-003**	**0.3873**	**1.2100e-003**	**0.3886**	**0.0981**	**1.1400e-003**	**0.0993**		**200.6257**	**200.6257**	**0.0116**		**200.9160**

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					0.1302	0.0000	0.1302	0.0197	0.0000	0.0197			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**0.1302**	**0.9975**	**1.1277**	**0.0197**	**0.9280**	**0.9477**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	5.7400e-003	0.1898	0.0731	9.0000e-004	0.2641	4.0000e-004	0.2645	0.0655	3.9000e-004	0.0659		98.8146	98.8146	9.3400e-003		99.0481
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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0575**	**0.2181**	**0.3906**	**1.9200e-003**	**0.3873**	**1.2100e-003**	**0.3886**	**0.0981**	**1.1400e-003**	**0.0993**		**200.6257**	**200.6257**	**0.0116**		**200.9160**

3.3 Excavating/Trenching - 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	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0122	0.4319	0.1071	1.2700e-003	0.0566	1.7600e-003	0.0584	0.0148	1.6800e-003	0.0164		139.4553	139.4553	0.0137		139.7969
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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0704**	**0.4666**	**0.4802**	**2.3700e-003**	**0.1799**	**2.6100e-003**	**0.1825**	**0.0474**	**2.4700e-003**	**0.0499**		**249.3576**	**249.3576**	**0.0165**		**249.7689**

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	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0122	0.4319	0.1071	1.2700e-003	0.0566	1.7600e-003	0.0584	0.0148	1.6800e-003	0.0164		139.4553	139.4553	0.0137		139.7969
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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0704**	**0.4666**	**0.4802**	**2.3700e-003**	**0.1799**	**2.6100e-003**	**0.1825**	**0.0474**	**2.4700e-003**	**0.0499**		**249.3576**	**249.3576**	**0.0165**		**249.7689**

3.3 Excavating/Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0114	0.3917	0.1068	1.2500e-003	0.0563	1.5000e-003	0.0578	0.0147	1.4300e-003	0.0161		137.6016	137.6016	0.0134		137.9372
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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0663**	**0.4231**	**0.4514**	**2.3100e-003**	**0.1796**	**2.3300e-003**	**0.1819**	**0.0474**	**2.2000e-003**	**0.0496**		**243.4663**	**243.4663**	**0.0159**		**243.8649**

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	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0114	0.3917	0.1068	1.2500e-003	0.0563	1.5000e-003	0.0578	0.0147	1.4300e-003	0.0161		137.6016	137.6016	0.0134		137.9372
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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0663**	**0.4231**	**0.4514**	**2.3100e-003**	**0.1796**	**2.3300e-003**	**0.1819**	**0.0474**	**2.2000e-003**	**0.0496**		**243.4663**	**243.4663**	**0.0159**		**243.8649**

3.3 Excavating/Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	7.7400e-003	0.2559	0.0985	1.2100e-003	0.3410	5.4000e-004	0.3415	0.0846	5.2000e-004	0.0851		133.2448	133.2448	0.0126		133.5597
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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0595**	**0.2843**	**0.4161**	**2.2300e-003**	**0.4642**	**1.3500e-003**	**0.4656**	**0.1172**	**1.2700e-003**	**0.1185**		**235.0559**	**235.0559**	**0.0149**		**235.4275**

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	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	7.7400e-003	0.2559	0.0985	1.2100e-003	0.3410	5.4000e-004	0.3415	0.0846	5.2000e-004	0.0851		133.2448	133.2448	0.0126		133.5597
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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0595**	**0.2843**	**0.4161**	**2.2300e-003**	**0.4642**	**1.3500e-003**	**0.4656**	**0.1172**	**1.2700e-003**	**0.1185**		**235.0559**	**235.0559**	**0.0149**		**235.4275**

3.4 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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3891**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0583**	**0.0348**	**0.3731**	**1.1000e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**109.9022**	**109.9022**	**2.7900e-003**		**109.9721**

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3891**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0583**	**0.0348**	**0.3731**	**1.1000e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**109.9022**	**109.9022**	**2.7900e-003**		**109.9721**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2364**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2364**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1663**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.1335					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1663**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

Ventura Water Pure_FTW - Ventura County APCD Air District, Annual

Ventura Water Pure_FTW

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment - Project specific construction data.

Off-road Equipment -

Off-road Equipment - Construction equipment specific to the Project.

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading - Project specific data.

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.6329	7.1197	4.4374	9.9400e-003	1.6026	0.2996	1.9022	0.7408	0.2759	1.0167	0.0000	890.7307	890.7307	0.2479	0.0000	896.9273
2022	0.5922	6.6049	4.7513	0.0116	1.3055	0.2580	1.5635	0.5794	0.2374	0.8168	0.0000	1,038.8135	1,038.8135	0.2922	0.0000	1,046.12
2023	0.5377	5.7286	4.5669	0.0115	1.3024	0.2231	1.5255	0.5777	0.2053	0.7830	0.0000	1,029.5453	1,029.5453	0.2903	0.0000	1,036.80
2024	0.5773	5.9129	5.2723	0.0126	1.3171	0.2352	1.5524	0.5834	0.2164	0.7998	0.0000	1,126.2698	1,126.2698	0.3199	0.0000	1,134.27
2025	0.0584	0.5736	0.5995	1.3900e-003	0.4271	0.0225	0.4496	0.1041	0.0207	0.1248	0.0000	123.7633	123.7633	0.0355	0.0000	124.6496
Maximum	**0.6329**	**7.1197**	**5.2723**	**0.0126**	**1.6026**	**0.2996**	**1.9022**	**0.7408**	**0.2759**	**1.0167**	**0.0000**	**1,126.2698**	**1,126.2698**	**0.3199**	**0.0000**	**1,134.2667**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.6329	7.1197	4.4374	9.9400e-003	0.7155	0.2996	1.0151	0.3120	0.2759	0.5879	0.0000	890.7299	890.7299	0.2479	0.0000	896.9265
2022	0.5922	6.6049	4.7513	0.0116	0.5980	0.2580	0.8559	0.2488	0.2374	0.4862	0.0000	1,038.8124	1,038.8124	0.2922	0.0000	1,046.12
2023	0.5377	5.7286	4.5669	0.0115	0.5967	0.2231	0.8198	0.2481	0.2053	0.4534	0.0000	1,029.5443	1,029.5443	0.2903	0.0000	1,036.80
2024	0.5773	5.9129	5.2722	0.0126	0.6077	0.2352	0.8430	0.2517	0.2164	0.4681	0.0000	1,126.2686	1,126.2686	0.3199	0.0000	1,134.27
2025	0.0584	0.5736	0.5995	1.3900e-003	0.2375	0.0225	0.2600	0.0581	0.0207	0.0788	0.0000	123.7632	123.7632	0.0355	0.0000	124.6495
Maximum	**0.6329**	**7.1197**	**5.2722**	**0.0126**	**0.7155**	**0.2996**	**1.0151**	**0.3120**	**0.2759**	**0.5879**	**0.0000**	**1,126.2686**	**1,126.2686**	**0.3199**	**0.0000**	**1,134.2656**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.73**	**0.00**	**45.75**	**56.73**	**0.00**	**41.42**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	12-1-2020	2-28-2021	1.1726	1.1726
4	3-1-2021	5-31-2021	1.5830	1.5830
5	6-1-2021	8-31-2021	2.1440	2.1440
6	9-1-2021	11-30-2021	2.1222	2.1222
7	12-1-2021	2-28-2022	1.8853	1.8853
8	3-1-2022	5-31-2022	1.8109	1.8109
9	6-1-2022	8-31-2022	1.8102	1.8102
10	9-1-2022	11-30-2022	1.7918	1.7918
11	12-1-2022	2-28-2023	1.6259	1.6259
12	3-1-2023	5-31-2023	1.5826	1.5826
13	6-1-2023	8-31-2023	1.5823	1.5823
14	9-1-2023	11-30-2023	1.5656	1.5656
15	12-1-2023	2-29-2024	1.5069	1.5069
16	3-1-2024	5-31-2024	1.5609	1.5609
17	6-1-2024	8-31-2024	1.6961	1.6961
18	9-1-2024	11-30-2024	1.6784	1.6784
19	12-1-2024	2-28-2025	1.2007	1.2007
		Highest	2.1440	2.1440

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	1/1/2021	1/23/2021	6	20	
2	Site Preparation	Site Preparation	1/1/2021	4/27/2021	6	100	
3	Excavation and Grading	Grading	5/1/2021	2/5/2025	6	1180	
4	Planting	Trenching	5/1/2024	2/27/2025	6	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Excavation and Grading	Excavators	2	8.00	158	0.38
Excavation and Grading	Graders	1	8.00	187	0.41
Excavation and Grading	Rubber Tired Dozers	1	8.00	247	0.40
Excavation and Grading	Scrapers	2	8.00	367	0.48
Excavation and Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Planting	Forklifts	2	8.00	89	0.20
Planting	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	0.00	850.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation and Grading	8	20.00	0.00	17,122.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Planting	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0600e-003	0.0000	2.0600e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0271	0.2713	0.1502	2.8000e-004		0.0134	0.0134		0.0125	0.0125	0.0000	24.9255	24.9255	6.6300e-003	0.0000	25.0913
Total	**0.0271**	**0.2713**	**0.1502**	**2.8000e-004**	**2.0600e-003**	**0.0134**	**0.0155**	**3.1000e-004**	**0.0125**	**0.0128**	**0.0000**	**24.9255**	**24.9255**	**6.6300e-003**	**0.0000**	**25.0913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	2.0200e-003	4.8000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5896	0.5896	6.0000e-005	0.0000	0.5910
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.2000e-004	2.4600e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.6701	0.6701	2.0000e-005	0.0000	0.6705
Total	**4.1000e-004**	**2.2400e-003**	**2.9400e-003**	**2.0000e-005**	**9.5000e-004**	**2.0000e-005**	**9.6000e-004**	**2.5000e-004**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**1.2596**	**1.2596**	**8.0000e-005**	**0.0000**	**1.2615**

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					8.0000e-004	0.0000	8.0000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0271	0.2713	0.1502	2.8000e-004		0.0134	0.0134		0.0125	0.0125	0.0000	24.9254	24.9254	6.6300e-003	0.0000	25.0913
Total	**0.0271**	**0.2713**	**0.1502**	**2.8000e-004**	**8.0000e-004**	**0.0134**	**0.0142**	**1.2000e-004**	**0.0125**	**0.0126**	**0.0000**	**24.9254**	**24.9254**	**6.6300e-003**	**0.0000**	**25.0913**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	2.0200e-003	4.8000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5896	0.5896	6.0000e-005	0.0000	0.5910
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.2000e-004	2.4600e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.6701	0.6701	2.0000e-005	0.0000	0.6705
Total	**4.1000e-004**	**2.2400e-003**	**2.9400e-003**	**2.0000e-005**	**9.5000e-004**	**2.0000e-005**	**9.6000e-004**	**2.5000e-004**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**1.2596**	**1.2596**	**8.0000e-005**	**0.0000**	**1.2615**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6023	0.0000	0.6023	0.3310	0.0000	0.3310	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1421	1.4763	0.8558	1.4700e-003		0.0756	0.0756		0.0696	0.0696	0.0000	129.6505	129.6505	0.0419	0.0000	130.6988
Total	**0.1421**	**1.4763**	**0.8558**	**1.4700e-003**	**0.6023**	**0.0756**	**0.6779**	**0.3310**	**0.0696**	**0.4006**	**0.0000**	**129.6505**	**129.6505**	**0.0419**	**0.0000**	**130.6988**

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	2.9300e-003	0.1072	0.0253	3.1000e-004	7.2800e-003	4.2000e-004	7.7100e-003	2.0000e-003	4.1000e-004	2.4000e-003	0.0000	31.3206	31.3206	2.9800e-003	0.0000	31.3952
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	2.5900e-003	1.6800e-003	0.0185	6.0000e-005	6.0500e-003	4.0000e-005	6.0900e-003	1.6100e-003	4.0000e-005	1.6500e-003	0.0000	5.0255	5.0255	1.3000e-004	0.0000	5.0287
Total	**5.5200e-003**	**0.1089**	**0.0438**	**3.7000e-004**	**0.0133**	**4.6000e-004**	**0.0138**	**3.6100e-003**	**4.5000e-004**	**4.0500e-003**	**0.0000**	**36.3461**	**36.3461**	**3.1100e-003**	**0.0000**	**36.4239**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2349	0.0000	0.2349	0.1291	0.0000	0.1291	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1421	1.4763	0.8558	1.4700e-003		0.0756	0.0756		0.0696	0.0696	0.0000	129.6504	129.6504	0.0419	0.0000	130.6987
Total	**0.1421**	**1.4763**	**0.8558**	**1.4700e-003**	**0.2349**	**0.0756**	**0.3105**	**0.1291**	**0.0696**	**0.1987**	**0.0000**	**129.6504**	**129.6504**	**0.0419**	**0.0000**	**130.6987**

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	2.9300e-003	0.1072	0.0253	3.1000e-004	7.2800e-003	4.2000e-004	7.7100e-003	2.0000e-003	4.1000e-004	2.4000e-003	0.0000	31.3206	31.3206	2.9800e-003	0.0000	31.3952
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	2.5900e-003	1.6800e-003	0.0185	6.0000e-005	6.0500e-003	4.0000e-005	6.0900e-003	1.6100e-003	4.0000e-005	1.6500e-003	0.0000	5.0255	5.0255	1.3000e-004	0.0000	5.0287
Total	**5.5200e-003**	**0.1089**	**0.0438**	**3.7000e-004**	**0.0133**	**4.6000e-004**	**0.0138**	**3.6100e-003**	**4.5000e-004**	**4.0500e-003**	**0.0000**	**36.3461**	**36.3461**	**3.1100e-003**	**0.0000**	**36.4239**

3.4 Excavation and Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8498	0.0000	0.8498	0.3716	0.0000	0.3716	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4401	4.8720	3.2422	6.5100e-003		0.2085	0.2085		0.1918	0.1918	0.0000	572.1973	572.1973	0.1851	0.0000	576.8238
Total	**0.4401**	**4.8720**	**3.2422**	**6.5100e-003**	**0.8498**	**0.2085**	**1.0583**	**0.3716**	**0.1918**	**0.5634**	**0.0000**	**572.1973**	**572.1973**	**0.1851**	**0.0000**	**576.8238**

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	0.0105	0.3843	0.0907	1.1300e-003	0.1172	1.5200e-003	0.1187	0.0295	1.4500e-003	0.0310	0.0000	112.2803	112.2803	0.0107	0.0000	112.5477
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	7.2600e-003	4.7000e-003	0.0517	1.6000e-004	0.0169	1.2000e-004	0.0171	4.5000e-003	1.1000e-004	4.6100e-003	0.0000	14.0714	14.0714	3.6000e-004	0.0000	14.0803
Total	**0.0178**	**0.3890**	**0.1424**	**1.2900e-003**	**0.1341**	**1.6400e-003**	**0.1358**	**0.0340**	**1.5600e-003**	**0.0356**	**0.0000**	**126.3517**	**126.3517**	**0.0111**	**0.0000**	**126.6280**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3314	0.0000	0.3314	0.1449	0.0000	0.1449	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4401	4.8720	3.2422	6.5100e-003		0.2085	0.2085		0.1918	0.1918	0.0000	572.1966	572.1966	0.1851	0.0000	576.8231
Total	**0.4401**	**4.8720**	**3.2422**	**6.5100e-003**	**0.3314**	**0.2085**	**0.5399**	**0.1449**	**0.1918**	**0.3367**	**0.0000**	**572.1966**	**572.1966**	**0.1851**	**0.0000**	**576.8231**

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	0.0105	0.3843	0.0907	1.1300e-003	0.1172	1.5200e-003	0.1187	0.0295	1.4500e-003	0.0310	0.0000	112.2803	112.2803	0.0107	0.0000	112.5477
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	7.2600e-003	4.7000e-003	0.0517	1.6000e-004	0.0169	1.2000e-004	0.0171	4.5000e-003	1.1000e-004	4.6100e-003	0.0000	14.0714	14.0714	3.6000e-004	0.0000	14.0803
Total	**0.0178**	**0.3890**	**0.1424**	**1.2900e-003**	**0.1341**	**1.6400e-003**	**0.1358**	**0.0340**	**1.5600e-003**	**0.0356**	**0.0000**	**126.3517**	**126.3517**	**0.0111**	**0.0000**	**126.6280**

3.4 Excavation and Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1600	0.0000	1.1600	0.5421	0.0000	0.5421	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5673	6.0790	4.5450	9.7200e-003		0.2559	0.2559		0.2354	0.2354	0.0000	853.4665	853.4665	0.2760	0.0000	860.3672
Total	**0.5673**	**6.0790**	**4.5450**	**9.7200e-003**	**1.1600**	**0.2559**	**1.4158**	**0.5421**	**0.2354**	**0.7775**	**0.0000**	**853.4665**	**853.4665**	**0.2760**	**0.0000**	**860.3672**

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	0.0147	0.5196	0.1350	1.6600e-003	0.1203	1.9200e-003	0.1223	0.0307	1.8400e-003	0.0325	0.0000	165.1445	165.1445	0.0157	0.0000	165.5365
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	0.0102	6.3300e-003	0.0713	2.2000e-004	0.0252	1.7000e-004	0.0254	6.7000e-003	1.6000e-004	6.8600e-003	0.0000	20.2025	20.2025	4.8000e-004	0.0000	20.2145
Total	**0.0249**	**0.5259**	**0.2063**	**1.8800e-003**	**0.1456**	**2.0900e-003**	**0.1477**	**0.0374**	**2.0000e-003**	**0.0394**	**0.0000**	**185.3470**	**185.3470**	**0.0162**	**0.0000**	**185.7510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4524	0.0000	0.4524	0.2114	0.0000	0.2114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5673	6.0790	4.5450	9.7200e-003		0.2559	0.2559		0.2354	0.2354	0.0000	853.4655	853.4655	0.2760	0.0000	860.3662
Total	**0.5673**	**6.0790**	**4.5450**	**9.7200e-003**	**0.4524**	**0.2559**	**0.7082**	**0.2114**	**0.2354**	**0.4468**	**0.0000**	**853.4655**	**853.4655**	**0.2760**	**0.0000**	**860.3662**

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	0.0147	0.5196	0.1350	1.6600e-003	0.1203	1.9200e-003	0.1223	0.0307	1.8400e-003	0.0325	0.0000	165.1445	165.1445	0.0157	0.0000	165.5365
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	0.0102	6.3300e-003	0.0713	2.2000e-004	0.0252	1.7000e-004	0.0254	6.7000e-003	1.6000e-004	6.8600e-003	0.0000	20.2025	20.2025	4.8000e-004	0.0000	20.2145
Total	**0.0249**	**0.5259**	**0.2063**	**1.8800e-003**	**0.1456**	**2.0900e-003**	**0.1477**	**0.0374**	**2.0000e-003**	**0.0394**	**0.0000**	**185.3470**	**185.3470**	**0.0162**	**0.0000**	**185.7510**

3.4 Excavation and Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1570	0.0000	1.1570	0.5404	0.0000	0.5404	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5182	5.3844	4.3760	9.6900e-003		0.2222	0.2222		0.2044	0.2044	0.0000	850.7493	850.7493	0.2752	0.0000	857.6280
Total	**0.5182**	**5.3844**	**4.3760**	**9.6900e-003**	**1.1570**	**0.2222**	**1.3792**	**0.5404**	**0.2044**	**0.7448**	**0.0000**	**850.7493**	**850.7493**	**0.2752**	**0.0000**	**857.6280**

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	9.9400e-003	0.3385	0.1254	1.5900e-003	0.1203	6.9000e-004	0.1210	0.0307	6.6000e-004	0.0313	0.0000	159.4293	159.4293	0.0147	0.0000	159.7972
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	9.5600e-003	5.7000e-003	0.0655	2.1000e-004	0.0252	1.7000e-004	0.0253	6.6800e-003	1.6000e-004	6.8400e-003	0.0000	19.3668	19.3668	4.3000e-004	0.0000	19.3775
Total	**0.0195**	**0.3442**	**0.1909**	**1.8000e-003**	**0.1455**	**8.6000e-004**	**0.1463**	**0.0373**	**8.2000e-004**	**0.0382**	**0.0000**	**178.7961**	**178.7961**	**0.0151**	**0.0000**	**179.1747**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4512	0.0000	0.4512	0.2108	0.0000	0.2108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5182	5.3844	4.3760	9.6900e-003		0.2222	0.2222		0.2044	0.2044	0.0000	850.7482	850.7482	0.2752	0.0000	857.6270
Total	**0.5182**	**5.3844**	**4.3760**	**9.6900e-003**	**0.4512**	**0.2222**	**0.6734**	**0.2108**	**0.2044**	**0.4152**	**0.0000**	**850.7482**	**850.7482**	**0.2752**	**0.0000**	**857.6270**

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	9.9400e-003	0.3385	0.1254	1.5900e-003	0.1203	6.9000e-004	0.1210	0.0307	6.6000e-004	0.0313	0.0000	159.4293	159.4293	0.0147	0.0000	159.7972
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	9.5600e-003	5.7000e-003	0.0655	2.1000e-004	0.0252	1.7000e-004	0.0253	6.6800e-003	1.6000e-004	6.8400e-003	0.0000	19.3668	19.3668	4.3000e-004	0.0000	19.3775
Total	**0.0195**	**0.3442**	**0.1909**	**1.8000e-003**	**0.1455**	**8.6000e-004**	**0.1463**	**0.0373**	**8.2000e-004**	**0.0382**	**0.0000**	**178.7961**	**178.7961**	**0.0151**	**0.0000**	**179.1747**

3.4 Excavation and Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1630	0.0000	1.1630	0.5437	0.0000	0.5437	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5053	5.0832	4.3525	9.7500e-003		0.2097	0.2097		0.1929	0.1929	0.0000	855.9565	855.9565	0.2768	0.0000	862.8774
Total	**0.5053**	**5.0832**	**4.3525**	**9.7500e-003**	**1.1630**	**0.2097**	**1.3726**	**0.5437**	**0.1929**	**0.7366**	**0.0000**	**855.9565**	**855.9565**	**0.2768**	**0.0000**	**862.8774**

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	9.9400e-003	0.3331	0.1292	1.5900e-003	0.1204	6.8000e-004	0.1211	0.0307	6.5000e-004	0.0313	0.0000	159.5346	159.5346	0.0148	0.0000	159.9046
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	9.1100e-003	5.2100e-003	0.0613	2.1000e-004	0.0253	1.7000e-004	0.0255	6.7300e-003	1.5000e-004	6.8800e-003	0.0000	18.8013	18.8013	3.9000e-004	0.0000	18.8111
Total	**0.0191**	**0.3383**	**0.1905**	**1.8000e-003**	**0.1457**	**8.5000e-004**	**0.1466**	**0.0374**	**8.0000e-004**	**0.0382**	**0.0000**	**178.3358**	**178.3358**	**0.0152**	**0.0000**	**178.7157**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4536	0.0000	0.4536	0.2121	0.0000	0.2121	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5053	5.0832	4.3525	9.7500e-003		0.2097	0.2097		0.1929	0.1929	0.0000	855.9555	855.9555	0.2768	0.0000	862.8763
Total	**0.5053**	**5.0832**	**4.3525**	**9.7500e-003**	**0.4536**	**0.2097**	**0.6632**	**0.2121**	**0.1929**	**0.4049**	**0.0000**	**855.9555**	**855.9555**	**0.2768**	**0.0000**	**862.8763**

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	9.9400e-003	0.3331	0.1292	1.5900e-003	0.1204	6.8000e-004	0.1211	0.0307	6.5000e-004	0.0313	0.0000	159.5346	159.5346	0.0148	0.0000	159.9046
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	9.1100e-003	5.2100e-003	0.0613	2.1000e-004	0.0253	1.7000e-004	0.0255	6.7300e-003	1.5000e-004	6.8800e-003	0.0000	18.8013	18.8013	3.9000e-004	0.0000	18.8111
Total	**0.0191**	**0.3383**	**0.1905**	**1.8000e-003**	**0.1457**	**8.5000e-004**	**0.1466**	**0.0374**	**8.0000e-004**	**0.0382**	**0.0000**	**178.3358**	**178.3358**	**0.0152**	**0.0000**	**178.7157**

3.4 Excavation and Grading - 2025

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					0.3108	0.0000	0.3108	0.0753	0.0000	0.0753	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0450	0.4331	0.4081	9.6000e-004		0.0175	0.0175		0.0161	0.0161	0.0000	84.4846	84.4846	0.0273	0.0000	85.1677
Total	**0.0450**	**0.4331**	**0.4081**	**9.6000e-004**	**0.3108**	**0.0175**	**0.3284**	**0.0753**	**0.0161**	**0.0915**	**0.0000**	**84.4846**	**84.4846**	**0.0273**	**0.0000**	**85.1677**

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	9.7000e-004	0.0320	0.0130	1.6000e-004	0.1117	7.0000e-005	0.1118	0.0275	6.0000e-005	0.0276	0.0000	15.6456	15.6456	1.4600e-003	0.0000	15.6822
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	4.7000e-004	5.6200e-003	2.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	1.7811	1.7811	4.0000e-005	0.0000	1.7820
Total	**1.8200e-003**	**0.0324**	**0.0186**	**1.8000e-004**	**0.1142**	**9.0000e-005**	**0.1143**	**0.0282**	**7.0000e-005**	**0.0283**	**0.0000**	**17.4267**	**17.4267**	**1.5000e-003**	**0.0000**	**17.4642**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1212	0.0000	0.1212	0.0294	0.0000	0.0294	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0450	0.4331	0.4081	9.6000e-004		0.0175	0.0175		0.0161	0.0161	0.0000	84.4845	84.4845	0.0273	0.0000	85.1676
Total	**0.0450**	**0.4331**	**0.4081**	**9.6000e-004**	**0.1212**	**0.0175**	**0.1388**	**0.0294**	**0.0161**	**0.0455**	**0.0000**	**84.4845**	**84.4845**	**0.0273**	**0.0000**	**85.1676**

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	9.7000e-004	0.0320	0.0130	1.6000e-004	0.1117	7.0000e-005	0.1118	0.0275	6.0000e-005	0.0276	0.0000	15.6456	15.6456	1.4600e-003	0.0000	15.6822
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	4.7000e-004	5.6200e-003	2.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	1.7811	1.7811	4.0000e-005	0.0000	1.7820
Total	**1.8200e-003**	**0.0324**	**0.0186**	**1.8000e-004**	**0.1142**	**9.0000e-005**	**0.1143**	**0.0282**	**7.0000e-005**	**0.0283**	**0.0000**	**17.4267**	**17.4267**	**1.5000e-003**	**0.0000**	**17.4642**

3.5 Planting - 2024

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	0.0500	0.4897	0.7087	9.8000e-004		0.0247	0.0247		0.0227	0.0227	0.0000	85.6904	85.6904	0.0277	0.0000	86.3832
Total	**0.0500**	**0.4897**	**0.7087**	**9.8000e-004**		**0.0247**	**0.0247**		**0.0227**	**0.0227**	**0.0000**	**85.6904**	**85.6904**	**0.0277**	**0.0000**	**86.3832**

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	3.0500e-003	1.7400e-003	0.0205	7.0000e-005	8.4700e-003	6.0000e-005	8.5200e-003	2.2500e-003	5.0000e-005	2.3000e-003	0.0000	6.2870	6.2870	1.3000e-004	0.0000	6.2903
Total	**3.0500e-003**	**1.7400e-003**	**0.0205**	**7.0000e-005**	**8.4700e-003**	**6.0000e-005**	**8.5200e-003**	**2.2500e-003**	**5.0000e-005**	**2.3000e-003**	**0.0000**	**6.2870**	**6.2870**	**1.3000e-004**	**0.0000**	**6.2903**

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	0.0500	0.4897	0.7087	9.8000e-004		0.0247	0.0247		0.0227	0.0227	0.0000	85.6903	85.6903	0.0277	0.0000	86.3831
Total	**0.0500**	**0.4897**	**0.7087**	**9.8000e-004**		**0.0247**	**0.0247**		**0.0227**	**0.0227**	**0.0000**	**85.6903**	**85.6903**	**0.0277**	**0.0000**	**86.3831**

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	3.0500e-003	1.7400e-003	0.0205	7.0000e-005	8.4700e-003	6.0000e-005	8.5200e-003	2.2500e-003	5.0000e-005	2.3000e-003	0.0000	6.2870	6.2870	1.3000e-004	0.0000	6.2903
Total	**3.0500e-003**	**1.7400e-003**	**0.0205**	**7.0000e-005**	**8.4700e-003**	**6.0000e-005**	**8.5200e-003**	**2.2500e-003**	**5.0000e-005**	**2.3000e-003**	**0.0000**	**6.2870**	**6.2870**	**1.3000e-004**	**0.0000**	**6.2903**

3.5 Planting - 2025

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	0.0110	0.1077	0.1682	2.3000e-004		4.9000e-003	4.9000e-003		4.5000e-003	4.5000e-003	0.0000	20.4156	20.4156	6.6000e-003	0.0000	20.5807
Total	**0.0110**	**0.1077**	**0.1682**	**2.3000e-004**		**4.9000e-003**	**4.9000e-003**		**4.5000e-003**	**4.5000e-003**	**0.0000**	**20.4156**	**20.4156**	**6.6000e-003**	**0.0000**	**20.5807**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	3.8000e-004	4.5300e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.4364	1.4364	3.0000e-005	0.0000	1.4371
Total	**6.9000e-004**	**3.8000e-004**	**4.5300e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.4364**	**1.4364**	**3.0000e-005**	**0.0000**	**1.4371**

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	0.0110	0.1077	0.1682	2.3000e-004		4.9000e-003	4.9000e-003		4.5000e-003	4.5000e-003	0.0000	20.4156	20.4156	6.6000e-003	0.0000	20.5806
Total	**0.0110**	**0.1077**	**0.1682**	**2.3000e-004**		**4.9000e-003**	**4.9000e-003**		**4.5000e-003**	**4.5000e-003**	**0.0000**	**20.4156**	**20.4156**	**6.6000e-003**	**0.0000**	**20.5806**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	3.8000e-004	4.5300e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.4364	1.4364	3.0000e-005	0.0000	1.4371
Total	**6.9000e-004**	**3.8000e-004**	**4.5300e-003**	**2.0000e-005**	**2.0200e-003**	**1.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.4364**	**1.4364**	**3.0000e-005**	**0.0000**	**1.4371**

Ventura Water Pure_FTW - Ventura County APCD Air District, Summer

Ventura Water Pure_FTW

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment - Project specific construction data.

Off-road Equipment -

Off-road Equipment - Construction equipment specific to the Project.

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading - Project specific data.

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.6974	59.0026	33.3144	0.0744	12.6201	2.8651	15.4851	6.7509	2.6500	9.4009	0.0000	7,347.7411	7,347.7411	2.0574	0.0000	7,399.1758
2022	3.7819	42.1295	30.3539	0.0742	7.3393	1.6481	8.9874	3.5942	1.5167	5.1109	0.0000	7,330.8897	7,330.8897	2.0567	0.0000	7,382.3068
2023	3.4453	36.6845	29.2755	0.0738	7.3416	1.4300	8.7716	3.5948	1.3157	4.9105	0.0000	7,288.4920	7,288.4920	2.0502	0.0000	7,339.7474
2024	3.8429	39.1740	35.8904	0.0836	7.4192	1.5763	8.9955	3.6154	1.4503	5.0658	0.0000	8,243.5663	8,243.5663	2.3418	0.0000	8,302.1112
2025	3.4824	34.3218	34.4489	0.0835	14.0006	1.3325	15.3331	5.2309	1.2261	6.4569	0.0000	8,226.7755	8,226.7755	2.3412	0.0000	8,285.3064
Maximum	**5.6974**	**59.0026**	**35.8904**	**0.0836**	**14.0006**	**2.8651**	**15.4851**	**6.7509**	**2.6500**	**9.4009**	**0.0000**	**8,243.5663**	**8,243.5663**	**2.3418**	**0.0000**	**8,302.1112**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.6974	59.0026	33.3144	0.0744	5.1459	2.8651	8.0110	2.6931	2.6500	5.3432	0.0000	7,347.7411	7,347.7411	2.0574	0.0000	7,399.1758
2022	3.7819	42.1295	30.3539	0.0742	3.4409	1.6481	5.0891	1.5501	1.5167	3.0668	0.0000	7,330.8897	7,330.8897	2.0567	0.0000	7,382.3068
2023	3.4453	36.6845	29.2755	0.0738	3.4433	1.4300	4.8732	1.5507	1.3157	2.8664	0.0000	7,288.4920	7,288.4920	2.0502	0.0000	7,339.7474
2024	3.8429	39.1740	35.8904	0.0836	3.5209	1.5763	5.0971	1.5714	1.4503	3.0217	0.0000	8,243.5663	8,243.5663	2.3418	0.0000	8,302.1111
2025	3.4824	34.3218	34.4489	0.0835	10.1023	1.3325	11.4348	3.1868	1.2261	4.4129	0.0000	8,226.7755	8,226.7755	2.3412	0.0000	8,285.3064
Maximum	**5.6974**	**59.0026**	**35.8904**	**0.0836**	**10.1023**	**2.8651**	**11.4348**	**3.1868**	**2.6500**	**5.3432**	**0.0000**	**8,243.5663**	**8,243.5663**	**2.3418**	**0.0000**	**8,302.1111**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**47.35**	**0.00**	**40.07**	**53.69**	**0.00**	**39.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561
Total	**2.3717**	**0.4716**	**0.6471**	**3.7000e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**641.9266**	**641.9266**	**0.0122**	**0.0100**	**645.2091**

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561
Total	**2.3717**	**0.4716**	**0.6471**	**3.7000e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**641.9266**	**641.9266**	**0.0122**	**0.0100**	**645.2091**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/23/2021	6	20	
2	Site Preparation	Site Preparation	1/1/2021	4/27/2021	6	100	
3	Excavation and Grading	Grading	5/1/2021	2/5/2025	6	1180	
4	Planting	Trenching	5/1/2024	2/27/2025	6	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Excavation and Grading	Excavators	2	8.00	158	0.38
Excavation and Grading	Graders	1	8.00	187	0.41
Excavation and Grading	Rubber Tired Dozers	1	8.00	247	0.40
Excavation and Grading	Scrapers	2	8.00	367	0.48
Excavation and Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Planting	Forklifts	2	8.00	89	0.20
Planting	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	0.00	850.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation and Grading	8	20.00	0.00	17,122.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Planting	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2058	0.0000	0.2058	0.0312	0.0000	0.0312			0.0000			0.0000
Off-Road	2.7067	27.1339	15.0214	0.0285		1.3425	1.3425		1.2489	1.2489		2,747.5610	2,747.5610	0.7314		2,765.8448
Total	**2.7067**	**27.1339**	**15.0214**	**0.0285**	**0.2058**	**1.3425**	**1.5483**	**0.0312**	**1.2489**	**1.2801**		**2,747.5610**	**2,747.5610**	**0.7314**		**2,765.8448**

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	5.4400e-003	0.1973	0.0463	6.0000e-004	0.0139	7.9000e-004	0.0147	3.8200e-003	7.5000e-004	4.5700e-003		65.4272	65.4272	6.1000e-003		65.5798
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	0.0343	0.0198	0.2554	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		76.9989	76.9989	1.9300e-003		77.0472
Total	**0.0397**	**0.2171**	**0.3017**	**1.3700e-003**	**0.0961**	**1.3600e-003**	**0.0975**	**0.0256**	**1.2700e-003**	**0.0269**		**142.4261**	**142.4261**	**8.0300e-003**		**142.6270**

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					0.0803	0.0000	0.0803	0.0122	0.0000	0.0122			0.0000			0.0000
Off-Road	2.7067	27.1339	15.0214	0.0285		1.3425	1.3425		1.2489	1.2489	0.0000	2,747.5610	2,747.5610	0.7314		2,765.8448
Total	**2.7067**	**27.1339**	**15.0214**	**0.0285**	**0.0803**	**1.3425**	**1.4227**	**0.0122**	**1.2489**	**1.2611**	**0.0000**	**2,747.5610**	**2,747.5610**	**0.7314**		**2,765.8448**

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	5.4400e-003	0.1973	0.0463	6.0000e-004	0.0139	7.9000e-004	0.0147	3.8200e-003	7.5000e-004	4.5700e-003		65.4272	65.4272	6.1000e-003		65.5798
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	0.0343	0.0198	0.2554	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		76.9989	76.9989	1.9300e-003		77.0472
Total	**0.0397**	**0.2171**	**0.3017**	**1.3700e-003**	**0.0961**	**1.3600e-003**	**0.0975**	**0.0256**	**1.2700e-003**	**0.0269**		**142.4261**	**142.4261**	**8.0300e-003**		**142.6270**

3.3 Site Preparation - 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					
Fugitive Dust					12.0468	0.0000	12.0468	6.6209	0.0000	6.6209			0.0000			0.0000
Off-Road	2.8418	29.5258	17.1165	0.0295		1.5120	1.5120		1.3911	1.3911		2,858.3047	2,858.3047	0.9244		2,881.4155
Total	**2.8418**	**29.5258**	**17.1165**	**0.0295**	**12.0468**	**1.5120**	**13.5589**	**6.6209**	**1.3911**	**8.0119**		**2,858.3047**	**2,858.3047**	**0.9244**		**2,881.4155**

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	0.0578	2.0962	0.4917	6.3400e-003	0.1481	8.3700e-003	0.1565	0.0406	8.0100e-003	0.0486		695.1641	695.1641	0.0649		696.7856
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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.1092**	**2.1259**	**0.8748**	**7.5000e-003**	**0.2713**	**9.2200e-003**	**0.2805**	**0.0732**	**8.8000e-003**	**0.0820**		**810.6624**	**810.6624**	**0.0678**		**812.3564**

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					4.6983	0.0000	4.6983	2.5821	0.0000	2.5821			0.0000			0.0000
Off-Road	2.8418	29.5258	17.1165	0.0295		1.5120	1.5120		1.3911	1.3911	0.0000	2,858.3047	2,858.3047	0.9244		2,881.4155
Total	**2.8418**	**29.5258**	**17.1165**	**0.0295**	**4.6983**	**1.5120**	**6.2103**	**2.5821**	**1.3911**	**3.9732**	**0.0000**	**2,858.3047**	**2,858.3047**	**0.9244**		**2,881.4155**

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	0.0578	2.0962	0.4917	6.3400e-003	0.1481	8.3700e-003	0.1565	0.0406	8.0100e-003	0.0486		695.1641	695.1641	0.0649		696.7856
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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.1092**	**2.1259**	**0.8748**	**7.5000e-003**	**0.2713**	**9.2200e-003**	**0.2805**	**0.0732**	**8.8000e-003**	**0.0820**		**810.6624**	**810.6624**	**0.0678**		**812.3564**

3.4 Excavation and Grading - 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					
Fugitive Dust					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.3907**	**1.9853**	**8.3761**	**3.3509**	**1.8265**	**5.1774**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.0987	3.5784	0.8394	0.0108	1.1389	0.0143	1.1532	0.2867	0.0137	0.3004		1,186.6998	1,186.6998	0.1107		1,189.4680
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	0.0685	0.0396	0.5108	1.5500e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		153.9978	153.9978	3.8600e-003		154.0944
Total	**0.1672**	**3.6180**	**1.3502**	**0.0124**	**1.3032**	**0.0154**	**1.3186**	**0.3303**	**0.0147**	**0.3450**		**1,340.6976**	**1,340.6976**	**0.1146**		**1,343.5624**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**2.4924**	**1.9853**	**4.4777**	**1.3069**	**1.8265**	**3.1334**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.0987	3.5784	0.8394	0.0108	1.1389	0.0143	1.1532	0.2867	0.0137	0.3004		1,186.6998	1,186.6998	0.1107		1,189.4680
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	0.0685	0.0396	0.5108	1.5500e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		153.9978	153.9978	3.8600e-003		154.0944
Total	**0.1672**	**3.6180**	**1.3502**	**0.0124**	**1.3032**	**0.0154**	**1.3186**	**0.3303**	**0.0147**	**0.3450**		**1,340.6976**	**1,340.6976**	**0.1146**		**1,343.5624**

3.4 Excavation and Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.3907**	**1.6349**	**8.0256**	**3.3509**	**1.5041**	**4.8550**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	0.0927	3.2504	0.8396	0.0107	0.7842	0.0121	0.7964	0.1997	0.0116	0.2113		1,171.1432	1,171.1432	0.1090		1,173.8677
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	0.0644	0.0357	0.4728	1.4900e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		148.3359	148.3359	3.4900e-003		148.4233
Total	**0.1571**	**3.2861**	**1.3124**	**0.0122**	**0.9485**	**0.0132**	**0.9618**	**0.2432**	**0.0126**	**0.2559**		**1,319.4792**	**1,319.4792**	**0.1125**		**1,322.2909**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**2.4924**	**1.6349**	**4.1273**	**1.3069**	**1.5041**	**2.8110**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	0.0927	3.2504	0.8396	0.0107	0.7842	0.0121	0.7964	0.1997	0.0116	0.2113		1,171.1432	1,171.1432	0.1090		1,173.8677
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	0.0644	0.0357	0.4728	1.4900e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		148.3359	148.3359	3.4900e-003		148.4233
Total	**0.1571**	**3.2861**	**1.3124**	**0.0122**	**0.9485**	**0.0132**	**0.9618**	**0.2432**	**0.0126**	**0.2559**		**1,319.4792**	**1,319.4792**	**0.1125**		**1,322.2909**

3.4 Excavation and Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**6.3907**	**1.4245**	**7.8152**	**3.3509**	**1.3105**	**4.6615**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0629	2.1367	0.7873	0.0103	0.7866	4.3800e-003	0.7910	0.2003	4.1900e-003	0.2044		1,134.3621	1,134.3621	0.1028		1,136.9329
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	0.0606	0.0322	0.4370	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		142.6522	142.6522	3.1500e-003		142.7310
Total	**0.1235**	**2.1689**	**1.2243**	**0.0117**	**0.9509**	**5.4600e-003**	**0.9564**	**0.2438**	**5.1900e-003**	**0.2490**		**1,277.0143**	**1,277.0143**	**0.1060**		**1,279.6639**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**2.4924**	**1.4245**	**3.9169**	**1.3069**	**1.3105**	**2.6174**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0629	2.1367	0.7873	0.0103	0.7866	4.3800e-003	0.7910	0.2003	4.1900e-003	0.2044		1,134.3621	1,134.3621	0.1028		1,136.9329
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	0.0606	0.0322	0.4370	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		142.6522	142.6522	3.1500e-003		142.7310
Total	**0.1235**	**2.1689**	**1.2243**	**0.0117**	**0.9509**	**5.4600e-003**	**0.9564**	**0.2438**	**5.1900e-003**	**0.2490**		**1,277.0143**	**1,277.0143**	**0.1060**		**1,279.6639**

3.4 Excavation and Grading - 2024

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					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**6.3907**	**1.3354**	**7.7261**	**3.3509**	**1.2286**	**4.5795**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0625	2.0895	0.8074	0.0102	0.7820	4.3000e-003	0.7863	0.1991	4.1100e-003	0.2033		1,127.8082	1,127.8082	0.1029		1,130.3797
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	0.0573	0.0293	0.4069	1.3800e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		137.6095	137.6095	2.8800e-003		137.6814
Total	**0.1198**	**2.1188**	**1.2143**	**0.0116**	**0.9463**	**5.3700e-003**	**0.9517**	**0.2427**	**5.0900e-003**	**0.2478**		**1,265.4177**	**1,265.4177**	**0.1057**		**1,268.0611**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**2.4924**	**1.3354**	**3.8278**	**1.3069**	**1.2286**	**2.5354**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0625	2.0895	0.8074	0.0102	0.7820	4.3000e-003	0.7863	0.1991	4.1100e-003	0.2033		1,127.8082	1,127.8082	0.1029		1,130.3797
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	0.0573	0.0293	0.4069	1.3800e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		137.6095	137.6095	2.8800e-003		137.6814
Total	**0.1198**	**2.1188**	**1.2143**	**0.0116**	**0.9463**	**5.3700e-003**	**0.9517**	**0.2427**	**5.0900e-003**	**0.2478**		**1,265.4177**	**1,265.4177**	**0.1057**		**1,268.0611**

3.4 Excavation and Grading - 2025

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					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**6.3907**	**1.1309**	**7.5216**	**3.3509**	**1.0404**	**4.3913**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

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	0.0616	2.0315	0.8241	0.0101	7.3635	4.2000e-003	7.3677	1.8146	4.0200e-003	1.8186		1,120.2582	1,120.2582	0.1030		1,122.8325
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	0.0544	0.0267	0.3779	1.3200e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		132.0416	132.0416	2.6200e-003		132.1071
Total	**0.1160**	**2.0583**	**1.2020**	**0.0114**	**7.5278**	**5.2500e-003**	**7.5330**	**1.8582**	**4.9900e-003**	**1.8632**		**1,252.2999**	**1,252.2999**	**0.1056**		**1,254.9397**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**2.4924**	**1.1309**	**3.6233**	**1.3069**	**1.0404**	**2.3473**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

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	0.0616	2.0315	0.8241	0.0101	7.3635	4.2000e-003	7.3677	1.8146	4.0200e-003	1.8186		1,120.2582	1,120.2582	0.1030		1,122.8325
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	0.0544	0.0267	0.3779	1.3200e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		132.0416	132.0416	2.6200e-003		132.1071
Total	**0.1160**	**2.0583**	**1.2020**	**0.0114**	**7.5278**	**5.2500e-003**	**7.5330**	**1.8582**	**4.9900e-003**	**1.8632**		**1,252.2999**	**1,252.2999**	**0.1056**		**1,254.9397**

3.5 Planting - 2024

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	0.4763	4.6635	6.7498	9.2900e-003		0.2350	0.2350		0.2162	0.2162		899.5951	899.5951	0.2910		906.8688
Total	**0.4763**	**4.6635**	**6.7498**	**9.2900e-003**		**0.2350**	**0.2350**		**0.2162**	**0.2162**		**899.5951**	**899.5951**	**0.2910**		**906.8688**

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	0.0287	0.0147	0.2035	6.9000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		68.8047	68.8047	1.4400e-003		68.8407
Total	**0.0287**	**0.0147**	**0.2035**	**6.9000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**68.8047**	**68.8047**	**1.4400e-003**		**68.8407**

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	0.4763	4.6635	6.7498	9.2900e-003		0.2350	0.2350		0.2162	0.2162	0.0000	899.5951	899.5951	0.2910		906.8688
Total	**0.4763**	**4.6635**	**6.7498**	**9.2900e-003**		**0.2350**	**0.2350**		**0.2162**	**0.2162**	**0.0000**	**899.5951**	**899.5951**	**0.2910**		**906.8688**

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	0.0287	0.0147	0.2035	6.9000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		68.8047	68.8047	1.4400e-003		68.8407
Total	**0.0287**	**0.0147**	**0.2035**	**6.9000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**68.8047**	**68.8047**	**1.4400e-003**		**68.8407**

3.5 Planting - 2025

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	0.4380	4.3073	6.7268	9.3000e-003		0.1958	0.1958		0.1802	0.1802		900.1734	900.1734	0.2911		907.4517
Total	**0.4380**	**4.3073**	**6.7268**	**9.3000e-003**		**0.1958**	**0.1958**		**0.1802**	**0.1802**		**900.1734**	**900.1734**	**0.2911**		**907.4517**

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	0.0272	0.0134	0.1890	6.6000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		66.0208	66.0208	1.3100e-003		66.0536
Total	**0.0272**	**0.0134**	**0.1890**	**6.6000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**66.0208**	**66.0208**	**1.3100e-003**		**66.0536**

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	0.4380	4.3073	6.7268	9.3000e-003		0.1958	0.1958		0.1802	0.1802	0.0000	900.1734	900.1734	0.2911		907.4517
Total	**0.4380**	**4.3073**	**6.7268**	**9.3000e-003**		**0.1958**	**0.1958**		**0.1802**	**0.1802**	**0.0000**	**900.1734**	**900.1734**	**0.2911**		**907.4517**

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	0.0272	0.0134	0.1890	6.6000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		66.0208	66.0208	1.3100e-003		66.0536
Total	**0.0272**	**0.0134**	**0.1890**	**6.6000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**66.0208**	**66.0208**	**1.3100e-003**		**66.0536**

Ventura Water Pure_FTW - Ventura County APCD Air District, Winter

Ventura Water Pure_FTW

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment - Project specific construction data.

Off-road Equipment -

Off-road Equipment - Construction equipment specific to the Project.

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading - Project specific data.

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.7109	59.0354	33.3346	0.0741	12.6201	2.8653	15.4854	6.7509	2.6503	9.4012	0.0000	7,321.3306	7,321.3306	2.0609	0.0000	7,372.8535
2022	3.7936	42.1653	30.3953	0.0740	7.3393	1.6485	8.9878	3.5942	1.5171	5.1113	0.0000	7,304.7919	7,304.7919	2.0600	0.0000	7,356.2912
2023	3.4556	36.6964	29.2997	0.0736	7.3416	1.4301	8.7717	3.5948	1.3159	4.9106	0.0000	7,262.9717	7,262.9717	2.0527	0.0000	7,314.2900
2024	3.8569	39.1879	35.9067	0.0834	7.4192	1.5764	8.9956	3.6154	1.4505	5.0659	0.0000	8,215.2310	8,215.2310	2.3441	0.0000	8,273.8335
2025	3.4961	34.3345	34.4649	0.0832	14.0006	1.3326	15.3333	5.2309	1.2262	6.4571	0.0000	8,199.1104	8,199.1104	2.3434	0.0000	8,257.6956
Maximum	**5.7109**	**59.0354**	**35.9067**	**0.0834**	**14.0006**	**2.8653**	**15.4854**	**6.7509**	**2.6503**	**9.4012**	**0.0000**	**8,215.2310**	**8,215.2310**	**2.3441**	**0.0000**	**8,273.8335**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.7109	59.0354	33.3346	0.0741	5.1459	2.8653	8.0113	2.6931	2.6503	5.3434	0.0000	7,321.3306	7,321.3306	2.0609	0.0000	7,372.8535
2022	3.7936	42.1653	30.3953	0.0740	3.4409	1.6485	5.0895	1.5501	1.5171	3.0672	0.0000	7,304.7919	7,304.7919	2.0600	0.0000	7,356.2912
2023	3.4556	36.6964	29.2997	0.0736	3.4433	1.4301	4.8734	1.5507	1.3159	2.8666	0.0000	7,262.9717	7,262.9717	2.0527	0.0000	7,314.2900
2024	3.8569	39.1879	35.9067	0.0834	3.5209	1.5764	5.0973	1.5714	1.4505	3.0218	0.0000	8,215.2310	8,215.2310	2.3441	0.0000	8,273.8335
2025	3.4961	34.3345	34.4649	0.0832	10.1023	1.3326	11.4349	3.1868	1.2262	4.4130	0.0000	8,199.1104	8,199.1104	2.3434	0.0000	8,257.6956
Maximum	**5.7109**	**59.0354**	**35.9067**	**0.0834**	**10.1023**	**2.8653**	**11.4349**	**3.1868**	**2.6503**	**5.3434**	**0.0000**	**8,215.2310**	**8,215.2310**	**2.3441**	**0.0000**	**8,273.8335**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**47.35**	**0.00**	**40.07**	**53.69**	**0.00**	**39.53**	**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	1/1/2021	1/23/2021	6	20	
2	Site Preparation	Site Preparation	1/1/2021	4/27/2021	6	100	
3	Excavation and Grading	Grading	5/1/2021	2/5/2025	6	1180	
4	Planting	Trenching	5/1/2024	2/27/2025	6	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Excavation and Grading	Excavators	2	8.00	158	0.38
Excavation and Grading	Graders	1	8.00	187	0.41
Excavation and Grading	Rubber Tired Dozers	1	8.00	247	0.40
Excavation and Grading	Scrapers	2	8.00	367	0.48
Excavation and Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Planting	Forklifts	2	8.00	89	0.20
Planting	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	0.00	850.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation and Grading	8	20.00	0.00	17,122.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Planting	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2058	0.0000	0.2058	0.0312	0.0000	0.0312			0.0000			0.0000
Off-Road	2.7067	27.1339	15.0214	0.0285		1.3425	1.3425		1.2489	1.2489		2,747.5610	2,747.5610	0.7314		2,765.8448
Total	**2.7067**	**27.1339**	**15.0214**	**0.0285**	**0.2058**	**1.3425**	**1.5483**	**0.0312**	**1.2489**	**1.2801**		**2,747.5610**	**2,747.5610**	**0.7314**		**2,765.8448**

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	5.6100e-003	0.1994	0.0494	5.9000e-004	0.0139	8.1000e-004	0.0148	3.8200e-003	7.8000e-004	4.5900e-003		64.3825	64.3825	6.3100e-003		64.5402
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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0445**	**0.2226**	**0.2982**	**1.3300e-003**	**0.0961**	**1.3800e-003**	**0.0975**	**0.0256**	**1.3000e-003**	**0.0269**		**137.6506**	**137.6506**	**8.1700e-003**		**137.8549**

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					0.0803	0.0000	0.0803	0.0122	0.0000	0.0122			0.0000			0.0000
Off-Road	2.7067	27.1339	15.0214	0.0285		1.3425	1.3425		1.2489	1.2489	0.0000	2,747.5610	2,747.5610	0.7314		2,765.8448
Total	**2.7067**	**27.1339**	**15.0214**	**0.0285**	**0.0803**	**1.3425**	**1.4227**	**0.0122**	**1.2489**	**1.2611**	**0.0000**	**2,747.5610**	**2,747.5610**	**0.7314**		**2,765.8448**

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	5.6100e-003	0.1994	0.0494	5.9000e-004	0.0139	8.1000e-004	0.0148	3.8200e-003	7.8000e-004	4.5900e-003		64.3825	64.3825	6.3100e-003		64.5402
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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0445**	**0.2226**	**0.2982**	**1.3300e-003**	**0.0961**	**1.3800e-003**	**0.0975**	**0.0256**	**1.3000e-003**	**0.0269**		**137.6506**	**137.6506**	**8.1700e-003**		**137.8549**

3.3 Site Preparation - 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					
Fugitive Dust					12.0468	0.0000	12.0468	6.6209	0.0000	6.6209			0.0000			0.0000
Off-Road	2.8418	29.5258	17.1165	0.0295		1.5120	1.5120		1.3911	1.3911		2,858.3047	2,858.3047	0.9244		2,881.4155
Total	**2.8418**	**29.5258**	**17.1165**	**0.0295**	**12.0468**	**1.5120**	**13.5589**	**6.6209**	**1.3911**	**8.0119**		**2,858.3047**	**2,858.3047**	**0.9244**		**2,881.4155**

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	0.0596	2.1184	0.5254	6.2400e-003	0.1481	8.6200e-003	0.1567	0.0406	8.2400e-003	0.0488		684.0639	684.0639	0.0670		685.7391
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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.1179**	**2.1532**	**0.8985**	**7.3400e-003**	**0.2713**	**9.4700e-003**	**0.2808**	**0.0732**	**9.0300e-003**	**0.0823**		**793.9661**	**793.9661**	**0.0698**		**795.7112**

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					4.6983	0.0000	4.6983	2.5821	0.0000	2.5821			0.0000			0.0000
Off-Road	2.8418	29.5258	17.1165	0.0295		1.5120	1.5120		1.3911	1.3911	0.0000	2,858.3047	2,858.3047	0.9244		2,881.4155
Total	**2.8418**	**29.5258**	**17.1165**	**0.0295**	**4.6983**	**1.5120**	**6.2103**	**2.5821**	**1.3911**	**3.9732**	**0.0000**	**2,858.3047**	**2,858.3047**	**0.9244**		**2,881.4155**

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	0.0596	2.1184	0.5254	6.2400e-003	0.1481	8.6200e-003	0.1567	0.0406	8.2400e-003	0.0488		684.0639	684.0639	0.0670		685.7391
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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.1179**	**2.1532**	**0.8985**	**7.3400e-003**	**0.2713**	**9.4700e-003**	**0.2808**	**0.0732**	**9.0300e-003**	**0.0823**		**793.9661**	**793.9661**	**0.0698**		**795.7112**

3.4 Excavation and Grading - 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					
Fugitive Dust					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**6.3907**	**1.9853**	**8.3761**	**3.3509**	**1.8265**	**5.1774**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.1017	3.6163	0.8968	0.0107	1.1389	0.0147	1.1536	0.2867	0.0141	0.3008		1,167.7509	1,167.7509	0.1144		1,170.6106
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	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.1794**	**3.6626**	**1.3943**	**0.0121**	**1.3032**	**0.0159**	**1.3191**	**0.3303**	**0.0151**	**0.3454**		**1,314.2872**	**1,314.2872**	**0.1181**		**1,317.2401**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**2.4924**	**1.9853**	**4.4777**	**1.3069**	**1.8265**	**3.1334**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.1017	3.6163	0.8968	0.0107	1.1389	0.0147	1.1536	0.2867	0.0141	0.3008		1,167.7509	1,167.7509	0.1144		1,170.6106
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	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.1794**	**3.6626**	**1.3943**	**0.0121**	**1.3032**	**0.0159**	**1.3191**	**0.3303**	**0.0151**	**0.3454**		**1,314.2872**	**1,314.2872**	**0.1181**		**1,317.2401**

3.4 Excavation and Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.3907**	**1.6349**	**8.0256**	**3.3509**	**1.5041**	**4.8550**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	0.0956	3.2800	0.8944	0.0105	0.7842	0.0125	0.7968	0.1997	0.0120	0.2116		1,152.2285	1,152.2285	0.1124		1,155.0385
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	0.0732	0.0418	0.4594	1.4200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		141.1529	141.1529	3.3600e-003		141.2369
Total	**0.1688**	**3.3219**	**1.3538**	**0.0119**	**0.9485**	**0.0136**	**0.9622**	**0.2432**	**0.0130**	**0.2562**		**1,293.3814**	**1,293.3814**	**0.1158**		**1,296.2754**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**2.4924**	**1.6349**	**4.1273**	**1.3069**	**1.5041**	**2.8110**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	0.0956	3.2800	0.8944	0.0105	0.7842	0.0125	0.7968	0.1997	0.0120	0.2116		1,152.2285	1,152.2285	0.1124		1,155.0385
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	0.0732	0.0418	0.4594	1.4200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		141.1529	141.1529	3.3600e-003		141.2369
Total	**0.1688**	**3.3219**	**1.3538**	**0.0119**	**0.9485**	**0.0136**	**0.9622**	**0.2432**	**0.0130**	**0.2562**		**1,293.3814**	**1,293.3814**	**0.1158**		**1,296.2754**

3.4 Excavation and Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**6.3907**	**1.4245**	**7.8152**	**3.3509**	**1.3105**	**4.6615**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0648	2.1430	0.8251	0.0101	0.7866	4.5400e-003	0.7911	0.2003	4.3500e-003	0.2046		1,115.7458	1,115.7458	0.1055		1,118.3827
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	0.0691	0.0378	0.4234	1.3600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		135.7481	135.7481	3.0300e-003		135.8238
Total	**0.1339**	**2.1808**	**1.2485**	**0.0115**	**0.9509**	**5.6200e-003**	**0.9565**	**0.2438**	**5.3500e-003**	**0.2492**		**1,251.4940**	**1,251.4940**	**0.1085**		**1,254.2064**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**2.4924**	**1.4245**	**3.9169**	**1.3069**	**1.3105**	**2.6174**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0648	2.1430	0.8251	0.0101	0.7866	4.5400e-003	0.7911	0.2003	4.3500e-003	0.2046		1,115.7458	1,115.7458	0.1055		1,118.3827
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	0.0691	0.0378	0.4234	1.3600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		135.7481	135.7481	3.0300e-003		135.8238
Total	**0.1339**	**2.1808**	**1.2485**	**0.0115**	**0.9509**	**5.6200e-003**	**0.9565**	**0.2438**	**5.3500e-003**	**0.2492**		**1,251.4940**	**1,251.4940**	**0.1085**		**1,254.2064**

3.4 Excavation and Grading - 2024

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					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**6.3907**	**1.3354**	**7.7261**	**3.3509**	**1.2286**	**4.5795**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0643	2.0959	0.8439	0.0100	0.7820	4.4400e-003	0.7865	0.1991	4.2500e-003	0.2034		1,109.4714	1,109.4714	0.1054		1,112.1051
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	0.0655	0.0343	0.3935	1.3100e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		130.9438	130.9438	2.7600e-003		131.0127
Total	**0.1298**	**2.1302**	**1.2374**	**0.0114**	**0.9463**	**5.5100e-003**	**0.9518**	**0.2427**	**5.2300e-003**	**0.2479**		**1,240.4152**	**1,240.4152**	**0.1081**		**1,243.1178**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**2.4924**	**1.3354**	**3.8278**	**1.3069**	**1.2286**	**2.5354**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0643	2.0959	0.8439	0.0100	0.7820	4.4400e-003	0.7865	0.1991	4.2500e-003	0.2034		1,109.4714	1,109.4714	0.1054		1,112.1051
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	0.0655	0.0343	0.3935	1.3100e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		130.9438	130.9438	2.7600e-003		131.0127
Total	**0.1298**	**2.1302**	**1.2374**	**0.0114**	**0.9463**	**5.5100e-003**	**0.9518**	**0.2427**	**5.2300e-003**	**0.2479**		**1,240.4152**	**1,240.4152**	**0.1081**		**1,243.1178**

3.4 Excavation and Grading - 2025

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					6.3907	0.0000	6.3907	3.3509	0.0000	3.3509			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**6.3907**	**1.1309**	**7.5216**	**3.3509**	**1.0404**	**4.3913**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

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	0.0634	2.0374	0.8597	9.9500e-003	7.3635	4.3300e-003	7.3678	1.8146	4.1400e-003	1.8187		1,102.1812	1,102.1812	0.1053		1,104.8142
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	0.0623	0.0313	0.3649	1.2600e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		125.6495	125.6495	2.5100e-003		125.7122
Total	**0.1257**	**2.0687**	**1.2246**	**0.0112**	**7.5278**	**5.3800e-003**	**7.5331**	**1.8582**	**5.1100e-003**	**1.8633**		**1,227.8308**	**1,227.8308**	**0.1078**		**1,230.5264**

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					2.4924	0.0000	2.4924	1.3069	0.0000	1.3069			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**2.4924**	**1.1309**	**3.6233**	**1.3069**	**1.0404**	**2.3473**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

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	0.0634	2.0374	0.8597	9.9500e-003	7.3635	4.3300e-003	7.3678	1.8146	4.1400e-003	1.8187		1,102.1812	1,102.1812	0.1053		1,104.8142
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	0.0623	0.0313	0.3649	1.2600e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		125.6495	125.6495	2.5100e-003		125.7122
Total	**0.1257**	**2.0687**	**1.2246**	**0.0112**	**7.5278**	**5.3800e-003**	**7.5331**	**1.8582**	**5.1100e-003**	**1.8633**		**1,227.8308**	**1,227.8308**	**0.1078**		**1,230.5264**

3.5 Planting - 2024

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	0.4763	4.6635	6.7498	9.2900e-003		0.2350	0.2350		0.2162	0.2162		899.5951	899.5951	0.2910		906.8688
Total	**0.4763**	**4.6635**	**6.7498**	**9.2900e-003**		**0.2350**	**0.2350**		**0.2162**	**0.2162**		**899.5951**	**899.5951**	**0.2910**		**906.8688**

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	0.0327	0.0172	0.1967	6.6000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		65.4719	65.4719	1.3800e-003		65.5063
Total	**0.0327**	**0.0172**	**0.1967**	**6.6000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**65.4719**	**65.4719**	**1.3800e-003**		**65.5063**

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	0.4763	4.6635	6.7498	9.2900e-003		0.2350	0.2350		0.2162	0.2162	0.0000	899.5951	899.5951	0.2910		906.8688
Total	**0.4763**	**4.6635**	**6.7498**	**9.2900e-003**		**0.2350**	**0.2350**		**0.2162**	**0.2162**	**0.0000**	**899.5951**	**899.5951**	**0.2910**		**906.8688**

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	0.0327	0.0172	0.1967	6.6000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		65.4719	65.4719	1.3800e-003		65.5063
Total	**0.0327**	**0.0172**	**0.1967**	**6.6000e-004**	**0.0822**	**5.3000e-004**	**0.0827**	**0.0218**	**4.9000e-004**	**0.0223**		**65.4719**	**65.4719**	**1.3800e-003**		**65.5063**

3.5 Planting - 2025

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	0.4380	4.3073	6.7268	9.3000e-003		0.1958	0.1958		0.1802	0.1802		900.1734	900.1734	0.2911		907.4517
Total	**0.4380**	**4.3073**	**6.7268**	**9.3000e-003**		**0.1958**	**0.1958**		**0.1802**	**0.1802**		**900.1734**	**900.1734**	**0.2911**		**907.4517**

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	0.0312	0.0157	0.1825	6.3000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		62.8248	62.8248	1.2500e-003		62.8561
Total	**0.0312**	**0.0157**	**0.1825**	**6.3000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**62.8248**	**62.8248**	**1.2500e-003**		**62.8561**

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	0.4380	4.3073	6.7268	9.3000e-003		0.1958	0.1958		0.1802	0.1802	0.0000	900.1734	900.1734	0.2911		907.4517
Total	**0.4380**	**4.3073**	**6.7268**	**9.3000e-003**		**0.1958**	**0.1958**		**0.1802**	**0.1802**	**0.0000**	**900.1734**	**900.1734**	**0.2911**		**907.4517**

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	0.0312	0.0157	0.1825	6.3000e-004	0.0822	5.2000e-004	0.0827	0.0218	4.8000e-004	0.0223		62.8248	62.8248	1.2500e-003		62.8561
Total	**0.0312**	**0.0157**	**0.1825**	**6.3000e-004**	**0.0822**	**5.2000e-004**	**0.0827**	**0.0218**	**4.8000e-004**	**0.0223**		**62.8248**	**62.8248**	**1.2500e-003**		**62.8561**

Ventura Water Pure_WCS_ProjLevel - Ventura County APCD Air District, Annual

Ventura Water Pure_WCS_ProjLevel

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific equipment data.

Off-road Equipment -

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specific trip rates, trip lengths are average CalEEMod default.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.4028	3.3812	3.4575	8.5900e-003	0.0148	0.1405	0.1554	3.9400e-003	0.1316	0.1355	0.0000	740.3763	740.3763	0.2053	0.0000	745.5085
2025	0.5736	4.7289	5.1296	0.0133	0.0253	0.1848	0.2101	6.7200e-003	0.1731	0.1798	0.0000	1,139.8359	1,139.8359	0.3148	0.0000	1,147.7065
Maximum	**0.5736**	**4.7289**	**5.1296**	**0.0133**	**0.0253**	**0.1848**	**0.2101**	**6.7200e-003**	**0.1731**	**0.1798**	**0.0000**	**1,139.8359**	**1,139.8359**	**0.3148**	**0.0000**	**1,147.7065**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.4028	1.2044	3.4575	8.5900e-003	0.0148	0.1405	0.1554	3.9400e-003	0.1316	0.1355	0.0000	740.3755	740.3755	0.2053	0.0000	745.5076
2025	0.5736	2.0130	5.1296	0.0133	0.0253	0.1848	0.2101	6.7200e-003	0.1731	0.1798	0.0000	1,139.8346	1,139.8346	0.3148	0.0000	1,147.7051
Maximum	**0.5736**	**2.0130**	**5.1296**	**0.0133**	**0.0253**	**0.1848**	**0.2101**	**6.7200e-003**	**0.1731**	**0.1798**	**0.0000**	**1,139.8346**	**1,139.8346**	**0.3148**	**0.0000**	**1,147.7051**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**60.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-1-2024	7-31-2024	1.2975	0.4801
2	8-1-2024	10-31-2024	1.4970	0.6796
3	11-1-2024	1-31-2025	1.4682	0.6730
4	2-1-2025	4-30-2025	1.3646	0.6377
5	5-1-2025	7-31-2025	1.4103	0.6588
6	8-1-2025	9-30-2025	0.9351	0.4368
		Highest	1.4970	0.6796

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Excavation/Trenching	Trenching	5/1/2024	11/28/2025	6	495	
2	Building Construction	Building Construction	6/1/2024	12/31/2025	6	496	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Bore/Drill Rigs	4	8.00	221	0.50
Building Construction	Welders	4	8.00	46	0.45
Excavation/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Excavation/Trenching	Excavators	3	8.00	158	0.38
Excavation/Trenching	Rubber Tired Dozers	2	8.00	247	0.40

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
Building Construction	8	20.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation/Trenching - 2024

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	0.2342	2.1768	2.0667	4.0600e-003		0.1001	0.1001		0.0931	0.0931	0.0000	355.8221	355.8221	0.0995	0.0000	358.3097
Total	**0.2342**	**2.1768**	**2.0667**	**4.0600e-003**		**0.1001**	**0.1001**		**0.0931**	**0.0931**	**0.0000**	**355.8221**	**355.8221**	**0.0995**	**0.0000**	**358.3097**

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	0.2342		2.0667	4.0600e-003		0.1001	0.1001		0.0931	0.0931	0.0000	355.8217	355.8217	0.0995	0.0000	358.3093
Total	**0.2342**		**2.0667**	**4.0600e-003**		**0.1001**	**0.1001**		**0.0931**	**0.0931**	**0.0000**	**355.8217**	**355.8217**	**0.0995**	**0.0000**	**358.3093**

3.2 Excavation/Trenching - 2025

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	0.2964	2.7159	2.7641	5.5200e-003		0.1207	0.1207		0.1121	0.1121	0.0000	482.9245	482.9245	0.1348	0.0000	486.2940
Total	**0.2964**	**2.7159**	**2.7641**	**5.5200e-003**		**0.1207**	**0.1207**		**0.1121**	**0.1121**	**0.0000**	**482.9245**	**482.9245**	**0.1348**	**0.0000**	**486.2940**

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	0.2964		2.7641	5.5200e-003		0.1207	0.1207		0.1121	0.1121	0.0000	482.9239	482.9239	0.1348	0.0000	486.2934
Total	**0.2964**		**2.7641**	**5.5200e-003**		**0.1207**	**0.1207**		**0.1121**	**0.1121**	**0.0000**	**482.9239**	**482.9239**	**0.1348**	**0.0000**	**486.2934**

3.3 Building Construction - 2024

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	0.1634	1.2011	1.3550	4.4100e-003		0.0403	0.0403		0.0385	0.0385	0.0000	373.4805	373.4805	0.1055	0.0000	376.1191
Total	**0.1634**	**1.2011**	**1.3550**	**4.4100e-003**		**0.0403**	**0.0403**		**0.0385**	**0.0385**	**0.0000**	**373.4805**	**373.4805**	**0.1055**	**0.0000**	**376.1191**

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	1.0000e-005	2.4000e-004	9.0000e-005	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1163	0.1163	1.0000e-005	0.0000	0.1165
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3100e-003	3.0300e-003	0.0357	1.2000e-004	0.0148	1.0000e-004	0.0149	3.9200e-003	9.0000e-005	4.0100e-003	0.0000	10.9574	10.9574	2.3000e-004	0.0000	10.9632
Total	**5.3200e-003**	**3.2700e-003**	**0.0358**	**1.2000e-004**	**0.0148**	**1.0000e-004**	**0.0149**	**3.9400e-003**	**9.0000e-005**	**4.0300e-003**	**0.0000**	**11.0737**	**11.0737**	**2.4000e-004**	**0.0000**	**11.0797**

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	0.1634	1.2011	1.3550	4.4100e-003		0.0403	0.0403		0.0385	0.0385	0.0000	373.4801	373.4801	0.1055	0.0000	376.1186
Total	**0.1634**	**1.2011**	**1.3550**	**4.4100e-003**		**0.0403**	**0.0403**		**0.0385**	**0.0385**	**0.0000**	**373.4801**	**373.4801**	**0.1055**	**0.0000**	**376.1186**

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	1.0000e-005	2.4000e-004	9.0000e-005	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1163	0.1163	1.0000e-005	0.0000	0.1165
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3100e-003	3.0300e-003	0.0357	1.2000e-004	0.0148	1.0000e-004	0.0149	3.9200e-003	9.0000e-005	4.0100e-003	0.0000	10.9574	10.9574	2.3000e-004	0.0000	10.9632
Total	**5.3200e-003**	**3.2700e-003**	**0.0358**	**1.2000e-004**	**0.0148**	**1.0000e-004**	**0.0149**	**3.9400e-003**	**9.0000e-005**	**4.0300e-003**	**0.0000**	**11.0737**	**11.0737**	**2.4000e-004**	**0.0000**	**11.0797**

3.3 Building Construction - 2025

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	0.2686	2.0079	2.3086	7.5300e-003		0.0639	0.0639		0.0609	0.0609	0.0000	638.7303	638.7303	0.1797	0.0000	643.2220
Total	**0.2686**	**2.0079**	**2.3086**	**7.5300e-003**		**0.0639**	**0.0639**		**0.0609**	**0.0609**	**0.0000**	**638.7303**	**638.7303**	**0.1797**	**0.0000**	**643.2220**

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	1.0000e-005	4.0000e-004	1.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1975	0.1975	2.0000e-005	0.0000	0.1980
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6200e-003	4.7400e-003	0.0567	2.0000e-004	0.0252	1.6000e-004	0.0254	6.7000e-003	1.5000e-004	6.8500e-003	0.0000	17.9835	17.9835	3.6000e-004	0.0000	17.9925
Total	**8.6300e-003**	**5.1400e-003**	**0.0569**	**2.0000e-004**	**0.0253**	**1.6000e-004**	**0.0255**	**6.7200e-003**	**1.5000e-004**	**6.8700e-003**	**0.0000**	**18.1811**	**18.1811**	**3.8000e-004**	**0.0000**	**18.1905**

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	0.2686	2.0079	2.3086	7.5300e-003		0.0639	0.0639		0.0609	0.0609	0.0000	638.7296	638.7296	0.1797	0.0000	643.2212
Total	**0.2686**	**2.0079**	**2.3086**	**7.5300e-003**		**0.0639**	**0.0639**		**0.0609**	**0.0609**	**0.0000**	**638.7296**	**638.7296**	**0.1797**	**0.0000**	**643.2212**

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	1.0000e-005	4.0000e-004	1.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1975	0.1975	2.0000e-005	0.0000	0.1980
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6200e-003	4.7400e-003	0.0567	2.0000e-004	0.0252	1.6000e-004	0.0254	6.7000e-003	1.5000e-004	6.8500e-003	0.0000	17.9835	17.9835	3.6000e-004	0.0000	17.9925
Total	**8.6300e-003**	**5.1400e-003**	**0.0569**	**2.0000e-004**	**0.0253**	**1.6000e-004**	**0.0255**	**6.7200e-003**	**1.5000e-004**	**6.8700e-003**	**0.0000**	**18.1811**	**18.1811**	**3.8000e-004**	**0.0000**	**18.1905**

Ventura Water Pure_WCS_ProjLevel

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific equipment data.

Off-road Equipment -

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specific trip rates, trip lengths are average CalEEMod default.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	4.0729	33.8906	34.8989	0.0883	0.1650	1.3952	1.5602	0.0438	1.3076	1.3513	0.0000	8,373.8767	8,373.8767	2.3191	0.0000	8,431.8541
2025	3.8507	31.9182	34.5275	0.0882	0.1648	1.2564	1.4212	0.0437	1.1764	1.2201	0.0000	8,368.0252	8,368.0252	2.3108	0.0000	8,425.7957
Maximum	**4.0729**	**33.8906**	**34.8989**	**0.0883**	**0.1650**	**1.3952**	**1.5602**	**0.0438**	**1.3076**	**1.3513**	**0.0000**	**8,373.8767**	**8,373.8767**	**2.3191**	**0.0000**	**8,431.8541**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	4.0729	13.1589	34.8989	0.0883	0.1650	1.3952	1.5602	0.0438	1.3076	1.3513	0.0000	8,373.8767	8,373.8767	2.3191	0.0000	8,431.8541
2025	3.8507	12.8591	34.5275	0.0882	0.1648	1.2564	1.4212	0.0437	1.1764	1.2201	0.0000	8,368.0252	8,368.0252	2.3108	0.0000	8,425.7957
Maximum	**4.0729**	**13.1589**	**34.8989**	**0.0883**	**0.1650**	**1.3952**	**1.5602**	**0.0438**	**1.3076**	**1.3513**	**0.0000**	**8,373.8767**	**8,373.8767**	**2.3191**	**0.0000**	**8,431.8541**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**60.46**	**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	Excavation/Trenching	Trenching	5/1/2024	11/28/2025	6	495	
2	Building Construction	Building Construction	6/1/2024	12/31/2025	6	496	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Bore/Drill Rigs	4	8.00	221	0.50
Building Construction	Welders	4	8.00	46	0.45
Excavation/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Excavation/Trenching	Excavators	3	8.00	158	0.38
Excavation/Trenching	Rubber Tired Dozers	2	8.00	247	0.40

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
Building Construction	8	20.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation/Trenching - 2024

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	2.2301	20.7317	19.6827	0.0387		0.9537	0.9537		0.8862	0.8862		3,735.4927	3,735.4927	1.0446		3,761.6080
Total	**2.2301**	**20.7317**	**19.6827**	**0.0387**		**0.9537**	**0.9537**		**0.8862**	**0.8862**		**3,735.4927**	**3,735.4927**	**1.0446**		**3,761.6080**

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	2.2301		19.6827	0.0387		0.9537	0.9537		0.8862	0.8862	0.0000	3,735.4927	3,735.4927	1.0446		3,761.6080
Total	**2.2301**		**19.6827**	**0.0387**		**0.9537**	**0.9537**		**0.8862**	**0.8862**	**0.0000**	**3,735.4927**	**3,735.4927**	**1.0446**		**3,761.6080**

3.2 Excavation/Trenching - 2025

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	2.0799	19.0591	19.3968	0.0387		0.8468	0.8468		0.7865	0.7865		3,735.6711	3,735.6711	1.0426		3,761.7357
Total	**2.0799**	**19.0591**	**19.3968**	**0.0387**		**0.8468**	**0.8468**		**0.7865**	**0.7865**		**3,735.6711**	**3,735.6711**	**1.0426**		**3,761.7357**

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	2.0799		19.3968	0.0387		0.8468	0.8468		0.7865	0.7865	0.0000	3,735.6711	3,735.6711	1.0426		3,761.7356
Total	**2.0799**		**19.3968**	**0.0387**		**0.8468**	**0.8468**		**0.7865**	**0.7865**	**0.0000**	**3,735.6711**	**3,735.6711**	**1.0426**		**3,761.7356**

3.3 Building Construction - 2024

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	1.7854	13.1270	14.8082	0.0482		0.4404	0.4404		0.4204	0.4204		4,499.3643	4,499.3643	1.2715		4,531.1511
Total	**1.7854**	**13.1270**	**14.8082**	**0.0482**		**0.4404**	**0.4404**		**0.4204**	**0.4204**		**4,499.3643**	**4,499.3643**	**1.2715**		**4,531.1511**

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	8.0000e-005	2.6100e-003	1.0100e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	1.9000e-004		1.4103	1.4103	1.3000e-004		1.4136
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	0.0573	0.0293	0.4069	1.3800e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		137.6095	137.6095	2.8800e-003		137.6814
Total	**0.0574**	**0.0319**	**0.4080**	**1.3900e-003**	**0.1650**	**1.0800e-003**	**0.1661**	**0.0438**	**9.9000e-004**	**0.0448**		**139.0198**	**139.0198**	**3.0100e-003**		**139.0950**

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	1.7854	13.1270	14.8082	0.0482		0.4404	0.4404		0.4204	0.4204	0.0000	4,499.3643	4,499.3643	1.2715		4,531.1511
Total	**1.7854**	**13.1270**	**14.8082**	**0.0482**		**0.4404**	**0.4404**		**0.4204**	**0.4204**	**0.0000**	**4,499.3643**	**4,499.3643**	**1.2715**		**4,531.1511**

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	8.0000e-005	2.6100e-003	1.0100e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	1.9000e-004		1.4103	1.4103	1.3000e-004		1.4136
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	0.0573	0.0293	0.4069	1.3800e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		137.6095	137.6095	2.8800e-003		137.6814
Total	**0.0574**	**0.0319**	**0.4080**	**1.3900e-003**	**0.1650**	**1.0800e-003**	**0.1661**	**0.0438**	**9.9000e-004**	**0.0448**		**139.0198**	**139.0198**	**3.0100e-003**		**139.0950**

3.3 Building Construction - 2025

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	1.7164	12.8299	14.7517	0.0482		0.4085	0.4085		0.3889	0.3889		4,498.9116	4,498.9116	1.2655		4,530.5488
Total	**1.7164**	**12.8299**	**14.7517**	**0.0482**		**0.4085**	**0.4085**		**0.3889**	**0.3889**		**4,498.9116**	**4,498.9116**	**1.2655**		**4,530.5488**

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	8.0000e-005	2.5400e-003	1.0300e-003	1.0000e-005	4.6000e-004	1.0000e-005	4.6000e-004	1.2000e-004	1.0000e-005	1.3000e-004		1.4009	1.4009	1.3000e-004		1.4041
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	0.0544	0.0267	0.3779	1.3200e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		132.0416	132.0416	2.6200e-003		132.1071
Total	**0.0545**	**0.0293**	**0.3790**	**1.3300e-003**	**0.1648**	**1.0600e-003**	**0.1658**	**0.0437**	**9.8000e-004**	**0.0447**		**133.4425**	**133.4425**	**2.7500e-003**		**133.5113**

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	1.7164	12.8299	14.7517	0.0482		0.4085	0.4085		0.3889	0.3889	0.0000	4,498.9116	4,498.9116	1.2655		4,530.5488
Total	**1.7164**	**12.8299**	**14.7517**	**0.0482**		**0.4085**	**0.4085**		**0.3889**	**0.3889**	**0.0000**	**4,498.9116**	**4,498.9116**	**1.2655**		**4,530.5488**

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	8.0000e-005	2.5400e-003	1.0300e-003	1.0000e-005	4.6000e-004	1.0000e-005	4.6000e-004	1.2000e-004	1.0000e-005	1.3000e-004		1.4009	1.4009	1.3000e-004		1.4041
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	0.0544	0.0267	0.3779	1.3200e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		132.0416	132.0416	2.6200e-003		132.1071
Total	**0.0545**	**0.0293**	**0.3790**	**1.3300e-003**	**0.1648**	**1.0600e-003**	**0.1658**	**0.0437**	**9.8000e-004**	**0.0447**		**133.4425**	**133.4425**	**2.7500e-003**		**133.5113**

Ventura Water Pure_WCS_ProjLevel - Ventura County APCD Air District, Winter

Ventura Water Pure_WCS_ProjLevel

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific equipment data.

Off-road Equipment -

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specific trip rates, trip lengths are average CalEEMod default.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	4.0811	33.8956	34.8855	0.0882	0.1650	1.3952	1.5602	0.0438	1.3076	1.3513	0.0000	8,367.1881	8,367.1881	2.3190	0.0000	8,425.1625
2025	3.8586	31.9228	34.5145	0.0881	0.1648	1.2564	1.4212	0.0437	1.1764	1.2201	0.0000	8,361.6105	8,361.6105	2.3107	0.0000	8,419.3782
Maximum	**4.0811**	**33.8956**	**34.8855**	**0.0882**	**0.1650**	**1.3952**	**1.5602**	**0.0438**	**1.3076**	**1.3513**	**0.0000**	**8,367.1881**	**8,367.1881**	**2.3190**	**0.0000**	**8,425.1625**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	4.0811	13.1639	34.8855	0.0882	0.1650	1.3952	1.5602	0.0438	1.3076	1.3513	0.0000	8,367.1881	8,367.1881	2.3190	0.0000	8,425.1625
2025	3.8586	12.8637	34.5145	0.0881	0.1648	1.2564	1.4212	0.0437	1.1764	1.2201	0.0000	8,361.6105	8,361.6105	2.3107	0.0000	8,419.3782
Maximum	**4.0811**	**13.1639**	**34.8855**	**0.0882**	**0.1650**	**1.3952**	**1.5602**	**0.0438**	**1.3076**	**1.3513**	**0.0000**	**8,367.1881**	**8,367.1881**	**2.3190**	**0.0000**	**8,425.1625**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**60.46**	**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	Excavation/Trenching	Trenching	5/1/2024	11/28/2025	6	495	
2	Building Construction	Building Construction	6/1/2024	12/31/2025	6	496	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Bore/Drill Rigs	4	8.00	221	0.50
Building Construction	Welders	4	8.00	46	0.45
Excavation/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Excavation/Trenching	Excavators	3	8.00	158	0.38
Excavation/Trenching	Rubber Tired Dozers	2	8.00	247	0.40

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
Building Construction	8	20.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation/Trenching - 2024

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	2.2301	20.7317	19.6827	0.0387		0.9537	0.9537		0.8862	0.8862		3,735.4927	3,735.4927	1.0446		3,761.6080
Total	**2.2301**	**20.7317**	**19.6827**	**0.0387**		**0.9537**	**0.9537**		**0.8862**	**0.8862**		**3,735.4927**	**3,735.4927**	**1.0446**		**3,761.6080**

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	2.2301		19.6827	0.0387		0.9537	0.9537		0.8862	0.8862	0.0000	3,735.4927	3,735.4927	1.0446		3,761.6080
Total	**2.2301**		**19.6827**	**0.0387**		**0.9537**	**0.9537**		**0.8862**	**0.8862**	**0.0000**	**3,735.4927**	**3,735.4927**	**1.0446**		**3,761.6080**

3.2 Excavation/Trenching - 2025

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	2.0799	19.0591	19.3968	0.0387		0.8468	0.8468		0.7865	0.7865		3,735.6711	3,735.6711	1.0426		3,761.7357
Total	**2.0799**	**19.0591**	**19.3968**	**0.0387**		**0.8468**	**0.8468**		**0.7865**	**0.7865**		**3,735.6711**	**3,735.6711**	**1.0426**		**3,761.7357**

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	2.0799		19.3968	0.0387		0.8468	0.8468		0.7865	0.7865	0.0000	3,735.6711	3,735.6711	1.0426		3,761.7356
Total	**2.0799**		**19.3968**	**0.0387**		**0.8468**	**0.8468**		**0.7865**	**0.7865**	**0.0000**	**3,735.6711**	**3,735.6711**	**1.0426**		**3,761.7356**

3.3 Building Construction - 2024

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	1.7854	13.1270	14.8082	0.0482		0.4404	0.4404		0.4204	0.4204		4,499.3643	4,499.3643	1.2715		4,531.1511
Total	**1.7854**	**13.1270**	**14.8082**	**0.0482**		**0.4404**	**0.4404**		**0.4204**	**0.4204**		**4,499.3643**	**4,499.3643**	**1.2715**		**4,531.1511**

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	8.0000e-005	2.6200e-003	1.0600e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	1.9000e-004		1.3874	1.3874	1.3000e-004		1.3907
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	0.0655	0.0343	0.3935	1.3100e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		130.9438	130.9438	2.7600e-003		131.0127
Total	**0.0656**	**0.0369**	**0.3945**	**1.3200e-003**	**0.1650**	**1.0800e-003**	**0.1661**	**0.0438**	**9.9000e-004**	**0.0448**		**132.3312**	**132.3312**	**2.8900e-003**		**132.4034**

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	1.7854	13.1270	14.8082	0.0482		0.4404	0.4404		0.4204	0.4204	0.0000	4,499.3643	4,499.3643	1.2715		4,531.1511
Total	**1.7854**	**13.1270**	**14.8082**	**0.0482**		**0.4404**	**0.4404**		**0.4204**	**0.4204**	**0.0000**	**4,499.3643**	**4,499.3643**	**1.2715**		**4,531.1511**

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	8.0000e-005	2.6200e-003	1.0600e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	1.9000e-004		1.3874	1.3874	1.3000e-004		1.3907
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	0.0655	0.0343	0.3935	1.3100e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		130.9438	130.9438	2.7600e-003		131.0127
Total	**0.0656**	**0.0369**	**0.3945**	**1.3200e-003**	**0.1650**	**1.0800e-003**	**0.1661**	**0.0438**	**9.9000e-004**	**0.0448**		**132.3312**	**132.3312**	**2.8900e-003**		**132.4034**

3.3 Building Construction - 2025

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	1.7164	12.8299	14.7517	0.0482		0.4085	0.4085		0.3889	0.3889		4,498.9116	4,498.9116	1.2655		4,530.5488
Total	**1.7164**	**12.8299**	**14.7517**	**0.0482**		**0.4085**	**0.4085**		**0.3889**	**0.3889**		**4,498.9116**	**4,498.9116**	**1.2655**		**4,530.5488**

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	8.0000e-005	2.5500e-003	1.0800e-003	1.0000e-005	4.6000e-004	1.0000e-005	4.6000e-004	1.2000e-004	1.0000e-005	1.3000e-004		1.3783	1.3783	1.3000e-004		1.3816
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	0.0623	0.0313	0.3649	1.2600e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		125.6495	125.6495	2.5100e-003		125.7122
Total	**0.0624**	**0.0339**	**0.3660**	**1.2700e-003**	**0.1648**	**1.0600e-003**	**0.1658**	**0.0437**	**9.8000e-004**	**0.0447**		**127.0278**	**127.0278**	**2.6400e-003**		**127.0938**

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	1.7164	12.8299	14.7517	0.0482		0.4085	0.4085		0.3889	0.3889	0.0000	4,498.9116	4,498.9116	1.2655		4,530.5488
Total	**1.7164**	**12.8299**	**14.7517**	**0.0482**		**0.4085**	**0.4085**		**0.3889**	**0.3889**	**0.0000**	**4,498.9116**	**4,498.9116**	**1.2655**		**4,530.5488**

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	8.0000e-005	2.5500e-003	1.0800e-003	1.0000e-005	4.6000e-004	1.0000e-005	4.6000e-004	1.2000e-004	1.0000e-005	1.3000e-004		1.3783	1.3783	1.3000e-004		1.3816
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	0.0623	0.0313	0.3649	1.2600e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		125.6495	125.6495	2.5100e-003		125.7122
Total	**0.0624**	**0.0339**	**0.3660**	**1.2700e-003**	**0.1648**	**1.0600e-003**	**0.1658**	**0.0437**	**9.8000e-004**	**0.0447**		**127.0278**	**127.0278**	**2.6400e-003**		**127.0938**

Ventura Water Pure_VWRF_ProjLevel - Ventura County APCD Air District, Annual

Ventura Water Pure_VWRF_ProjLevel

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	2.50	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project specific acreage and square footage.

Construction Phase - Estimated construciton time.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific construction data. Estimate on the worker trips for building construction.

Grading -

Vehicle Trips - Project specific fleet mix.

Energy Use - Project specific electrical use.

Water And Wastewater - Project specific water usage.

Solid Waste - Project specific solid waste.

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2309	2.3438	2.0323	4.0600e-003	0.4033	0.1072	0.5106	0.0475	0.1002	0.1477	0.0000	358.6731	358.6731	0.0865	0.0000	360.8354
2022	0.0887	0.7974	0.8461	1.4100e-003	4.1100e-003	0.0413	0.0454	1.0900e-003	0.0389	0.0399	0.0000	121.4717	121.4717	0.0284	0.0000	122.1814
Maximum	**0.2309**	**2.3438**	**2.0323**	**4.0600e-003**	**0.4033**	**0.1072**	**0.5106**	**0.0475**	**0.1002**	**0.1477**	**0.0000**	**358.6731**	**358.6731**	**0.0865**	**0.0000**	**360.8354**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2309	2.3438	2.0323	4.0600e-003	0.1721	0.1072	0.2793	0.0225	0.1002	0.1227	0.0000	358.6728	358.6728	0.0865	0.0000	360.8350
2022	0.0887	0.7974	0.8461	1.4100e-003	4.1100e-003	0.0413	0.0454	1.0900e-003	0.0389	0.0399	0.0000	121.4715	121.4715	0.0284	0.0000	122.1813
Maximum	**0.2309**	**2.3438**	**2.0323**	**4.0600e-003**	**0.1721**	**0.1072**	**0.2793**	**0.0225**	**0.1002**	**0.1227**	**0.0000**	**358.6728**	**358.6728**	**0.0865**	**0.0000**	**360.8350**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.76**	**0.00**	**41.60**	**51.43**	**0.00**	**13.31**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2021	8-31-2021	1.0436	1.0436
2	9-1-2021	11-30-2021	1.2626	1.2626
3	12-1-2021	2-28-2022	0.6971	0.6971
4	3-1-2022	5-31-2022	0.4468	0.4468
		Highest	1.2626	1.2626

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Excavation/Grading	Grading	6/1/2021	11/27/2021	6	155	
2	Building Construction	Building Construction	7/1/2021	4/29/2022	6	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation/Grading	Excavators	2	8.00	158	0.38
Excavation/Grading	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	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
Excavation/Grading	3	10.00	0.00	1,350.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation/Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3791	0.0000	0.3791	0.0409	0.0000	0.0409	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0706	0.7929	0.6441	1.3100e-003		0.0307	0.0307		0.0283	0.0283	0.0000	115.4486	115.4486	0.0373	0.0000	116.3820
Total	**0.0706**	**0.7929**	**0.6441**	**1.3100e-003**	**0.3791**	**0.0307**	**0.4099**	**0.0409**	**0.0283**	**0.0692**	**0.0000**	**115.4486**	**115.4486**	**0.0373**	**0.0000**	**116.3820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6500e-003	0.1703	0.0402	5.0000e-004	0.0116	6.7000e-004	0.0122	3.1700e-003	6.4000e-004	3.8200e-003	0.0000	49.7446	49.7446	4.7400e-003	0.0000	49.8630
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	2.6800e-003	1.7400e-003	0.0191	6.0000e-005	6.2500e-003	4.0000e-005	6.2900e-003	1.6600e-003	4.0000e-005	1.7000e-003	0.0000	5.1930	5.1930	1.3000e-004	0.0000	5.1963
Total	**7.3300e-003**	**0.1720**	**0.0593**	**5.6000e-004**	**0.0178**	**7.1000e-004**	**0.0185**	**4.8300e-003**	**6.8000e-004**	**5.5200e-003**	**0.0000**	**54.9376**	**54.9376**	**4.8700e-003**	**0.0000**	**55.0593**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1479	0.0000	0.1479	0.0160	0.0000	0.0160	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0706	0.7929	0.6441	1.3100e-003		0.0307	0.0307		0.0283	0.0283	0.0000	115.4484	115.4484	0.0373	0.0000	116.3819
Total	**0.0706**	**0.7929**	**0.6441**	**1.3100e-003**	**0.1479**	**0.0307**	**0.1786**	**0.0160**	**0.0283**	**0.0443**	**0.0000**	**115.4484**	**115.4484**	**0.0373**	**0.0000**	**116.3819**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6500e-003	0.1703	0.0402	5.0000e-004	0.0116	6.7000e-004	0.0122	3.1700e-003	6.4000e-004	3.8200e-003	0.0000	49.7446	49.7446	4.7400e-003	0.0000	49.8630
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	2.6800e-003	1.7400e-003	0.0191	6.0000e-005	6.2500e-003	4.0000e-005	6.2900e-003	1.6600e-003	4.0000e-005	1.7000e-003	0.0000	5.1930	5.1930	1.3000e-004	0.0000	5.1963
Total	**7.3300e-003**	**0.1720**	**0.0593**	**5.6000e-004**	**0.0178**	**7.1000e-004**	**0.0185**	**4.8300e-003**	**6.8000e-004**	**5.5200e-003**	**0.0000**	**54.9376**	**54.9376**	**4.8700e-003**	**0.0000**	**55.0593**

3.3 Building Construction - 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	0.1502	1.3771	1.3094	2.1300e-003		0.0757	0.0757		0.0712	0.0712	0.0000	182.9935	182.9935	0.0442	0.0000	184.0972
Total	**0.1502**	**1.3771**	**1.3094**	**2.1300e-003**		**0.0757**	**0.0757**		**0.0712**	**0.0712**	**0.0000**	**182.9935**	**182.9935**	**0.0442**	**0.0000**	**184.0972**

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	2.7300e-003	1.7700e-003	0.0195	6.0000e-005	6.3700e-003	4.0000e-005	6.4100e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	5.2935	5.2935	1.3000e-004	0.0000	5.2969
Total	**2.7300e-003**	**1.7700e-003**	**0.0195**	**6.0000e-005**	**6.3700e-003**	**4.0000e-005**	**6.4100e-003**	**1.6900e-003**	**4.0000e-005**	**1.7300e-003**	**0.0000**	**5.2935**	**5.2935**	**1.3000e-004**	**0.0000**	**5.2969**

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	0.1502	1.3771	1.3094	2.1300e-003		0.0757	0.0757		0.0712	0.0712	0.0000	182.9932	182.9932	0.0442	0.0000	184.0969
Total	**0.1502**	**1.3771**	**1.3094**	**2.1300e-003**		**0.0757**	**0.0757**		**0.0712**	**0.0712**	**0.0000**	**182.9932**	**182.9932**	**0.0442**	**0.0000**	**184.0969**

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	2.7300e-003	1.7700e-003	0.0195	6.0000e-005	6.3700e-003	4.0000e-005	6.4100e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	5.2935	5.2935	1.3000e-004	0.0000	5.2969
Total	**2.7300e-003**	**1.7700e-003**	**0.0195**	**6.0000e-005**	**6.3700e-003**	**4.0000e-005**	**6.4100e-003**	**1.6900e-003**	**4.0000e-005**	**1.7300e-003**	**0.0000**	**5.2935**	**5.2935**	**1.3000e-004**	**0.0000**	**5.2969**

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0870	0.7964	0.8345	1.3700e-003		0.0413	0.0413		0.0388	0.0388	0.0000	118.1799	118.1799	0.0283	0.0000	118.8877
Total	**0.0870**	**0.7964**	**0.8345**	**1.3700e-003**		**0.0413**	**0.0413**		**0.0388**	**0.0388**	**0.0000**	**118.1799**	**118.1799**	**0.0283**	**0.0000**	**118.8877**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6600e-003	1.0300e-003	0.0116	4.0000e-005	4.1100e-003	3.0000e-005	4.1400e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.2918	3.2918	8.0000e-005	0.0000	3.2937
Total	**1.6600e-003**	**1.0300e-003**	**0.0116**	**4.0000e-005**	**4.1100e-003**	**3.0000e-005**	**4.1400e-003**	**1.0900e-003**	**3.0000e-005**	**1.1200e-003**	**0.0000**	**3.2918**	**3.2918**	**8.0000e-005**	**0.0000**	**3.2937**

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	0.0870	0.7964	0.8345	1.3700e-003		0.0413	0.0413		0.0388	0.0388	0.0000	118.1797	118.1797	0.0283	0.0000	118.8876
Total	**0.0870**	**0.7964**	**0.8345**	**1.3700e-003**		**0.0413**	**0.0413**		**0.0388**	**0.0388**	**0.0000**	**118.1797**	**118.1797**	**0.0283**	**0.0000**	**118.8876**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6600e-003	1.0300e-003	0.0116	4.0000e-005	4.1100e-003	3.0000e-005	4.1400e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.2918	3.2918	8.0000e-005	0.0000	3.2937
Total	**1.6600e-003**	**1.0300e-003**	**0.0116**	**4.0000e-005**	**4.1100e-003**	**3.0000e-005**	**4.1400e-003**	**1.0900e-003**	**3.0000e-005**	**1.1200e-003**	**0.0000**	**3.2918**	**3.2918**	**8.0000e-005**	**0.0000**	**3.2937**

Ventura Water Pure_VWRF_ProjLevel - Ventura County APCD Air District, Summer

Ventura Water Pure_VWRF_ProjLevel

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	2.50	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project specific acreage and square footage.

Construction Phase - Estimated construciton time.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific construction data. Estimate on the worker trips for building construction.

Grading -

Vehicle Trips - Project specific fleet mix.

Energy Use - Project specific electrical use.

Water And Wastewater - Project specific water usage.

Solid Waste - Project specific solid waste.

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.9400	29.8509	25.9006	0.0519	5.2080	1.3649	6.5729	0.6134	1.2754	1.8887	0.0000	5,061.7421	5,061.7421	1.2174	0.0000	5,092.1776
2022	1.7384	15.6335	16.5998	0.0277	0.0822	0.8096	0.8917	0.0218	0.7617	0.7835	0.0000	2,628.5015	2,628.5015	0.6137	0.0000	2,643.8439
Maximum	**2.9400**	**29.8509**	**25.9006**	**0.0519**	**5.2080**	**1.3649**	**6.5729**	**0.6134**	**1.2754**	**1.8887**	**0.0000**	**5,061.7421**	**5,061.7421**	**1.2174**	**0.0000**	**5,092.1776**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.9400	29.8509	25.9006	0.0519	2.2239	1.3649	3.5888	0.2911	1.2754	1.5665	0.0000	5,061.7421	5,061.7421	1.2174	0.0000	5,092.1776
2022	1.7384	15.6335	16.5998	0.0277	0.0822	0.8096	0.8917	0.0218	0.7617	0.7835	0.0000	2,628.5015	2,628.5015	0.6137	0.0000	2,643.8439
Maximum	**2.9400**	**29.8509**	**25.9006**	**0.0519**	**2.2239**	**1.3649**	**3.5888**	**0.2911**	**1.2754**	**1.5665**	**0.0000**	**5,061.7421**	**5,061.7421**	**1.2174**	**0.0000**	**5,092.1776**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.41**	**0.00**	**39.98**	**50.73**	**0.00**	**12.06**	**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	Excavation/Grading	Grading	6/1/2021	11/27/2021	6	155	
2	Building Construction	Building Construction	7/1/2021	4/29/2022	6	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation/Grading	Excavators	2	8.00	158	0.38
Excavation/Grading	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	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
Excavation/Grading	3	10.00	0.00	1,350.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation/Grading - 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					
Fugitive Dust					4.8920	0.0000	4.8920	0.5282	0.0000	0.5282			0.0000			0.0000
Off-Road	0.9114	10.2314	8.3108	0.0170		0.3966	0.3966		0.3649	0.3649		1,642.0681	1,642.0681	0.5311		1,655.3450
Total	**0.9114**	**10.2314**	**8.3108**	**0.0170**	**4.8920**	**0.3966**	**5.2886**	**0.5282**	**0.3649**	**0.8931**		**1,642.0681**	**1,642.0681**	**0.5311**		**1,655.3450**

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	0.0592	2.1479	0.5038	6.5000e-003	0.1517	8.5800e-003	0.1603	0.0416	8.2100e-003	0.0498		712.3123	712.3123	0.0665		713.9739
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	0.0343	0.0198	0.2554	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		76.9989	76.9989	1.9300e-003		77.0472
Total	**0.0935**	**2.1677**	**0.7592**	**7.2700e-003**	**0.2339**	**9.1500e-003**	**0.2430**	**0.0633**	**8.7300e-003**	**0.0721**		**789.3112**	**789.3112**	**0.0684**		**791.0211**

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					1.9079	0.0000	1.9079	0.2060	0.0000	0.2060			0.0000			0.0000
Off-Road	0.9114	10.2314	8.3108	0.0170		0.3966	0.3966		0.3649	0.3649	0.0000	1,642.0681	1,642.0681	0.5311		1,655.3450
Total	**0.9114**	**10.2314**	**8.3108**	**0.0170**	**1.9079**	**0.3966**	**2.3044**	**0.2060**	**0.3649**	**0.5709**	**0.0000**	**1,642.0681**	**1,642.0681**	**0.5311**		**1,655.3450**

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	0.0592	2.1479	0.5038	6.5000e-003	0.1517	8.5800e-003	0.1603	0.0416	8.2100e-003	0.0498		712.3123	712.3123	0.0665		713.9739
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	0.0343	0.0198	0.2554	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		76.9989	76.9989	1.9300e-003		77.0472
Total	**0.0935**	**2.1677**	**0.7592**	**7.2700e-003**	**0.2339**	**9.1500e-003**	**0.2430**	**0.0633**	**8.7300e-003**	**0.0721**		**789.3112**	**789.3112**	**0.0684**		**791.0211**

3.3 Building Construction - 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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0343	0.0198	0.2554	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		76.9989	76.9989	1.9300e-003		77.0472
Total	**0.0343**	**0.0198**	**0.2554**	**7.7000e-004**	**0.0822**	**5.7000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**76.9989**	**76.9989**	**1.9300e-003**		**77.0472**

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0343	0.0198	0.2554	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		76.9989	76.9989	1.9300e-003		77.0472
Total	**0.0343**	**0.0198**	**0.2554**	**7.7000e-004**	**0.0822**	**5.7000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**76.9989**	**76.9989**	**1.9300e-003**		**77.0472**

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0322	0.0179	0.2364	7.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		74.1680	74.1680	1.7500e-003		74.2117
Total	**0.0322**	**0.0179**	**0.2364**	**7.4000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.1000e-004**	**0.0223**		**74.1680**	**74.1680**	**1.7500e-003**		**74.2117**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0322	0.0179	0.2364	7.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		74.1680	74.1680	1.7500e-003		74.2117
Total	**0.0322**	**0.0179**	**0.2364**	**7.4000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.1000e-004**	**0.0223**		**74.1680**	**74.1680**	**1.7500e-003**		**74.2117**

Ventura Water Pure_VWRF_ProjLevel - Ventura County APCD Air District, Winter

Ventura Water Pure_VWRF_ProjLevel

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	2.50	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project specific acreage and square footage.

Construction Phase - Estimated construciton time.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific construction data. Estimate on the worker trips for building construction.

Grading -

Vehicle Trips - Project specific fleet mix.

Energy Use - Project specific electrical use.

Water And Wastewater - Project specific water usage.

Solid Waste - Project specific solid waste.

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.9510	29.8805	25.9218	0.0518	5.2080	1.3652	6.5732	0.6134	1.2756	1.8890	0.0000	5,042.9066	5,042.9066	1.2195	0.0000	5,073.3936
2022	1.7429	15.6366	16.5931	0.0276	0.0822	0.8096	0.8917	0.0218	0.7617	0.7835	0.0000	2,624.9100	2,624.9100	0.6136	0.0000	2,640.2507
Maximum	**2.9510**	**29.8805**	**25.9218**	**0.0518**	**5.2080**	**1.3652**	**6.5732**	**0.6134**	**1.2756**	**1.8890**	**0.0000**	**5,042.9066**	**5,042.9066**	**1.2195**	**0.0000**	**5,073.3936**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.9510	29.8805	25.9218	0.0518	2.2239	1.3652	3.5891	0.2911	1.2756	1.5668	0.0000	5,042.9066	5,042.9066	1.2195	0.0000	5,073.3935
2022	1.7429	15.6366	16.5931	0.0276	0.0822	0.8096	0.8917	0.0218	0.7617	0.7835	0.0000	2,624.9100	2,624.9100	0.6136	0.0000	2,640.2507
Maximum	**2.9510**	**29.8805**	**25.9218**	**0.0518**	**2.2239**	**1.3652**	**3.5891**	**0.2911**	**1.2756**	**1.5668**	**0.0000**	**5,042.9066**	**5,042.9066**	**1.2195**	**0.0000**	**5,073.3935**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.41**	**0.00**	**39.98**	**50.73**	**0.00**	**12.06**	**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	Excavation/Grading	Grading	6/1/2021	11/27/2021	6	155	
2	Building Construction	Building Construction	7/1/2021	4/29/2022	6	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation/Grading	Excavators	2	8.00	158	0.38
Excavation/Grading	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	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
Excavation/Grading	3	10.00	0.00	1,350.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation/Grading - 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					
Fugitive Dust					4.8920	0.0000	4.8920	0.5282	0.0000	0.5282			0.0000			0.0000
Off-Road	0.9114	10.2314	8.3108	0.0170		0.3966	0.3966		0.3649	0.3649		1,642.0681	1,642.0681	0.5311		1,655.3450
Total	**0.9114**	**10.2314**	**8.3108**	**0.0170**	**4.8920**	**0.3966**	**5.2886**	**0.5282**	**0.3649**	**0.8931**		**1,642.0681**	**1,642.0681**	**0.5311**		**1,655.3450**

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	0.0610	2.1707	0.5383	6.3900e-003	0.1517	8.8300e-003	0.1606	0.0416	8.4500e-003	0.0500		700.9383	700.9383	0.0687		702.6549
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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0999**	**2.1938**	**0.7871**	**7.1300e-003**	**0.2339**	**9.4000e-003**	**0.2433**	**0.0633**	**8.9700e-003**	**0.0723**		**774.2065**	**774.2065**	**0.0705**		**775.9696**

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					1.9079	0.0000	1.9079	0.2060	0.0000	0.2060			0.0000			0.0000
Off-Road	0.9114	10.2314	8.3108	0.0170		0.3966	0.3966		0.3649	0.3649	0.0000	1,642.0681	1,642.0681	0.5311		1,655.3450
Total	**0.9114**	**10.2314**	**8.3108**	**0.0170**	**1.9079**	**0.3966**	**2.3044**	**0.2060**	**0.3649**	**0.5709**	**0.0000**	**1,642.0681**	**1,642.0681**	**0.5311**		**1,655.3450**

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	0.0610	2.1707	0.5383	6.3900e-003	0.1517	8.8300e-003	0.1606	0.0416	8.4500e-003	0.0500		700.9383	700.9383	0.0687		702.6549
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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0999**	**2.1938**	**0.7871**	**7.1300e-003**	**0.2339**	**9.4000e-003**	**0.2433**	**0.0633**	**8.9700e-003**	**0.0723**		**774.2065**	**774.2065**	**0.0705**		**775.9696**

3.3 Building Construction - 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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0389**	**0.0232**	**0.2488**	**7.4000e-004**	**0.0822**	**5.7000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**73.2682**	**73.2682**	**1.8600e-003**		**73.3147**

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0389**	**0.0232**	**0.2488**	**7.4000e-004**	**0.0822**	**5.7000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**73.2682**	**73.2682**	**1.8600e-003**		**73.3147**

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0366	0.0209	0.2297	7.1000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		70.5764	70.5764	1.6800e-003		70.6185
Total	**0.0366**	**0.0209**	**0.2297**	**7.1000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.1000e-004**	**0.0223**		**70.5764**	**70.5764**	**1.6800e-003**		**70.6185**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0366	0.0209	0.2297	7.1000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		70.5764	70.5764	1.6800e-003		70.6185
Total	**0.0366**	**0.0209**	**0.2297**	**7.1000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.1000e-004**	**0.0223**		**70.5764**	**70.5764**	**1.6800e-003**		**70.6185**

Ventura Water Pure_VWRF_ProjLevel - Ventura County APCD Air District, Winter

Ventura Water Pure_VWRF_ProjLevel

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	2.50	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project specific acreage and square footage.

Construction Phase - Estimated construciton time.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific construction data. Estimate on the worker trips for building construction.

Grading -

Vehicle Trips - Project specific fleet mix.

Energy Use - Project specific electrical use.

Water And Wastewater - Project specific water usage.

Solid Waste - Project specific solid waste.

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.9510	29.8805	25.9218	0.0518	5.2080	1.3652	6.5732	0.6134	1.2756	1.8890	0.0000	5,042.9066	5,042.9066	1.2195	0.0000	5,073.3936
2022	1.7429	15.6366	16.5931	0.0276	0.0822	0.8096	0.8917	0.0218	0.7617	0.7835	0.0000	2,624.9100	2,624.9100	0.6136	0.0000	2,640.2507
Maximum	**2.9510**	**29.8805**	**25.9218**	**0.0518**	**5.2080**	**1.3652**	**6.5732**	**0.6134**	**1.2756**	**1.8890**	**0.0000**	**5,042.9066**	**5,042.9066**	**1.2195**	**0.0000**	**5,073.3936**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.9510	29.8805	25.9218	0.0518	2.2239	1.3652	3.5891	0.2911	1.2756	1.5668	0.0000	5,042.9066	5,042.9066	1.2195	0.0000	5,073.3935
2022	1.7429	15.6366	16.5931	0.0276	0.0822	0.8096	0.8917	0.0218	0.7617	0.7835	0.0000	2,624.9100	2,624.9100	0.6136	0.0000	2,640.2507
Maximum	**2.9510**	**29.8805**	**25.9218**	**0.0518**	**2.2239**	**1.3652**	**3.5891**	**0.2911**	**1.2756**	**1.5668**	**0.0000**	**5,042.9066**	**5,042.9066**	**1.2195**	**0.0000**	**5,073.3935**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.41**	**0.00**	**39.98**	**50.73**	**0.00**	**12.06**	**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	Excavation/Grading	Grading	6/1/2021	11/27/2021	6	155	
2	Building Construction	Building Construction	7/1/2021	4/29/2022	6	260	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Excavation/Grading	Excavators	2	8.00	158	0.38
Excavation/Grading	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	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
Excavation/Grading	3	10.00	0.00	1,350.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Excavation/Grading - 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					
Fugitive Dust					4.8920	0.0000	4.8920	0.5282	0.0000	0.5282			0.0000			0.0000
Off-Road	0.9114	10.2314	8.3108	0.0170		0.3966	0.3966		0.3649	0.3649		1,642.0681	1,642.0681	0.5311		1,655.3450
Total	**0.9114**	**10.2314**	**8.3108**	**0.0170**	**4.8920**	**0.3966**	**5.2886**	**0.5282**	**0.3649**	**0.8931**		**1,642.0681**	**1,642.0681**	**0.5311**		**1,655.3450**

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	0.0610	2.1707	0.5383	6.3900e-003	0.1517	8.8300e-003	0.1606	0.0416	8.4500e-003	0.0500		700.9383	700.9383	0.0687		702.6549
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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0999**	**2.1938**	**0.7871**	**7.1300e-003**	**0.2339**	**9.4000e-003**	**0.2433**	**0.0633**	**8.9700e-003**	**0.0723**		**774.2065**	**774.2065**	**0.0705**		**775.9696**

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					1.9079	0.0000	1.9079	0.2060	0.0000	0.2060			0.0000			0.0000
Off-Road	0.9114	10.2314	8.3108	0.0170		0.3966	0.3966		0.3649	0.3649	0.0000	1,642.0681	1,642.0681	0.5311		1,655.3450
Total	**0.9114**	**10.2314**	**8.3108**	**0.0170**	**1.9079**	**0.3966**	**2.3044**	**0.2060**	**0.3649**	**0.5709**	**0.0000**	**1,642.0681**	**1,642.0681**	**0.5311**		**1,655.3450**

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	0.0610	2.1707	0.5383	6.3900e-003	0.1517	8.8300e-003	0.1606	0.0416	8.4500e-003	0.0500		700.9383	700.9383	0.0687		702.6549
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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0999**	**2.1938**	**0.7871**	**7.1300e-003**	**0.2339**	**9.4000e-003**	**0.2433**	**0.0633**	**8.9700e-003**	**0.0723**		**774.2065**	**774.2065**	**0.0705**		**775.9696**

3.3 Building Construction - 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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0389**	**0.0232**	**0.2488**	**7.4000e-004**	**0.0822**	**5.7000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**73.2682**	**73.2682**	**1.8600e-003**		**73.3147**

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0389	0.0232	0.2488	7.4000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		73.2682	73.2682	1.8600e-003		73.3147
Total	**0.0389**	**0.0232**	**0.2488**	**7.4000e-004**	**0.0822**	**5.7000e-004**	**0.0827**	**0.0218**	**5.2000e-004**	**0.0223**		**73.2682**	**73.2682**	**1.8600e-003**		**73.3147**

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0366	0.0209	0.2297	7.1000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		70.5764	70.5764	1.6800e-003		70.6185
Total	**0.0366**	**0.0209**	**0.2297**	**7.1000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.1000e-004**	**0.0223**		**70.5764**	**70.5764**	**1.6800e-003**		**70.6185**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0366	0.0209	0.2297	7.1000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		70.5764	70.5764	1.6800e-003		70.6185
Total	**0.0366**	**0.0209**	**0.2297**	**7.1000e-004**	**0.0822**	**5.6000e-004**	**0.0827**	**0.0218**	**5.1000e-004**	**0.0223**		**70.5764**	**70.5764**	**1.6800e-003**		**70.6185**

Ventura Water Pure_WCS_ProjLevel

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific equipment data.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specific trip rates, trip lengths are average CalEEMod default.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.2974	12.5942	9.0480	0.0170	0.1329	0.6204	0.7533	0.0278	0.5767	0.6045	0.0000	1,484.5664	1,484.5664	0.4133	0.0000	1,494.90
2021	1.5891	14.7859	11.6829	0.0242	0.1584	0.6962	0.8546	0.0346	0.6486	0.6831	0.0000	2,100.0906	2,100.0906	0.5872	0.0000	2,114.77
2022	1.3609	12.2039	11.3137	0.0241	0.1584	0.5641	0.7226	0.0346	0.5260	0.5605	0.0000	2,097.9258	2,097.9258	0.5854	0.0000	2,112.56
2023	0.2707	2.3408	2.4659	5.4400e-003	0.0417	0.1038	0.1455	9.4700e-003	0.0968	0.1063	0.0000	472.0404	472.0404	0.1318	0.0000	475.3347
Maximum	**1.5891**	**14.7859**	**11.6829**	**0.0242**	**0.1584**	**0.6962**	**0.8546**	**0.0346**	**0.6486**	**0.6831**	**0.0000**	**2,100.0906**	**2,100.0906**	**0.5872**	**0.0000**	**2,114.77**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.2974	12.5942	9.0479	0.0170	0.0932	0.6204	0.7136	0.0217	0.5767	0.5985	0.0000	1,484.5647	1,484.5647	0.4133	0.0000	1,494.90
2021	1.5891	14.7859	11.6829	0.0242	0.1188	0.6962	0.8150	0.0286	0.6486	0.6771	0.0000	2,100.0882	2,100.0882	0.5872	0.0000	2,114.77
2022	1.3609	12.2039	11.3137	0.0241	0.1188	0.5641	0.6829	0.0286	0.5260	0.5545	0.0000	2,097.9234	2,097.9234	0.5854	0.0000	2,112.56
2023	0.2707	2.3408	2.4659	5.4400e-003	0.0341	0.1038	0.1379	8.3200e-003	0.0968	0.1052	0.0000	472.0399	472.0399	0.1318	0.0000	475.3341
Maximum	**1.5891**	**14.7859**	**11.6829**	**0.0242**	**0.1188**	**0.6962**	**0.8150**	**0.0286**	**0.6486**	**0.6771**	**0.0000**	**2,100.0882**	**2,100.0882**	**0.5872**	**0.0000**	**2,114.7692**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	25.75	0.00	5.11	18.03	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2020	8-31-2020	3.5187	3.5187
2	9-1-2020	11-30-2020	4.0826	4.0826
3	12-1-2020	2-28-2021	4.1381	4.1381
4	3-1-2021	5-31-2021	4.1251	4.1251
5	6-1-2021	8-31-2021	4.1244	4.1244
6	9-1-2021	11-30-2021	4.0810	4.0810
7	12-1-2021	2-28-2022	3.5828	3.5828
8	3-1-2022	5-31-2022	3.4172	3.4172
9	6-1-2022	8-31-2022	3.4165	3.4165
10	9-1-2022	11-30-2022	3.3807	3.3807
11	12-1-2022	2-28-2023	3.0517	3.0517
12	3-1-2023	5-31-2023	0.7169	0.7169
		Highest	4.1381	4.1381

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	1/1/2020	3/11/2023	6	1000	
2	Excavating/Trenching	Trenching	1/15/2020	3/25/2023	6	1000	
3	Paving	Paving	5/1/2020	3/31/2023	6	913	
4	Building Construction	Building Construction	10/1/2020	3/29/2023	6	780	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Bore/Drill Rigs	4	8.00	221	0.50
Building Construction	Welders	4	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Excavating/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Excavating/Trenching	Excavators	3	8.00	158	0.38
Excavating/Trenching	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	1,597.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	20.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavating/Trenching	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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					0.0652	0.0000	0.0652	9.8700e-003	0.0000	9.8700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5200	5.2126	3.4153	6.0900e-003		0.2604	0.2604		0.2421	0.2421	0.0000	533.7781	533.7781	0.1507	0.0000	537.5452
Total	**0.5200**	**5.2126**	**3.4153**	**6.0900e-003**	**0.0652**	**0.2604**	**0.3256**	**9.8700e-003**	**0.2421**	**0.2519**	**0.0000**	**533.7781**	**533.7781**	**0.1507**	**0.0000**	**537.5452**

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	1.8300e-003	0.0691	0.0150	1.9000e-004	0.0114	2.8000e-004	0.0117	2.9200e-003	2.7000e-004	3.1900e-003	0.0000	18.6790	18.6790	1.7900e-003	0.0000	18.7237
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6900e-003	5.8500e-003	0.0629	1.8000e-004	0.0190	1.4000e-004	0.0191	5.0400e-003	1.3000e-004	5.1700e-003	0.0000	16.2688	16.2688	4.4000e-004	0.0000	16.2798
Total	**0.0105**	**0.0750**	**0.0779**	**3.7000e-004**	**0.0304**	**4.2000e-004**	**0.0308**	**7.9600e-003**	**4.0000e-004**	**8.3600e-003**	**0.0000**	**34.9478**	**34.9478**	**2.2300e-003**	**0.0000**	**35.0035**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0254	0.0000	0.0254	3.8500e-003	0.0000	3.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5200	5.2126	3.4153	6.0900e-003		0.2604	0.2604		0.2421	0.2421	0.0000	533.7775	533.7775	0.1507	0.0000	537.5445
Total	**0.5200**	**5.2126**	**3.4153**	**6.0900e-003**	**0.0254**	**0.2604**	**0.2858**	**3.8500e-003**	**0.2421**	**0.2459**	**0.0000**	**533.7775**	**533.7775**	**0.1507**	**0.0000**	**537.5445**

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	1.8300e-003	0.0691	0.0150	1.9000e-004	0.0114	2.8000e-004	0.0117	2.9200e-003	2.7000e-004	3.1900e-003	0.0000	18.6790	18.6790	1.7900e-003	0.0000	18.7237
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6900e-003	5.8500e-003	0.0629	1.8000e-004	0.0190	1.4000e-004	0.0191	5.0400e-003	1.3000e-004	5.1700e-003	0.0000	16.2688	16.2688	4.4000e-004	0.0000	16.2798
Total	**0.0105**	**0.0750**	**0.0779**	**3.7000e-004**	**0.0304**	**4.2000e-004**	**0.0308**	**7.9600e-003**	**4.0000e-004**	**8.3600e-003**	**0.0000**	**34.9478**	**34.9478**	**2.2300e-003**	**0.0000**	**35.0035**

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0650	0.0000	0.0650	9.8400e-003	0.0000	9.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4953	4.9205	3.3749	6.0800e-003		0.2428	0.2428		0.2255	0.2255	0.0000	532.1123	532.1123	0.1498	0.0000	535.8565
Total	**0.4953**	**4.9205**	**3.3749**	**6.0800e-003**	**0.0650**	**0.2428**	**0.3077**	**9.8400e-003**	**0.2255**	**0.2354**	**0.0000**	**532.1123**	**532.1123**	**0.1498**	**0.0000**	**535.8565**

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	1.7200e-003	0.0630	0.0149	1.9000e-004	0.0114	2.5000e-004	0.0116	2.9200e-003	2.4000e-004	3.1600e-003	0.0000	18.4188	18.4188	1.7500e-003	0.0000	18.4627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1200e-003	5.2600e-003	0.0578	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.7298	15.7298	4.0000e-004	0.0000	15.7398
Total	**9.8400e-003**	**0.0683**	**0.0727**	**3.6000e-004**	**0.0303**	**3.8000e-004**	**0.0307**	**7.9500e-003**	**3.6000e-004**	**8.3100e-003**	**0.0000**	**34.1486**	**34.1486**	**2.1500e-003**	**0.0000**	**34.2024**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0253	0.0000	0.0253	3.8400e-003	0.0000	3.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4953	4.9205	3.3749	6.0800e-003		0.2428	0.2428		0.2255	0.2255	0.0000	532.1117	532.1117	0.1498	0.0000	535.8559
Total	**0.4953**	**4.9205**	**3.3749**	**6.0800e-003**	**0.0253**	**0.2428**	**0.2681**	**3.8400e-003**	**0.2255**	**0.2294**	**0.0000**	**532.1117**	**532.1117**	**0.1498**	**0.0000**	**535.8559**

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	1.7200e-003	0.0630	0.0149	1.9000e-004	0.0114	2.5000e-004	0.0116	2.9200e-003	2.4000e-004	3.1600e-003	0.0000	18.4188	18.4188	1.7500e-003	0.0000	18.4627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1200e-003	5.2600e-003	0.0578	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.7298	15.7298	4.0000e-004	0.0000	15.7398
Total	**9.8400e-003**	**0.0683**	**0.0727**	**3.6000e-004**	**0.0303**	**3.8000e-004**	**0.0307**	**7.9500e-003**	**3.6000e-004**	**8.3100e-003**	**0.0000**	**34.1486**	**34.1486**	**2.1500e-003**	**0.0000**	**34.2024**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0650	0.0000	0.0650	9.8400e-003	0.0000	9.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4130	4.0251	3.2230	6.0800e-003		0.1945	0.1945		0.1808	0.1808	0.0000	531.9471	531.9471	0.1494	0.0000	535.6825
Total	**0.4130**	**4.0251**	**3.2230**	**6.0800e-003**	**0.0650**	**0.1945**	**0.2594**	**9.8400e-003**	**0.1808**	**0.1906**	**0.0000**	**531.9471**	**531.9471**	**0.1494**	**0.0000**	**535.6825**

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	1.6200e-003	0.0572	0.0149	1.8000e-004	0.0114	2.1000e-004	0.0116	2.9200e-003	2.0000e-004	3.1200e-003	0.0000	18.1759	18.1759	1.7300e-003	0.0000	18.2191
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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**9.2600e-003**	**0.0619**	**0.0683**	**3.5000e-004**	**0.0303**	**3.4000e-004**	**0.0307**	**7.9500e-003**	**3.2000e-004**	**8.2700e-003**	**0.0000**	**33.3278**	**33.3278**	**2.0900e-003**	**0.0000**	**33.3799**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0253	0.0000	0.0253	3.8400e-003	0.0000	3.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4130	4.0251	3.2230	6.0800e-003		0.1945	0.1945		0.1808	0.1808	0.0000	531.9464	531.9464	0.1494	0.0000	535.6819
Total	**0.4130**	**4.0251**	**3.2230**	**6.0800e-003**	**0.0253**	**0.1945**	**0.2198**	**3.8400e-003**	**0.1808**	**0.1846**	**0.0000**	**531.9464**	**531.9464**	**0.1494**	**0.0000**	**535.6819**

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	1.6200e-003	0.0572	0.0149	1.8000e-004	0.0114	2.1000e-004	0.0116	2.9200e-003	2.0000e-004	3.1200e-003	0.0000	18.1759	18.1759	1.7300e-003	0.0000	18.2191
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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**9.2600e-003**	**0.0619**	**0.0683**	**3.5000e-004**	**0.0303**	**3.4000e-004**	**0.0307**	**7.9500e-003**	**3.2000e-004**	**8.2700e-003**	**0.0000**	**33.3278**	**33.3278**	**2.0900e-003**	**0.0000**	**33.3799**

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0125	0.0000	0.0125	1.8900e-003	0.0000	1.8900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0681	0.6445	0.5893	1.1600e-003		0.0299	0.0299		0.0278	0.0278	0.0000	101.9762	101.9762	0.0286	0.0000	102.6902
Total	**0.0681**	**0.6445**	**0.5893**	**1.1600e-003**	**0.0125**	**0.0299**	**0.0424**	**1.8900e-003**	**0.0278**	**0.0297**	**0.0000**	**101.9762**	**101.9762**	**0.0286**	**0.0000**	**102.6902**

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	2.1000e-004	7.1600e-003	2.6500e-003	3.0000e-005	0.0105	1.0000e-005	0.0106	2.6100e-003	1.0000e-005	2.6200e-003	0.0000	3.3744	3.3744	3.1000e-004	0.0000	3.3822
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	8.2000e-004	9.4500e-003	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	2.7933	2.7933	6.0000e-005	0.0000	2.7948
Total	**1.5900e-003**	**7.9800e-003**	**0.0121**	**6.0000e-005**	**0.0142**	**3.0000e-005**	**0.0142**	**3.5700e-003**	**3.0000e-005**	**3.6100e-003**	**0.0000**	**6.1677**	**6.1677**	**3.7000e-004**	**0.0000**	**6.1770**

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					4.8600e-003	0.0000	4.8600e-003	7.4000e-004	0.0000	7.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0681	0.6445	0.5893	1.1600e-003		0.0299	0.0299		0.0278	0.0278	0.0000	101.9761	101.9761	0.0286	0.0000	102.6901
Total	**0.0681**	**0.6445**	**0.5893**	**1.1600e-003**	**4.8600e-003**	**0.0299**	**0.0348**	**7.4000e-004**	**0.0278**	**0.0286**	**0.0000**	**101.9761**	**101.9761**	**0.0286**	**0.0000**	**102.6901**

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	2.1000e-004	7.1600e-003	2.6500e-003	3.0000e-005	0.0105	1.0000e-005	0.0106	2.6100e-003	1.0000e-005	2.6200e-003	0.0000	3.3744	3.3744	3.1000e-004	0.0000	3.3822
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	8.2000e-004	9.4500e-003	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	2.7933	2.7933	6.0000e-005	0.0000	2.7948
Total	**1.5900e-003**	**7.9800e-003**	**0.0121**	**6.0000e-005**	**0.0142**	**3.0000e-005**	**0.0142**	**3.5700e-003**	**3.0000e-005**	**3.6100e-003**	**0.0000**	**6.1677**	**6.1677**	**3.7000e-004**	**0.0000**	**6.1770**

3.3 Excavating/Trenching - 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	0.5001	5.0134	3.2847	5.8600e-003		0.2505	0.2505		0.2328	0.2328	0.0000	513.3790	513.3790	0.1449	0.0000	517.0020
Total	**0.5001**	**5.0134**	**3.2847**	**5.8600e-003**		**0.2505**	**0.2505**		**0.2328**	**0.2328**	**0.0000**	**513.3790**	**513.3790**	**0.1449**	**0.0000**	**517.0020**

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	8.3600e-003	5.6300e-003	0.0605	1.7000e-004	0.0183	1.3000e-004	0.0184	4.8500e-003	1.2000e-004	4.9700e-003	0.0000	15.6471	15.6471	4.2000e-004	0.0000	15.6576
Total	**8.3600e-003**	**5.6300e-003**	**0.0605**	**1.7000e-004**	**0.0183**	**1.3000e-004**	**0.0184**	**4.8500e-003**	**1.2000e-004**	**4.9700e-003**	**0.0000**	**15.6471**	**15.6471**	**4.2000e-004**	**0.0000**	**15.6576**

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	0.5001	5.0134	3.2847	5.8600e-003		0.2505	0.2505		0.2328	0.2328	0.0000	513.3784	513.3784	0.1449	0.0000	517.0014
Total	**0.5001**	**5.0134**	**3.2847**	**5.8600e-003**		**0.2505**	**0.2505**		**0.2328**	**0.2328**	**0.0000**	**513.3784**	**513.3784**	**0.1449**	**0.0000**	**517.0014**

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	8.3600e-003	5.6300e-003	0.0605	1.7000e-004	0.0183	1.3000e-004	0.0184	4.8500e-003	1.2000e-004	4.9700e-003	0.0000	15.6471	15.6471	4.2000e-004	0.0000	15.6576
Total	**8.3600e-003**	**5.6300e-003**	**0.0605**	**1.7000e-004**	**0.0183**	**1.3000e-004**	**0.0184**	**4.8500e-003**	**1.2000e-004**	**4.9700e-003**	**0.0000**	**15.6471**	**15.6471**	**4.2000e-004**	**0.0000**	**15.6576**

3.3 Excavating/Trenching - 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	0.4953	4.9205	3.3749	6.0800e-003		0.2428	0.2428		0.2255	0.2255	0.0000	532.1123	532.1123	0.1498	0.0000	535.8565
Total	**0.4953**	**4.9205**	**3.3749**	**6.0800e-003**		**0.2428**	**0.2428**		**0.2255**	**0.2255**	**0.0000**	**532.1123**	**532.1123**	**0.1498**	**0.0000**	**535.8565**

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	8.1200e-003	5.2600e-003	0.0578	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.7298	15.7298	4.0000e-004	0.0000	15.7398
Total	**8.1200e-003**	**5.2600e-003**	**0.0578**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.7298**	**15.7298**	**4.0000e-004**	**0.0000**	**15.7398**

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	0.4953	4.9205	3.3749	6.0800e-003		0.2428	0.2428		0.2255	0.2255	0.0000	532.1117	532.1117	0.1498	0.0000	535.8559
Total	**0.4953**	**4.9205**	**3.3749**	**6.0800e-003**		**0.2428**	**0.2428**		**0.2255**	**0.2255**	**0.0000**	**532.1117**	**532.1117**	**0.1498**	**0.0000**	**535.8559**

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	8.1200e-003	5.2600e-003	0.0578	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.7298	15.7298	4.0000e-004	0.0000	15.7398
Total	**8.1200e-003**	**5.2600e-003**	**0.0578**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.7298**	**15.7298**	**4.0000e-004**	**0.0000**	**15.7398**

3.3 Excavating/Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4130	4.0251	3.2230	6.0800e-003		0.1945	0.1945		0.1808	0.1808	0.0000	531.9471	531.9471	0.1494	0.0000	535.6825
Total	**0.4130**	**4.0251**	**3.2230**	**6.0800e-003**		**0.1945**	**0.1945**		**0.1808**	**0.1808**	**0.0000**	**531.9471**	**531.9471**	**0.1494**	**0.0000**	**535.6825**

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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**7.6400e-003**	**4.7400e-003**	**0.0534**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.1519**	**15.1519**	**3.6000e-004**	**0.0000**	**15.1609**

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	0.4130	4.0251	3.2230	6.0800e-003		0.1945	0.1945		0.1808	0.1808	0.0000	531.9464	531.9464	0.1494	0.0000	535.6819
Total	**0.4130**	**4.0251**	**3.2230**	**6.0800e-003**		**0.1945**	**0.1945**		**0.1808**	**0.1808**	**0.0000**	**531.9464**	**531.9464**	**0.1494**	**0.0000**	**535.6819**

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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**7.6400e-003**	**4.7400e-003**	**0.0534**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.1519**	**15.1519**	**3.6000e-004**	**0.0000**	**15.1609**

3.3 Excavating/Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0817	0.7734	0.7072	1.4000e-003		0.0359	0.0359		0.0334	0.0334	0.0000	122.3714	122.3714	0.0343	0.0000	123.2282
Total	**0.0817**	**0.7734**	**0.7072**	**1.4000e-003**		**0.0359**	**0.0359**		**0.0334**	**0.0334**	**0.0000**	**122.3714**	**122.3714**	**0.0343**	**0.0000**	**123.2282**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6600e-003	9.9000e-004	0.0113	4.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1800e-003	0.0000	3.3519	3.3519	7.0000e-005	0.0000	3.3538
Total	**1.6600e-003**	**9.9000e-004**	**0.0113**	**4.0000e-005**	**4.3500e-003**	**3.0000e-005**	**4.3800e-003**	**1.1600e-003**	**3.0000e-005**	**1.1800e-003**	**0.0000**	**3.3519**	**3.3519**	**7.0000e-005**	**0.0000**	**3.3538**

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	0.0817	0.7734	0.7072	1.4000e-003		0.0359	0.0359		0.0334	0.0334	0.0000	122.3713	122.3713	0.0343	0.0000	123.2281
Total	**0.0817**	**0.7734**	**0.7072**	**1.4000e-003**		**0.0359**	**0.0359**		**0.0334**	**0.0334**	**0.0000**	**122.3713**	**122.3713**	**0.0343**	**0.0000**	**123.2281**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6600e-003	9.9000e-004	0.0113	4.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1800e-003	0.0000	3.3519	3.3519	7.0000e-005	0.0000	3.3538
Total	**1.6600e-003**	**9.9000e-004**	**0.0113**	**4.0000e-005**	**4.3500e-003**	**3.0000e-005**	**4.3800e-003**	**1.1600e-003**	**3.0000e-005**	**1.1800e-003**	**0.0000**	**3.3519**	**3.3519**	**7.0000e-005**	**0.0000**	**3.3538**

3.4 Paving - 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	0.1424	1.4769	1.5385	2.3900e-003		0.0790	0.0790		0.0727	0.0727	0.0000	210.2963	210.2963	0.0680	0.0000	211.9967
Paving	9.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1518**	**1.4769**	**1.5385**	**2.3900e-003**		**0.0790**	**0.0790**		**0.0727**	**0.0727**	**0.0000**	**210.2963**	**210.2963**	**0.0680**	**0.0000**	**211.9967**

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	5.8100e-003	3.9200e-003	0.0421	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3700e-003	8.0000e-005	3.4600e-003	0.0000	10.8804	10.8804	2.9000e-004	0.0000	10.8878
Total	**5.8100e-003**	**3.9200e-003**	**0.0421**	**1.2000e-004**	**0.0127**	**9.0000e-005**	**0.0128**	**3.3700e-003**	**8.0000e-005**	**3.4600e-003**	**0.0000**	**10.8804**	**10.8804**	**2.9000e-004**	**0.0000**	**10.8878**

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	0.1424	1.4769	1.5385	2.3900e-003		0.0790	0.0790		0.0727	0.0727	0.0000	210.2961	210.2961	0.0680	0.0000	211.9964
Paving	9.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1518**	**1.4769**	**1.5385**	**2.3900e-003**		**0.0790**	**0.0790**		**0.0727**	**0.0727**	**0.0000**	**210.2961**	**210.2961**	**0.0680**	**0.0000**	**211.9964**

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	5.8100e-003	3.9200e-003	0.0421	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3700e-003	8.0000e-005	3.4600e-003	0.0000	10.8804	10.8804	2.9000e-004	0.0000	10.8878
Total	**5.8100e-003**	**3.9200e-003**	**0.0421**	**1.2000e-004**	**0.0127**	**9.0000e-005**	**0.0128**	**3.3700e-003**	**8.0000e-005**	**3.4600e-003**	**0.0000**	**10.8804**	**10.8804**	**2.9000e-004**	**0.0000**	**10.8878**

3.4 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	0.1965	2.0218	2.2932	3.5700e-003		0.1061	0.1061		0.0976	0.0976	0.0000	313.3675	313.3675	0.1014	0.0000	315.9012
Paving	0.0139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2104**	**2.0218**	**2.2932**	**3.5700e-003**		**0.1061**	**0.1061**		**0.0976**	**0.0976**	**0.0000**	**313.3675**	**313.3675**	**0.1014**	**0.0000**	**315.9012**

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	8.1200e-003	5.2600e-003	0.0578	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.7298	15.7298	4.0000e-004	0.0000	15.7398
Total	**8.1200e-003**	**5.2600e-003**	**0.0578**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.7298**	**15.7298**	**4.0000e-004**	**0.0000**	**15.7398**

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	0.1965	2.0218	2.2932	3.5700e-003		0.1061	0.1061		0.0976	0.0976	0.0000	313.3671	313.3671	0.1014	0.0000	315.9008
Paving	0.0139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2104**	**2.0218**	**2.2932**	**3.5700e-003**		**0.1061**	**0.1061**		**0.0976**	**0.0976**	**0.0000**	**313.3671**	**313.3671**	**0.1014**	**0.0000**	**315.9008**

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	8.1200e-003	5.2600e-003	0.0578	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.7298	15.7298	4.0000e-004	0.0000	15.7398
Total	**8.1200e-003**	**5.2600e-003**	**0.0578**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.7298**	**15.7298**	**4.0000e-004**	**0.0000**	**15.7398**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1726	1.7410	2.2819	3.5700e-003		0.0889	0.0889		0.0818	0.0818	0.0000	313.4313	313.4313	0.1014	0.0000	315.9655
Paving	0.0139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1865**	**1.7410**	**2.2819**	**3.5700e-003**		**0.0889**	**0.0889**		**0.0818**	**0.0818**	**0.0000**	**313.4313**	**313.4313**	**0.1014**	**0.0000**	**315.9655**

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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**7.6400e-003**	**4.7400e-003**	**0.0534**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.1519**	**15.1519**	**3.6000e-004**	**0.0000**	**15.1609**

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	0.1726	1.7410	2.2818	3.5700e-003		0.0889	0.0889		0.0818	0.0818	0.0000	313.4309	313.4309	0.1014	0.0000	315.9652
Paving	0.0139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1865**	**1.7410**	**2.2818**	**3.5700e-003**		**0.0889**	**0.0889**		**0.0818**	**0.0818**	**0.0000**	**313.4309**	**313.4309**	**0.1014**	**0.0000**	**315.9652**

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	7.6400e-003	4.7400e-003	0.0534	1.7000e-004	0.0189	1.3000e-004	0.0191	5.0300e-003	1.2000e-004	5.1500e-003	0.0000	15.1519	15.1519	3.6000e-004	0.0000	15.1609
Total	**7.6400e-003**	**4.7400e-003**	**0.0534**	**1.7000e-004**	**0.0189**	**1.3000e-004**	**0.0191**	**5.0300e-003**	**1.2000e-004**	**5.1500e-003**	**0.0000**	**15.1519**	**15.1519**	**3.6000e-004**	**0.0000**	**15.1609**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0398	0.3924	0.5615	8.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	77.1034	77.1034	0.0249	0.0000	77.7269
Paving	3.4300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0432**	**0.3924**	**0.5615**	**8.8000e-004**		**0.0196**	**0.0196**		**0.0181**	**0.0181**	**0.0000**	**77.1034**	**77.1034**	**0.0249**	**0.0000**	**77.7269**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.0500e-003	0.0121	4.0000e-005	4.6600e-003	3.0000e-005	4.6900e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.5847	3.5847	8.0000e-005	0.0000	3.5867
Total	**1.7700e-003**	**1.0500e-003**	**0.0121**	**4.0000e-005**	**4.6600e-003**	**3.0000e-005**	**4.6900e-003**	**1.2400e-003**	**3.0000e-005**	**1.2700e-003**	**0.0000**	**3.5847**	**3.5847**	**8.0000e-005**	**0.0000**	**3.5867**

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	0.0398	0.3924	0.5615	8.8000e-004		0.0196	0.0196		0.0181	0.0181	0.0000	77.1033	77.1033	0.0249	0.0000	77.7268
Paving	3.4300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0432**	**0.3924**	**0.5615**	**8.8000e-004**		**0.0196**	**0.0196**		**0.0181**	**0.0181**	**0.0000**	**77.1033**	**77.1033**	**0.0249**	**0.0000**	**77.7268**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.0500e-003	0.0121	4.0000e-005	4.6600e-003	3.0000e-005	4.6900e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.5847	3.5847	8.0000e-005	0.0000	3.5867
Total	**1.7700e-003**	**1.0500e-003**	**0.0121**	**4.0000e-005**	**4.6600e-003**	**3.0000e-005**	**4.6900e-003**	**1.2400e-003**	**3.0000e-005**	**1.2700e-003**	**0.0000**	**3.5847**	**3.5847**	**8.0000e-005**	**0.0000**	**3.5867**

3.5 Building Construction - 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	0.0979	0.8048	0.6080	1.8900e-003		0.0298	0.0298		0.0285	0.0285	0.0000	160.1462	160.1462	0.0466	0.0000	161.3105
Total	**0.0979**	**0.8048**	**0.6080**	**1.8900e-003**		**0.0298**	**0.0298**		**0.0285**	**0.0285**	**0.0000**	**160.1462**	**160.1462**	**0.0466**	**0.0000**	**161.3105**

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	1.3000e-004	3.0000e-005	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0340	0.0340	0.0000	0.0000	0.0340
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	2.9100e-003	1.9600e-003	0.0211	6.0000e-005	6.3700e-003	5.0000e-005	6.4200e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	5.4575	5.4575	1.5000e-004	0.0000	5.4612
Total	**2.9100e-003**	**2.0900e-003**	**0.0211**	**6.0000e-005**	**6.4300e-003**	**5.0000e-005**	**6.4800e-003**	**1.7000e-003**	**4.0000e-005**	**1.7500e-003**	**0.0000**	**5.4914**	**5.4914**	**1.5000e-004**	**0.0000**	**5.4952**

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	0.0979	0.8048	0.6080	1.8900e-003		0.0298	0.0298		0.0285	0.0285	0.0000	160.1460	160.1460	0.0466	0.0000	161.3103
Total	**0.0979**	**0.8048**	**0.6080**	**1.8900e-003**		**0.0298**	**0.0298**		**0.0285**	**0.0285**	**0.0000**	**160.1460**	**160.1460**	**0.0466**	**0.0000**	**161.3103**

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	1.3000e-004	3.0000e-005	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0340	0.0340	0.0000	0.0000	0.0340
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	2.9100e-003	1.9600e-003	0.0211	6.0000e-005	6.3700e-003	5.0000e-005	6.4200e-003	1.6900e-003	4.0000e-005	1.7300e-003	0.0000	5.4575	5.4575	1.5000e-004	0.0000	5.4612
Total	**2.9100e-003**	**2.0900e-003**	**0.0211**	**6.0000e-005**	**6.4300e-003**	**5.0000e-005**	**6.4800e-003**	**1.7000e-003**	**4.0000e-005**	**1.7500e-003**	**0.0000**	**5.4914**	**5.4914**	**1.5000e-004**	**0.0000**	**5.4952**

3.5 Building Construction - 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	0.3511	2.8368	2.3743	7.5000e-003		0.1038	0.1038		0.0992	0.0992	0.0000	635.7842	635.7842	0.1829	0.0000	640.3557
Total	**0.3511**	**2.8368**	**2.3743**	**7.5000e-003**		**0.1038**	**0.1038**		**0.0992**	**0.0992**	**0.0000**	**635.7842**	**635.7842**	**0.1829**	**0.0000**	**640.3557**

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	1.0000e-005	4.6000e-004	1.1000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1331	0.1331	1.0000e-005	0.0000	0.1334
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	0.0108	7.0100e-003	0.0771	2.3000e-004	0.0252	1.8000e-004	0.0254	6.7000e-003	1.6000e-004	6.8700e-003	0.0000	20.9731	20.9731	5.3000e-004	0.0000	20.9864
Total	**0.0108**	**7.4700e-003**	**0.0772**	**2.3000e-004**	**0.0253**	**1.8000e-004**	**0.0255**	**6.7200e-003**	**1.6000e-004**	**6.8900e-003**	**0.0000**	**21.1062**	**21.1062**	**5.4000e-004**	**0.0000**	**21.1197**

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	0.3511	2.8368	2.3743	7.5000e-003		0.1038	0.1038		0.0992	0.0992	0.0000	635.7835	635.7835	0.1829	0.0000	640.3550
Total	**0.3511**	**2.8368**	**2.3743**	**7.5000e-003**		**0.1038**	**0.1038**		**0.0992**	**0.0992**	**0.0000**	**635.7835**	**635.7835**	**0.1829**	**0.0000**	**640.3550**

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	1.0000e-005	4.6000e-004	1.1000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1331	0.1331	1.0000e-005	0.0000	0.1334
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	0.0108	7.0100e-003	0.0771	2.3000e-004	0.0252	1.8000e-004	0.0254	6.7000e-003	1.6000e-004	6.8700e-003	0.0000	20.9731	20.9731	5.3000e-004	0.0000	20.9864
Total	**0.0108**	**7.4700e-003**	**0.0772**	**2.3000e-004**	**0.0253**	**1.8000e-004**	**0.0255**	**6.7200e-003**	**1.6000e-004**	**6.8900e-003**	**0.0000**	**21.1062**	**21.1062**	**5.4000e-004**	**0.0000**	**21.1197**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3135	2.3346	2.3393	7.5100e-003		0.0855	0.0855		0.0819	0.0819	0.0000	636.6352	636.6352	0.1819	0.0000	641.1825
Total	**0.3135**	**2.3346**	**2.3393**	**7.5100e-003**		**0.0855**	**0.0855**		**0.0819**	**0.0819**	**0.0000**	**636.6352**	**636.6352**	**0.1819**	**0.0000**	**641.1825**

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	1.0000e-005	4.1000e-004	1.1000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1313	0.1313	1.0000e-005	0.0000	0.1316
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	0.0102	6.3300e-003	0.0713	2.2000e-004	0.0252	1.7000e-004	0.0254	6.7000e-003	1.6000e-004	6.8600e-003	0.0000	20.2025	20.2025	4.8000e-004	0.0000	20.2145
Total	**0.0102**	**6.7400e-003**	**0.0714**	**2.2000e-004**	**0.0253**	**1.7000e-004**	**0.0255**	**6.7200e-003**	**1.6000e-004**	**6.8800e-003**	**0.0000**	**20.3338**	**20.3338**	**4.9000e-004**	**0.0000**	**20.3461**

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	0.3135	2.3346	2.3393	7.5100e-003		0.0855	0.0855		0.0819	0.0819	0.0000	636.6344	636.6344	0.1819	0.0000	641.1817
Total	**0.3135**	**2.3346**	**2.3393**	**7.5100e-003**		**0.0855**	**0.0855**		**0.0819**	**0.0819**	**0.0000**	**636.6344**	**636.6344**	**0.1819**	**0.0000**	**641.1817**

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	1.0000e-005	4.1000e-004	1.1000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1313	0.1313	1.0000e-005	0.0000	0.1316
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	0.0102	6.3300e-003	0.0713	2.2000e-004	0.0252	1.7000e-004	0.0254	6.7000e-003	1.6000e-004	6.8600e-003	0.0000	20.2025	20.2025	4.8000e-004	0.0000	20.2145
Total	**0.0102**	**6.7400e-003**	**0.0714**	**2.2000e-004**	**0.0253**	**1.7000e-004**	**0.0255**	**6.7200e-003**	**1.6000e-004**	**6.8800e-003**	**0.0000**	**20.3338**	**20.3338**	**4.9000e-004**	**0.0000**	**20.3461**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0704	0.5190	0.5566	1.8000e-003		0.0182	0.0182		0.0174	0.0174	0.0000	152.7991	152.7991	0.0434	0.0000	153.8833
Total	**0.0704**	**0.5190**	**0.5566**	**1.8000e-003**		**0.0182**	**0.0182**		**0.0174**	**0.0174**	**0.0000**	**152.7991**	**152.7991**	**0.0434**	**0.0000**	**153.8833**

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	6.0000e-005	2.0000e-005	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0305	0.0305	0.0000	0.0000	0.0306
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-003	1.3700e-003	0.0158	5.0000e-005	6.0500e-003	4.0000e-005	6.0900e-003	1.6100e-003	4.0000e-005	1.6400e-003	0.0000	4.6555	4.6555	1.0000e-004	0.0000	4.6581
Total	**2.3000e-003**	**1.4300e-003**	**0.0158**	**5.0000e-005**	**6.1100e-003**	**4.0000e-005**	**6.1500e-003**	**1.6200e-003**	**4.0000e-005**	**1.6600e-003**	**0.0000**	**4.6860**	**4.6860**	**1.0000e-004**	**0.0000**	**4.6886**

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	0.0704	0.5190	0.5566	1.8000e-003		0.0182	0.0182		0.0174	0.0174	0.0000	152.7989	152.7989	0.0434	0.0000	153.8831
Total	**0.0704**	**0.5190**	**0.5566**	**1.8000e-003**		**0.0182**	**0.0182**		**0.0174**	**0.0174**	**0.0000**	**152.7989**	**152.7989**	**0.0434**	**0.0000**	**153.8831**

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	6.0000e-005	2.0000e-005	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0305	0.0305	0.0000	0.0000	0.0306
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-003	1.3700e-003	0.0158	5.0000e-005	6.0500e-003	4.0000e-005	6.0900e-003	1.6100e-003	4.0000e-005	1.6400e-003	0.0000	4.6555	4.6555	1.0000e-004	0.0000	4.6581
Total	**2.3000e-003**	**1.4300e-003**	**0.0158**	**5.0000e-005**	**6.1100e-003**	**4.0000e-005**	**6.1500e-003**	**1.6200e-003**	**4.0000e-005**	**1.6600e-003**	**0.0000**	**4.6860**	**4.6860**	**1.0000e-004**	**0.0000**	**4.6886**

Ventura Water Pure_WCS_ProjLevel

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific equipment data.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specific trip rates, trip lengths are average CalEEMod default.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	10.7973	101.4177	75.4393	0.1547	1.0245	4.8293	5.8537	0.2238	4.5025	4.7263	0.0000	14,821.2412	14,821.2412	4.1558	0.0000	14,925.1367
2021	10.1517	94.4523	74.7075	0.1546	1.0236	4.4487	5.4722	0.2236	4.1443	4.3679	0.0000	14,813.3069	14,813.3069	4.1365	0.0000	14,916.7185
2022	8.6932	77.9573	72.3462	0.1545	1.0236	3.6047	4.6283	0.2236	3.3609	3.5845	0.0000	14,797.2968	14,797.2968	4.1235	0.0000	14,900.3835
2023	7.7423	67.3426	70.2216	0.1543	1.3092	2.9939	4.3031	0.2937	2.7926	3.0863	0.0000	14,782.4465	14,782.4465	4.1091	0.0000	14,885.1750
Maximum	**10.7973**	**101.4177**	**75.4393**	**0.1547**	**1.3092**	**4.8293**	**5.8537**	**0.2937**	**4.5025**	**4.7263**	**0.0000**	**14,821.2412**	**14,821.2412**	**4.1558**	**0.0000**	**14,925.1367**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	10.7973	101.4177	75.4393	0.1547	0.7713	4.8293	5.6006	0.1855	4.5025	4.6880	0.0000	14,821.2412	14,821.2412	4.1558	0.0000	14,925.1367
2021	10.1517	94.4523	74.7075	0.1546	0.7704	4.4487	5.2191	0.1852	4.1443	4.3295	0.0000	14,813.3069	14,813.3069	4.1365	0.0000	14,916.7185
2022	8.6932	77.9573	72.3462	0.1545	0.7704	3.6047	4.3751	0.1852	3.3609	3.5461	0.0000	14,797.2968	14,797.2968	4.1235	0.0000	14,900.3835
2023	7.7423	67.3426	70.2216	0.1543	1.0561	2.9939	4.0500	0.2554	2.7926	3.0479	0.0000	14,782.4465	14,782.4465	4.1091	0.0000	14,885.1750
Maximum	**10.7973**	**101.4177**	**75.4393**	**0.1547**	**1.0561**	**4.8293**	**5.6006**	**0.2554**	**4.5025**	**4.6880**	**0.0000**	**14,821.2412**	**14,821.2412**	**4.1558**	**0.0000**	**14,925.1367**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	23.12	0.00	5.00	15.90	0.00	0.97	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	1/1/2020	3/11/2023	6	1000	
2	Excavating/Trenching	Trenching	1/15/2020	3/25/2023	6	1000	
3	Paving	Paving	5/1/2020	3/31/2023	6	913	
4	Building Construction	Building Construction	10/1/2020	3/29/2023	6	780	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Bore/Drill Rigs	4	8.00	221	0.50
Building Construction	Welders	4	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Excavating/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Excavating/Trenching	Excavators	3	8.00	158	0.38
Excavating/Trenching	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	1,597.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	20.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavating/Trenching	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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					0.4150	0.0000	0.4150	0.0629	0.0000	0.0629			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**0.4150**	**1.6587**	**2.0737**	**0.0629**	**1.5419**	**1.6047**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	0.0115	0.4301	0.0928	1.2100e-003	0.0740	1.7900e-003	0.0757	0.0189	1.7100e-003	0.0207		132.0253	132.0253	0.0124		132.3346
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	0.0548	0.0329	0.4145	1.2000e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		119.0724	119.0724	3.1800e-003		119.1518
Total	**0.0663**	**0.4630**	**0.5073**	**2.4100e-003**	**0.1972**	**2.6600e-003**	**0.1998**	**0.0516**	**2.5100e-003**	**0.0541**		**251.0977**	**251.0977**	**0.0156**		**251.4864**

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					0.1619	0.0000	0.1619	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**0.1619**	**1.6587**	**1.8206**	**0.0245**	**1.5419**	**1.5664**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	0.0115	0.4301	0.0928	1.2100e-003	0.0740	1.7900e-003	0.0757	0.0189	1.7100e-003	0.0207		132.0253	132.0253	0.0124		132.3346
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	0.0548	0.0329	0.4145	1.2000e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		119.0724	119.0724	3.1800e-003		119.1518
Total	**0.0663**	**0.4630**	**0.5073**	**2.4100e-003**	**0.1972**	**2.6600e-003**	**0.1998**	**0.0516**	**2.5100e-003**	**0.0541**		**251.0977**	**251.0977**	**0.0156**		**251.4864**

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4150	0.0000	0.4150	0.0629	0.0000	0.0629			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.4150**	**1.5513**	**1.9664**	**0.0629**	**1.4411**	**1.5039**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0109	0.3938	0.0924	1.1900e-003	0.0742	1.5700e-003	0.0757	0.0190	1.5000e-003	0.0205		130.6091	130.6091	0.0122		130.9137
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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0622**	**0.4235**	**0.4755**	**2.3500e-003**	**0.1974**	**2.4200e-003**	**0.1998**	**0.0517**	**2.2900e-003**	**0.0540**		**246.1074**	**246.1074**	**0.0151**		**246.4845**

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					0.1619	0.0000	0.1619	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.1619**	**1.5513**	**1.7132**	**0.0245**	**1.4411**	**1.4656**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0109	0.3938	0.0924	1.1900e-003	0.0742	1.5700e-003	0.0757	0.0190	1.5000e-003	0.0205		130.6091	130.6091	0.0122		130.9137
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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0622**	**0.4235**	**0.4755**	**2.3500e-003**	**0.1974**	**2.4200e-003**	**0.1998**	**0.0517**	**2.2900e-003**	**0.0540**		**246.1074**	**246.1074**	**0.0151**		**246.4845**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4150	0.0000	0.4150	0.0629	0.0000	0.0629			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.4150**	**1.2427**	**1.6577**	**0.0629**	**1.1553**	**1.2181**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0102	0.3577	0.0924	1.1700e-003	0.0742	1.3300e-003	0.0755	0.0190	1.2800e-003	0.0203		128.8969	128.8969	0.0120		129.1967
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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0585**	**0.3845**	**0.4470**	**2.2900e-003**	**0.1974**	**2.1600e-003**	**0.1996**	**0.0517**	**2.0500e-003**	**0.0537**		**240.1488**	**240.1488**	**0.0146**		**240.5142**

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					0.1619	0.0000	0.1619	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1619**	**1.2427**	**1.4045**	**0.0245**	**1.1553**	**1.1798**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0102	0.3577	0.0924	1.1700e-003	0.0742	1.3300e-003	0.0755	0.0190	1.2800e-003	0.0203		128.8969	128.8969	0.0120		129.1967
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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0585**	**0.3845**	**0.4470**	**2.2900e-003**	**0.1974**	**2.1600e-003**	**0.1996**	**0.0517**	**2.0500e-003**	**0.0537**		**240.1488**	**240.1488**	**0.0146**		**240.5142**

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4150	0.0000	0.4150	0.0629	0.0000	0.0629			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**0.4150**	**0.9975**	**1.4125**	**0.0629**	**0.9280**	**0.9908**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	6.9300e-003	0.2352	0.0867	1.1300e-003	0.3586	4.8000e-004	0.3591	0.0888	4.6000e-004	0.0893		124.8487	124.8487	0.0113		125.1317
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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0524**	**0.2593**	**0.4144**	**2.2000e-003**	**0.4818**	**1.2900e-003**	**0.4831**	**0.1215**	**1.2100e-003**	**0.1227**		**231.8379**	**231.8379**	**0.0137**		**232.1799**

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					0.1619	0.0000	0.1619	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**0.1619**	**0.9975**	**1.1594**	**0.0245**	**0.9280**	**0.9525**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	6.9300e-003	0.2352	0.0867	1.1300e-003	0.3586	4.8000e-004	0.3591	0.0888	4.6000e-004	0.0893		124.8487	124.8487	0.0113		125.1317
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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0524**	**0.2593**	**0.4144**	**2.2000e-003**	**0.4818**	**1.2900e-003**	**0.4831**	**0.1215**	**1.2100e-003**	**0.1227**		**231.8379**	**231.8379**	**0.0137**		**232.1799**

3.3 Excavating/Trenching - 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	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	0.0548	0.0329	0.4145	1.2000e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		119.0724	119.0724	3.1800e-003		119.1518
Total	**0.0548**	**0.0329**	**0.4145**	**1.2000e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**119.0724**	**119.0724**	**3.1800e-003**		**119.1518**

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	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	0.0548	0.0329	0.4145	1.2000e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		119.0724	119.0724	3.1800e-003		119.1518
Total	**0.0548**	**0.0329**	**0.4145**	**1.2000e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**119.0724**	**119.0724**	**3.1800e-003**		**119.1518**

3.3 Excavating/Trenching - 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	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0514**	**0.0297**	**0.3831**	**1.1600e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**115.4984**	**115.4984**	**2.9000e-003**		**115.5708**

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	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0514**	**0.0297**	**0.3831**	**1.1600e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**115.4984**	**115.4984**	**2.9000e-003**		**115.5708**

3.3 Excavating/Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0483**	**0.0268**	**0.3546**	**1.1200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**111.2519**	**111.2519**	**2.6200e-003**		**111.3175**

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	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0483**	**0.0268**	**0.3546**	**1.1200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**111.2519**	**111.2519**	**2.6200e-003**		**111.3175**

3.3 Excavating/Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0455**	**0.0242**	**0.3277**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.9891**	**106.9891**	**2.3600e-003**		**107.0482**

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	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0455**	**0.0242**	**0.3277**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.9891**	**106.9891**	**2.3600e-003**		**107.0482**

3.4 Paving - 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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4456**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

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	0.0548	0.0329	0.4145	1.2000e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		119.0724	119.0724	3.1800e-003		119.1518
Total	**0.0548**	**0.0329**	**0.4145**	**1.2000e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**119.0724**	**119.0724**	**3.1800e-003**		**119.1518**

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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4456**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

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	0.0548	0.0329	0.4145	1.2000e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		119.0724	119.0724	3.1800e-003		119.1518
Total	**0.0548**	**0.0329**	**0.4145**	**1.2000e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**119.0724**	**119.0724**	**3.1800e-003**		**119.1518**

3.4 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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3446**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0514**	**0.0297**	**0.3831**	**1.1600e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**115.4984**	**115.4984**	**2.9000e-003**		**115.5708**

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3446**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	0.0514	0.0297	0.3831	1.1600e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		115.4984	115.4984	2.9000e-003		115.5708
Total	**0.0514**	**0.0297**	**0.3831**	**1.1600e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**115.4984**	**115.4984**	**2.9000e-003**		**115.5708**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1919**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0483**	**0.0268**	**0.3546**	**1.1200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**111.2519**	**111.2519**	**2.6200e-003**		**111.3175**

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1919**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0483	0.0268	0.3546	1.1200e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		111.2519	111.2519	2.6200e-003		111.3175
Total	**0.0483**	**0.0268**	**0.3546**	**1.1200e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**111.2519**	**111.2519**	**2.6200e-003**		**111.3175**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1218**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0455**	**0.0242**	**0.3277**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.9891**	**106.9891**	**2.3600e-003**		**107.0482**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1218**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0455	0.0242	0.3277	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		106.9891	106.9891	2.3600e-003		107.0482
Total	**0.0455**	**0.0242**	**0.3277**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**106.9891**	**106.9891**	**2.3600e-003**		**107.0482**

3.5 Building Construction - 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	2.4784	20.3743	15.3911	0.0478		0.7535	0.7535		0.7210	0.7210		4,469.1384	4,469.1384	1.2997		4,501.6301
Total	**2.4784**	**20.3743**	**15.3911**	**0.0478**		**0.7535**	**0.7535**		**0.7210**	**0.7210**		**4,469.1384**	**4,469.1384**	**1.2997**		**4,501.6301**

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	8.0000e-005	3.1100e-003	6.7000e-004	1.0000e-005	1.5500e-003	1.0000e-005	1.5700e-003	3.9000e-004	1.0000e-005	4.0000e-004		0.9539	0.9539	9.0000e-005		0.9561
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	0.0731	0.0439	0.5527	1.5900e-003	0.1643	1.1600e-003	0.1655	0.0436	1.0700e-003	0.0447		158.7632	158.7632	4.2400e-003		158.8691
Total	**0.0732**	**0.0470**	**0.5534**	**1.6000e-003**	**0.1659**	**1.1700e-003**	**0.1670**	**0.0440**	**1.0800e-003**	**0.0451**		**159.7170**	**159.7170**	**4.3300e-003**		**159.8252**

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	2.4784	20.3743	15.3911	0.0478		0.7535	0.7535		0.7210	0.7210	0.0000	4,469.1384	4,469.1384	1.2997		4,501.6301
Total	**2.4784**	**20.3743**	**15.3911**	**0.0478**		**0.7535**	**0.7535**		**0.7210**	**0.7210**	**0.0000**	**4,469.1384**	**4,469.1384**	**1.2997**		**4,501.6301**

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	8.0000e-005	3.1100e-003	6.7000e-004	1.0000e-005	1.5500e-003	1.0000e-005	1.5700e-003	3.9000e-004	1.0000e-005	4.0000e-004		0.9539	0.9539	9.0000e-005		0.9561
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	0.0731	0.0439	0.5527	1.5900e-003	0.1643	1.1600e-003	0.1655	0.0436	1.0700e-003	0.0447		158.7632	158.7632	4.2400e-003		158.8691
Total	**0.0732**	**0.0470**	**0.5534**	**1.6000e-003**	**0.1659**	**1.1700e-003**	**0.1670**	**0.0440**	**1.0800e-003**	**0.0451**		**159.7170**	**159.7170**	**4.3300e-003**		**159.8252**

3.5 Building Construction - 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	2.2433	18.1267	15.1712	0.0479		0.6630	0.6630		0.6337	0.6337		4,478.1606	4,478.1606	1.2880		4,510.3601
Total	**2.2433**	**18.1267**	**15.1712**	**0.0479**		**0.6630**	**0.6630**		**0.6337**	**0.6337**		**4,478.1606**	**4,478.1606**	**1.2880**		**4,510.3601**

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	8.0000e-005	2.8500e-003	6.7000e-004	1.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.9437	0.9437	9.0000e-005		0.9459
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	0.0685	0.0396	0.5108	1.5500e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		153.9978	153.9978	3.8600e-003		154.0944
Total	**0.0686**	**0.0424**	**0.5114**	**1.5600e-003**	**0.1647**	**1.1500e-003**	**0.1659**	**0.0437**	**1.0600e-003**	**0.0448**		**154.9415**	**154.9415**	**3.9500e-003**		**155.0403**

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	2.2433	18.1267	15.1712	0.0479		0.6630	0.6630		0.6337	0.6337	0.0000	4,478.1605	4,478.1605	1.2880		4,510.3601
Total	**2.2433**	**18.1267**	**15.1712**	**0.0479**		**0.6630**	**0.6630**		**0.6337**	**0.6337**	**0.0000**	**4,478.1605**	**4,478.1605**	**1.2880**		**4,510.3601**

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	8.0000e-005	2.8500e-003	6.7000e-004	1.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.9437	0.9437	9.0000e-005		0.9459
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	0.0685	0.0396	0.5108	1.5500e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		153.9978	153.9978	3.8600e-003		154.0944
Total	**0.0686**	**0.0424**	**0.5114**	**1.5600e-003**	**0.1647**	**1.1500e-003**	**0.1659**	**0.0437**	**1.0600e-003**	**0.0448**		**154.9415**	**154.9415**	**3.9500e-003**		**155.0403**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0034	14.9173	14.9479	0.0480		0.5466	0.5466		0.5233	0.5233		4,484.1542	4,484.1542	1.2812		4,516.1832
Total	**2.0034**	**14.9173**	**14.9479**	**0.0480**		**0.5466**	**0.5466**		**0.5233**	**0.5233**		**4,484.1542**	**4,484.1542**	**1.2812**		**4,516.1832**

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	7.0000e-005	2.5800e-003	6.7000e-004	1.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.9313	0.9313	9.0000e-005		0.9335
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	0.0644	0.0357	0.4728	1.4900e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		148.3359	148.3359	3.4900e-003		148.4233
Total	**0.0645**	**0.0383**	**0.4735**	**1.5000e-003**	**0.1647**	**1.1200e-003**	**0.1659**	**0.0437**	**1.0300e-003**	**0.0447**		**149.2672**	**149.2672**	**3.5800e-003**		**149.3568**

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	2.0034	14.9173	14.9479	0.0480		0.5466	0.5466		0.5233	0.5233	0.0000	4,484.1542	4,484.1542	1.2812		4,516.1832
Total	**2.0034**	**14.9173**	**14.9479**	**0.0480**		**0.5466**	**0.5466**		**0.5233**	**0.5233**	**0.0000**	**4,484.1542**	**4,484.1542**	**1.2812**		**4,516.1832**

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	7.0000e-005	2.5800e-003	6.7000e-004	1.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.9313	0.9313	9.0000e-005		0.9335
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	0.0644	0.0357	0.4728	1.4900e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		148.3359	148.3359	3.4900e-003		148.4233
Total	**0.0645**	**0.0383**	**0.4735**	**1.5000e-003**	**0.1647**	**1.1200e-003**	**0.1659**	**0.0437**	**1.0300e-003**	**0.0447**		**149.2672**	**149.2672**	**3.5800e-003**		**149.3568**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8784	13.8405	14.8432	0.0481		0.4846	0.4846		0.4635	0.4635		4,491.5239	4,491.5239	1.2748		4,523.3935
Total	**1.8784**	**13.8405**	**14.8432**	**0.0481**		**0.4846**	**0.4846**		**0.4635**	**0.4635**		**4,491.5239**	**4,491.5239**	**1.2748**		**4,523.3935**

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	5.0000e-005	1.7000e-003	6.3000e-004	1.0000e-005	1.6400e-003	0.0000	1.6400e-003	4.1000e-004	0.0000	4.1000e-004		0.9020	0.9020	8.0000e-005		0.9041
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	0.0606	0.0322	0.4370	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		142.6522	142.6522	3.1500e-003		142.7310
Total	**0.0607**	**0.0339**	**0.4376**	**1.4400e-003**	**0.1659**	**1.0800e-003**	**0.1670**	**0.0440**	**1.0000e-003**	**0.0450**		**143.5542**	**143.5542**	**3.2300e-003**		**143.6351**

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	1.8784	13.8405	14.8432	0.0481		0.4846	0.4846		0.4635	0.4635	0.0000	4,491.5239	4,491.5239	1.2748		4,523.3935
Total	**1.8784**	**13.8405**	**14.8432**	**0.0481**		**0.4846**	**0.4846**		**0.4635**	**0.4635**	**0.0000**	**4,491.5239**	**4,491.5239**	**1.2748**		**4,523.3935**

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	5.0000e-005	1.7000e-003	6.3000e-004	1.0000e-005	1.6400e-003	0.0000	1.6400e-003	4.1000e-004	0.0000	4.1000e-004		0.9020	0.9020	8.0000e-005		0.9041
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	0.0606	0.0322	0.4370	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		142.6522	142.6522	3.1500e-003		142.7310
Total	**0.0607**	**0.0339**	**0.4376**	**1.4400e-003**	**0.1659**	**1.0800e-003**	**0.1670**	**0.0440**	**1.0000e-003**	**0.0450**		**143.5542**	**143.5542**	**3.2300e-003**		**143.6351**

Ventura Water Pure_WCS_ProjLevel - Ventura County APCD Air District, Winter

Ventura Water Pure_WCS_ProjLevel

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific equipment data.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specific trip rates, trip lengths are average CalEEMod default.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	10.8294	101.4474	75.4038	0.1544	1.0245	4.8293	5.8538	0.2238	4.5025	4.7264	0.0000	14,794.1489	14,794.1489	4.1558	0.0000	14,898.0436
2021	10.1819	94.4786	74.6707	0.1543	1.0236	4.4487	5.4723	0.2236	4.1443	4.3679	0.0000	14,786.9564	14,786.9564	4.1364	0.0000	14,890.3669
2022	8.7221	77.9805	72.3087	0.1542	1.0236	3.6048	4.6283	0.2236	3.3609	3.5845	0.0000	14,771.8550	14,771.8550	4.1234	0.0000	14,874.9406
2023	7.7700	67.3612	70.1817	0.1541	1.3092	2.9939	4.3031	0.2937	2.7926	3.0863	0.0000	14,757.9446	14,757.9446	4.1090	0.0000	14,860.6702
Maximum	**10.8294**	**101.4474**	**75.4038**	**0.1544**	**1.3092**	**4.8293**	**5.8538**	**0.2937**	**4.5025**	**4.7264**	**0.0000**	**14,794.1489**	**14,794.1489**	**4.1558**	**0.0000**	**14,898.0436**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	10.8294	101.4474	75.4038	0.1544	0.7713	4.8293	5.6006	0.1855	4.5025	4.6880	0.0000	14,794.1489	14,794.1489	4.1558	0.0000	14,898.0436
2021	10.1819	94.4786	74.6707	0.1543	0.7704	4.4487	5.2191	0.1852	4.1443	4.3296	0.0000	14,786.9564	14,786.9564	4.1364	0.0000	14,890.3669
2022	8.7221	77.9805	72.3087	0.1542	0.7704	3.6048	4.3752	0.1852	3.3609	3.5462	0.0000	14,771.8550	14,771.8550	4.1234	0.0000	14,874.9406
2023	7.7700	67.3612	70.1817	0.1541	1.0561	2.9939	4.0500	0.2554	2.7926	3.0480	0.0000	14,757.9446	14,757.9446	4.1090	0.0000	14,860.6702
Maximum	**10.8294**	**101.4474**	**75.4038**	**0.1544**	**1.0561**	**4.8293**	**5.6006**	**0.2554**	**4.5025**	**4.6880**	**0.0000**	**14,794.1489**	**14,794.1489**	**4.1558**	**0.0000**	**14,898.0436**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	23.12	0.00	5.00	15.90	0.00	0.97	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	1/1/2020	3/11/2023	6	1000	
2	Excavating/Trenching	Trenching	1/15/2020	3/25/2023	6	1000	
3	Paving	Paving	5/1/2020	3/31/2023	6	913	
4	Building Construction	Building Construction	10/1/2020	3/29/2023	6	780	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.04

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Bore/Drill Rigs	4	8.00	221	0.50
Building Construction	Welders	4	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Excavating/Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Excavating/Trenching	Excavators	3	8.00	158	0.38
Excavating/Trenching	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	1,597.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	20.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavating/Trenching	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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					0.4150	0.0000	0.4150	0.0629	0.0000	0.0629			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**0.4150**	**1.6587**	**2.0737**	**0.0629**	**1.5419**	**1.6047**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	0.0118	0.4351	0.0996	1.1900e-003	0.0740	1.8400e-003	0.0758	0.0189	1.7600e-003	0.0207		129.9339	129.9339	0.0128		130.2539
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	0.0621	0.0386	0.4048	1.1400e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		113.3064	113.3064	3.0700e-003		113.3832
Total	**0.0740**	**0.4737**	**0.5044**	**2.3300e-003**	**0.1972**	**2.7100e-003**	**0.1999**	**0.0516**	**2.5600e-003**	**0.0542**		**243.2404**	**243.2404**	**0.0159**		**243.6371**

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					0.1619	0.0000	0.1619	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**0.1619**	**1.6587**	**1.8206**	**0.0245**	**1.5419**	**1.5664**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	0.0118	0.4351	0.0996	1.1900e-003	0.0740	1.8400e-003	0.0758	0.0189	1.7600e-003	0.0207		129.9339	129.9339	0.0128		130.2539
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	0.0621	0.0386	0.4048	1.1400e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		113.3064	113.3064	3.0700e-003		113.3832
Total	**0.0740**	**0.4737**	**0.5044**	**2.3300e-003**	**0.1972**	**2.7100e-003**	**0.1999**	**0.0516**	**2.5600e-003**	**0.0542**		**243.2404**	**243.2404**	**0.0159**		**243.6371**

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4150	0.0000	0.4150	0.0629	0.0000	0.0629			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.4150**	**1.5513**	**1.9664**	**0.0629**	**1.4411**	**1.5039**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0112	0.3980	0.0987	1.1700e-003	0.0742	1.6200e-003	0.0758	0.0190	1.5500e-003	0.0205		128.5235	128.5235	0.0126		128.8383
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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0695**	**0.4328**	**0.4718**	**2.2700e-003**	**0.1974**	**2.4700e-003**	**0.1999**	**0.0517**	**2.3400e-003**	**0.0540**		**238.4258**	**238.4258**	**0.0154**		**238.8103**

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					0.1619	0.0000	0.1619	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**0.1619**	**1.5513**	**1.7132**	**0.0245**	**1.4411**	**1.4656**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0112	0.3980	0.0987	1.1700e-003	0.0742	1.6200e-003	0.0758	0.0190	1.5500e-003	0.0205		128.5235	128.5235	0.0126		128.8383
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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0695**	**0.4328**	**0.4718**	**2.2700e-003**	**0.1974**	**2.4700e-003**	**0.1999**	**0.0517**	**2.3400e-003**	**0.0540**		**238.4258**	**238.4258**	**0.0154**		**238.8103**

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4150	0.0000	0.4150	0.0629	0.0000	0.0629			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.4150**	**1.2427**	**1.6577**	**0.0629**	**1.1553**	**1.2181**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0105	0.3610	0.0984	1.1500e-003	0.0742	1.3800e-003	0.0756	0.0190	1.3200e-003	0.0203		126.8151	126.8151	0.0124		127.1244
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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0654**	**0.3924**	**0.4430**	**2.2100e-003**	**0.1974**	**2.2100e-003**	**0.1996**	**0.0517**	**2.0900e-003**	**0.0538**		**232.6798**	**232.6798**	**0.0149**		**233.0521**

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					0.1619	0.0000	0.1619	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1619**	**1.2427**	**1.4045**	**0.0245**	**1.1553**	**1.1798**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0105	0.3610	0.0984	1.1500e-003	0.0742	1.3800e-003	0.0756	0.0190	1.3200e-003	0.0203		126.8151	126.8151	0.0124		127.1244
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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0654**	**0.3924**	**0.4430**	**2.2100e-003**	**0.1974**	**2.2100e-003**	**0.1996**	**0.0517**	**2.0900e-003**	**0.0538**		**232.6798**	**232.6798**	**0.0149**		**233.0521**

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4150	0.0000	0.4150	0.0629	0.0000	0.0629			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**0.4150**	**0.9975**	**1.4125**	**0.0629**	**0.9280**	**0.9908**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	7.1300e-003	0.2359	0.0908	1.1100e-003	0.3586	5.0000e-004	0.3591	0.0888	4.8000e-004	0.0893		122.7998	122.7998	0.0116		123.0900
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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0589**	**0.2642**	**0.4084**	**2.1300e-003**	**0.4818**	**1.3100e-003**	**0.4832**	**0.1215**	**1.2300e-003**	**0.1227**		**224.6109**	**224.6109**	**0.0139**		**224.9579**

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					0.1619	0.0000	0.1619	0.0245	0.0000	0.0245			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**0.1619**	**0.9975**	**1.1594**	**0.0245**	**0.9280**	**0.9525**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	7.1300e-003	0.2359	0.0908	1.1100e-003	0.3586	5.0000e-004	0.3591	0.0888	4.8000e-004	0.0893		122.7998	122.7998	0.0116		123.0900
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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0589**	**0.2642**	**0.4084**	**2.1300e-003**	**0.4818**	**1.3100e-003**	**0.4832**	**0.1215**	**1.2300e-003**	**0.1227**		**224.6109**	**224.6109**	**0.0139**		**224.9579**

3.3 Excavating/Trenching - 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	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	0.0621	0.0386	0.4048	1.1400e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		113.3064	113.3064	3.0700e-003		113.3832
Total	**0.0621**	**0.0386**	**0.4048**	**1.1400e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**113.3064**	**113.3064**	**3.0700e-003**		**113.3832**

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	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**		**1.6587**	**1.6587**		**1.5419**	**1.5419**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	0.0621	0.0386	0.4048	1.1400e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		113.3064	113.3064	3.0700e-003		113.3832
Total	**0.0621**	**0.0386**	**0.4048**	**1.1400e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**113.3064**	**113.3064**	**3.0700e-003**		**113.3832**

3.3 Excavating/Trenching - 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	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0583**	**0.0348**	**0.3731**	**1.1000e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**109.9022**	**109.9022**	**2.7900e-003**		**109.9721**

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	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**		**1.5513**	**1.5513**		**1.4411**	**1.4411**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0583**	**0.0348**	**0.3731**	**1.1000e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**109.9022**	**109.9022**	**2.7900e-003**		**109.9721**

3.3 Excavating/Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

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	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**		**1.2427**	**1.2427**		**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

3.3 Excavating/Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

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	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

3.4 Paving - 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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4456**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

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	0.0621	0.0386	0.4048	1.1400e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		113.3064	113.3064	3.0700e-003		113.3832
Total	**0.0621**	**0.0386**	**0.4048**	**1.1400e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**113.3064**	**113.3064**	**3.0700e-003**		**113.3832**

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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4456**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

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	0.0621	0.0386	0.4048	1.1400e-003	0.1232	8.7000e-004	0.1241	0.0327	8.0000e-004	0.0335		113.3064	113.3064	3.0700e-003		113.3832
Total	**0.0621**	**0.0386**	**0.4048**	**1.1400e-003**	**0.1232**	**8.7000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**113.3064**	**113.3064**	**3.0700e-003**		**113.3832**

3.4 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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3446**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0583**	**0.0348**	**0.3731**	**1.1000e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**109.9022**	**109.9022**	**2.7900e-003**		**109.9721**

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3446**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	0.0583	0.0348	0.3731	1.1000e-003	0.1232	8.5000e-004	0.1241	0.0327	7.9000e-004	0.0335		109.9022	109.9022	2.7900e-003		109.9721
Total	**0.0583**	**0.0348**	**0.3731**	**1.1000e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.9000e-004**	**0.0335**		**109.9022**	**109.9022**	**2.7900e-003**		**109.9721**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1919**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1919**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0549	0.0314	0.3446	1.0600e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		105.8647	105.8647	2.5200e-003		105.9277
Total	**0.0549**	**0.0314**	**0.3446**	**1.0600e-003**	**0.1232**	**8.3000e-004**	**0.1241**	**0.0327**	**7.7000e-004**	**0.0335**		**105.8647**	**105.8647**	**2.5200e-003**		**105.9277**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1218**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1218**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

3.5 Building Construction - 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	2.4784	20.3743	15.3911	0.0478		0.7535	0.7535		0.7210	0.7210		4,469.1384	4,469.1384	1.2997		4,501.6301
Total	**2.4784**	**20.3743**	**15.3911**	**0.0478**		**0.7535**	**0.7535**		**0.7210**	**0.7210**		**4,469.1384**	**4,469.1384**	**1.2997**		**4,501.6301**

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	9.0000e-005	3.1400e-003	7.2000e-004	1.0000e-005	1.5500e-003	1.0000e-005	1.5700e-003	3.9000e-004	1.0000e-005	4.0000e-004		0.9388	0.9388	9.0000e-005		0.9411
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	0.0828	0.0515	0.5397	1.5200e-003	0.1643	1.1600e-003	0.1655	0.0436	1.0700e-003	0.0447		151.0752	151.0752	4.0900e-003		151.1776
Total	**0.0829**	**0.0546**	**0.5404**	**1.5300e-003**	**0.1659**	**1.1700e-003**	**0.1670**	**0.0440**	**1.0800e-003**	**0.0451**		**152.0140**	**152.0140**	**4.1800e-003**		**152.1187**

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	2.4784	20.3743	15.3911	0.0478		0.7535	0.7535		0.7210	0.7210	0.0000	4,469.1384	4,469.1384	1.2997		4,501.6301
Total	**2.4784**	**20.3743**	**15.3911**	**0.0478**		**0.7535**	**0.7535**		**0.7210**	**0.7210**	**0.0000**	**4,469.1384**	**4,469.1384**	**1.2997**		**4,501.6301**

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	9.0000e-005	3.1400e-003	7.2000e-004	1.0000e-005	1.5500e-003	1.0000e-005	1.5700e-003	3.9000e-004	1.0000e-005	4.0000e-004		0.9388	0.9388	9.0000e-005		0.9411
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	0.0828	0.0515	0.5397	1.5200e-003	0.1643	1.1600e-003	0.1655	0.0436	1.0700e-003	0.0447		151.0752	151.0752	4.0900e-003		151.1776
Total	**0.0829**	**0.0546**	**0.5404**	**1.5300e-003**	**0.1659**	**1.1700e-003**	**0.1670**	**0.0440**	**1.0800e-003**	**0.0451**		**152.0140**	**152.0140**	**4.1800e-003**		**152.1187**

3.5 Building Construction - 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	2.2433	18.1267	15.1712	0.0479		0.6630	0.6630		0.6337	0.6337		4,478.1606	4,478.1606	1.2880		4,510.3601
Total	**2.2433**	**18.1267**	**15.1712**	**0.0479**		**0.6630**	**0.6630**		**0.6337**	**0.6337**		**4,478.1606**	**4,478.1606**	**1.2880**		**4,510.3601**

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	8.0000e-005	2.8800e-003	7.1000e-004	1.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.9286	0.9286	9.0000e-005		0.9309
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	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.0778**	**0.0492**	**0.4982**	**1.4800e-003**	**0.1647**	**1.1500e-003**	**0.1659**	**0.0437**	**1.0600e-003**	**0.0448**		**147.4649**	**147.4649**	**3.8200e-003**		**147.5603**

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	2.2433	18.1267	15.1712	0.0479		0.6630	0.6630		0.6337	0.6337	0.0000	4,478.1605	4,478.1605	1.2880		4,510.3601
Total	**2.2433**	**18.1267**	**15.1712**	**0.0479**		**0.6630**	**0.6630**		**0.6337**	**0.6337**	**0.0000**	**4,478.1605**	**4,478.1605**	**1.2880**		**4,510.3601**

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	8.0000e-005	2.8800e-003	7.1000e-004	1.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.9286	0.9286	9.0000e-005		0.9309
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	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.0778**	**0.0492**	**0.4982**	**1.4800e-003**	**0.1647**	**1.1500e-003**	**0.1659**	**0.0437**	**1.0600e-003**	**0.0448**		**147.4649**	**147.4649**	**3.8200e-003**		**147.5603**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0034	14.9173	14.9479	0.0480		0.5466	0.5466		0.5233	0.5233		4,484.1542	4,484.1542	1.2812		4,516.1832
Total	**2.0034**	**14.9173**	**14.9479**	**0.0480**		**0.5466**	**0.5466**		**0.5233**	**0.5233**		**4,484.1542**	**4,484.1542**	**1.2812**		**4,516.1832**

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	8.0000e-005	2.6100e-003	7.1000e-004	1.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.9163	0.9163	9.0000e-005		0.9185
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	0.0732	0.0418	0.4594	1.4200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		141.1529	141.1529	3.3600e-003		141.2369
Total	**0.0733**	**0.0444**	**0.4601**	**1.4300e-003**	**0.1647**	**1.1200e-003**	**0.1659**	**0.0437**	**1.0300e-003**	**0.0447**		**142.0691**	**142.0691**	**3.4500e-003**		**142.1554**

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	2.0034	14.9173	14.9479	0.0480		0.5466	0.5466		0.5233	0.5233	0.0000	4,484.1542	4,484.1542	1.2812		4,516.1832
Total	**2.0034**	**14.9173**	**14.9479**	**0.0480**		**0.5466**	**0.5466**		**0.5233**	**0.5233**	**0.0000**	**4,484.1542**	**4,484.1542**	**1.2812**		**4,516.1832**

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	8.0000e-005	2.6100e-003	7.1000e-004	1.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004		0.9163	0.9163	9.0000e-005		0.9185
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	0.0732	0.0418	0.4594	1.4200e-003	0.1643	1.1100e-003	0.1654	0.0436	1.0200e-003	0.0446		141.1529	141.1529	3.3600e-003		141.2369
Total	**0.0733**	**0.0444**	**0.4601**	**1.4300e-003**	**0.1647**	**1.1200e-003**	**0.1659**	**0.0437**	**1.0300e-003**	**0.0447**		**142.0691**	**142.0691**	**3.4500e-003**		**142.1554**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8784	13.8405	14.8432	0.0481		0.4846	0.4846		0.4635	0.4635		4,491.5239	4,491.5239	1.2748		4,523.3935
Total	**1.8784**	**13.8405**	**14.8432**	**0.0481**		**0.4846**	**0.4846**		**0.4635**	**0.4635**		**4,491.5239**	**4,491.5239**	**1.2748**		**4,523.3935**

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	5.0000e-005	1.7000e-003	6.6000e-004	1.0000e-005	1.6400e-003	0.0000	1.6400e-003	4.1000e-004	0.0000	4.1000e-004		0.8872	0.8872	8.0000e-005		0.8893
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	0.0691	0.0378	0.4234	1.3600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		135.7481	135.7481	3.0300e-003		135.8238
Total	**0.0691**	**0.0395**	**0.4241**	**1.3700e-003**	**0.1659**	**1.0800e-003**	**0.1670**	**0.0440**	**1.0000e-003**	**0.0450**		**136.6354**	**136.6354**	**3.1100e-003**		**136.7131**

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	1.8784	13.8405	14.8432	0.0481		0.4846	0.4846		0.4635	0.4635	0.0000	4,491.5239	4,491.5239	1.2748		4,523.3935
Total	**1.8784**	**13.8405**	**14.8432**	**0.0481**		**0.4846**	**0.4846**		**0.4635**	**0.4635**	**0.0000**	**4,491.5239**	**4,491.5239**	**1.2748**		**4,523.3935**

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	5.0000e-005	1.7000e-003	6.6000e-004	1.0000e-005	1.6400e-003	0.0000	1.6400e-003	4.1000e-004	0.0000	4.1000e-004		0.8872	0.8872	8.0000e-005		0.8893
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	0.0691	0.0378	0.4234	1.3600e-003	0.1643	1.0800e-003	0.1654	0.0436	1.0000e-003	0.0446		135.7481	135.7481	3.0300e-003		135.8238
Total	**0.0691**	**0.0395**	**0.4241**	**1.3700e-003**	**0.1659**	**1.0800e-003**	**0.1670**	**0.0440**	**1.0000e-003**	**0.0450**		**136.6354**	**136.6354**	**3.1100e-003**		**136.7131**

Ventura Water Pure_ProjLev_Operation - Ventura County APCD Air District, Annual

Ventura Water Pure_ProjLev_Operation

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment -

Trips and VMT - Project specific information.

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	60.00	79.00
tblConstructionPhase	NumDays	155.00	228.00
tblConstructionPhase	NumDays	1,550.00	583.00
tblConstructionPhase	NumDays	110.00	194.00
tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3.83	218.39
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	43.29
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72

tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00

tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblGrading	MaterialExported	0.00	5,113.00

tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00
tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	639.00	511.30
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	14.00	260.00
tblTripsAndVMT	WorkerTripNumber	36.00	667.00
tblTripsAndVMT	WorkerTripNumber	7.00	152.00
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	ST_TR	22.75	0.22

tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	256,000.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Energy	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	3,775.4006	3,775.4006	0.2819	0.0596	3,800.2166
Mobile	3.0300e-003	3.5000e-003	0.0445	1.7000e-004	0.0226	1.4000e-004	0.0227	5.9900e-003	1.3000e-004	6.1300e-003	0.0000	15.2388	15.2388	2.6000e-004	0.0000	15.2453
Waste						0.0000	0.0000		0.0000	0.0000	2.4359	0.0000	2.4359	0.1440	0.0000	6.0348
Water						0.0000	0.0000		0.0000	0.0000	0.0812	0.5767	0.6579	8.3900e-003	2.1000e-004	0.9290
Total	**0.4324**	**0.0864**	**0.1152**	**6.7000e-004**	**0.0226**	**6.4400e-003**	**0.0290**	**5.9900e-003**	**6.4300e-003**	**0.0124**	**2.5171**	**3,791.2182**	**3,793.7353**	**0.4345**	**0.0598**	**3,822.4280**

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	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Energy	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	3,775.4006	3,775.4006	0.2819	0.0596	3,800.2166

Mobile	3.0300e-003	3.5000e-003	0.0445	1.7000e-004	0.0226	1.4000e-004	0.0227	5.9900e-003	1.3000e-004	6.1300e-003	0.0000	15.2388	15.2388	2.6000e-004	0.0000	15.2453
Waste						0.0000	0.0000		0.0000	0.0000	2.4359	0.0000	2.4359	0.1440	0.0000	6.0348
Water						0.0000	0.0000		0.0000	0.0000	0.0812	0.5767	0.6579	8.3900e-003	2.1000e-004	0.9290
Total	**0.4324**	**0.0864**	**0.1152**	**6.7000e-004**	**0.0226**	**6.4400e-003**	**0.0290**	**5.9900e-003**	**6.4300e-003**	**0.0124**	**2.5171**	**3,791.2182**	**3,793.7353**	**0.4345**	**0.0598**	**3,822.4280**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0300e-003	3.5000e-003	0.0445	1.7000e-004	0.0226	1.4000e-004	0.0227	5.9900e-003	1.3000e-004	6.1300e-003	0.0000	15.2388	15.2388	2.6000e-004	0.0000	15.2453
Unmitigated	3.0300e-003	3.5000e-003	0.0445	1.7000e-004	0.0226	1.4000e-004	0.0227	5.9900e-003	1.3000e-004	6.1300e-003	0.0000	15.2388	15.2388	2.6000e-004	0.0000	15.2453

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	17,204	17,204
General Light Industry	13.68	13.68	13.68	39,014	39,014

Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,350	4,350
Total	22.90	22.90	22.90	60,568	60,568

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	8.40	8.40	8.40	33.00	48.00	19.00	66	28	6
General Light Industry	8.40	8.40	8.40	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	8.40	8.40	8.40	0.00	0.00	0.00	0	0	0
Parking Lot	8.40	8.40	8.40	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	8.40	8.40	8.40	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,685.1389	3,685.1389	0.2802	0.0580	3,709.4186
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,685.1389	3,685.1389	0.2802	0.0580	3,709.4186
NaturalGas Mitigated	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	90.2616	90.2616	1.7300e-003	1.6500e-003	90.7980
NaturalGas Unmitigated	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	90.2616	90.2616	1.7300e-003	1.6500e-003	90.7980

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	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
General Light Industry	1.68161e+006	9.0700e-003	0.0824	0.0692	4.9000e-004		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	89.7373	89.7373	1.7200e-003	1.6500e-003	90.2706
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	9825	5.0000e-005	4.8000e-004	4.0000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5243	0.5243	1.0000e-005	1.0000e-005	0.5274
Total		**9.1200e-003**	**0.0829**	**0.0696**	**4.9000e-004**		**6.3000e-003**	**6.3000e-003**		**6.3000e-003**	**6.3000e-003**	**0.0000**	**90.2616**	**90.2616**	**1.7300e-003**	**1.6600e-003**	**90.7980**

Mitigated

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

City Park	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
General Light Industry	1.68161e+006	9.0700e-003	0.0824	0.0692	4.9000e-004		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	89.7373	89.7373	1.7200e-003	1.6500e-003	90.2706
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	9825	5.0000e-005	4.8000e-004	4.0000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5243	0.5243	1.0000e-005	1.0000e-005	0.5274
Total		**9.1200e-003**	**0.0829**	**0.0696**	**4.9000e-004**		**6.3000e-003**	**6.3000e-003**		**6.3000e-003**	**6.3000e-003**	**0.0000**	**90.2616**	**90.2616**	**1.7300e-003**	**1.6600e-003**	**90.7980**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	2.12953e+007	3,684.2912	0.2801	0.0580	3,708.5653
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	4900	0.8478	6.0000e-005	1.0000e-005	0.8533
Total		**3,685.1389**	**0.2802**	**0.0580**	**3,709.4186**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	2.12953e+007	3,684.2912	0.2801	0.0580	3,708.5653
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	4900	0.8478	6.0000e-005	1.0000e-005	0.8533
Total		**3,685.1389**	**0.2802**	**0.0580**	**3,709.4186**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Unmitigated	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-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	tons/yr										MT/yr					
Architectural Coating	0.0961					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.4203**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

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	0.0961					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.4203**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.6579	8.3900e-003	2.1000e-004	0.9290
Unmitigated	0.6579	8.3900e-003	2.1000e-004	0.9290

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.256 / 0	0.6579	8.3900e-003	2.1000e-004	0.9290
Total		**0.6579**	**8.3900e-003**	**2.1000e-004**	**0.9290**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.256 / 0	0.6579	8.3900e-003	2.1000e-004	0.9290
Total		**0.6579**	**8.3900e-003**	**2.1000e-004**	**0.9290**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.4359	0.1440	0.0000	6.0348
Unmitigated	2.4359	0.1440	0.0000	6.0348

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	12	2.4359	0.1440	0.0000	6.0348
Total		**2.4359**	**0.1440**	**0.0000**	**6.0348**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	12	2.4359	0.1440	0.0000	6.0348
Total		**2.4359**	**0.1440**	**0.0000**	**6.0348**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Ventura Water Pure_ProjLev_Operation

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment -

Trips and VMT - Project specific information.

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	60.00	79.00
tblConstructionPhase	NumDays	155.00	228.00
tblConstructionPhase	NumDays	1,550.00	583.00
tblConstructionPhase	NumDays	110.00	194.00
tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3.83	218.39
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	43.29
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72

tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00

tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
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tblFleetMix	OBUS	1.1870e-003	0.00
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tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblGrading	MaterialExported	0.00	5,113.00

tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00
tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	639.00	511.30
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	14.00	260.00
tblTripsAndVMT	WorkerTripNumber	36.00	667.00
tblTripsAndVMT	WorkerTripNumber	7.00	152.00
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	ST_TR	22.75	0.22

tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	256,000.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0184	0.0171	0.2526	9.7000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		96.3189	96.3189	1.6400e-003		96.3599
Total	**2.3717**	**0.4715**	**0.6463**	**3.7000e-003**	**0.1264**	**0.0354**	**0.1618**	**0.0335**	**0.0353**	**0.0688**		**641.5306**	**641.5306**	**0.0122**	**0.0100**	**644.8130**

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0184	0.0171	0.2526	9.7000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		96.3189	96.3189	1.6400e-003		96.3599
Total	**2.3717**	**0.4715**	**0.6463**	**3.7000e-003**	**0.1264**	**0.0354**	**0.1618**	**0.0335**	**0.0353**	**0.0688**		**641.5306**	**641.5306**	**0.0122**	**0.0100**	**644.8130**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0184	0.0171	0.2526	9.7000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		96.3189	96.3189	1.6400e-003		96.3599

Unmitigated	0.0184	0.0171	0.2526	9.7000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		96.3189	96.3189	1.6400e-003		96.3599

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	17,204	17,204
General Light Industry	13.68	13.68	13.68	39,014	39,014
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,350	4,350
Total	22.90	22.90	22.90	60,568	60,568

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	8.40	8.40	8.40	33.00	48.00	19.00	66	28	6
General Light Industry	8.40	8.40	8.40	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	8.40	8.40	8.40	0.00	0.00	0.00	0	0	0
Parking Lot	8.40	8.40	8.40	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	8.40	8.40	8.40	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
NaturalGas Unmitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256

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					
City Park	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
General Light Industry	4607.16	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	26.9178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

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					
City Park	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
General Light Industry	4.60716	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	0.0269178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Unmitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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

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

Ventura Water Pure_ProjLev_Operation

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment -

Trips and VMT - Project specific information.

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	60.00	79.00
tblConstructionPhase	NumDays	155.00	228.00
tblConstructionPhase	NumDays	1,550.00	583.00
tblConstructionPhase	NumDays	110.00	194.00
tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3.83	218.39
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	43.29
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72

tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00

tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblGrading	MaterialExported	0.00	5,113.00

tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00
tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	639.00	511.30
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	14.00	260.00
tblTripsAndVMT	WorkerTripNumber	36.00	667.00
tblTripsAndVMT	WorkerTripNumber	7.00	152.00
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	ST_TR	22.75	0.22

tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	256,000.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0167	0.0200	0.2476	9.2000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		91.6650	91.6650	1.5800e-003		91.7044
Total	**2.3700**	**0.4744**	**0.6413**	**3.6500e-003**	**0.1264**	**0.0354**	**0.1618**	**0.0335**	**0.0353**	**0.0688**		**636.8766**	**636.8766**	**0.0121**	**0.0100**	**640.1575**

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0167	0.0200	0.2476	9.2000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		91.6650	91.6650	1.5800e-003		91.7044
Total	**2.3700**	**0.4744**	**0.6413**	**3.6500e-003**	**0.1264**	**0.0354**	**0.1618**	**0.0335**	**0.0353**	**0.0688**		**636.8766**	**636.8766**	**0.0121**	**0.0100**	**640.1575**

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

Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6765**	**1.9853**	**10.6618**	**3.5970**	**1.8265**	**5.4235**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.0157	0.5597	0.1388	1.6500e-003	0.0644	2.2800e-003	0.0667	0.0169	2.1800e-003	0.0191		180.7228	180.7228	0.0177		181.1653
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	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.0935**	**0.6060**	**0.6363**	**3.1200e-003**	**0.2287**	**3.4200e-003**	**0.2321**	**0.0605**	**3.2300e-003**	**0.0637**		**327.2591**	**327.2591**	**0.0214**		**327.7948**

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					3.3838	0.0000	3.3838	1.4028	0.0000	1.4028			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**3.3838**	**1.9853**	**5.3692**	**1.4028**	**1.8265**	**3.2293**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	0.0157	0.5597	0.1388	1.6500e-003	0.0644	2.2800e-003	0.0667	0.0169	2.1800e-003	0.0191		180.7228	180.7228	0.0177		181.1653
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	0.0777	0.0464	0.4975	1.4700e-003	0.1643	1.1400e-003	0.1654	0.0436	1.0500e-003	0.0446		146.5363	146.5363	3.7300e-003		146.6294
Total	**0.0935**	**0.6060**	**0.6363**	**3.1200e-003**	**0.2287**	**3.4200e-003**	**0.2321**	**0.0605**	**3.2300e-003**	**0.0637**		**327.2591**	**327.2591**	**0.0214**		**327.7948**

3.4 Trenching - 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	2.7803	28.4028	17.8910	0.0326		1.3782	1.3782		1.2680	1.2680		3,155.2803	3,155.2803	1.0205		3,180.7923
Total	**2.7803**	**28.4028**	**17.8910**	**0.0326**		**1.3782**	**1.3782**		**1.2680**	**1.2680**		**3,155.2803**	**3,155.2803**	**1.0205**		**3,180.7923**

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	7.0000e-005	2.4700e-003	6.1000e-004	1.0000e-005	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005		0.7968	0.7968	8.0000e-005		0.7988
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	0.0505	0.0301	0.3234	9.6000e-004	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		95.2486	95.2486	2.4200e-003		95.3091
Total	**0.0506**	**0.0326**	**0.3240**	**9.7000e-004**	**0.1070**	**7.5000e-004**	**0.1077**	**0.0284**	**6.9000e-004**	**0.0291**		**96.0454**	**96.0454**	**2.5000e-003**		**96.1079**

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	2.7803	28.4028	17.8910	0.0326		1.3782	1.3782		1.2680	1.2680	0.0000	3,155.2803	3,155.2803	1.0205		3,180.7923
Total	**2.7803**	**28.4028**	**17.8910**	**0.0326**		**1.3782**	**1.3782**		**1.2680**	**1.2680**	**0.0000**	**3,155.2803**	**3,155.2803**	**1.0205**		**3,180.7923**

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	7.0000e-005	2.4700e-003	6.1000e-004	1.0000e-005	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005		0.7968	0.7968	8.0000e-005		0.7988
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	0.0505	0.0301	0.3234	9.6000e-004	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		95.2486	95.2486	2.4200e-003		95.3091

Total	**0.0506**	**0.0326**	**0.3240**	**9.7000e-004**	**0.1070**	**7.5000e-004**	**0.1077**	**0.0284**	**6.9000e-004**	**0.0291**		**96.0454**	**96.0454**	**2.5000e-003**		**96.1079**

3.4 Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2815	22.9182	16.9294	0.0326		1.0925	1.0925		1.0051	1.0051		3,154.1165	3,154.1165	1.0201		3,179.6192
Total	**2.2815**	**22.9182**	**16.9294**	**0.0326**		**1.0925**	**1.0925**		**1.0051**	**1.0051**		**3,154.1165**	**3,154.1165**	**1.0201**		**3,179.6192**

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	7.0000e-005	2.2400e-003	6.1000e-004	1.0000e-005	2.2500e-003	1.0000e-005	2.2500e-003	5.6000e-004	1.0000e-005	5.6000e-004		0.7862	0.7862	8.0000e-005		0.7881
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	0.0476	0.0272	0.2986	9.2000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		91.7494	91.7494	2.1900e-003		91.8040
Total	**0.0477**	**0.0294**	**0.2992**	**9.3000e-004**	**0.1090**	**7.3000e-004**	**0.1098**	**0.0289**	**6.7000e-004**	**0.0296**		**92.5356**	**92.5356**	**2.2700e-003**		**92.5922**

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	2.2815	22.9182	16.9294	0.0326		1.0925	1.0925		1.0051	1.0051	0.0000	3,154.1165	3,154.1165	1.0201		3,179.6192
Total	**2.2815**	**22.9182**	**16.9294**	**0.0326**		**1.0925**	**1.0925**		**1.0051**	**1.0051**	**0.0000**	**3,154.1165**	**3,154.1165**	**1.0201**		**3,179.6192**

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	7.0000e-005	2.2400e-003	6.1000e-004	1.0000e-005	2.2500e-003	1.0000e-005	2.2500e-003	5.6000e-004	1.0000e-005	5.6000e-004		0.7862	0.7862	8.0000e-005		0.7881
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	0.0476	0.0272	0.2986	9.2000e-004	0.1068	7.2000e-004	0.1075	0.0283	6.6000e-004	0.0290		91.7494	91.7494	2.1900e-003		91.8040
Total	**0.0477**	**0.0294**	**0.2992**	**9.3000e-004**	**0.1090**	**7.3000e-004**	**0.1098**	**0.0289**	**6.7000e-004**	**0.0296**		**92.5356**	**92.5356**	**2.2700e-003**		**92.5922**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.7223	23.5371	6.8926	0.0643	1.7578	0.0640	1.8218	0.5058	0.0612	0.5670		6,923.8026	6,923.8026	0.5613		6,937.8352
Worker	2.4416	1.3949	15.3214	0.0472	5.4793	0.0370	5.5163	1.4534	0.0341	1.4875		4,707.4481	4,707.4481	0.1122		4,710.2521
Total	**3.1639**	**24.9320**	**22.2140**	**0.1115**	**7.2370**	**0.1010**	**7.3381**	**1.9592**	**0.0953**	**2.0545**		**11,631.2507**	**11,631.2507**	**0.6735**		**11,648.0873**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.7223	23.5371	6.8926	0.0643	1.7578	0.0640	1.8218	0.5058	0.0612	0.5670		6,923.8026	6,923.8026	0.5613		6,937.8352
Worker	2.4416	1.3949	15.3214	0.0472	5.4793	0.0370	5.5163	1.4534	0.0341	1.4875		4,707.4481	4,707.4481	0.1122		4,710.2521
Total	**3.1639**	**24.9320**	**22.2140**	**0.1115**	**7.2370**	**0.1010**	**7.3381**	**1.9592**	**0.0953**	**2.0545**		**11,631.2507**	**11,631.2507**	**0.6735**		**11,648.0873**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.5365	17.9203	6.1816	0.0627	1.7579	0.0243	1.7822	0.5059	0.0232	0.5291		6,770.9559	6,770.9559	0.4989		6,783.4292
Worker	2.3034	1.2598	14.1209	0.0454	5.4793	0.0362	5.5154	1.4534	0.0333	1.4867		4,527.2006	4,527.2006	0.1009		4,529.7230
Total	**2.8399**	**19.1801**	**20.3024**	**0.1081**	**7.2372**	**0.0604**	**7.2976**	**1.9593**	**0.0565**	**2.0158**		**11,298.1565**	**11,298.1565**	**0.5998**		**11,313.1522**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.5365	17.9203	6.1816	0.0627	1.7579	0.0243	1.7822	0.5059	0.0232	0.5291		6,770.9559	6,770.9559	0.4989		6,783.4292
Worker	2.3034	1.2598	14.1209	0.0454	5.4793	0.0362	5.5154	1.4534	0.0333	1.4867		4,527.2006	4,527.2006	0.1009		4,529.7230
Total	**2.8399**	**19.1801**	**20.3024**	**0.1081**	**7.2372**	**0.0604**	**7.2976**	**1.9593**	**0.0565**	**2.0158**		**11,298.1565**	**11,298.1565**	**0.5998**		**11,313.1522**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.9103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**10.1020**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.5249	0.2871	3.2180	0.0104	1.2486	8.2400e-003	1.2569	0.3312	7.5900e-003	0.3388		1,031.6859	1,031.6859	0.0230		1,032.2607
Total	**0.5249**	**0.2871**	**3.2180**	**0.0104**	**1.2486**	**8.2400e-003**	**1.2569**	**0.3312**	**7.5900e-003**	**0.3388**		**1,031.6859**	**1,031.6859**	**0.0230**		**1,032.2607**

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	9.9103					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**10.1020**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.5249	0.2871	3.2180	0.0104	1.2486	8.2400e-003	1.2569	0.3312	7.5900e-003	0.3388		1,031.6859	1,031.6859	0.0230		1,032.2607
Total	**0.5249**	**0.2871**	**3.2180**	**0.0104**	**1.2486**	**8.2400e-003**	**1.2569**	**0.3312**	**7.5900e-003**	**0.3388**		**1,031.6859**	**1,031.6859**	**0.0230**		**1,032.2607**

3.7 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	4.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0990**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Paving	4.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.0990**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	0.0518	0.0283	0.3176	1.0200e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		101.8111	101.8111	2.2700e-003		101.8678
Total	**0.0518**	**0.0283**	**0.3176**	**1.0200e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**101.8111**	**101.8111**	**2.2700e-003**		**101.8678**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0167	0.0200	0.2476	9.2000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		91.6650	91.6650	1.5800e-003		91.7044

Unmitigated	0.0167	0.0200	0.2476	9.2000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		91.6650	91.6650	1.5800e-003		91.7044

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	17,204	17,204
General Light Industry	13.68	13.68	13.68	39,014	39,014
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,350	4,350
Total	22.90	22.90	22.90	60,568	60,568

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	8.40	8.40	8.40	33.00	48.00	19.00	66	28	6
General Light Industry	8.40	8.40	8.40	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	8.40	8.40	8.40	0.00	0.00	0.00	0	0	0
Parking Lot	8.40	8.40	8.40	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	8.40	8.40	8.40	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
NaturalGas Unmitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256

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					
City Park	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
General Light Industry	4607.16	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	26.9178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

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					
City Park	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
General Light Industry	4.60716	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	0.0269178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Unmitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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

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

Ventura Water Pure_ProjLev_Operation

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment -

Trips and VMT - Project specific information.

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	60.00	79.00
tblConstructionPhase	NumDays	155.00	228.00
tblConstructionPhase	NumDays	1,550.00	583.00
tblConstructionPhase	NumDays	110.00	194.00
tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	NT24E	3.83	218.39
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	43.29
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72

tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00

tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblGrading	MaterialExported	0.00	5,113.00

tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00
tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	639.00	511.30
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	14.00	260.00
tblTripsAndVMT	WorkerTripNumber	36.00	667.00
tblTripsAndVMT	WorkerTripNumber	7.00	152.00
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CC_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CNW_TL	7.30	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	CW_TL	9.50	8.40
tblVehicleTrips	ST_TR	22.75	0.22

tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	256,000.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0167	0.0200	0.2476	9.2000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		91.6650	91.6650	1.5800e-003		91.7044
Total	**2.3700**	**0.4744**	**0.6413**	**3.6500e-003**	**0.1264**	**0.0354**	**0.1618**	**0.0335**	**0.0353**	**0.0688**		**636.8766**	**636.8766**	**0.0121**	**0.0100**	**640.1575**

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0167	0.0200	0.2476	9.2000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		91.6650	91.6650	1.5800e-003		91.7044
Total	**2.3700**	**0.4744**	**0.6413**	**3.6500e-003**	**0.1264**	**0.0354**	**0.1618**	**0.0335**	**0.0353**	**0.0688**		**636.8766**	**636.8766**	**0.0121**	**0.0100**	**640.1575**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0167	0.0200	0.2476	9.2000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		91.6650	91.6650	1.5800e-003		91.7044

Unmitigated	0.0167	0.0200	0.2476	9.2000e-004	0.1264	7.9000e-004	0.1272	0.0335	7.3000e-004	0.0342		91.6650	91.6650	1.5800e-003		91.7044

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	17,204	17,204
General Light Industry	13.68	13.68	13.68	39,014	39,014
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,350	4,350
Total	22.90	22.90	22.90	60,568	60,568

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	8.40	8.40	8.40	33.00	48.00	19.00	66	28	6
General Light Industry	8.40	8.40	8.40	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	8.40	8.40	8.40	0.00	0.00	0.00	0	0	0
Parking Lot	8.40	8.40	8.40	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	8.40	8.40	8.40	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
NaturalGas Unmitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256

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					
City Park	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
General Light Industry	4607.16	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	26.9178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

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					
City Park	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
General Light Industry	4.60716	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	0.0269178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Unmitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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

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

Ventura Water Pure_ProgLevel_Desal - Ventura County APCD Air District, Annual

Ventura Water Pure_ProgLevel_Desal

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment - Project specific construction data.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3.83	72.63
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	18.78
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05

tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00

tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00

tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	19.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	850.00
tblTripsAndVMT	HaulingTripNumber	0.00	17,122.00
tblVehicleTrips	ST_TR	22.75	0.22
tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	322,689.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Energy	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	1,405.1876	1,405.1876	0.1017	0.0223	1,414.3874
Mobile	3.0300e-003	3.5200e-003	0.0446	1.7000e-004	0.0227	1.4000e-004	0.0228	6.0200e-003	1.3000e-004	6.1500e-003	0.0000	15.3014	15.3014	2.6000e-004	0.0000	15.3079
Waste						0.0000	0.0000		0.0000	0.0000	2.4359	0.0000	2.4359	0.1440	0.0000	6.0348
Water						0.0000	0.0000		0.0000	0.0000	0.1024	0.7269	0.8293	0.0106	2.6000e-004	1.1710
Total	**0.4324**	**0.0864**	**0.1153**	**6.7000e-004**	**0.0227**	**6.4400e-003**	**0.0291**	**6.0200e-003**	**6.4300e-003**	**0.0125**	**2.5383**	**1,421.2180**	**1,423.7563**	**0.2565**	**0.0226**	**1,436.9034**

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	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Energy	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	1,405.1876	1,405.1876	0.1017	0.0223	1,414.3874
Mobile	3.0300e-003	3.5200e-003	0.0446	1.7000e-004	0.0227	1.4000e-004	0.0228	6.0200e-003	1.3000e-004	6.1500e-003	0.0000	15.3014	15.3014	2.6000e-004	0.0000	15.3079
Waste						0.0000	0.0000		0.0000	0.0000	2.4359	0.0000	2.4359	0.1440	0.0000	6.0348
Water						0.0000	0.0000		0.0000	0.0000	0.1024	0.7269	0.8293	0.0106	2.6000e-004	1.1710
Total	**0.4324**	**0.0864**	**0.1153**	**6.7000e-004**	**0.0227**	**6.4400e-003**	**0.0291**	**6.0200e-003**	**6.4300e-003**	**0.0125**	**2.5383**	**1,421.2180**	**1,423.7563**	**0.2565**	**0.0226**	**1,436.9034**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0300e-003	3.5200e-003	0.0446	1.7000e-004	0.0227	1.4000e-004	0.0228	6.0200e-003	1.3000e-004	6.1500e-003	0.0000	15.3014	15.3014	2.6000e-004	0.0000	15.3079
Unmitigated	3.0300e-003	3.5200e-003	0.0446	1.7000e-004	0.0227	1.4000e-004	0.0228	6.0200e-003	1.3000e-004	6.1500e-003	0.0000	15.3014	15.3014	2.6000e-004	0.0000	15.3079

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	16,438	16,438
General Light Industry	13.68	13.68	13.68	39,934	39,934
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,452	4,452
Total	22.90	22.90	22.90	60,824	60,824

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,314.9260	1,314.9260	0.1000	0.0207	1,323.5894
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,314.9260	1,314.9260	0.1000	0.0207	1,323.5894
NaturalGas Mitigated	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	90.2616	90.2616	1.7300e-003	1.6500e-003	90.7980
NaturalGas Unmitigated	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	90.2616	90.2616	1.7300e-003	1.6500e-003	90.7980

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	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
General Light Industry	1.68161e+006	9.0700e-003	0.0824	0.0692	4.9000e-004		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	89.7373	89.7373	1.7200e-003	1.6500e-003	90.2706
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	9825	5.0000e-005	4.8000e-004	4.0000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5243	0.5243	1.0000e-005	1.0000e-005	0.5274
Total		**9.1200e-003**	**0.0829**	**0.0696**	**4.9000e-004**		**6.3000e-003**	**6.3000e-003**		**6.3000e-003**	**6.3000e-003**	**0.0000**	**90.2616**	**90.2616**	**1.7300e-003**	**1.6600e-003**	**90.7980**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	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
General Light Industry	1.68161e+006	9.0700e-003	0.0824	0.0692	4.9000e-004		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	89.7373	89.7373	1.7200e-003	1.6500e-003	90.2706
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	9825	5.0000e-005	4.8000e-004	4.0000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5243	0.5243	1.0000e-005	1.0000e-005	0.5274
Total		**9.1200e-003**	**0.0829**	**0.0696**	**4.9000e-004**		**6.3000e-003**	**6.3000e-003**		**6.3000e-003**	**6.3000e-003**	**0.0000**	**90.2616**	**90.2616**	**1.7300e-003**	**1.6600e-003**	**90.7980**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	7.59542e+006	1,314.0782	0.0999	0.0207	1,322.7361
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	4900	0.8478	6.0000e-005	1.0000e-005	0.8533
Total		**1,314.9260**	**0.1000**	**0.0207**	**1,323.5894**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	7.59542e+006	1,314.0782	0.0999	0.0207	1,322.7361
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	4900	0.8478	6.0000e-005	1.0000e-005	0.8533

Total		**1,314.9260**	**0.1000**	**0.0207**	**1,323.5894**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Unmitigated	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-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	tons/yr										MT/yr					
Architectural Coating	0.0961					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.4203**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

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	0.0961					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.4203**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.8293	0.0106	2.6000e-004	1.1710
Unmitigated	0.8293	0.0106	2.6000e-004	1.1710

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.322689 / 0	0.8293	0.0106	2.6000e-004	1.1710
Total		**0.8293**	**0.0106**	**2.6000e-004**	**1.1710**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.322689 / 0	0.8293	0.0106	2.6000e-004	1.1710
Total		**0.8293**	**0.0106**	**2.6000e-004**	**1.1710**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.4359	0.1440	0.0000	6.0348
Unmitigated	2.4359	0.1440	0.0000	6.0348

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	12	2.4359	0.1440	0.0000	6.0348
Total		**2.4359**	**0.1440**	**0.0000**	**6.0348**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	12	2.4359	0.1440	0.0000	6.0348
Total		**2.4359**	**0.1440**	**0.0000**	**6.0348**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Ventura Water Pure_ProgLevel_Desal - Ventura County APCD Air District, Summer

Ventura Water Pure_ProgLevel_Desal

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment - Project specific construction data.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3.83	72.63
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	18.78
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05

tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00

tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
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tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00

tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	19.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	850.00
tblTripsAndVMT	HaulingTripNumber	0.00	17,122.00
tblVehicleTrips	ST_TR	22.75	0.22
tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	322,689.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561
Total	**2.3717**	**0.4716**	**0.6471**	**3.7000e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**641.9266**	**641.9266**	**0.0122**	**0.0100**	**645.2091**

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561
Total	**2.3717**	**0.4716**	**0.6471**	**3.7000e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**641.9266**	**641.9266**	**0.0122**	**0.0100**	**645.2091**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

Mitigated	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561
Unmitigated	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	16,438	16,438
General Light Industry	13.68	13.68	13.68	39,934	39,934
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,452	4,452
Total	22.90	22.90	22.90	60,824	60,824

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
NaturalGas Unmitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256

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					
City Park	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
General Light Industry	4607.16	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	26.9178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856

Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

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					
City Park	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
General Light Industry	4.60716	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	0.0269178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

Unmitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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

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

Ventura Water Pure_ProgLevel_Desal - Ventura County APCD Air District, Winter

Ventura Water Pure_ProgLevel_Desal

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment - Project specific construction data.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3.83	72.63
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	18.78
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05

tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00

tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00

tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	19.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	850.00
tblTripsAndVMT	HaulingTripNumber	0.00	17,122.00
tblVehicleTrips	ST_TR	22.75	0.22
tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	322,689.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0167	0.0200	0.2484	9.2000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		92.0412	92.0412	1.5800e-003		92.0809
Total	**2.3700**	**0.4745**	**0.6421**	**3.6500e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**637.2529**	**637.2529**	**0.0121**	**0.0100**	**640.5339**

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0167	0.0200	0.2484	9.2000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		92.0412	92.0412	1.5800e-003		92.0809
Total	**2.3700**	**0.4745**	**0.6421**	**3.6500e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**637.2529**	**637.2529**	**0.0121**	**0.0100**	**640.5339**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

Mitigated	0.0167	0.0200	0.2484	9.2000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		92.0412	92.0412	1.5800e-003		92.0809
Unmitigated	0.0167	0.0200	0.2484	9.2000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		92.0412	92.0412	1.5800e-003		92.0809

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	16,438	16,438
General Light Industry	13.68	13.68	13.68	39,934	39,934
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,452	4,452
Total	22.90	22.90	22.90	60,824	60,824

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
NaturalGas Unmitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256

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					
City Park	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
General Light Industry	4607.16	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	26.9178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856

Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

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					
City Park	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
General Light Industry	4.60716	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	0.0269178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

Unmitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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

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

Ventura Water Pure_ProgLevel_no Desal

Ventura County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment - Project specific construction data.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3.83	42.76
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	11.37
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05

tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00

tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00

tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	19.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	850.00
tblTripsAndVMT	HaulingTripNumber	0.00	17,122.00
tblVehicleTrips	ST_TR	22.75	0.22
tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	322,689.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Energy	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	886.2381	886.2381	0.0623	0.0142	892.0188
Mobile	3.0300e-003	3.5200e-003	0.0446	1.7000e-004	0.0227	1.4000e-004	0.0228	6.0200e-003	1.3000e-004	6.1500e-003	0.0000	15.3014	15.3014	2.6000e-004	0.0000	15.3079
Waste						0.0000	0.0000		0.0000	0.0000	2.4359	0.0000	2.4359	0.1440	0.0000	6.0348
Water						0.0000	0.0000		0.0000	0.0000	0.1024	0.7269	0.8293	0.0106	2.6000e-004	1.1710
Total	**0.4324**	**0.0864**	**0.1153**	**6.7000e-004**	**0.0227**	**6.4400e-003**	**0.0291**	**6.0200e-003**	**6.4300e-003**	**0.0125**	**2.5383**	**902.2685**	**904.8068**	**0.2171**	**0.0144**	**914.5347**

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	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Energy	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	886.2381	886.2381	0.0623	0.0142	892.0188
Mobile	3.0300e-003	3.5200e-003	0.0446	1.7000e-004	0.0227	1.4000e-004	0.0228	6.0200e-003	1.3000e-004	6.1500e-003	0.0000	15.3014	15.3014	2.6000e-004	0.0000	15.3079
Waste						0.0000	0.0000		0.0000	0.0000	2.4359	0.0000	2.4359	0.1440	0.0000	6.0348
Water						0.0000	0.0000		0.0000	0.0000	0.1024	0.7269	0.8293	0.0106	2.6000e-004	1.1710
Total	**0.4324**	**0.0864**	**0.1153**	**6.7000e-004**	**0.0227**	**6.4400e-003**	**0.0291**	**6.0200e-003**	**6.4300e-003**	**0.0125**	**2.5383**	**902.2685**	**904.8068**	**0.2171**	**0.0144**	**914.5347**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0300e-003	3.5200e-003	0.0446	1.7000e-004	0.0227	1.4000e-004	0.0228	6.0200e-003	1.3000e-004	6.1500e-003	0.0000	15.3014	15.3014	2.6000e-004	0.0000	15.3079
Unmitigated	3.0300e-003	3.5200e-003	0.0446	1.7000e-004	0.0227	1.4000e-004	0.0228	6.0200e-003	1.3000e-004	6.1500e-003	0.0000	15.3014	15.3014	2.6000e-004	0.0000	15.3079

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	16,438	16,438
General Light Industry	13.68	13.68	13.68	39,934	39,934
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,452	4,452
Total	22.90	22.90	22.90	60,824	60,824

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	795.9764	795.9764	0.0605	0.0125	801.2208
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	795.9764	795.9764	0.0605	0.0125	801.2208
NaturalGas Mitigated	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	90.2616	90.2616	1.7300e-003	1.6500e-003	90.7980
NaturalGas Unmitigated	9.1200e-003	0.0829	0.0697	5.0000e-004		6.3000e-003	6.3000e-003		6.3000e-003	6.3000e-003	0.0000	90.2616	90.2616	1.7300e-003	1.6500e-003	90.7980

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	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
General Light Industry	1.68161e+006	9.0700e-003	0.0824	0.0692	4.9000e-004		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	89.7373	89.7373	1.7200e-003	1.6500e-003	90.2706
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	9825	5.0000e-005	4.8000e-004	4.0000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5243	0.5243	1.0000e-005	1.0000e-005	0.5274
Total		**9.1200e-003**	**0.0829**	**0.0696**	**4.9000e-004**		**6.3000e-003**	**6.3000e-003**		**6.3000e-003**	**6.3000e-003**	**0.0000**	**90.2616**	**90.2616**	**1.7300e-003**	**1.6600e-003**	**90.7980**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	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
General Light Industry	1.68161e+006	9.0700e-003	0.0824	0.0692	4.9000e-004		6.2600e-003	6.2600e-003		6.2600e-003	6.2600e-003	0.0000	89.7373	89.7373	1.7200e-003	1.6500e-003	90.2706
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	9825	5.0000e-005	4.8000e-004	4.0000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5243	0.5243	1.0000e-005	1.0000e-005	0.5274
Total		**9.1200e-003**	**0.0829**	**0.0696**	**4.9000e-004**		**6.3000e-003**	**6.3000e-003**		**6.3000e-003**	**6.3000e-003**	**0.0000**	**90.2616**	**90.2616**	**1.7300e-003**	**1.6600e-003**	**90.7980**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	4.59588e+006	795.1287	0.0605	0.0125	800.3674
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	4900	0.8478	6.0000e-005	1.0000e-005	0.8533
Total		**795.9765**	**0.0605**	**0.0125**	**801.2208**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	4.59588e+006	795.1287	0.0605	0.0125	800.3674
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	4900	0.8478	6.0000e-005	1.0000e-005	0.8533

Total		**795.9765**	**0.0605**	**0.0125**	**801.2208**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Unmitigated	0.4203	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-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	tons/yr										MT/yr					
Architectural Coating	0.0961					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.4203**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

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	0.0961					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1100e-003	2.1100e-003	1.0000e-005	0.0000	2.2400e-003
Total	**0.4203**	**1.0000e-005**	**1.0800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**1.0000e-005**	**0.0000**	**2.2400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.8293	0.0106	2.6000e-004	1.1710
Unmitigated	0.8293	0.0106	2.6000e-004	1.1710

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.322689 / 0	0.8293	0.0106	2.6000e-004	1.1710
Total		**0.8293**	**0.0106**	**2.6000e-004**	**1.1710**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.322689 / 0	0.8293	0.0106	2.6000e-004	1.1710
Total		**0.8293**	**0.0106**	**2.6000e-004**	**1.1710**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.4359	0.1440	0.0000	6.0348
Unmitigated	2.4359	0.1440	0.0000	6.0348

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	12	2.4359	0.1440	0.0000	6.0348
Total		**2.4359**	**0.1440**	**0.0000**	**6.0348**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	12	2.4359	0.1440	0.0000	6.0348
Total		**2.4359**	**0.1440**	**0.0000**	**6.0348**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Ventura Water Pure_ProgLevel_no Desal - Ventura County APCD Air District, Summer

Ventura Water Pure_ProgLevel_no Desal

Ventura County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment - Project specific construction data.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3.83	42.76
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	11.37
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05

tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00

tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00

tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	19.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	850.00
tblTripsAndVMT	HaulingTripNumber	0.00	17,122.00
tblVehicleTrips	ST_TR	22.75	0.22
tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	322,689.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561
Total	**2.3717**	**0.4716**	**0.6471**	**3.7000e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**641.9266**	**641.9266**	**0.0122**	**0.0100**	**645.2091**

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561
Total	**2.3717**	**0.4716**	**0.6471**	**3.7000e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**641.9266**	**641.9266**	**0.0122**	**0.0100**	**645.2091**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

Mitigated	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561
Unmitigated	0.0184	0.0171	0.2535	9.7000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		96.7149	96.7149	1.6500e-003		96.7561

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	16,438	16,438
General Light Industry	13.68	13.68	13.68	39,934	39,934
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,452	4,452
Total	22.90	22.90	22.90	60,824	60,824

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
NaturalGas Unmitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256

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					
City Park	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
General Light Industry	4607.16	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	26.9178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856

Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

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					
City Park	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
General Light Industry	4.60716	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	0.0269178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

Unmitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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

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

Ventura Water Pure_ProgLevel_no Desal - Ventura County APCD Air District, Winter

Ventura Water Pure_ProgLevel_no Desal

Ventura County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	80.46	1000sqft	20.10	80,460.00	0
Unrefrigerated Warehouse-No Rail	2.50	1000sqft	0.20	2,500.00	0
Other Asphalt Surfaces	0.00	1000sqft	30.54	0.00	0
Parking Lot	0.00	1000sqft	0.50	0.00	0
City Park	35.00	Acre	35.00	2,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	381.42	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - http://www.cpuc.ca.gov/renewables/

Land Use - Modeling assumes 20.1 acre site for most conservative grading equipment requirements. Acreage is project specific data.

Construction Phase - Project specific construction schedule.

Off-road Equipment - Project specific cosntruction equipment.

Off-road Equipment - Project specific construction data.

Off-road Equipment -

Off-road Equipment - Project specific construction equipment.

Trips and VMT - Project specific information.

Demolition -

Grading -

Vehicle Trips - Project specifc traffic data and average CalEEMod trip length.

Energy Use - Total annual electrical use in KW hrs for Phase 1.

Water And Wastewater - Gallons per year for the operation of the processes (not including the water that is processed, only the water that ends up in the sewer due to the operation of Project

Solid Waste - Tons per year of solid waste that goes to a landfill (Project Level)

Construction Off-road Equipment Mitigation -

Fleet Mix - Project specific fleet mix.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24E	3.83	42.76
tblEnergyUse	NT24E	1.61	0.00
tblEnergyUse	T24E	1.63	11.37
tblEnergyUse	T24E	0.59	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDA	0.60	0.72
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05

tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	LHD2	5.9420e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MCY	3.7770e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00

tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MH	1.2110e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	OBUS	1.1870e-003	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	SBUS	3.9400e-004	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblFleetMix	UBUS	1.0540e-003	0.00
tblLandUse	LandUseSquareFeet	1,524,600.00	2,500.00
tblLandUse	LotAcreage	1.85	20.10
tblLandUse	LotAcreage	0.06	0.20
tblLandUse	LotAcreage	0.00	30.54
tblLandUse	LotAcreage	0.00	0.50
tblProjectCharacteristics	CO2IntensityFactor	702.44	381.42
tblSolidWaste	SolidWasteGenerationRate	3.01	0.00
tblSolidWaste	SolidWasteGenerationRate	99.77	0.00

tblSolidWaste	SolidWasteGenerationRate	2.35	12.00
tblTripsAndVMT	HaulingTripNumber	19.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	850.00
tblTripsAndVMT	HaulingTripNumber	0.00	17,122.00
tblVehicleTrips	ST_TR	22.75	0.22
tblVehicleTrips	ST_TR	1.32	0.17
tblVehicleTrips	ST_TR	1.68	0.61
tblVehicleTrips	SU_TR	16.74	0.22
tblVehicleTrips	SU_TR	0.68	0.17
tblVehicleTrips	SU_TR	1.68	0.61
tblVehicleTrips	WD_TR	1.89	0.22
tblVehicleTrips	WD_TR	6.97	0.17
tblVehicleTrips	WD_TR	1.68	0.61
tblWater	IndoorWaterUseRate	18,606,375.00	0.00
tblWater	IndoorWaterUseRate	578,125.00	322,689.00
tblWater	OutdoorWaterUseRate	41,701,847.24	0.00

2.0 Emissions Summary

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0167	0.0200	0.2484	9.2000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		92.0412	92.0412	1.5800e-003		92.0809
Total	**2.3700**	**0.4745**	**0.6421**	**3.6500e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**637.2529**	**637.2529**	**0.0121**	**0.0100**	**640.5339**

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	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Energy	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
Mobile	0.0167	0.0200	0.2484	9.2000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		92.0412	92.0412	1.5800e-003		92.0809
Total	**2.3700**	**0.4745**	**0.6421**	**3.6500e-003**	**0.1270**	**0.0354**	**0.1623**	**0.0337**	**0.0353**	**0.0690**		**637.2529**	**637.2529**	**0.0121**	**0.0100**	**640.5339**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

Mitigated	0.0167	0.0200	0.2484	9.2000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		92.0412	92.0412	1.5800e-003		92.0809
Unmitigated	0.0167	0.0200	0.2484	9.2000e-004	0.1270	7.9000e-004	0.1277	0.0337	7.3000e-004	0.0344		92.0412	92.0412	1.5800e-003		92.0809

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	7.70	7.70	7.70	16,438	16,438
General Light Industry	13.68	13.68	13.68	39,934	39,934
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1.53	1.53	1.53	4,452	4,452
Total	22.90	22.90	22.90	60,824	60,824

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	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
City Park	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Light Industry	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.720000	0.050000	0.230000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256
NaturalGas Unmitigated	0.0500	0.4543	0.3816	2.7300e-003		0.0345	0.0345		0.0345	0.0345		545.1858	545.1858	0.0105	0.0100	548.4256

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					
City Park	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
General Light Industry	4607.16	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	26.9178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856

Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

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					
City Park	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
General Light Industry	4.60716	0.0497	0.4517	0.3794	2.7100e-003		0.0343	0.0343		0.0343	0.0343		542.0190	542.0190	0.0104	9.9400e-003	545.2400
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	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
Unrefrigerated Warehouse-No Rail	0.0269178	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1668	3.1668	6.0000e-005	6.0000e-005	3.1856
Total		**0.0500**	**0.4543**	**0.3816**	**2.7300e-003**		**0.0345**	**0.0345**		**0.0345**	**0.0345**		**545.1858**	**545.1858**	**0.0105**	**1.0000e-002**	**548.4256**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

Unmitigated	2.3033	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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	0.5267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1100e-003	1.1000e-004	0.0120	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0258	0.0258	7.0000e-005		0.0275
Total	**2.3033**	**1.1000e-004**	**0.0120**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0258**	**0.0258**	**7.0000e-005**		**0.0275**

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

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

Appendix C

Ventura Water Supply Projects Biological Technical Study

Ventura Water Supply Projects
City of Ventura, California

Biological Technical Report

Prepared for
City of Ventura
501 Poli Street, Room 120
Ventura, CA 93002

March 2019

ESA

Ventura Water Supply Projects
City of Ventura, California

Biological Technical Report

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March 2019

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TABLE OF CONTENTS

Biological Technical Report

Page

1.0 Introduction....1
1.1 Project Description....1
1.2 Project Location....3

2.0 Methods....3
2.1 Literature Review....3
2.2 Biological Resource Survey....8

3.0 Existing Conditions....8
3.1 Observed Site Conditions....8
3.2 Soils and Topography....15
3.3 Vegetation Communities....16
3.4 Wildlife....20
3.5 Wildlife Movement Corridors....21
3.6 Special-Status Biological Resources....22
3.7 Special-Status Plants....23
3.8 Special-Status Wildlife....25
3.10 Critical Habitat....31
3.11 Protected Trees....31

4.0 Regulatory Setting....33
4.1 Federal....33
4.2 State....33
4.3 Regional....35

5.0 Impact Assessment....38
5.1 Riparian Habitat and Sensitive Natural Communities....38
5.2 Special Status Plants and Wildlife....38
5.3 Jurisdictional Resources....39
5.4 Wildlife Movement Corridors....41
5.5 Critical Habitat....41

6.0 Conclusions and Recommended Mitigation Measures....41
6.1 Special-Status Plants....41
6.2 Special-Status Wildlife....43
6.3 Sensitive Natural Communities....44
6.4 Migratory Corridors....44
6.5 Jurisdictional Resources....44
6.6 Critical Habitat....44

7.0 References....45

Appendices

A. Floral and Faunal Compendia
B. Site Photographs
C. CNDDB and CNPS Search Results

Page

Figures

1 Regional Location....4
2 Phase I Project Components....5
3 Callegus SMP Pipeline....7
4 Transport Street AWPF Alternative Location....9
5 Portola Road AWPF Alternative Location....10
6 Proposed Treatment Wetlands....11
7 Harbor Boulevard AWPF Alternative Location....12
8 Treatment Ponds....13
9 Vegetation Communities....17
10 Critical Habitat....18
11 Vegetation Communities – Wildlife/Treatment Ponds....32
12 USACE Potential Non-jurisdictional Waters of the U.S....40
13 Potential Jurisdictional Resources....42

Tables

1 Summary of Field Survey....8
2 Summary of Acreages for Sites and Vegetation Communities....19
3 Potentially Occurring Special-Status Plant Species within Project Area....24
4 Potentially Occurring Special-Status Wildlife Species within Project Area....27
5 Protected Trees in Ventura County....36

BIOLOGICAL TECHNICAL REPORT

Ventura Water Supply Projects

1.0 Introduction

This Biological Technical Report (BTR) documents the findings of biological surveys conducted by Environmental Science Associates (ESA) for the elements of the Ventura Water Supply Projects (Project). This BTR analyzes potential construction-related impacts associated with implementation of Phase 1 projects on plant and wildlife species, including special-status species and their associated habitats from the installation and construction of conveyance pipeline routes, Advanced Water Purification Facility (AWPF), Ventura Water Reclamation Facility (VWRF), wildlife ponds, and a new treatment wetland. This BTR does not evaluate impacts to the Santa Clara River Estuary (SCRE) resulting from reduced discharge.

1.1 Project Description

VenturaWaterPure Project Overview

The City of San Buenaventura (Ventura, or City) is proposing a project that will improve ecological conditions in the Santa Clara River Estuary (SCRE) by reducing tertiary treated wastewater discharges to the SCRE and diverting flow to purification facilities for augmentation of local water supply.

The key objectives of the proposed Ventura Water Supply Projects are:

- Protect, maintain, and improve ecological resources and related beneficial uses of the SCRE and its watershed.
- Augment local water supply in an environmentally responsible and cost-efficient manner.
- Provide a drought- and disaster-resilient water supply.
- Improve municipal supply groundwater quality within the service area.
- Maintain compliance with the City of Ventura's VWRF NPDES permit.

Advanced Water Purification Facility

The proposed AWPF would be located on one of several alternative AWPF locations including the Harbor Boulevard site, Transport Street site, and Portola Road site. The proposed AWPF would treat water to exceed Title 22 compliance criteria and would include equalization, ozone (O_3), biologically active carbon (BAC) filters, Ultrafiltration (UF), Reverse Osmosis (RO), and Ultraviolet/Advanced Oxidation Process (UV/AOP). For Direct Potable Reuse (DPR), product water would enter an engineered storage buffer (ESB) followed by an additional UF and final

disinfection. A concentrate pump station would be constructed on the AWPF site to convey concentrate either to the new ocean outfall or to the Calleguas Salinity Management Pipeline (SMP).

Water Conveyance System

The project would require installation of several pipelines to convey source water and product water throughout the new system. The pipelines would be constructed within public rights-of-way where feasible. A new pump station would be constructed at the AWPF to pump the water to the injection wells (i.e., IPR), or the Bailey WCF and/or Saticoy WCF (i.e., DPR). However, the project would utilize existing pump stations located throughout the City's service area to convey water through the distribution system. These alignments may change during final design, but would remain in the public rights-of-way.

Groundwater Wells

The proposed projects include construction of up to six wells within the Oxnard Plain Basin. Up to three wells would be located at Well Site 1 and up to three wells would be located at either Well Site 2 or Well Site 3 (final configuration to be determined by detailed groundwater modeling). Each wellhead would require approximately 1,500 square feet, including room for construction drill rigs and maintenance truck parking. Each well would be connected to the conveyance system with source water coming from the AWPF and extracted groundwater going to the Bailey WCF or to the local distribution system. Pumps would be installed within each well with sufficient capacity to convey extracted water to the Bailey WCF. The pumps would be powered by electricity supplied by the existing grid system.

Wildlife/Treatment Wetlands

New treatment wetlands may be developed by reconfiguring the existing wildlife/treatment ponds and/or by constructing new natural treatment wetlands in a location east of the VWRF. The existing wildlife/treatment ponds may be reconfigured to provide 20 acres of enhanced treatment wetlands and/or up to 35 acres of new wildlife/treatment wetlands may constructed east of the VWRF. A new pipeline and pump station would be constructed on the VWRF site to convey the remaining tertiary-treated water to the new wildlife/treatment wetlands. A new point of discharge may be constructed from the new wetlands as an outlet to the SCRE or alternatively the wetlands effluent may be returned to the existing outfall channel.

VWRF Treatment Upgrades

Tertiary treatment upgrades would be implemented on the VWRF site including replacing existing infrastructure.

Concentrate Discharge Facility

Two potential concentrate discharge facility options are described below.

New Outfall

One option would construct a new 12 to 30-inch-diameter ocean outfall that would discharge to the ocean north of Ventura Harbor. The ocean outfall would be installed with directional drilling techniques from Marina Park, emerging on the ocean floor 2,000 to 4,000 feet offshore. Once emerged, an extension of the outfall would be attached and placed along the ocean floor until the sea depth to outfall reaches approximately a 50-foot depth. A diffuser would be installed at the end of the outfall with discharge portals designed to maximize efficient dilution and to protect wildlife. A pipeline would be constructed from the AWPF to the ocean outfall within public rights-of-way.

Discharge Pipeline to the Calleguas Salinity Management Pipeline

A second option would construct a new 8 to 14-inch-diameter concentrate pipeline and pump station to convey concentrate from the proposed AWPF to the existing Calleguas SMP ocean outfall. The pipeline would be constructed within public rights-of-way where feasible. Similar to the New Outfall, the exact alignment route of the conveyance pipelines would be contingent on the chosen AWPF site. The concentrate would be discharged to the ocean through the existing SMP ocean outfall, subject to SMP capacity availability and approval from Calleguas MWD.

1.2 Project Location

The proposed project components described above would be located in the City of Ventura or the County of Ventura as shown on **Figure 1**. **Figure 2** illustrates the locations of each of the project components assessed in this report. The SMP pipeline connection would traverse portions of the City of Oxnard and Port Hueneme as shown in **Figure 3**.

2.0 Methods

2.1 Literature Review

Prior to conducting the field survey, ESA conducted a thorough review of available information regarding the present biological conditions of the project sites and surrounding vicinity. The following resources were referenced for the analyses of this report:

- California Department of Fish and Wildlife (CDFW). 2018. California Natural Diversity Data Base (CNDDB) (Accessed February 2018). Database was queried for special status species records within the seven (7) United States Geological Survey (USGS) topographic quadrants within and adjacent to the Project. These seven (7) quadrants include: White Ledge Peak, Matilija, Ojai, Pitas Point, Ventura (the quadrant where the Project occurs), Saticoy, and Oxnard.
- California Native Plant Society (CNPS). 2018. Inventory of Rare and Endangered Vascular Plants of California. Database was queried for special status species records within the seven (7) USGS topographic quadrants within and adjacent to the Project. These seven (7) quadrants include: White Ledge Peak, Matilija, Ojai, Pitas Point, Ventura (the quadrant where the Project occurs), Saticoy, and Oxnard.
- Google Earth. 2018. Historical aerial imagery.
- United States Department of Agriculture (USDA) Soil Survey Geographic Data Base.



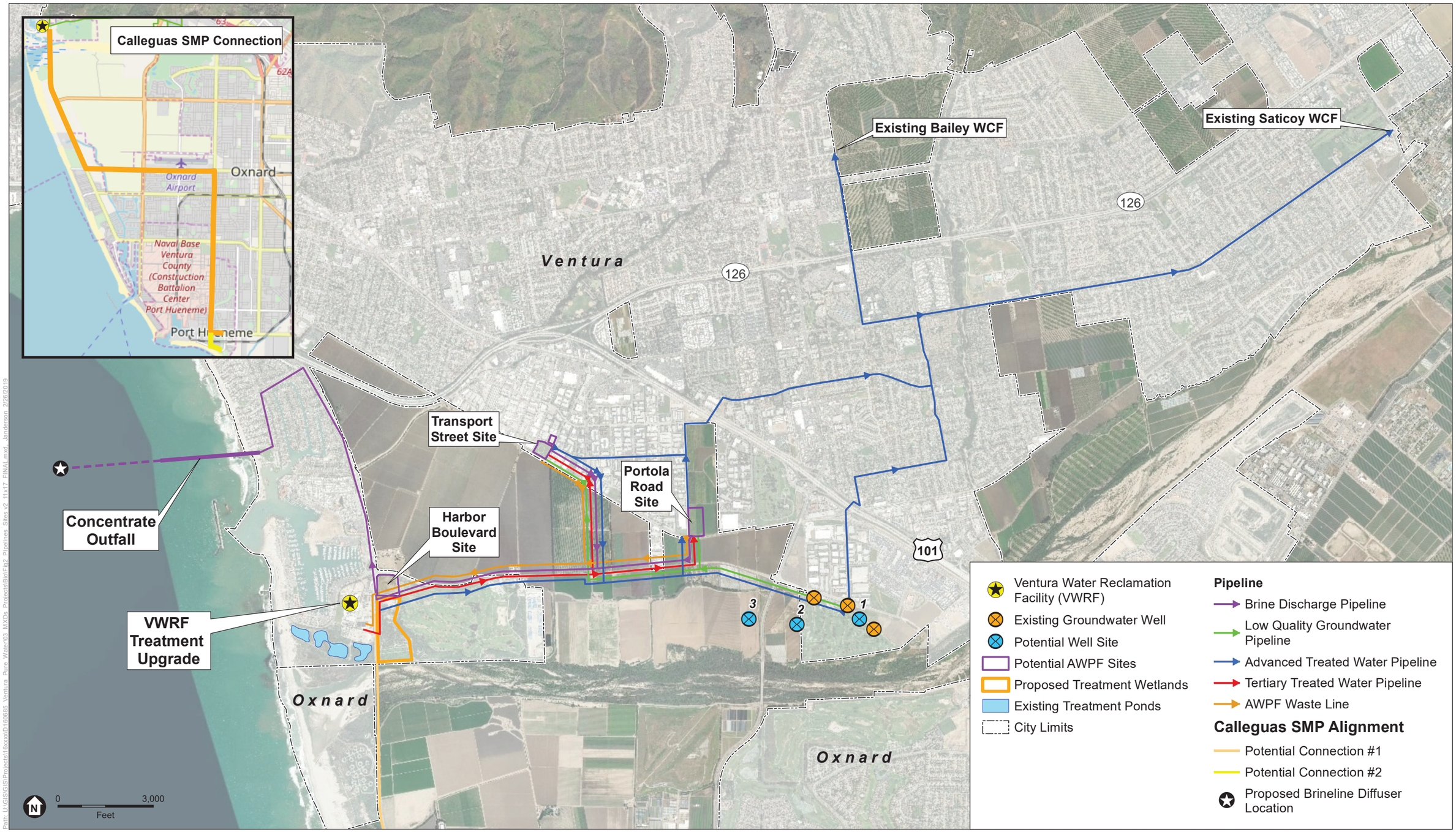
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SOURCE: ESRI

Ventura Water Supply Projects

Figure 1
Regional Location

ESA



SOURCE: ESRI, 2018; County of Ventura, 2018.

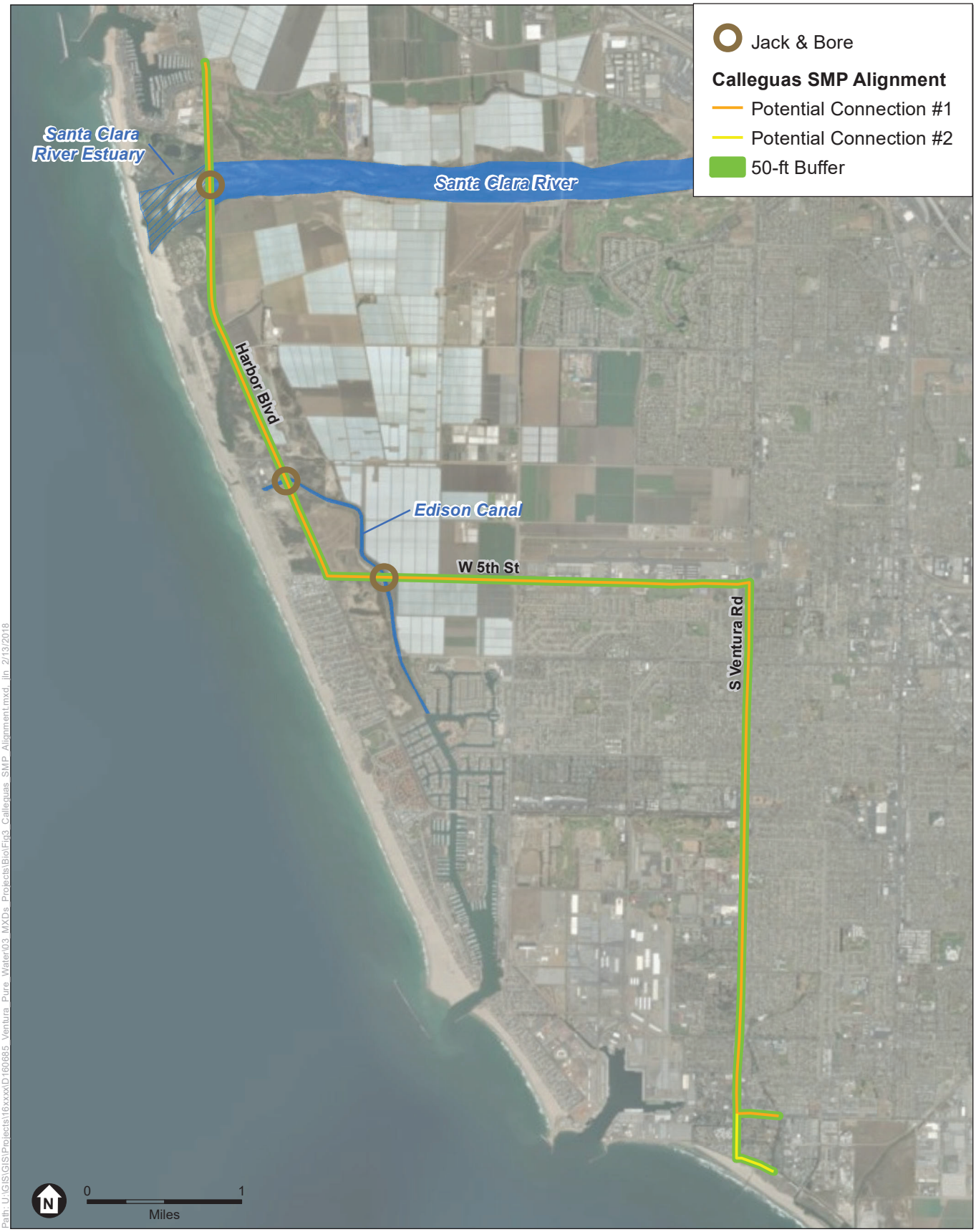
Ventura Water Supply Projects

Figure 2
Phase I Project Components

ESA

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SOURCE: ESRI

Ventura Water Supply Projects

Figure 3
Callegus SMP Alignment

ESA

2.2 Biological Resource Survey

Field surveys were conducted for each of the AWPF sites (including the Harbor Boulevard site, Transport Street site, Portola Road site), proposed and alternative pipeline alignments, new treatment wetlands, the wildlife treatment ponds and ocean outfall locations as summarized in **Table 1**. The surveys consisted of mapping vegetation communities and conducting a general assessments of areas that could be affected by construction at any of the project locations. **Figure 4 through Figure 8** identify survey areas for each site. The proposed pipeline alignments within roadways were surveyed by foot and by vehicle to determine if the sites and immediately adjacent areas have the potential to support any special-status plant, wildlife species, or sensitive natural communities.

TABLE 1
SUMMARY OF FIELD SURVEY

Survey Locations	Survey Date	Biologists
Transport Street site, Portola Road site, Proposed Treatment Wetlands, Proposed and Alternate Pipeline Alignments, and Calleguas SMP Alignment.	February 6, 2018	Travis Marella
Wildlife Treatment Ponds (3)	March 8, 2018	Travis Marella and Robbie Sweet
Harbor Boulevard site	August 13, 2018	Travis Marella
New Outfall Locations (Options A and B)	September 25, 2018	Travis Marella

All sites were surveyed with a 300-foot buffer to assess the adjacent areas where special-status species could potentially occur. The biologist walked the majority of the areas that were assessed to characterize and map biological resources. All incidental observations of flora and fauna, including sign of wildlife presence (e.g., scat, tracks, burrows, vocalization, etc.) were noted during the assessment. Photos at each site were taken and are provided in **Appendix B** of this report.

3.0 Existing Conditions

3.1 Observed Site Conditions

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Harbor Boulevard Site

The Harbor Boulevard site is approximately 10 acres. The site is bordered by Harbor Boulevard to the west, Olivas Links Golf Course to the east, Olivas Park Drive to the north, and the treatment wetlands site to the south. The site is disturbed with non-native grass and weed species spread interment throughout the property. No wildlife, including special-status species, were observed at the time of the survey, and none are expected to occur since as the property has been disturbed. Similarly, there are no rare plants or sensitive plant communities that occur at this location.



SOURCE: ESRI

Ventura Water Supply Projects

Figure 4
Transport Street AWPF Alternative Location

ESA

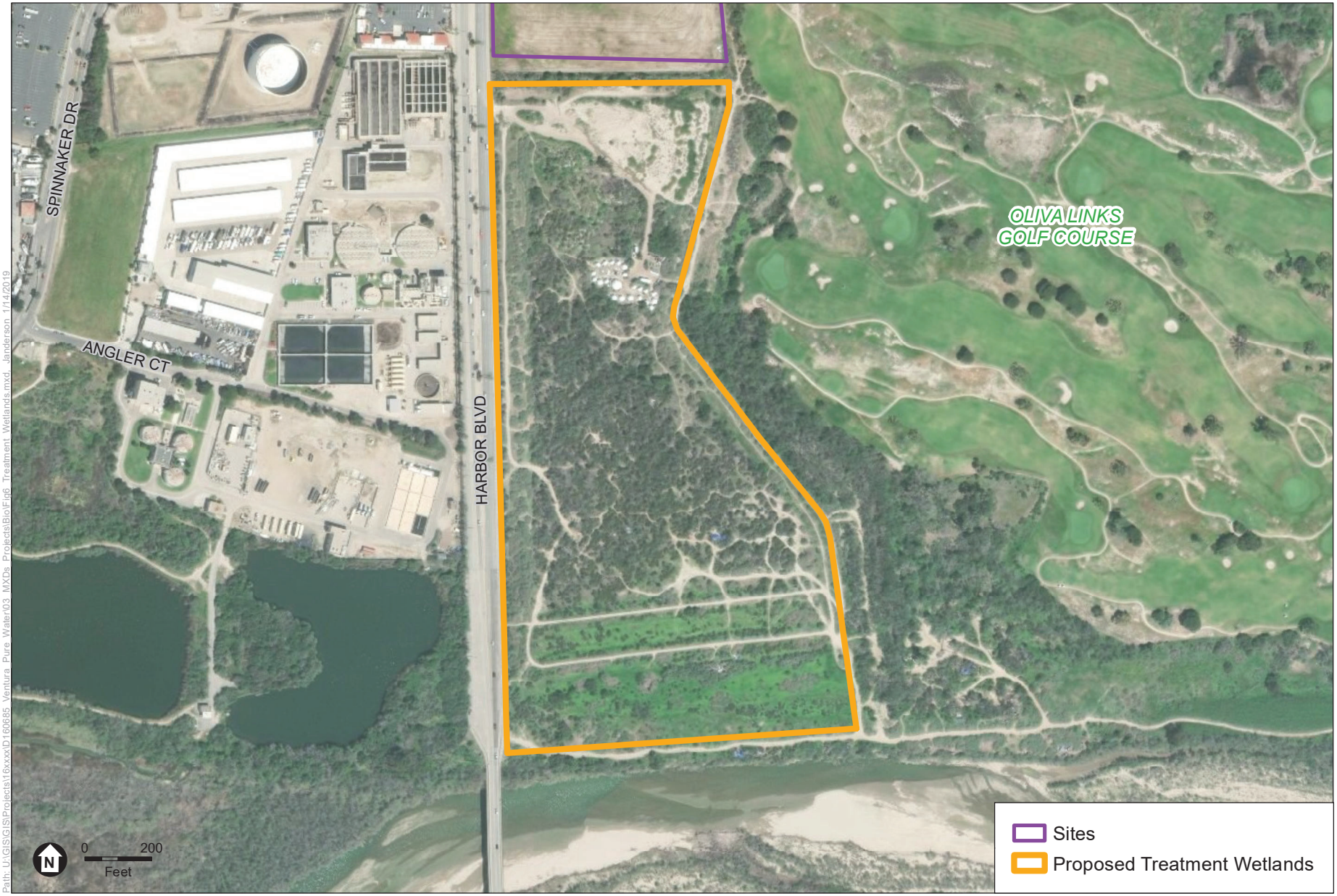


SOURCE: ESRI

Ventura Water Supply Projects

Figure 5
Portola Road AWPF Alternative Location

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SOURCE: ESRI

Ventura Water Supply Projects

Figure 6
Proposed Treatment Wetlands

ESA



SOURCE: ESRI

Ventura Water Supply Projects

Figure 7
Harbor Boulevard AWPF Alternative Location

ESA



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SOURCE: ESRI

Ventura Water Supply Projects

Figure 8
Treatment Ponds

ESA

Transport Street Site

The Transport Street site is separated into two parcels. The southern parcel, APN: 084010408, is approximately 5.01 acres. Transport Street site is a vacant property (underdeveloped), consisting of compacted soils with non-native grasses and weed species, and a considerable amount of trash and debris. No wildlife, or sign thereof, including any special-status wildlife (or plant) species were observed during the time of the survey. The Transport Street site is fragmented from natural open space and the disturbed condition of the site renders it unsuitable for supporting special-status plant or wildlife species. Moreover, the surrounding land use, including Pacific Railroad easement to the south, business parks to the west and east, and Transport Street to the north limit the potential for natural recruitment of native plants and movement pathways and foraging opportunities for wildlife. The northern parcel, APN: 084010212, is approximately 0.92 acres (40,075 square feet). The southern end of this property is vacant, while the northern portion consists of a concrete slab where large vehicles and equipment are stored. The remainder of the property consists of disturbed soils and a mixture of non-native grasses and weed species. Similar to the reasons stated above for the southern parcel, no special-status plant or wildlife species are expected to occur on the northern parcel.

Portola Road Site

The Portola Road site is a 15.46-acre agricultural field. It is bordered by the Pacific Railroad easement at its southern boundary, Portola Road to the west and active agricultural fields to the north and east. No wildlife, including special-status species, were observed at the time of the survey, and none are expected to occur since the fields are actively being harvested. Similarly, there are no rare plants or sensitive plant communities that occur at this location.

Constructed Treatment Wetlands

The treatment wetlands site is approximately 36.09 acres. The site is bordered by Harbor Boulevard to the west, Olivas Links Golf Course to the east, disturbed land to the north, and the Santa Clara River to the south. The site is dominated with a chaparral vegetation community and is generally disturbed from a scattered homeless encampment that exists throughout the site. As shown on Figure 9, there are several footpaths that that meander through the site that are devoid of vegetation, as well as some areas where vegetation has been cleared.

Wildlife/Treatment Ponds

There are three wildlife/treatment ponds, in a 20-acre system, where treated wastewater from the VWRF is conveyed prior to discharge to the SCRE. The ponds are located immediately to the south-southwest of the VWRF and are bordered to the north by Spinnaker Drive, to the east by Harbor Boulevard, beach sand and the Pacific Ocean to the west, and the SCRE to the south. The ponds consist of open water and are often used by migrating birds, as such, they are often visited by bird watchers. The ponds are surrounded by native and non-native vegetation including seafig (*Carpobrotus chilensis*), black willow (*Salix nigra*) thickets, coyote brush (*Baccharis pilularis*) scrub, and marsh.

Ocean Outfall

The new outfall would be located within Marina Park, located at the intersection of Pierpont Boulevard and Greenock Lane in the city of Ventura. The outfall will be installed somewhere within Marina Park. Marina Park is dominated by non-native and ornamental species; including, but not limited to: Bermuda grass (*Cynodon dactylon*), Mexican fan palm (*Washingtonia robusta*), and ice plant.

3.2 Soils and Topography

Topography within the sites that were surveyed ranged from flat, level underdeveloped properties, to rolling mounds and dunes. Eight soil types occur within the survey sites, some overlapping. These soil types include Anacapa sandy loam association, Fill land association, Mocho loam association, Pico loam association, Sandy alluvial land association, Sorrento silty clay loam (0 to 2 percent) association, and Sorrento silty clay loam (2 to 9 percent association (USDA, 2018). Each soil type within each survey site is detailed below:

Harbor Boulevard site

Metz loamy sand, 0 to 2 percent slopes

The Metz loamy sand association consists of deep, well drained soils that formed in alluvium derived from predominantly sedimentary rock sources. Anacapa soils are in flood plains and on alluvial fans and have slopes of 0 to 2 percent. The entire parcel contains this soil type.

Transport Street site

Sorrento silty clay loam association, 0 to 2 percent slopes

Both the southern and northern parcels that comprise the Transport Street site consist of Sorrento silty clay loam association, consisting of very deep, well drained soils that were formed in alluvium mostly from sedimentary rocks. Sorrento soils generally occur on alluvial fans and stabilized floodplains and have slopes of 0 to 15 percent.

Portola Road site

Sorrento silty clay loam association, 2 to 9 percent slopes

The Sorrento silty clay loam association consists of very deep, well drained soils that formed in alluvium mostly from sedimentary rocks. Sorrento soils are on alluvial fans and stabilized floodplains and have slopes of 0 to 15 percent. Approximately 50% of the northern portion of this site contain this soil type.

Sorrento silty clay loam association, 0 to 2 percent slopes

The Sorrento silty clay loam association consists of very deep, well drained soils that formed in alluvium mostly from sedimentary rocks. Sorrento soils are on alluvial fans and stabilized floodplains and have slopes of 0 to 15 percent. Approximately 50% of the southern portion of this site contains this soil type.

Wildlife/Treatment Wetlands

Anacapa sandy loam association, 2 to 9 percent slopes

The Metz loamy sand association consists of deep, well drained soils that formed in alluvium derived from predominantly sedimentary rock sources. Anacapa soils are in flood plains and on alluvial fans and have slopes of 0 to 2 percent. Approximately 75% of this soil type occurs in the northern portion of the site.

Fill land association, 0 to 5 percent

The fill land association consists of poorly drained soils. Fill land soils have slopes of 0 to 5 percent. Approximately 25% of this soil occurs within the southern portion of the site.

Treatment Ponds

Hueneme sandy loam association, 0 to 2 percent

The Hueneme soils are in nearly all level alluvial plains and basins in stratified alluvium derived from alkaline sedimentary sources. These soils occur at elevations from near sea level to approximately 1,000 feet in a dry subhumid, mesothermal climate having a mean annual rainfall of about 15 inches with cool, rainless, foggy summers and cool, moist winters, generally in areas where average January temperature of about 53 degrees F., average July temperature of about 67 degrees F., with a mean annual temperature of 60 degrees F, as well as a frost-free season of approximately 275 to 365 days. Approximately 50 percent of this site supports this soil type within the eastern portion of the site.

Fill land association, 0 to 5 percent

The fill land association consists of poorly drained soils. Fill land soils generally have slopes of 0 to 5 percent. The two ponds and adjacent areas nearest to the Pacific Ocean that are located within the western portion of the site contain this soil type.

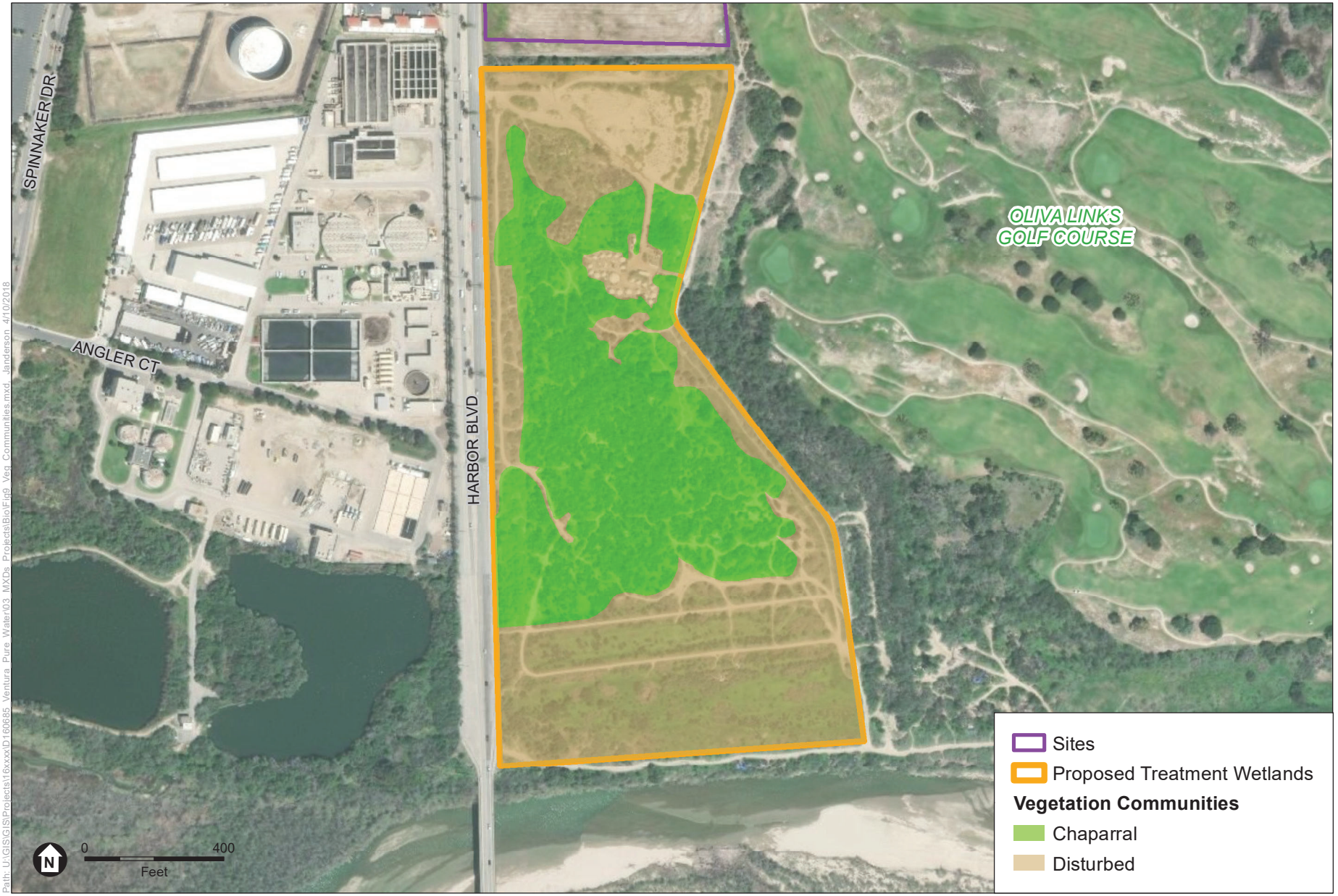
Outfall

Coastal Beaches association

The coastal beaches association is a poorly drained soil type that has slopes of 0 to 2 percent. Coastal beaches is a soil type which consists of narrow, sandy beaches that are covered or nearly covered during high tide and exposed during low tide.

3.3 Vegetation Communities

All plant communities and land uses were characterized and delineated on aerial photographs during the field survey, and then digitized on aerial maps using a Geographic Information System software (ArcGIS). The nomenclature used to describe the vegetation is based on *A Manual of California Vegetation*, Second Edition (Sawyer 2009), or characterized based on species dominance when not recognized in the Manual. The vegetation communities located within the project site are depicted on **Figure 9** and **Figure 10**, and representative photographs are included in **Appendix B. Table 2** summarizes acreages of the surveyed project component locations.

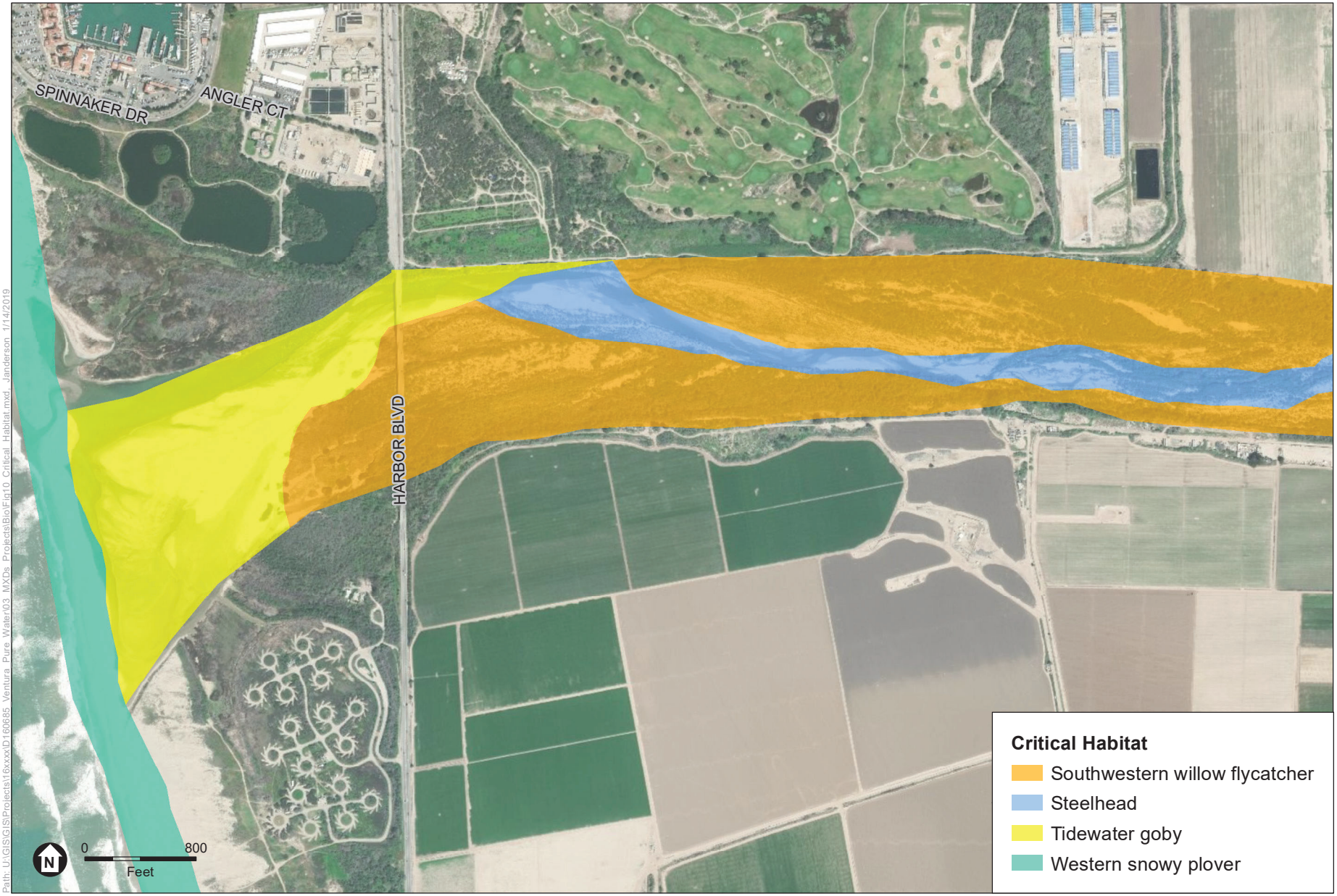


SOURCE: ESRI

Ventura Water Supply Projects

Figure 9
Vegetation Communities

ESA



SOURCE: ESRI

Ventura Water Supply Projects

Figure 10
Critical Habitat

ESA

TABLE 2
SUMMARY OF ACREAGES FOR SITES AND VEGETATION COMMUNITIES

Vegetation Communities	Transport Street Site	Portola Road Site	Harbor Blvd. Site	Treatment Wetlands	Treatment Ponds	Total Acreage (per community)
Arroyo Willow Thickets	--	--	--	--	16.60	**16.60**
Coyote Brush Scrub	--	--	--	--	2.50	**2.50**
Disturbed/Developed	5.01	15.46	10.00	13.42	4.48	**43.37**
Giant Reed Breaks	--	--	--	--	0.77	**0.77**
Open Water	--	--	--	--	17.10	**17.10**
Hardstem Bulrush Marsh	--	--	--	--	2.18	**2.18**
Chamise Chaparral	--	--	--	22.67	--	**22.67**
Total acreage (per site)	**5.01**	**15.46**	**10.00**	**36.09**	**43.63**	**110.19**

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Harbor Boulevard Site

This site is completely disturbed and consists of approximately 10 acres of vacant property, consisting of disturbed soils and non-native grass and weed species.

Transport Street Site

This site is completely disturbed and consists of approximately 5.01 acres. The site is an underdeveloped vacant property, consisting of compacted soils with non-native grasses and weed species. No vegetation communities are associated within this site.

Portola Road Site

This site is completely disturbed and consists of an approximately 15.46-acre active agricultural field. There are no vegetation communities that exist within this site.

Proposed Treatment Wetlands

Chamise chaparral – Adenostoma fasciculatum Shrubland Alliance

The proposed treatment wetlands site contains approximately 22.67 acres of chamise chaparral community. The majority of this community sits within the center of the proposed treatment wetlands site. This community is characterized by chamise (*Adenostoma fasciculatum*), saltbush (*Artiplex spp.*), mulefat (*Baccharis salicifolia*), Ceonothus (*Ceonothus ssp.*), California buckwheat (*Eriogonum fasciculatum*), wild cucumber (*Marah fabaceus*), white sage (*Salvia apiana*), and California coffeeberry (*Rhamnus californica*). A portion of both the northern and southern areas of the site and the edges of the site is disturbed (approximately 13.42 acres). These portions are noticeable as several manmade trails have been created and large areas of vegetation has also been removed.

Wildlife/Treatment Ponds

Arroyo willow thickets – Salix lasiolepis Shrubland Alliance

This community is the largest of the vegetation communities observed in the project area, consisting of approximately 16.60 acres. This community supports a tree layer dominated by arroyo willow (*Salix lasiolepis*); however, in some areas, most notably within the eastern portion of the property, the tree layer supports a high density of myoperum (*myoperum sp*.). The herbaceous layer is made up of pampass grass (*Cortaderia selloana*), ragweed (*Ambrosia chamissonis*), cape ivy (*Delairea odorata*), ice plant (*Carpobrotus edulis*), lizard tail (*Anemopsis californica*), and Bermuda buttercup (*Oxalis pes-caprae*).

Coyote brush scrub – Baccharis pilularis Shrubland Alliance

This community is dominated by coyote brush (*Baccharis pilularis*), approximately 2.50 total acres. Three separate areas within the survey area consists of this vegetation community. One area in particular, in the northern boundary of the site, appears to be a restoration site. This area has drip irrigation tubing and appears to have non-native species removed.

Hardstem bulrush marsh – Schoenoplectus acutus Herbaceous Alliance

This community is approximately 2.18 acres and is dominated by dense hardstem bulrush (*Schoenoplectus lacustris*). Hardstem bulrush lines the inside edges of most of the four treatment ponds. Other less dominant species observed within this community include watercress (*Nasturtium officinale*), Baltic rush (*Juncus balticus*), stinging nettle (*Urtica dioica*), and curly dock (Rumex crispus).

Giant reed brakes – Arundo donax Semi-Natural Herbaceous Stands

This community is present only along the southwestern boundary of the property, approximately 0.77 acres. This community is overwhelmingly dominated by giant reed (*Arundo donax*) and supports little other vegetation, including herbaceous species.

Open Water

The three treatment ponds total approximately 17.10 acres of open water. This freshwater is supplied by treated wastewater from the VWRF prior to discharge to the SCRE.

Disturbed/Developed

Approximately 4.48 acres of disturbed and developed areas surround the Wildlife/Treatment Ponds. A pedestrian path open to the public wraps around the three treatment ponds is frequently visited by bird watchers. In addition, the eastern portion of the treatment pond area consists of a paved asphalt access road and a building owned and operated by the City.

3.4 Wildlife

Several wildlife species were observed during the biological survey that are common to developed, residential and coastal areas. Avian species observed included, but were not limited to, California scrub jay (*Aphelocoma californica*), California towhee (*Melozone crissalis*), wrentit

(*Chamaea fasciata*), northern mockingbird (*Mimus polyglottos*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), California gull (*Larus californicus*), and turkey vulture (*Cathartes aura*), American coot (*Fulica americana*), Anna's hummingbird (*Calypte anna*). In particular, the treatment ponds site differs greatly from the other sites, as the ponds contain open water and are habitat for migratory avian species. Waterfowl species such as, but not limited to, mallard (*Anas platyrhynchos*), gadwall (*Mareca strepera*), cinnamon teal (*Spatula cyanoptera*), great blue heron (*Ardea Herodias*), and northern shoveler (*Spatula clypeata*) currently use and will use these ponds during their migration periods, and dozens of other migrant and resident species are expected to use the ponds for wading as well. Mammal species observed include desert cottontail (*Sylvilagus audubonii*) and California grond squirrel (*Otospermophilus beecheyi*). Reptile species observed include western fence lizard (*Sceloporus occidentalis*) and red-eared slider (*Trachemys scripta elegans*). One amphibian species was observed at the treatment ponds, Baja California chorus frog (*Pseudacris hypochondriaca*). A complete list of all species observed during the surveys is provided in **Appendix A**.

Numerous other common wildlife species are expected to forage and/or breed within the habitats that occur at the proposed treatment wetlands and treatment ponds that include, but not limited to, deer mice (*Peromyscus* sp,), side-blotched lizard (*Uta* sp.), Allen's hummingbird (*Selasphorus sasin*), tree swallow (*Tachycineta bicolor*), house sparrow (*Passer domesticus*), and house finch (*Haemorhous mexicanus*).

3.5 Wildlife Movement Corridors

Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically associated with ridgelines, valleys, rivers and creeks supporting riparian vegetation.

The Santa Clara River is the longest free-flowing river in southern California, extending from the inland desert to the coast. As such, it is of critical biological importance, linking several major ecoregions (Coastal Plain, Coast Ranges, Transverse Ranges, Mojave Desert) (www.audubon.org/important-bird-areas/santa-clara-river-valley). Historically the riparian corridor along the Santa Clara River has served as the primary east-west linkage between the Pacific coastline, coast ranges, interior ranges, high desert and southern Sierra (via the Transverse and Tehachapi range).

The Wildlife/Treatment Ponds are also a resting stop for migrating birds along the Pacific Flyway.The Pacific Flyway is a major north-south flyway for migratory birds in America, extending from Alaska to Patagonia. Every year, migratory birds travel some or all of this distance both in spring and in fall, following food sources, heading to breeding grounds, or travelling to overwintering sites. Bird that are migrating along the Pacific Flyway may stop to rest within the Wildlife/Treatment Ponds and the Santa Clara River Estuary (SCRE) to feed before continuing their migration. Some species may remain locally for the entire season, but most stay a few days before moving on (Wilson 2010).

3.6 Special-Status Biological Resources

The following discussion describes special-status plant and wildlife that have the potential to be present within the survey area. Special-status species include those that have been afforded special recognition by Federal, State, or local resource agencies and/or organizations. These species have declining or limited population sizes, usually resulting from habitat loss. Also discussed are Sensitive Natural Communities that consist of habitats that are unique, of relatively limited distribution, or of particular value to wildlife.

Sensitive Natural Communities

Sensitive natural communities are listed by CDFW on their List of Vegetation Alliances and Associations (CDFG 2010). Communities on this list are given a Global (G) and State (S) rarity ranking on a scale of 1 to 5, where communities with a ranking of 5 are the most common and communities with a ranking of 1 are the rarest and of the highest priority to preserve. For the purpose of this report, Sensitive natural communities are those communities that have a state ranking of S3 or rarer, and are generally those that are considered by the CDFW to be imperiled due to their decline in the region and/or the habitat they provide to rare and endemic wildlife species. Continued degradation and destruction of these ecologically important communities could threaten the regional distribution and viability of the community and possibly the sensitive species they support.

A review of the most recent CNDDB records revealed eight (8) sensitive natural communities have been recorded in the vicinity of the proposed project that include, California Walnut Woodland, Coastal and Valley Freshwater March, Southern California Coastal Lagoon, Southern California Steelhead Stream, Southern Coast Live Oak Riparian Forest, Southern Coastal Salt Marsh, Southern Riparian Scrub, and Southern Sycamore Alder Riparian Woodland (CDFW, 2018). However, only two of these communities occur within the vicinity of the survey area: Southern California Coastal Lagoon and Southern California Steelhead Stream.

The Southern California Coastal Lagoon is defined as shallow brackish or marine water bodies separated from the ocean by a barrier island, spit, reef, or sand bank. Depending on the extent of the barriers, they may be partially or totally enclosed, although most are connected at least intermittently to the open ocean by one or more restricted tidal inlets. This sensitive natural community currently exists from the mouth of the SCR to the Harbor Boulevard Bridge, encompassing approximately 85 acres.

The Southern California Steelhead Stream is defined as a stream or creek that has been active in steelhead breeding, nesting and/or rearing. The stream needs to be coastal and have access to the Pacific Ocean. Steelhead are an anadromous species, meaning they are born in freshwater, then migrate to the ocean as juveniles where they grow into adults before migrating back into freshwater to spawn. Estuaries and lagoons are key habitats for steelhead because they are used by both immigrating adults and emigrating juveniles moving between the marine and freshwater environments. Estuaries can be important habitats for young steelhead to feed before moving to the ocean. The SCRE currently is closed to the ocean, with a sand bar blocking access. The whole

SCR is considered for this sensitive natural community, but in the case of the proposed project, the acreage and limits are the same as the Southern California Coastal Lagoon, described above.

3.7 Special-Status Plants

Special-status plants are defined as those plants that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as special-status on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. Special-status plants are defined as follows:

- Plants listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the federal Endangered Species Act or the California Endangered Species Act;
- Plants that meet the definitions of rare or endangered under State CEQA Guidelines Section 15380;
- Plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered (Rank 1A, 1B, 2A and 2B plants) in California;
- Plants listed by the CNPS as plants in which more information is needed to determine their status and plants of limited distribution (List 3 and 4 plants); and
- Plants listed as rare under the California Native Plant Protection Act (Fish and Game Code 1900 et seq.)

A review of the CNDDB (CDFW, 2018) and the CNPS Inventory of Rare and Endangered Plants (CNPS, 2018) revealed a total of 48 special-status plant species recorded within the seven (7) USGS quadrangles that were searched. The potential for special-status plant species to occur is based on on-site vegetation and habitat quality, topography, elevation, soils, surrounding land uses, habitat preferences, geographic ranges and visual observations made during the focused sensitive plant surveys. Based on the level of disturbance and general lack of suitable habitat at the sites that were surveyed (i.e., Transport Street site, Portola Road site, the proposed treatment wetland and existing treatment ponds), it is determined that special-status plant species have a low potential to occur on the portions of the project.

Ventura marsh milkvetch (*Astragalus pycnostachyus var. lanosissimus*, [VMMV]), is a short-lived perennial that was considered extinct until a small number of plants were discovered on a fill mound covering an oil waste dump site in Oxnard in 1997 (Meyer 2007). Currently, this species occurs near the course of the proposed Calleguas SMP alignment, near 5th Street and Harbor Boulevard. **Table 3** inventories special status plants that could occur within project impacts areas. A complete list of the 48 special-status plant species is provided in **Appendix C**.

TABLE 3
POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES WITHIN PROJECT AREA

Common Name	Scientific Name	Status (Federal/State/CNPS)	Habitat	Potential to Occur
Plants				
California satintail	*Imperata brevifolia*	None/None/ G4/S3/2B.1	Chaparral, coastal scrub, desert scrub, meadows and seeps (often alkali), and riparian scrub habitat.	Low. Species has been observed in Ojai, CA and surrounding foothills. Suitable habitat does not exist within SCRE and adjacent areas.
Coulter's goldfields	*Lasthenia glabrata ssp. coulteri*	None/None/ G4T2/S2/1B.1	Marshes and swamps (coastal salt), playas, and vernal pools.	High. Species is presumed extant in SCRE and adjacent riparian areas.
Fish's milkwort	*Polygala cornuta var. fishiae*	None/None/ G5T4/S4/4.3	Chaparral, cismontane woodland, and riparian woodland	Low. Suitable habitat does not exist within SCRE and adjacent habitat. Species has been observed in Ojai and adjacent foothills.
Ocellated Humboldt lily	*Lilium humboldtii ssp. ocellatum*	None/None/ G4T4?/S4?/4.2	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland	Low. Suitable habitat does not exist within project area. Species has been observed in Malibu, CA and other locations in Los Angeles County.
Pale-yellow layia	*Layia heterotricha*	None/None/ G2/S2/1B.1	Cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland	Low. Suitable habitat does not exist within project area. The nearest observations have occurred in the foothills of Ojai.
Plummer's baccharis	*Baccharis plummerae ssp. plummerae*	None/None/ G3T3/S3/4.3	Broad leafed upland forest, chaparral, cismontane woodland, and coastal scrub	Low. Suitable habitat does not exist within SCRE. The nearest observation has occurred along the mouth of the Ventura River.
Robinson's pepper-grass	*Lepidium virginicum var. robinsonii*	None/None/ G5T3/S3/4.3	Chaparral and coastal scrub	Low. Suitable habitat does not exist within the SCRE and adjacent riparian areas. The nearest observation has been observed in Ojai.
Sanford's arrowhead	*Sagittaria sanfordii*	None/None/ G3/S3/1B.2	Marshes and swamps (assorted shallow freshwater)	Low. Suitable habitat does not exist within SCRE. The nearest observations have been located in California's Central Valley.

Common Name	Scientific Name	Status (Federal/State/CNPS)	Habitat	Potential to Occur
Southwestern spiny rush	*Juncus acutus ssp. leopoldii*	None/None/ G5T5/S4/4.2	Coastal dunes, meadows and seeps (alkaline seeps), marshes and swamps (coastal salt)	High. Suitable habitat exists adjacent to SCRE. The most recent observation was made on Ormond Beach in 2007.
Ventura marsh milk vetch	*Astragalus pycnostachyus var. lanosissimus*	FE/SE/ G2T1/S1/1B.1	Coastal dunes, coastal scrub, marshes and swamps (edges, coastal salt or brackish)	Moderate. Species does not have suitable habitat within SCRE, but is currently present in Oxnard in the vicinity of 5th Street and Harbor Boulevard.
White rabbit-tobacco	*Pseudognaphalium leucocephalum*	None/None/ G4/S2/2B.2	Chaparral, cismontane woodland, coastal scrub, and riparian woodland	High. Suitable habitat exists within SCR, SCRE, and adjacent riparian zone. Species has been observed in these areas.
Woolly seablite	*Suaeda taxifolia*	None/None/ G2/S4/4.2	Coastal bluff scrub, coastal dunes, marshes and swamps (margins of coastal salt)	Moderate. Suitable habitat exists within SCRE and species has been observed and documented within the estuary and adjacent dune habitat.

Key:

Status (Federal/State): FE-federally endangered; SE-state endangered

Status (CNPS): The *global rank* (G-rank) is a reflection of the overall status of an element throughout its global range. Both Global and State ranks represent a letter+number score that reflects a combination of Rarity, Threat and Trend factors, with weighting being heavier on Rarity than the other two: G1 = Critically Imperiled — At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors; G2 = Imperiled — At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors; G3 = Vulnerable — At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors; G4 = Apparently Secure — Uncommon but not rare; some cause for long-term concern due to declines or other factors; G5 = Demonstrably Secure — Common; widespread and abundant. The *state rank* (S-rank) is assigned much the same way as the global rank, but state ranks refer to the imperilment status only within California's state boundaries: S1 = Critically Imperiled — Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province; S2 = Imperiled — Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province; S3 = Vulnerable — Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation; S4 = Apparently Secure — Uncommon but not rare; some cause for long-term concern due to declines or other factors; S5 = Secure — Common, widespread, and abundant in the state. Uncertainty about the rank of an element is expressed in two major ways: by expressing the ranks as a range of values: e.g., S2S3 means the rank is somewhere between S2 and S3, or by adding a ? to the rank: e.g., S2? This represents more certainty than S2S3, but less certainty than S2.

Based on the vegetation and habitats that were characterized during the field survey, five special-status plant species have a medium to high potential to occur: Coulter's goldfields, southwestern spiny rush, Ventura marsh milk vetch, white rabbit-tobacco, and woolly seablite.

3.8 Special-Status Wildlife

Special-status wildlife species are defined as those animals that, because of their recognized rarity or vulnerability to various forms of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as special-status on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies

adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. Special-status wildlife species evaluated in this EIR include:

- Wildlife listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the federal Endangered Species Act or the California Endangered Species Act;
- Wildlife that meet the definitions of rare or endangered under *State CEQA Guidelines* Section 15380.
- Wildlife covered under an adopted NCCP/HCP;
- Wildlife designated by CDFW as species of special concern, included on the Watch List or are considered Special Animals;
- Wildlife "fully protected" in California (Fish and Game Code Sections 3511, 4700, and 5050); and
- Avian species protected by the MBTA

A review of the most recent CNDDB (CDFW, 2018) records for the project sites revealed 35 special-status wildlife species previously recorded within all of the proposed project sites and proposed and alternative pipeline routes USGS quadrangles that were queried. A complete list of these species is provided in **Appendix C**. Based on absence of suitable habitat, known geographic distributions and/or range restrictions, it was determined that 13 wildlife species do not have any potential to occur within the project area. The 22 special-status wildlife species listed in **Table 4** below were determined to have varying levels of potential to occur within the project sites based on the following criteria:

Low Potential: The project area only provides limited habitat for a particular species. In addition, the known range for a particular species may be outside of the survey area.

Medium Potential: The project area provides marginal habitat for a particular species.

High Potential: The project provides suitable habitat conditions for a particular species and/or known populations occur in the immediate area.

Present: The species has been observed or previously recorded within the project area

Special-status wildlife species with records of occurrences in the region from the CNDDB are listed below in **Table 4 Special-Status Wildlife Species**.

TABLE 4
POTENTIALLY OCCURRING SPECIAL-STATUS WILDLIFE SPECIES WITHIN PROJECT AREA

Common Name	Scientific Name	Status (Federal/State)	Habitat	Potential to Occur
Birds				
Bank swallow	*Riparia riparia*	None/FT	Nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs near water sources.	High. The Santa Clara River and SCRE adjacent to the survey area has suitable riparian habitat to support this species.
Belding's savannah sparrow	*Passerculus sandwichensis beldingo*	None/FE	Grasslands with few trees, including meadows, pastures, grassy roadsides, wetlands, and cultivated fields. Near oceans, they also inhabit tidal saltmarshes and estuaries.	High. The Santa Clara River and SCRE provide suitable habitat and occurrences have been observed within two miles from the SCRE. Observed within the SCRE during Audubon Christmas bird counts.
Least Bell's vireo	*Vireo bellii pusillus*	FE/None	Dense, low, shrubby vegetation, generally early successional stages in riparian areas, brushy fields, woodland, scrub oak, coastal chaparral, and often near water in arid regions.	High (present). Recorded occurrences in the Santa Clara River, but low within the upland project areas. Occurrences have been observed nearby in the SCRE.
Brown Pelican	*Pelecanus occidentalis californicus*	Delisted/FP	Estuarine, marine subtidal, and marine pelagic waters along the California coast. On the west coast, this species breed on dry, rocky offshore islands.	High. This species forages in the SCRE, but is not expected to forage within the upland project areas. Occurrences have been observed in the SCRE. There is no potential for brown pelicans to nest within the project site, including the SCRE.
Burrowing owl	*Athene cunicularia*	None/SSC	Open, dry annual and perennial grasslands, deserts, and scrublands with low-grading vegetation	High. This species has been observed in chaparral, coastal scrub, and sea fig vegetation located to the south along Harbor Boulevard. No suitable burrows were observed during the field surveys. Observed within the SCRE during Audubon Christmas bird counts.
Coastal California gnatcatcher	*Polioptila californica*	FT/SSC	Coastal sage scrub dominated by *Artemisia californica*. Coastal range between southern California and Baja.	Low. The site contains low-quality coastal sage scrub habitat. One occurrence was reported in the vicinity in 1924.

Common Name	Scientific Name	Status (Federal/State)	Habitat	Potential to Occur
California black rail	*Laterallus jamaicensis coturniculus*	None/ST	Grassy, fresh and brackish marshes.	Low. Suitable habitat containing brackish marsh, but not expected in project area since last CNDDB occurrence was observed in 1936.
California least tern	*Sternula antillarum browni*	FE/SE	Nests on sand dunes and sand bars close to water among debris and grass.	High. Suitable foraging habitat is present within the SCRE. Not expected to nest within the SCRE. Occurrences (nesting colonies) have been observed along beaches in Oxnard and Port Hueneme.
Southwestern willow flycatcher	*Empidonax trailli extimus*	FE/SE	Low brushy vegetation in wet areas, especially riparian willow thickets.	High. Critical habitat occurs within the Santa Clara River and SCRE. Last occurrence in 2008 along Santa Clara River in Santa Paula.
Tricolored blackbird	*Agelaius tricolor*	None/CE	Nests in colonies in reedy marshes and forages in marshes and farmland.	Low. Suitable habitat within brackish areas and farmland but not expected in project area since last occurrence was 80-100 years ago.
Western snowy plover	*Charadrius alexandrinus nivosus*	FT/None	Sandy beaches and shallow inland water bodies.	High. Suitable habitat present adjacent to SCRE. Beaches adjacent to SCRE is critical habitat for species. Occurrences observed at Ormond State Beach and McGrath State Beach; however, does not nest within the SCRE.
White-tailed kite	*Elanus leucurus*	None/FP	Open groves, river valleys, marshes, and grasslands	High. Suitable habitat available in adjacent agriculture fields and estuary, but not expected to nest on project site. Last CNDDB occurrence was in 2001 along Santa Clara River in Santa Paula.
Yellow warbler	*Setophaga petechial*	None/SSC	Widespread in any wet brushy habitat.	Medium. Suitable habitat is available. Only occurrence was along Ventura River approximately three miles north of project site.
Least bittern	*Ixobrychus exilis*	None/SSC	Freshwater or brackish marshes with tall grasses, cattails, and reeds	High: Suitable habitat within the SCRE.

Common Name	Scientific Name	Status (Federal/State)	Habitat	Potential to Occur
Northern harrier	*Circus cyaneus*	None/SSC	Breed in wide-open habitats ranging from Arctic tundra to prairie grasslands to fields and marshes. Their nests are concealed on the ground in grasses or wetland vegetation	High: Suitable habitat within the SCRE.
Yellow-breasted chat	*Icteria virens*	None/SSC	Breeds in areas of dense shrubbery, including abandoned farm fields, clearcuts, powerline corridors, fencerows, forest edges and openings, swamps, and edges of streams and ponds.	High: Suitable habitat within the SCRE.
Mammals				
Mexican long-tongued bat	*Cheoronycteris Mexicana*	None/SSC	Occurs at altitudes of 300-2,400 meters in deciduous, semi-arid thorn scrub and mixed oak-conifer forests.[	Low. Project area does not provide the suitable scrub and mixed oak conifer forest habitat. habitat
Pallid bat	*Antrozous pallidus*	None/SSC	Grasslands, shrublands, woodlands, and coniferous forests; most common in open, dry habitat with rocky areas for roosting, as well as abandon buildings and medal clad structures.	Low. Suitable habitat (abandoned buildings, woodlands, etc.) is not present at project sites. Last CNDDB occurrence was over 100 years ago.
Western mastiff bat	*Eumops perotis* ssp. *Californicus*	None/SSC	Chaparral, cismontane woodland, coastal scrub and valley and foothill grassland. Roosts in small colonies in rock fissures in high cliff faces	Low. Suitable habitat (chaparral) is present within project sites, but not expected since last CNDDB occurrence was in 1907.
Western red bat	*Lasiurus blossevillii*	None/SSC	Riparian woodland. Primarily roosts in trees.	High: SCRE provides suitable roosting and foraging habitat.
Reptiles				
California legless lizard	*Anniella sp. 1*	None/SSC	Chaparral, coastal dunes and coastal scrub.	High. Suitable habitat within and adjacent to project sites (chaparral and coastal dunes), especially within the riparian habitats of the SCRE. Occurrences have been observed within last couple years in Oxnard.
Two-striped garter snake	*Thamnophis hammondii*	None/SSC	Occurs adjacent to permanent or semi-permanent bodies of water. This species feeds primarily on fish and amphibians.	High: Suitable habitat present within the SCRE.

Common Name	Scientific Name	Status (Federal/State)	Habitat	Potential to Occur
South coast garter snake	*Thamnophis sirtalis ssp.*	None/SSC	Coastal plain from Ventura Co. to San Diego Co., from sea level to about 850 m.	High: Suitable habitat present within the SCRE.
Coastal western whiptail	*Aspidoscelis tigris* ssp. *Stejnegeri*	None/SSC	Deserts and semiarid areas with sparse vegetation and open areas, woodland and riparian areas.	Low. Suitable habitat within project area but not expected. Last and only occurrence in 2008.
Coast horned lizard	*Phrynosoma blainvillii*	None/SSC	Various habitats throughout the foothills of California including coast live oak woodland and the herbaceous cover and friable soils.	High. Suitable habitat within project area, especially within the SCRE. All three recorded occurrences were along Santa Clara River in Santa Paula.
Western pond turtle	*Emys marmorata*	None/SSC	Aquatic habitats with exposed areas for basking, with aquatic vegetation, such as algae and other water plants	High. Suitable habitat within SCRE and treatment ponds site Two CNDDB occurrences have been observed in Oxnard.
Fish				
Santa Ana sucker	*Catostomus santaanae*	FT/None	Clear, cool rocky pools and runs of creeks and small to medium rivers. Associated with coarse substrates of boulder, rubble, and gravel, but sometimes it occurs on sand/mud bottoms	Low. Suitable habitat is not present within the project area. Species is found in the Santa Clara River, but in far east reaches near Valencia, CA.
Steelhead – southern California DPS	*Oncorhynchus mykiss irideus pop.10*	FE/None	Coastal creek and rivers that allow fish to enter Pacific Ocean.	High (present): Suitable habitat is not present within the project area. though landlocked steelhead may be present in the SCRE Sandbar currently blocking Santa Clara River from Pacific Ocean which is preventing migration of the species outward.
Tidewater goby	*Eucyclogobius newberryi*	FE/SSC	Found primarily in waters of coastal lagoons, estuaries, and marshes	High (present): Numerous observations of species from previous surveys in SCRE and nearby lagoons and estuaries. Suitable habitat present and species is expected in SCRE. SCRE is critical habitat for this species.

Common Name	Scientific Name	Status (Federal/State)	Habitat	Potential to Occur
Unarmored threespine stickleback	*Gasterosteus aculeatus williamsoni*	FE/SE	Young UTS are typically found at the shallow edges of streams in areas with dense vegetation	Low: Species have been observed in Santa Clara River near Valencia and Highway 5. Suitable habitat not present within project area.

Status
Federal: FE-federally endangered, FT – federally threatened
State: SE – state endangered; state threatened; FP – State Fully Protected, SSC – State Species of Special Concern, CE-Candidate for listing as Endangered

Based on the vegetation and habitats that were characterized during the field survey, thirteen wildlife species have a medium to high potential to occur: tidewater goby, steelhead, bank swallow, least Bell's vireo, burrowing owl, California least tern, southwestern willow flycatcher, western snowy plover, white-tailed kite, yellow warbler, California legless lizard, coast horned lizard, and western pond turtle.

3.10 Critical Habitat

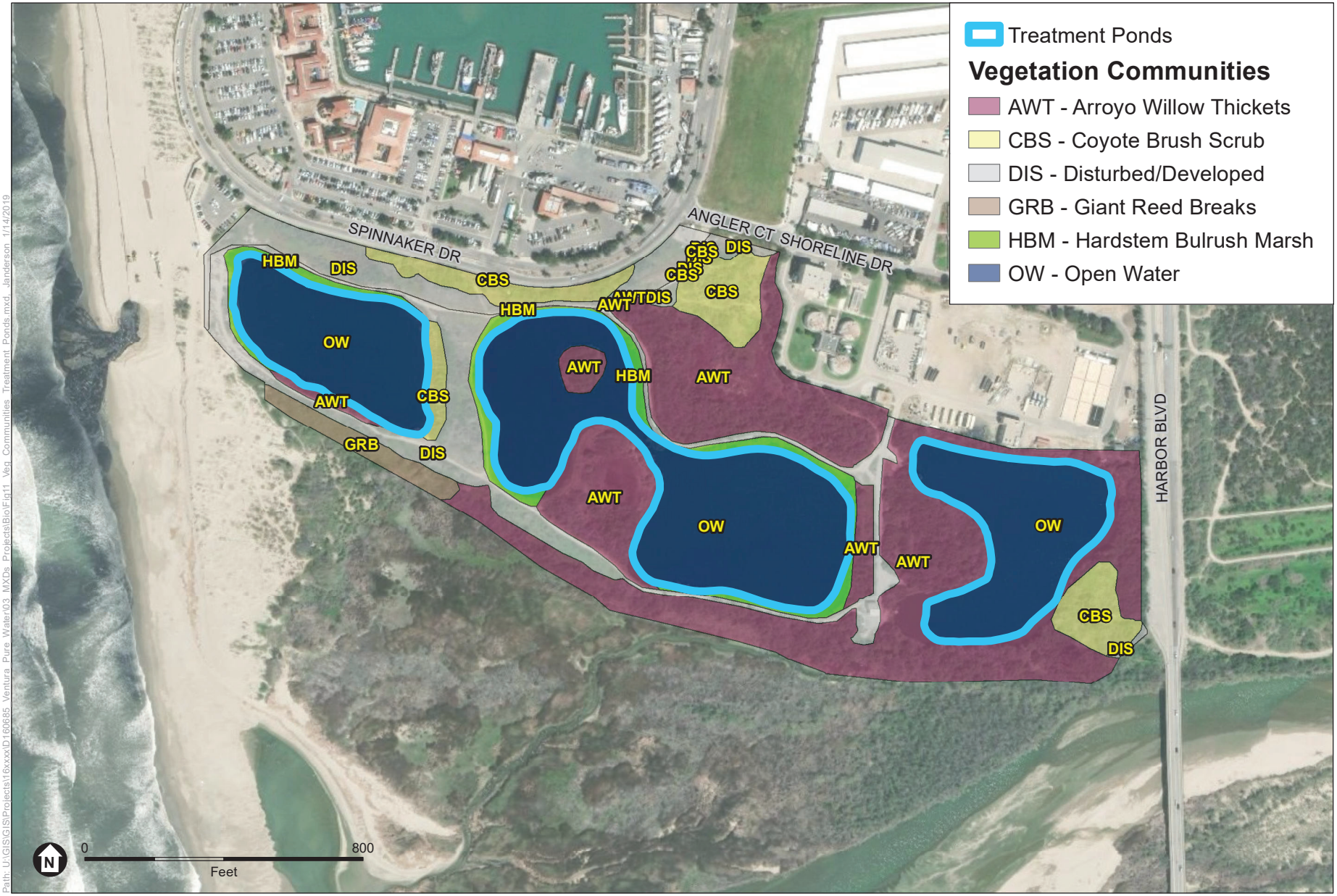
Designated critical habitat for four species occurs near the project construction areas. The four species include tidewater goby, steelhead, southwestern willow flycatcher, and western snowy plover. The critical habitat areas are shown on **Figure 11**.

3.11 Protected Trees

Protected trees, defined in the Ventura County Tree Protection Ordinance as any oak (*Quercus* sp,) or sycamore (*Platanus* sp.) species, historical tree, or heritage tree, are not located within any of the project sites and therefore, none will be removed.

A historical tree is any tree or group of trees identified by the County or a city as a landmark, or identified on the Federal or California Historic Resources Inventory to be of historical or cultural significance, or identified as contributing to a site or structure of historical or cultural significance.

A heritage tree is any species of tree with a single trunk of 90 or more inches in girth or with multiple trunks, two of which collectively measure 72 inches in girth or more. Species with naturally thin trunks when full grown or naturally large trunks at an early age, or trees with unnaturally enlarged trunks due to injury or disease must be at least 60 feet tall or 75 years old.



SOURCE: ESRI

Ventura Water Supply Projects

Figure 11
Vegetation Communities
Treatment Ponds

ESA

4.0 Regulatory Setting

4.1 Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) provides guidance for conserving federally listed species and the ecosystems upon which they depend. Section 9 of the FESA and its implementing regulations prohibit the "take" of any federally-listed endangered or threatened plant or animal species, unless otherwise authorized by federal regulations. "Take" includes the destruction of a listed species' habitat. Section 9 also prohibits a number of specified activities with respect to endangered and threatened plants.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits the take of native birds "by any means or manner to pursue, hunt, take, capture (or) kill" any migratory birds except as permitted by regulations issued by the U.S. Fish and Wildlife Service (USFWS). The term "take" is defined by USFWS regulation to mean to "pursue, hunt, shoot, wound, kill, trap, capture or collect" any migratory bird or any part, nest, or egg of any migratory bird covered by the conventions, or to attempt those activities.

Clean Water Act

In accordance with Section 404 of the Clean Water Act (CWA), the USACE regulates discharge of dredged or fill material into waters of the U.S... Waters of the U.S. and their lateral limits are defined in 33 CFR 328.3(a) and includes navigable waters of the U.S., interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Waters of the U.S. are often categorized as "jurisdictional wetlands" (i.e., wetlands over which the USACE exercises jurisdiction under Section 404) and "other waters of the United States" when habitat values and characteristics are being described. "Fill" is defined as any material that replaces any portion of a water of the U.S. with dry land or that changes the bottom elevation of any portion of a water of the U.S. Any activity resulting in the placement of dredged or fill material within waters of the United States requires a permit from USACE. In accordance with Section 401 of the CWA, projects that apply for a Section 404 permit for discharge of dredged or fill material must obtain water quality certification from the appropriate RWQCB indicating that the proposed project would uphold State of California water quality standards.

4.2 State

State Endangered Species Act

The California Endangered Species Act (CESA) mandates that state agencies not approve a project that would jeopardize the continued existence of species if reasonable and prudent alternatives are available that would avoid a jeopardy finding. CESA also prohibits the take of

any fish, wildlife, or plant species listed as endangered or threatened, or designated as candidates for listing, under CESA. Similar to the FESA, CESA contains a procedure for the CDFW to issue an incidental take permit authorizing the take of listed and candidate species incidental to an otherwise lawful activity, subject to specified conditions.

Native Plant Protection Act

The Native Plant Protection Act includes measures to preserve, protect, and enhance rare and endangered native plants. The list of native plants afforded protection pursuant to the Native Plant Protection Act includes those listed as rare and endangered under the CESA. The Native Plant Protection Act provides limitations on take as follows: "No person will import into this state, or take, possess, or sell within this state" any rare or endangered native plant, except in compliance with provisions of the act. Individual landowners are required to notify the CDFW at least 10 days in advance of changing land uses to allow the CDFW to salvage any rare or endangered native plant material.

Section 15380 of the California Environmental Quality Act Guidelines

Although threatened and endangered species are protected by specific federal and state statutes, *State CEQA Guidelines* Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in CEQA primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not been listed by either USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not at present have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected, and requires findings of significance if there would be substantial losses. Natural communities listed by CNDDB as sensitive are considered by CDFW to be significant resources and fall under the *State CEQA Guidelines* for addressing impacts. Local planning documents such as general plans often identify these resources as well.

Sections 3503 and 3513 of the California Fish and Game Code

Section 3503 of the California Fish and Game Code prohibits the killing of birds or the destruction of bird nests. Birds of prey are protected under Section 3503.5 of the California Fish and Game Code, which provides that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Section 3513 of the California Fish and Game Code prohibits any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA. Migratory birds include all native birds

in the United States, except those non-migratory game species, such as quail and turkey, which are managed by individual states.

Section 1602 of the California Fish and Game Code

Section 1602 of the California Fish and Game Code requires a Streambed Alteration Agreement for any activity that may alter the bed and/or bank of a lake, stream, river, or channel. Typical activities that require a Streambed Alteration Agreement include, but are not limited to, excavation or fill placed within a channel, vegetation clearing, installation of culverts and bridge supports, and bank reinforcement. As part of the notification process, the CDFW requires documentation of any native trees to be removed as part of the project. Trees that have a trunk diameter at breast height of greater than 2 inches are subject to regulation by the CDFW in accordance with the Streambed Alteration Agreement.

4.3 Regional

Ventura County General Plan

The Ventura County General Plan, which is mandated by State law, sets forth the goals, policies, and programs the County will implement to manage future growth and land uses. The General Plan, adopted by the Board of Supervisors, embodies the vision for the future of unincorporated Ventura County. The Ventura County General Plan includes a biological resources element, which details plant and animal species and their habitats, plant communities and ecosystems. The following goals and policies related to biological resources are applicable to the proposed project.

> **Goal 1.5.1.** Preserve and protect significant biological resources in Ventura County from incompatible land uses and development. Significant biological resources include endangered, threatened or rare species and their habitats, wetland habitats, coastal habitats, wildlife migration corridors and locally important species/communities.
>
> > **Policy 1.5.2.1.** Discretionary development which could potentially impact biological resources shall be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures.
> >
> > **Policy 1.5.2.2.** Discretionary development shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.
> >
> > **Policy 1.5.2.3.** Discretionary development that is proposed to be located within 300 feet of a marsh, small wash, intermittent lake, intermittent stream, spring, or perennial stream (as identified on the latest USGS 7½ minute quad map), shall be evaluated by a County approved biologist for potential impacts on wetland habitats. Discretionary development that would have a significant impact on significant wetland habitats shall be prohibited, unless mitigation measures are adopted that would reduce the impact to a less than significant level; or for lands designated "Urban" or "Existing Community", a statement of overriding considerations is adopted by the decision-making body.
> >
> > **Policy 1.5.2.4.** Discretionary development shall be sited a minimum of 100 feet from significant wetland habitats to mitigate the potential impacts on said habitats. Buffer

areas may be increased or decreased upon evaluation and recommendation by a qualified biologist and approval by the decision-making body. Factors to be used in determining adjustment of the 100-foot buffer include soil type, slope stability, drainage patterns, presence or absence of endangered, threatened or rare plants or animals, and compatibility of the proposed development with the wildlife use of the wetland habitat area. The requirement of a buffer (setback) shall not preclude the use of replacement as a mitigation when there is no other feasible alternative to allowing a permitted use, and if the replacement results in no net loss of wetland habitat. Such replacement shall be "in kind" (i.e. same type and acreage), and provide wetland habitat of comparable biological value. On-site replacement shall be preferred wherever possible. The replacement plan shall be developed in consultation with California Department of Fish and Game.

Policy 1.5.2.5. The California Department of Fish and Game, the U.S. Fish and Wildlife Service, National Audubon Society and the California Native Plant Society shall be consulted when discretionary development may affect significant biological resources. The National Park Service shall also be consulted regarding discretionary development within the Santa Monica Mountains or Oak Park Area.

Ventura County Tree Protection Ordinance

Selected trees are protected by the Ventura County Tree Protection Ordinance, found in Section 8107-25 of the Ventura County Non-Coastal Zoning Ordinance (Division 8, Chapter 1, Section 8107-25). The ordinance protects selected native, heritage, or historical trees through regulation of the following activities: tree removal, trimming, or grading/excavating within the root zone, as identified in Table 5 below. Oak woodlands are additionally protected as "locally important communities," as discussed below.

TABLE 5
PROTECTED TREES IN VENTURA COUNTY[1]

Common Name/Botanical Name (Genus/Species)	Girth Standard (Circumference)
Oak (Single) (*Quercus* all species*)*	9.5 in.
Oak (Multi) (*Quercus* all species*)*	9.5 in.
Sycamore (*Platanus* all species*)*	9.5 in.
Historical Tree[2] (any species*)*	(any size)
Heritage Tree[3] (any species*)*	90.0 in.

1. Tree species protected within the Scenic Resource Protection Overlay Zone are excluded from the table, as it does not apply to the project area.
2. Any tree or group of trees identified by the County or a city as a landmark, or identified on the Federal or California Historic Resources Inventory to be of historical or cultural significance, or identified as contributing to a site or structure of historical or cultural significance.
3. Any species of tree with a single trunk of 90 or more inches in girth or with multiple trunks, two of which collectively measure 72 inches in girth or more. Species with naturally thin trunks when full grown or naturally large trunks at an early age, or trees with unnaturally enlarged trunks due to injury or disease must be at least 60 feet tall or 75 years old.

SOURCE: Ventura County Tree Protection Ordinance (Sec. 8107-25 and Subsections added by ORD. 3993 – 2/25/92)

The ordinance allows removal of five protected trees (only three of which can be oaks or sycamores; none of which can be heritage or historical trees) through a ministerial permit process. Removal of more/other than this may trigger a discretionary tree permit. If a proposed project cannot avoid impacts to protected trees, mitigation of these impacts (such as replacement of lost trees) is addressed through the tree permit process, unless the impacts may affect biological resources beyond the tree itself, such as to sensitive status species that may be using the tree, nesting birds, the tree's role as part of a larger habitat, etc.

Local

City of San Buenaventura General Plan

Adopted in 2005, the City of Ventura General Plan sets long-range goals based on a shared vision to guide Ventura's future. The City Council, advisory boards, commissions, city departments and staff rely on the General Plan to guide certain functions, responsibilities, and services the City provides to residents, and the protection of natural and cultural resources in the community. The General Plan includes a Natural Communities element, which establishes policies to protect the community from issues associated within the natural setting of coastline, rivers, and hillside ecosystems (City of Ventura, 2005a). The following goals and policies related to natural communities and biological resources are applicable to the proposed project.

Policy 1C: Improve protection for native plants and animals.

Action 1.16: Comply with directives from regulatory authorities to update and enforce stormwater quality and watershed protection measures that limit impacts to aquatic ecosystems and that preserve and restore the beneficial uses of natural watercourses and wetlands in the city.

Action 1.19: Require projects near watercourses, shoreline areas, and other sensitive habitat areas to include surveys for State and/or federally listed sensitive species and to provide appropriate buffers and other mitigation necessary to protect habitat for listed species.

City of Oxnard 2030 General Plan

The City of Oxnard 2030 General Plan was adopted in 2011, and amended in 2016. The General Plan contains goals and policies that are intended to guide a wide range of public and private development decisions through 2030 (City of Oxnard, 2011). The General Plan includes an Environmental Resources element. The following goals and policies related to environmental resources are applicable to the proposed project.

Goal ER-1: Protection of natural and cultural resources, agriculture, and open spaces is well integrated with the built environment and human activities and achieves a mutually-beneficial, sustainable relationship.

Policy ER-1.1: Protect the City's natural resource areas, fish and wildlife habitat, scenic areas, open space areas, parks, and cultural and historical resources from unnecessary encroachment or harm and if necessary, full mitigate the impacts to maximum extent possible.

Goal ER-2: Maintenance and enhancement of natural resources and open space.

Policy ER-2.1: Evaluate existing and potentially sensitive habitat areas as resource protection or open space land uses.

Goal ER-3: Protected, restored, and enhanced of water-related habitats and their associated plant and wildlife species.

Policy ER-3.1: Require the preservation and enhancement of the riparian habitat along the Santa Clara River, Edison Canal, McGrath Lake vicinity, and within the Ormond Beach wetlands.

Policy ER-3.3: Whenever possible, request appropriate feasible County, State, and Federal agency mitigation measures.

Goal ER-4: Protected, restored, and enhanced habitat areas.

Policy ER-4.1: Identify and encourage protection of sensitive habitat area, with attention to habitat that may span small parcels.

5.0 Impact Assessment

5.1 Riparian Habitat and Sensitive Natural Communities

Eight (8) sensitive natural communities have been recorded in the vicinity of the project site; however, only two of these communities are located within the survey area, Southern California Coastal Lagoon and Southern California Steelhead Stream. Both of these communities fall within the area that the proposed Calleguas SMP alignment will be installed (under the Harbor Boulevard bridge). However, the installation of the pipeline within this alignment will not impact these sensitive natural communities, as it will be installed beneath the SCR by jack and bore horizontal drilling.

5.2 Special Status Plants and Wildlife

Special-Status Plants

Based on the presence of suitable habitat, five special-status plant species have a medium or high potential to occur in the project area: Coulter's goldfields, southwestern spiny rush, Ventura marsh milk vetch, white rabbit-tobacco, and woolly seablite; however, none of these species were observed during the field surveys.

Construction activities within upland areas (Harbor Boulevard, Transport Street, Portola Road, Treatment Wetlands, and the Wildlife/Treatment Ponds) will not have an impact to special-status plant species as these sites do not contain suitable habitat. The adjacent areas (SCR, SCRE, and riparian zones) that contain suitable habitat for a number of these species would not be affected by construction activities.

Special-Status Wildlife

Based on the presence of suitable habitat within the project area, there is a medium or high potential for 13 special-status wildlife species to occur within the project area: tidewater goby, steelhead, bank swallow, least Bell's vireo, burrowing owl, California least tern, southwestern willow flycatcher, western snowy plover, white-tailed kite, yellow warbler, California legless lizard, coast horned lizard, and western pond turtle; however, none of these species were observed during the field surveys.

Construction activities within upland sites (Harbor Boulevard, Transport Street, and Portola Road) will not have an impact to special-status species as these sites do not contain suitable habitat. The proposed new treatment wetlands and the wildlife/treatment pond sites and adjacent areas (SCRE and the beach) contain suitable habitat for a number of these species. In addition, these ponds are within the Pacific Flyway, a major north-south flyway for migratory birds in America, extending from Alaska to Patagonia. During the field survey, numerous waterfowl species (i.e., ducks) were observed within this habitat.

During construction activities, waterfowl species could be affected by the reconfiguration and alterations of the ponds. Mitigation measures are recommended to be implemented during construction activities (described below).

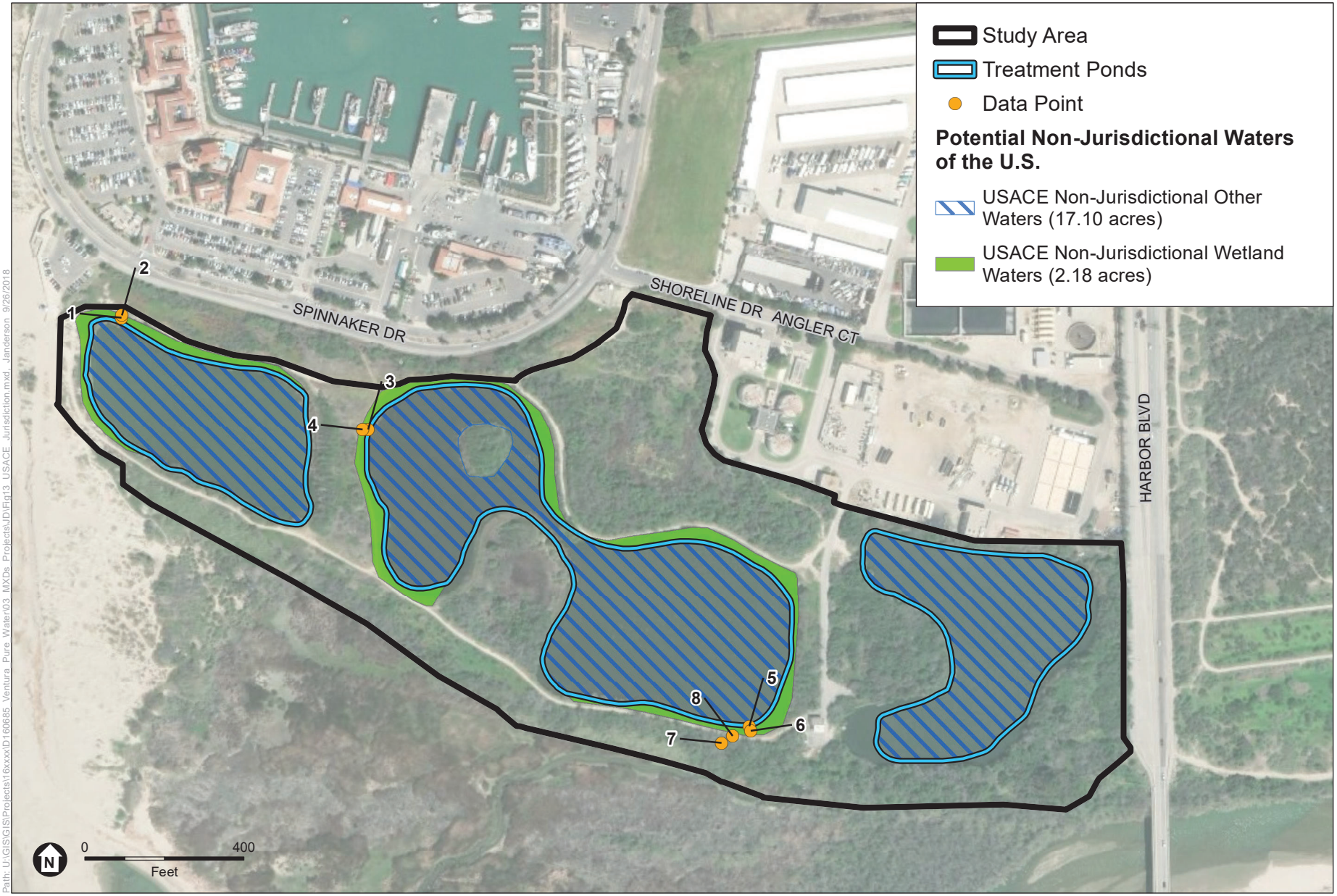
Nesting Birds

Migratory birds may utilize all habitats within project areas, including but not limited to, trees, vegetation, and building structures for foraging and breeding purposes. To avoid direct impacts to birds from construction activities, mitigation measures are recommended to be implemented if construction occurs during the nesting bird season (described below).

5.3 Jurisdictional and Non-Jurisdictional Resources

The three wildlife/treatment ponds and adjacent vegetation communities may be impacted from construction activities. These three ponds and adjacent vegetation communities are subject to the jurisdiction of the CDFW, RWQCB, the CCC, and potentially the U.S. Army Corps of Engineers. Below are the acreages and jurisdictional features calculated within the survey area.

The status of the federal jurisdiction of the wildlife/treatment ponds is undetermined, since the ponds were constructed for the purpose of wastewater treatment in upland areas. Such features are considered non-jurisdictional waters of the U.S. by statute. Potentially non-jurisdictional waters of the U.S. occupy 2.18-acres of hardstem bulrush marsh, situated along and within two of the wildlife/treatment ponds. Approximately 17.10 acres of open water habitat within the ponds may be non-jurisdictional other waters of the U.S (**Figure 12**). The jurisdictional status of these treatment ponds can be determined only by the U.S. Army Corps of Engineers.



SOURCE: ESRI 2017

Ventura Water Supply Projects

Figure 12
USACE Potential Non-jurisdictional Waters of the U.S.

ESA

Waters of the State

All areas mapped as potentially non-jurisdictional wetlands and other waters of the U.S. fall within the authority of the Porter-Cologne Water Quality Control Act. Approximately 2.18 acres of potential wetland and 17.10 acres of non-wetland waters of the State are found within the study area (**Figure 13**).

Lakes, Streams, and Associated Habitats

Areas within CDFW jurisdiction refer to streambeds and associated riparian vegetation and wetlands. All open water and riparian habitat (arroyo willow thickets, giant reed breaks, and hardstem bulrush marsh) is considered to be under the jurisdiction of the CDFW. A total of 19.28 acres of potential CDFW jurisdictional areas occur within the study area (Figure 14).

Coastal Wetlands and Waters

All areas mapped as CDFW jurisdictional areas are also mapped as CCC wetlands, according to their respective wetland definitions. A total of 19.28 acres of potential CCC regulated coastal wetlands and waters occur within the study area (Figure 14).

5.4 Wildlife Movement Corridors

Several wildlife corridor exists within the project area. The SCR and SCRE is a wildlife corridor for fish and other non-aquatic species. The wildlife treatment ponds are also associated with the Pacific Flyway. Waterfowl species, such as ducks and geese use the ponds as migratory, feeding and breeding habitat.

5.5 Critical Habitat

USFWS-designated critical habitat is present for four species, tidewater goby, western snowy plover, southern California steelhead, and southwestern willow flycatcher within the project area. Construction of the proposed project components would not impact critical habitat. However, mitigation measures are recommended to ensure that directional drilling activities do not impact surface water resources.

6.0 Conclusions and Recommended Mitigation Measures

6.1 Special-Status Plants

Based on lack of suitable habitat and due to previously disturbed lands in the project area, no special-status plant surveys are recommended at the Harbor Boulevard site, Transport Street site, Portola Road site, and wildlife treatment ponds. However, the proposed treatment wetlands site poses a low potential for special-status plant species. Before commencement of construction, a focused plant survey is recommended to confirm whether any special-status plant species occur on the property. If any are observed within the site, consultation with CDFW should be implemented before project initiation on suitable avoidance and minimization measures.



SOURCE: ESRI 2017

Ventura Water Supply Projects

Figure 13
Potential Jurisdictional Resources

ESA

6.2 Special-Status Wildlife

Construction activities could result in impacts to special status wildlife. The following measures are recommended to be implemented to avoid potentially significant impacts to special-status wildlife during project construction activities.

BIO-1. Prior to the start of construction that could affect sensitive species, a qualified biologist shall provide Worker Environmental Awareness Program (WEAP) Training to all construction workers onsite. The training shall include materials to aid workers in identifying sensitive habitats, plants, and wildlife that should be avoided; applicable laws and regulations protecting such resources; and proper avoidance and communication procedures to protect sensitive biological resources, as well as common wildlife whenever possible.

BIO-2: Prior to construction activities within 50 feet of sensitive habitat, a qualified biologist shall survey a 500-foot radius for the presence of sensitive species that could be affected by construction noise and disruption. If construction activities could generate noise in excess of 65 dBA for prolonged periods (averaged over 8-hour day) in areas where the ambient noise level is less than 65 dBA and sensitive species are present, the construction contractor shall install noise barriers between the construction activity and the sensitive resource to reduce noise impacts on biological resources.

BIO-3: If nighttime construction is required, lighting shall be kept to the minimum necessary to safely conduct the work. All lighting shall be focused on the construction area and avoid spilling onto habitat areas.

BIO-4: If the nesting season cannot be avoided and construction or vegetation removal occurs between March 1 to September 15 (January 1 to July 31 for raptors), the project shall do the following to avoid and minimize impacts to nesting birds and raptors:

- During the avian breeding season, a qualified biologist shall conduct a preconstruction avian nesting survey no more than 7 days prior to vegetation disturbance or site clearing. If construction begins in the non-breeding season and proceeds continuously into the breeding season, no surveys are required. However, if there is a break of 7 days or more in cleanup activities during the breeding season, a new nesting bird survey shall be conducted before construction begins again.
- The preconstruction survey shall cover all reasonably potential nesting locations on and within 300 feet of the proposed removal areas, and areas that would be occupied by ground-nesting species such as killdeer. A 500-foot radius shall be surveyed in areas containing suitable habitat for nesting raptors, such as trees, utility poles, rock crevices, and cliffs.
- If an active nest is found during the preconstruction avian nesting survey, a qualified biologist shall implement a 300-foot minimum avoidance buffer for all passerine birds and 500-foot minimum avoidance buffer for all raptor species. The nest site area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project. Buffer areas may be increased if any endangered, threatened, CDFW fully protected, or CDFW species of special concern are identified during protocol or preconstruction surveys, based on consultation with USFWS or CDFW.

- If the nest(s) are found in an area where ground disturbance is scheduled to occur, the project operator shall avoid the area either by delaying ground disturbance in the area until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, or by relocating the project component(s) to avoid the area.

BIO-5: Prior to initiating any directional drilling activities, the City shall prepare a Drilling Fluid Mitigation and Response Plan that identifies measures to reduce risks to water quality from accidental release of drilling fluids into surface water. Measures include best practices to employ to minimize the risk of releases. The plan will identify spill containment equipment, monitoring and reporting roles and responsibilities, and implementation procedures sufficient to contain any release of drilling fluids.

6.3 Sensitive Natural Communities

Construction activities would not impact sensitive natural communities or reduce their extent within the study area.

6.4 Migratory Corridors

Construction activities would not impact migratory corridors or reduce their extent within the study area.

6.5 Jurisdictional and Non-Jurisdictional Resources

Construction activities would not impact jurisdictional resources for all components except for reconfiguring the wildlife/treatment ponds and construction of the treatment wetlands. Reconfiguring the wildlife/treatment ponds would impact habitats under the jurisdiction of the CDFW. A Streambed Alteration Agreement would be required prior to impacts. It is anticipated that the reconfiguration would result in an increase of habitat extent and quality. Once the ponds were reconfigured, impacts would be less than significant. Construction of the new treatment wetlands would occur within low quality scrub habitat. Once constructed, the new treatment wetlands would enhance habitat values at this location resulting in less than significant impacts to jurisdictional resources.

6.6 Critical Habitat

Construction activities would not impact critical habitat or reduce its extent within the study area.

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Appendix A
Floral and Faunal Compendia

Appendix A: Flora Compendia

Scientific name	Common name
Vegetation	
Adenostoma fasciculatum	chamise
Ambrosia chamissonis	ragweed
Anemopsis californica	lizard tail
Arecaceae sp.	palm tree
Artemisia californica	California sagebrush
Arundo donax	giant reed
Atriplex glauca	waxy saltbush
Atriplex lentiformis	quailbush
Baccharis pilularis	Coyote brush
Baccharis salicifolia	mulefat
Brassica nigra	black mustard
Bromus madritensis	red brome
Cakile maritima	European searocket
Camissoniopsis cheiranthifolia	beach suncup
Carpobrotus edulis	ice plant
Ceonothus sp.	California lilac
Cortaderia selloana	pampass grass
Cynodon dactylon	Bermuda grass
Delairea odorata	cape ivy
Distichlis spicata	seashore saltgrass
Elymus condensatus	giant wild rye
Eriogonum cinereum	buckwheat
Eriogonum fasciculatum	California buckwheat
Erodium cicutarium	pinweed
Foeniculum vulgare	fennel
Hirschfeldia incana	shortpod mustard
Juncus balticus	Baltic rush
Kali tragus	russian thistle
Malacothamnus fasciculatus	chaparral mallow
Marah fabaceus	wild cucumber
Melilotus albus	tree clover
Myoporum sp.	myoporum
Nasturtium officinale	watercress
Nicotiana glauca	tree tobacco
Oxalis pes-caprae	Bermuda buttercup
Phoenix canariensis	Canary Island date palm
Pseudognaphalium californicum	California rabbit tobacco
Rhamnus californica	California coffeeberry
Ricinus communis	castor bean
Rumex maritimus	seashore dock
Salix lasiolepis	arroyo willow
Salvia apiana	white sage
Salvia leucophylla	purple sage
Schinus molle	American pepper
Taraxacum officinale	common dandelion

Toxicodendron diversilobum	poison oak
Typha sp.	cattail
Urtica dioica	stinging nettle
Verbesina sp.	crownbeard

Appendix A: Fauna Compendia

Scientific name	Common name
Birds	
Aechmophorus occidentalis	Western grebe
Aegithalidae ssp.	Bushtit
Agelaius phoeniceus	Red-winged blackbird
Anas platyrhynchos	Mallard
Anas platyrhynchos	Mallard
Aphelocoma californica	California scrub jay
Ardea alba	Great egret
Ardea herodias	Great blue heron
Aythya collaris	Ring-necked duck
Calypte anna	Anna's hummingbird
Cathartes aura	Turkey vulture
Chamaea fasciata	Wrentit
Chroicocephalus philadelphia	Bonaparte gull
Columba livia	Rock dove
Corvus brachyrhynchos	American crow
Egretta thula	Snowy egret
Fulica americana	American coot
Geothlypis trichas	Common yellowthroat
Larus occidentalis	Western gull
Mareca strepera	Gadwall
Megaceryle alcyon	Belted kingfisher
Melanerpes formicivorus	Acorn woodpecker
Melozone crissalis	California towhee
Mimus polyglottos	Northern mockingbird
Nycticorax nycticorax	Black-crowned night heron
Oxyura jamaicensis	Ruddy duck
Phalacrocorax auritus	Double-crested cormorant
Polioptila caerulea	Blue-gray gnatcatcher
Porzana carolina	Sora
Sayornis nigricans	Black phoebe
Setophaga coronata	Yellow-rumped warbler
Spatula clypeata	Northern shoveler
Spatula cyanoptera	Cinnamon teal
Zenaida macroura	Mourning dove
Mammals	
Canis latrans	Coyote (scat)
Otospermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	Desert cottontail
Fish	
Cyprinus carpio	Common carp (dead)
Reptile	
Sceloporus occidentalis	Western fence lizard
Trachemys scripta elegans	Red-eared slider
Amphibian	
Pseudacris hypochondriaca	Baja California chorus frog

Appendix B
Site Photographs

Appendix B: Site Photographs



Photograph 1 (North). Transport Street Site, APN: 084010212. View of property within fence. Property is currently used for parking trucks and storage.



Photograph 2 (Northwest). Transport Street Site, APN: 084010212. View of property within fence. Property is currently used for parking trucks and storage.

Appendix B: Site Photographs



Photograph 3 (South). Transport Street Site, APN: 084010408. View of vacant property. Property sits between two business properties.



Photograph 4 (Southwest). Transport Street Site, APN: 084010408. View of vacant property. Property sits between two business properties.

Appendix B: Site Photographs



Photograph 5 (Southeast). Portola Road Site, APN: 084016004. View of active agriculture field.



Photograph 6 (Northeast). Portola Road Site, APN: 084016004. View of active agricultural field.



Photograph 7 (Southeast). Proposed Treatment Wetlands. View of vegetation within the proposed treatment wetland location.



Photograph 8 (Northwest). Proposed Treatment Wetlands. View of vegetation within the proposed treatment wetland location.

Appendix B: Site Photographs



Photograph 9 (South). Jack & Bore location over Santa Clara River. View of Harbor Boulevard bridge over Santa Clara River.

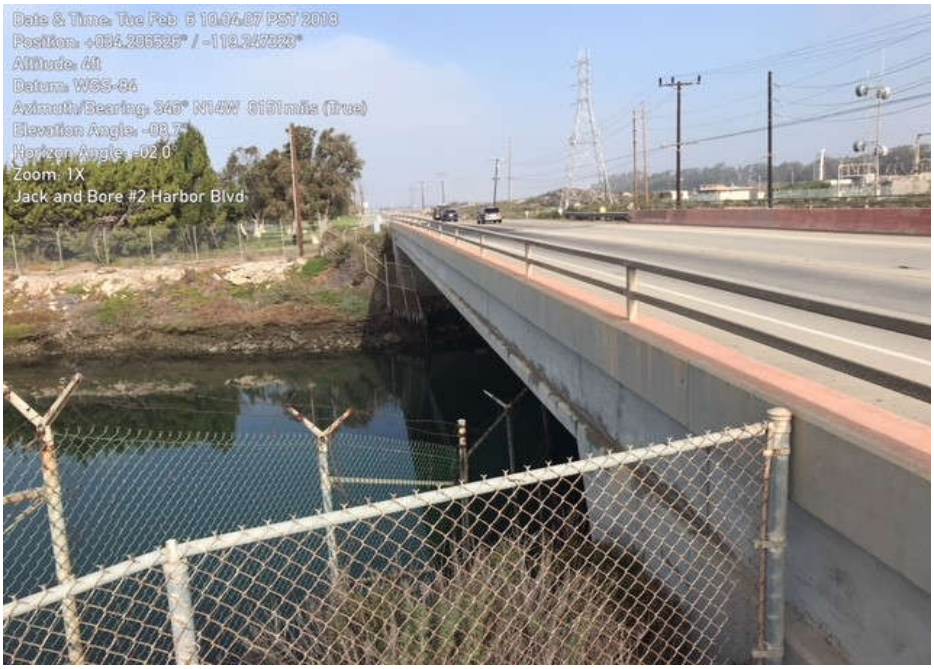


Photograph 10 (North). Jack & Bore location over Santa Clara River. View of Harbor Boulevard bridge over Santa Clara River.

Appendix B: Site Photographs



Photograph 11 (South). Jack & Bore location over Edison Canal. View of Harbor Boulevard bridge over Edison Canal.



Photograph 12 (North). Jack & Bore location over Edison Canal. View of Harbor Boulevard bridge over Edison Canal.

Appendix B: Site Photographs



Photograph 13 (West). Jack & Bore location over Edison Canal. View of 5th Street bridge over Edison Canal.



Photograph 14 (East). Jack & Bore location over Edison Canal. View of 5th Street Bridge over Edison Canal.



Photograph 15 (Southeast). Treatment Ponds. View of Pond #1.



Photograph 16 (West). Treatment Ponds. View of vegetation adjacent to Pond #1.



Photograph 17 (North). Treatment Ponds. View of Pond #2.



Photograph 18 (Northwest). Treatment Ponds. View of vegetation adjacent to Pond #2.

Appendix B: Site Photographs



Photograph 19 (West). Treatment Ponds. View of Pond #2.



Photograph 20 (Southeast). Treatment Ponds. View of disturbed ground and vegetation adjacent to Pond #2.



Photograph 21 (North). Treatment Ponds. View of Pond #3.



Photograph 22 (Northwest). Treatment Ponds. View of willow habitat adjacent to Pond #3.



Photograph 23 (East). Harbor Boulevard Site. View of disturbed vegetation.



Photograph 24 (North). Harbor Boulevard Site. View of disturbed vegetation.



Photograph 25 (Southwest). View of location of Outfall Option A.



Photograph 26 (South). View of location of outfall option A.



Photograph 27 (Northwest). View of location of outfall option B.



Photograph 28 (North). View of location of outfall option B.

Appendix C

CNDDB and CNPS Database Search Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Saticoy (3411932) OR Santa Paula (3411931) OR Oxnard (3411922) OR Ventura (3411933))
 AND County IS (Ventura)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
Anniella sp. 1 California legless lizard	ARACC01070	None	None	G3G4	S3S4	SSC
Anniella stebbinsi southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aphanisma blitoides aphanisma	PDCHE02010	None	None	G3G4	S2	1B.2
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
Astragalus didymocarpus var. milesianus Miles' milk-vetch	PDFAB0F2X3	None	None	G5T2	S2	1B.2
Astragalus pycnostachyus var. lanosissimus Ventura Marsh milk-vetch	PDFAB0F7B1	Endangered	Endangered	G2T1	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Atriplex pacifica south coast saltscale	PDCHE041C0	None	None	G4	S2	1B.2
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
Calochortus fimbriatus late-flowered mariposa-lily	PMLIL0D1J2	None	None	G3	S3	1B.3
Catostomus santaanae Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	
Chaenactis glabriuscula var. orcuttiana Orcutt's pincushion	PDAST20095	None	None	G5T1T2	S1	1B.1
Chaetodipus californicus femoralis Dulzura pocket mouse	AMAFD05021	None	None	G5T3	S3	SSC
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
Choeronycteris mexicana Mexican long-tongued bat	AMACB02010	None	None	G4	S1	SSC
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coelus globosus globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Gasterosteus aculeatus williamsoni unarmored threespine stickleback	AFCPA03011	Endangered	Endangered	G5T1	S1	FP
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Malacothrix similis Mexican malacothrix	PDAST660D0	None	None	G2G3	SH	2A
Monardella hypoleuca ssp. hypoleuca white-veined monardella	PDLAM180A3	None	None	G4T3	S3	1B.3
Monardella sinuata ssp. gerryi Gerry's curly-leaved monardella	PDLAM18163	None	None	G3T1	S1	1B.1
Navarretia ojaiensis Ojai navarretia	PDPLM0C130	None	None	G2	S2	1B.1
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	
Passerculus sandwichensis beldingi Belding's savannah sparrow	ABPBX99015	None	Endangered	G5T3	S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Southern California Coastal Lagoon Southern California Coastal Lagoon	CALE1220CA	None	None	GNR	SNR	
Southern California Steelhead Stream Southern California Steelhead Stream	CARE2310CA	None	None	GNR	SNR	
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Coastal Salt Marsh Southern Coastal Salt Marsh	CTT52120CA	None	None	G2	S2.1	
Southern Riparian Scrub Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Thamnophis sirtalis ssp. south coast gartersnake	ARADB3613F	None	None	G5T1T2	S1S2	SSC
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	

Record Count: 58

CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

Plant List

48 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3, 4], FESA is one of [Endangered, Threatened, Candidate, Not Listed], CESA is one of [Endangered, Threatened, Rare, Not Listed], Found in Quads 3411943, 3411942, 3411941, 3411932, 3411931, 3411921, 3411922 and 3411933;
Lifeform is one of [Tree, Shrub, Leaf succulent, Herb, Vine, Stem succulent, Lichen, Moss, Liverwort],
Duration is one of [ann, per, ephem],
Bloom Time is one of [January, February, March, April, May, June, July, August, September, October, November, December]

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Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Abronia maritima	red sand-verbena	Nyctaginaceae	perennial herb	Feb-Nov	4.2	S3?	G4
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	1B.1	S2	G5T2T3
Aphanisma blitoides	aphanisma	Chenopodiaceae	annual herb	Feb-Jun	1B.2	S2	G3G4
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	Jan-Aug	1B.1	S2	G2
Astragalus didymocarpus var. milesianus	Miles' milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S2	G5T2
Astragalus pycnostachyus var. lanosissimus	Ventura marsh milk-vetch	Fabaceae	perennial herb	(Jun)Aug-Oct	1B.1	S1	G2T1
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	1B.2	S1S2	G3
Atriplex pacifica	South Coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	1B.2	S2	G4
Atriplex serenana var. davidsonii	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S1	G5T1
Baccharis plummerae ssp. plummerae	Plummer's baccharis	Asteraceae	perennial deciduous shrub	May,Aug,Sep,Oct	4.3	S3	G3T3
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	4.2	S4	G4
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	4.2	S3S4	G3G4
Calochortus clavatus var. clavatus	club-haired mariposa lily	Liliaceae	perennial bulbiferous herb	(Mar)May-Jun	4.3	S3	G4T3
Calochortus fimbriatus	late-flowered mariposa lily	Liliaceae	perennial bulbiferous herb	Jun-Aug	1B.3	S3	G3
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
Chaenactis glabriuscula var. orcuttiana	Orcutt's pincushion	Asteraceae	annual herb	Jan-Aug	1B.1	S1	G5T1T2
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct(Nov)	1B.2	S1	G4?T1
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4
Delphinium parryi ssp. blochmaniae	dune larkspur	Ranunculaceae	perennial herb	Apr-Jun	1B.2	S2	G4T2
Delphinium umbraculorum	umbrella larkspur	Ranunculaceae	perennial herb	Apr-Jun	1B.3	S3	G3

Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	Crassulaceae	perennial herb	Apr-Jun	1B.1	S2	G3T2
Dudleya verityi	Verity's dudleya	Crassulaceae	perennial herb	May-Jun	1B.1	S1	G1
Eriogonum crocatum	conejo buckwheat	Polygonaceae	perennial herb	Apr-Jul	1B.2	S1	G1
Fritillaria ojaiensis	Ojai fritillary	Liliaceae	perennial bulbiferous herb	Feb-May	1B.2	S2?	G2?
Heterotheca sessiliflora ssp. sessiliflora	beach goldenaster	Asteraceae	perennial herb	Mar-Dec	1B.1	S1	G4T2T3
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	1B.1	S1	G4T1
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	2B.1	S3	G4
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	4.2	S3	G3
Juncus acutus ssp. leopoldii	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	4.2	S4	G5T5
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
Layia heterotricha	pale-yellow layia	Asteraceae	annual herb	Mar-Jun	1B.1	S2	G2
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	4.3	S3	G5T3
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	4.2	S3	G4T3
Malacothrix similis	Mexican malacothrix	Asteraceae	annual herb	Apr-May	2A	SH	G2G3
Monardella hypoleuca ssp. hypoleuca	white-veined monardella	Lamiaceae	perennial herb	(Apr)May-Aug(Sep-Dec)	1B.3	S3	G4T3
Monardella sinuata ssp. gerryi	Gerry's curly-leaved monardella	Lamiaceae	annual herb	Apr-Jun	1B.1	S1	G3T1
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	Lamiaceae	annual herb	Apr-Sep	1B.2	S2	G3T2
Navarretia ojaiensis	Ojai navarretia	Polemoniaceae	annual herb	May-Jul	1B.1	S2	G2
Navarretia peninsularis	Baja navarretia	Polemoniaceae	annual herb	(May)Jun-Aug	1B.2	S2	G3
Nolina cismontana	chaparral nolina	Ruscaceae	perennial evergreen shrub	(Mar)May-Jul	1B.2	S3	G3
Phacelia hubbyi	Hubby's phacelia	Hydrophyllaceae	annual herb	Apr-Jul	4.2	S4	G4
Phacelia ramosissima var. austrolitoralis	south coast branching phacelia	Hydrophyllaceae	perennial herb	Mar-Aug	3.2	S3	G5?T3
Polygala cornuta var. fishiae	Fish's milkwort	Polygalaceae	perennial deciduous shrub	May-Aug	4.3	S4	G5T4
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)	2B.2	S2	G4
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4
Suaeda taxifolia	woolly seablite	Chenopodiaceae	perennial evergreen shrub	Jan-Dec	4.2	S4	G

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Appendix D

Modeling Outfalls for Ventura Water Supply Projects-Plume Model

Modeling Outfalls for Ventura Water Supply Projects

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Draft Report

Prepared for
ESA | Environmental Science Associates
Ventura, California

July 12, 2018

CONTENTS

Contents i
Executive Summary ii
List of Figures iv
List of Tables v
1. Introduction 6
2. Modeling Scenarios 8
   2.1 Discharge Scenarios 8
   2.2 Oceanic Conditions 9
   2.3 Possible Outfall and Diffuser Configurations 10
3. Dilution Modeling and Diffuser Design for Buoyant Scenarios 12
   3.1 Approach 12
   3.2 Results 13
4. Dilution Modeling and Diffuser Design for Dense Scenarios 15
   4.1 Analytical Approach 15
   4.2 Results 16
   4.3 Shear Mortality 18
5. Discussion 20
References 21
Appendix A. Density Profiles 22
Appendix B. UM3 Outputs for 12 m Water Depth 23
Appendix C. UM3 Outputs for Shear Calculations 32

EXECUTIVE SUMMARY

Preliminary diffuser designs and dilution simulations are presented for a proposed outfall to dispose of future wastewaters from the city of Ventura, California. The wastewaters may consist of concentrates from an advanced water treatment facility, groundwater treatment, and seawater desalination. Nine flow scenarios were identified. Depending on the relative magnitudes of the constituents, the discharge flows may range from 1.2 to 6.6 mgd, salinity from 7.4 to 62.1 ppt, and density from 1003.7 to 1045.4 kg/m^3.

The effluent may be more or less dense than oceanic water, necessitating different diffuser considerations. If the effluent is more saline and dense than ocean water, the regulations for brine discharges in the 2015 California Ocean Plan apply. These require an increment in salinity less than 2 ppt in the Brine Mixing Zone. The BMZ should be minimized but may not extend more than 100 m from the diffuser. In addition, mortality of marine organisms due to turbulent shear in the diffuser jets should be minimized.

Diffuser designs for the buoyant discharges were first obtained. Dilutions were simulated for two representative density profiles for summer and winter. The outfall length was assumed to be one to two miles into water 12 to 16 m deep. The shortest diffuser lengths to achieve a target nominal initial dilution of 100:1 were obtained by modeling the plumes with the mathematical model UM3 of Visual Plumes. Zero current speed was assumed to achieve worst case dilutions.

For the 12 m water depth, the diffuser was 60 ft long, consisting of 12 ports four inches in diameter spaced 12 ft apart. For the 16 m water depth, the diffuser was 48 ft long consisting of 8 ports five inches in diameter spaced 16 ft apart. Because of the weak oceanic density stratifications, the plumes were predicted to surface in the absence of an oceanic current.

Dilutions were then predicted for the dense effluent discharges through the same diffusers with the ports oriented upwards at 60° to the horizontal. Because of the higher flows for the dense scenarios this results in excessive jet velocity and a large BMZ. The jet diameters were then increased until the salinity increment was 2 ppt. The resulting diameters were 6.9 inches for the 12-port, 12 m depth diffuser, and 8.1 inches for the 8-port, 16 m depth diffuser. The areas of the BMZ and shear entrainment volumes were then calculated for the brine discharge.

All flow scenarios can therefore be accommodated by a single diffuser with a fixed number of ports and port spacing. The nozzles for the dense

scenarios are larger, however, and this increase can be accomplished by retrofitting nozzles. This can also be accomplished by use of variable area checkvalves that will accommodate all flow scenarios without the need for retrofit.

The diffuser and outfall designs should be refined as more information is obtained or different dilution criteria established.

Because there is no possibility of shoreline bacterial contamination, there is no reason to extend the discharge farther offshore than 1 mile. A shorter outfall may also be possible.

LIST OF FIGURES

Figure 1. Phase 1 water conveyance pipeline 7
Figure 2. Assumed density profiles for buoyant dilution modeling (See Appendix A)..... 9
Figure 3. Conceptual HDD pipeline construction (Carollo 2018)..... 10
Figure 4. Possible outfall alignment and bathymetry..... 11
Figure 5. Conceptual diffuser arrangement..... 12
Figure 6. LIF image of an inclined dense jet (after Roberts et al. 1997) 15
Figure 7. Characteristics of an inclined dense jet..... 15

LIST OF TABLES

Table 1. Properties of Effluent Constituents 8
Table 2. Properties of Combined Effluents for Various Scenarios 8
Table 3. Assumed Bottom Oceanic Properties for Dense Dilution Modeling 10
Table 4. UM3 Dilution Simulations for Buoyant Effluent Scenarios 14
Table 5. Dilution Simulations for Dense Effluent Scenarios 17
Table 6. Shear Entrainment Calculations 19

1. INTRODUCTION

The City of San Buenaventura (Ventura or City) water and wastewater department (Ventura Water) provides water and wastewater services to residents and businesses within the City limits plus some additional areas within unincorporated Ventura County. In 2015, Ventura Water completed its Urban Water Management Plan (UWMP) that identifies water supplies needed to meet existing and future water demands in normal and dry years. The UWMP concludes that the City's existing water supplies may be insufficient to meet demands in future dry years. As a result, the City is proposing to implement Ventura Water Supply Projects to develop new water supplies to ensure that reliable supplies are always available. The Ventura Water Supply Projects would be implemented in phases. The first phase would maximize available recycled water for potable reuse through implementation of the VenturaWaterPure Project. The second phase would implement other projects as needed. These other project elements may include a State water project interconnection, additional groundwater treatment, advanced tertiary treatment, and seawater desalination.

The Advanced Water Purification Facility (AWPF) treatment process and seawater and groundwater desalination would produce brine or concentrate containing about twice the salt concentration as the influent water. The concentrates would be discharged to the ocean in compliance with water quality standards for ocean discharge. To accomplish this, the City may construct a new ocean outfall and diffuser. The Phase 1 system and potential outfall alignment are shown in Figure 1.

The two phases of the project can result in effluents of widely varying properties. Flows may range from 1.2 to 6.6 mgd, salinity from 7.4 to 62.1 ppt, and density from 1002.1 to 1045.4 kg/m^3. Some of these effluents are less dense than seawater and some more dense. The design of the diffusers for both cases have different engineering and regulatory considerations. In particular, the situations where the effluent salinity and density are greater than oceanic must meet the brine discharge regulations in the revised California Ocean Plan (SWRCB 2015).

In this report, we consider the feasibility and preliminary design of a diffuser system that meets the regulatory requirements of all potential discharge scenarios in Phases 1 and 2. The specific tasks addressed are:

- Perform preliminary analyses to evaluate the feasibility of a diffuser system to meet all potential flow scenarios;
- Assess modifications to the diffuser to meet future flow scenarios;
- Evaluate dilutions and extents of the brine mixing zone for dense effluents;

- Estimate organism mortality due to shear and turbulence from the jets for dense effluents.

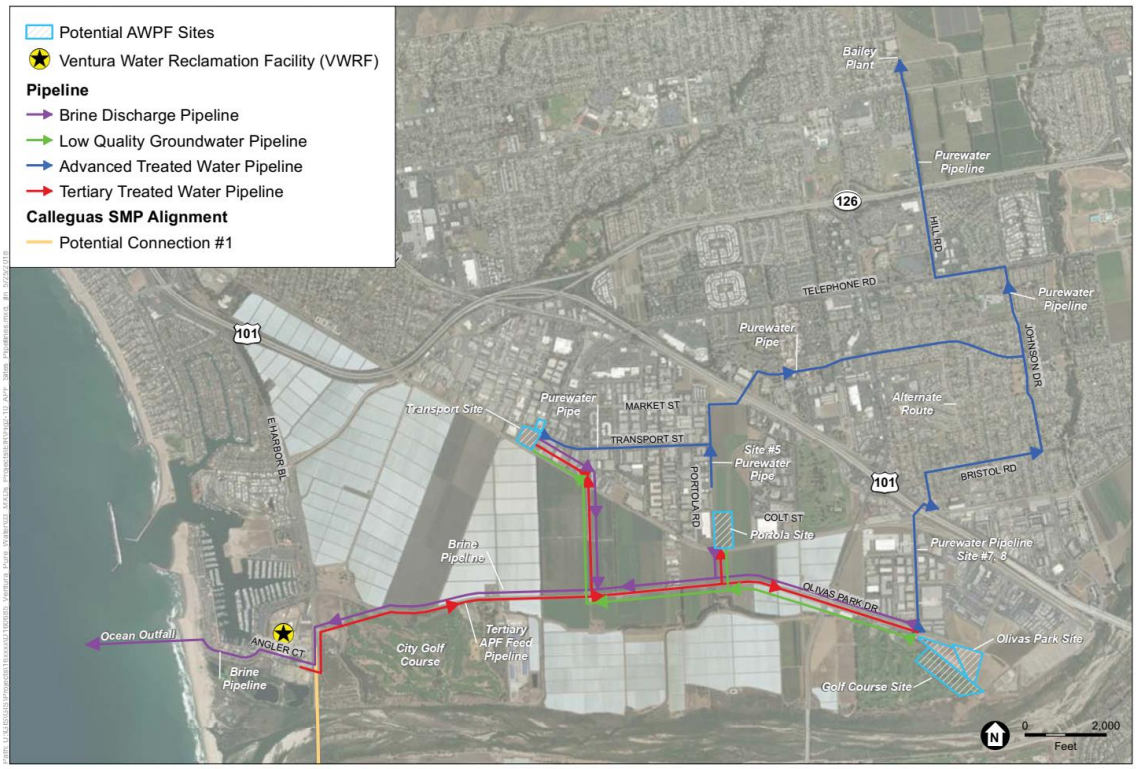


Figure 1. Phase 1 water conveyance pipeline

2. MODELING SCENARIOS

2.1 Discharge Scenarios

The possible flow scenarios are described in "Project Description." The constituent flows may consist of reverse osmosis (RO) concentrate from the AWPF, Groundwater (GW) RO concentrate, and brine from seawater desalination in varying proportions. The assumed properties of the various constituents are summarized in Table 1.

Table 1. Properties of Effluent Constituents

Constituent	Temperature (°C)	Salinity (ppt)	Density (kg/m^3)
RO concentrate	21.0	8.23	1004.2
GW concentrate	21.0	5.51	1002.1
Desalination brine	21.0	68.8	1050.5

Some of the effluent may be diverted to the Santa Clara River Estuary (SCRE). The Phase 1 AWPF capacity would be sufficient to treat the maximum environmentally protective diversion volume (MEPDV), defined as the volume of tertiary treated effluent diverted to the SCRE while still protecting the ecological resources of the SCRE and the surrounding sub-watershed. The MEPDV under Phase 2 is to be determined. The various flow scenarios currently contemplated and their properties are summarized in Table 2. These are the flow scenarios modeled in this report.

Table 2. Properties of Combined Effluents for Various Scenarios

Scenario No.	Discharge scenario MEPDV	Constituent Flows (mgd)			Combined Flows		
		RO concentrate	GW concentrate	Desal brine	Salinity (ppt)	Density (kg/m^3)	Discharge (mgd)
Phase 1							
1-1	90%	0.9	0.3	0	7.6	1003.7	1.2
Phase 2							
2-1	40%	0.4	0.7	3.8	54.8	1039.8	4.9
2-2	50%	0.5	0.7	3.4	52.6	1038.1	4.6
2-3	60%	0.6	0.6	2.9	50.7	1036.6	4.1
2-4	70%	0.7	0.5	2.4	48.2	1034.8	3.6
2-5	80%	0.8	0.4	1.9	45.0	1032.3	3.1
2-6	90%	0.9	0.3	1.5	41.6	1029.7	2.7
2-7	100%	1.2	0.5	0	7.4	1003.6	1.7
2-8	0%	0	0.7	5.9	62.1	1045.4	6.6

The combined discharges in Table 2 can be either positively or negatively buoyant, i.e. less or more dense than the oceanic receiving waters. Positively buoyant cases occur in Phase 1, Case 1-1, and Phase 2, Case 2-7. The other scenarios are all negatively buoyant.

2.2 Oceanic Conditions

The plume dilution and rise height for the positively buoyant discharges are strongly dependent on the oceanic density profiles. Representative summer and winter profiles were obtained from the NPDES permit application for the nearby Calleguas salinity management outfall pipeline. The profiles are shown in Figure 2 and are tabulated in Appendix A.

The density differences over the water column are primarily due to temperature differences; salinity is essentially constant with depth. The water column is weakly and linearly stratified in winter with a density difference of 0.2 sigma-t (one sigma-t is a density difference of 1 kg/m^3) over 14 m. It is slightly more stratified in summer with a weak thermocline at about 4 m depth. But even in summer the stratification is weak with a density difference of about 0.4 sigma-t.

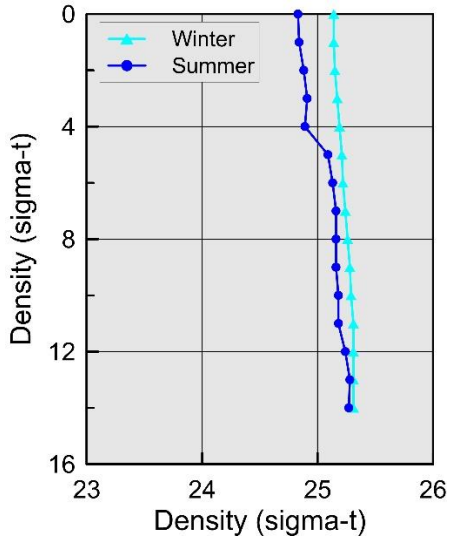


Figure 2. Assumed density profiles for buoyant dilution modeling (See Appendix A)

The water column stratification is of less importance for the dense discharges. More important are the oceanic density and salinity at the diffuser depth. The assumed bottom properties, based on Figure 2 and Appendix A, for the dense effluent scenarios are summarized in Table 3.

Table 3. Assumed Bottom Oceanic Properties for Dense Dilution Modeling

Season	Temperature (°C)	Salinity (ppt)	Density (kg/m3)
Winter	13.42	33.68	1025.3
Summer	13.21	33.58	1025.3

2.3 Possible Outfall and Diffuser Configurations

The ocean outfall may be installed with horizontal directional drilling (HDD) techniques from the Ventura Water Reclamation Facility (VWRF) emerging on the ocean floor offshore. A diffuser would be installed at the end of the outfall that is designed to dilute the effluents and to comply with the Ocean Plan Amendment (2015) for brine discharges. A possible outfall construction is shown in Figure 3. An outfall diameter of about 20 inches extending from one to two miles offshore is proposed.

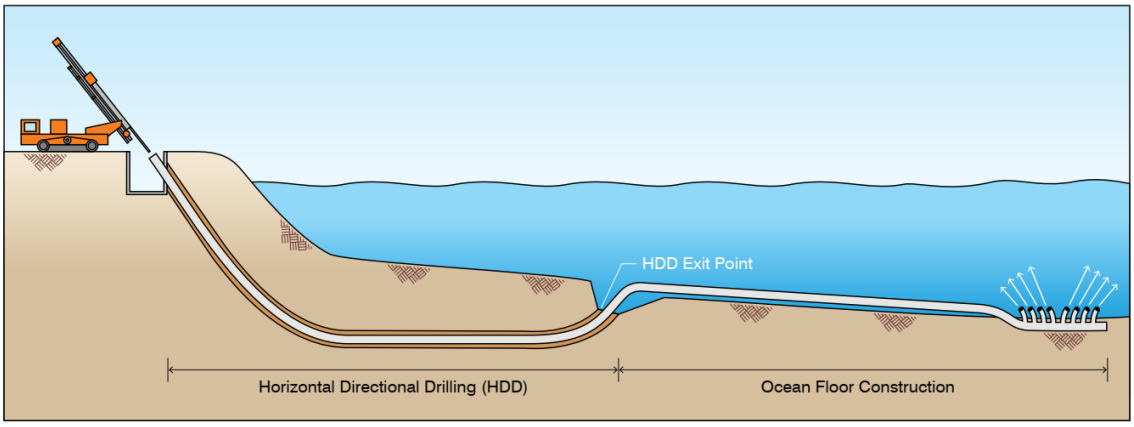


Figure 3. Conceptual HDD pipeline construction (Carollo 2018)

A possible outfall alignment is shown in Figure 4. Based on this figure, water depths at one and two miles offshore are estimated at 12 m (39 ft) and 16 m (52 ft) MLLW (mean lower low water) respectively.

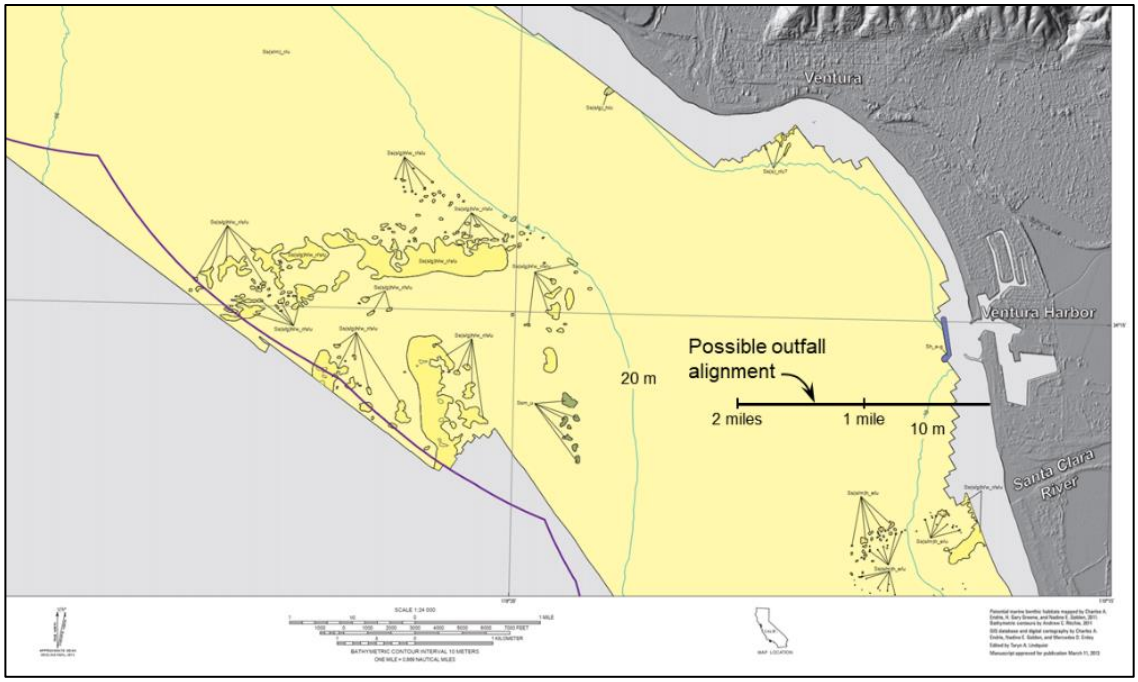


Figure 4. Possible outfall alignment and bathymetry

3. Dilution Modeling and Diffuser Design for Buoyant Scenarios

3.1 Approach

The buoyant effluent scenarios were modeled by the module UM3 of Visual Plumes (Frick, 2004, Version 18b hosted by the SWRCB). Dilution simulations were run for two water depths one and two miles offshore along the alignment shown in Figure 4.

The diffusers were designed to achieve a nominal initial dilution of 100:1. The diffuser configuration is shown in Figure 1. (The ports are shown in Tee-shaped risers, which would be typical in a buried diffuser. If the diffuser is laid on the seabed the ports will be in the sidewalls, either staggered or horizontally opposed. The dilution capability of all cases is the same). The port spacing is *s* and the water depth is *H*. If the stratification is weak, the plumes will reach the water surface as shown. In stronger stratification the plume may be submerged.

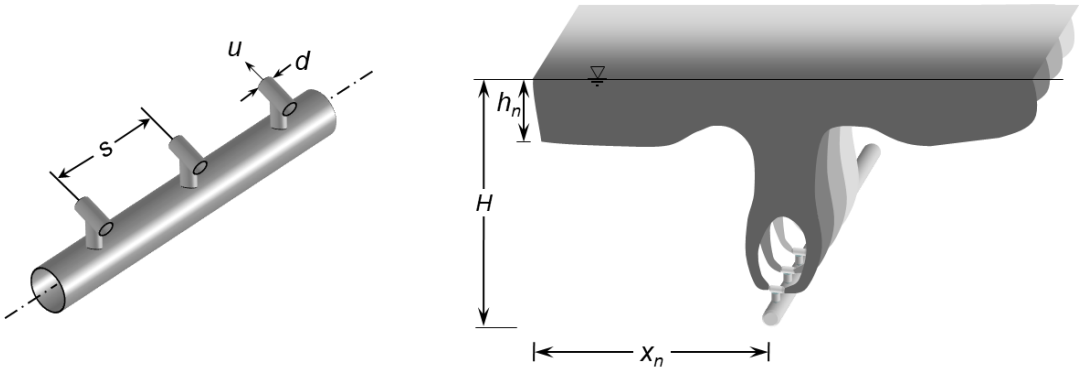


Figure 5. Conceptual diffuser arrangement

For a surfacing plume, the optimum ratio of port spacing to water depth is $s/H \approx 0.3$ (Tian et al. 2003). For 12 m depth the optimum spacing is therefore 3.6 m (12 ft) and for 16 m depth the optimum spacing is 4.8 m (16 ft). Dilution simulations were run with UM3 for the summer and winter density profiles. The number of ports was varied (and therefore the diffuser length) to find the minimum number and therefore diffuser length that achieved an initial dilution of at least 100:1. The port diameters were chosen to ensure a jet densimetric Froude number greater than one and total port area less than the outfall pipe cross-sectional area so that the ports always flow full. The diffusers were sized for the worst case (2-7 with the highest flow and the strongest, summer, stratification). UM3 was then run for the other flow scenarios with the same diffuser design. Zero current speed was assumed as this results in the lowest dilutions.

3.2 Results

The results of the UM3 simulations are shown in Table 4 for the two buoyant cases: 1-1 and 2-7. The critical case is 2-7; if this achieves a dilution of 100:1, then case 1-1 will exceed it. Dilutions range from 109 to 139. Because of the weak stratification and shallow depths, the plumes are predicted to always surface. For the 12 m water depth, the diffuser consists of 12 ports four inches in diameter. For the 16 m water depth the diffuser consists of eight ports five inches in diameter. Because the flows are quite low (1.2 or 1.7 mgd) the diffusers are relatively short: 60 and 48 feet respectively.

Table 4. UM3 Dilution Simulations for Buoyant Effluent Scenarios

Phase	Scenario	Density profile	Water depth *H*	Effluent		Ports					UM3 results		Diffuser length
				Flow *Q*	Density ρ_o	Number *n*	Diameter *d*	Angle Θ	Spacing *s*	Depth *H*	Dilution *S*	Trap depth	
			(m)	(mgd)	(kg/m^3)		(in)	(deg)	(ft)	(m)		(m)	(ft)
1	1-1	Summer	12	1.2	1003.7	12	4.0	0	12	12	128	Surface	60.0
		Winter	12	1.2	1003.7	12	4.0	0	12	12	138	Surface	60.0
2	2-7	Summer	12	1.7	1003.6	12	4.0	0	12	12	109	Surface	60.0
		Winter	12	1.7	1003.6	12	4.0	0	12	12	113	Surface	60.0
1	1-1	Summer	16	1.2	1003.7	8	5.0	0	16	16	131	Surface	48.0
		Winter	16	1.2	1003.7	8	5.0	0	16	16	139	Surface	48.0
2	2-7	Summer	16	1.7	1003.6	8	5.0	0	16	16	110	Surface	48.0
		Winter	16	1.7	1003.6	8	5.0	0	16	16	114	Surface	48.0

4. Dilution Modeling and Diffuser Design for Dense Scenarios

4.1 Analytical Approach

Effluents more dense than seawater are usually discharged from a diffuser as high velocity upwardly-inclined jets. The high exit velocity causes shear that entrains, or engulfs, ambient seawater which then mixes with and dilutes the jets resulting in rapid reduction of salinity to near background levels. Figure 6 shows a laser-induced fluorescence (LIF) image of a typical inclined dense jet. Relative salinity levels are shown in false color, ranging from red (high levels) through orange, yellow, and green to blue (low levels).

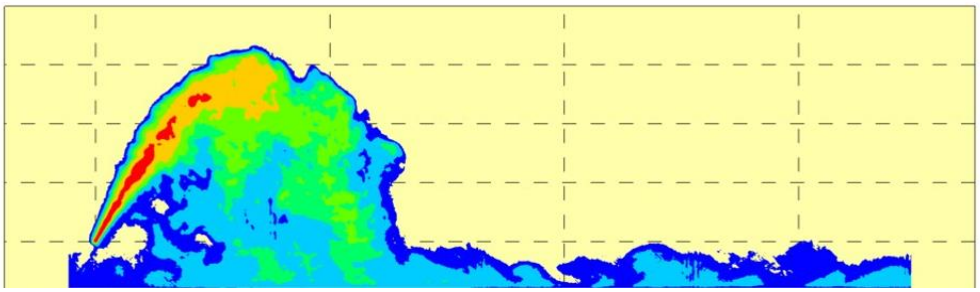


Figure 6. LIF image of an inclined dense jet (after Roberts et al. 1997)

The dynamics of mixing in dense jets and the design process for dense diffusers is described in Roberts (2018). Figure 7 shows and defines the main characteristics for a dense jet inclined at an angle Θ to the horizontal. The terminal rise height to the jet top is y_t. The centerline of the jet where it impacts the bed is called the impact point and the dilution there is the impact dilution, S_i. The distance from the nozzle to the impact point is x_i. Turbulence collapse, which signifies the end of the near field, occurs at x_n (the length of the near field). The dilution at this location is the near field dilution, S_n.

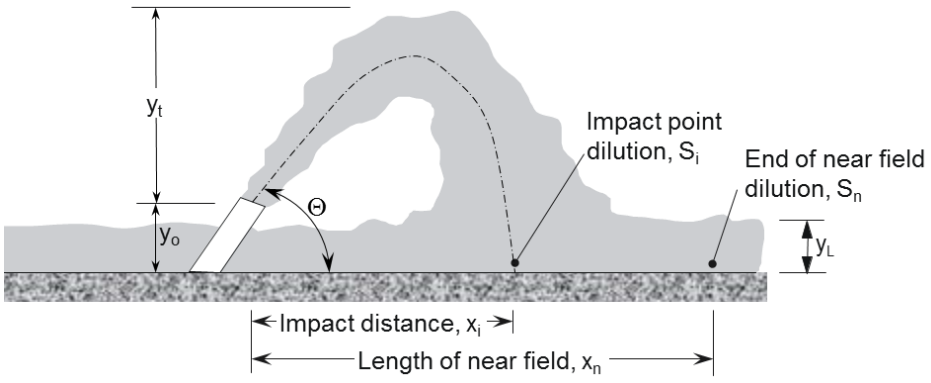


Figure 7. Characteristics of an inclined dense jet

The optimum nozzle angle Θ is 60°. This angle minimizes harmful shear entrainment and maximizes dilution. For that case, the following equations apply (Roberts, 2018):

$$\frac{S_i}{F} = 1.6 \quad \text{and} \quad \frac{S_n}{F} = 2.6 \tag{1ab}$$

$$\frac{y_t}{Fd} = 2.2 \quad \text{and} \quad \frac{x_i}{Fd} = 2.4 \quad \text{and} \quad \frac{x_n}{Fd} = 9.0 \tag{2abc}$$

where F is the densimetric jet Froude number defined by:

$$F = \frac{u}{\sqrt{g'_o d}} \tag{3}$$

where d is the port diameter, u the jet exit velocity, $g'_o = g(\rho_a - \rho_o)/\rho_o$, is the modified acceleration due to gravity, g the acceleration due to gravity, ρ_a the ambient density and ρ_o the effluent density ($\rho_o > \rho_a$).

Eqs. 1 and 2 apply for linear diffusers whose jets do not interfere. This occurs when $s/dF > 2$, where s is the port spacing.

The Ocean Plan contains requirements for brine discharges from seawater desalination plants, in particular receiving water limitations for salinity, the size of the brine mixing zone (BMZ), and mortality of all forms of marine life entrained into the turbulent diffuser jets. The BMZ is a region where salinity increments over natural background can be greater than 2 ppt. It should be minimized up to a maximum allowable distance of 100 m from the diffuser, at which point the salinity must be less than or equal to 2 ppt above natural background. Entrainment of ocean water into the jets that may subject organisms to potentially harmful turbulence must be estimated and should be minimized.

4.2 Results

Eqs 1 and 2 were applied to predict the characteristics of dense jets inclined upwards at 60° for the dense effluent scenarios of Table 2. The diffuser configuration was initially assumed to be the same as for the buoyant diffusers in Table 4, i.e. the same number, diameters, and spacings, except they were oriented upwards at 60°. The worst case is 2-8, which is mostly seawater desalination concentrate; this has the highest flow rate and highest density. The results are summarized in Table 5. The areas of the BMZ, where salinity increments may exceed 2 ppt were calculated according to Roberts (2018).

Table 5. Dilution Simulations for Dense Effluent Scenarios

Scenario	Diffuser	Ports					Near field				Diffuser length	BMZ	
		Number	Spacing	Diam.	Velocity	Froude	Rise ht. yt	Dilution Sn	Salinity incr.	Length x_n			
			(ft)	(in)	(ft/s)	F	(ft)		(ppt)	(ft)	(ft)	(ft2)	(Acre)
12 port diffuser for 12 m depth													
2-1	Buoyant	12	12	4.0	7.2	18.6	13.6	48.3	0.4	55.7	60.0	16,443	0.38
2-1	Modified	12	12	6.9	2.4	4.8	6.0	12.4	1.7	24.6	60.0	4,852	0.11
2-2	Modified	12	12	6.9	2.3	4.7	6.0	12.3	1.5	24.6	60.0	4,848	0.11
2-3	Modified	12	12	6.9	2.0	4.5	5.7	11.7	1.5	23.3	60.0	4,495	0.10
2-4	Modified	12	12	6.9	1.8	4.3	5.5	11.2	1.3	22.4	60.0	4,254	0.10
2-5	Modified	12	12	6.9	1.5	4.3	5.5	11.2	1.0	22.4	60.0	4,262	0.10
2-6	Modified	12	12	6.9	1.3	4.8	6.0	12.4	0.6	24.6	60.0	4,864	0.11
2-8	Buoyant	12	12	4.0	9.8	21.3	15.6	34.0	0.5	63.8	60.0	20,453	0.47
2-8	Modified	12	12	6.9	3.3	5.4	6.9	14.2	2.0	28.2	60.0	5,873	0.13
8 port diffuser for 16 m depth													
2-1	Buoyant	8	16	5.0	6.9	15.9	14.6	41.5	0.5	59.8	48.0	15,545	0.36
2-1	Modified	8	16	8.1	2.6	4.8	7.1	12.4	1.7	29.0	48.0	4,732	0.11
2-2	Modified	8	16	8.1	2.5	4.8	7.1	12.4	1.5	29.0	48.0	4,727	0.11
2-3	Modified	8	16	8.1	2.2	4.5	6.7	11.7	1.5	27.5	48.0	4,344	0.10
2-4	Modified	8	16	8.1	1.9	4.3	6.4	11.3	1.3	26.4	48.0	4,083	0.09
2-5	Modified	8	16	8.1	1.7	4.3	6.5	11.3	1.0	26.4	48.0	4,092	0.09
2-6	Modified	8	16	8.1	1.5	4.8	7.1	12.4	0.6	29.1	48.0	4,745	0.11
2-8	Buoyant	8	16	5.0	9.4	18.3	16.7	47.5	0.6	68.5	48.0	19,672	0.45
2-8	Modified	8	16	8.1	3.6	5.5	8.1	14.2	2.0	33.2	48.0	5,859	0.13

Calculations were first done for the buoyant effluent diffusers of Table 4, labeled "Buoyant." Results are shown for case 2-1 and the worst case 2-8. Because of the higher flow rates for these cases compared to the buoyant effluents, the jet velocities are excessive and near field dilutions exceed those required to reduce the salinity increment to less than 2 ppt in the near field. In addition, the extent of the BMZ is quite large. The port diameters were then increased for case 2-8 until the salinity increment of 2 ppt was just reached. The calculations were then repeated for the other discharge scenarios. The diffuser for these cases are labeled "Modified."

For the 12 m depth the port diameters are increased from 4.0 to 6.9 inches, and for the 16 m depth the port diameters are increased from 5.0 to 8.1 inches. In all cases, the dense jets are submerged below the water surface.

4.3 Shear Mortality

The volume of water entrained into the jets that may be harmful to planktonic organisms was calculated according to the recommendations in Roberts (2018) (R2018). There it is recommended that the harmful volume is that entrained up to the terminal rise height and that volume be calculated by the mathematical model UM3.

UM3 was run for the worst case, 2-8, for diffusers at water depths of 12 and 16 m. The UM3 outputs are shown in Appendix C.

The jet Reynolds numbers $\mathrm{Re} = ud/\nu$ were calculated assuming the kinematic viscosity $\nu = 1.26\times10^{-5}$ ft^2/s. For a jet velocity of 3.3 ft/s (Table 5) the Reynolds numbers is 1.5×10^5. The jet path length χ up to the terminal rise height was calculated from the UM3 trajectory results (Appendix C). They are 4.2 ft and 4.9 ft for diffuser depths of 12 and 16 m respectively. The centerline Kolmogorov scales η_c at the top after a trajectory length χ (R2018 Eq. 22):

$$\frac{\eta_c}{\chi} = 0.24\,\mathrm{Re}^{-3/4}$$

is therefore 0.04 mm.

Because the Kolmogorov scale at the top is less than one mm, deleterious entrainment is assumed up to this point. Following the suggested procedure (R2018 Section 4.4.3), UM3 was run for case 2-8; the outputs are given in Appendix C.

The entrained volume up to the terminal rise height Q_e was calculated from Eq. 36 of R2018:

$$Q_e = \left(S_{ta} - 1\right) Q_T$$

where S_{ta} is the average dilution computed by UM3 at the terminal rise height (local maximum rise or fall), and Q_T the total flow rate. The results are shown in Table 6.

Table 6. Shear Entrainment Calculations

Scenario	Ports					UM3 predictions	
	Number, *n*	Spacing	Diam., *d* (in)	Velocity, *u* (ft/s)	Froude number, *F*	Average dilution at top, S_{ta}	Entrained flow, Q_T (mgd)
2-8 @ 12 m depth	12	12	6.9	3.3	5.4	3.50	16.5
2-8 @ 16 m depth	8	16	8.1	3.6	5.5	3.52	16.6

5. DISCUSSION

Because the dilution requirements can be achieved in shallow water and because there are no shoreline biological considerations, there is no necessity to extend the diffuser farther offshore than one mile into waters deeper than 12 m. An even shorter outfall may be feasible, depending on constructability issues. Shallow waters may also be desirable to facilitate retrofitting diffuser nozzles as the project proceeds.

The results show that a single diffuser configuration, i.e. depth, number of ports and their spacing, can be used for all modeled flow scenarios. The port diameters for the dense effluent scenarios are larger than for the buoyant effluent scenarios, however, and would need to be retrofitted. This should be quite feasible in the shallow water depths. The nozzle orientation for buoyant effluents is usually horizontal, whereas for the dense effluents it is at 60°. The buoyant effluents can be designed with 60° nozzles, and the possibility of variable area checkvalves can also be investigated. Another possibility is to increase the number of ports for the dense discharge cases. This could be accomplished by blanking them off in the early stages. Although this may decrease shear mortality and the BMZ somewhat, the cost and ease of retrofitting fewer nozzles may favor keeping the number of ports fixed. The nozzles should be designed to facilitate later retrofits. The outfall diameter and length and diffuser configurations should be refined as more information is obtained.

As an alternative to retrofitting nozzles, all flow scenarios could be accommodated by variable area checkvalves oriented upwards at 60°. Dilutions should be recalculated according to the valve hydraulic characteristics.

The designs were made assuming a nominal initial dilution of 100:1 for the buoyant effluents and then sizing the dense effluent nozzles assuming the same number of ports and spacing. If the required buoyant effluent dilution criteria is different, the design would be different. If the diffuser is designed for the brine discharges alone, it would be different and may have fewer nozzles. This does not significantly affect the harmful volume entrainment, which depends only on dilution, but may decrease the size of the BMZ.

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SWRCB (2015). "Water Quality Control Plan Ocean Waters of California." State Water Resources Control Board, California Environmental Protection Agency, Sacramento, California, Adopted May 6, 2015, Effective January 28, 2016.

Tian, X., Roberts, P. J. W., and Daviero, G. J. (2004). "Marine Wastewater Discharges From Multiport Diffusers I: Unstratified Stationary Water." J. Hydraul. Eng., 130(12), 1137-1146

APPENDIX A. DENSITY PROFILES

The seasonal density profiles are summarized below. Temperature and salinity are averaged over ebb and flood tides. From:

"Application for NPDES Permit: Report of Waste Discharge for Salinity Management Pipeline, Hueneme Outfall." Calleguas Municipal Water District & Calleguas Creek Watershed Management Plan, May 2007. Appendix F.

Depth (m)	Depth (ft)	Temperature (°C)	Salinity (psu)	Density (sigma-t)
Winter 2002				
0	0.0	14.15	33.65	25.14
1	3.3	14.13	33.65	25.14
2	6.6	14.08	33.65	25.15
3	9.8	14.01	33.66	25.17
4	13.1	13.95	33.66	25.19
5	16.4	13.89	33.68	25.21
6	19.7	13.83	33.67	25.22
7	23.0	13.75	33.68	25.24
8	26.2	13.66	33.68	25.26
9	29.5	13.59	33.38	25.28
10	32.8	13.55	33.69	25.29
11	36.1	13.48	33.69	25.31
12	39.4	13.44	33.69	25.31
13	42.6	13.42	33.68	25.31
14	45.9			25.31
Summer 2002				
0	0.0	15.31	33.57	24.83
1	3.3	15.23	33.56	24.84
2	6.6	15.11	33.58	24.88
3	9.8	14.96	33.58	24.91
4	13.1	14.50	33.42	24.89
5	16.4	13.95	33.54	25.09
6	19.7	13.79	33.54	25.13
7	23.0	13.72	33.56	25.16
8	26.2	13.68	33.55	25.16
9	29.5	13.64	33.54	25.16
10	32.8	13.58	33.55	25.18
11	36.1	13.51	33.54	25.18
12	39.4	13.29	33.55	25.24
13	42.6	13.22	33.59	25.28
14	45.9	13.21	33.58	25.27

APPENDIX B. UM3 OUTPUTS FOR 12 M WATER DEPTH

Outputs from the mathematical model UM3 for the buoyant jet calculations fo the 12 m depth diffuser in Table 4.

Case 1-1 Summer stratification 12 m depth

Model configuration items checked:
  Channel width (m) 100
Start case for graphs 1
Max detailed graphs 10 (limits plots that can overflow memory)
 Elevation Projection Plane (deg) 0
Shore vector (m,deg) not checked
 Bacteria model : Mancini (1978) coliform model
 PDS sfc. model heat transfer : Medium
 Equation of State : S, T
 Similarity Profile : Default profile (k=2.0, ...)
 Diffuser port contraction coefficient 1
 Light absorption coefficient 0.16
 Farfield increment (m) 200
 UM3 aspiration coefficient 0.1
  Output file: text output tab
  Output each ?? steps 100
  Maximum dilution reported 10000
 Text output format : Standard
 Max vertical reversals : to max rise or fall

/ UM3. 7/11/2018 11:20:22 AM
Case 1; ambient file C:\Plumes18\Ventura\Summer.db; Diffuser table record 1: ----------

Ambient Table:

Depth	Amb-cur	Amb-dir	Amb-den	Amb-tem	Amb-pol	Decay	Far-spd	Far-dir	Disprsn	Density
m	m/s	deg	psu	C	kg/kg	s-1	m/s	deg	m0.67/s2	sigma-T
0.0	0.0	0.0	35.06	20.00	0.0	0.0	-	-	0.0	24.83000
1.000	0.0	0.0	35.07	20.00	0.0	0.0	-	-	0.0	24.84000
2.000	0.0	0.0	35.13	20.00	0.0	0.0	-	-	0.0	24.88000
3.000	0.0	0.0	35.17	20.00	0.0	0.0	-	-	0.0	24.91000
4.000	0.0	0.0	35.14	20.00	0.0	0.0	-	-	0.0	24.89000
5.000	0.0	0.0	35.40	20.00	0.0	0.0	-	-	0.0	25.09000
6.000	0.0	0.0	35.45	20.00	0.0	0.0	-	-	0.0	25.13000
7.000	0.0	0.0	35.49	20.00	0.0	0.0	-	-	0.0	25.16000
8.000	0.0	0.0	35.49	20.00	0.0	0.0	-	-	0.0	25.16000
9.000	0.0	0.0	35.49	20.00	0.0	0.0	-	-	0.0	25.16000
10.00	0.0	0.0	35.52	20.00	0.0	0.0	-	-	0.0	25.18000
11.00	0.0	0.0	35.52	20.00	0.0	0.0	-	-	0.0	25.18000
12.00	0.0	0.0	35.60	20.00	0.0	0.0	-	-	0.0	25.24000
13.00	0.0	0.0	35.65	20.00	0.0	0.0	-	-	0.0	25.28000
14.00	0.0	0.0	35.64	20.00	0.0	0.0	-	-	0.0	25.27000

Diffuser table:

P-dia	Ver angl	H-Angle	SourceX	SourceY	Ports	Spacing	MZ-dis	Isoplth	P-depth	Ttl-flo	Eff-den	Temp	Polutnt
(in)	(deg)	(deg)	(ft)	(ft)	()	(ft)	(m)	(concent)	(m)	(MGD)	(kg/m3)	(C)	(ppm)
4.0000	0.0	0.0	0.0	0.0	12.000	6.0000	100.00	0.0	12.000	1.2000	1003.7	13.420	1000.0

Simulation:
Froude No: 3.696; Strat No: 1.61E-4; Spcg No: 18.00; k: 54040.6; eff den (sigmaT) 3.700000; eff vel   0.540(m/s);
Current is very small, flow regime may be transient.

Step	Depth (m)	Amb-cur (m/s)	P-dia (in)	Polutnt (ppm)	Dilutn ()	x-posn (m)	y-posn (m)	Iso dia (m)	
0	12.00	1.000E-5	4.000	1000.0	1.000	0.0	0.0	0.1016;	
100	11.91	0.0	10.17	371.5	2.692	0.407	0.0	0.2584;	
200	11.55	0.0	15.28	196.4	5.091	0.773	0.0	0.3881;	
300	9.319	0.0	36.27	42.94	23.29	1.418	0.0	0.9214;	
358	5.521	0.0	72.44	13.62	73.40	1.767	0.0	1.8399;	merging;
371	3.819	0.0	89.62	10.53	94.95	1.859	0.0	2.2763;	trap level;
383	1.043	0.0	136.0	8.304	120.4	2.006	0.0	3.4554;	matched energy radial vel = 0.0652m/s;
386	0.021	0.0	162.1	7.825	127.8	2.069	0.0	4.1169;	surface;

Horiz plane projections in effluent direction: radius(m):   0.0; CL(m):   2.0685
Lmz(m):   2.0685
forced entrain   1   0.0   11.98   4.117 0.0603
Rate sec-1   0.0 dy-1   0.0 kt: 0.0 Amb Sal   35.0656
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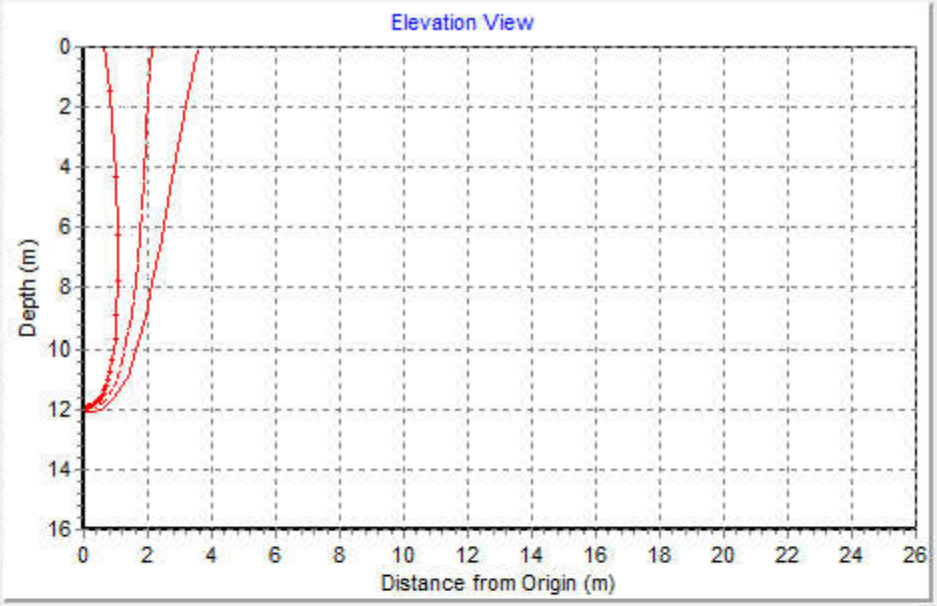
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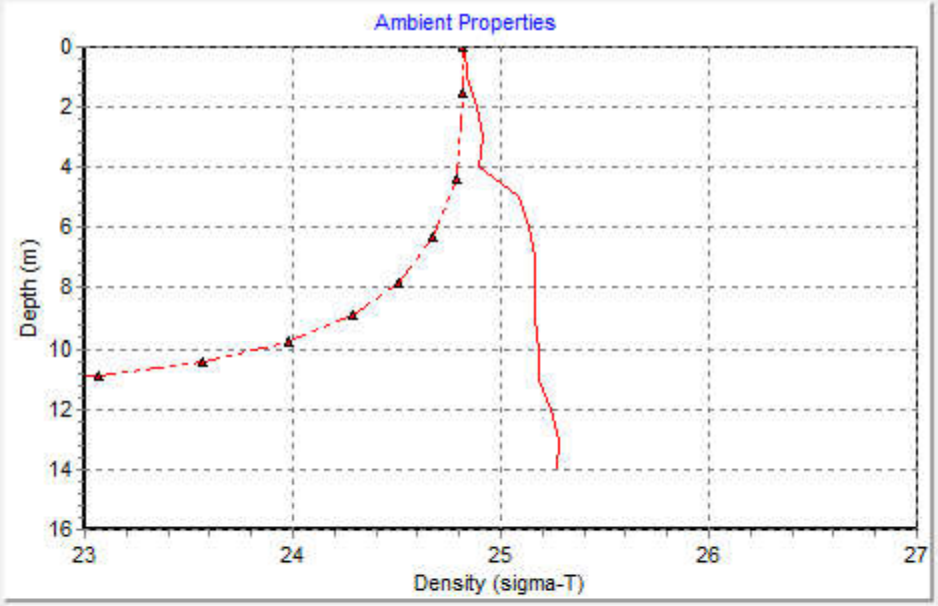
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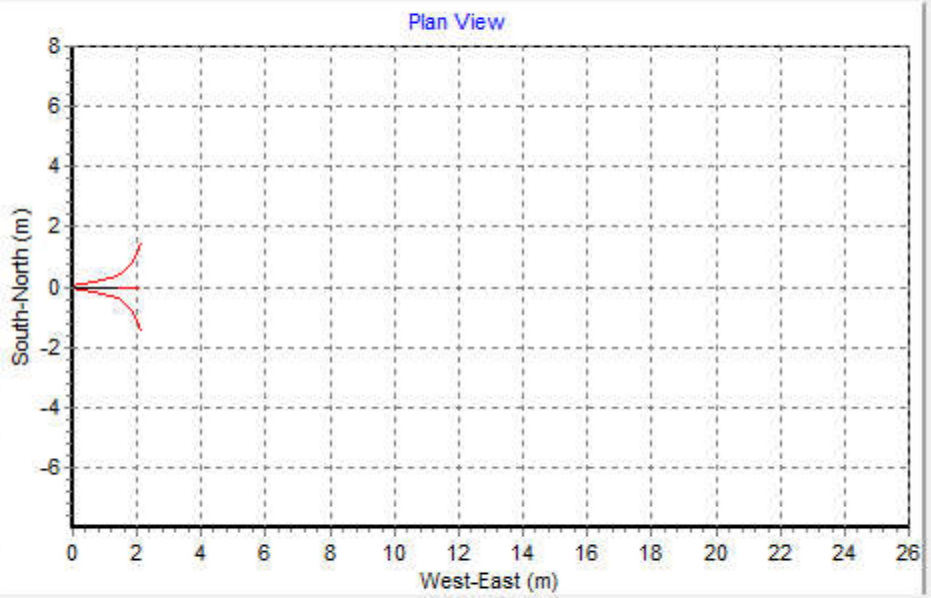
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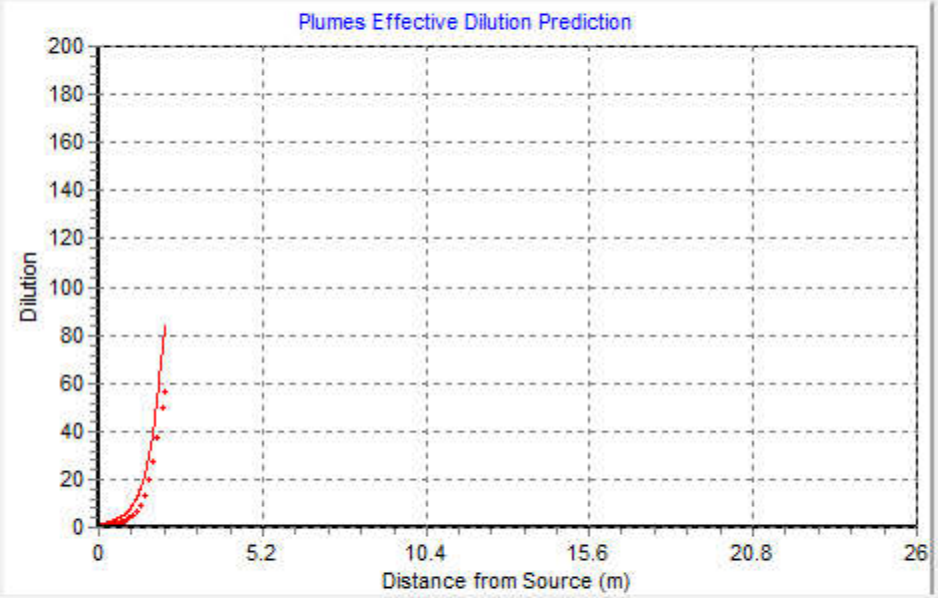
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Case 1-1 Winter stratification 12 m depth

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Max detailed graphs 10 (limits plots that can overflow memory)
 Elevation Projection Plane (deg) 0
Shore vector (m,deg) not checked
 Bacteria model : Mancini (1978) coliform model
 PDS sfc. model heat transfer : Medium
 Equation of State : S, T
 Similarity Profile : Default profile (k=2.0, ...)
 Diffuser port contraction coefficient 1
 Light absorption coefficient 0.16
 Farfield increment (m) 200
 UM3 aspiration coefficient 0.1
  Output file: text output tab
  Output each ?? steps 100
  Maximum dilution reported 10000
 Text output format : Standard
 Max vertical reversals : to max rise or fall

/ UM3. 7/11/2018 11:25:42 AM
Case 1; ambient file C:\Plumes18\Ventura\Winter.db; Diffuser table record 1: ----------

Ambient Table:

Depth	Amb-cur	Amb-dir	Amb-den	Amb-tem	Amb-pol	Decay	Far-spd	Far-dir	Disprsn	Density
m	m/s	deg	psu	C	kg/kg	s-1	m/s	deg	m0.67/s2	sigma-T
0.0	0.0	0.0	35.47	20.00	0.0	0.0	-	-	0.0	25.14000
1.000	0.0	0.0	35.47	20.00	0.0	0.0	-	-	0.0	25.14000
2.000	0.0	0.0	35.48	20.00	0.0	0.0	-	-	0.0	25.15000
3.000	0.0	0.0	35.51	20.00	0.0	0.0	-	-	0.0	25.17000
4.000	0.0	0.0	35.53	20.00	0.0	0.0	-	-	0.0	25.19000
5.000	0.0	0.0	35.56	20.00	0.0	0.0	-	-	0.0	25.21000
6.000	0.0	0.0	35.57	20.00	0.0	0.0	-	-	0.0	25.22000
7.000	0.0	0.0	35.60	20.00	0.0	0.0	-	-	0.0	25.24000
8.000	0.0	0.0	35.63	20.00	0.0	0.0	-	-	0.0	25.26000
9.000	0.0	0.0	35.65	20.00	0.0	0.0	-	-	0.0	25.28000
10.00	0.0	0.0	35.66	20.00	0.0	0.0	-	-	0.0	25.29000
11.00	0.0	0.0	35.69	20.00	0.0	0.0	-	-	0.0	25.31000
12.00	0.0	0.0	35.69	20.00	0.0	0.0	-	-	0.0	25.31000
13.00	0.0	0.0	35.69	20.00	0.0	0.0	-	-	0.0	25.31000
14.00	0.0	0.0	35.69	20.00	0.0	0.0	-	-	0.0	25.31000

Diffuser table:

P-dia	Ver angl	H-Angle	SourceX	SourceY	Ports	Spacing	MZ-dis	Isoplth	P-depth	Ttl-flo	Eff-den	Temp	Polutnt
(in)	(deg)	(deg)	(ft)	(ft)	()	(ft)	(m)	(concent)	(m)	(MGD)	(kg/m3)	(C)	(ppm)
4.0000	0.0	0.0	0.0	0.0	12.000	6.0000	100.00	0.0	12.000	1.2000	1003.7	13.420	1000.0

Simulation:
Froude No: 3.690; Strat No: 6.66E-5; Spcg No: 18.00; k: 54040.6; eff den (sigmaT) 3.700000; eff vel   0.540(m/s);
Current is very small, flow regime may be transient.

Step	Depth (m)	Amb-cur (m/s)	P-dia (in)	Polutnt (ppm)	Dilutn ()	x-posn (m)	y-posn (m)	Iso dia (m)	
0	12.00	1.000E-5	4.000	1000.0	1.000	0.0	0.0	0.0;	
100	11.91	0.0	10.16	372.0	2.688	0.406	0.0	0.2580;	
200	11.55	0.0	15.24	196.9	5.079	0.770	0.0	0.3872;	
300	9.337	0.0	36.06	43.20	23.15	1.410	0.0	0.9160;	
358	5.549	0.0	72.55	13.71	72.96	1.760	0.0	1.8427;	merging;
386	0.907	0.0	112.4	7.873	127.0	1.975	0.0	2.8549;	matched energy radial vel = 0.0868m/s;
390	-0.116	0.0	122.1	7.273	137.5	2.012	0.0	3.1004;	surface;

Horiz plane projections in effluent direction: radius(m):   0.0; CL(m):   2.0120
Lmz(m):   2.0120
forced entrain   1   0.0   12.12   3.100 0.0362
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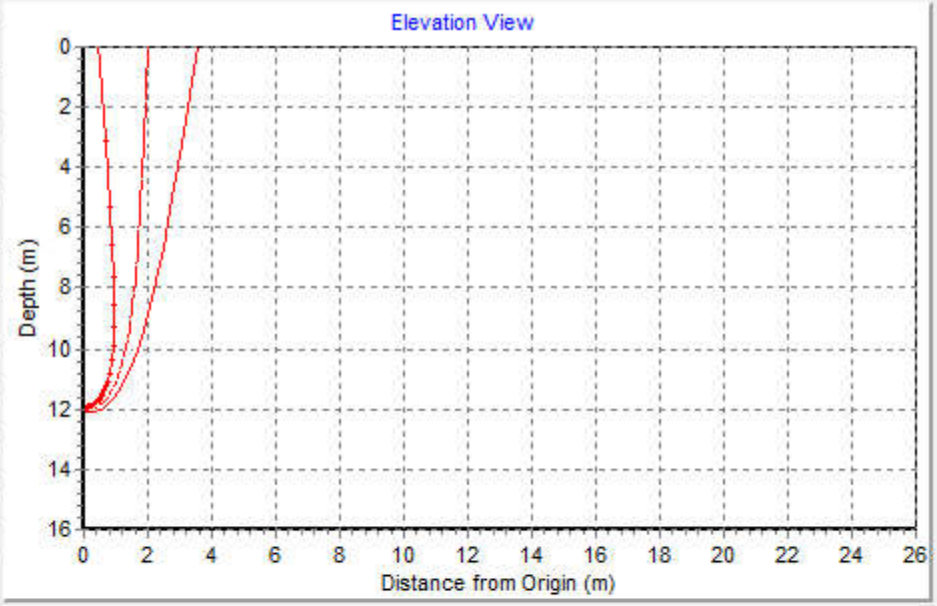
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Clear gb
Clr Verify

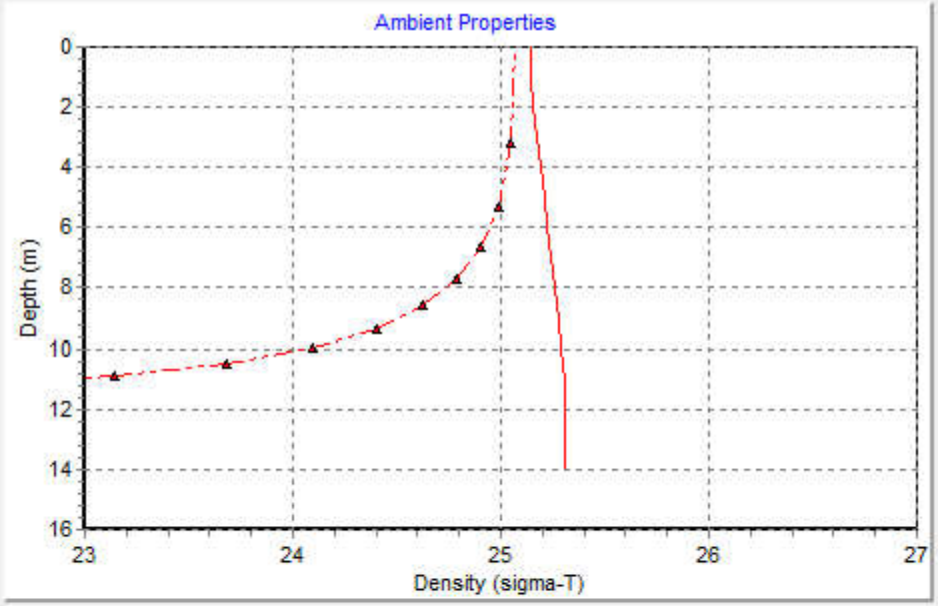
Style
4-pl
diln
con
cus

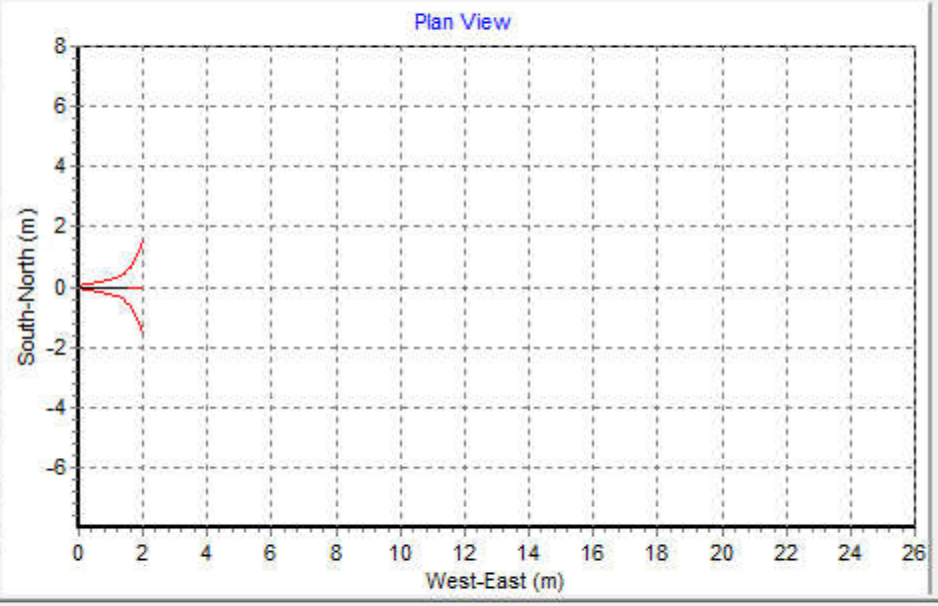
Series
red
blue
grn

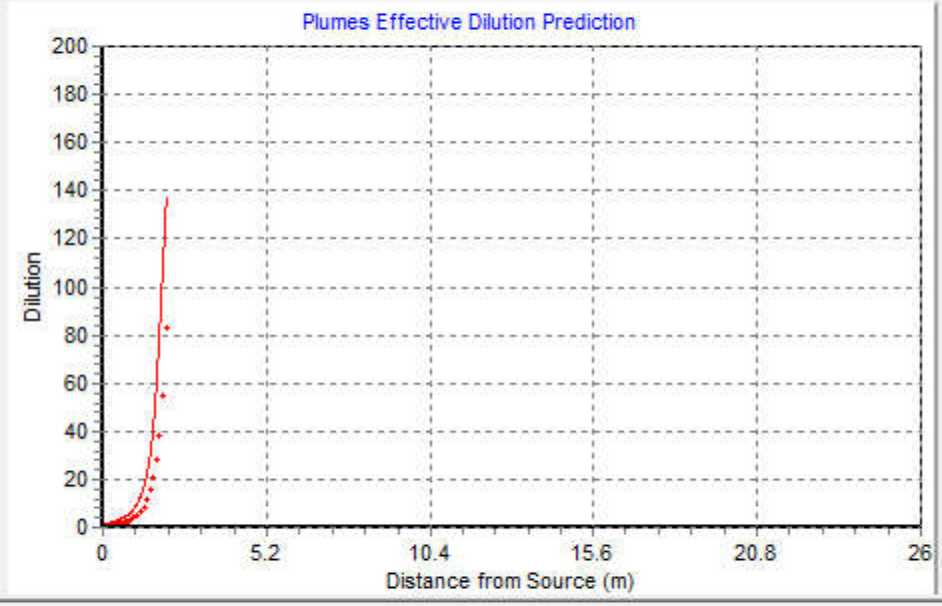
Plane
eff
cur
set

Scale
Thick
To File
Verify









Case 2-7 Summer stratification 12 m depth

Model configuration items checked:
  Channel width (m) 100
Start case for graphs 1
Max detailed graphs 10 (limits plots that can overflow memory)
 Elevation Projection Plane (deg) 0
Shore vector (m,deg) not checked
 Bacteria model : Mancini (1978) coliform model
 PDS sfc. model heat transfer : Medium
 Equation of State : S, T
 Similarity Profile : Default profile (k=2.0, ...)
 Diffuser port contraction coefficient 1
 Light absorption coefficient 0.16
 Farfield increment (m) 200
 UM3 aspiration coefficient 0.1
  Output file: text output tab
  Output each ?? steps 100
  Maximum dilution reported 10000
 Text output format : Standard
 Max vertical reversals : to max rise or fall

/ UM3. 7/11/2018 11:28:54 AM
Case 1; ambient file C:\Plumes18\Ventura\Summer.db; Diffuser table record 1: ----------

Ambient Table:

Depth	Amb-cur	Amb-dir	Amb-den	Amb-tem	Amb-pol	Decay	Far-spd	Far-dir	Disprsn	Density
m	m/s	deg	psu	C	kg/kg	s-1	m/s	deg	m0.67/s2	sigma-T
0.0	0.0	0.0	35.06	20.00	0.0	0.0	-	-	0.0	24.83000
1.000	0.0	0.0	35.07	20.00	0.0	0.0	-	-	0.0	24.84000
2.000	0.0	0.0	35.13	20.00	0.0	0.0	-	-	0.0	24.88000
3.000	0.0	0.0	35.17	20.00	0.0	0.0	-	-	0.0	24.91000
4.000	0.0	0.0	35.14	20.00	0.0	0.0	-	-	0.0	24.89000
5.000	0.0	0.0	35.40	20.00	0.0	0.0	-	-	0.0	25.09000
6.000	0.0	0.0	35.45	20.00	0.0	0.0	-	-	0.0	25.13000
7.000	0.0	0.0	35.49	20.00	0.0	0.0	-	-	0.0	25.16000
8.000	0.0	0.0	35.49	20.00	0.0	0.0	-	-	0.0	25.16000
9.000	0.0	0.0	35.49	20.00	0.0	0.0	-	-	0.0	25.16000
10.00	0.0	0.0	35.52	20.00	0.0	0.0	-	-	0.0	25.18000
11.00	0.0	0.0	35.52	20.00	0.0	0.0	-	-	0.0	25.18000
12.00	0.0	0.0	35.60	20.00	0.0	0.0	-	-	0.0	25.24000
13.00	0.0	0.0	35.65	20.00	0.0	0.0	-	-	0.0	25.28000
14.00	0.0	0.0	35.64	20.00	0.0	0.0	-	-	0.0	25.27000

Diffuser table:

P-dia	Ver angl	H-Angle	SourceX	SourceY	Ports	Spacing	MZ-dis	Isoplth	P-depth	Ttl-flo	Eff-den	Temp	Polutnt
(in)	(deg)	(deg)	(ft)	(ft)	()	(ft)	(m)	(concent)	(m)	(MGD)	(kg/m3)	(C)	(ppm)
4.0000	0.0	0.0	0.0	0.0	12.000	6.0000	100.00	0.0	12.000	1.7000	1003.6	13.420	1000.0

Simulation:
Froude No: 5.223; Strat No: 1.60E-4; Spcg No: 18.00; k: 76557.6; eff den (sigmaT) 3.600000; eff vel   0.766(m/s);
Current is very small, flow regime may be transient.

Step	Depth (m)	Amb-cur (m/s)	P-dia (in)	Polutnt (ppm)	Dilutn ()	x-posn (m)	y-posn (m)	Iso dia (m)	
0	12.00	1.000E-5	4.000	1000.0	1.000	0.0	0.0	0.1016;	
100	11.88	0.0	13.29	287.5	3.478	0.603	0.0	0.3376;	
200	11.42	0.0	20.58	150.4	6.650	1.120	0.0	0.5228;	
300	8.701	0.0	46.48	35.99	27.78	2.007	0.0	1.1806;	
338	5.914	0.0	72.82	16.97	58.94	2.357	0.0	1.8497;	merging;
364	1.419	0.0	125.4	10.14	98.63	2.706	0.0	3.1854;	trap level;
365	1.134	0.0	129.7	9.940	100.6	2.727	0.0	3.2953;	matched energy radial vel = 0.0735m/s;
369	-0.155	0.0	153.0	9.183	108.9	2.825	0.0	3.8868;	surface;

Horiz plane projections in effluent direction: radius(m):   0.0; CL(m):   2.8252
Lmz(m):   2.8252
forced entrain   1   0.0   12.15   3.887 0.0764
Rate sec-1   0.0 dy-1   0.0 kt: 0.0 Amb Sal   35.0631
 ;
11:28:55 AM. amb fills: 4

Diffuser: Ventura01.vpp.db | Ambient: C:\Plumes18\Ventura\Summer.db | Special Settings | Text Output | Graphical Output

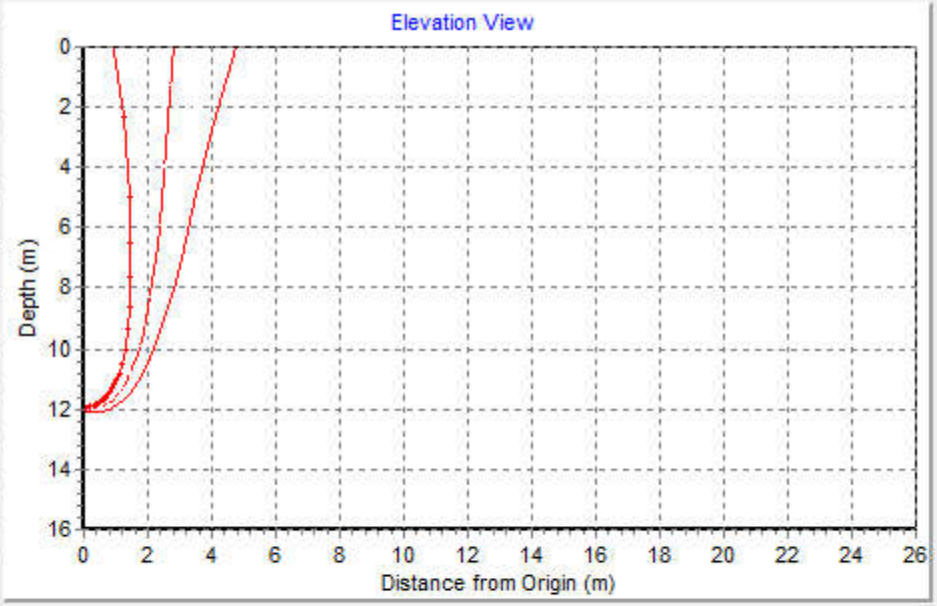
Help
Clear +
Clear all
Clear ra
Clear rb
Clear ba
Clear bb
Clear ga
Clear gb
Clr Verify

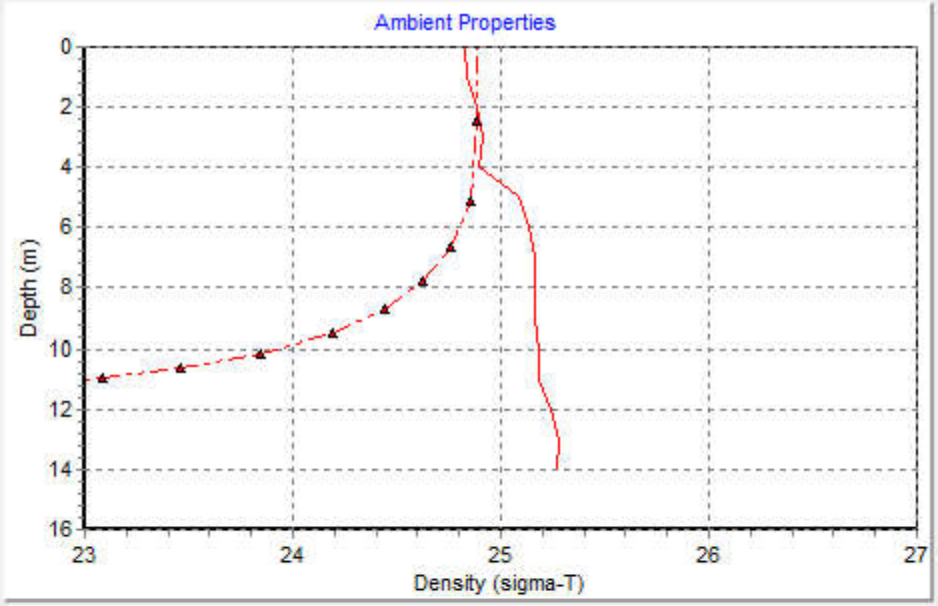
Style
4-pl
diln
con
cus

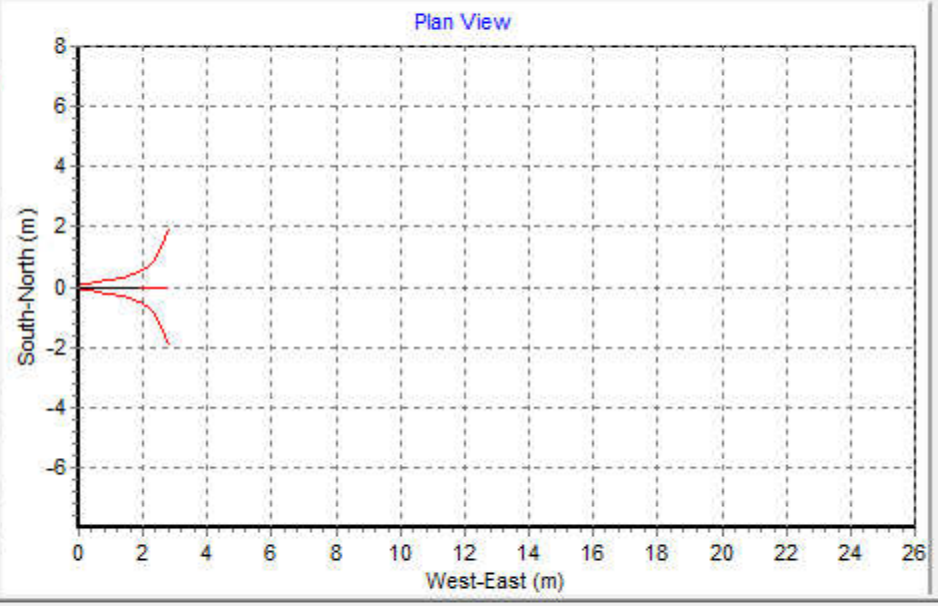
Series
red
blue
grn

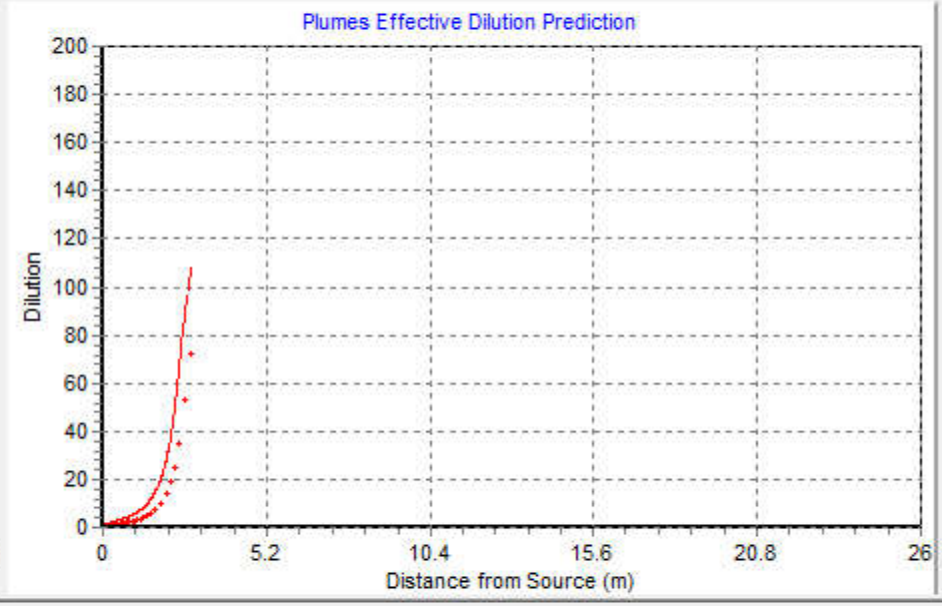
Plane
eff
cur
set

Scale
Thick
To File
Verify









Case 2-7 Winter stratification 12 m depth

Model configuration items checked:
  Channel width (m) 100
Start case for graphs 1
Max detailed graphs 10 (limits plots that can overflow memory)
 Elevation Projection Plane (deg) 0
Shore vector (m,deg) not checked
 Bacteria model : Mancini (1978) coliform model
 PDS sfc. model heat transfer : Medium
 Equation of State : S, T
 Similarity Profile : Default profile (k=2.0, ...)
 Diffuser port contraction coefficient 1
 Light absorption coefficient 0.16
 Farfield increment (m) 200
 UM3 aspiration coefficient 0.1
  Output file: text output tab
  Output each ?? steps 100
  Maximum dilution reported 10000
 Text output format : Standard
 Max vertical reversals : to max rise or fall

/ UM3. 7/11/2018 11:30:51 AM
Case 1; ambient file C:\Plumes18\Ventura\Winter.db; Diffuser table record 1: ----------

Ambient Table:

Depth	Amb-cur	Amb-dir	Amb-den	Amb-tem	Amb-pol	Decay	Far-spd	Far-dir	Disprsn	Density
m	m/s	deg	psu	C	kg/kg	s-1	m/s	deg	m0.67/s2	sigma-T
0.0	0.0	0.0	35.47	20.00	0.0	0.0	-	-	0.0	25.14000
1.000	0.0	0.0	35.47	20.00	0.0	0.0	-	-	0.0	25.14000
2.000	0.0	0.0	35.48	20.00	0.0	0.0	-	-	0.0	25.15000
3.000	0.0	0.0	35.51	20.00	0.0	0.0	-	-	0.0	25.17000
4.000	0.0	0.0	35.53	20.00	0.0	0.0	-	-	0.0	25.19000
5.000	0.0	0.0	35.56	20.00	0.0	0.0	-	-	0.0	25.21000
6.000	0.0	0.0	35.57	20.00	0.0	0.0	-	-	0.0	25.22000
7.000	0.0	0.0	35.60	20.00	0.0	0.0	-	-	0.0	25.24000
8.000	0.0	0.0	35.63	20.00	0.0	0.0	-	-	0.0	25.26000
9.000	0.0	0.0	35.65	20.00	0.0	0.0	-	-	0.0	25.28000
10.00	0.0	0.0	35.66	20.00	0.0	0.0	-	-	0.0	25.29000
11.00	0.0	0.0	35.69	20.00	0.0	0.0	-	-	0.0	25.31000
12.00	0.0	0.0	35.69	20.00	0.0	0.0	-	-	0.0	25.31000
13.00	0.0	0.0	35.69	20.00	0.0	0.0	-	-	0.0	25.31000
14.00	0.0	0.0	35.69	20.00	0.0	0.0	-	-	0.0	25.31000

Diffuser table:

P-dia	Ver angl	H-Angle	SourceX	SourceY	Ports	Spacing	MZ-dis	Isoplth	P-depth	Ttl-flo	Eff-den	Temp	Polutnt
(in)	(deg)	(deg)	(ft)	(ft)	()	(ft)	(m)	(concent)	(m)	(MGD)	(kg/m3)	(C)	(ppm)
4.0000	0.0	0.0	0.0	0.0	12.000	6.0000	100.00	0.0	12.000	1.7000	1003.6	13.420	1000.0

Simulation:
Froude No: 5.215; Strat No: 6.63E-5; Spcg No: 18.00; k: 76557.6; eff den (sigmaT) 3.600000; eff vel   0.766(m/s);
Current is very small, flow regime may be transient.

Step	Depth (m)	Amb-cur (m/s)	P-dia (in)	Polutnt (ppm)	Dilutn ()	x-posn (m)	y-posn (m)	Iso dia (m)	
0	12.00	1.000E-5	4.000	1000.0	1.000	0.0	0.0	0.1016;	
100	11.88	0.0	13.27	287.9	3.474	0.602	0.0	0.3371;	
200	11.43	0.0	20.52	150.8	6.632	1.117	0.0	0.5213;	
300	8.723	0.0	46.18	36.21	27.62	1.995	0.0	1.1731;	
338	5.947	0.0	72.85	17.07	58.59	2.346	0.0	1.8503;	merging;
367	1.080	0.0	113.0	9.612	104.0	2.691	0.0	2.8714;	matched energy radial vel = 0.0847m/s;
371	0.0527	0.0	122.3	8.880	112.6	2.747	0.0	3.1057;	surface;

Horiz plane projections in effluent direction: radius(m):   0.0; CL(m):   2.7467
Lmz(m):   2.7467
forced entrain   1   0.0   11.95   3.106   0.054
Rate sec-1   0.0 dy-1   0.0 kt: 0.0 Amb Sal   35.4677
 ;
11:30:51 AM. amb fills: 4

Diffuser: Ventura01.vpp.db | Ambient: C:\Plumes18\Ventura\Winter.db | Special Settings | Text Output | Graphical Output

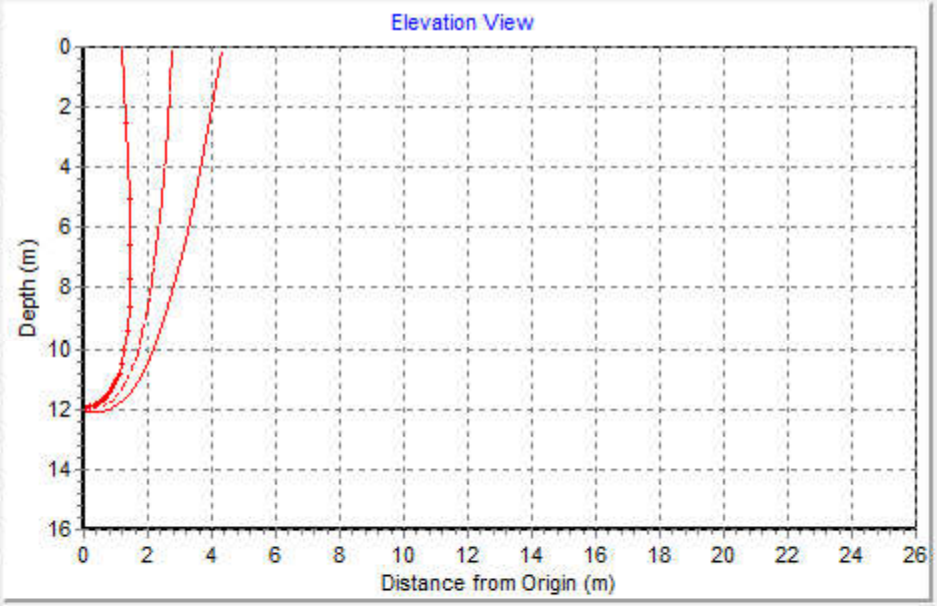
Help
Clear +
Clear all
Clear ra
Clear rb
Clear ba
Clear bb
Clear ga
Clear gb
Clr Verify

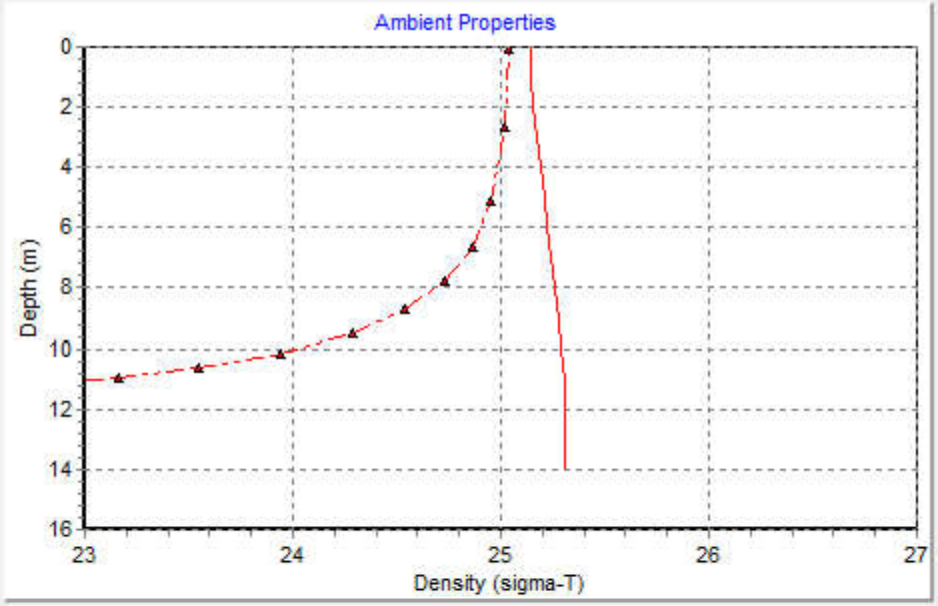
Style
4-pl
diln
con
cus

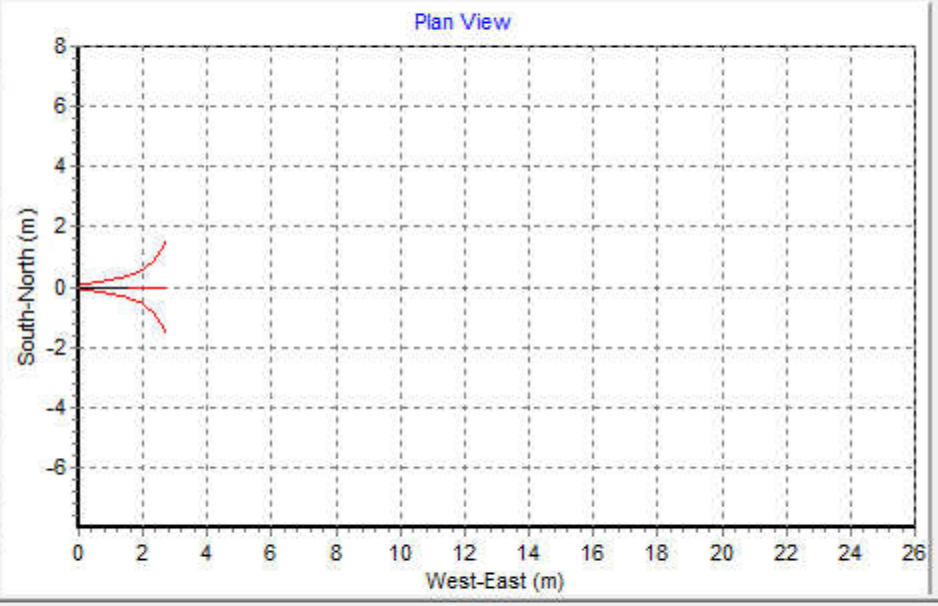
Series
red
blue
grn

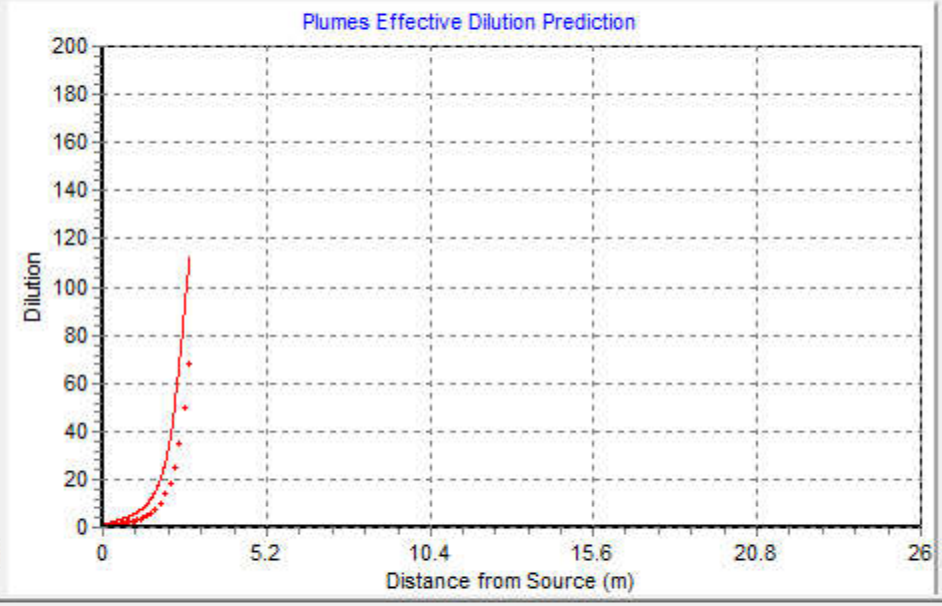
Plane
eff
cur
set

Scale
Thick
To File
Verify









APPENDIX C. UM3 OUTPUTS FOR SHEAR CALCULATIONS

Outputs from the mathematical model UM3 used for the harmful shear entrainment calculations. Results are shown for the worst case 2-8 in Table 5 for diffusers at 12 and 16 m depth.

Case 2-8: 12 Port diffuser for 12 m water depth

Model configuration items checked:
  Channel width (m) 100
Start case for graphs 1
Max detailed graphs 10 (limits plots that can overflow memory)
 Elevation Projection Plane (deg) 0
Shore vector (m,deg) not checked
 Bacteria model : Mancini (1978) coliform model
 PDS sfc. model heat transfer : Medium
 Equation of State : S, T
 Similarity Profile : Default profile (k=2.0, ...)
 Diffuser port contraction coefficient 1
 Light absorption coefficient 0.16
 Farfield increment (m) 200
 UM3 aspiration coefficient 0.1
  Output file: text output tab
  Output each ?? steps 100
  Maximum dilution reported 10000
 Text output format : Standard
 Max vertical reversals : to max rise or fall

/ UM3. 7/12/2018 8:52:46 AM
Case 1; ambient file C:\Plumes18\Ventura\Dense profile.db; Diffuser table record 1: ----------

Ambient Table:

Depth	Amb-cur	Amb-dir	Amb-den	Amb-tem	Amb-pol	Decay	Far-spd	Far-dir	Disprsn	Density
m	m/s	deg	psu	C	kg/kg	s-1	m/s	deg	m0.67/s2	sigma-T
0.0	0.0	0.0	35.68	20.00	0.0	0.0	-	-	0.0	25.30000
13.00	0.0	0.0	35.68	20.00	0.0	0.0	-	-	0.0	25.30000

Diffuser table:

P-dia	Ver angl	H-Angle	SourceX	SourceY	Ports	Spacing	MZ-dis	Isoplth	P-depth	Ttl-flo	Eff-den	Temp	Polutnt
(in)	(deg)	(deg)	(ft)	(ft)	()	(ft)	(m)	(concent)	(m)	(MGD)	(kg/m3)	(C)	(ppm)
6.9000	60.000	0.0	0.0	0.0	12.000	6.0000	100.00	0.0	12.000	6.6000	1045.4	13.420	1000.0

Simulation:
Froude No: -5.495; Strat No: 0.0000; Spcg No: 10.43; k: 99886.1; eff den (sigmaT) 45.40000; eff vel   0.999(m/s);
Current is very small, flow regime may be transient.

Step	Depth (m)	Amb-cur (m/s)	P-dia (in)	Polutnt (ppm)	Dilutn ()	x-posn (m)	y-posn (m)	Iso dia (m)	
0	12.00	1.000E-5	6.900	1000.0	1.000	0.0	0.0	0.1753;	
100	11.21	0.0	26.94	320.8	3.117	0.598	0.0	0.6842;	
114	11.18	0.0	28.48	311.1	3.214	0.643	0.0	0.7234;	begin overlap;
200	11.10	0.0	33.36	288.9	3.461	0.844	0.0	0.8473;	
229	11.10	0.0	33.94	285.5	3.503	0.900	0.0	0.8621;	local maximum rise or fall;
300	11.13	0.0	33.90	276.8	3.613	1.039	0.0	0.8611;	
378	11.25	0.0	32.65	254.7	3.927	1.236	0.0	0.8293;	end overlap;
400	11.33	0.0	32.52	241.7	4.137	1.311	0.0	0.8261;	
496	12.88	0.0	41.51	115.0	8.692	1.956	0.0	1.0545;	bottom hit;

Horiz plane projections in effluent direction: radius(m):   0.0; CL(m):   1.9555
Lmz(m):   1.9555
forced entrain   1   0.0 -0.881   1.054   0.248
Rate sec-1   0.0 dy-1   0.0 kt: 0.0 Amb Sal   35.6778
 ;
8:52:47 AM. amb fills: 4

Diffuser: Ventura01.vpp.db | Ambient: C:\Plumes18\Ventura\Dense profile.db | Special Settings | Text Output | Graphical Output

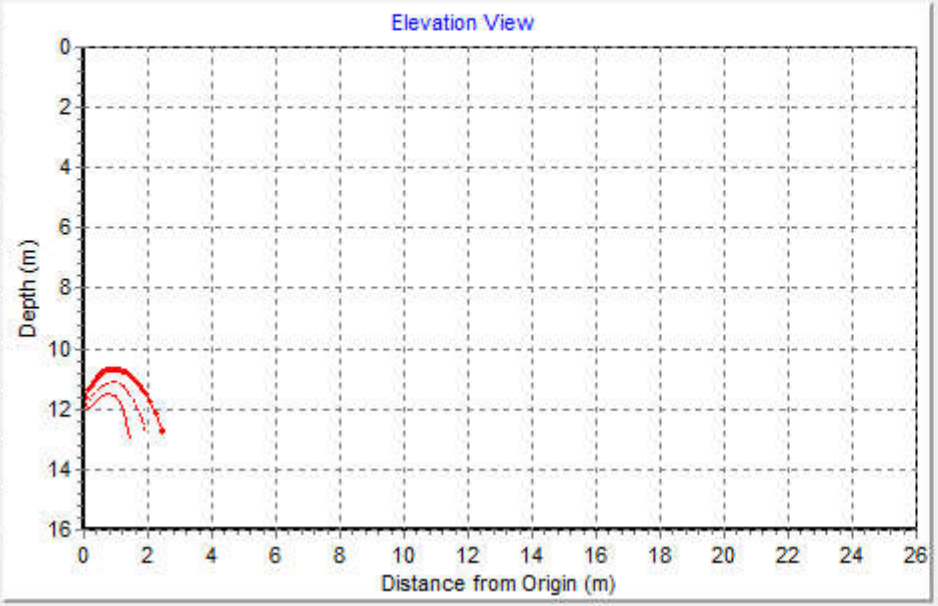
Help
Clear +
Clear all
Clear ra
Clear rb
Clear ba
Clear bb
Clear ga
Clear gb
Clr Verify

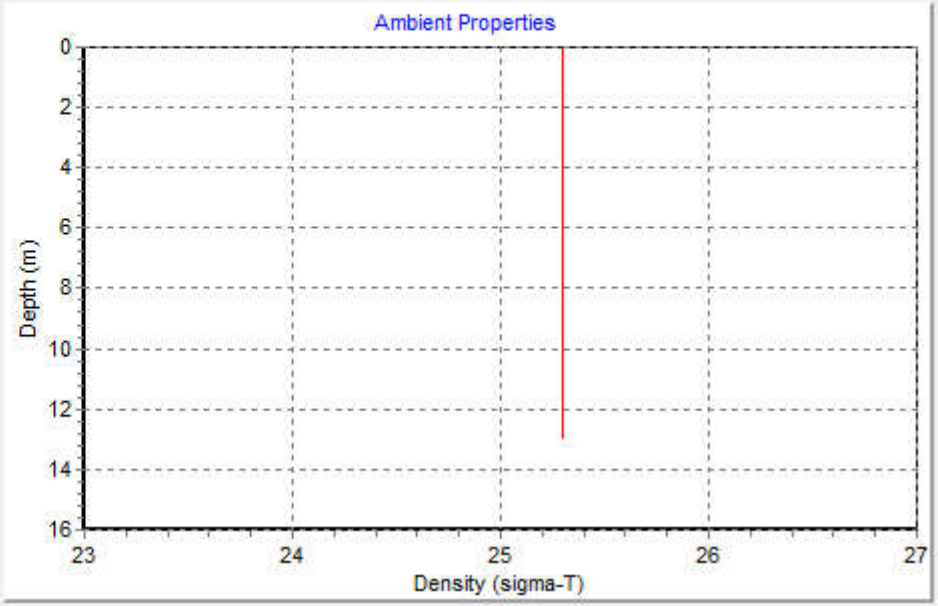
Style
4-pl
diln
con
cus

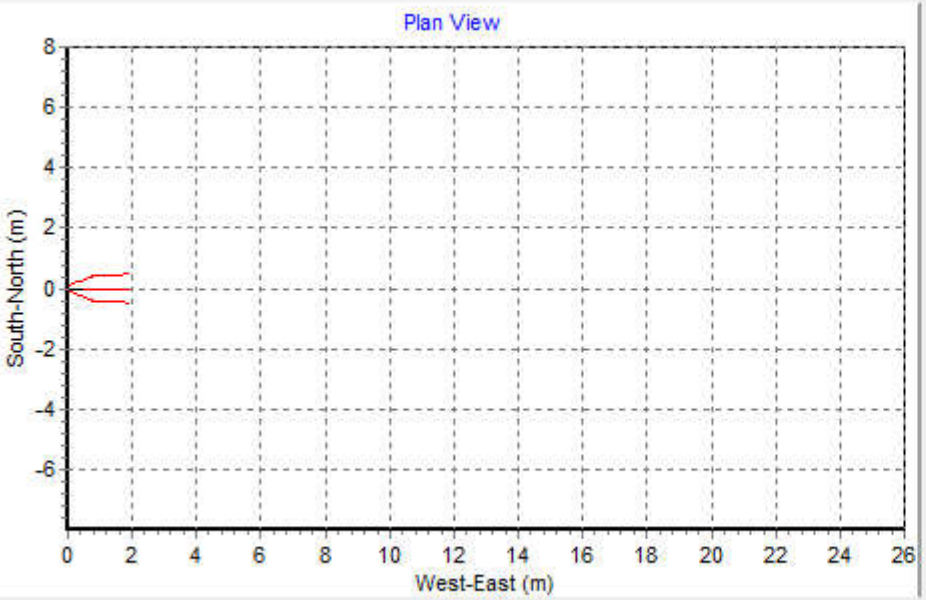
Series
red
blue
grn

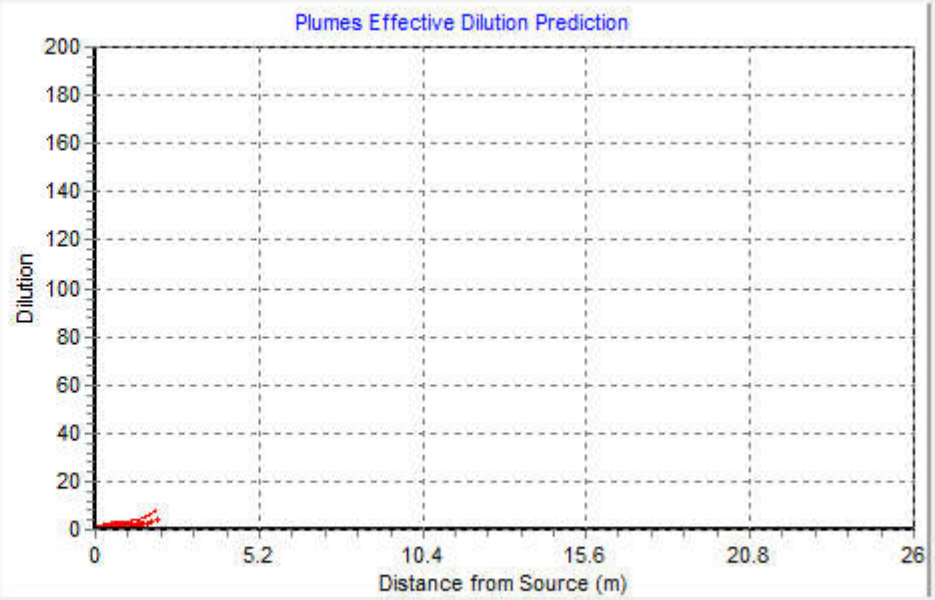
Plane
eff
cur
set

Scale
Thick
To File
Verify









Print active window

Case 2-8: 8 Port diffuser for 16 m water depth

Model configuration items checked:
  Channel width (m) 100
Start case for graphs 1
Max detailed graphs 10 (limits plots that can overflow memory)
 Elevation Projection Plane (deg) 0
Shore vector (m,deg) not checked
 Bacteria model : Mancini (1978) coliform model
 PDS sfc. model heat transfer : Medium
 Equation of State : S, T
 Similarity Profile : Default profile (k=2.0, ...)
 Diffuser port contraction coefficient 1
 Light absorption coefficient 0.16
 Farfield increment (m) 200
 UM3 aspiration coefficient 0.1
  Output file: text output tab
  Output each ?? steps 100
  Maximum dilution reported 10000
 Text output format : Standard
 Max vertical reversals : to max rise or fall

/ UM3. 7/12/2018 8:56:08 AM
Case 1; ambient file C:\Plumes18\Ventura\Dense profile.db; Diffuser table record 1: ----------

Ambient Table:

Depth	Amb-cur	Amb-dir	Amb-den	Amb-tem	Amb-pol	Decay	Far-spd	Far-dir	Disprsn	Density
m	m/s	deg	psu	C	kg/kg	s-1	m/s	deg	m0.67/s2	sigma-T
0.0	0.0	0.0	35.68	20.00	0.0	0.0	-	-	0.0	25.30000
13.00	0.0	0.0	35.68	20.00	0.0	0.0	-	-	0.0	25.30000

Diffuser table:

P-dia	Ver angl	H-Angle	SourceX	SourceY	Ports	Spacing	MZ-dis	Isoplth	P-depth	Ttl-flo	Eff-den	Temp	Polutnt
(in)	(deg)	(deg)	(ft)	(ft)	()	(ft)	(m)	(concent)	(m)	(MGD)	(kg/m3)	(C)	(ppm)
8.1000	60.000	0.0	0.0	0.0	8.0000	6.0000	100.00	0.0	12.000	6.6000	1045.4	13.420	1000.0

Simulation:
Froude No: -5.520; Strat No: 0.0000; Spcg No: 8.889; k: 1.08E+5; eff den (sigmaT) 45.40000; eff vel   1.087(m/s);
Current is very small, flow regime may be transient.

Step	Depth (m)	Amb-cur (m/s)	P-dia (in)	Polutnt (ppm)	Dilutn ()	x-posn (m)	y-posn (m)	Iso dia (m)	
0	12.00	1.000E-5	8.100	1000.0	1.000	0.0	0.0	0.2057;	
100	11.07	0.0	31.73	319.7	3.128	0.706	0.0	0.8058;	
114	11.04	0.0	33.55	309.9	3.226	0.758	0.0	0.8522;	begin overlap;
200	10.94	0.0	39.32	287.7	3.476	0.995	0.0	0.9987;	
229	10.94	0.0	40.01	284.2	3.518	1.062	0.0	1.0163;	local maximum rise or fall;
300	10.97	0.0	39.98	275.6	3.628	1.226	0.0	1.0154;	
378	11.12	0.0	38.50	253.7	3.942	1.458	0.0	0.9779;	end overlap;
400	11.21	0.0	38.35	240.8	4.153	1.546	0.0	0.9741;	
493	12.86	0.0	47.53	121.6	8.227	2.262	0.0	1.2074;	bottom hit;

Horiz plane projections in effluent direction: radius(m):   0.0; CL(m):   2.2619
Lmz(m):   2.2619
forced entrain   1   0.0 -0.860   1.207   0.263
Rate sec-1   0.0 dy-1   0.0 kt: 0.0 Amb Sal   35.6778
 ;
8:56:08 AM. amb fills: 4

Diffuser: Ventura01.vpp.db | Ambient: C:\Plumes18\Ventura\Dense profile.db | Special Settings | Text Output | Graphical Output

Help
Clear +
Clear all
Clear ra
Clear rb
Clear ba
Clear bb
Clear ga
Clear gb
Clr Verify

Style
4-pl
diln
con
cus

Series
red
blue
grn

Plane
eff
cur
set

Scale
Thick
To File
Verify

