Lantos Energy LLC
Marsalla Well
Air and Greenhouse Gas Emission Study

Prepared for:

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The following table identifies equipment proposed for use during well pad site preparation activities for the proposed project.

Table 1
Equipment Used During Site Preparation Phase

On Site Equipment	Number of Equipment	HP	Days of Operation	Total Hours/Day
Grader	1	140	5	8
Track Hoe/ Loader	1	100	5	8
Roller/Compactor	1	100	2	8
Mobile Sources	**Number**	**Round Trip Distance (Miles)**	**Duration (days)**	**Total Miles Driven**
Water Truck	1	100 miles/day	3	300
Passenger Car/Pickup Truck Round Trips	5	100 miles/day	8	4,000
Heavy Truck/Semi	2	100 miles/day	2	400

The following table identifies equipment proposed for use during drilling activities for the proposed project.

Table 2
Equipment Used During the DrillingWell

On-Site Equipment	Number	Horsepower	Days of Operation	Total Hours/Day
Backhoe	1	50 HP	10	4 hours
Forklift	1	50 HP	22	4 hours
Drill Rig Motor #1& 2 (Draw work Engines)	2	665 HP	22	17.5 hours
Drill Rig Motor #3 & 4 (Pump Engine)	2	1000 HP	18	20 hours
Drill Rig Motor #5 & 6 (Generators)	2	685 HP	22	24 hours
Mobile Sources	**Number**	**Round Trip Distance(Miles)**	**Duration (days)**	**Total Miles Driven**
Water Truck (Heavy Duty)	1	100 miles/day	12	1,200
Passenger Car/Pickup Trucks (Light Duty)	10	100 miles/day	25	25,000
Heavy Duty Trucks	2	100 miles/day	6	1,200

Even though the proposed project is located in a very remote, rural setting, it is possible that sensitive receptors could be exposed to fugitives dust emissions, diesel emissions, and emissions from production equipment. Emissions from the various stationary source diesel engines used during the drilling and production phases of the project are considered less than significant as all stationary source diesel engines (including portable engines) that are greater than 50 horsepower will meet permitting requirements and strict emission control requirements of the Yolo Solano County Air Quality Management District (YSAQMD).

During the drilling phase of the project more detailed information will be available for appropriate design of the natural gas production equipment. Potential emissions and their sources have been identified qualitatively. The project proponent has committed to submit permit applications to the YSAQMD and to comply with the resulting permit conditions issued with the Authority to Construct permits. Accordingly, impacts associated with emissions from production equipment are considered less than significant.

The following table identifies equipment proposed for use during the completion and testing activities for the proposed project.

Table 3
Equipment for Completion and Testing Phase

Equipment Type	**Number**	**Horsepower**	**Days of Operation**	**Hours Operation Daily**
Completion Rig	1	350	3	10
Oil/Gas Separator	1	N/A	1	24
500 BBL Portable Tanks	2	N/A	3	8
Testing Flare (Maximum heat output of less than/or equal to 50 mmbtu/day, natural gas fired)	1	N/A	1	24
Mobile Sources	**Number**	**Round Trip Distance**	**Duration (days)**	**Total Miles Driven**
Pick-up Truck	5	100 miles*	3	1,500
Heavy Duty Truck (Oil Transport)	1	100 miles*	3 trips	300

The following table identifies equipment proposed for use during the production equipment installation phase for the proposed project.

Table 4
Equipment Used During Installation of Production Equipment and Pipeline Phase

On-Site Equipment	Number	Horsepower	Days of Operation	Total Hours/Day
Backhoe/Trencher	1	50 HP	8	12
Welding Equipment	1	NA	8	12
Side-Boom Crane	1	300 HP	8	12
Mobile Sources	**Number**	**Round Trip Distance (Miles)**	**Duration (days)**	**Total Miles Driven**
Passenger Car/Pickup Trucks (Light Duty)	5	100	8	4,000
Heavy Duty Trucks	2	100 miles/day	8	800

If economical quantities of oil and gas are not discovered in the well, the well will be plugged and abandoned at the well site. Table 5 identifies equipment proposed for use during plugging and abandonment activities for the sidetrack well.

In the event oil and gas are discovered in sufficient quantities, then the well would transition to the production phase. The production phase of the proposed project may include two sub-phases. Generally, a natural gas deposit will be under sufficient pressure to push the gas to the surface, where the pressure is reduced at the choke. After this pressure has been relieved, gas is pumped from the well through use of a compressor (a pump driven by a diesel engine). The oil would be transported via an existing pipeline.

Table 5
Equipment for Plugging and Abandonment Phase

On-Site Equipment	Number	Horsepower	Days of Operation	Total Hours/Day
Production Rig (Internal Combustion Engine)	1	600	5	12
Mobile Sources	**Number**	**Round Trip Distance (miles)**	**Duration (days)**	**Total Miles Driven**
Passenger Car/Pickup Trucks (Light Duty)	12	100 miles/day	5	6,000
Heavy Duty Trucks (Normal Operations)	12	100 miles/day	1	1,200

A comparison of emissions for the construction phase with thresholds of significance is shown in Table 6. Detailed emission calculations are provided in Table 1 to 5 that includes an estimate of toxic air contaminants. Exposure to these contaminants was evaluation by calculating cancer and non-cancer risk scores. The attached prioritization calculations show

the risk would be less than significant at nearby homes estimated to be more than 2 miles from the project site (need to confirm).

The emissions calculations are based on use of the CalEEMod Emissions model supplemented by additional calculations associated with the flare and fugitive VOC emissions. A copy of the CalEMod detailed emissions report is attached.

Emissions during the operational phase would be negligible as oil would be transported via an existing pipeline.

Table 6

Summary of Criteria and GHG Emissions

(Construction Phase)

Pollutant		lbs/day	tons/yr	Thresholds or Significance
ROG	Off-Road Equip	0.28	0.05	10 tons/yr
	Flare	7.00	0.0035	
	Equip Leaks	1.39	0.254	
	Total	8.67	0.31	
NOx	Off-Road Equip	5.9	1.08	10 tons/yr
	Flare	3.4	0.0017	
	Total	9.3	1.0817	
CO		6.39	1.17	
SO2		0.01	< .005	
PM10	Off-Road Equip	0.26	0.05	80 lbs/day
	Flare	25	0.0125	
	Total	25.26	0.0625	
PM2.5	Off-Road Equip	0.22	0.04	
	Flare	25	0.0125	
	Total	25.22	0.0525	
CO2	Off-Road Equip		219	
	Flare		2.92	
	Total (Mt/Yr)		221.9	

ATTACHMENTS

Emissions Tables

Risk Prioritization

Detailed CalEEMod Emissions Report

Emissions Tables

Table 1
Summary of Criteria and GHG Emissions
(Construction Phase)

Pollutant		lbs/day	tons/yr	Thresholds or Significance
ROG	Off-Road Equip	0.28	0.05	10 tons/yr
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	Total	8.67	0.31	
NOx	Off-Road Equip	5.9	1.08	10 tons/yr
	Flare	3.4	0.0017	
	Total	9.3	1.0817	
CO		6.39	1.17	
SO2		0.01	< .005	
PM10	Off-Road Equip	0.26	0.05	80 lbs/day
	Flare	25	0.0125	
	Total	25.26	0.0625	
PM2.5	Off-Road Equip	0.22	0.04	
	Flare	25	0.0125	
	Total	25.22	0.0525	
CO2	Off-Road Equip		219	
	Flare		2.92	
	Total (Mt/Yr)		221.9	

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Table 2
Summary of Hourly and Annual Toxic Air Contaminants
(Construction Phase)

Compound	CAS #	Flare Emissions		Off-Road Equipment Emissions		Leaking Component Emissions		TOTAL Emissions	
		lbs/hr	lbs/yr	lbs/hr	lbs/yr	lbs/hr	lbs/yr	lbs/hr	lbs/yr
1,2,4 Trimethylbenzene	95636	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.98E-04	2.61E+00	2.98E-04	2.61E+00
Acetaldehyde	75070	8.78E-05	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.78E-05	2.11E-03
Acrolein	107028	2.04E-05	4.90E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-05	4.90E-04
Benzene	71432	3.25E-04	7.79E-03	0.00E+00	0.00E+00	7.63E-04	6.68E+00	1.09E-03	6.69E+00
Cyclohexane	110827	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.79E-05	2.44E-01	2.79E-05	2.44E-01
Ethyl benzene	100414	2.95E-03	7.08E-02	0.00E+00	0.00E+00	4.89E-04	4.28E+00	3.44E-03	4.35E+00
Formaldehyde	50000	2.39E-03	5.73E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.39E-03	5.73E-02
Hexane	110543	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.63E-04	7.56E+00	8.63E-04	7.56E+00
Naphthalene	91203	2.25E-05	5.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-05	5.39E-04
PAH#	1151	2.86E-05	6.86E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-05	6.86E-04
Toluene	108883	1.18E-04	2.84E-03	0.00E+00	0.00E+00	7.25E-04	6.35E+00	8.44E-04	6.35E+00
Vinyl Chloride	75014	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.03E-04	6.16E+00	7.03E-04	6.16E+00
Xylene	1330207	5.92E-05	1.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.92E-05	1.42E-03
Diesel Particulate Matter (DPM)	9901	0.00E+00	0.00E+00	2.28E-03	2.00E+01	0.00E+00	0.00E+00	2.28E-03	2.00E+01

Table 3
Evaluation of Flare Emissions
Basis: 50 mmbtu/day Operating for 1 Day

BASIS	Flare Size	50	*mmbtu/day*	
	Duration	1	*days*	
Total MMBTU Consumed		50	*mmbtu*	
Pollutant	Emission Factor *(lbs/mmbtu)*	*lbs/day*	*lbs total*	*tons total*
NOx	0.068	3.400	3.4	0.0017
THC	0.14	7.000	7.0	0.0035
PM	0.5	25.000	25.0	0.0125
CO2	116.6	5832.2	5,832	2.9161

Notes

1. Emission factors for NOx, THC and PM from AP-42, Chap 13.5, Table 13.5-1, Sep 1991.

2. Emission factors for CO_2 from Appendix A, Subchapter 10, Article 2, Sections 95100 to 95133, Title 17, California Code of Regulations.

2. Assumes flare will use BACT per SJVAPCD Permitting Requirements

Table 4
Flare Emissions (TACs)

Name	**Oilfield Natural Gas-Fired + Waste Gas Flare**											
Applicability	Use this spreadsheet for Natural Gas/Waste Gas-Fired Flares at an Oilfield or Refinery where a waste gas stream is being combusted. Entries required in yellow areas, output in grey areas.											
Author or updater	Ray Kapahi		*Last Update*	February 20, 2024								
Facility:	Lantos Energy											
ID#:	Based on 50 mmbtu/day for 1 day											
Project #:	Assume Gas Heat Content = 1020 btu/scf											
Inputs	MMscf/hr	MMscf/yr	**Formula**									
Flare Rate	2.04E-03	0.05	Emissions are the result of combustion plus the pass through of uncombusted VOCs. Emissions are determined by the multiplication of Process Rates and Emission Factors. Enter the Destruction efficiency as a whole number. Default is 98. Enter specific gravity of gas as a decimal. Default is 0.45 Enter the % methane as a whole number. Flare gas assumed to be 100% as a worst case if value is unknown. Waste gas characterization defaults are listed on the Reference tab and can be modified by changing the mole fraction values if so desired.									
Specific Gravity of Gas	0.45											
Destruction Efficiency %	98.00											
Methane %	100.00											
	MMscf/hr	MMscf/yr										
Flare Gas Methane Rate	2.04E-03	0.05										
	MMscf/hr	MMscf/yr										
Uncombusted VOCs Rate	4.08E-05	9.80E-04										

Substance	**CAS#**	**Flare Gas Methane Combustion Emission Factor lbs/ MMscf***	**LB/HR**	**LB/YR**	**Refinery Gas Composition Emission Factor lbs/ MMscf****	**LB/HR**	**LB/YR**	**Total LB/HR**	**Total LB/YR**
Acetaldehyde	**75070**	4.30E-02	8.78E-05	2.11E-03	0	0.00E+00	0.00E+00	8.78E-05	2.11E-03
Acrolein	**107028**	1.00E-02	2.04E-05	4.90E-04	0	0.00E+00	0.00E+00	2.04E-05	4.90E-04
Benzene	**71432**	1.59E-01	3.25E-04	7.79E-03	1.41E+02	5.74E-03	1.38E-01	6.06E-03	1.46E-01
Cyclohexane	**110827**	0.00E+00	0.00E+00	0.00E+00	1.22E+02	4.98E-03	1.20E-01	4.98E-03	1.20E-01
Ethyl Benzene	**100414**	1.44E+00	2.95E-03	7.08E-02	2.63E+00	1.07E-04	2.58E-03	3.06E-03	7.34E-02
Formaldehyde	**50000**	1.17E+00	2.39E-03	5.73E-02	0	0.00E+00	0.00E+00	2.39E-03	5.73E-02
Hexane	**110543**	2.90E-02	5.92E-05	1.42E-03	1.96E+02	7.99E-03	1.92E-01	8.05E-03	1.93E-01
Hydrogen Sulfide	**7783064**	0.00E+00	0.00E+00	0.00E+00	2.33E+02	9.51E-03	2.28E-01	9.51E-03	2.28E-01
Naphthalene	**91203**	1.10E-02	2.25E-05	5.39E-04	0	0.00E+00	0.00E+00	2.25E-05	5.39E-04
PAH's	**1151**	1.40E-02	2.86E-05	6.86E-04	0	0.00E+00	0.00E+00	2.86E-05	6.86E-04
Propylene	**115071**	2.44E+00	4.98E-03	1.20E-01	0	0.00E+00	0.00E+00	4.98E-03	1.20E-01
Toluene	**108883**	5.80E-02	1.18E-04	2.84E-03	1.71E+01	7.01E-04	1.68E-02	8.19E-04	1.97E-02
Xylenes	**1330207**	2.90E-02	5.92E-05	1.42E-03	3.26E+00	1.33E-04	3.20E-03	1.93E-04	4.62E-03

References:

* The emission factors are from the flare column in the table, "Natural Gas Fired External Combustion Equipment", in the May 2001 update of *VCAPCD AB 2588 Combustion Emission Factors*

** The emission factors are derived from Table 1, "Gas analysis from Laboratory Services, Hobbs, New Mexico" (page 19) in the 2005 Report, *FINAL REPORT Test of TDA's Direct Oxidation Process for Sulfur Recovery.*

Table 5
Calculation of Fugitive VOC Emissions from Equipment Leaks

Equipment	How Many?	Organic Compounds EF kg/hr/source	Organic Emissions (lbs/yr)	Organic Emissions (tons/yr)
Pumps	2	1.20E-02	462.5	0.231
Flanges	21	1.10E-04	44.5	0.022
Valves	9	2.50E-03	433.6	0.217
		TOTAL	507.0	0.254

VOC Fugitive Emission Factor (EF) for light crude based on EPA Document # EPA-453/R-95-017, Nov. 1995, Table C-3. All organic emission are assumed to be volatile organic compounds (VOCs)

Calculation: lbs/yr = # of sources x EF (kg/hr/source) x 8,760 hrs x(2.2 lbs/kg)

Pollutant	EF (lbs/lb VOC)	Emissions (lbs/hr)	Emissions (lbs/yr)	Emissions (tons/yr)
1,2,4 Trimethylbenzene	5.16E-03	2.98E-04	2.61E+00	1.31E-03
Benzene	1.32E-02	7.63E-04	6.68E+00	3.34E-03
Cyclohexane	4.82E-04	2.79E-05	2.44E-01	1.22E-04
Ethylbenzene	8.45E-03	4.89E-04	4.28E+00	2.14E-03
n-Hexane	1.49E-02	8.63E-04	7.56E+00	3.78E-03
Toluene	1.25E-02	7.25E-04	6.35E+00	3.18E-03
Xylenes	1.21E-02	7.03E-04	6.16E+00	3.08E-03

EFs from SJVAPCD recommended factors for oil and gas production. Copy attached.

Calculation: lbs/yr = # of sources x EF (kg/hr/source) x 8,760 hrs x(2.2 lbs/kg)x(1ton/2,000 lbs)

# of Wells = 1

Risk Prioritization

Name: LANTOS ENERGY

Air Toxics Hot Spots Facility Prioritization Score Calculator

Applicability	Use to provide a Prioritization score for facility emissions according to Toxic Hot Spots guidelines. Entries required in yellow areas, output in gray areas.					
Author or updater	Ray Kapahi		*Last Update*	March 20. 2024		
Facility:	ANTOS ENERGY					
ID#:	Emissions for Single Well					
Project #:	Ref: Table 2					
Data Entered by:	RK					
Data Reviewed by:						
Location						
Operating Hours hr/yr	**8,760.00**	**Stack Height m**	**46**			

Receptor Proximity and Proximity Factors		Emissions Potency Method			Dispersion Adjustment Method		
		Cancer Score	**Non-Cancer Score**	**Facility Ranking Priority**	**Cancer Score**	**Non-Cancer Score**	**Facility Ranking Priority**
0< R<100	**1.000**	5.15E+01	2.07E-01	**High**	8.56E-01	3.45E-03	**Medium**
100≤R<250	**0.250**	1.29E+01	5.18E-02	**High**	8.56E-01	3.45E-03	**Medium**
250≤R<500	**0.040**	2.06E+00	8.28E-03	**Medium**	7.70E-01	3.11E-03	**Medium**
500≤R<1000	**0.011**	5.66E-01	2.28E-03	**Low**	3.42E-01	1.38E-03	**Low**
1000≤R<1500	**0.003**	1.54E-01	6.21E-04	**Low**	1.11E-01	4.49E-04	**Low**
1500≤R<2000	**0.002**	1.03E-01	4.14E-04	**Low**	5.65E-02	5.65E-02	**Low**
2000<R	**0.001**	5.15E-02	2.07E-04	**Low**	3.59E-02	3.59E-02	**Low**

Height Adjustment		**<100m**	**<250m**	**<500m**	**<1000m**	**<1500m**
<20m	**60**	**1**	**0.25**	**0.04**	**0.011**	**0.003**
20m<= <45m	**9**	**1**	**0.85**	**0.22**	**0.064**	**0.018**
=>45m	**1**	**1**	**1**	**0.9**	**0.4**	**0.13**

Enter the unit's CAS# of the substances emitted and their amounts.

Substance	CAS#	MW Correction	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Corrected Annual Emissions (lbs/yr)	Corrected Maximum Hourly (lbs/hr)
Diesel engine exhaust, particulate matter (Diesel PM)	**9901**	**1.0000**	2.00E+01	2.28E-03	2.00E+01	2.28E-03
Acetaldehyde	**75070**	**1.0000**	2.11E-03	8.78E-05	2.11E-03	8.78E-05
Acrolein	**107028**	**1.0000**	4.90E-04	2.04E-05	4.90E-04	2.04E-05
Benzene	**71432**	**1.0000**	6.69E+00	1.09E-03	6.69E+00	1.09E-03
Cyclohexane	**110827**	**1.0000**	2.44E-01	2.79E-05	2.44E-01	2.79E-05
Ethyl benzene	**100414**	**1.0000**	4.35E+00	3.23E-04	4.35E+00	3.44E-03
Formaldehyde	**50000**	**1.0000**	5.73E-02	2.39E-03	5.73E-02	2.39E-03
Hexane	**110543**	**1.0000**	7.56E+00	8.63E-04	7.56E+00	8.63E-04
Naphthalene	**91203**	**1.0000**	5.39E-04	2.25E-05	5.39E-04	2.25E-05
PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	**1151**	**1.0000**	6.86E-04	6.86E-04	6.86E-04	6.86E-04
Toluene	**108883**	**1.0000**	6.35E+00	6.44E-04	6.35E+00	6.44E-04
Vinyl chloride	**75014**	**1.0000**	6.16E+00	7.03E-04	6.16E+00	7.03E-04
Xylene	**1330207**	**1.0000**	1.42E-03	5.92E-05	1.42E-03	5.92E-05

Detailed CalEEMod Emissions Report

Lantos Energy Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Lantos Energy
Construction Start Date	10/1/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.70
Precipitation (days)	2.20
Location	38.133385, -121.89804
County	Solano-San Francisco
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	879
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

General Heavy Industry	17.0	1000sqft	0.39	17,000	0.00	—	—	—	

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.16	92.2	101	0.19	3.67	0.59	3.81	3.27	0.07	3.30	—	21,037	21,037	0.85	0.18	21,110
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.28	5.90	6.39	0.01	0.24	0.02	0.26	0.22	< 0.005	0.22	—	1,325	1,325	0.05	0.01	1,330
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	1.08	1.17	< 0.005	0.04	< 0.005	0.05	0.04	< 0.005	0.04	—	219	219	0.01	< 0.005	220

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.16	92.2	101	0.19	3.67	0.59	3.81	3.27	0.07	3.30	—	21,037	21,037	0.85	0.18	21,110
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.28	5.90	6.39	0.01	0.24	0.02	0.26	0.22	< 0.005	0.22	—	1,325	1,325	0.05	0.01	1,330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.05	1.08	1.17	< 0.005	0.04	< 0.005	0.05	0.04	< 0.005	0.04	—	219	219	0.01	< 0.005	220

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.36	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	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.36	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	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.36	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	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	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	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN
Total	0.36	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	NaN
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN
Total	0.36	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	NaN
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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
Area	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN
Total	0.36	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	NaN
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	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
Area	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Water	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Waste	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN
Total	0.07	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	NaN

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	5.00	7.42	0.01	0.26	—	0.26	0.24	—	0.24	—	1,234	1,234	0.05	0.01	1,238
Dust From Material Movement	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.9	16.9	< 0.005	< 0.005	17.0

Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.80	2.80	< 0.005	< 0.005	2.81
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.29	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	63.3	63.3	< 0.005	< 0.005	64.1
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	0.89
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	0.15
Vendor	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
Hauling	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

3.3. Well Drilling (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.09	92.1	99.9	0.19	3.67	—	3.67	3.27	—	3.27	—	20,889	20,889	0.85	0.17	20,961
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	5.55	6.02	0.01	0.22	—	0.22	0.20	—	0.20	—	1,259	1,259	0.05	0.01	1,263
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.01	1.10	< 0.005	0.04	—	0.04	0.04	—	0.04	—	208	208	0.01	< 0.005	209
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—

Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.68	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	148	148	< 0.005	0.01	150
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.01	9.01	< 0.005	< 0.005	9.14
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.49	1.49	< 0.005	< 0.005	1.51
Vendor	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
Hauling	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

3.5. Well Completion Testing (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	21.4
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	0.18
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	0.03
Vendor	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
Hauling	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

3.7. Production Pipeline Phase (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05	12.8	9.97	0.02	0.76	—	0.76	0.69	—	0.69	—	1,744	1,744	0.07	0.01	1,750
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.28	0.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	38.2	38.2	< 0.005	< 0.005	38.4
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.33	6.33	< 0.005	< 0.005	6.35
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	42.2	42.2	< 0.005	< 0.005	42.7
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.94	0.94	< 0.005	< 0.005	0.95
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	0.16
Vendor	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
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectu Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Heavy Industry	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NaN

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	10/1/2024	10/5/2024	6.00	5.00	Site Preparation
Well Drilling	Grading	10/7/2024	10/31/2024	6.00	22.0	Well Drilling
Well Completion Testing	Trenching	11/1/2024	11/5/2024	5.00	3.00	Well Completion Testing
Production Pipeline Phase	Trenching	11/6/2024	11/15/2024	5.00	8.00	Production Equip Pipeline

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.00	8.00	140	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	100	0.37
Site Preparation	Rollers	Diesel	Average	1.00	8.00	100	0.38
Well Drilling	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	50.0	0.41
Well Drilling	Forklifts	Diesel	Average	1.00	6.00	367	0.40
Well Drilling	Bore/Drill Rigs	Diesel	Tier 3	2.00	17.5	665	0.37
Well Drilling	Bore/Drill Rigs	Diesel	Tier 3	2.00	20.0	1,000	0.50
Well Drilling	Bore/Drill Rigs	Diesel	Tier 3	1.00	24.0	685	0.50
Production Pipeline Phase	Tractors/Loaders/Backhoes	Diesel	Average	1.00	12.0	50.0	0.37
Production Pipeline Phase	Cranes	Diesel	Tier 3	1.00	12.0	367	0.29

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Well Drilling	—	—	—	—
Well Drilling	Worker	17.5	11.7	LDA,LDT1,LDT2
Well Drilling	Vendor	—	8.40	HHDT,MHDT
Well Drilling	Hauling	0.00	20.0	HHDT
Well Drilling	Onsite truck	—	—	HHDT
Well Completion Testing	—	—	—	—
Well Completion Testing	Worker	2.50	11.7	LDA,LDT1,LDT2
Well Completion Testing	Vendor	—	8.40	HHDT,MHDT
Well Completion Testing	Hauling	0.00	20.0	HHDT
Well Completion Testing	Onsite truck	—	—	HHDT
Production Pipeline Phase	—	—	—	—
Production Pipeline Phase	Worker	5.00	11.7	LDA,LDT1,LDT2
Production Pipeline Phase	Vendor	—	8.40	HHDT,MHDT
Production Pipeline Phase	Hauling	0.00	20.0	HHDT
Production Pipeline Phase	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	2.50	0.00	—
Well Drilling	0.00	0.00	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	25,500	8,500	—

5.10.3. Landscape Equipment

Equipment Type	Fuel Type	Number Per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Heavy Industry	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Heavy Industry	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Heavy Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.00	0.00	0.00	0.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.5	annual days of extreme heat

Extreme Precipitation	2.55	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	1	1	2
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	35.3
AQ-PM	16.6
AQ-DPM	7.67
Drinking Water	62.6
Lead Risk Housing	17.0
Pesticides	76.2

Toxic Releases	38.6
Traffic	7.65
Effect Indicators	—
CleanUp Sites	61.7
Groundwater	95.7
Haz Waste Facilities/Generators	92.3
Impaired Water Bodies	99.0
Solid Waste	97.9
Sensitive Population	—
Asthma	85.8
Cardio-vascular	84.6
Low Birth Weights	90.7
Socioeconomic Factor Indicators	—
Education	44.9
Housing	37.5
Linguistic	32.0
Poverty	48.9
Unemployment	—

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	55.12639548
Employed	6.582830746
Median HI	48.659053
Education	—

Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	73.18105993
Transportation	—
Auto Access	57.21801617
Active commuting	64.73758501
Social	—
2-parent households	52.4573335
Voting	80.5338124
Neighborhood	—
Alcohol availability	67.04735019
Park access	20.17194919
Retail density	3.27216733
Supermarket access	35.35223919
Tree canopy	68.22789683
Housing	—
Homeownership	71.19209547
Housing habitability	84.66572565
Low-inc homeowner severe housing cost burden	60.91364045
Low-inc renter severe housing cost burden	71.98768125
Uncrowded housing	83.16437829
Health Outcomes	—
Insured adults	34.59514949
Arthritis	0.0
Asthma ER Admissions	29.6
High Blood Pressure	0.0
Cancer (excluding skin)	0.0

Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	29.9
Cognitively Disabled	28.0
Physically Disabled	7.8
Heart Attack ER Admissions	26.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	77.3
Children	86.0
Elderly	1.3
English Speaking	64.4
Foreign-born	25.0
Outdoor Workers	14.1
Climate Change Adaptive Capacity	—

Impervious Surface Cover	72.0
Traffic Density	23.1
Traffic Access	23.0
Other Indices	—
Hardship	57.9
Other Decision Support	—
2016 Voting	93.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	78.0
Healthy Places Index Score for Project Location (b)	50.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification

Construction: Construction Phases	Per project specification
Construction: Off-Road Equipment	PER PROJECT SPECIFICATIONS
Construction: Off-Road Equipment EF	Per project specs
Operations: Architectural Coatings	Not Applicable
Operations: Energy Use	Per project specs
Operations: Water and Waste Water	No water or wastewater needed/generated
Operations: Solid Waste	No solid waste generated
Operations: Refrigerants	No A/C or Heat Pumps