ATTACHMENT B: AIR QUALITY CALCULATIONS

ASSUMPTIONS AND CALCULATIONS FOR SHORT-TERM CONSTRUCTION RELATED AIR EMISSIONS

The following air quality and GHG analysis was prepared to evaluate whether the construction criteria pollutant and greenhouse (GHG) emissions associated with the Proposed Regulation would result in a significant impact under the California Environmental Quality Act (CEQA).

Construction criteria pollutant and GHG emissions were quantified using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 developed by the California Air Pollution Officers Association (CAPCOA) and the Harborcraft, Dredge and Barge Emission Factor Calculator developed by the Sacramento Metropolitan Air Quality Management District. The Proposed Regulation would require the installation of technologies at ports to reduce diesel particulate matter (DPM), particulate matter (PM2.5 and PM10), nitrogen oxide (NOx), reactive organic gas (ROG) and GHGs emitted by ocean-going.

The construction methods used to install the reasonable foreseeable compliance response technologies are site-specific and dependent on many factors such as geography, location and type of activity. There is considerable uncertainty of the construction methods that would be used to install the technologies used to comply with the Proposed Regulation, construction criteria pollutants and GHG emissions were modeled under four conservative scenarios: (1) Additional Vault; (2) Tanker Landside System; (3) Tanker Manifold; (4) Landside System. A description of all four scenarios can be found in sections below. The modeled construction criteria pollutant emissions were compared to significance thresholds adopted by air districts that contain a port. The criteria pollutant and GHG estimates for each scenario, as well as assumptions used, are summarized under Section 1 through Section 4 below.

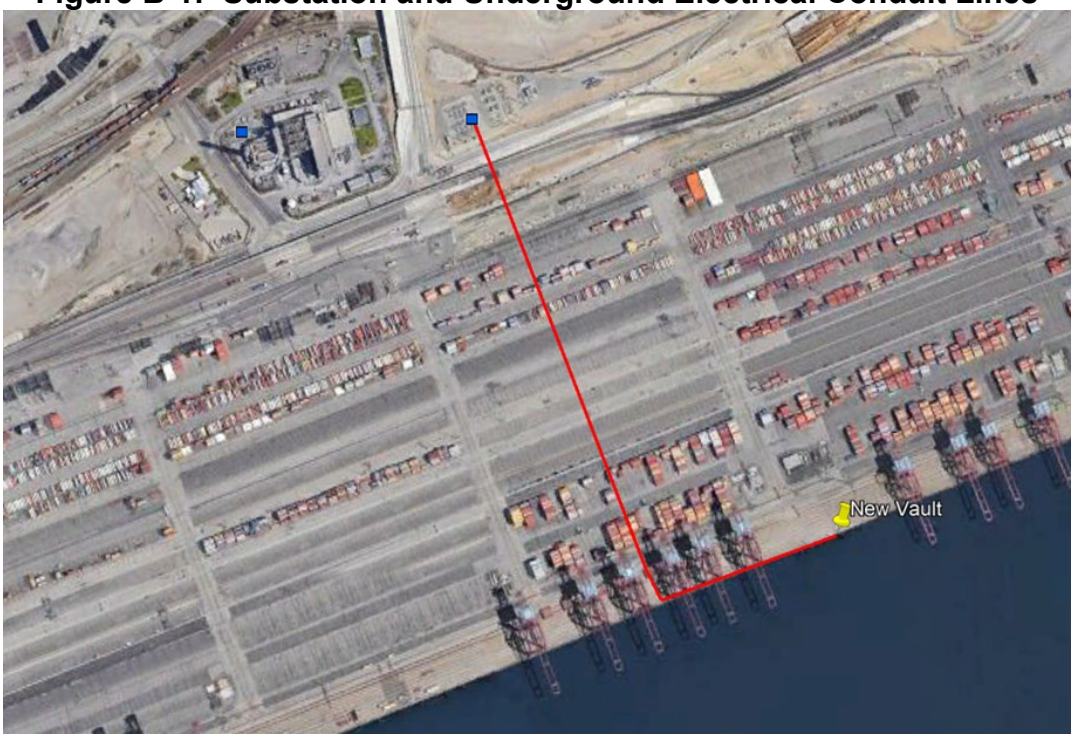
1. Additional Shore Power Vault Installation

A. Scenario Description

The additional shore power vault installation scenario was selected for analysis as a representation of terminals that already have operational shore power infrastructure. In order to comply with the Proposed Regulation the construction of additional vaults may be necessary. This scenario provides a conservative estimate of construction related emissions from adding additional vaults to an already existing system. To keep this estimate conservative it includes the need for trenching and the addition of electrical lines to reach the dockside although lines for additional vaults will likely already be installed.

Figure B-1 shows a representation of a port area where installation may occur. In Figure B-1 the blue boxes represent the closest California electrical substations according to the California Energy Commission (CEC), Electric Substation geospatial data layering map[1] (layered on Google Earth[2]). The CEC Electric Substation map was created to display the locations of substations in California. The red line represents the assumed conduit line. Using Google Earth, the line's distance is measured to be approximately 3,000 feet (ft).

Figure B-1: Substation and Underground Electrical Conduit Lines



[1] CEC, California Substations GIS Map, n.d. (accessed June 4, 2019), https://cecgis-caenergy.opendata.arcgis.com/datasets/7f37f2535d3144e898a53b9385737ee0_0
[2] Google Earth, Version 9.2.88.2, 2018 (accessed July 11, 2019), https://www.google.com/earth/

B. Modeling Assumptions

By using completed projects as examples[3,4,5] and consulting with industry experts, staff developed the construction schedule shown in Table B-1. As shown, it was assumed that construction would consist of three phases: site preparation, trenching and the system installation. To approximate worst-case construction on- and off-road emissions factors, it was assumed for this analysis that construction would begin the year 2019. Actual emissions from construction equipment is expected to become cleaner over time as more stringent emissions reductions are required.

Table B-1: Additional Shore Side Vault Construction Schedule

Phase	Start Date	End Date	Total Days	Work days
Site Preparation	1/1/2019	1/21/2019	20	15
Trenching*	1/22/2019	2/11/2019	20	15
System Installation	2/12/2019	4/13/2019	60	44
* Assumed trenching of gas and electrical lines to be 3000 feet at 200 feet trenched per working day.				

The assumed quantity, hours of use, horsepower and load factors for each off-road equipment used during the construction can be found in Table B-2. The hours of use (i.e., hours per day), horsepower and load factors are based on CalEEMod defaults, and the number and type of off-road construction equipment are based on approximations by CARB staff through consultation with construction and industry professionals.

The assumed daily-one way vendor and worker trips and total one-way haul trips per construction phase can be found in Table B-3. The trip lengths are based on CalEEMod defaults, and trip rates approximations by CARB staff based on the type of equipment and materials that would be need to construct an additional vault.

[3] Shimmick Construction, Shore Power System Construction Berths 30 and 32, 2019 (accessed July 11, 2019) http://www.shimmick.com/Projects/Electrical/Shore-Power-System-Construction-Berths-30-and-32.aspx
[4] POLA, Pier T Berth T121 Cold Ironing Project for Alaska Class Tankers, 2019 (accessed July 11, 2019) http://www.polb.com/civica/filebank/blobdload.asp?BlobID=5782
[5] P2S, Port Hueneme Shore Power Infrastructure, 2019 (accessed July 10, 2019), https://www.p2sinc.com/projects/port-of-hueneme-shore-power-infrastructure

Table B-2: Construction Equipment

Phase/Equipment	Unit Amount	Hours/Day	Horse Power (HP)
Site Prep Phase			
Graders	1	8	187
Tractors/Loaders/Backhoes	1	8	97
Trenching Phase			
Trenchers	1	8	78
Tractors/Loaders/Backhoes	1	8	97
Plate Compactors	1	8	8
Generator Sets	1	8	84
Concrete/Industrial Saws	1	8	81
Cement and Mortar Mixers	1	8	9
Bore/Drill Rigs	1	8	221
Installation			
Tractors/Loaders/Backhoes	1	1	97
Air Compressor	1	1	78
Small Boat	1	8	105
Forklifts	1	8	89
Generator Sets	1	8	84

Table B-3: Construction Worker and Haul Trips

Phase	Daily One-Way Worker Trips	Daily One-Way Vendor Trips	Total One-Way Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Hauling Trip Length (miles)
Site Prep	10	0	10	10.8	7.3	20
Trenching	24	0	0	10.8	7.3	20
Vault Installation	30	0	94	10.8	7.3	20

C. Modeled Emissions Compared to Local Air District Significance Thresholds

Under CEQA, each public agency is encouraged to develop and publish thresholds of significance as part of their environmental review process for determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the tables below CARB staff has compared published thresholds of significance for Air Districts where the Proposed Regulation may be in effect (i.e. locations of ocean-gong vessel ports).

As shown in Tables B-4 through B-11, the construction of the additional vault scenario would not be expected to emit criteria pollutant emissions that would exceed any of the significance thresholds adopted by Air Districts that contains a port. Emission are shown in either pounds per day (ppd) or tons per day (tpd).

Table B-4: Bay Area Air Quality Management District

Category	Average Daily Emissions (ppd)			
	ROG	NOx	Exhaust PM10	Exhaust PM2.5
Unmitigated Construction Emissions	1	12	1	1
BAAQMD Significance Threshold	54	54	82	54
Exceed Threshold (yes or no)?	No	No	No	No

Table B-5: Ventura County Air Quality Control District

Category	Peak Daily Emissions (ppd)	
	ROG	NOx
Unmitigated Construction Emissions	2	18
VCAPCD Significance Threshold	25	25
Exceed Threshold (yes or no)?	No	No

Table B-6: North Coast Unified Air Quality Management District – Daily Significance Thresholds

Category	Peak Daily (ppd)			
	ROG	NOx	PM10	PM2.5
Unmitigated Construction Emissions	2	18	1	1
NCUAQMD Significance Threshold	50	50	80	50
Exceed Threshold (yes or no)?	No	No	No	No

Table B-7: North Coast Unified Air Quality Management District – Annual Significance Thresholds

Category	Annual Emissions (tpd)			
	ROG	NOx	PM10	PM2.5
Unmitigated Construction Emissions	0.05	0.43	0.04	0.03
NCUAQMD Significance Threshold	40	40	15	10
Exceed Threshold (yes or no)?	No	No	No	No

Table B-8: South Coast Air Quality Management District

Category	Peak Daily (ppd)					
	NOx	VOC	PM10	PM2.5	SOx	CO
Unmitigated Construction Emissions	18	2	1	1	0.03	16
SCAQMD Regional Significance Threshold	100	75	150	55	150	550
Exceed Threshold (yes or no)?	No	No	No	No	No	No

Table B-9: Yolo-Solano Air Quality Management District

Category	Annual Emissions (tpd)		
	ROG	NOx	PM10
Unmitigated Construction Emissions	<1	<1	<1
YSAQMD Significance Threshold	10	10	80
Exceed Threshold (yes or no)?	No	No	No

Table B-10: San Diego County Air Quality Management District

Category	Peak Daily (ppd)					
	VOC	NOx	CO	SO2	PM10	PM2.5
Unmitigated Construction Emissions	2	18	16	<1	1	1
SDCAQMD Regional Significance Threshold	75	250	550	250	100	55
Exceed Threshold (yes or no)?	No	No	No	No	No	No

Table B-11: San Joaquin County Unified Air Pollution Control District

Category	Annual Emissions (tpd)					
	NOx	ROG	PM10	PM2.5	SOx	CO
Unmitigated Construction Emissions	<1	<1	<1	<1	<1	<1
YSAQMD Significance Threshold	10	10	15	15	27	100
Exceed Threshold (yes or no)?	No	No	No	No	No	No

2. Landside System Installation

A. Scenario Description

The landside capture and control system installation scenario was selected for analysis as a representation of terminals that may choose to provide a landside system for vessel visiting their terminals. Terminals may choose a landside system if the vessels that frequent their berths are not shore power ready or they are infrequent visitors. Landside systems do not require vessel modifications and could be a likely option for ro-ro vessels. This scenario provides an estimate of construction related emissions from adding a landside system to a new berth.

Figure B-2 shows a representation of a port area where installation of a landside system may occur. In Figure B-2 the blue box represents the closest California electrical substations according to the CEC's, Electric Substation geospatial data layering map[6] (layered on Google Earth[7]). The CEC Electric Substation map was created to display the locations of substations in California. The red line represents the assumed conduit line. Using Google Earth, the line's distance is measured to be approximately 3,350ft.

Figure B-2: Substation and Underground Electrical Conduit Lines

[6] CEC, California Substations GIS Map, n.d. (accessed July 12, 2019), https://cecgis-caenergy.opendata.arcgis.com/datasets/7f37f2535d3144e898a53b9385737ee0_0
[7] Google Earth, 2018 (accessed July 11, 2019), https://www.google.com/earth/

B. Modeling Assumptions

By using completed projects as examples[8] and consulting with industry experts, staff developed the project schedule shown in Table B-12. It was assumed that construction would consist of three phases: site preparation, construction and the system installation. To approximate worst-case construction on- and off-road emissions factors, it was assumed for this analysis that construction would begin the year 2019. Actual emissions from construction equipment is expected to become cleaner over time as more stringent emissions requirements are required.

Table B-12: Landside System Construction Schedule

Phase	Start Date	End Date	Total Days	Work days
Site Preparation	1/1/2019	1/21/2019	20	15
Trenching*	1/22/2019	2/13/2019	22	17
System Installation	2/14/2019	4/15/2019	60	43
* Assumed trenching of gas and electrical lines to be 3,350 feet at 200 feet trenched per working day.				

The assumed quantity, hours of use, horsepower and load factors for each off-road equipment used during the construction can be found in Table B-13. The hours of use (i.e., hours per day), horsepower and load factors are based on CalEEMod defaults, and the number and type of off-road construction equipment are based on approximations by CARB staff.

The assumed daily-one way vendor and worker trips and total one-way haul trips per construction phase can be found in Table B-14. The trip lengths are based on CalEEMod defaults, and trip rates are approximations by CARB staff based on the type of equipment and materials that would be need to construct a landside capture and control system.

[8] POLB, "MMC Cement Facility Modification Project, Final EIR," April 2015, (accessed July 11, 2019), http://www.polb.com/civica/filebank/blobdload.asp?BlobID=12652

Table B-13: Construction Equipment

Phase/Equipment	Unit Amount	Hours/Day	Horse Power (HP)
Site Prep Phase			
Graders	1	8	187
Tractors/Loaders/Backhoes	1	8	97
Trenching Phase			
Trenchers	1	8	78
Tractors/Loaders/Backhoes	1	8	97
Plate Compactors	1	8	8
Generator Sets	1	8	84
Concrete/Industrial Saws	1	8	81
Cement and Mortar Mixers	1	8	9
Bore/Drill Rigs	1	8	221
System Installation			
Cranes	1	4	231
Forklifts	2	6	89
Tractors/Loaders/Backhoes	2	8	97

Table B-14: Construction Worker and Haul Trips

Phase	Daily One-Way Worker Trips	Daily One-Way Vendor Trips	Total One-Way Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Hauling Trip Length (miles)
Site Prep	10	0	10	10.8	7.3	20
Trenching	24	0	0	10.8	7.3	20
System Installation	30	0	94	10.8	7.3	20

C. Modeled Emissions Compared to Local Air District Significance Thresholds

Under CEQA, each public agency is encouraged to develop and publish thresholds of significance as part of their environmental review process for determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the tables below CARB staff has compared published thresholds of significance for Air Districts where the Proposed Regulation may be in effect (i.e. locations of ocean-going vessel ports).

As shown in Tables B-15 through B-22, the construction of the landside system scenario would not be expected to emit criteria pollutant emissions that would exceed

any of the significance thresholds adopted by Air Districts that contains a port. Emission are shown in either (ppd) or tons per day (tpd).

Table B-15: Bay Area Air Quality Management District

Category	Average Daily Emissions (ppd)			
	ROG	NOx	Exhaust PM10	Exhaust PM2.5
Unmitigated Construction Emissions	2	18	1	1
BAAQMD Significance Threshold	54	54	82	54
Exceed Threshold (yes or no)?	No	No	No	No

Table B-16: Ventura County Air Pollution Control District

Category	Peak Daily Emissions (ppd)	
	ROG	NOx
Unmitigated Construction Emissions	2	18
VCAPCD Significance Threshold	25	25
Exceed Threshold (yes or no)?	No	No

Table B-17: North Coast Unified Air Quality Management District – Daily Significance Thresholds

Category	Peak Daily (ppd)			
	ROG	NOx	PM10	PM2.5
Unmitigated Construction Emissions	2	18	1	1
NCUAQMD Significance Threshold	50	50	80	50
Exceed Threshold (yes or no)?	No	No	No	No

Table B-18: North Coast Unified Air Quality Management District – Annual Significance Thresholds

Category	Annual Emissions (tpd)			
	ROG	NOx	PM10	PM2.5
Unmitigated Construction Emissions	<1	<1	<1	<1
NCUAQMD Significance Threshold	40	40	15	10
Exceed Threshold (yes or no)?	No	No	No	No

Table B-19: South Coast Air Quality Management District

Category	Peak Daily (ppd)					
	NOx	VOC	PM10	PM2.5	SOx	CO
Unmitigated Construction Emissions	18	2	1	1	<1	16
SCAQMD Regional Significance Threshold	100	75	150	55	150	550
Exceed Threshold (yes or no)?	No	No	No	No	No	No

Table B-20: Yolo-Solano Air Quality Management District

Category	Annual Emissions (tpd)		
	ROG	NOx	PM10
Unmitigated Construction Emissions	<1	1	<1
YSAQMD Significance Threshold	10	10	80
Exceed Threshold (yes or no)?	No	No	No

Table B-21: San Diego County Air Quality Management District

Category	Peak Daily (ppd)					
	VOC	NOx	CO	SO2	PM10	PM2.5
Unmitigated Construction Emissions	2	18	16	<1	1	1
SDCAQMD Regional Significance Threshold	75	250	550	250	100	55
Exceed Threshold (yes or no)?	No	No	No	No	No	No

Table B-22: San Joaquin Valley Air Pollution Control District

Category	Annual Emissions (tpd)					
	NOx	ROG	PM10	PM2.5	SOx	CO
Unmitigated Construction Emissions	1	<1	<1	<1	<1	1
SJVAPCD Significance Threshold	10	10	15	15	27	100
Exceed Threshold (yes or no)?	No	No	No	No	No	No

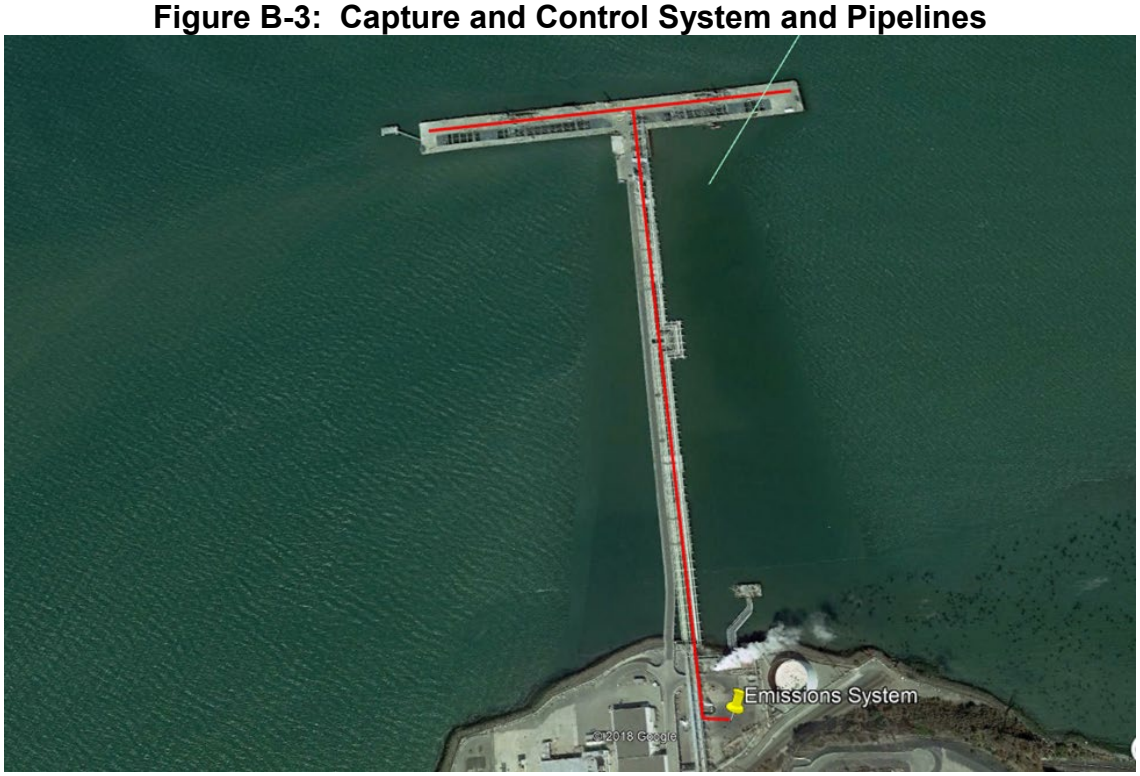
3. Tanker Landside Control System

A. Scenario Description

The tanker landside control system scenario was selected for analysis as a representation of terminals that may choose to provide a landside system for tankers visiting their terminals. Terminals may choose a landside system located on land near where vessels berth. This scenario provides an estimate of construction related emissions from adding a landside system on the land located near a tanker berth.

Figure B-3 shows a representation of a port area where installation of a tanker landside system may occur. Figure B-3 shows the emission control system and the piping required for the emission system. Due to the explosive nature of tanker vessel's cargo, emissions control systems that require a burner should be placed far from cargo. For this assumption CARB staff evaluated the emissions from having a system on land. The emissions would be collected and routed via pipeline to the emission control system. Using Google Earth, the pipeline's distance is measured to be approximately 3,500ft but would only require approximately 500ft of trenching.

Figure B-3: Capture and Control System and Pipelines



B. Modeling Assumptions

This scenario would allow for the construction of a NO_x and PM collection and treatment system at an existing tanker marine terminal. Construction activities are assumed to include the installation of approximately 150 piles at the existing dock, a 17,000 square foot central gas processing platform and control equipment building.

By using completed projects and similar systems[9,10] as examples and consulting with industry experts staff developed the project schedule found in Table B-23. As shown in Table B-23, it was assumed that construction of this scenario would consist of three phases: site preparation, construction and application of an architectural coating.

To approximate worst-case construction on- and off-road emissions factors, it was assumed for this analysis that construction would begin the year 2019. Actual emissions from construction equipment is expected to become cleaner over time as more stringent emissions reductions are required. The construction phase durations presented in Table B-23 are based on the assumption that approximately one pile would be installed per day.[11,12]

Table B-23: Tanker Landside Control System - Construction Schedule

Phase	Start Date	End Date	Total Days	Work days
Site Prep	5/8/2019	5/28/2019	20	15
Impact Pile Driving	6/1/2019	10/30/2019	151	108
Deck Construction	10/31/2019	7/12/2020	255	182
Building Construction	7/13/2020	3/25/2021	255	184
Trenching	3/26/2021	4/15/2021	20	15
Painting Equipment Building	4/16/2021	5/6/2021	20	15

The assumed quantity, hours of use, horsepower and load factors for each off-road equipment used during the construction of this scenario can be found in Table B-24. The hours of use (i.e., hours per day), horsepower and load factors are based on CalEEMod defaults, and the number and type of off-road construction equipment are based on approximations by CARB staff.

[9] W. N. Tuttle, P.E. & J. W. Young, P.E. "An overview of marine vapour control system safety requirements'" Warner Nicholson Engineering Consultants, P.C. USA., n.d (accessed July 12, 2019), http://www.vaporrecovery.com/PT34-28.pdf
[10] Delta Stewardship Council "Task03 Retrofitting of Ports and Wharves," 2018, http://deltacouncil.ca.gov/sites/default/files/2018/04/Task03%20Retrofitting%20of%20Ports%20and%20Wharves.pdf
[11] Joseph D. Iafrate, Stephanie L. Watwood, Eric A. Reyier, Douglas M. Scheidt, Georges A. Dossot, and Steven E. Crocker, "Effects of Pile Driving on the Residency and Movement of Tagged Reef Fish," 2016, (accessed July 02, 2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5120787/
[12] 2019, Chevron Comments, Letter received on May 29, 2019.

The assumed daily-one way vendor and worker trips and total one-way haul trips per construction phase can be found in Table B-25. The trip lengths are based on CalEEMod defaults, and trip rates approximations made by CARB staff on the type of equipment and materials that would be need to construct a tanker landside control system.

Table B-24: Tanker Landside Control System - Assumed Off-Road Equipment

Phase/Equipment	Unit Amount	Hours/Day	Horse Power (HP)	Load Factor
Site Prep Phase				
Graders	1	8	187	0.41
Tractors/Loaders/Backhoes	1	8	97	0.37
Pile Driving				
Crane	2	8	231	0.29
Impact Hammer	1	8	270	0.74
Vibratory Hammer	1	8	78	0.74
Generator Set	1	8	84	0.74
Work Boat	1	8	105	0.37
Deck Construction				
Air Compressor	4	8	78	0.48
Crane	1	4	231	0.29
Boom Truck	1	1	84	0.74
Generator Set	2	4	84	0.74
Spud Winch	2	8	78	0.48
Excavator	1	4	158	0.38
Work Boat	1	8	105	0.37
Pump	1	4	84	0.74
Loader	1	4	97	0.37
Welder	3	4	46	0.45
Manlift	1	2	63	0.31
Trenching				
Bore/Drill Rigs	1	8	221	0.5
Concrete/Industrial Saws	1	8	81	0.73
Generator Sets	1	8	84	0.74
Plate Compactors	1	8	8	0.43
Tractors/Loaders/Backhoes	1	8	97	0.37
Painting Control Building				
Air Compressors	1	6	78	0.48

Table B-25: Tanker Landside Control System - Assumed Vehicle Trips

Phase	Daily One-Way Worker Trips	Daily One-Way Vendor Trips	Total One-Way Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Hauling Trip Length (miles)
Site Prep	10	0	10	10.8	7.3	20
Impact Pile Driving	16	0	94	10.8	7.3	20
Deck Construction	46	4	94	10.8	7.3	20
Building Construction	46	4	94	10.8	7.3	20
Trenching	10	0	0	10.8	7.3	20
Painting Equipment Building	6	0	0	10.8	7.3	20

It is assumed that construction would require the use of two barges and two push boats to transport piles to the dock and to tow a barge used for impact pile driving. For this analysis it is assumed that the crane used to drive piles will be mounted on the barge and will not require any power from the barge. The assumed number of engines, engine model years, horsepower and daily and total hours of use for each marine vessel assumed to be used during project construction are provided in Table B-38. As shown in Table B-26, it is assumed that each push boat would have a 2005 model year engine. The assumed main engine horsepower for each marine vessel presented in Table B-26 are based on averages obtained from CARB's harbor craft emissions inventory.[13] It was assumed that impact pile driving would occur in one season from June 1st to October 20th. As shown in Table B-23, each seasons will require approximately 108 work days. Based on this assumption, it was assumed that the push boats used to transport piles to the dock and to tow the barge would require four hours per day each to travel to and from a staging dock.

[13] CARB Harbor Craft Emissions Inventory, 2011 (accessed July 12, 2019), https://ww3.arb.ca.gov/msei/ordiesel.htm

Table B-26: Tanker Landside Control System - Assumed Harbor Craft Specifications and Hours of Use

Vessel Type	Engine Assumptions				
	No. of Engines[1]	Engine Model Year[2]	Engine Rated Power (HP) [3]	Max Hours of Use Per Day[4]	Total Annual Hours of Use[5]
Push boat used to move impact pile driving barge (Main Engine)	2	2005	331	4	432
Push boat used to move transport barge (Main Engine)	2	2005	331	4	432

Notes:

1. It was assumed that the push boasts would require two main engines each to operate. It was also assumed that the cranes used for impact pile driving will be mounted to the barge= and will be self-powered.
2. It was conservatively assumed that all main engines would be equipment with a 2005 model year engine.
3. The main engine horse power rating (HP) is based on the average HP for push boats obtained from CARB's marine vessel emission inventory.
4. It was assumed that it would take a single push boat four hours, in a single work day, to move the impact pile driving barge from the port to the construction site (i.e., two hours in the morning and two hour in the afternoon). It was also assumed that a separate push boat would be used to transport materials (e.g., piles) to the work site, which would require the same number of hours.
5. The max number of marine engine operation was multiplied by the total work days to estimates the engines total annual hours of operation.

C. Modeled Emissions Compared to Local Air District Significance Thresholds

Under CEQA, each public agency is encouraged to develop and publish thresholds of significance as part of their environmental review process for determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the tables below CARB staff has compared published thresholds of significance for Air Districts where the Proposed Regulation may be in effect (i.e. locations of ocean-going vessel ports).

The construction of a tanker landside capture and control scenario may emit criteria pollutant emissions that would exceed the significance thresholds adopted by Air Districts that contains a port and mitigation could be necessary. As shown in Tables B-27 through B-34, construction of the tanker landside capture and control scenario will exceed the Ventura County Air Pollution Control District's and North Coast Unified Air

Quality Management District's criteria pollutant significance thresholds for ROG and NOx.

Table B-27: Bay Area Air Quality Management District

Category	Average Daily Emissions (ppd)			
	ROG	NOx	Exhaust PM10	Exhaust PM2.5
Unmitigated Construction Emissions	4	36	2	2
BAAQMD Significance Threshold	54	54	82	54
Exceed Threshold (yes or no)?	No	No	No	No

Table B-28: Ventura County Air Pollution Control District

Category	Peak Daily Emissions (ppd)	
	ROG	NOx
Unmitigated Construction Emissions	26	61
VCAPCD Significance Threshold	25	25
Exceed Threshold (yes or no)?	Yes	Yes

Table B-29: North Coast Unified Air Quality Management District – Daily Significance Thresholds

Category	Peak Daily (ppd)			
	ROG	NOx	PM10	PM2.5
Unmitigated Construction Emissions	26	61	3	3
NCUAQMD Significance Threshold	50	50	80	50
Exceed Threshold (yes or no)?	No	Yes	No	No

Table B-30: North Coast Unified Air Quality Management District – Annual Significance Thresholds

Category	Annual Emissions (tpd)			
	ROG	NOx	PM10	PM2.5
Unmitigated Construction Emissions	1	4	<1	<1
NCUAQMD Significance Threshold	40	40	15	10
Exceed Threshold (yes or no)?	No	No	No	No

Table B-31: South Coast Air Quality Management District

Category	Peak Daily (ppd)					
	NOx	VOC	PM10	PM2.5	SOx	CO
Unmitigated Construction Emissions	61	26	3	3	<1	52
SCAQMD Regional Significance Threshold	100	75	150	55	150	550
Exceed Threshold (yes or no)?	No	No	No	No	No	No

Table B-32: Yolo-Solano Air Quality Management District

Category	Annual Emissions (tpd)		
	ROG	NOx	PM10
Unmitigated Construction Emissions	1	4	<1
YSAQMD Significance Threshold	10	10	80
Exceed Threshold (yes or no)?	No	No	No

Table B-33: San Diego County Air Quality Management District

Category	Peak Daily (ppd)					
	VOC	NOx	CO	SO2	PM10	PM2.5
Unmitigated Construction Emissions	26	61	52	<1	3	3
SDCAQMD Regional Significance Threshold	75	250	550	250	100	55
Exceed Threshold (yes or no)?	No	No	No	No	No	No

Table B-34: San Joaquin Valley Air Pollution Control District

Category	Annual Emissions (tpd)					
	NOx	ROG	PM10	PM2.5	SOx	CO
Unmitigated Construction Emissions	4	1	<1	<1	<1	4
SJVAPCD Significance Threshold	10	10	15	15	27	100
Exceed Threshold (yes or no)?	No	No	No	No	No	No

4. Tanker Dockside Control System

A. Scenario Description

The tanker dockside control system scenario was selected for analysis as a representation of terminals that may choose to provide a dockside capture and control system for tankers visiting their terminals. Terminals may choose a dockside system rather than one located on the land. This scenario provides an estimate of construction related emissions from adding a dockside system located on an already existing tanker berth.

Figure B-4: Capture and Control and Pipelines

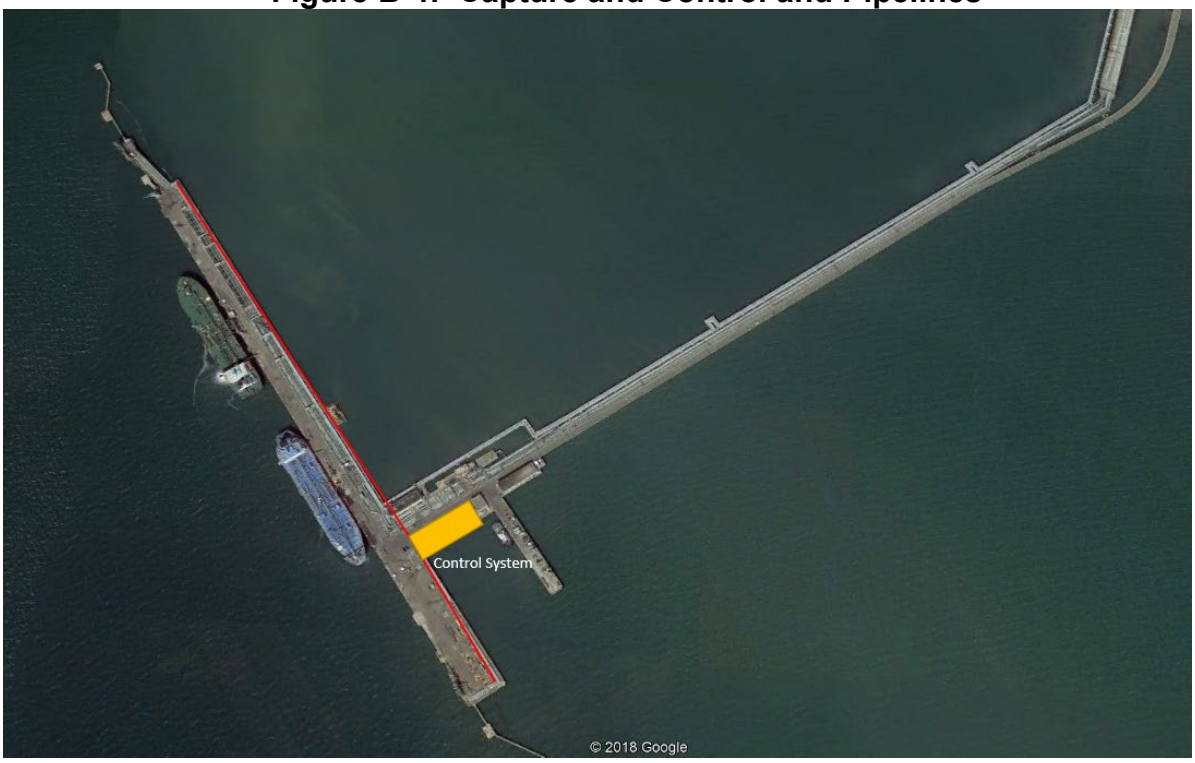


Figure B-4 shows a representation of a port area where installation of a landside system may occur. Figure B-4 shows the emission control system (yellow box) and the piping required for the emission system (red). Due to the explosive nature of tanker vessel's cargo, emissions control systems that require a burner should be placed away from cargo. For this assumption CARB staff evaluated the emissions from having a system on a platform extending from an existing dock. Emissions would be collected and routed via pipeline to the emission treatment system. Using Google Earth, the pipeline's distance is measured to be approximately 2,500ft and would not require trenching. To create a new platform it is assumed new dolphin structures (piles) would need to be in place for the 15,00sqft platform and for wharf strengthen. For this scenario, 1,250ft of dock was assumed to need of additional piles and pile caps.

B. Modeling Assumptions

This scenario would allow for the construction of a NOx collector system and treatment at an existing marine terminal. Construction activities are assumed to include the installation of approximately 500 piles at the existing dock, a 15,000 square foot central gas processing platform and control equipment building. Construction emissions of criteria pollutant and GHG emissions were estimated using the CalEEMod2016.3.2 and harbor craft emission factors developed by the CARB.[14]

By using completed projects and similar systems[15,16,17,18] as examples and consulting with industry experts CARB staff developed the project schedule shown in B-35. As shown in Table B-35, it was assumed that construction would consist of three phases: site preparation, construction and application of an architectural coating. To approximate worst-case construction on- and off-road emissions factors, it was assumed for this analysis that construction would begin the year 2019. The construction phase durations presented in Table B-35 are based on the assumption that five piles would be installed per day.

Table B-35: Tanker Dockside Control System - Construction Schedule

Phase	Start Date	End Date	Total Days	Work days
Site Prep	5/8/2019	5/28/2019	20	15
Impact Pile Driving	6/1/2019	10/30/2019	151	108
Deck Construction	10/31/2019	2/13/2020	105	76
Building Construction	2/14/2020	5/29/2020	105	76
Impact Pile Driving	6/1/2020	10/30/2020	151	110
Deck Construction	10/31/2020	8/7/2021	280	200
Building Construction	8/8/2021	5/15/2022	280	200
Painting Control Building	5/16/2022	6/5/2022	20	15

The assumed quantity, hours of use, horsepower and load factors for each off-road equipment used during the construction can be found in Table B-36. The hours of use (i.e., hours per day), horsepower and load factors are based on CalEEMod defaults,

[14] 2011 CARB Harbor Craft Emissions Inventory. Available: https://ww3.arb.ca.gov/msei/ordiesel.htm
[15] W. N. Tuttle, P.E. & J. W. Young, P.E. "An overview of marine vapour control system safety requirements'" Warner Nicholson Engineering Consultants, P.C. USA., n.d (accessed July 12, 2019), http://www.vaporrecovery.com/PT34-28.pdf
[16] Delta Stewardship Council "Task03 Retrofitting of Ports and Wharves," 2018, http://deltacouncil.ca.gov/sites/default/files/2018/04/Task03%20Retrofitting%20of%20Ports%20and%20Wharves.pdf
[17] Joseph D. Iafrate, Stephanie L. Watwood, Eric A. Reyier, Douglas M. Scheidt, Georges A. Dossot, and Steven E. Crocker, "Effects of Pile Driving on the Residency and Movement of Tagged Reef Fish," 2016 (accessed July 02, 2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5120787/
[18] Shell, Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvement Project, Appendix B-1 Air Quality and GHG Emissions – Construction and Operations Table, March 2018

and the number and type of off-road construction equipment are based on approximations by CARB staff.

The assumed daily-one way vendor and worker trips and total one-way haul trips per construction phase can be found in Table B-36. The trip lengths are based on CalEEMod defaults, and trip rates are based on approximations by CARB staff.

Table: B-36: Assumed Tanker Dockside Control System – Off-Road Equipment

Phase/Equipment	Unit Amount	Hours/Day	Horse Power (HP)	Load Factor
Site Prep Phase				
Graders	1	8	187	0.41
Tractors/Loaders/Backhoes	1	8	97	0.37
Pile Driving				
Crane	2	8	231	0.29
Impact Hammer	1	8	270	0.74
Vibratory Hammer	1	8	78	0.74
Generator Set	1	8	84	0.74
Work Boat	1	8	105	0.37
Deck Construction				
Air Compressor	4	8	78	0.48
Crane	1	4	231	0.29
Boom Truck	1	1	84	0.74
Generator Set	2	4	84	0.74
Spud Winch	2	8	78	0.48
Excavator	1	4	158	0.38
Work Boat	1	8	105	0.37
Pump	1	4	84	0.74
Loader	1	4	97	0.37
Welder	3	4	46	0.45
Manlift	1	2	63	0.31
Building Construction				
Air Compressor	2	8	78	0.48
Crane	1	4	231	0.29
Generator Set	1	4	84	0.74
Work Boat	1	2	105	0.37
Pump	1	4	84	0.74
Loader	1	1	97	0.37
Welder	1	3	46	0.45
Manlift	1	2	63	0.31
Painting Control Building				
Air Compressors	1	6	78	0.48

Table B-37: Assumed Tanker Dockside Control System – Vehicle Trips

Phase	Daily One-Way Worker Trips	Daily One-Way Vendor Trips	Total One-Way Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Hauling Trip Length (miles)
Site Prep	10	0	10	10.8	7.3	20
Pile Driving	16	0	94	10.8	7.3	20
Deck Construction	46	4	94	10.8	7.3	20
Building Construction	46	4	94	10.8	7.3	20
Painting Control Building	6	0	0	10.8	7.3	20

It is assumed that construction would require the use of two barges and two push boats to transport piles to the dock and to tow a barge used for impact pile driving. For this analysis it is assumed that the crane used to drive piles will be mounted on the barge and will not require any power from the barge. The assumed number of engines, engine model years, horsepower and daily and total hours of use for each marine vessel assumed to be used during project construction are provided in Table B-38. As shown in Table B-38, it is assumed that each push boat would have a 2005 model year engine. The assumed main engine horsepower for each marine vessel presented in Table B-38 are based on averages shown in CARB's harbor craft emissions inventory.[19] It was assumed that impact pile driving would occur in two seasons from June 1st to October 20th. As shown in Table B-35, each seasons will require approximately 110 work days.. Based on this assumption, it was assumed that the pushs boat used to transport piles to the dock and to tow the barge would require four hours per day each to travel to and from staging dock.

[19] 2011 CARB Harbor Craft Emissions Inventory. Available: https://ww3.arb.ca.gov/msei/ordiesel.htm

Table B-38: Assumed Tanker Dockside Control System Marine Vessel Specifications and Hours of Use

Vessel Type	Engine Assumptions				
	No. of Engines[1]	Engine Model Year[2]	Engine Rated Power (HP) [3]	Max Hours of Use Per Day[4]	Total Hours of Use[5]
Push boat used to move impact pile driving barge (Main Engine)	2	2005	331	4	432
Push boat used to move transport barge (Main Engine)	2	2005	331	4	432

Notes:

1. It was assumed that the push boasts would require two main engines each to operate. It was also assumed that the cranes used for impact pile driving will be mounted to the barge= and will be self-powered.
2. It was conservatively assumed that all main engines would be equipment with a 2005 model year engine.
3. The main engine horse power rating (HP) is based on the average HP for push boats obtained from CARB's marine vessel emission inventory.
4. It was assumed that it would take a single push boat four hours, in a single work day, to move the impact pile driving barge from the port to the construction site (i.e., two hours in the morning and two hour in the afternoon). It was also assumed that a separate push boat would be used to transport materials (e.g., piles) to the work site, which would require the same number of hours.
5. The max number of marine engine operation was multiplied by the total work days to estimates the engines total annual hours of operation.

C. Modeled Emissions Compared to Local Air District Significance Thresholds

Under CEQA, each public agency is encouraged to develop and publish thresholds of significance as part of their environmental review process for determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the tables below CARB staff has compared published thresholds of significance for Air Districts where the Proposed Regulation may be in effect (i.e. locations of ocean-going vessel ports).

The construction of tanker dockside capture and control scenario may emit criteria pollutant emissions that would exceed the significance thresholds adopted by air districts that contains a port and mitigation could be necessary. As shown in Tables B-39 through B-46, construction of the tanker dockside control system will exceed the Ventura County Air Pollution Control District's and North Coast Unified Air Quality Management District's criteria pollutant significance thresholds for ROG and NOx.

Table B-39: Bay Area Air Quality Management District (BAAQMD)

Category	Average Daily Emissions (ppd)			
	ROG	NOx	Exhaust PM10	Exhaust PM2.5
Unmitigated Construction Emissions	4	39	2	2
BAAQMD Significance Threshold	54	54	82	54
Exceed Threshold (yes or no)?	No	No	No	No

Table B-40: Ventura County Air Pollution Control District (VCAPCD)

Category	Peak Daily Emissions (ppd)	
	ROG	NOx
Unmitigated Construction Emissions	29	61
VCAPCD Significance Threshold	25	25
Exceed Threshold (yes or no)?	Yes	Yes

Table B-41: North Coast Unified Air Quality Management District (NCUAQMD)

Category	Peak Daily (ppd)			
	ROG	NOx	PM10	PM2.5
Unmitigated Construction Emissions	29	61	3	3
NCUAQMD Significance Threshold	50	50	80	50
Exceed Threshold (yes or no)?	No	Yes	No	No

Table B-42: North Coast Unified Air Quality Management District (NCUAQMD)

Category	Annual Emissions (tpd)			
	ROG	NOx	PM10	PM2.5
Unmitigated Construction Emissions	1	5	<1	0<1
NCUAQMD Significance Threshold	40	40	15	10
Exceed Threshold (yes or no)?	No	No	No	No

Table B-43: South Coast Air Quality Management District (SCAQMD)

Category	Peak Daily (ppd)					
	NOx	VOC	PM10	PM2.5	SOx	CO
Unmitigated Construction Emissions	61	29	3	3	<1	52
SCAQMD Regional Significance Threshold	100	75	150	55	150	550
Exceed Threshold (yes or no)?	No	No	No	No	No	No

Table B-44: Yolo-Solano Air Quality Management District (YSAQMD)

Category	Annual Emissions (tpd)		
	ROG	NOx	PM10
Unmitigated Construction Emissions	1	5	<1
YSAQMD Significance Threshold	10	10	80
Exceed Threshold (yes or no)?	No	No	No

Table B-45: San Diego County Air Quality Management District (SDCAQMD)

Category	Peak Daily (ppd)					
	VOC	NOx	CO	SO2	PM10	PM2.5
Unmitigated Construction Emissions	29	61	52	<1	3	3
SDCAQMD Regional Significance Threshold	75	250	550	250	100	55
Exceed Threshold (yes or no)?	No	No	No	No	No	No

Table B-46: San Joaquin Valley Air Pollution Control District (SJVAPCD)

Category	Annual Emissions (tpd)					
	NOx	ROG	PM10	PM2.5	SOx	CO
Unmitigated Construction Emissions	5	1	<1	<1	<1	4
SJVAPCD Significance Threshold	10	10	15	15	27	100
Exceed Threshold (yes or no)?	No	No	No	No	No	No

CalEEMod Outputs

Tanker Dockside Control System - Construction Only

Statewide , Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	17.00	1000sqft	0.39	17,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Tanker Dockside Control System - Construction Only - Statewide , Annual

Project Characteristics -

Land Use -

Construction Phase - Assumed construction schedule

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed Construction Equipment

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed Construction Equipment

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed construction equipment

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Assumed worker, vendor and haul trips.

Grading -

Construction Off-road Equipment Mitigation - Tier 4 engines

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

Tanker Dockside Control System - Construction Only - Statewide , Annual

tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	100.00	108.00
tblConstructionPhase	NumDays	100.00	76.00
tblConstructionPhase	NumDays	100.00	76.00
tblConstructionPhase	NumDays	100.00	110.00
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	1.00	15.00
tblOffRoadEquipment	HorsePower	402.00	84.00
tblOffRoadEquipment	HorsePower	402.00	84.00
tblOffRoadEquipment	HorsePower	172.00	270.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	270.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	LoadFactor	0.38	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.48
tblOffRoadEquipment	LoadFactor	0.42	0.37

Tanker Dockside Control System - Construction Only - Statewide , Annual

tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.48
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	VendorTripNumber	3.00	0.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00

tblTripsAndVMT	VendorTripNumber	3.00	0.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	7.00	16.00
tblTripsAndVMT	WorkerTripNumber	7.00	46.00
tblTripsAndVMT	WorkerTripNumber	7.00	46.00
tblTripsAndVMT	WorkerTripNumber	7.00	16.00
tblTripsAndVMT	WorkerTripNumber	7.00	46.00
tblTripsAndVMT	WorkerTripNumber	7.00	46.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00

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					
2019	0.2580	2.4110	1.7647	3.4200e-003	0.0217	0.1340	0.1557	5.1500e-003	0.1263	0.1315	0.0000	302.9541	302.9541	0.0693	0.0000	304.6864
2020	0.3927	3.5119	2.8272	5.4900e-003	0.0397	0.1917	0.2314	0.0106	0.1819	0.1925	0.0000	478.8547	478.8547	0.0970	0.0000	481.2796
2021	0.3739	2.9229	3.0584	5.3500e-003	0.0526	0.1679	0.2206	0.0141	0.1618	0.1759	0.0000	462.2618	462.2618	0.0652	0.0000	463.8925
2022	0.2675	0.5332	0.6107	1.2100e-003	0.0197	0.0266	0.0463	5.2600e-003	0.0260	0.0313	0.0000	104.8382	104.8382	0.0108	0.0000	105.1086
Maximum	**0.3927**	**3.5119**	**3.0584**	**5.4900e-003**	**0.0526**	**0.1917**	**0.2314**	**0.0141**	**0.1819**	**0.1925**	**0.0000**	**478.8547**	**478.8547**	**0.0970**	**0.0000**	**481.2796**

2.1 Overall Construction

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					
2019	0.2069	2.1946	1.8058	3.4200e-003	0.0217	0.1038	0.1254	5.1500e-003	0.0964	0.1015	0.0000	302.9538	302.9538	0.0693	0.0000	304.6860
2020	0.3217	3.2878	2.8701	5.4900e-003	0.0397	0.1518	0.1916	0.0106	0.1422	0.1529	0.0000	478.8542	478.8542	0.0970	0.0000	481.2791
2021	0.2939	2.7442	3.0968	5.3500e-003	0.0526	0.1285	0.1811	0.0141	0.1226	0.1367	0.0000	462.2613	462.2613	0.0652	0.0000	463.8921
2022	0.2532	0.5046	0.6218	1.2100e-003	0.0197	0.0192	0.0389	5.2600e-003	0.0187	0.0239	0.0000	104.8381	104.8381	0.0108	0.0000	105.1085
Maximum	**0.3217**	**3.2878**	**3.0968**	**5.4900e-003**	**0.0526**	**0.1518**	**0.1916**	**0.0141**	**0.1422**	**0.1529**	**0.0000**	**478.8542**	**478.8542**	**0.0970**	**0.0000**	**481.2791**

	ROG	NOx	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	**16.75**	**6.91**	**-1.62**	**0.00**	**0.00**	**22.48**	**17.88**	**0.00**	**23.43**	**21.88**	**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)
2	**4-1-2019**	**6-30-2019**	0.4177	0.3476
3	**7-1-2019**	**9-30-2019**	1.0530	0.9740
4	**10-1-2019**	**12-31-2019**	1.2131	1.0934
5	**1-1-2020**	**3-31-2020**	0.8261	0.7463
6	**4-1-2020**	**6-30-2020**	0.6998	0.6458
7	**7-1-2020**	**9-30-2020**	1.1661	1.1026
8	**10-1-2020**	**12-31-2020**	1.1801	1.0843
9	**1-1-2021**	**3-31-2021**	1.0645	0.9835

10	**4-1-2021**	**6-30-2021**	1.0754	0.9935
11	**7-1-2021**	**9-30-2021**	0.7114	0.6544
12	**10-1-2021**	**12-31-2021**	0.4479	0.4090
13	**1-1-2022**	**3-31-2022**	0.4007	0.3721
14	**4-1-2022**	**6-30-2022**	0.4093	0.3941
		Highest	1.2131	1.1026

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	0.0861	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Energy	1.5400e-003	0.0140	0.0118	8.0000e-005		1.0600e-003	1.0600e-003		1.0600e-003	1.0600e-003	0.0000	43.3255	43.3255	8.2000e-004	3.9000e-004	43.4618
Mobile	0.0319	0.1967	0.3877	1.3100e-003	0.0981	1.4000e-003	0.0995	0.0263	1.3200e-003	0.0276	0.0000	120.3960	120.3960	6.1100e-003	0.0000	120.5488
Waste						0.0000	0.0000		0.0000	0.0000	4.2791	0.0000	4.2791	0.2529	0.0000	10.6012
Water						0.0000	0.0000		0.0000	0.0000	1.2472	25.3620	26.6092	0.1286	3.1200e-003	30.7544
Total	**0.1195**	**0.2107**	**0.3997**	**1.3900e-003**	**0.0981**	**2.4600e-003**	**0.1005**	**0.0263**	**2.3800e-003**	**0.0287**	**5.5263**	**189.0838**	**194.6101**	**0.3884**	**3.5100e-003**	**205.3664**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0861	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Energy	1.5400e-003	0.0140	0.0118	8.0000e-005		1.0600e-003	1.0600e-003		1.0600e-003	1.0600e-003	0.0000	43.3255	43.3255	8.2000e-004	3.9000e-004	43.4618
Mobile	0.0319	0.1967	0.3877	1.3100e-003	0.0981	1.4000e-003	0.0995	0.0263	1.3200e-003	0.0276	0.0000	120.3960	120.3960	6.1100e-003	0.0000	120.5488
Waste						0.0000	0.0000		0.0000	0.0000	4.2791	0.0000	4.2791	0.2529	0.0000	10.6012
Water						0.0000	0.0000		0.0000	0.0000	1.2472	25.3620	26.6092	0.1286	3.1200e-003	30.7544
Total	**0.1195**	**0.2107**	**0.3997**	**1.3900e-003**	**0.0981**	**2.4600e-003**	**0.1005**	**0.0263**	**2.3800e-003**	**0.0287**	**5.5263**	**189.0838**	**194.6101**	**0.3884**	**3.5100e-003**	**205.3664**

	ROG	**NOx**	**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

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/8/2019	5/28/2019	5	15	
2	Impact Pile Driving 1	Building Construction	6/1/2019	10/30/2019	5	108	
3	Deck Construction 1	Building Construction	10/31/2019	2/13/2020	5	76	
4	Building Construction 1	Building Construction	2/14/2020	5/29/2020	5	76	
5	Impact Pile Driving 2	Building Construction	6/1/2020	10/30/2020	5	110	
6	Deck Construction 2	Building Construction	10/31/2020	8/7/2021	5	200	
7	Building Construction 2	Building Construction	8/8/2021	5/15/2022	5	200	
8	Painting Control Building	Architectural Coating	5/16/2022	6/5/2022	5	15	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 25,500; Non-Residential Outdoor: 8,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Impact Pile Driving 1	Cranes	1	8.00	231	0.29
Impact Pile Driving 1	Generator Sets	1	8.00	84	0.74
Impact Pile Driving 1	Other Construction Equipment	1	8.00	270	0.74
Impact Pile Driving 1	Other Construction Equipment	1	8.00	78	0.74
Impact Pile Driving 1	Other Construction Equipment	1	8.00	105	0.42
Deck Construction 1	Aerial Lifts	1	2.00	63	0.31

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Deck Construction 1	Air Compressors	4	8.00	78	0.48
Deck Construction 1	Cranes	1	4.00	231	0.29
Deck Construction 1	Excavators	1	4.00	158	0.38
Deck Construction 1	Generator Sets	2	4.00	84	0.74
Deck Construction 1	Off-Highway Trucks	1	1.00	84	0.38
Deck Construction 1	Other Construction Equipment	2	8.00	78	0.48
Deck Construction 1	Other Construction Equipment	1	8.00	105	0.37
Deck Construction 1	Pumps	1	4.00	84	0.74
Deck Construction 1	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Deck Construction 1	Welders	3	4.00	46	0.45
Building Construction 1	Aerial Lifts	1	2.00	63	0.31
Building Construction 1	Air Compressors	2	8.00	78	0.48
Building Construction 1	Cranes	1	4.00	231	0.29
Building Construction 1	Generator Sets	1	4.00	84	0.74
Building Construction 1	Other Construction Equipment	1	2.00	105	0.37
Building Construction 1	Pumps	1	4.00	84	0.74
Building Construction 1	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction 1	Welders	1	3.00	46	0.45
Impact Pile Driving 2	Cranes	2	8.00	231	0.29
Impact Pile Driving 2	Generator Sets	1	8.00	84	0.74
Impact Pile Driving 2	Other Construction Equipment	1	8.00	270	0.74
Impact Pile Driving 2	Other Construction Equipment	1	8.00	78	0.74
Impact Pile Driving 2	Other Construction Equipment	1	8.00	105	0.42
Deck Construction 2	Aerial Lifts	1	2.00	63	0.31
Deck Construction 2	Air Compressors	4	8.00	78	0.48
Deck Construction 2	Cranes	1	4.00	231	0.29
Deck Construction 2	Excavators	1	4.00	158	0.38

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Deck Construction 2	Generator Sets	2	4.00	84	0.74
Deck Construction 2	Off-Highway Trucks	1	1.00	84	0.74
Deck Construction 2	Other Construction Equipment	2	8.00	78	0.48
Deck Construction 2	Other Construction Equipment	1	8.00	105	0.37
Deck Construction 2	Pumps	1	4.00	84	0.74
Deck Construction 2	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Deck Construction 2	Welders	3	4.00	46	0.45
Building Construction 2	Aerial Lifts	1	2.00	63	0.31
Building Construction 2	Air Compressors	2	8.00	78	0.48
Building Construction 2	Cranes	1	4.00	231	0.29
Building Construction 2	Generator Sets	1	4.00	84	0.74
Building Construction 2	Other Construction Equipment	1	2.00	105	0.37
Building Construction 2	Pumps	1	4.00	84	0.74
Building Construction 2	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction 2	Welders	1	3.00	46	0.45
Painting Control Building	Air Compressors	1	6.00	78	0.48

Trips and VMT

Tanker Dockside Control System - Construction Only - Statewide , Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Impact Pile Driving 1	5	16.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Deck Construction 1	18	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 1	9	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Impact Pile Driving 2	6	16.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Deck Construction 2	18	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction 2	9	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Painting Control Building	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-003	0.0669	0.0311	7.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	6.5669	6.5669	2.0800e-003	0.0000	6.6188
Total	**5.4000e-003**	**0.0669**	**0.0311**	**7.0000e-005**	**3.9800e-003**	**2.7500e-003**	**6.7300e-003**	**4.3000e-004**	**2.5300e-003**	**2.9600e-003**	**0.0000**	**6.5669**	**6.5669**	**2.0800e-003**	**0.0000**	**6.6188**

3.2 Site Preparation - 2019

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	4.0000e-005	1.4900e-003	2.6000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3832	0.3832	2.0000e-005	0.0000	0.3838
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.4400e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551
Total	**3.5000e-004**	**1.7300e-003**	**2.7000e-003**	**1.0000e-005**	**6.9000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9379**	**0.9379**	**4.0000e-005**	**0.0000**	**0.9389**

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					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8200e-003	0.0262	0.0438	7.0000e-005		5.7000e-004	5.7000e-004		5.3000e-004	5.3000e-004	0.0000	6.5669	6.5669	2.0800e-003	0.0000	6.6188
Total	**1.8200e-003**	**0.0262**	**0.0438**	**7.0000e-005**	**3.9800e-003**	**5.7000e-004**	**4.5500e-003**	**4.3000e-004**	**5.3000e-004**	**9.6000e-004**	**0.0000**	**6.5669**	**6.5669**	**2.0800e-003**	**0.0000**	**6.6188**

3.2 Site Preparation - 2019

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	4.0000e-005	1.4900e-003	2.6000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3832	0.3832	2.0000e-005	0.0000	0.3838
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.4400e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551
Total	**3.5000e-004**	**1.7300e-003**	**2.7000e-003**	**1.0000e-005**	**6.9000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9379**	**0.9379**	**4.0000e-005**	**0.0000**	**0.9389**

3.3 Impact Pile Driving 1 - 2019

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	0.1490	1.5613	1.0061	2.0700e-003		0.0822	0.0822		0.0766	0.0766	0.0000	184.7210	184.7210	0.0507	0.0000	185.9890
Total	**0.1490**	**1.5613**	**1.0061**	**2.0700e-003**		**0.0822**	**0.0822**		**0.0766**	**0.0766**	**0.0000**	**184.7210**	**184.7210**	**0.0507**	**0.0000**	**185.9890**

3.3 Impact Pile Driving 1 - 2019

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	4.0000e-004	0.0140	2.4400e-003	4.0000e-005	8.0000e-004	5.0000e-005	8.5000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	3.6024	3.6024	2.0000e-004	0.0000	3.6073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5900e-003	2.7400e-003	0.0281	7.0000e-005	6.8700e-003	5.0000e-005	6.9200e-003	1.8300e-003	5.0000e-005	1.8800e-003	0.0000	6.3894	6.3894	2.1000e-004	0.0000	6.3947
Total	**3.9900e-003**	**0.0167**	**0.0305**	**1.1000e-004**	**7.6700e-003**	**1.0000e-004**	**7.7700e-003**	**2.0500e-003**	**1.0000e-004**	**2.1500e-003**	**0.0000**	**9.9917**	**9.9917**	**4.1000e-004**	**0.0000**	**10.0020**

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	0.1251	1.4554	1.0308	2.0700e-003		0.0662	0.0662		0.0606	0.0606	0.0000	184.7208	184.7208	0.0507	0.0000	185.9888
Total	**0.1251**	**1.4554**	**1.0308**	**2.0700e-003**		**0.0662**	**0.0662**		**0.0606**	**0.0606**	**0.0000**	**184.7208**	**184.7208**	**0.0507**	**0.0000**	**185.9888**

3.3 Impact Pile Driving 1 - 2019

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	4.0000e-004	0.0140	2.4400e-003	4.0000e-005	8.0000e-004	5.0000e-005	8.5000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	3.6024	3.6024	2.0000e-004	0.0000	3.6073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5900e-003	2.7400e-003	0.0281	7.0000e-005	6.8700e-003	5.0000e-005	6.9200e-003	1.8300e-003	5.0000e-005	1.8800e-003	0.0000	6.3894	6.3894	2.1000e-004	0.0000	6.3947
Total	**3.9900e-003**	**0.0167**	**0.0305**	**1.1000e-004**	**7.6700e-003**	**1.0000e-004**	**7.7700e-003**	**2.0500e-003**	**1.0000e-004**	**2.1500e-003**	**0.0000**	**9.9917**	**9.9917**	**4.1000e-004**	**0.0000**	**10.0020**

3.4 Deck Construction 1 - 2019

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	0.0944	0.7421	0.6573	1.0300e-003		0.0487	0.0487		0.0469	0.0469	0.0000	88.8250	88.8250	0.0155	0.0000	89.2132
Total	**0.0944**	**0.7421**	**0.6573**	**1.0300e-003**		**0.0487**	**0.0487**		**0.0469**	**0.0469**	**0.0000**	**88.8250**	**88.8250**	**0.0155**	**0.0000**	**89.2132**

3.4 Deck Construction 1 - 2019

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	2.3000e-004	8.1100e-003	1.4100e-003	2.0000e-005	7.1000e-004	3.0000e-005	7.5000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	2.0856	2.0856	1.1000e-004	0.0000	2.0885
Vendor	4.0000e-004	0.0110	2.6700e-003	2.0000e-005	5.8000e-004	8.0000e-005	6.6000e-004	1.7000e-004	7.0000e-005	2.4000e-004	0.0000	2.3423	2.3423	1.5000e-004	0.0000	2.3460
Worker	4.2100e-003	3.2100e-003	0.0329	8.0000e-005	8.0500e-003	6.0000e-005	8.1100e-003	2.1400e-003	6.0000e-005	2.2000e-003	0.0000	7.4838	7.4838	2.5000e-004	0.0000	7.4901
Total	**4.8400e-003**	**0.0223**	**0.0370**	**1.2000e-004**	**9.3400e-003**	**1.7000e-004**	**9.5200e-003**	**2.5000e-003**	**1.6000e-004**	**2.6600e-003**	**0.0000**	**11.9117**	**11.9117**	**5.1000e-004**	**0.0000**	**11.9245**

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	0.0709	0.6722	0.6610	1.0300e-003		0.0367	0.0367		0.0350	0.0350	0.0000	88.8249	88.8249	0.0155	0.0000	89.2131
Total	**0.0709**	**0.6722**	**0.6610**	**1.0300e-003**		**0.0367**	**0.0367**		**0.0350**	**0.0350**	**0.0000**	**88.8249**	**88.8249**	**0.0155**	**0.0000**	**89.2131**

3.4 Deck Construction 1 - 2019

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	2.3000e-004	8.1100e-003	1.4100e-003	2.0000e-005	7.1000e-004	3.0000e-005	7.5000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	2.0856	2.0856	1.1000e-004	0.0000	2.0885
Vendor	4.0000e-004	0.0110	2.6700e-003	2.0000e-005	5.8000e-004	8.0000e-005	6.6000e-004	1.7000e-004	7.0000e-005	2.4000e-004	0.0000	2.3423	2.3423	1.5000e-004	0.0000	2.3460
Worker	4.2100e-003	3.2100e-003	0.0329	8.0000e-005	8.0500e-003	6.0000e-005	8.1100e-003	2.1400e-003	6.0000e-005	2.2000e-003	0.0000	7.4838	7.4838	2.5000e-004	0.0000	7.4901
Total	**4.8400e-003**	**0.0223**	**0.0370**	**1.2000e-004**	**9.3400e-003**	**1.7000e-004**	**9.5200e-003**	**2.5000e-003**	**1.6000e-004**	**2.6600e-003**	**0.0000**	**11.9117**	**11.9117**	**5.1000e-004**	**0.0000**	**11.9245**

3.4 Deck Construction 1 - 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	0.0627	0.5003	0.4735	7.5000e-004		0.0315	0.0315		0.0303	0.0303	0.0000	64.0765	64.0765	0.0110	0.0000	64.3506
Total	**0.0627**	**0.5003**	**0.4735**	**7.5000e-004**		**0.0315**	**0.0315**		**0.0303**	**0.0303**	**0.0000**	**64.0765**	**64.0765**	**0.0110**	**0.0000**	**64.3506**

3.4 Deck Construction 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	5.4900e-003	9.8000e-004	2.0000e-005	6.8000e-004	2.0000e-005	7.0000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	1.5008	1.5008	8.0000e-005	0.0000	1.5028
Vendor	2.4000e-004	7.2800e-003	1.7200e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	4.0000e-005	1.6000e-004	0.0000	1.6916	1.6916	1.0000e-004	0.0000	1.6941
Worker	2.8100e-003	2.0700e-003	0.0216	6.0000e-005	5.8500e-003	4.0000e-005	5.9000e-003	1.5600e-003	4.0000e-005	1.6000e-003	0.0000	5.2740	5.2740	1.6000e-004	0.0000	5.2780
Total	**3.2000e-003**	**0.0148**	**0.0243**	**1.0000e-004**	**6.9500e-003**	**1.0000e-004**	**7.0600e-003**	**1.8600e-003**	**1.0000e-004**	**1.9600e-003**	**0.0000**	**8.4663**	**8.4663**	**3.4000e-004**	**0.0000**	**8.4748**

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	0.0478	0.4609	0.4775	7.5000e-004		0.0241	0.0241		0.0230	0.0230	0.0000	64.0764	64.0764	0.0110	0.0000	64.3505
Total	**0.0478**	**0.4609**	**0.4775**	**7.5000e-004**		**0.0241**	**0.0241**		**0.0230**	**0.0230**	**0.0000**	**64.0764**	**64.0764**	**0.0110**	**0.0000**	**64.3505**

3.4 Deck Construction 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	5.4900e-003	9.8000e-004	2.0000e-005	6.8000e-004	2.0000e-005	7.0000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	1.5008	1.5008	8.0000e-005	0.0000	1.5028
Vendor	2.4000e-004	7.2800e-003	1.7200e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	4.0000e-005	1.6000e-004	0.0000	1.6916	1.6916	1.0000e-004	0.0000	1.6941
Worker	2.8100e-003	2.0700e-003	0.0216	6.0000e-005	5.8500e-003	4.0000e-005	5.9000e-003	1.5600e-003	4.0000e-005	1.6000e-003	0.0000	5.2740	5.2740	1.6000e-004	0.0000	5.2780
Total	**3.2000e-003**	**0.0148**	**0.0243**	**1.0000e-004**	**6.9500e-003**	**1.0000e-004**	**7.0600e-003**	**1.8600e-003**	**1.0000e-004**	**1.9600e-003**	**0.0000**	**8.4663**	**8.4663**	**3.4000e-004**	**0.0000**	**8.4748**

3.5 Building Construction 1 - 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	0.0584	0.4758	0.4384	7.6000e-004		0.0274	0.0274		0.0269	0.0269	0.0000	65.1507	65.1507	8.5400e-003	0.0000	65.3641
Total	**0.0584**	**0.4758**	**0.4384**	**7.6000e-004**		**0.0274**	**0.0274**		**0.0269**	**0.0269**	**0.0000**	**65.1507**	**65.1507**	**8.5400e-003**	**0.0000**	**65.3641**

3.5 Building Construction 1 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0130	2.3200e-003	4.0000e-005	8.0000e-004	4.0000e-005	8.4000e-004	2.2000e-004	4.0000e-005	2.6000e-004	0.0000	3.5643	3.5643	1.9000e-004	0.0000	3.5691
Vendor	5.7000e-004	0.0173	4.0800e-003	4.0000e-005	1.0000e-003	9.0000e-005	1.0900e-003	2.9000e-004	8.0000e-005	3.7000e-004	0.0000	4.0174	4.0174	2.4000e-004	0.0000	4.0234
Worker	6.6800e-003	4.9300e-003	0.0512	1.4000e-004	0.0139	1.0000e-004	0.0140	3.7000e-003	1.0000e-004	3.7900e-003	0.0000	12.5257	12.5257	3.8000e-004	0.0000	12.5351
Total	**7.6100e-003**	**0.0353**	**0.0576**	**2.2000e-004**	**0.0157**	**2.3000e-004**	**0.0159**	**4.2100e-003**	**2.2000e-004**	**4.4200e-003**	**0.0000**	**20.1074**	**20.1074**	**8.1000e-004**	**0.0000**	**20.1276**

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	0.0438	0.4304	0.4453	7.6000e-004		0.0194	0.0194		0.0188	0.0188	0.0000	65.1506	65.1506	8.5400e-003	0.0000	65.3640
Total	**0.0438**	**0.4304**	**0.4453**	**7.6000e-004**		**0.0194**	**0.0194**		**0.0188**	**0.0188**	**0.0000**	**65.1506**	**65.1506**	**8.5400e-003**	**0.0000**	**65.3640**

3.5 Building Construction 1 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0130	2.3200e-003	4.0000e-005	8.0000e-004	4.0000e-005	8.4000e-004	2.2000e-004	4.0000e-005	2.6000e-004	0.0000	3.5643	3.5643	1.9000e-004	0.0000	3.5691
Vendor	5.7000e-004	0.0173	4.0800e-003	4.0000e-005	1.0000e-003	9.0000e-005	1.0900e-003	2.9000e-004	8.0000e-005	3.7000e-004	0.0000	4.0174	4.0174	2.4000e-004	0.0000	4.0234
Worker	6.6800e-003	4.9300e-003	0.0512	1.4000e-004	0.0139	1.0000e-004	0.0140	3.7000e-003	1.0000e-004	3.7900e-003	0.0000	12.5257	12.5257	3.8000e-004	0.0000	12.5351
Total	**7.6100e-003**	**0.0353**	**0.0576**	**2.2000e-004**	**0.0157**	**2.3000e-004**	**0.0159**	**4.2100e-003**	**2.2000e-004**	**4.4200e-003**	**0.0000**	**20.1074**	**20.1074**	**8.1000e-004**	**0.0000**	**20.1276**

3.6 Impact Pile Driving 2 - 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	0.1665	1.7667	1.1217	2.4300e-003		0.0888	0.0888		0.0825	0.0825	0.0000	212.7168	212.7168	0.0605	0.0000	214.2292
Total	**0.1665**	**1.7667**	**1.1217**	**2.4300e-003**		**0.0888**	**0.0888**		**0.0825**	**0.0825**	**0.0000**	**212.7168**	**212.7168**	**0.0605**	**0.0000**	**214.2292**

3.6 Impact Pile Driving 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0130	2.3200e-003	4.0000e-005	8.0000e-004	4.0000e-005	8.4000e-004	2.2000e-004	4.0000e-005	2.6000e-004	0.0000	3.5643	3.5643	1.9000e-004	0.0000	3.5691
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3600e-003	2.4800e-003	0.0258	7.0000e-005	7.0000e-003	5.0000e-005	7.0500e-003	1.8600e-003	5.0000e-005	1.9100e-003	0.0000	6.3058	6.3058	1.9000e-004	0.0000	6.3106
Total	**3.7200e-003**	**0.0155**	**0.0281**	**1.1000e-004**	**7.8000e-003**	**9.0000e-005**	**7.8900e-003**	**2.0800e-003**	**9.0000e-005**	**2.1700e-003**	**0.0000**	**9.8702**	**9.8702**	**3.8000e-004**	**0.0000**	**9.8797**

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	0.1456	1.6813	1.1482	2.4300e-003		0.0747	0.0747		0.0684	0.0684	0.0000	212.7166	212.7166	0.0605	0.0000	214.2289
Total	**0.1456**	**1.6813**	**1.1482**	**2.4300e-003**		**0.0747**	**0.0747**		**0.0684**	**0.0684**	**0.0000**	**212.7166**	**212.7166**	**0.0605**	**0.0000**	**214.2289**

3.6 Impact Pile Driving 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0130	2.3200e-003	4.0000e-005	8.0000e-004	4.0000e-005	8.4000e-004	2.2000e-004	4.0000e-005	2.6000e-004	0.0000	3.5643	3.5643	1.9000e-004	0.0000	3.5691
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3600e-003	2.4800e-003	0.0258	7.0000e-005	7.0000e-003	5.0000e-005	7.0500e-003	1.8600e-003	5.0000e-005	1.9100e-003	0.0000	6.3058	6.3058	1.9000e-004	0.0000	6.3106
Total	**3.7200e-003**	**0.0155**	**0.0281**	**1.1000e-004**	**7.8000e-003**	**9.0000e-005**	**7.8900e-003**	**2.0800e-003**	**9.0000e-005**	**2.1700e-003**	**0.0000**	**9.8702**	**9.8702**	**3.8000e-004**	**0.0000**	**9.8797**

3.7 Deck Construction 2 - 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	0.0863	0.6879	0.6511	1.0300e-003		0.0434	0.0434		0.0417	0.0417	0.0000	88.1052	88.1052	0.0151	0.0000	88.4820
Total	**0.0863**	**0.6879**	**0.6511**	**1.0300e-003**		**0.0434**	**0.0434**		**0.0417**	**0.0417**	**0.0000**	**88.1052**	**88.1052**	**0.0151**	**0.0000**	**88.4820**

3.7 Deck Construction 2 - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.8700e-003	5.1000e-004	1.0000e-005	6.4000e-004	1.0000e-005	6.5000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.7842	0.7842	4.0000e-005	0.0000	0.7852
Vendor	3.3000e-004	0.0100	2.3600e-003	2.0000e-005	5.8000e-004	5.0000e-005	6.3000e-004	1.7000e-004	5.0000e-005	2.2000e-004	0.0000	2.3259	2.3259	1.4000e-004	0.0000	2.3293
Worker	3.8700e-003	2.8500e-003	0.0297	8.0000e-005	8.0500e-003	6.0000e-005	8.1100e-003	2.1400e-003	6.0000e-005	2.2000e-003	0.0000	7.2517	7.2517	2.2000e-004	0.0000	7.2572
Total	**4.2800e-003**	**0.0157**	**0.0325**	**1.1000e-004**	**9.2700e-003**	**1.2000e-004**	**9.3900e-003**	**2.4700e-003**	**1.2000e-004**	**2.5900e-003**	**0.0000**	**10.3617**	**10.3617**	**4.0000e-004**	**0.0000**	**10.3717**

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	0.0658	0.6338	0.6566	1.0300e-003		0.0332	0.0332		0.0316	0.0316	0.0000	88.1051	88.1051	0.0151	0.0000	88.4819
Total	**0.0658**	**0.6338**	**0.6566**	**1.0300e-003**		**0.0332**	**0.0332**		**0.0316**	**0.0316**	**0.0000**	**88.1051**	**88.1051**	**0.0151**	**0.0000**	**88.4819**

3.7 Deck Construction 2 - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.8700e-003	5.1000e-004	1.0000e-005	6.4000e-004	1.0000e-005	6.5000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	0.7842	0.7842	4.0000e-005	0.0000	0.7852
Vendor	3.3000e-004	0.0100	2.3600e-003	2.0000e-005	5.8000e-004	5.0000e-005	6.3000e-004	1.7000e-004	5.0000e-005	2.2000e-004	0.0000	2.3259	2.3259	1.4000e-004	0.0000	2.3293
Worker	3.8700e-003	2.8500e-003	0.0297	8.0000e-005	8.0500e-003	6.0000e-005	8.1100e-003	2.1400e-003	6.0000e-005	2.2000e-003	0.0000	7.2517	7.2517	2.2000e-004	0.0000	7.2572
Total	**4.2800e-003**	**0.0157**	**0.0325**	**1.1000e-004**	**9.2700e-003**	**1.2000e-004**	**9.3900e-003**	**2.4700e-003**	**1.2000e-004**	**2.5900e-003**	**0.0000**	**10.3617**	**10.3617**	**4.0000e-004**	**0.0000**	**10.3717**

3.7 Deck Construction 2 - 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	0.2776	2.2398	2.2843	3.6500e-003		0.1348	0.1348		0.1294	0.1294	0.0000	312.3867	312.3867	0.0518	0.0000	313.6812
Total	**0.2776**	**2.2398**	**2.2843**	**3.6500e-003**		**0.1348**	**0.1348**		**0.1294**	**0.1294**	**0.0000**	**312.3867**	**312.3867**	**0.0518**	**0.0000**	**313.6812**

3.7 Deck Construction 2 - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-004	9.3800e-003	1.7500e-003	3.0000e-005	7.5000e-004	3.0000e-005	7.8000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	2.7486	2.7486	1.4000e-004	0.0000	2.7522
Vendor	9.8000e-004	0.0321	7.4600e-003	9.0000e-005	2.0600e-003	7.0000e-005	2.1300e-003	5.9000e-004	7.0000e-005	6.7000e-004	0.0000	8.1788	8.1788	4.6000e-004	0.0000	8.1904
Worker	0.0128	9.0700e-003	0.0962	2.8000e-004	0.0285	2.1000e-004	0.0287	7.5900e-003	1.9000e-004	7.7800e-003	0.0000	24.8536	24.8536	7.0000e-004	0.0000	24.8711
Total	**0.0140**	**0.0506**	**0.1054**	**4.0000e-004**	**0.0313**	**3.1000e-004**	**0.0317**	**8.3800e-003**	**2.9000e-004**	**8.6800e-003**	**0.0000**	**35.7809**	**35.7809**	**1.3000e-003**	**0.0000**	**35.8137**

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	0.2151	2.1058	2.3112	3.6500e-003		0.1047	0.1047		0.0995	0.0995	0.0000	312.3863	312.3863	0.0518	0.0000	313.6808
Total	**0.2151**	**2.1058**	**2.3112**	**3.6500e-003**		**0.1047**	**0.1047**		**0.0995**	**0.0995**	**0.0000**	**312.3863**	**312.3863**	**0.0518**	**0.0000**	**313.6808**

3.7 Deck Construction 2 - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-004	9.3800e-003	1.7500e-003	3.0000e-005	7.5000e-004	3.0000e-005	7.8000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	2.7486	2.7486	1.4000e-004	0.0000	2.7522
Vendor	9.8000e-004	0.0321	7.4600e-003	9.0000e-005	2.0600e-003	7.0000e-005	2.1300e-003	5.9000e-004	7.0000e-005	6.7000e-004	0.0000	8.1788	8.1788	4.6000e-004	0.0000	8.1904
Worker	0.0128	9.0700e-003	0.0962	2.8000e-004	0.0285	2.1000e-004	0.0287	7.5900e-003	1.9000e-004	7.7800e-003	0.0000	24.8536	24.8536	7.0000e-004	0.0000	24.8711
Total	**0.0140**	**0.0506**	**0.1054**	**4.0000e-004**	**0.0313**	**3.1000e-004**	**0.0317**	**8.3800e-003**	**2.9000e-004**	**8.6800e-003**	**0.0000**	**35.7809**	**35.7809**	**1.3000e-003**	**0.0000**	**35.8137**

3.8 Building Construction 2 - 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	0.0729	0.5985	0.5978	1.0500e-003		0.0327	0.0327		0.0319	0.0319	0.0000	90.0109	90.0109	0.0113	0.0000	90.2923
Total	**0.0729**	**0.5985**	**0.5978**	**1.0500e-003**		**0.0327**	**0.0327**		**0.0319**	**0.0319**	**0.0000**	**90.0109**	**90.0109**	**0.0113**	**0.0000**	**90.2923**

3.8 Building Construction 2 - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	6.3100e-003	1.1800e-003	2.0000e-005	7.0000e-004	2.0000e-005	7.2000e-004	1.9000e-004	2.0000e-005	2.0000e-004	0.0000	1.8500	1.8500	1.0000e-004	0.0000	1.8524
Vendor	6.6000e-004	0.0216	5.0200e-003	6.0000e-005	1.3800e-003	5.0000e-005	1.4300e-003	4.0000e-004	5.0000e-005	4.5000e-004	0.0000	5.5049	5.5049	3.1000e-004	0.0000	5.5128
Worker	8.5800e-003	6.1000e-003	0.0647	1.9000e-004	0.0192	1.4000e-004	0.0193	5.1100e-003	1.3000e-004	5.2400e-003	0.0000	16.7284	16.7284	4.7000e-004	0.0000	16.7402
Total	**9.4200e-003**	**0.0340**	**0.0709**	**2.7000e-004**	**0.0213**	**2.1000e-004**	**0.0215**	**5.7000e-003**	**2.0000e-004**	**5.8900e-003**	**0.0000**	**24.0833**	**24.0833**	**8.8000e-004**	**0.0000**	**24.1054**

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	0.0554	0.5537	0.6092	1.0500e-003		0.0233	0.0233		0.0226	0.0226	0.0000	90.0108	90.0108	0.0113	0.0000	90.2922
Total	**0.0554**	**0.5537**	**0.6092**	**1.0500e-003**		**0.0233**	**0.0233**		**0.0226**	**0.0226**	**0.0000**	**90.0108**	**90.0108**	**0.0113**	**0.0000**	**90.2922**

3.8 Building Construction 2 - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	6.3100e-003	1.1800e-003	2.0000e-005	7.0000e-004	2.0000e-005	7.2000e-004	1.9000e-004	2.0000e-005	2.0000e-004	0.0000	1.8500	1.8500	1.0000e-004	0.0000	1.8524
Vendor	6.6000e-004	0.0216	5.0200e-003	6.0000e-005	1.3800e-003	5.0000e-005	1.4300e-003	4.0000e-004	5.0000e-005	4.5000e-004	0.0000	5.5049	5.5049	3.1000e-004	0.0000	5.5128
Worker	8.5800e-003	6.1000e-003	0.0647	1.9000e-004	0.0192	1.4000e-004	0.0193	5.1100e-003	1.3000e-004	5.2400e-003	0.0000	16.7284	16.7284	4.7000e-004	0.0000	16.7402
Total	**9.4200e-003**	**0.0340**	**0.0709**	**2.7000e-004**	**0.0213**	**2.1000e-004**	**0.0215**	**5.7000e-003**	**2.0000e-004**	**5.8900e-003**	**0.0000**	**24.0833**	**24.0833**	**8.8000e-004**	**0.0000**	**24.1054**

3.8 Building Construction 2 - 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	0.0609	0.4939	0.5369	9.5000e-004		0.0258	0.0258		0.0252	0.0252	0.0000	81.4425	81.4425	9.9400e-003	0.0000	81.6911
Total	**0.0609**	**0.4939**	**0.5369**	**9.5000e-004**		**0.0258**	**0.0258**		**0.0252**	**0.0252**	**0.0000**	**81.4425**	**81.4425**	**9.9400e-003**	**0.0000**	**81.6911**

3.8 Building Construction 2 - 2022

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-004	5.2300e-003	1.0400e-003	2.0000e-005	6.9000e-004	2.0000e-005	7.1000e-004	1.8000e-004	1.0000e-005	2.0000e-004	0.0000	1.6532	1.6532	9.0000e-005	0.0000	1.6554
Vendor	5.5000e-004	0.0185	4.2300e-003	5.0000e-005	1.2500e-003	4.0000e-005	1.2900e-003	3.6000e-004	4.0000e-005	4.0000e-004	0.0000	4.9359	4.9359	2.7000e-004	0.0000	4.9426
Worker	7.2600e-003	4.9700e-003	0.0538	1.6000e-004	0.0174	1.2000e-004	0.0175	4.6200e-003	1.1000e-004	4.7300e-003	0.0000	14.5912	14.5912	3.8000e-004	0.0000	14.6008
Total	**7.9600e-003**	**0.0287**	**0.0590**	**2.3000e-004**	**0.0193**	**1.8000e-004**	**0.0195**	**5.1600e-003**	**1.6000e-004**	**5.3300e-003**	**0.0000**	**21.1803**	**21.1803**	**7.4000e-004**	**0.0000**	**21.1988**

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	0.0468	0.4658	0.5480	9.5000e-004		0.0186	0.0186		0.0180	0.0180	0.0000	81.4424	81.4424	9.9400e-003	0.0000	81.6910
Total	**0.0468**	**0.4658**	**0.5480**	**9.5000e-004**		**0.0186**	**0.0186**		**0.0180**	**0.0180**	**0.0000**	**81.4424**	**81.4424**	**9.9400e-003**	**0.0000**	**81.6910**

3.8 Building Construction 2 - 2022

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-004	5.2300e-003	1.0400e-003	2.0000e-005	6.9000e-004	2.0000e-005	7.1000e-004	1.8000e-004	1.0000e-005	2.0000e-004	0.0000	1.6532	1.6532	9.0000e-005	0.0000	1.6554
Vendor	5.5000e-004	0.0185	4.2300e-003	5.0000e-005	1.2500e-003	4.0000e-005	1.2900e-003	3.6000e-004	4.0000e-005	4.0000e-004	0.0000	4.9359	4.9359	2.7000e-004	0.0000	4.9426
Worker	7.2600e-003	4.9700e-003	0.0538	1.6000e-004	0.0174	1.2000e-004	0.0175	4.6200e-003	1.1000e-004	4.7300e-003	0.0000	14.5912	14.5912	3.8000e-004	0.0000	14.6008
Total	**7.9600e-003**	**0.0287**	**0.0590**	**2.3000e-004**	**0.0193**	**1.8000e-004**	**0.0195**	**5.1600e-003**	**1.6000e-004**	**5.3300e-003**	**0.0000**	**21.1803**	**21.1803**	**7.4000e-004**	**0.0000**	**21.1988**

3.9 Painting Control Building - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1970					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5300e-003	0.0106	0.0136	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**0.1985**	**0.0106**	**0.0136**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

3.9 Painting Control Building - 2022

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	1.5000e-004	1.0000e-004	1.1100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3005	0.3005	1.0000e-005	0.0000	0.3007
Total	**1.5000e-004**	**1.0000e-004**	**1.1100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3005**	**0.3005**	**1.0000e-005**	**0.0000**	**0.3007**

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	0.1970					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2800e-003	9.9600e-003	0.0136	2.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**0.1983**	**9.9600e-003**	**0.0136**	**2.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

3.9 Painting Control Building - 2022

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	1.5000e-004	1.0000e-004	1.1100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3005	0.3005	1.0000e-005	0.0000	0.3007
Total	**1.5000e-004**	**1.0000e-004**	**1.1100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3005**	**0.3005**	**1.0000e-005**	**0.0000**	**0.3007**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0319	0.1967	0.3877	1.3100e-003	0.0981	1.4000e-003	0.0995	0.0263	1.3200e-003	0.0276	0.0000	120.3960	120.3960	6.1100e-003	0.0000	120.5488
Unmitigated	0.0319	0.1967	0.3877	1.3100e-003	0.0981	1.4000e-003	0.0995	0.0263	1.3200e-003	0.0276	0.0000	120.3960	120.3960	6.1100e-003	0.0000	120.5488

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	118.49	22.44	11.56	261,275	261,275
Total	118.49	22.44	11.56	261,275	261,275

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

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	28.0848	28.0848	5.3000e-004	1.1000e-004	28.1305
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.0848	28.0848	5.3000e-004	1.1000e-004	28.1305
NaturalGas Mitigated	1.5400e-003	0.0140	0.0118	8.0000e-005		1.0600e-003	1.0600e-003		1.0600e-003	1.0600e-003	0.0000	15.2407	15.2407	2.9000e-004	2.8000e-004	15.3313
NaturalGas Unmitigated	1.5400e-003	0.0140	0.0118	8.0000e-005		1.0600e-003	1.0600e-003		1.0600e-003	1.0600e-003	0.0000	15.2407	15.2407	2.9000e-004	2.8000e-004	15.3313

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					
General Light Industry	285600	1.5400e-003	0.0140	0.0118	8.0000e-005		1.0600e-003	1.0600e-003		1.0600e-003	1.0600e-003	0.0000	15.2407	15.2407	2.9000e-004	2.8000e-004	15.3313
Total		**1.5400e-003**	**0.0140**	**0.0118**	**8.0000e-005**		**1.0600e-003**	**1.0600e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**15.2407**	**15.2407**	**2.9000e-004**	**2.8000e-004**	**15.3313**

5.2 Energy by Land Use - NaturalGas

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					
General Light Industry	285600	1.5400e-003	0.0140	0.0118	8.0000e-005		1.0600e-003	1.0600e-003		1.0600e-003	1.0600e-003	0.0000	15.2407	15.2407	2.9000e-004	2.8000e-004	15.3313
Total		**1.5400e-003**	**0.0140**	**0.0118**	**8.0000e-005**		**1.0600e-003**	**1.0600e-003**		**1.0600e-003**	**1.0600e-003**	**0.0000**	**15.2407**	**15.2407**	**2.9000e-004**	**2.8000e-004**	**15.3313**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	40120	28.0848	5.3000e-004	1.1000e-004	28.1305
Total		**28.0848**	**5.3000e-004**	**1.1000e-004**	**28.1305**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	40120	28.0848	5.3000e-004	1.1000e-004	28.1305
Total		**28.0848**	**5.3000e-004**	**1.1000e-004**	**28.1305**

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	0.0861	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Unmitigated	0.0861	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0197					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Total	**0.0861**	**0.0000**	**1.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**0.0000**	**3.2000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0197					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Total	**0.0861**	**0.0000**	**1.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**0.0000**	**3.2000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.6092	0.1286	3.1200e-003	30.7544
Unmitigated	26.6092	0.1286	3.1200e-003	30.7544

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.93125 / 0	26.6092	0.1286	3.1200e-003	30.7544
Total		**26.6092**	**0.1286**	**3.1200e-003**	**30.7544**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.93125 / 0	26.6092	0.1286	3.1200e-003	30.7544
Total		**26.6092**	**0.1286**	**3.1200e-003**	**30.7544**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.2791	0.2529	0.0000	10.6012
Unmitigated	4.2791	0.2529	0.0000	10.6012

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	21.08	4.2791	0.2529	0.0000	10.6012
Total		**4.2791**	**0.2529**	**0.0000**	**10.6012**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	21.08	4.2791	0.2529	0.0000	10.6012
Total		**4.2791**	**0.2529**	**0.0000**	**10.6012**

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

Tanker Landside Control System - Construction Only

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	15.00	1000sqft	0.34	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Tanker Landside Control System - Construction Only - Statewide , Annual

Project Characteristics -

Land Use -

Construction Phase - Assumed construction schedule

Off-road Equipment - Assumd construction equipment

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed construction equipment.

Off-road Equipment - Asssumed construction equipment.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Trips and VMT - Assumed haul trips

Grading -

Construction Off-road Equipment Mitigation - Tier 4 engines

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	15.00
tblConstructionPhase	NumDays	100.00	108.00
tblConstructionPhase	NumDays	100.00	182.00
tblConstructionPhase	NumDays	100.00	184.00
tblConstructionPhase	NumDays	5.00	15.00
tblOffRoadEquipment	HorsePower	402.00	84.00
tblOffRoadEquipment	HorsePower	172.00	270.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	105.00

tblOffRoadEquipment	LoadFactor	0.38	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	LoadFactor	0.42	0.48
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	VendorTripNumber	2.00	0.00
tblTripsAndVMT	VendorTripNumber	2.00	4.00
tblTripsAndVMT	VendorTripNumber	2.00	4.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	6.00	16.00
tblTripsAndVMT	WorkerTripNumber	6.00	46.00
tblTripsAndVMT	WorkerTripNumber	6.00	46.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00

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					
2019	0.2823	2.7054	1.8689	3.6900e-003	0.0216	0.1458	0.1674	5.1300e-003	0.1372	0.1423	0.0000	327.5345	327.5345	0.0774	0.0000	329.4692
2020	0.3921	3.0358	2.9566	5.1500e-003	0.0529	0.1820	0.2349	0.0141	0.1757	0.1899	0.0000	445.3779	445.3779	0.0638	0.0000	446.9731
2021	0.2325	0.4619	0.4909	9.8000e-004	0.0134	0.0239	0.0373	3.5700e-003	0.0233	0.0269	0.0000	85.0912	85.0912	0.0103	0.0000	85.3496
Maximum	**0.3921**	**3.0358**	**2.9566**	**5.1500e-003**	**0.0529**	**0.1820**	**0.2349**	**0.0141**	**0.1757**	**0.1899**	**0.0000**	**445.3779**	**445.3779**	**0.0774**	**0.0000**	**446.9731**

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					
2019	0.2823	2.7054	1.8689	3.6900e-003	0.0216	0.1458	0.1674	5.1300e-003	0.1372	0.1423	0.0000	327.5342	327.5342	0.0774	0.0000	329.4688
2020	0.3921	3.0358	2.9566	5.1500e-003	0.0529	0.1820	0.2349	0.0141	0.1757	0.1899	0.0000	445.3774	445.3774	0.0638	0.0000	446.9726
2021	0.2325	0.4619	0.4909	9.8000e-004	0.0134	0.0239	0.0373	3.5700e-003	0.0233	0.0269	0.0000	85.0911	85.0911	0.0103	0.0000	85.3496
Maximum	**0.3921**	**3.0358**	**2.9566**	**5.1500e-003**	**0.0529**	**0.1820**	**0.2349**	**0.0141**	**0.1757**	**0.1899**	**0.0000**	**445.3774**	**445.3774**	**0.0774**	**0.0000**	**446.9726**

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	ROG	NOx	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)
2	**4-1-2019**	**6-30-2019**	0.4819	0.4819
3	**7-1-2019**	**9-30-2019**	1.2499	1.2499
4	**10-1-2019**	**12-31-2019**	1.2724	1.2724
5	**1-1-2020**	**3-31-2020**	1.1741	1.1741
6	**4-1-2020**	**6-30-2020**	1.1731	1.1731
7	**7-1-2020**	**9-30-2020**	0.5857	0.5857
8	**10-1-2020**	**12-31-2020**	0.4967	0.4967
9	**1-1-2021**	**3-31-2021**	0.4399	0.4399
10	**4-1-2021**	**6-30-2021**	0.2550	0.2550
		Highest	1.2724	1.2724

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	0.0760	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Energy	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	38.2284	38.2284	7.2000e-004	3.4000e-004	38.3487
Mobile	0.0281	0.1736	0.3421	1.1500e-003	0.0865	1.2300e-003	0.0878	0.0232	1.1600e-003	0.0244	0.0000	106.2318	106.2318	5.3900e-003	0.0000	106.3666
Waste						0.0000	0.0000		0.0000	0.0000	3.7756	0.0000	3.7756	0.2231	0.0000	9.3540
Water						0.0000	0.0000		0.0000	0.0000	1.1005	22.3782	23.4787	0.1135	2.7600e-003	27.1362
Total	**0.1055**	**0.1859**	**0.3526**	**1.2200e-003**	**0.0865**	**2.1700e-003**	**0.0887**	**0.0232**	**2.1000e-003**	**0.0253**	**4.8761**	**166.8387**	**171.7148**	**0.3427**	**3.1000e-003**	**181.2057**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0760	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Energy	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	38.2284	38.2284	7.2000e-004	3.4000e-004	38.3487
Mobile	0.0281	0.1736	0.3421	1.1500e-003	0.0865	1.2300e-003	0.0878	0.0232	1.1600e-003	0.0244	0.0000	106.2318	106.2318	5.3900e-003	0.0000	106.3666
Waste						0.0000	0.0000		0.0000	0.0000	3.7756	0.0000	3.7756	0.2231	0.0000	9.3540
Water						0.0000	0.0000		0.0000	0.0000	1.1005	22.3782	23.4787	0.1135	2.7600e-003	27.1362
Total	**0.1055**	**0.1859**	**0.3526**	**1.2200e-003**	**0.0865**	**2.1700e-003**	**0.0887**	**0.0232**	**2.1000e-003**	**0.0253**	**4.8761**	**166.8387**	**171.7148**	**0.3427**	**3.1000e-003**	**181.2057**

	ROG	NOx	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

Tanker Landside Control System - Construction Only - Statewide , Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/8/2019	5/28/2019	5	15	
2	Impact Pile Driving	Building Construction	6/1/2019	10/30/2019	5	108	
3	Deck Construction	Building Construction	10/31/2019	7/12/2020	5	182	
4	Building Construction	Building Construction	7/13/2020	3/25/2021	5	184	
5	Trenching	Trenching	3/26/2021	4/15/2021	5	15	
6	Painting Equipment Building	Architectural Coating	4/16/2021	5/6/2021	5	15	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 22,500; Non-Residential Outdoor: 7,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Impact Pile Driving	Cranes	2	8.00	231	0.29
Impact Pile Driving	Generator Sets	1	8.00	84	0.74
Impact Pile Driving	Other Construction Equipment	1	8.00	270	0.74
Impact Pile Driving	Other Construction Equipment	1	8.00	78	0.74
Impact Pile Driving	Other Construction Equipment	1	8.00	105	0.37
Deck Construction	Aerial Lifts	1	2.00	63	0.31
Deck Construction	Air Compressors	4	8.00	78	0.48
Deck Construction	Cranes	1	4.00	231	0.29

Deck Construction	Excavators	1	4.00	158	0.38
Deck Construction	Generator Sets	2	4.00	84	0.74
Deck Construction	Off-Highway Trucks	1	1.00	84	0.74
Deck Construction	Other Construction Equipment	2	8.00	78	0.48
Deck Construction	Other Construction Equipment	1	8.00	105	0.37
Deck Construction	Pumps	1	4.00	84	0.74
Deck Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Deck Construction	Welders	3	4.00	46	0.45
Building Construction	Aerial Lifts	1	2.00	63	0.31
Building Construction	Air Compressors	2	8.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Generator Sets	1	4.00	84	0.74
Building Construction	Other Construction Equipment	1	2.00	105	0.42
Building Construction	Pumps	1	4.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Welders	1	3.00	46	0.45
Trenching	Bore/Drill Rigs	1	8.00	221	0.50
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Painting Equipment Building	Air Compressors	1	6.00	78	0.48

Trips and VMT

Tanker Landside Control System - Construction Only - Statewide , Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Impact Pile Driving	6	16.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Deck Construction	18	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	5	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Painting Equipment Building	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-003	0.0669	0.0311	7.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	6.5669	6.5669	2.0800e-003	0.0000	6.6188
Total	**5.4000e-003**	**0.0669**	**0.0311**	**7.0000e-005**	**3.9800e-003**	**2.7500e-003**	**6.7300e-003**	**4.3000e-004**	**2.5300e-003**	**2.9600e-003**	**0.0000**	**6.5669**	**6.5669**	**2.0800e-003**	**0.0000**	**6.6188**

3.2 Site Preparation - 2019

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	4.0000e-005	1.4900e-003	2.6000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3832	0.3832	2.0000e-005	0.0000	0.3838
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.4400e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551
Total	**3.5000e-004**	**1.7300e-003**	**2.7000e-003**	**1.0000e-005**	**6.9000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9379**	**0.9379**	**4.0000e-005**	**0.0000**	**0.9389**

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					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-003	0.0669	0.0311	7.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	6.5669	6.5669	2.0800e-003	0.0000	6.6188
Total	**5.4000e-003**	**0.0669**	**0.0311**	**7.0000e-005**	**3.9800e-003**	**2.7500e-003**	**6.7300e-003**	**4.3000e-004**	**2.5300e-003**	**2.9600e-003**	**0.0000**	**6.5669**	**6.5669**	**2.0800e-003**	**0.0000**	**6.6188**

3.2 Site Preparation - 2019

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	4.0000e-005	1.4900e-003	2.6000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3832	0.3832	2.0000e-005	0.0000	0.3838
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.4400e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551
Total	**3.5000e-004**	**1.7300e-003**	**2.7000e-003**	**1.0000e-005**	**6.9000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9379**	**0.9379**	**4.0000e-005**	**0.0000**	**0.9389**

3.3 Impact Pile Driving - 2019

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	0.1735	1.8604	1.1112	2.3600e-003		0.0941	0.0941		0.0875	0.0875	0.0000	210.5161	210.5161	0.0589	0.0000	211.9881
Total	**0.1735**	**1.8604**	**1.1112**	**2.3600e-003**		**0.0941**	**0.0941**		**0.0875**	**0.0875**	**0.0000**	**210.5161**	**210.5161**	**0.0589**	**0.0000**	**211.9881**

3.3 Impact Pile Driving - 2019

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	4.0000e-004	0.0140	2.4400e-003	4.0000e-005	8.0000e-004	5.0000e-005	8.5000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	3.6024	3.6024	2.0000e-004	0.0000	3.6073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5900e-003	2.7400e-003	0.0281	7.0000e-005	6.8700e-003	5.0000e-005	6.9200e-003	1.8300e-003	5.0000e-005	1.8800e-003	0.0000	6.3894	6.3894	2.1000e-004	0.0000	6.3947
Total	**3.9900e-003**	**0.0167**	**0.0305**	**1.1000e-004**	**7.6700e-003**	**1.0000e-004**	**7.7700e-003**	**2.0500e-003**	**1.0000e-004**	**2.1500e-003**	**0.0000**	**9.9917**	**9.9917**	**4.1000e-004**	**0.0000**	**10.0020**

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	0.1735	1.8604	1.1112	2.3600e-003		0.0941	0.0941		0.0875	0.0875	0.0000	210.5158	210.5158	0.0589	0.0000	211.9879
Total	**0.1735**	**1.8604**	**1.1112**	**2.3600e-003**		**0.0941**	**0.0941**		**0.0875**	**0.0875**	**0.0000**	**210.5158**	**210.5158**	**0.0589**	**0.0000**	**211.9879**

3.3 Impact Pile Driving - 2019

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	4.0000e-004	0.0140	2.4400e-003	4.0000e-005	8.0000e-004	5.0000e-005	8.5000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	3.6024	3.6024	2.0000e-004	0.0000	3.6073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5900e-003	2.7400e-003	0.0281	7.0000e-005	6.8700e-003	5.0000e-005	6.9200e-003	1.8300e-003	5.0000e-005	1.8800e-003	0.0000	6.3894	6.3894	2.1000e-004	0.0000	6.3947
Total	**3.9900e-003**	**0.0167**	**0.0305**	**1.1000e-004**	**7.6700e-003**	**1.0000e-004**	**7.7700e-003**	**2.0500e-003**	**1.0000e-004**	**2.1500e-003**	**0.0000**	**9.9917**	**9.9917**	**4.1000e-004**	**0.0000**	**10.0020**

3.4 Deck Construction - 2019

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	0.0944	0.7421	0.6573	1.0300e-003		0.0487	0.0487		0.0469	0.0469	0.0000	88.8250	88.8250	0.0155	0.0000	89.2132
Total	**0.0944**	**0.7421**	**0.6573**	**1.0300e-003**		**0.0487**	**0.0487**		**0.0469**	**0.0469**	**0.0000**	**88.8250**	**88.8250**	**0.0155**	**0.0000**	**89.2132**

3.4 Deck Construction - 2019

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-004	3.3900e-003	5.9000e-004	1.0000e-005	6.5000e-004	1.0000e-005	6.6000e-004	1.6000e-004	1.0000e-005	1.8000e-004	0.0000	0.8709	0.8709	5.0000e-005	0.0000	0.8721
Vendor	4.0000e-004	0.0110	2.6700e-003	2.0000e-005	5.8000e-004	8.0000e-005	6.6000e-004	1.7000e-004	7.0000e-005	2.4000e-004	0.0000	2.3423	2.3423	1.5000e-004	0.0000	2.3460
Worker	4.2100e-003	3.2100e-003	0.0329	8.0000e-005	8.0500e-003	6.0000e-005	8.1100e-003	2.1400e-003	6.0000e-005	2.2000e-003	0.0000	7.4838	7.4838	2.5000e-004	0.0000	7.4901
Total	**4.7100e-003**	**0.0176**	**0.0362**	**1.1000e-004**	**9.2800e-003**	**1.5000e-004**	**9.4300e-003**	**2.4700e-003**	**1.4000e-004**	**2.6200e-003**	**0.0000**	**10.6970**	**10.6970**	**4.5000e-004**	**0.0000**	**10.7081**

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	0.0944	0.7421	0.6573	1.0300e-003		0.0487	0.0487		0.0469	0.0469	0.0000	88.8249	88.8249	0.0155	0.0000	89.2131
Total	**0.0944**	**0.7421**	**0.6573**	**1.0300e-003**		**0.0487**	**0.0487**		**0.0469**	**0.0469**	**0.0000**	**88.8249**	**88.8249**	**0.0155**	**0.0000**	**89.2131**

3.4 Deck Construction - 2019

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-004	3.3900e-003	5.9000e-004	1.0000e-005	6.5000e-004	1.0000e-005	6.6000e-004	1.6000e-004	1.0000e-005	1.8000e-004	0.0000	0.8709	0.8709	5.0000e-005	0.0000	0.8721
Vendor	4.0000e-004	0.0110	2.6700e-003	2.0000e-005	5.8000e-004	8.0000e-005	6.6000e-004	1.7000e-004	7.0000e-005	2.4000e-004	0.0000	2.3423	2.3423	1.5000e-004	0.0000	2.3460
Worker	4.2100e-003	3.2100e-003	0.0329	8.0000e-005	8.0500e-003	6.0000e-005	8.1100e-003	2.1400e-003	6.0000e-005	2.2000e-003	0.0000	7.4838	7.4838	2.5000e-004	0.0000	7.4901
Total	**4.7100e-003**	**0.0176**	**0.0362**	**1.1000e-004**	**9.2800e-003**	**1.5000e-004**	**9.4300e-003**	**2.4700e-003**	**1.4000e-004**	**2.6200e-003**	**0.0000**	**10.6970**	**10.6970**	**4.5000e-004**	**0.0000**	**10.7081**

3.4 Deck 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	0.2705	2.1574	2.0421	3.2300e-003		0.1360	0.1360		0.1308	0.1308	0.0000	276.3298	276.3298	0.0473	0.0000	277.5118
Total	**0.2705**	**2.1574**	**2.0421**	**3.2300e-003**		**0.1360**	**0.1360**		**0.1308**	**0.1308**	**0.0000**	**276.3298**	**276.3298**	**0.0473**	**0.0000**	**277.5118**

3.4 Deck Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-004	9.8900e-003	1.7600e-003	3.0000e-005	7.5000e-004	3.0000e-005	7.8000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	2.7026	2.7026	1.4000e-004	0.0000	2.7062
Vendor	1.0400e-003	0.0314	7.4100e-003	8.0000e-005	1.8200e-003	1.6000e-004	1.9800e-003	5.3000e-004	1.5000e-004	6.8000e-004	0.0000	7.2948	7.2948	4.3000e-004	0.0000	7.3056
Worker	0.0121	8.9500e-003	0.0930	2.5000e-004	0.0252	1.9000e-004	0.0254	6.7100e-003	1.8000e-004	6.8900e-003	0.0000	22.7439	22.7439	6.9000e-004	0.0000	22.7612
Total	**0.0134**	**0.0502**	**0.1022**	**3.6000e-004**	**0.0278**	**3.8000e-004**	**0.0282**	**7.4400e-003**	**3.6000e-004**	**7.8000e-003**	**0.0000**	**32.7414**	**32.7414**	**1.2600e-003**	**0.0000**	**32.7730**

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	0.2705	2.1574	2.0421	3.2300e-003		0.1360	0.1360		0.1308	0.1308	0.0000	276.3295	276.3295	0.0473	0.0000	277.5115
Total	**0.2705**	**2.1574**	**2.0421**	**3.2300e-003**		**0.1360**	**0.1360**		**0.1308**	**0.1308**	**0.0000**	**276.3295**	**276.3295**	**0.0473**	**0.0000**	**277.5115**

3.4 Deck Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-004	9.8900e-003	1.7600e-003	3.0000e-005	7.5000e-004	3.0000e-005	7.8000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	2.7026	2.7026	1.4000e-004	0.0000	2.7062
Vendor	1.0400e-003	0.0314	7.4100e-003	8.0000e-005	1.8200e-003	1.6000e-004	1.9800e-003	5.3000e-004	1.5000e-004	6.8000e-004	0.0000	7.2948	7.2948	4.3000e-004	0.0000	7.3056
Worker	0.0121	8.9500e-003	0.0930	2.5000e-004	0.0252	1.9000e-004	0.0254	6.7100e-003	1.8000e-004	6.8900e-003	0.0000	22.7439	22.7439	6.9000e-004	0.0000	22.7612
Total	**0.0134**	**0.0502**	**0.1022**	**3.6000e-004**	**0.0278**	**3.8000e-004**	**0.0282**	**7.4400e-003**	**3.6000e-004**	**7.8000e-003**	**0.0000**	**32.7414**	**32.7414**	**1.2600e-003**	**0.0000**	**32.7730**

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	0.0960	0.7831	0.7206	1.2500e-003		0.0453	0.0453		0.0443	0.0443	0.0000	106.9133	106.9133	0.0141	0.0000	107.2664
Total	**0.0960**	**0.7831**	**0.7206**	**1.2500e-003**		**0.0453**	**0.0453**		**0.0443**	**0.0443**	**0.0000**	**106.9133**	**106.9133**	**0.0141**	**0.0000**	**107.2664**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4000e-004	8.7900e-003	1.5600e-003	2.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	2.0000e-004	3.0000e-005	2.2000e-004	0.0000	2.4021	2.4021	1.3000e-004	0.0000	2.4053
Vendor	9.3000e-004	0.0282	6.6600e-003	7.0000e-005	1.6400e-003	1.4000e-004	1.7800e-003	4.7000e-004	1.4000e-004	6.1000e-004	0.0000	6.5548	6.5548	3.9000e-004	0.0000	6.5645
Worker	0.0109	8.0400e-003	0.0836	2.3000e-004	0.0227	1.7000e-004	0.0229	6.0300e-003	1.6000e-004	6.1900e-003	0.0000	20.4366	20.4366	6.2000e-004	0.0000	20.4521
Total	**0.0121**	**0.0451**	**0.0918**	**3.2000e-004**	**0.0251**	**3.4000e-004**	**0.0254**	**6.7000e-003**	**3.3000e-004**	**7.0200e-003**	**0.0000**	**29.3934**	**29.3934**	**1.1400e-003**	**0.0000**	**29.4218**

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	0.0960	0.7831	0.7206	1.2500e-003		0.0453	0.0453		0.0443	0.0443	0.0000	106.9132	106.9132	0.0141	0.0000	107.2663
Total	**0.0960**	**0.7831**	**0.7206**	**1.2500e-003**		**0.0453**	**0.0453**		**0.0443**	**0.0443**	**0.0000**	**106.9132**	**106.9132**	**0.0141**	**0.0000**	**107.2663**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4000e-004	8.7900e-003	1.5600e-003	2.0000e-005	7.3000e-004	3.0000e-005	7.6000e-004	2.0000e-004	3.0000e-005	2.2000e-004	0.0000	2.4021	2.4021	1.3000e-004	0.0000	2.4053
Vendor	9.3000e-004	0.0282	6.6600e-003	7.0000e-005	1.6400e-003	1.4000e-004	1.7800e-003	4.7000e-004	1.4000e-004	6.1000e-004	0.0000	6.5548	6.5548	3.9000e-004	0.0000	6.5645
Worker	0.0109	8.0400e-003	0.0836	2.3000e-004	0.0227	1.7000e-004	0.0229	6.0300e-003	1.6000e-004	6.1900e-003	0.0000	20.4366	20.4366	6.2000e-004	0.0000	20.4521
Total	**0.0121**	**0.0451**	**0.0918**	**3.2000e-004**	**0.0251**	**3.4000e-004**	**0.0254**	**6.7000e-003**	**3.3000e-004**	**7.0200e-003**	**0.0000**	**29.3934**	**29.3934**	**1.1400e-003**	**0.0000**	**29.4218**

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	0.0420	0.3451	0.3442	6.0000e-004		0.0189	0.0189		0.0185	0.0185	0.0000	51.7323	51.7323	6.5300e-003	0.0000	51.8955
Total	**0.0420**	**0.3451**	**0.3442**	**6.0000e-004**		**0.0189**	**0.0189**		**0.0185**	**0.0185**	**0.0000**	**51.7323**	**51.7323**	**6.5300e-003**	**0.0000**	**51.8955**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.9200e-003	7.3000e-004	1.0000e-005	6.6000e-004	1.0000e-005	6.8000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	1.1491	1.1491	6.0000e-005	0.0000	1.1506
Vendor	3.8000e-004	0.0124	2.8700e-003	3.0000e-005	7.9000e-004	3.0000e-005	8.2000e-004	2.3000e-004	3.0000e-005	2.6000e-004	0.0000	3.1457	3.1457	1.8000e-004	0.0000	3.1501
Worker	4.9000e-003	3.4900e-003	0.0370	1.1000e-004	0.0110	8.0000e-005	0.0111	2.9200e-003	7.0000e-005	2.9900e-003	0.0000	9.5591	9.5591	2.7000e-004	0.0000	9.5658
Total	**5.3900e-003**	**0.0198**	**0.0406**	**1.5000e-004**	**0.0124**	**1.2000e-004**	**0.0126**	**3.3200e-003**	**1.1000e-004**	**3.4300e-003**	**0.0000**	**13.8538**	**13.8538**	**5.1000e-004**	**0.0000**	**13.8666**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0420	0.3451	0.3442	6.0000e-004		0.0189	0.0189		0.0185	0.0185	0.0000	51.7323	51.7323	6.5300e-003	0.0000	51.8955
Total	**0.0420**	**0.3451**	**0.3442**	**6.0000e-004**		**0.0189**	**0.0189**		**0.0185**	**0.0185**	**0.0000**	**51.7323**	**51.7323**	**6.5300e-003**	**0.0000**	**51.8955**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.9200e-003	7.3000e-004	1.0000e-005	6.6000e-004	1.0000e-005	6.8000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	1.1491	1.1491	6.0000e-005	0.0000	1.1506
Vendor	3.8000e-004	0.0124	2.8700e-003	3.0000e-005	7.9000e-004	3.0000e-005	8.2000e-004	2.3000e-004	3.0000e-005	2.6000e-004	0.0000	3.1457	3.1457	1.8000e-004	0.0000	3.1501
Worker	4.9000e-003	3.4900e-003	0.0370	1.1000e-004	0.0110	8.0000e-005	0.0111	2.9200e-003	7.0000e-005	2.9900e-003	0.0000	9.5591	9.5591	2.7000e-004	0.0000	9.5658
Total	**5.3900e-003**	**0.0198**	**0.0406**	**1.5000e-004**	**0.0124**	**1.2000e-004**	**0.0126**	**3.3200e-003**	**1.1000e-004**	**3.4300e-003**	**0.0000**	**13.8538**	**13.8538**	**5.1000e-004**	**0.0000**	**13.8666**

3.6 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	9.2100e-003	0.0853	0.0893	1.9000e-004		4.1600e-003	4.1600e-003		4.0300e-003	4.0300e-003	0.0000	16.7589	16.7589	3.1400e-003	0.0000	16.8375
Total	**9.2100e-003**	**0.0853**	**0.0893**	**1.9000e-004**		**4.1600e-003**	**4.1600e-003**		**4.0300e-003**	**4.0300e-003**	**0.0000**	**16.7589**	**16.7589**	**3.1400e-003**	**0.0000**	**16.8375**

3.6 Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	1.9000e-004	2.0100e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5195	0.5195	1.0000e-005	0.0000	0.5199
Total	**2.7000e-004**	**1.9000e-004**	**2.0100e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5195**	**0.5195**	**1.0000e-005**	**0.0000**	**0.5199**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.2100e-003	0.0853	0.0893	1.9000e-004		4.1600e-003	4.1600e-003		4.0300e-003	4.0300e-003	0.0000	16.7589	16.7589	3.1400e-003	0.0000	16.8375
Total	**9.2100e-003**	**0.0853**	**0.0893**	**1.9000e-004**		**4.1600e-003**	**4.1600e-003**		**4.0300e-003**	**4.0300e-003**	**0.0000**	**16.7589**	**16.7589**	**3.1400e-003**	**0.0000**	**16.8375**

3.6 Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	1.9000e-004	2.0100e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5195	0.5195	1.0000e-005	0.0000	0.5199
Total	**2.7000e-004**	**1.9000e-004**	**2.0100e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5195**	**0.5195**	**1.0000e-005**	**0.0000**	**0.5199**

3.7 Painting Equipment Building - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1738					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0115	0.0136	2.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	1.9149	1.9149	1.3000e-004	0.0000	1.9182
Total	**0.1755**	**0.0115**	**0.0136**	**2.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.3000e-004**	**0.0000**	**1.9182**

3.7 Painting Equipment Building - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.2100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3117	0.3117	1.0000e-005	0.0000	0.3119
Total	**1.6000e-004**	**1.1000e-004**	**1.2100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3117**	**0.3117**	**1.0000e-005**	**0.0000**	**0.3119**

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	0.1738					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0115	0.0136	2.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	1.9149	1.9149	1.3000e-004	0.0000	1.9182
Total	**0.1755**	**0.0115**	**0.0136**	**2.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.3000e-004**	**0.0000**	**1.9182**

3.7 Painting Equipment Building - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.2100e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3117	0.3117	1.0000e-005	0.0000	0.3119
Total	**1.6000e-004**	**1.1000e-004**	**1.2100e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3117**	**0.3117**	**1.0000e-005**	**0.0000**	**0.3119**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0281	0.1736	0.3421	1.1500e-003	0.0865	1.2300e-003	0.0878	0.0232	1.1600e-003	0.0244	0.0000	106.2318	106.2318	5.3900e-003	0.0000	106.3666
Unmitigated	0.0281	0.1736	0.3421	1.1500e-003	0.0865	1.2300e-003	0.0878	0.0232	1.1600e-003	0.0244	0.0000	106.2318	106.2318	5.3900e-003	0.0000	106.3666

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	104.55	19.80	10.20	230,537	230,537
Total	104.55	19.80	10.20	230,537	230,537

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

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	24.7807	24.7807	4.7000e-004	1.0000e-004	24.8211
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24.7807	24.7807	4.7000e-004	1.0000e-004	24.8211
NaturalGas Mitigated	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4477	13.4477	2.6000e-004	2.5000e-004	13.5276
NaturalGas Unmitigated	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4477	13.4477	2.6000e-004	2.5000e-004	13.5276

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					
General Light Industry	252000	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4477	13.4477	2.6000e-004	2.5000e-004	13.5276
Total		**1.3600e-003**	**0.0124**	**0.0104**	**7.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**13.4477**	**13.4477**	**2.6000e-004**	**2.5000e-004**	**13.5276**

5.2 Energy by Land Use - NaturalGas

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					
General Light Industry	252000	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4477	13.4477	2.6000e-004	2.5000e-004	13.5276
Total		**1.3600e-003**	**0.0124**	**0.0104**	**7.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**13.4477**	**13.4477**	**2.6000e-004**	**2.5000e-004**	**13.5276**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	35400	24.7807	4.7000e-004	1.0000e-004	24.8211
Total		**24.7807**	**4.7000e-004**	**1.0000e-004**	**24.8211**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	35400	24.7807	4.7000e-004	1.0000e-004	24.8211
Total		**24.7807**	**4.7000e-004**	**1.0000e-004**	**24.8211**

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	0.0760	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Unmitigated	0.0760	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0174					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0586					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Total	**0.0760**	**0.0000**	**1.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**0.0000**	**2.9000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0174					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0586					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Total	**0.0760**	**0.0000**	**1.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**0.0000**	**2.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.4787	0.1135	2.7600e-003	27.1362
Unmitigated	23.4787	0.1135	2.7600e-003	27.1362

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.46875 / 0	23.4787	0.1135	2.7600e-003	27.1362
Total		**23.4787**	**0.1135**	**2.7600e-003**	**27.1362**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.46875 / 0	23.4787	0.1135	2.7600e-003	27.1362
Total		**23.4787**	**0.1135**	**2.7600e-003**	**27.1362**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.7756	0.2231	0.0000	9.3540
Unmitigated	3.7756	0.2231	0.0000	9.3540

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	18.6	3.7756	0.2231	0.0000	9.3540
Total		**3.7756**	**0.2231**	**0.0000**	**9.3540**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	18.6	3.7756	0.2231	0.0000	9.3540
Total		**3.7756**	**0.2231**	**0.0000**	**9.3540**

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

Tanker Landside Control System - Construction Only

Statewide , Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	15.00	1000sqft	0.34	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Tanker Landside Control System - Construction Only - Statewide , Summer

Project Characteristics -

Land Use -

Construction Phase - Assumed construction schedule

Off-road Equipment - Assumd construction equipment

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed construction equipment.

Off-road Equipment - Asssumed construction equipment.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Trips and VMT - Assumed haul trips

Grading -

Construction Off-road Equipment Mitigation - Tier 4 engines

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	15.00
tblConstructionPhase	NumDays	100.00	108.00
tblConstructionPhase	NumDays	100.00	182.00
tblConstructionPhase	NumDays	100.00	184.00
tblConstructionPhase	NumDays	5.00	15.00
tblOffRoadEquipment	HorsePower	402.00	84.00
tblOffRoadEquipment	HorsePower	172.00	270.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	105.00

tblOffRoadEquipment	LoadFactor	0.38	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	LoadFactor	0.42	0.48
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	VendorTripNumber	2.00	0.00
tblTripsAndVMT	VendorTripNumber	2.00	4.00
tblTripsAndVMT	VendorTripNumber	2.00	4.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	6.00	16.00
tblTripsAndVMT	WorkerTripNumber	6.00	46.00
tblTripsAndVMT	WorkerTripNumber	6.00	46.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00

2.0 Emissions Summary

Tanker Landside Control System - Construction Only - Statewide , Summer

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					
2019	4.5139	34.7505	31.6410	0.0523	0.6241	2.2221	2.6575	0.1158	2.1390	2.2547	0.0000	5,013.1039	5,013.1039	1.2105	0.0000	5,033.1258
2020	4.1239	31.9707	31.1880	0.0522	0.4172	1.9766	2.3928	0.1113	1.9003	2.0114	0.0000	4,963.4009	4,963.4009	0.7759	0.0000	4,982.7987
2021	23.4163	12.1422	12.9300	0.0267	0.4279	0.6336	1.0615	0.1139	0.6191	0.7330	0.0000	2,544.5329	2,544.5329	0.4644	0.0000	2,556.1425
Maximum	**23.4163**	**34.7505**	**31.6410**	**0.0523**	**0.6241**	**2.2221**	**2.6575**	**0.1158**	**2.1390**	**2.2547**	**0.0000**	**5,013.1039**	**5,013.1039**	**1.2105**	**0.0000**	**5,033.1258**

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					
2019	4.5139	34.7505	31.6410	0.0523	0.6241	2.2221	2.6575	0.1158	2.1390	2.2547	0.0000	5,013.1039	5,013.1039	1.2105	0.0000	5,033.1258
2020	4.1239	31.9707	31.1880	0.0522	0.4172	1.9766	2.3928	0.1113	1.9003	2.0114	0.0000	4,963.4009	4,963.4009	0.7759	0.0000	4,982.7987
2021	23.4163	12.1422	12.9300	0.0267	0.4279	0.6336	1.0615	0.1139	0.6191	0.7330	0.0000	2,544.5329	2,544.5329	0.4644	0.0000	2,556.1425
Maximum	**23.4163**	**34.7505**	**31.6410**	**0.0523**	**0.6241**	**2.2221**	**2.6575**	**0.1158**	**2.1390**	**2.2547**	**0.0000**	**5,013.1039**	**5,013.1039**	**1.2105**	**0.0000**	**5,033.1258**

Tanker Landside Control System - Construction Only - Statewide , Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4164	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Energy	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
Mobile	0.2278	1.2230	2.6241	8.8100e-003	0.6501	8.9500e-003	0.6590	0.1740	8.4200e-003	0.1824		894.4579	894.4579	0.0435		895.5450
Total	**0.6517**	**1.2907**	**2.6825**	**9.2200e-003**	**0.6501**	**0.0141**	**0.6642**	**0.1740**	**0.0136**	**0.1876**		**975.6860**	**975.6860**	**0.0451**	**1.4900e-003**	**977.2560**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4164	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Energy	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
Mobile	0.2278	1.2230	2.6241	8.8100e-003	0.6501	8.9500e-003	0.6590	0.1740	8.4200e-003	0.1824		894.4579	894.4579	0.0435		895.5450
Total	**0.6517**	**1.2907**	**2.6825**	**9.2200e-003**	**0.6501**	**0.0141**	**0.6642**	**0.1740**	**0.0136**	**0.1876**		**975.6860**	**975.6860**	**0.0451**	**1.4900e-003**	**977.2560**

	ROG	NOx	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	Site Preparation	Site Preparation	5/8/2019	5/28/2019	5	15	
2	Impact Pile Driving	Building Construction	6/1/2019	10/30/2019	5	108	
3	Deck Construction	Building Construction	10/31/2019	7/12/2020	5	182	
4	Building Construction	Building Construction	7/13/2020	3/25/2021	5	184	
5	Trenching	Trenching	3/26/2021	4/15/2021	5	15	
6	Painting Equipment Building	Architectural Coating	4/16/2021	5/6/2021	5	15	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 22,500; Non-Residential Outdoor: 7,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Impact Pile Driving	Cranes	2	8.00	231	0.29
Impact Pile Driving	Generator Sets	1	8.00	84	0.74

Tanker Landside Control System - Construction Only - Statewide , Summer

Impact Pile Driving	Other Construction Equipment	1	8.00	270	0.74
Impact Pile Driving	Other Construction Equipment	1	8.00	78	0.74
Impact Pile Driving	Other Construction Equipment	1	8.00	105	0.37
Deck Construction	Aerial Lifts	1	2.00	63	0.31
Deck Construction	Air Compressors	4	8.00	78	0.48
Deck Construction	Cranes	1	4.00	231	0.29
Deck Construction	Excavators	1	4.00	158	0.38
Deck Construction	Generator Sets	2	4.00	84	0.74
Deck Construction	Off-Highway Trucks	1	1.00	84	0.74
Deck Construction	Other Construction Equipment	2	8.00	78	0.48
Deck Construction	Other Construction Equipment	1	8.00	105	0.37
Deck Construction	Pumps	1	4.00	84	0.74
Deck Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Deck Construction	Welders	3	4.00	46	0.45
Building Construction	Aerial Lifts	1	2.00	63	0.31
Building Construction	Air Compressors	2	8.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Generator Sets	1	4.00	84	0.74
Building Construction	Other Construction Equipment	1	2.00	105	0.42
Building Construction	Pumps	1	4.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Welders	1	3.00	46	0.45
Trenching	Bore/Drill Rigs	1	8.00	221	0.50
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Painting Equipment Building	Air Compressors	1	6.00	78	0.48

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	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Impact Pile Driving	6	16.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Deck Construction	18	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	5	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Painting Equipment Building	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.2 Site Preparation - 2019

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	5.5400e-003	0.1935	0.0332	5.3000e-004	0.0117	7.6000e-004	0.0124	3.2000e-003	7.3000e-004	3.9300e-003		56.8102	56.8102	3.0000e-003		56.8852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0437	0.0284	0.3532	8.7000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		86.8822	86.8822	2.8800e-003		86.9543
Total	**0.0492**	**0.2219**	**0.3864**	**1.4000e-003**	**0.0938**	**1.3800e-003**	**0.0952**	**0.0250**	**1.3000e-003**	**0.0263**		**143.6924**	**143.6924**	**5.8800e-003**		**143.8395**

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.2 Site Preparation - 2019

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	5.5400e-003	0.1935	0.0332	5.3000e-004	0.0117	7.6000e-004	0.0124	3.2000e-003	7.3000e-004	3.9300e-003		56.8102	56.8102	3.0000e-003		56.8852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0437	0.0284	0.3532	8.7000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		86.8822	86.8822	2.8800e-003		86.9543
Total	**0.0492**	**0.2219**	**0.3864**	**1.4000e-003**	**0.0938**	**1.3800e-003**	**0.0952**	**0.0250**	**1.3000e-003**	**0.0263**		**143.6924**	**143.6924**	**5.8800e-003**		**143.8395**

3.3 Impact Pile Driving - 2019

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	3.2123	34.4525	20.5778	0.0437		1.7419	1.7419		1.6206	1.6206		4,297.3010	4,297.3010	1.2020		4,327.3502
Total	**3.2123**	**34.4525**	**20.5778**	**0.0437**		**1.7419**	**1.7419**		**1.6206**	**1.6206**		**4,297.3010**	**4,297.3010**	**1.2020**		**4,327.3502**

3.3 Impact Pile Driving - 2019

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	7.2300e-003	0.2526	0.0433	7.0000e-004	0.0152	1.0000e-003	0.0162	4.1700e-003	9.5000e-004	5.1300e-003		74.1688	74.1688	3.9200e-003		74.2668
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0699	0.0454	0.5651	1.4000e-003	0.1314	9.9000e-004	0.1324	0.0349	9.1000e-004	0.0358		139.0115	139.0115	4.6200e-003		139.1269
Total	**0.0771**	**0.2980**	**0.6084**	**2.1000e-003**	**0.1467**	**1.9900e-003**	**0.1486**	**0.0390**	**1.8600e-003**	**0.0409**		**213.1803**	**213.1803**	**8.5400e-003**		**213.3937**

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	3.2123	34.4525	20.5778	0.0437		1.7419	1.7419		1.6206	1.6206	0.0000	4,297.3010	4,297.3010	1.2020		4,327.3502
Total	**3.2123**	**34.4525**	**20.5778**	**0.0437**		**1.7419**	**1.7419**		**1.6206**	**1.6206**	**0.0000**	**4,297.3010**	**4,297.3010**	**1.2020**		**4,327.3502**

3.3 Impact Pile Driving - 2019

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	7.2300e-003	0.2526	0.0433	7.0000e-004	0.0152	1.0000e-003	0.0162	4.1700e-003	9.5000e-004	5.1300e-003		74.1688	74.1688	3.9200e-003		74.2668
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0699	0.0454	0.5651	1.4000e-003	0.1314	9.9000e-004	0.1324	0.0349	9.1000e-004	0.0358		139.0115	139.0115	4.6200e-003		139.1269
Total	**0.0771**	**0.2980**	**0.6084**	**2.1000e-003**	**0.1467**	**1.9900e-003**	**0.1486**	**0.0390**	**1.8600e-003**	**0.0409**		**213.1803**	**213.1803**	**8.5400e-003**		**213.3937**

3.4 Deck Construction - 2019

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	4.2909	33.7294	29.8765	0.0467		2.2152	2.2152		2.1325	2.1325		4,450.5803	4,450.5803	0.7782		4,470.0342
Total	**4.2909**	**33.7294**	**29.8765**	**0.0467**		**2.2152**	**2.2152**		**2.1325**	**2.1325**		**4,450.5803**	**4,450.5803**	**0.7782**		**4,470.0342**

3.4 Deck Construction - 2019

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	4.2900e-003	0.1499	0.0257	4.1000e-004	0.0305	5.9000e-004	0.0310	7.7300e-003	5.7000e-004	8.3000e-003		44.0123	44.0123	2.3300e-003		44.0704
Vendor	0.0178	0.4905	0.1142	1.1300e-003	0.0271	3.4600e-003	0.0306	7.8000e-003	3.3100e-003	0.0111		118.8533	118.8533	7.1300e-003		119.0314
Worker	0.2010	0.1306	1.6247	4.0200e-003	0.3779	2.8400e-003	0.3807	0.1002	2.6100e-003	0.1028		399.6581	399.6581	0.0133		399.9898
Total	**0.2230**	**0.7710**	**1.7645**	**5.5600e-003**	**0.4354**	**6.8900e-003**	**0.4423**	**0.1158**	**6.4900e-003**	**0.1223**		**562.5236**	**562.5236**	**0.0227**		**563.0916**

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	4.2909	33.7294	29.8765	0.0467		2.2152	2.2152		2.1325	2.1325	0.0000	4,450.5803	4,450.5803	0.7782		4,470.0342
Total	**4.2909**	**33.7294**	**29.8765**	**0.0467**		**2.2152**	**2.2152**		**2.1325**	**2.1325**	**0.0000**	**4,450.5803**	**4,450.5803**	**0.7782**		**4,470.0342**

3.4 Deck Construction - 2019

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	4.2900e-003	0.1499	0.0257	4.1000e-004	0.0305	5.9000e-004	0.0310	7.7300e-003	5.7000e-004	8.3000e-003		44.0123	44.0123	2.3300e-003		44.0704
Vendor	0.0178	0.4905	0.1142	1.1300e-003	0.0271	3.4600e-003	0.0306	7.8000e-003	3.3100e-003	0.0111		118.8533	118.8533	7.1300e-003		119.0314
Worker	0.2010	0.1306	1.6247	4.0200e-003	0.3779	2.8400e-003	0.3807	0.1002	2.6100e-003	0.1028		399.6581	399.6581	0.0133		399.9898
Total	**0.2230**	**0.7710**	**1.7645**	**5.5600e-003**	**0.4354**	**6.8900e-003**	**0.4423**	**0.1158**	**6.4900e-003**	**0.1223**		**562.5236**	**562.5236**	**0.0227**		**563.0916**

3.4 Deck 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	3.9205	31.2665	29.5955	0.0468		1.9710	1.9710		1.8951	1.8951		4,414.5147	4,414.5147	0.7553		4,433.3973
Total	**3.9205**	**31.2665**	**29.5955**	**0.0468**		**1.9710**	**1.9710**		**1.8951**	**1.8951**		**4,414.5147**	**4,414.5147**	**0.7553**		**4,433.3973**

3.4 Deck Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.9200e-003	0.1397	0.0244	4.1000e-004	0.0112	4.7000e-004	0.0117	3.0100e-003	4.5000e-004	3.4600e-003		43.5529	43.5529	2.2300e-003		43.6088
Vendor	0.0147	0.4484	0.1006	1.1200e-003	0.0271	2.3100e-003	0.0294	7.8000e-003	2.2100e-003	0.0100		118.0381	118.0381	6.6400e-003		118.2041
Worker	0.1848	0.1161	1.4675	3.8900e-003	0.3779	2.7600e-003	0.3806	0.1002	2.5400e-003	0.1028		387.2952	387.2952	0.0117		387.5886
Total	**0.2034**	**0.7042**	**1.5924**	**5.4200e-003**	**0.4162**	**5.5400e-003**	**0.4217**	**0.1110**	**5.2000e-003**	**0.1163**		**548.8862**	**548.8862**	**0.0206**		**549.4014**

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	3.9205	31.2665	29.5955	0.0468		1.9710	1.9710		1.8951	1.8951	0.0000	4,414.5147	4,414.5147	0.7553		4,433.3973
Total	**3.9205**	**31.2665**	**29.5955**	**0.0468**		**1.9710**	**1.9710**		**1.8951**	**1.8951**	**0.0000**	**4,414.5147**	**4,414.5147**	**0.7553**		**4,433.3973**

3.4 Deck Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.9200e-003	0.1397	0.0244	4.1000e-004	0.0112	4.7000e-004	0.0117	3.0100e-003	4.5000e-004	3.4600e-003		43.5529	43.5529	2.2300e-003		43.6088
Vendor	0.0147	0.4484	0.1006	1.1200e-003	0.0271	2.3100e-003	0.0294	7.8000e-003	2.2100e-003	0.0100		118.0381	118.0381	6.6400e-003		118.2041
Worker	0.1848	0.1161	1.4675	3.8900e-003	0.3779	2.7600e-003	0.3806	0.1002	2.5400e-003	0.1028		387.2952	387.2952	0.0117		387.5886
Total	**0.2034**	**0.7042**	**1.5924**	**5.4200e-003**	**0.4162**	**5.5400e-003**	**0.4217**	**0.1110**	**5.2000e-003**	**0.1163**		**548.8862**	**548.8862**	**0.0206**		**549.4014**

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	1.5489	12.6309	11.6223	0.0201		0.7303	0.7303		0.7143	0.7143		1,900.8341	1,900.8341	0.2512		1,907.1129
Total	**1.5489**	**12.6309**	**11.6223**	**0.0201**		**0.7303**	**0.7303**		**0.7143**	**0.7143**		**1,900.8341**	**1,900.8341**	**0.2512**		**1,907.1129**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.8800e-003	0.1382	0.0241	4.0000e-004	0.0122	4.7000e-004	0.0127	3.2500e-003	4.5000e-004	3.7000e-003		43.0795	43.0795	2.2100e-003		43.1348
Vendor	0.0147	0.4484	0.1006	1.1200e-003	0.0271	2.3100e-003	0.0294	7.8000e-003	2.2100e-003	0.0100		118.0381	118.0381	6.6400e-003		118.2041
Worker	0.1848	0.1161	1.4675	3.8900e-003	0.3779	2.7600e-003	0.3806	0.1002	2.5400e-003	0.1028		387.2952	387.2952	0.0117		387.5886
Total	**0.2034**	**0.7027**	**1.5922**	**5.4100e-003**	**0.4172**	**5.5400e-003**	**0.4227**	**0.1113**	**5.2000e-003**	**0.1165**		**548.4128**	**548.4128**	**0.0206**		**548.9274**

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	1.5489	12.6309	11.6223	0.0201		0.7303	0.7303		0.7143	0.7143	0.0000	1,900.8341	1,900.8341	0.2512		1,907.1129
Total	**1.5489**	**12.6309**	**11.6223**	**0.0201**		**0.7303**	**0.7303**		**0.7143**	**0.7143**	**0.0000**	**1,900.8341**	**1,900.8341**	**0.2512**		**1,907.1129**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.8800e-003	0.1382	0.0241	4.0000e-004	0.0122	4.7000e-004	0.0127	3.2500e-003	4.5000e-004	3.7000e-003		43.0795	43.0795	2.2100e-003		43.1348
Vendor	0.0147	0.4484	0.1006	1.1200e-003	0.0271	2.3100e-003	0.0294	7.8000e-003	2.2100e-003	0.0100		118.0381	118.0381	6.6400e-003		118.2041
Worker	0.1848	0.1161	1.4675	3.8900e-003	0.3779	2.7600e-003	0.3806	0.1002	2.5400e-003	0.1028		387.2952	387.2952	0.0117		387.5886
Total	**0.2034**	**0.7027**	**1.5922**	**5.4100e-003**	**0.4172**	**5.5400e-003**	**0.4227**	**0.1113**	**5.2000e-003**	**0.1165**		**548.4128**	**548.4128**	**0.0206**		**548.9274**

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	1.3990	11.5037	11.4716	0.0201		0.6296	0.6296		0.6153	0.6153		1,900.8371	1,900.8371	0.2399		1,906.8344
Total	**1.3990**	**11.5037**	**11.4716**	**0.0201**		**0.6296**	**0.6296**		**0.6153**	**0.6153**		**1,900.8371**	**1,900.8371**	**0.2399**		**1,906.8344**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.6600e-003	0.1275	0.0234	4.0000e-004	0.0229	4.1000e-004	0.0233	5.8800e-003	3.9000e-004	6.2700e-003		42.5925	42.5925	2.1600e-003		42.6463
Vendor	0.0122	0.4068	0.0892	1.1100e-003	0.0271	9.4000e-004	0.0280	7.8000e-003	9.0000e-004	8.7000e-003		117.0756	117.0756	6.3000e-003		117.2332
Worker	0.1717	0.1041	1.3458	3.7600e-003	0.3779	2.6800e-003	0.3806	0.1002	2.4700e-003	0.1027		374.4026	374.4026	0.0106		374.6668
Total	**0.1876**	**0.6385**	**1.4585**	**5.2700e-003**	**0.4279**	**4.0300e-003**	**0.4319**	**0.1139**	**3.7600e-003**	**0.1177**		**534.0706**	**534.0706**	**0.0190**		**534.5463**

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	1.3990	11.5037	11.4716	0.0201		0.6296	0.6296		0.6153	0.6153	0.0000	1,900.8371	1,900.8371	0.2399		1,906.8344
Total	**1.3990**	**11.5037**	**11.4716**	**0.0201**		**0.6296**	**0.6296**		**0.6153**	**0.6153**	**0.0000**	**1,900.8371**	**1,900.8371**	**0.2399**		**1,906.8344**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.6600e-003	0.1275	0.0234	4.0000e-004	0.0229	4.1000e-004	0.0233	5.8800e-003	3.9000e-004	6.2700e-003		42.5925	42.5925	2.1600e-003		42.6463
Vendor	0.0122	0.4068	0.0892	1.1100e-003	0.0271	9.4000e-004	0.0280	7.8000e-003	9.0000e-004	8.7000e-003		117.0756	117.0756	6.3000e-003		117.2332
Worker	0.1717	0.1041	1.3458	3.7600e-003	0.3779	2.6800e-003	0.3806	0.1002	2.4700e-003	0.1027		374.4026	374.4026	0.0106		374.6668
Total	**0.1876**	**0.6385**	**1.4585**	**5.2700e-003**	**0.4279**	**4.0300e-003**	**0.4319**	**0.1139**	**3.7600e-003**	**0.1177**		**534.0706**	**534.0706**	**0.0190**		**534.5463**

3.6 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	1.2278	11.3739	11.9034	0.0259		0.5540	0.5540		0.5378	0.5378		2,463.1411	2,463.1411	0.4621		2,474.6932
Total	**1.2278**	**11.3739**	**11.9034**	**0.0259**		**0.5540**	**0.5540**		**0.5378**	**0.5378**		**2,463.1411**	**2,463.1411**	**0.4621**		**2,474.6932**

3.6 Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0373	0.0226	0.2926	8.2000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.3919	81.3919	2.3000e-003		81.4493
Total	**0.0373**	**0.0226**	**0.2926**	**8.2000e-004**	**0.0822**	**5.8000e-004**	**0.0827**	**0.0218**	**5.4000e-004**	**0.0223**		**81.3919**	**81.3919**	**2.3000e-003**		**81.4493**

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	1.2278	11.3739	11.9034	0.0259		0.5540	0.5540		0.5378	0.5378	0.0000	2,463.1411	2,463.1411	0.4621		2,474.6932
Total	**1.2278**	**11.3739**	**11.9034**	**0.0259**		**0.5540**	**0.5540**		**0.5378**	**0.5378**	**0.0000**	**2,463.1411**	**2,463.1411**	**0.4621**		**2,474.6932**

3.6 Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0373	0.0226	0.2926	8.2000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.3919	81.3919	2.3000e-003		81.4493
Total	**0.0373**	**0.0226**	**0.2926**	**8.2000e-004**	**0.0822**	**5.8000e-004**	**0.0827**	**0.0218**	**5.4000e-004**	**0.0223**		**81.3919**	**81.3919**	**2.3000e-003**		**81.4493**

3.7 Painting Equipment Building - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	23.1750					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**23.3939**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Painting Equipment Building - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0224	0.0136	0.1755	4.9000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		48.8351	48.8351	1.3800e-003		48.8696
Total	**0.0224**	**0.0136**	**0.1755**	**4.9000e-004**	**0.0493**	**3.5000e-004**	**0.0496**	**0.0131**	**3.2000e-004**	**0.0134**		**48.8351**	**48.8351**	**1.3800e-003**		**48.8696**

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	23.1750					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**23.3939**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Painting Equipment Building - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0224	0.0136	0.1755	4.9000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		48.8351	48.8351	1.3800e-003		48.8696
Total	**0.0224**	**0.0136**	**0.1755**	**4.9000e-004**	**0.0493**	**3.5000e-004**	**0.0496**	**0.0131**	**3.2000e-004**	**0.0134**		**48.8351**	**48.8351**	**1.3800e-003**		**48.8696**

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	0.2278	1.2230	2.6241	8.8100e-003	0.6501	8.9500e-003	0.6590	0.1740	8.4200e-003	0.1824		894.4579	894.4579	0.0435		895.5450
Unmitigated	0.2278	1.2230	2.6241	8.8100e-003	0.6501	8.9500e-003	0.6590	0.1740	8.4200e-003	0.1824		894.4579	894.4579	0.0435		895.5450

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	104.55	19.80	10.20	230,537	230,537
Total	104.55	19.80	10.20	230,537	230,537

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

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	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
NaturalGas Unmitigated	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075

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					
General Light Industry	690.411	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
Total		**7.4500e-003**	**0.0677**	**0.0569**	**4.1000e-004**		**5.1400e-003**	**5.1400e-003**		**5.1400e-003**	**5.1400e-003**		**81.2248**	**81.2248**	**1.5600e-003**	**1.4900e-003**	**81.7075**

5.2 Energy by Land Use - NaturalGas

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					
General Light Industry	0.690411	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
Total		**7.4500e-003**	**0.0677**	**0.0569**	**4.1000e-004**		**5.1400e-003**	**5.1400e-003**		**5.1400e-003**	**5.1400e-003**		**81.2248**	**81.2248**	**1.5600e-003**	**1.4900e-003**	**81.7075**

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	0.4164	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Unmitigated	0.4164	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0952					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Total	**0.4164**	**1.0000e-005**	**1.5400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.2800e-003**	**3.2800e-003**	**1.0000e-005**		**3.5000e-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	lb/day										lb/day					
Architectural Coating	0.0952					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Total	**0.4164**	**1.0000e-005**	**1.5400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.2800e-003**	**3.2800e-003**	**1.0000e-005**		**3.5000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Tanker Landside Control System - Construction Only

Statewide , Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	15.00	1000sqft	0.34	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Tanker Landside Control System - Construction Only - Statewide , Winter

Project Characteristics -

Land Use -

Construction Phase - Assumed construction schedule

Off-road Equipment - Assumd construction equipment

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed construction equipment.

Off-road Equipment - Asssumed construction equipment.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Trips and VMT - Assumed haul trips

Grading -

Construction Off-road Equipment Mitigation - Tier 4 engines

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	15.00
tblConstructionPhase	NumDays	100.00	108.00
tblConstructionPhase	NumDays	100.00	182.00
tblConstructionPhase	NumDays	100.00	184.00
tblConstructionPhase	NumDays	5.00	15.00
tblOffRoadEquipment	HorsePower	402.00	84.00
tblOffRoadEquipment	HorsePower	172.00	270.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	78.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	HorsePower	172.00	105.00

tblOffRoadEquipment	LoadFactor	0.38	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.74
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	LoadFactor	0.42	0.48
tblOffRoadEquipment	LoadFactor	0.42	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	VendorTripNumber	2.00	0.00
tblTripsAndVMT	VendorTripNumber	2.00	4.00
tblTripsAndVMT	VendorTripNumber	2.00	4.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	6.00	16.00
tblTripsAndVMT	WorkerTripNumber	6.00	46.00
tblTripsAndVMT	WorkerTripNumber	6.00	46.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00

2.0 Emissions Summary

Tanker Landside Control System - Construction Only - Statewide , Winter

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					
2019	4.5240	34.7627	31.5206	0.0519	0.6241	2.2222	2.6576	0.1158	2.1390	2.2548	0.0000	4,977.4310	4,977.4310	1.2105	0.0000	4,997.4511
2020	4.1333	31.9935	31.0741	0.0518	0.4172	1.9766	2.3928	0.1113	1.9004	2.0114	0.0000	4,928.6256	4,928.6256	0.7759	0.0000	4,948.0219
2021	23.4174	12.1613	12.8216	0.0266	0.4279	0.6336	1.0615	0.1139	0.6191	0.7330	0.0000	2,538.1572	2,538.1572	0.4642	0.0000	2,549.7625
Maximum	**23.4174**	**34.7627**	**31.5206**	**0.0519**	**0.6241**	**2.2222**	**2.6576**	**0.1158**	**2.1390**	**2.2548**	**0.0000**	**4,977.4310**	**4,977.4310**	**1.2105**	**0.0000**	**4,997.4511**

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					
2019	4.5240	34.7627	31.5206	0.0519	0.6241	2.2222	2.6576	0.1158	2.1390	2.2548	0.0000	4,977.4310	4,977.4310	1.2105	0.0000	4,997.4511
2020	4.1333	31.9935	31.0741	0.0518	0.4172	1.9766	2.3928	0.1113	1.9004	2.0114	0.0000	4,928.6256	4,928.6256	0.7759	0.0000	4,948.0219
2021	23.4174	12.1613	12.8216	0.0266	0.4279	0.6336	1.0615	0.1139	0.6191	0.7330	0.0000	2,538.1572	2,538.1572	0.4642	0.0000	2,549.7625
Maximum	**23.4174**	**34.7627**	**31.5206**	**0.0519**	**0.6241**	**2.2222**	**2.6576**	**0.1158**	**2.1390**	**2.2548**	**0.0000**	**4,977.4310**	**4,977.4310**	**1.2105**	**0.0000**	**4,997.4511**

Tanker Landside Control System - Construction Only - Statewide , Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4164	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Energy	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
Mobile	0.2058	1.2624	2.5138	8.2500e-003	0.6501	9.0300e-003	0.6591	0.1740	8.5000e-003	0.1825		838.1414	838.1414	0.0440		839.2418
Total	**0.6297**	**1.3301**	**2.5722**	**8.6600e-003**	**0.6501**	**0.0142**	**0.6643**	**0.1740**	**0.0137**	**0.1877**		**919.3695**	**919.3695**	**0.0456**	**1.4900e-003**	**920.9528**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4164	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Energy	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
Mobile	0.2058	1.2624	2.5138	8.2500e-003	0.6501	9.0300e-003	0.6591	0.1740	8.5000e-003	0.1825		838.1414	838.1414	0.0440		839.2418
Total	**0.6297**	**1.3301**	**2.5722**	**8.6600e-003**	**0.6501**	**0.0142**	**0.6643**	**0.1740**	**0.0137**	**0.1877**		**919.3695**	**919.3695**	**0.0456**	**1.4900e-003**	**920.9528**

	ROG	NOx	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	Site Preparation	Site Preparation	5/8/2019	5/28/2019	5	15	
2	Impact Pile Driving	Building Construction	6/1/2019	10/30/2019	5	108	
3	Deck Construction	Building Construction	10/31/2019	7/12/2020	5	182	
4	Building Construction	Building Construction	7/13/2020	3/25/2021	5	184	
5	Trenching	Trenching	3/26/2021	4/15/2021	5	15	
6	Painting Equipment Building	Architectural Coating	4/16/2021	5/6/2021	5	15	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 22,500; Non-Residential Outdoor: 7,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Impact Pile Driving	Cranes	2	8.00	231	0.29
Impact Pile Driving	Generator Sets	1	8.00	84	0.74

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Impact Pile Driving	Other Construction Equipment	1	8.00	270	0.74
Impact Pile Driving	Other Construction Equipment	1	8.00	78	0.74
Impact Pile Driving	Other Construction Equipment	1	8.00	105	0.37
Deck Construction	Aerial Lifts	1	2.00	63	0.31
Deck Construction	Air Compressors	4	8.00	78	0.48
Deck Construction	Cranes	1	4.00	231	0.29
Deck Construction	Excavators	1	4.00	158	0.38
Deck Construction	Generator Sets	2	4.00	84	0.74
Deck Construction	Off-Highway Trucks	1	1.00	84	0.74
Deck Construction	Other Construction Equipment	2	8.00	78	0.48
Deck Construction	Other Construction Equipment	1	8.00	105	0.37
Deck Construction	Pumps	1	4.00	84	0.74
Deck Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Deck Construction	Welders	3	4.00	46	0.45
Building Construction	Aerial Lifts	1	2.00	63	0.31
Building Construction	Air Compressors	2	8.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Generator Sets	1	4.00	84	0.74
Building Construction	Other Construction Equipment	1	2.00	105	0.42
Building Construction	Pumps	1	4.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Welders	1	3.00	46	0.45
Trenching	Bore/Drill Rigs	1	8.00	221	0.50
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Painting Equipment Building	Air Compressors	1	6.00	78	0.48

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	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Impact Pile Driving	6	16.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Deck Construction	18	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	46.00	4.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	5	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Painting Equipment Building	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.2 Site Preparation - 2019

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	5.7300e-003	0.1975	0.0367	5.2000e-004	0.0117	7.8000e-004	0.0124	3.2000e-003	7.5000e-004	3.9400e-003		55.6556	55.6556	3.2200e-003		55.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0457	0.0328	0.3230	8.0000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		80.0950	80.0950	2.6900e-003		80.1621
Total	**0.0514**	**0.2302**	**0.3596**	**1.3200e-003**	**0.0938**	**1.4000e-003**	**0.0952**	**0.0250**	**1.3200e-003**	**0.0263**		**135.7506**	**135.7506**	**5.9100e-003**		**135.8982**

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.2 Site Preparation - 2019

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	5.7300e-003	0.1975	0.0367	5.2000e-004	0.0117	7.8000e-004	0.0124	3.2000e-003	7.5000e-004	3.9400e-003		55.6556	55.6556	3.2200e-003		55.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0457	0.0328	0.3230	8.0000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		80.0950	80.0950	2.6900e-003		80.1621
Total	**0.0514**	**0.2302**	**0.3596**	**1.3200e-003**	**0.0938**	**1.4000e-003**	**0.0952**	**0.0250**	**1.3200e-003**	**0.0263**		**135.7506**	**135.7506**	**5.9100e-003**		**135.8982**

3.3 Impact Pile Driving - 2019

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	3.2123	34.4525	20.5778	0.0437		1.7419	1.7419		1.6206	1.6206		4,297.3010	4,297.3010	1.2020		4,327.3502
Total	**3.2123**	**34.4525**	**20.5778**	**0.0437**		**1.7419**	**1.7419**		**1.6206**	**1.6206**		**4,297.3010**	**4,297.3010**	**1.2020**		**4,327.3502**

3.3 Impact Pile Driving - 2019

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	7.4800e-003	0.2578	0.0479	6.8000e-004	0.0152	1.0200e-003	0.0162	4.1700e-003	9.8000e-004	5.1500e-003		72.6615	72.6615	4.2000e-003		72.7665
Vendor	0.0000	0.0000	0.0000	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	0.0524	0.5167	1.2900e-003	0.1314	9.9000e-004	0.1324	0.0349	9.1000e-004	0.0358		128.1520	128.1520	4.3000e-003		128.2594
Total	**0.0805**	**0.3102**	**0.5646**	**1.9700e-003**	**0.1467**	**2.0100e-003**	**0.1487**	**0.0390**	**1.8900e-003**	**0.0409**		**200.8135**	**200.8135**	**8.5000e-003**		**201.0259**

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	3.2123	34.4525	20.5778	0.0437		1.7419	1.7419		1.6206	1.6206	0.0000	4,297.3010	4,297.3010	1.2020		4,327.3502
Total	**3.2123**	**34.4525**	**20.5778**	**0.0437**		**1.7419**	**1.7419**		**1.6206**	**1.6206**	**0.0000**	**4,297.3010**	**4,297.3010**	**1.2020**		**4,327.3502**

3.3 Impact Pile Driving - 2019

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	7.4800e-003	0.2578	0.0479	6.8000e-004	0.0152	1.0200e-003	0.0162	4.1700e-003	9.8000e-004	5.1500e-003		72.6615	72.6615	4.2000e-003		72.7665
Vendor	0.0000	0.0000	0.0000	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	0.0524	0.5167	1.2900e-003	0.1314	9.9000e-004	0.1324	0.0349	9.1000e-004	0.0358		128.1520	128.1520	4.3000e-003		128.2594
Total	**0.0805**	**0.3102**	**0.5646**	**1.9700e-003**	**0.1467**	**2.0100e-003**	**0.1487**	**0.0390**	**1.8900e-003**	**0.0409**		**200.8135**	**200.8135**	**8.5000e-003**		**201.0259**

3.4 Deck Construction - 2019

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	4.2909	33.7294	29.8765	0.0467		2.2152	2.2152		2.1325	2.1325		4,450.5803	4,450.5803	0.7782		4,470.0342
Total	**4.2909**	**33.7294**	**29.8765**	**0.0467**		**2.2152**	**2.2152**		**2.1325**	**2.1325**		**4,450.5803**	**4,450.5803**	**0.7782**		**4,470.0342**

3.4 Deck Construction - 2019

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	4.4400e-003	0.1530	0.0284	4.1000e-004	0.0305	6.0000e-004	0.0311	7.7300e-003	5.8000e-004	8.3100e-003		43.1178	43.1178	2.4900e-003		43.1801
Vendor	0.0186	0.4942	0.1300	1.0900e-003	0.0271	3.5200e-003	0.0306	7.8000e-003	3.3700e-003	0.0112		115.2959	115.2959	7.8000e-003		115.4909
Worker	0.2101	0.1507	1.4856	3.7000e-003	0.3779	2.8400e-003	0.3807	0.1002	2.6100e-003	0.1028		368.4370	368.4370	0.0124		368.7459
Total	**0.2331**	**0.7979**	**1.6441**	**5.2000e-003**	**0.4354**	**6.9600e-003**	**0.4424**	**0.1158**	**6.5600e-003**	**0.1223**		**526.8507**	**526.8507**	**0.0226**		**527.4169**

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	4.2909	33.7294	29.8765	0.0467		2.2152	2.2152		2.1325	2.1325	0.0000	4,450.5803	4,450.5803	0.7782		4,470.0342
Total	**4.2909**	**33.7294**	**29.8765**	**0.0467**		**2.2152**	**2.2152**		**2.1325**	**2.1325**	**0.0000**	**4,450.5803**	**4,450.5803**	**0.7782**		**4,470.0342**

3.4 Deck Construction - 2019

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	4.4400e-003	0.1530	0.0284	4.1000e-004	0.0305	6.0000e-004	0.0311	7.7300e-003	5.8000e-004	8.3100e-003		43.1178	43.1178	2.4900e-003		43.1801
Vendor	0.0186	0.4942	0.1300	1.0900e-003	0.0271	3.5200e-003	0.0306	7.8000e-003	3.3700e-003	0.0112		115.2959	115.2959	7.8000e-003		115.4909
Worker	0.2101	0.1507	1.4856	3.7000e-003	0.3779	2.8400e-003	0.3807	0.1002	2.6100e-003	0.1028		368.4370	368.4370	0.0124		368.7459
Total	**0.2331**	**0.7979**	**1.6441**	**5.2000e-003**	**0.4354**	**6.9600e-003**	**0.4424**	**0.1158**	**6.5600e-003**	**0.1223**		**526.8507**	**526.8507**	**0.0226**		**527.4169**

3.4 Deck 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	3.9205	31.2665	29.5955	0.0468		1.9710	1.9710		1.8951	1.8951		4,414.5147	4,414.5147	0.7553		4,433.3973
Total	**3.9205**	**31.2665**	**29.5955**	**0.0468**		**1.9710**	**1.9710**		**1.8951**	**1.8951**		**4,414.5147**	**4,414.5147**	**0.7553**		**4,433.3973**

3.4 Deck Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.0500e-003	0.1424	0.0269	4.0000e-004	0.0112	4.8000e-004	0.0117	3.0100e-003	4.6000e-004	3.4700e-003		42.6552	42.6552	2.3900e-003		42.7149
Vendor	0.0155	0.4508	0.1150	1.0800e-003	0.0271	2.3600e-003	0.0295	7.8000e-003	2.2500e-003	0.0101		114.4679	114.4679	7.2700e-003		114.6497
Worker	0.1933	0.1338	1.3366	3.5900e-003	0.3779	2.7600e-003	0.3806	0.1002	2.5400e-003	0.1028		356.9879	356.9879	0.0109		357.2601
Total	**0.2129**	**0.7270**	**1.4785**	**5.0700e-003**	**0.4162**	**5.6000e-003**	**0.4218**	**0.1110**	**5.2500e-003**	**0.1163**		**514.1110**	**514.1110**	**0.0206**		**514.6247**

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	3.9205	31.2665	29.5955	0.0468		1.9710	1.9710		1.8951	1.8951	0.0000	4,414.5147	4,414.5147	0.7553		4,433.3973
Total	**3.9205**	**31.2665**	**29.5955**	**0.0468**		**1.9710**	**1.9710**		**1.8951**	**1.8951**	**0.0000**	**4,414.5147**	**4,414.5147**	**0.7553**		**4,433.3973**

3.4 Deck Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.0500e-003	0.1424	0.0269	4.0000e-004	0.0112	4.8000e-004	0.0117	3.0100e-003	4.6000e-004	3.4700e-003		42.6552	42.6552	2.3900e-003		42.7149
Vendor	0.0155	0.4508	0.1150	1.0800e-003	0.0271	2.3600e-003	0.0295	7.8000e-003	2.2500e-003	0.0101		114.4679	114.4679	7.2700e-003		114.6497
Worker	0.1933	0.1338	1.3366	3.5900e-003	0.3779	2.7600e-003	0.3806	0.1002	2.5400e-003	0.1028		356.9879	356.9879	0.0109		357.2601
Total	**0.2129**	**0.7270**	**1.4785**	**5.0700e-003**	**0.4162**	**5.6000e-003**	**0.4218**	**0.1110**	**5.2500e-003**	**0.1163**		**514.1110**	**514.1110**	**0.0206**		**514.6247**

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	1.5489	12.6309	11.6223	0.0201		0.7303	0.7303		0.7143	0.7143		1,900.8341	1,900.8341	0.2512		1,907.1129
Total	**1.5489**	**12.6309**	**11.6223**	**0.0201**		**0.7303**	**0.7303**		**0.7143**	**0.7143**		**1,900.8341**	**1,900.8341**	**0.2512**		**1,907.1129**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.0100e-003	0.1409	0.0266	4.0000e-004	0.0122	4.8000e-004	0.0127	3.2500e-003	4.6000e-004	3.7100e-003		42.1915	42.1915	2.3600e-003		42.2506
Vendor	0.0155	0.4508	0.1150	1.0800e-003	0.0271	2.3600e-003	0.0295	7.8000e-003	2.2500e-003	0.0101		114.4679	114.4679	7.2700e-003		114.6497
Worker	0.1933	0.1338	1.3366	3.5900e-003	0.3779	2.7600e-003	0.3806	0.1002	2.5400e-003	0.1028		356.9879	356.9879	0.0109		357.2601
Total	**0.2128**	**0.7255**	**1.4783**	**5.0700e-003**	**0.4172**	**5.6000e-003**	**0.4228**	**0.1113**	**5.2500e-003**	**0.1165**		**513.6473**	**513.6473**	**0.0205**		**514.1604**

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	1.5489	12.6309	11.6223	0.0201		0.7303	0.7303		0.7143	0.7143	0.0000	1,900.8341	1,900.8341	0.2512		1,907.1129
Total	**1.5489**	**12.6309**	**11.6223**	**0.0201**		**0.7303**	**0.7303**		**0.7143**	**0.7143**	**0.0000**	**1,900.8341**	**1,900.8341**	**0.2512**		**1,907.1129**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.0100e-003	0.1409	0.0266	4.0000e-004	0.0122	4.8000e-004	0.0127	3.2500e-003	4.6000e-004	3.7100e-003		42.1915	42.1915	2.3600e-003		42.2506
Vendor	0.0155	0.4508	0.1150	1.0800e-003	0.0271	2.3600e-003	0.0295	7.8000e-003	2.2500e-003	0.0101		114.4679	114.4679	7.2700e-003		114.6497
Worker	0.1933	0.1338	1.3366	3.5900e-003	0.3779	2.7600e-003	0.3806	0.1002	2.5400e-003	0.1028		356.9879	356.9879	0.0109		357.2601
Total	**0.2128**	**0.7255**	**1.4783**	**5.0700e-003**	**0.4172**	**5.6000e-003**	**0.4228**	**0.1113**	**5.2500e-003**	**0.1165**		**513.6473**	**513.6473**	**0.0205**		**514.1604**

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	1.3990	11.5037	11.4716	0.0201		0.6296	0.6296		0.6153	0.6153		1,900.8371	1,900.8371	0.2399		1,906.8344
Total	**1.3990**	**11.5037**	**11.4716**	**0.0201**		**0.6296**	**0.6296**		**0.6153**	**0.6153**		**1,900.8371**	**1,900.8371**	**0.2399**		**1,906.8344**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.7900e-003	0.1298	0.0258	3.9000e-004	0.0229	4.2000e-004	0.0233	5.8800e-003	4.0000e-004	6.2800e-003		41.7089	41.7089	2.3000e-003		41.7665
Vendor	0.0130	0.4079	0.1027	1.0700e-003	0.0271	9.8000e-004	0.0281	7.8000e-003	9.3000e-004	8.7300e-003		113.5241	113.5241	6.9100e-003		113.6969
Worker	0.1799	0.1199	1.2216	3.4600e-003	0.3779	2.6800e-003	0.3806	0.1002	2.4700e-003	0.1027		345.0741	345.0741	9.7900e-003		345.3187
Total	**0.1967**	**0.6576**	**1.3500**	**4.9200e-003**	**0.4279**	**4.0800e-003**	**0.4319**	**0.1139**	**3.8000e-003**	**0.1177**		**500.3071**	**500.3071**	**0.0190**		**500.7821**

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	1.3990	11.5037	11.4716	0.0201		0.6296	0.6296		0.6153	0.6153	0.0000	1,900.8371	1,900.8371	0.2399		1,906.8344
Total	**1.3990**	**11.5037**	**11.4716**	**0.0201**		**0.6296**	**0.6296**		**0.6153**	**0.6153**	**0.0000**	**1,900.8371**	**1,900.8371**	**0.2399**		**1,906.8344**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.7900e-003	0.1298	0.0258	3.9000e-004	0.0229	4.2000e-004	0.0233	5.8800e-003	4.0000e-004	6.2800e-003		41.7089	41.7089	2.3000e-003		41.7665
Vendor	0.0130	0.4079	0.1027	1.0700e-003	0.0271	9.8000e-004	0.0281	7.8000e-003	9.3000e-004	8.7300e-003		113.5241	113.5241	6.9100e-003		113.6969
Worker	0.1799	0.1199	1.2216	3.4600e-003	0.3779	2.6800e-003	0.3806	0.1002	2.4700e-003	0.1027		345.0741	345.0741	9.7900e-003		345.3187
Total	**0.1967**	**0.6576**	**1.3500**	**4.9200e-003**	**0.4279**	**4.0800e-003**	**0.4319**	**0.1139**	**3.8000e-003**	**0.1177**		**500.3071**	**500.3071**	**0.0190**		**500.7821**

3.6 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	1.2278	11.3739	11.9034	0.0259		0.5540	0.5540		0.5378	0.5378		2,463.1411	2,463.1411	0.4621		2,474.6932
Total	**1.2278**	**11.3739**	**11.9034**	**0.0259**		**0.5540**	**0.5540**		**0.5378**	**0.5378**		**2,463.1411**	**2,463.1411**	**0.4621**		**2,474.6932**

3.6 Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0391	0.0261	0.2656	7.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		75.0161	75.0161	2.1300e-003		75.0693
Total	**0.0391**	**0.0261**	**0.2656**	**7.5000e-004**	**0.0822**	**5.8000e-004**	**0.0827**	**0.0218**	**5.4000e-004**	**0.0223**		**75.0161**	**75.0161**	**2.1300e-003**		**75.0693**

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	1.2278	11.3739	11.9034	0.0259		0.5540	0.5540		0.5378	0.5378	0.0000	2,463.1411	2,463.1411	0.4621		2,474.6932
Total	**1.2278**	**11.3739**	**11.9034**	**0.0259**		**0.5540**	**0.5540**		**0.5378**	**0.5378**	**0.0000**	**2,463.1411**	**2,463.1411**	**0.4621**		**2,474.6932**

3.6 Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0391	0.0261	0.2656	7.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.4000e-004	0.0223		75.0161	75.0161	2.1300e-003		75.0693
Total	**0.0391**	**0.0261**	**0.2656**	**7.5000e-004**	**0.0822**	**5.8000e-004**	**0.0827**	**0.0218**	**5.4000e-004**	**0.0223**		**75.0161**	**75.0161**	**2.1300e-003**		**75.0693**

3.7 Painting Equipment Building - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	23.1750					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**23.3939**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Painting Equipment Building - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0235	0.0156	0.1593	4.5000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		45.0097	45.0097	1.2800e-003		45.0416
Total	**0.0235**	**0.0156**	**0.1593**	**4.5000e-004**	**0.0493**	**3.5000e-004**	**0.0496**	**0.0131**	**3.2000e-004**	**0.0134**		**45.0097**	**45.0097**	**1.2800e-003**		**45.0416**

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	23.1750					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**23.3939**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.7 Painting Equipment Building - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0235	0.0156	0.1593	4.5000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		45.0097	45.0097	1.2800e-003		45.0416
Total	**0.0235**	**0.0156**	**0.1593**	**4.5000e-004**	**0.0493**	**3.5000e-004**	**0.0496**	**0.0131**	**3.2000e-004**	**0.0134**		**45.0097**	**45.0097**	**1.2800e-003**		**45.0416**

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	0.2058	1.2624	2.5138	8.2500e-003	0.6501	9.0300e-003	0.6591	0.1740	8.5000e-003	0.1825		838.1414	838.1414	0.0440		839.2418
Unmitigated	0.2058	1.2624	2.5138	8.2500e-003	0.6501	9.0300e-003	0.6591	0.1740	8.5000e-003	0.1825		838.1414	838.1414	0.0440		839.2418

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	104.55	19.80	10.20	230,537	230,537
Total	104.55	19.80	10.20	230,537	230,537

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

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	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
NaturalGas Unmitigated	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075

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					
General Light Industry	690.411	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
Total		**7.4500e-003**	**0.0677**	**0.0569**	**4.1000e-004**		**5.1400e-003**	**5.1400e-003**		**5.1400e-003**	**5.1400e-003**		**81.2248**	**81.2248**	**1.5600e-003**	**1.4900e-003**	**81.7075**

5.2 Energy by Land Use - NaturalGas

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					
General Light Industry	0.690411	7.4500e-003	0.0677	0.0569	4.1000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003		81.2248	81.2248	1.5600e-003	1.4900e-003	81.7075
Total		**7.4500e-003**	**0.0677**	**0.0569**	**4.1000e-004**		**5.1400e-003**	**5.1400e-003**		**5.1400e-003**	**5.1400e-003**		**81.2248**	**81.2248**	**1.5600e-003**	**1.4900e-003**	**81.7075**

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	0.4164	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Unmitigated	0.4164	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0952					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Total	**0.4164**	**1.0000e-005**	**1.5400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.2800e-003**	**3.2800e-003**	**1.0000e-005**		**3.5000e-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	lb/day										lb/day					
Architectural Coating	0.0952					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.2800e-003	3.2800e-003	1.0000e-005		3.5000e-003
Total	**0.4164**	**1.0000e-005**	**1.5400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.2800e-003**	**3.2800e-003**	**1.0000e-005**		**3.5000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Landside System - Construction Emissions Only

Statewide , Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Only modeling emissions from off- and on-road construction equipment.

Construction Phase - Assumed construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Trips and VMT - Assumed worker, vendor and haul trips.

Grading -

Landside System - Construction Emissions Only - Statewide , Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	87.00
tblConstructionPhase	NumDays	0.00	15.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	30.00

2.0 Emissions Summary

Landside System - Construction Emissions Only - Statewide , Annual

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					
2019	0.0707	0.6670	0.5405	9.9000e-004	0.0175	0.0381	0.0555	4.0200e-003	0.0353	0.0394	0.0000	88.8928	88.8928	0.0213	0.0000	89.4250
Maximum	**0.0707**	**0.6670**	**0.5405**	**9.9000e-004**	**0.0175**	**0.0381**	**0.0555**	**4.0200e-003**	**0.0353**	**0.0394**	**0.0000**	**88.8928**	**88.8928**	**0.0213**	**0.0000**	**89.4250**

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					
2019	0.0707	0.6670	0.5405	9.9000e-004	0.0175	0.0381	0.0555	4.0200e-003	0.0353	0.0394	0.0000	88.8927	88.8927	0.0213	0.0000	89.4249
Maximum	**0.0707**	**0.6670**	**0.5405**	**9.9000e-004**	**0.0175**	**0.0381**	**0.0555**	**4.0200e-003**	**0.0353**	**0.0394**	**0.0000**	**88.8927**	**88.8927**	**0.0213**	**0.0000**	**89.4249**

	ROG	**NOx**	**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**

Landside System - Construction Emissions Only - Statewide , Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2019**	**3-31-2019**	0.4256	0.4256
2	**4-1-2019**	**6-30-2019**	0.3031	0.3031
		Highest	0.4256	0.4256

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	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

	ROG	NOx	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	Site Preparation	Site Preparation	1/1/2019	1/21/2019	5	15	
2	Trenching	Trenching	1/22/2019	2/13/2019	5	17	
3	System Installation	Building Construction	2/14/2019	6/14/2019	5	87	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Bore/Drill Rigs	1	8.00	221	0.50
Trenching	Cement and Mortar Mixers	1	8.00	9	0.56
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Trenchers	1	8.00	78	0.50
System Installation	Cranes	1	4.00	231	0.29
System Installation	Forklifts	2	6.00	89	0.20
System Installation	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Landside System - Construction Emissions Only - Statewide , Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	7	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
System Installation	5	30.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-003	0.0669	0.0311	7.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	6.5669	6.5669	2.0800e-003	0.0000	6.6188
Total	**5.4000e-003**	**0.0669**	**0.0311**	**7.0000e-005**	**3.9800e-003**	**2.7500e-003**	**6.7300e-003**	**4.3000e-004**	**2.5300e-003**	**2.9600e-003**	**0.0000**	**6.5669**	**6.5669**	**2.0800e-003**	**0.0000**	**6.6188**

3.2 Site Preparation - 2019

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	4.0000e-005	1.4900e-003	2.6000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3832	0.3832	2.0000e-005	0.0000	0.3838
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.4400e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551
Total	**3.5000e-004**	**1.7300e-003**	**2.7000e-003**	**1.0000e-005**	**6.9000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9379**	**0.9379**	**4.0000e-005**	**0.0000**	**0.9389**

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					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-003	0.0669	0.0311	7.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	6.5669	6.5669	2.0800e-003	0.0000	6.6188
Total	**5.4000e-003**	**0.0669**	**0.0311**	**7.0000e-005**	**3.9800e-003**	**2.7500e-003**	**6.7300e-003**	**4.3000e-004**	**2.5300e-003**	**2.9600e-003**	**0.0000**	**6.5669**	**6.5669**	**2.0800e-003**	**0.0000**	**6.6188**

3.2 Site Preparation - 2019

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	4.0000e-005	1.4900e-003	2.6000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3832	0.3832	2.0000e-005	0.0000	0.3838
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.4400e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551
Total	**3.5000e-004**	**1.7300e-003**	**2.7000e-003**	**1.0000e-005**	**6.9000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9379**	**0.9379**	**4.0000e-005**	**0.0000**	**0.9389**

3.3 Trenching - 2019

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	0.0166	0.1524	0.1271	2.5000e-004		8.8100e-003	8.8100e-003		8.4300e-003	8.4300e-003	0.0000	22.1258	22.1258	4.5200e-003	0.0000	22.2388
Total	**0.0166**	**0.1524**	**0.1271**	**2.5000e-004**		**8.8100e-003**	**8.8100e-003**		**8.4300e-003**	**8.4300e-003**	**0.0000**	**22.1258**	**22.1258**	**4.5200e-003**	**0.0000**	**22.2388**

3.3 Trenching - 2019

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	8.5000e-004	6.5000e-004	6.6300e-003	2.0000e-005	1.6200e-003	1.0000e-005	1.6300e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.5086	1.5086	5.0000e-005	0.0000	1.5099
Total	**8.5000e-004**	**6.5000e-004**	**6.6300e-003**	**2.0000e-005**	**1.6200e-003**	**1.0000e-005**	**1.6300e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.5086**	**1.5086**	**5.0000e-005**	**0.0000**	**1.5099**

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	0.0166	0.1524	0.1271	2.5000e-004		8.8100e-003	8.8100e-003		8.4300e-003	8.4300e-003	0.0000	22.1257	22.1257	4.5200e-003	0.0000	22.2388
Total	**0.0166**	**0.1524**	**0.1271**	**2.5000e-004**		**8.8100e-003**	**8.8100e-003**		**8.4300e-003**	**8.4300e-003**	**0.0000**	**22.1257**	**22.1257**	**4.5200e-003**	**0.0000**	**22.2388**

3.3 Trenching - 2019

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	8.5000e-004	6.5000e-004	6.6300e-003	2.0000e-005	1.6200e-003	1.0000e-005	1.6300e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.5086	1.5086	5.0000e-005	0.0000	1.5099
Total	**8.5000e-004**	**6.5000e-004**	**6.6300e-003**	**2.0000e-005**	**1.6200e-003**	**1.0000e-005**	**1.6300e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.5086**	**1.5086**	**5.0000e-005**	**0.0000**	**1.5099**

3.4 System Installation - 2019

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	0.0417	0.4272	0.3281	5.0000e-004		0.0263	0.0263		0.0242	0.0242	0.0000	44.5007	44.5007	0.0141	0.0000	44.8527
Total	**0.0417**	**0.4272**	**0.3281**	**5.0000e-004**		**0.0263**	**0.0263**		**0.0242**	**0.0242**	**0.0000**	**44.5007**	**44.5007**	**0.0141**	**0.0000**	**44.8527**

3.4 System Installation - 2019

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	4.0000e-004	0.0140	2.4400e-003	4.0000e-005	8.0000e-004	5.0000e-005	8.5000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	3.6024	3.6024	2.0000e-004	0.0000	3.6073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4200e-003	4.1400e-003	0.0424	1.1000e-004	0.0104	8.0000e-005	0.0105	2.7600e-003	7.0000e-005	2.8300e-003	0.0000	9.6506	9.6506	3.2000e-004	0.0000	9.6586
Total	**5.8200e-003**	**0.0181**	**0.0449**	**1.5000e-004**	**0.0112**	**1.3000e-004**	**0.0113**	**2.9800e-003**	**1.2000e-004**	**3.1000e-003**	**0.0000**	**13.2530**	**13.2530**	**5.2000e-004**	**0.0000**	**13.2660**

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	0.0417	0.4272	0.3281	5.0000e-004		0.0263	0.0263		0.0242	0.0242	0.0000	44.5007	44.5007	0.0141	0.0000	44.8526
Total	**0.0417**	**0.4272**	**0.3281**	**5.0000e-004**		**0.0263**	**0.0263**		**0.0242**	**0.0242**	**0.0000**	**44.5007**	**44.5007**	**0.0141**	**0.0000**	**44.8526**

3.4 System Installation - 2019

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	4.0000e-004	0.0140	2.4400e-003	4.0000e-005	8.0000e-004	5.0000e-005	8.5000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	3.6024	3.6024	2.0000e-004	0.0000	3.6073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4200e-003	4.1400e-003	0.0424	1.1000e-004	0.0104	8.0000e-005	0.0105	2.7600e-003	7.0000e-005	2.8300e-003	0.0000	9.6506	9.6506	3.2000e-004	0.0000	9.6586
Total	**5.8200e-003**	**0.0181**	**0.0449**	**1.5000e-004**	**0.0112**	**1.3000e-004**	**0.0113**	**2.9800e-003**	**1.2000e-004**	**3.1000e-003**	**0.0000**	**13.2530**	**13.2530**	**5.2000e-004**	**0.0000**	**13.2660**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

5.2 Energy by Land Use - NaturalGas

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Landside System - Construction Emissions Only

Statewide , Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Only modeling emissions from off- and on-road construction equipment.

Construction Phase - Assumed construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Trips and VMT - Assumed worker, vendor and haul trips.

Grading -

Landside System - Construction Emissions Only - Statewide , Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	87.00
tblConstructionPhase	NumDays	0.00	15.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	30.00

2.0 Emissions Summary

Landside System - Construction Emissions Only - Statewide , Summer

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					
2019	2.0563	18.0006	15.8005	0.0320	0.6241	1.0378	1.2350	0.0822	0.9932	1.0455	0.0000	3,077.8686	3,077.8686	0.5932	0.0000	3,092.6995
Maximum	**2.0563**	**18.0006**	**15.8005**	**0.0320**	**0.6241**	**1.0378**	**1.2350**	**0.0822**	**0.9932**	**1.0455**	**0.0000**	**3,077.8686**	**3,077.8686**	**0.5932**	**0.0000**	**3,092.6995**

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					
2019	2.0563	18.0006	15.8005	0.0320	0.6241	1.0378	1.2350	0.0822	0.9932	1.0455	0.0000	3,077.8686	3,077.8686	0.5932	0.0000	3,092.6995
Maximum	**2.0563**	**18.0006**	**15.8005**	**0.0320**	**0.6241**	**1.0378**	**1.2350**	**0.0822**	**0.9932**	**1.0455**	**0.0000**	**3,077.8686**	**3,077.8686**	**0.5932**	**0.0000**	**3,092.6995**

	ROG	**NOx**	**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**

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Landside System - Construction Emissions Only - Statewide , Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Site Preparation	Site Preparation	1/1/2019	1/21/2019	5	15	
2	Trenching	Trenching	1/22/2019	2/13/2019	5	17	
3	System Installation	Building Construction	2/14/2019	6/14/2019	5	87	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Landside System - Construction Emissions Only - Statewide , Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Bore/Drill Rigs	1	8.00	221	0.50
Trenching	Cement and Mortar Mixers	1	8.00	9	0.56
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Trenchers	1	8.00	78	0.50
System Installation	Cranes	1	4.00	231	0.29
System Installation	Forklifts	2	6.00	89	0.20
System Installation	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
Site Preparation	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	7	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
System Installation	5	30.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

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	5.5400e-003	0.1935	0.0332	5.3000e-004	0.0117	7.6000e-004	0.0124	3.2000e-003	7.3000e-004	3.9300e-003		56.8102	56.8102	3.0000e-003		56.8852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0437	0.0284	0.3532	8.7000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		86.8822	86.8822	2.8800e-003		86.9543
Total	**0.0492**	**0.2219**	**0.3864**	**1.4000e-003**	**0.0938**	**1.3800e-003**	**0.0952**	**0.0250**	**1.3000e-003**	**0.0263**		**143.6924**	**143.6924**	**5.8800e-003**		**143.8395**

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

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	5.5400e-003	0.1935	0.0332	5.3000e-004	0.0117	7.6000e-004	0.0124	3.2000e-003	7.3000e-004	3.9300e-003		56.8102	56.8102	3.0000e-003		56.8852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0437	0.0284	0.3532	8.7000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		86.8822	86.8822	2.8800e-003		86.9543
Total	**0.0492**	**0.2219**	**0.3864**	**1.4000e-003**	**0.0938**	**1.3800e-003**	**0.0952**	**0.0250**	**1.3000e-003**	**0.0263**		**143.6924**	**143.6924**	**5.8800e-003**		**143.8395**

3.3 Trenching - 2019

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	1.9514	17.9324	14.9528	0.0299		1.0364	1.0364		0.9918	0.9918		2,869.3513	2,869.3513	0.5863		2,884.0091
Total	**1.9514**	**17.9324**	**14.9528**	**0.0299**		**1.0364**	**1.0364**		**0.9918**	**0.9918**		**2,869.3513**	**2,869.3513**	**0.5863**		**2,884.0091**

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	0.1049	0.0682	0.8477	2.1000e-003	0.1972	1.4800e-003	0.1986	0.0523	1.3600e-003	0.0537		208.5173	208.5173	6.9200e-003		208.6903
Total	**0.1049**	**0.0682**	**0.8477**	**2.1000e-003**	**0.1972**	**1.4800e-003**	**0.1986**	**0.0523**	**1.3600e-003**	**0.0537**		**208.5173**	**208.5173**	**6.9200e-003**		**208.6903**

3.3 Trenching - 2019

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	1.9514	17.9324	14.9528	0.0299		1.0364	1.0364		0.9918	0.9918	0.0000	2,869.3513	2,869.3513	0.5863		2,884.0091
Total	**1.9514**	**17.9324**	**14.9528**	**0.0299**		**1.0364**	**1.0364**		**0.9918**	**0.9918**	**0.0000**	**2,869.3513**	**2,869.3513**	**0.5863**		**2,884.0091**

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	0.1049	0.0682	0.8477	2.1000e-003	0.1972	1.4800e-003	0.1986	0.0523	1.3600e-003	0.0537		208.5173	208.5173	6.9200e-003		208.6903
Total	**0.1049**	**0.0682**	**0.8477**	**2.1000e-003**	**0.1972**	**1.4800e-003**	**0.1986**	**0.0523**	**1.3600e-003**	**0.0537**		**208.5173**	**208.5173**	**6.9200e-003**		**208.6903**

3.4 System Installation - 2019

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	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**		**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

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	8.9800e-003	0.3135	0.0538	8.7000e-004	0.0189	1.2400e-003	0.0201	5.1800e-003	1.1800e-003	6.3700e-003		92.0717	92.0717	4.8600e-003		92.1933
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1311	0.0852	1.0596	2.6200e-003	0.2464	1.8500e-003	0.2483	0.0654	1.7000e-003	0.0671		260.6466	260.6466	8.6500e-003		260.8629
Total	**0.1401**	**0.3987**	**1.1133**	**3.4900e-003**	**0.2653**	**3.0900e-003**	**0.2684**	**0.0706**	**2.8800e-003**	**0.0734**		**352.7182**	**352.7182**	**0.0135**		**353.0562**

3.4 System Installation - 2019

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	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569	0.0000	1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**	**0.0000**	**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

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	8.9800e-003	0.3135	0.0538	8.7000e-004	0.0189	1.2400e-003	0.0201	5.1800e-003	1.1800e-003	6.3700e-003		92.0717	92.0717	4.8600e-003		92.1933
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1311	0.0852	1.0596	2.6200e-003	0.2464	1.8500e-003	0.2483	0.0654	1.7000e-003	0.0671		260.6466	260.6466	8.6500e-003		260.8629
Total	**0.1401**	**0.3987**	**1.1133**	**3.4900e-003**	**0.2653**	**3.0900e-003**	**0.2684**	**0.0706**	**2.8800e-003**	**0.0734**		**352.7182**	**352.7182**	**0.0135**		**353.0562**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Landside System - Construction Emissions Only - Statewide , Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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

Landside System - Construction Emissions Only

Statewide , Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Only modeling emissions from off- and on-road construction equipment.

Construction Phase - Assumed construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Trips and VMT - Assumed worker, vendor and haul trips.

Grading -

Landside System - Construction Emissions Only - Statewide , Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	87.00
tblConstructionPhase	NumDays	0.00	15.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	30.00

2.0 Emissions Summary

Landside System - Construction Emissions Only - Statewide , Winter

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					
2019	2.0610	18.0110	15.7280	0.0318	0.6241	1.0378	1.2350	0.0822	0.9932	1.0455	0.0000	3,061.5793	3,061.5793	0.5928	0.0000	3,076.3983
Maximum	**2.0610**	**18.0110**	**15.7280**	**0.0318**	**0.6241**	**1.0378**	**1.2350**	**0.0822**	**0.9932**	**1.0455**	**0.0000**	**3,061.5793**	**3,061.5793**	**0.5928**	**0.0000**	**3,076.3983**

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					
2019	2.0610	18.0110	15.7280	0.0318	0.6241	1.0378	1.2350	0.0822	0.9932	1.0455	0.0000	3,061.5793	3,061.5793	0.5928	0.0000	3,076.3983
Maximum	**2.0610**	**18.0110**	**15.7280**	**0.0318**	**0.6241**	**1.0378**	**1.2350**	**0.0822**	**0.9932**	**1.0455**	**0.0000**	**3,061.5793**	**3,061.5793**	**0.5928**	**0.0000**	**3,076.3983**

	ROG	**NOx**	**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**

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Landside System - Construction Emissions Only - Statewide , Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Site Preparation	Site Preparation	1/1/2019	1/21/2019	5	15	
2	Trenching	Trenching	1/22/2019	2/13/2019	5	17	
3	System Installation	Building Construction	2/14/2019	6/14/2019	5	87	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Landside System - Construction Emissions Only - Statewide , Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Bore/Drill Rigs	1	8.00	221	0.50
Trenching	Cement and Mortar Mixers	1	8.00	9	0.56
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Trenchers	1	8.00	78	0.50
System Installation	Cranes	1	4.00	231	0.29
System Installation	Forklifts	2	6.00	89	0.20
System Installation	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
Site Preparation	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	7	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
System Installation	5	30.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

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	5.7300e-003	0.1975	0.0367	5.2000e-004	0.0117	7.8000e-004	0.0124	3.2000e-003	7.5000e-004	3.9400e-003		55.6556	55.6556	3.2200e-003		55.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0457	0.0328	0.3230	8.0000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		80.0950	80.0950	2.6900e-003		80.1621
Total	**0.0514**	**0.2302**	**0.3596**	**1.3200e-003**	**0.0938**	**1.4000e-003**	**0.0952**	**0.0250**	**1.3200e-003**	**0.0263**		**135.7506**	**135.7506**	**5.9100e-003**		**135.8982**

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

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	5.7300e-003	0.1975	0.0367	5.2000e-004	0.0117	7.8000e-004	0.0124	3.2000e-003	7.5000e-004	3.9400e-003		55.6556	55.6556	3.2200e-003		55.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0457	0.0328	0.3230	8.0000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		80.0950	80.0950	2.6900e-003		80.1621
Total	**0.0514**	**0.2302**	**0.3596**	**1.3200e-003**	**0.0938**	**1.4000e-003**	**0.0952**	**0.0250**	**1.3200e-003**	**0.0263**		**135.7506**	**135.7506**	**5.9100e-003**		**135.8982**

3.3 Trenching - 2019

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	1.9514	17.9324	14.9528	0.0299		1.0364	1.0364		0.9918	0.9918		2,869.3513	2,869.3513	0.5863		2,884.0091
Total	**1.9514**	**17.9324**	**14.9528**	**0.0299**		**1.0364**	**1.0364**		**0.9918**	**0.9918**		**2,869.3513**	**2,869.3513**	**0.5863**		**2,884.0091**

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	0.1096	0.0786	0.7751	1.9300e-003	0.1972	1.4800e-003	0.1986	0.0523	1.3600e-003	0.0537		192.2280	192.2280	6.4500e-003		192.3892
Total	**0.1096**	**0.0786**	**0.7751**	**1.9300e-003**	**0.1972**	**1.4800e-003**	**0.1986**	**0.0523**	**1.3600e-003**	**0.0537**		**192.2280**	**192.2280**	**6.4500e-003**		**192.3892**

3.3 Trenching - 2019

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	1.9514	17.9324	14.9528	0.0299		1.0364	1.0364		0.9918	0.9918	0.0000	2,869.3513	2,869.3513	0.5863		2,884.0091
Total	**1.9514**	**17.9324**	**14.9528**	**0.0299**		**1.0364**	**1.0364**		**0.9918**	**0.9918**	**0.0000**	**2,869.3513**	**2,869.3513**	**0.5863**		**2,884.0091**

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	0.1096	0.0786	0.7751	1.9300e-003	0.1972	1.4800e-003	0.1986	0.0523	1.3600e-003	0.0537		192.2280	192.2280	6.4500e-003		192.3892
Total	**0.1096**	**0.0786**	**0.7751**	**1.9300e-003**	**0.1972**	**1.4800e-003**	**0.1986**	**0.0523**	**1.3600e-003**	**0.0537**		**192.2280**	**192.2280**	**6.4500e-003**		**192.3892**

3.4 System Installation - 2019

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	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**		**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

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	9.2800e-003	0.3200	0.0595	8.5000e-004	0.0189	1.2700e-003	0.0202	5.1800e-003	1.2100e-003	6.3900e-003		90.2005	90.2005	5.2100e-003		90.3308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1370	0.0983	0.9689	2.4100e-003	0.2464	1.8500e-003	0.2483	0.0654	1.7000e-003	0.0671		240.2850	240.2850	8.0600e-003		240.4864
Total	**0.1463**	**0.4183**	**1.0283**	**3.2600e-003**	**0.2653**	**3.1200e-003**	**0.2685**	**0.0706**	**2.9100e-003**	**0.0735**		**330.4855**	**330.4855**	**0.0133**		**330.8172**

3.4 System Installation - 2019

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	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569	0.0000	1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**	**0.0000**	**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

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	9.2800e-003	0.3200	0.0595	8.5000e-004	0.0189	1.2700e-003	0.0202	5.1800e-003	1.2100e-003	6.3900e-003		90.2005	90.2005	5.2100e-003		90.3308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1370	0.0983	0.9689	2.4100e-003	0.2464	1.8500e-003	0.2483	0.0654	1.7000e-003	0.0671		240.2850	240.2850	8.0600e-003		240.4864
Total	**0.1463**	**0.4183**	**1.0283**	**3.2600e-003**	**0.2653**	**3.1200e-003**	**0.2685**	**0.0706**	**2.9100e-003**	**0.0735**		**330.4855**	**330.4855**	**0.0133**		**330.8172**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Landside System - Construction Emissions Only - Statewide , Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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

Additional Vault - Construction Emissions Only

Statewide , Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Only modeling emissions from off- and on-road construction equipment.

Construction Phase - Assumed construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed construction equipment

Trips and VMT - Assumed work, vendor and haul trips.

Grading -

Additional Vault - Construction Emissions Only - Statewide , Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	44.00
tblConstructionPhase	NumDays	0.00	15.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	30.00

2.0 Emissions Summary

Additional Vault - Construction Emissions Only - Statewide , Annual

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					
2019	0.0486	0.4338	0.3611	6.9000e-004	0.0121	0.0254	0.0376	2.6100e-003	0.0241	0.0267	0.0000	61.4854	61.4854	0.0109	0.0000	61.7590
Maximum	**0.0486**	**0.4338**	**0.3611**	**6.9000e-004**	**0.0121**	**0.0254**	**0.0376**	**2.6100e-003**	**0.0241**	**0.0267**	**0.0000**	**61.4854**	**61.4854**	**0.0109**	**0.0000**	**61.7590**

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					
2019	0.0486	0.4338	0.3611	6.9000e-004	0.0121	0.0254	0.0376	2.6100e-003	0.0241	0.0267	0.0000	61.4853	61.4853	0.0109	0.0000	61.7589
Maximum	**0.0486**	**0.4338**	**0.3611**	**6.9000e-004**	**0.0121**	**0.0254**	**0.0376**	**2.6100e-003**	**0.0241**	**0.0267**	**0.0000**	**61.4853**	**61.4853**	**0.0109**	**0.0000**	**61.7589**

	ROG	**NOx**	**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**

Additional Vault - Construction Emissions Only - Statewide , Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2019**	**3-31-2019**	0.4259	0.4259
2	**4-1-2019**	**6-30-2019**	0.0543	0.0543
		Highest	0.4259	0.4259

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	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

	ROG	**NOx**	**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	Site Preparation	Site Preparation	1/1/2019	1/21/2019	5	15	
2	Trenching	Trenching	1/22/2019	2/11/2019	5	15	
3	Systen Installation	Building Construction	2/12/2019	4/13/2019	5	44	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Bore/Drill Rigs	1	8.00	221	0.50
Trenching	Cement and Mortar Mixers	1	8.00	9	0.56
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Trenchers	1	8.00	78	0.50
Systen Installation	Air Compressors	1	1.00	78	0.48
Systen Installation	Forklifts	1	8.00	89	0.20
Systen Installation	Generator Sets	1	8.00	84	0.74
Systen Installation	Other Construction Equipment	1	8.00	105	0.42
Systen Installation	Tractors/Loaders/Backhoes	1	1.00	97	0.37

Trips and VMT

Additional Vault - Construction Emissions Only - Statewide , Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	7	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Systen Installation	5	30.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-003	0.0669	0.0311	7.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	6.5669	6.5669	2.0800e-003	0.0000	6.6188
Total	**5.4000e-003**	**0.0669**	**0.0311**	**7.0000e-005**	**3.9800e-003**	**2.7500e-003**	**6.7300e-003**	**4.3000e-004**	**2.5300e-003**	**2.9600e-003**	**0.0000**	**6.5669**	**6.5669**	**2.0800e-003**	**0.0000**	**6.6188**

3.2 Site Preparation - 2019

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	4.0000e-005	1.4900e-003	2.6000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3832	0.3832	2.0000e-005	0.0000	0.3838
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.4400e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551
Total	**3.5000e-004**	**1.7300e-003**	**2.7000e-003**	**1.0000e-005**	**6.9000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9379**	**0.9379**	**4.0000e-005**	**0.0000**	**0.9389**

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					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-003	0.0669	0.0311	7.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	6.5669	6.5669	2.0800e-003	0.0000	6.6188
Total	**5.4000e-003**	**0.0669**	**0.0311**	**7.0000e-005**	**3.9800e-003**	**2.7500e-003**	**6.7300e-003**	**4.3000e-004**	**2.5300e-003**	**2.9600e-003**	**0.0000**	**6.5669**	**6.5669**	**2.0800e-003**	**0.0000**	**6.6188**

3.2 Site Preparation - 2019

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	4.0000e-005	1.4900e-003	2.6000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3832	0.3832	2.0000e-005	0.0000	0.3838
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	2.4400e-003	1.0000e-005	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551
Total	**3.5000e-004**	**1.7300e-003**	**2.7000e-003**	**1.0000e-005**	**6.9000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9379**	**0.9379**	**4.0000e-005**	**0.0000**	**0.9389**

3.3 Trenching - 2019

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	0.0146	0.1345	0.1122	2.2000e-004		7.7700e-003	7.7700e-003		7.4400e-003	7.4400e-003	0.0000	19.5227	19.5227	3.9900e-003	0.0000	19.6225
Total	**0.0146**	**0.1345**	**0.1122**	**2.2000e-004**		**7.7700e-003**	**7.7700e-003**		**7.4400e-003**	**7.4400e-003**	**0.0000**	**19.5227**	**19.5227**	**3.9900e-003**	**0.0000**	**19.6225**

3.3 Trenching - 2019

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	7.5000e-004	5.7000e-004	5.8500e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.3311	1.3311	4.0000e-005	0.0000	1.3322
Total	**7.5000e-004**	**5.7000e-004**	**5.8500e-003**	**1.0000e-005**	**1.4300e-003**	**1.0000e-005**	**1.4400e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.3311**	**1.3311**	**4.0000e-005**	**0.0000**	**1.3322**

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	0.0146	0.1345	0.1122	2.2000e-004		7.7700e-003	7.7700e-003		7.4400e-003	7.4400e-003	0.0000	19.5227	19.5227	3.9900e-003	0.0000	19.6224
Total	**0.0146**	**0.1345**	**0.1122**	**2.2000e-004**		**7.7700e-003**	**7.7700e-003**		**7.4400e-003**	**7.4400e-003**	**0.0000**	**19.5227**	**19.5227**	**3.9900e-003**	**0.0000**	**19.6224**

3.3 Trenching - 2019

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	7.5000e-004	5.7000e-004	5.8500e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.3311	1.3311	4.0000e-005	0.0000	1.3322
Total	**7.5000e-004**	**5.7000e-004**	**5.8500e-003**	**1.0000e-005**	**1.4300e-003**	**1.0000e-005**	**1.4400e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.3311**	**1.3311**	**4.0000e-005**	**0.0000**	**1.3322**

3.4 Systen Installation - 2019

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	0.0243	0.2141	0.1855	2.8000e-004		0.0148	0.0148		0.0140	0.0140	0.0000	24.6436	24.6436	4.4300e-003	0.0000	24.7545
Total	**0.0243**	**0.2141**	**0.1855**	**2.8000e-004**		**0.0148**	**0.0148**		**0.0140**	**0.0140**	**0.0000**	**24.6436**	**24.6436**	**4.4300e-003**	**0.0000**	**24.7545**

3.4 Systen Installation - 2019

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	4.0000e-004	0.0140	2.4400e-003	4.0000e-005	8.0000e-004	5.0000e-005	8.5000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	3.6024	3.6024	2.0000e-004	0.0000	3.6073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7400e-003	2.0900e-003	0.0215	5.0000e-005	5.2500e-003	4.0000e-005	5.2900e-003	1.4000e-003	4.0000e-005	1.4300e-003	0.0000	4.8808	4.8808	1.6000e-004	0.0000	4.8848
Total	**3.1400e-003**	**0.0161**	**0.0239**	**9.0000e-005**	**6.0500e-003**	**9.0000e-005**	**6.1400e-003**	**1.6200e-003**	**9.0000e-005**	**1.7000e-003**	**0.0000**	**8.4831**	**8.4831**	**3.6000e-004**	**0.0000**	**8.4921**

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	0.0243	0.2141	0.1855	2.8000e-004		0.0148	0.0148		0.0140	0.0140	0.0000	24.6436	24.6436	4.4300e-003	0.0000	24.7544
Total	**0.0243**	**0.2141**	**0.1855**	**2.8000e-004**		**0.0148**	**0.0148**		**0.0140**	**0.0140**	**0.0000**	**24.6436**	**24.6436**	**4.4300e-003**	**0.0000**	**24.7544**

3.4 Systen Installation - 2019

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	4.0000e-004	0.0140	2.4400e-003	4.0000e-005	8.0000e-004	5.0000e-005	8.5000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	3.6024	3.6024	2.0000e-004	0.0000	3.6073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7400e-003	2.0900e-003	0.0215	5.0000e-005	5.2500e-003	4.0000e-005	5.2900e-003	1.4000e-003	4.0000e-005	1.4300e-003	0.0000	4.8808	4.8808	1.6000e-004	0.0000	4.8848
Total	**3.1400e-003**	**0.0161**	**0.0239**	**9.0000e-005**	**6.0500e-003**	**9.0000e-005**	**6.1400e-003**	**1.6200e-003**	**9.0000e-005**	**1.7000e-003**	**0.0000**	**8.4831**	**8.4831**	**3.6000e-004**	**0.0000**	**8.4921**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

5.2 Energy by Land Use - NaturalGas

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Additional Vault - Construction Emissions Only

Statewide , Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Only modeling emissions from off- and on-road construction equipment.

Construction Phase - Assumed construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed construction equipment

Trips and VMT - Assumed work, vendor and haul trips.

Grading -

Additional Vault - Construction Emissions Only - Statewide , Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	44.00
tblConstructionPhase	NumDays	0.00	15.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	30.00

2.0 Emissions Summary

Additional Vault - Construction Emissions Only - Statewide , Summer

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					
2019	2.0563	18.0006	15.8005	0.0320	0.6241	1.0378	1.2350	0.0822	0.9932	1.0455	0.0000	3,077.8686	3,077.8686	0.5932	0.0000	3,092.6995
Maximum	**2.0563**	**18.0006**	**15.8005**	**0.0320**	**0.6241**	**1.0378**	**1.2350**	**0.0822**	**0.9932**	**1.0455**	**0.0000**	**3,077.8686**	**3,077.8686**	**0.5932**	**0.0000**	**3,092.6995**

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					
2019	2.0563	18.0006	15.8005	0.0320	0.6241	1.0378	1.2350	0.0822	0.9932	1.0455	0.0000	3,077.8686	3,077.8686	0.5932	0.0000	3,092.6995
Maximum	**2.0563**	**18.0006**	**15.8005**	**0.0320**	**0.6241**	**1.0378**	**1.2350**	**0.0822**	**0.9932**	**1.0455**	**0.0000**	**3,077.8686**	**3,077.8686**	**0.5932**	**0.0000**	**3,092.6995**

	ROG	**NOx**	**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**

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Additional Vault - Construction Emissions Only - Statewide , Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Site Preparation	Site Preparation	1/1/2019	1/21/2019	5	15	
2	Trenching	Trenching	1/22/2019	2/11/2019	5	15	
3	Systen Installation	Building Construction	2/12/2019	4/13/2019	5	44	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Additional Vault - Construction Emissions Only - Statewide , Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Bore/Drill Rigs	1	8.00	221	0.50
Trenching	Cement and Mortar Mixers	1	8.00	9	0.56
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Trenchers	1	8.00	78	0.50
Systen Installation	Air Compressors	1	1.00	78	0.48
Systen Installation	Forklifts	1	8.00	89	0.20
Systen Installation	Generator Sets	1	8.00	84	0.74
Systen Installation	Other Construction Equipment	1	8.00	105	0.42
Systen Installation	Tractors/Loaders/Backhoes	1	1.00	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
Site Preparation	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	7	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Systen Installation	5	30.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

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	5.5400e-003	0.1935	0.0332	5.3000e-004	0.0117	7.6000e-004	0.0124	3.2000e-003	7.3000e-004	3.9300e-003		56.8102	56.8102	3.0000e-003		56.8852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0437	0.0284	0.3532	8.7000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		86.8822	86.8822	2.8800e-003		86.9543
Total	**0.0492**	**0.2219**	**0.3864**	**1.4000e-003**	**0.0938**	**1.3800e-003**	**0.0952**	**0.0250**	**1.3000e-003**	**0.0263**		**143.6924**	**143.6924**	**5.8800e-003**		**143.8395**

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

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	5.5400e-003	0.1935	0.0332	5.3000e-004	0.0117	7.6000e-004	0.0124	3.2000e-003	7.3000e-004	3.9300e-003		56.8102	56.8102	3.0000e-003		56.8852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0437	0.0284	0.3532	8.7000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		86.8822	86.8822	2.8800e-003		86.9543
Total	**0.0492**	**0.2219**	**0.3864**	**1.4000e-003**	**0.0938**	**1.3800e-003**	**0.0952**	**0.0250**	**1.3000e-003**	**0.0263**		**143.6924**	**143.6924**	**5.8800e-003**		**143.8395**

3.3 Trenching - 2019

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	1.9514	17.9324	14.9528	0.0299		1.0364	1.0364		0.9918	0.9918		2,869.3513	2,869.3513	0.5863		2,884.0091
Total	**1.9514**	**17.9324**	**14.9528**	**0.0299**		**1.0364**	**1.0364**		**0.9918**	**0.9918**		**2,869.3513**	**2,869.3513**	**0.5863**		**2,884.0091**

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	0.1049	0.0682	0.8477	2.1000e-003	0.1972	1.4800e-003	0.1986	0.0523	1.3600e-003	0.0537		208.5173	208.5173	6.9200e-003		208.6903
Total	**0.1049**	**0.0682**	**0.8477**	**2.1000e-003**	**0.1972**	**1.4800e-003**	**0.1986**	**0.0523**	**1.3600e-003**	**0.0537**		**208.5173**	**208.5173**	**6.9200e-003**		**208.6903**

3.3 Trenching - 2019

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	1.9514	17.9324	14.9528	0.0299		1.0364	1.0364		0.9918	0.9918	0.0000	2,869.3513	2,869.3513	0.5863		2,884.0091
Total	**1.9514**	**17.9324**	**14.9528**	**0.0299**		**1.0364**	**1.0364**		**0.9918**	**0.9918**	**0.0000**	**2,869.3513**	**2,869.3513**	**0.5863**		**2,884.0091**

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	0.1049	0.0682	0.8477	2.1000e-003	0.1972	1.4800e-003	0.1986	0.0523	1.3600e-003	0.0537		208.5173	208.5173	6.9200e-003		208.6903
Total	**0.1049**	**0.0682**	**0.8477**	**2.1000e-003**	**0.1972**	**1.4800e-003**	**0.1986**	**0.0523**	**1.3600e-003**	**0.0537**		**208.5173**	**208.5173**	**6.9200e-003**		**208.6903**

3.4 Systen Installation - 2019

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	1.1056	9.7308	8.4314	0.0128		0.6722	0.6722		0.6382	0.6382		1,234.7702	1,234.7702	0.2221		1,240.3236
Total	**1.1056**	**9.7308**	**8.4314**	**0.0128**		**0.6722**	**0.6722**		**0.6382**	**0.6382**		**1,234.7702**	**1,234.7702**	**0.2221**		**1,240.3236**

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	0.0178	0.6199	0.1063	1.7100e-003	0.0374	2.4500e-003	0.0398	0.0102	2.3400e-003	0.0126		182.0508	182.0508	9.6200e-003		182.2913
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1311	0.0852	1.0596	2.6200e-003	0.2464	1.8500e-003	0.2483	0.0654	1.7000e-003	0.0671		260.6466	260.6466	8.6500e-003		260.8629
Total	**0.1488**	**0.7051**	**1.1659**	**4.3300e-003**	**0.2838**	**4.3000e-003**	**0.2881**	**0.0756**	**4.0400e-003**	**0.0797**		**442.6974**	**442.6974**	**0.0183**		**443.1542**

3.4 Systen Installation - 2019

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	1.1056	9.7308	8.4314	0.0128		0.6722	0.6722		0.6382	0.6382	0.0000	1,234.7702	1,234.7702	0.2221		1,240.3236
Total	**1.1056**	**9.7308**	**8.4314**	**0.0128**		**0.6722**	**0.6722**		**0.6382**	**0.6382**	**0.0000**	**1,234.7702**	**1,234.7702**	**0.2221**		**1,240.3236**

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	0.0178	0.6199	0.1063	1.7100e-003	0.0374	2.4500e-003	0.0398	0.0102	2.3400e-003	0.0126		182.0508	182.0508	9.6200e-003		182.2913
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1311	0.0852	1.0596	2.6200e-003	0.2464	1.8500e-003	0.2483	0.0654	1.7000e-003	0.0671		260.6466	260.6466	8.6500e-003		260.8629
Total	**0.1488**	**0.7051**	**1.1659**	**4.3300e-003**	**0.2838**	**4.3000e-003**	**0.2881**	**0.0756**	**4.0400e-003**	**0.0797**		**442.6974**	**442.6974**	**0.0183**		**443.1542**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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

Additional Vault - Construction Emissions Only

Statewide , Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	7			**Operational Year**	2020
Utility Company	Anaheim Public Utilities				
CO2 Intensity (lb/MWhr)	1543.28	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Only modeling emissions from off- and on-road construction equipment.

Construction Phase - Assumed construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed construction equipment

Trips and VMT - Assumed work, vendor and haul trips.

Grading -

Additional Vault - Construction Emissions Only - Statewide , Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	44.00
tblConstructionPhase	NumDays	0.00	15.00
tblOffRoadEquipment	HorsePower	172.00	105.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	WorkerTripNumber	5.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	30.00

2.0 Emissions Summary

Additional Vault - Construction Emissions Only - Statewide , Winter

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					
2019	2.0610	18.0110	15.7280	0.0318	0.6241	1.0378	1.2350	0.0822	0.9932	1.0455	0.0000	3,061.5793	3,061.5793	0.5928	0.0000	3,076.3983
Maximum	**2.0610**	**18.0110**	**15.7280**	**0.0318**	**0.6241**	**1.0378**	**1.2350**	**0.0822**	**0.9932**	**1.0455**	**0.0000**	**3,061.5793**	**3,061.5793**	**0.5928**	**0.0000**	**3,076.3983**

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					
2019	2.0610	18.0110	15.7280	0.0318	0.6241	1.0378	1.2350	0.0822	0.9932	1.0455	0.0000	3,061.5793	3,061.5793	0.5928	0.0000	3,076.3983
Maximum	**2.0610**	**18.0110**	**15.7280**	**0.0318**	**0.6241**	**1.0378**	**1.2350**	**0.0822**	**0.9932**	**1.0455**	**0.0000**	**3,061.5793**	**3,061.5793**	**0.5928**	**0.0000**	**3,076.3983**

	ROG	**NOx**	**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**

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Additional Vault - Construction Emissions Only - Statewide , Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Site Preparation	Site Preparation	1/1/2019	1/21/2019	5	15	
2	Trenching	Trenching	1/22/2019	2/11/2019	5	15	
3	Systen Installation	Building Construction	2/12/2019	4/13/2019	5	44	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Additional Vault - Construction Emissions Only - Statewide , Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Bore/Drill Rigs	1	8.00	221	0.50
Trenching	Cement and Mortar Mixers	1	8.00	9	0.56
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Generator Sets	1	8.00	84	0.74
Trenching	Plate Compactors	1	8.00	8	0.43
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Trenchers	1	8.00	78	0.50
Systen Installation	Air Compressors	1	1.00	78	0.48
Systen Installation	Forklifts	1	8.00	89	0.20
Systen Installation	Generator Sets	1	8.00	84	0.74
Systen Installation	Other Construction Equipment	1	8.00	105	0.42
Systen Installation	Tractors/Loaders/Backhoes	1	1.00	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
Site Preparation	2	10.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	7	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Systen Installation	5	30.00	0.00	94.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

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	5.7300e-003	0.1975	0.0367	5.2000e-004	0.0117	7.8000e-004	0.0124	3.2000e-003	7.5000e-004	3.9400e-003		55.6556	55.6556	3.2200e-003		55.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0457	0.0328	0.3230	8.0000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		80.0950	80.0950	2.6900e-003		80.1621
Total	**0.0514**	**0.2302**	**0.3596**	**1.3200e-003**	**0.0938**	**1.4000e-003**	**0.0952**	**0.0250**	**1.3200e-003**	**0.0263**		**135.7506**	**135.7506**	**5.9100e-003**		**135.8982**

3.2 Site Preparation - 2019

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.5303**	**0.3672**	**0.8975**	**0.0573**	**0.3378**	**0.3951**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

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	5.7300e-003	0.1975	0.0367	5.2000e-004	0.0117	7.8000e-004	0.0124	3.2000e-003	7.5000e-004	3.9400e-003		55.6556	55.6556	3.2200e-003		55.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0457	0.0328	0.3230	8.0000e-004	0.0822	6.2000e-004	0.0828	0.0218	5.7000e-004	0.0224		80.0950	80.0950	2.6900e-003		80.1621
Total	**0.0514**	**0.2302**	**0.3596**	**1.3200e-003**	**0.0938**	**1.4000e-003**	**0.0952**	**0.0250**	**1.3200e-003**	**0.0263**		**135.7506**	**135.7506**	**5.9100e-003**		**135.8982**

3.3 Trenching - 2019

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	1.9514	17.9324	14.9528	0.0299		1.0364	1.0364		0.9918	0.9918		2,869.3513	2,869.3513	0.5863		2,884.0091
Total	**1.9514**	**17.9324**	**14.9528**	**0.0299**		**1.0364**	**1.0364**		**0.9918**	**0.9918**		**2,869.3513**	**2,869.3513**	**0.5863**		**2,884.0091**

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	0.1096	0.0786	0.7751	1.9300e-003	0.1972	1.4800e-003	0.1986	0.0523	1.3600e-003	0.0537		192.2280	192.2280	6.4500e-003		192.3892
Total	**0.1096**	**0.0786**	**0.7751**	**1.9300e-003**	**0.1972**	**1.4800e-003**	**0.1986**	**0.0523**	**1.3600e-003**	**0.0537**		**192.2280**	**192.2280**	**6.4500e-003**		**192.3892**

3.3 Trenching - 2019

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	1.9514	17.9324	14.9528	0.0299		1.0364	1.0364		0.9918	0.9918	0.0000	2,869.3513	2,869.3513	0.5863		2,884.0091
Total	**1.9514**	**17.9324**	**14.9528**	**0.0299**		**1.0364**	**1.0364**		**0.9918**	**0.9918**	**0.0000**	**2,869.3513**	**2,869.3513**	**0.5863**		**2,884.0091**

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	0.1096	0.0786	0.7751	1.9300e-003	0.1972	1.4800e-003	0.1986	0.0523	1.3600e-003	0.0537		192.2280	192.2280	6.4500e-003		192.3892
Total	**0.1096**	**0.0786**	**0.7751**	**1.9300e-003**	**0.1972**	**1.4800e-003**	**0.1986**	**0.0523**	**1.3600e-003**	**0.0537**		**192.2280**	**192.2280**	**6.4500e-003**		**192.3892**

3.4 Systen Installation - 2019

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	1.1056	9.7308	8.4314	0.0128		0.6722	0.6722		0.6382	0.6382		1,234.7702	1,234.7702	0.2221		1,240.3236
Total	**1.1056**	**9.7308**	**8.4314**	**0.0128**		**0.6722**	**0.6722**		**0.6382**	**0.6382**		**1,234.7702**	**1,234.7702**	**0.2221**		**1,240.3236**

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	0.0184	0.6327	0.1175	1.6800e-003	0.0374	2.5000e-003	0.0399	0.0102	2.3900e-003	0.0126		178.3509	178.3509	0.0103		178.6086
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1370	0.0983	0.9689	2.4100e-003	0.2464	1.8500e-003	0.2483	0.0654	1.7000e-003	0.0671		240.2850	240.2850	8.0600e-003		240.4864
Total	**0.1554**	**0.7310**	**1.0864**	**4.0900e-003**	**0.2838**	**4.3500e-003**	**0.2882**	**0.0756**	**4.0900e-003**	**0.0797**		**418.6359**	**418.6359**	**0.0184**		**419.0950**

3.4 Systen Installation - 2019

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	1.1056	9.7308	8.4314	0.0128		0.6722	0.6722		0.6382	0.6382	0.0000	1,234.7702	1,234.7702	0.2221		1,240.3236
Total	**1.1056**	**9.7308**	**8.4314**	**0.0128**		**0.6722**	**0.6722**		**0.6382**	**0.6382**	**0.0000**	**1,234.7702**	**1,234.7702**	**0.2221**		**1,240.3236**

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	0.0184	0.6327	0.1175	1.6800e-003	0.0374	2.5000e-003	0.0399	0.0102	2.3900e-003	0.0126		178.3509	178.3509	0.0103		178.6086
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1370	0.0983	0.9689	2.4100e-003	0.2464	1.8500e-003	0.2483	0.0654	1.7000e-003	0.0671		240.2850	240.2850	8.0600e-003		240.4864
Total	**0.1554**	**0.7310**	**1.0864**	**4.0900e-003**	**0.2838**	**4.3500e-003**	**0.2882**	**0.0756**	**4.0900e-003**	**0.0797**		**418.6359**	**418.6359**	**0.0184**		**419.0950**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.546733	0.040822	0.192414	0.121457	0.019775	0.005842	0.018925	0.042606	0.002064	0.001985	0.005540	0.000819	0.001018

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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

Tanker Dockside System Emissions Summary

Boat Modeling Assumptions

Vessel Type	Engine Assumptions				
	No. of Engines	Engine Model Year	Engine Rated Power (HP)	Max Hours of Use Per Day	Total Hours of Use
Push boat used to move impact pile driving barge (Main Engine)	2	2005	331	4	432
Push boat used to move transport barge (Main Engine)	2	2005	331	4	432

pph = pounds per hour
ppd = pounds per day
tpy = tons per year

Boat Emission Factors

Emission Factors (pph)										
Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
Push Boat Main Engine	0.16	0.15	5.34	0.60	4.20	0.01	586.28	0.02	0.00	588.29

Source: SMAQMD harborcraft, Dredge and Barge Emission Factor Calculator. http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools. Accessed May 1, 2019

Push Boat used for Impact Pile Driving Emission Estimates

Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
tpy	0.035	0.032	1.153	0.130	0.907	0.001	114.862	0.005	0.001	115.257
ppd	0.65	0.58	21.36	2.40	16.79	0.02	2345.11	0.10	0.02	2353.16

Push Boat used to transport materials to the project site Emission Estimates

Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
tpy	0.008	0.007	0.249	0.028	0.196	0.000	22.504	0.001	0.000	22.581
ppd	0.14	0.13	4.61	0.52	3.63	0.00	459.45	0.02	0.00	461.03

Total Boat Emissions

Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
tpy	0.04	0.04	1.40	0.16	1.10	0.00	137.37	0.01	0.00	137.84
ppd	0.79	0.71	25.97	2.92	20.42	0.03	2804.56	0.11	0.02	2814.18

Construction Emissions - Summer

Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
tpy	0.2314	0.1925	3.5119	0.3927	3.0584	0.00549	478.85	0.10	0.00	481.28
Summer Peak ppd	2.6614	2.2566	34.7095	26.4905	31.6769	0.0529	5074.49	1.22	0.00	5094.59
Winter Peak ppd	2.6615	2.2597	34.7406	26.4915	31.5602	0.0525	5037.57	1.22	0.00	5057.68
Highest peak ppd	2.6615	2.2597	34.7406	26.4915	31.6769	0.0529	5074.4895	1.2202	0	5094.5925

Source: CalEEMod2016.3.2

Generic Tanker Manifold System

Tanker Landside Control System Emissions Summary

Boat Modeling Assumptions

Vessel Type	Engine Asumptions				
	Number of Engines	Engine Model Year	Engine Rated Power (HP)	Max Hours of Use Per Day	Total Hours of Use
Push boat used to move impact pile driving barge (Main Engine)	2	2005	331	**4**	432
Push boat used to move transport barge (Main Engine)	2	2005	331	**4**	432

pph = pounds per hour
ppd = pounds per day
tpy = tons per year

Boat Emission Factors

Emission Factors (pph)										
Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
Push Boat Main Engine	0.16	0.15	5.34	0.60	4.20	0.01	586.28	0.02	0.00	588.29

Source: SMAQMD harborcraft, Dredge and Barge Emission Factor Calculator. http://www.airquality.org/businesses/ceqa-land-use-planning/ceqa-guidance-tools. Accessed May 1, 2019

Push Boat used for Impact Pile Driving Emission Estimates

Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
tpy	0.035	0.032	1.153	0.130	0.907	0.001	114.862	0.005	0.001	115.257
ppd	0.65	0.58	21.36	2.40	16.79	0.02	2345.11	0.10	0.02	2353.16

Push Boat used to transport materials to the project site Emission Estimates

Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
tpy	0.008	0.007	0.249	0.028	0.196	0.000	22.504	0.001	0.000	22.581
ppd	0.14	0.13	4.61	0.52	3.63	0.00	459.45	0.02	0.00	461.03

Total Boat Emissions

Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
tpy	0.04	0.04	1.40	0.16	1.10	0.00	137.37	0.01	0.00	137.84
ppd	0.79	0.71	25.97	2.92	20.42	0.03	2804.56	0.11	0.02	2814.18

Construction Emissions

Category	PM10	PM2.5	NOx	ROG	CO	SO2	CO2	CH4	N2O	CO2e
tpy	0.2349	0.1899	3.0358	0.3921	2.9566	0.00515	445.38	0.08	0.00	446.97
Summer Peak ppd	2.6575	2.2547	34.7505	23.4163	31.641	0.0523	5013.10	1.21	0.00	5033.13
Winter Peak ppd	2.6579	2.2548	34.7627	23.4174	31.5206	0.0519	4977.43	1.21	0.00	4997.45
Highest peak ppd	2.6579	2.2548	34.7627	23.4174	31.641	0.0523	5013.1039	1.2105	0	5033.1258

Source: CalEEMod2016.3.2