

Appendix E

Energy Calculations and Modeling



E.1-1 Assumptions

Santa Barbara County Last-Mile Broadband Program

defaults are in blue

updated

9/5/2024

PROJECT CHARACTERISTICS

Location	Santa Barbara County
Electricity Demand Forecast Zone	6
Land Use Setting	Suburban
Start of Construction	3/1/2025
Operational Year	2027
Utility Company	SCE
CO2 intensity	default

LAND USE

Land Use	CalEEMod Land Use Subtype	Unit Amt	Size Metric	Lot Ac	SF	Predominant Soil Type	Description
Linear	User Defined Linear	72	miles	87.273	3801600	Sand Gravel	Underground Fiber Line
Other Non-Asphalt Surface	Other Non-Asphalt Surface	8.64	1000 sf	0.19835	8640		Concrete pad for prefab buildings

Notes:

- *For modeling purposes, it is assumed one prefab storage building per mile
- *Per Project Description, a total of 57 miles of conduit will be installed for the first 4 Priority Areas, out of the 9 total Priority Areas. The modeled quantities are based on the construction of 5 Priority Areas, which would likely be constructed simultaneously.
- *The assumed maximum width of ground disturbance would be 10 feet

CONSTRUCTION

Construction Phasing

Construction Type	Construction Phase	Start Date	End Date	Days/week	Work Days per Phase
Linear Construction	Linear, Grubbing & Land Clearing	3/1/2025	4/30/2025	5	43
	Drilling	5/1/2025	11/18/2025	5	144
	Trenching and Installation	11/19/2025	12/25/2026	5	288
Land Use Construction	Site Preparation	12/26/2026	1/15/2027	5	15
	Paving	1/16/2027	2/28/2027	5	30
Total Days					520

Notes:

- *It is assumed that for 1 mile of underground conduit, 1 drill rig is estimated to take approximately 10 days and 1 trencher would take an estimated 18 to 20 days (approximately 30 days total).
- *Based off the 24 month construction timeframe for all Priority Areas, as described in Project Description
- *The total construction schedule represents the simultaneous construction of 5 Priority Areas

Offroad Equipment

Construction Phase	Equipment	Unit Amt	Hours/Day	HP	LF	Engine Tier	Notes
Linear, Grubbing & Land Clearing	Trenchers	10	10	default	default	default	Accounts for cable plow and spider plows
	Rubber Tired Dozer	5	10	default	default	default	
	Tractors/Loaders/Backhoes	5	10	default	default	default	
Drilling	Bore/Drill Rig	5	10	default	default	default	
	Tractors/Loaders/Backhoes	10	10	default	default	default	Accounts for tractors and backhoes
	Industrial/Concrete Saw	5	10	default	default	default	
	Trenchers	5	10	default	default	default	
	Excavator	5	10	default	default	default	
Trenching and Installation	Off-Highway Trucks	10	10	default	default	default	Accounts for Line truck and utility trucks
	Trencher	10	10	default	default	default	Accounts for cable plows and trenchers
	Excavators	5	10	default	default	default	
	Dumpers	5	10	default	default	default	
	Tractors/Loaders/Backhoes	5	10	default	default	default	
	Bore/Drill Rig	10	10	default	default	default	Accounts for Drill Rig and Jackhammer
	Industrial/Concrete Saw	5	10	default	default	default	
	Air Compressor	5	10	default	default	default	
Site Preparation	Rubber Tired Dozers	5	10	default	default	default	
	Tractors/Loaders/Backhoes	5	10	default	default	default	
Paving	Pavers	5	10	default	default	default	
	Paving Equipment	5	10	default	default	default	
	Rollers	5	10	default	default	default	

Notes:

- *Equipment list based off construction equipment listed in Project Description
- *Project Description assumes construction occurring from 7a.m. - 6p.m.
- *Construction Equipment is assumed to be representative of the construction of the 5 simultaneously constructed Priority Areas

Dust from Material Movement

Phase	Material Import/Fill (cy)	Material Export/Cut (cy)	Size Metric	Acres Graded
Trenching	87040	87040	cy	default

Notes:

*Assumed that material excavated (cut) will be replaced after trenching/excavation activities with balanced material movement (fill)

Ground Disturbance

Phase	Size Metric	Unit Amt	Notes
Access Vaults	Area	15	PD notes that 1 vault per 700 feet. For 72 miles = 544 Access Vaults
	Depth	4	
	Access Vault Volume (cubic yards)	2.22	
	Total	1208.89	
Bore Entry/Exit Pits	Area	12	PD notes that 1 vault per 700 feet. For 72 miles = 544 Bore Pits
	Depth	5	
	Pit Volume (cubic yards)	2.22	
	Total	1208.89	
Horizontal Drilling	Diameter	0.33	Represents 700 feet of horizontal drilling. For 72 miles = 544
	Length	700	
	Total (cubic feet)	61.09	
	Drilling (cubic yards)	2.26	
	Total	1230.78	
Trenching	Width	1.5	Represents 700 feet of trenching. For 72 miles = 544
	Depth	4	
	Length	700	
	Total (cubic feet)	4200	
	Trenching (cubic yards)	155.56	
Total	84622.22		
Utility Poles	Diameter	1.58	Represents 1 pole, PD notes 1 pole per 300 feet. For 72 miles = 1268 poles
	Depth	10	
	Pole Volume (cubic yards)	0.73	
	Total	924.68	

Notes:

*Total amounts are representative of ground disturbance in all 5 Priority Areas

*Specifications of dimensions noted in the Project Description

*In areas where conditions are unsuitable for drilling, trenching would be needed to install the conduits. Therefore, either drilling or trenching would occur. As a conservative estimate, because trenching would create greater material movement, it was used to calculate cut/fill amounts

*It is assumed that utility poles are to be used where areas where trenching would be difficult for placing fiber optic line underground (e.g., rocky areas) or areas characterized by extreme topography. Therefore, because trenching would create more cubic yards of material movement than utility pole installation, it was conservatively used to calculate cut/fill amounts

Trips & VMT

truck hauling capacity 14 cy

Phase Name	# of worker trips/day	# vendor trips/day	# haul trips/day	Trip length worker (mi)	Trip length vendor (mi)	Trip length haul (mi)	Vehicle Class Worker	Vehicle Class Vendor	Vehicle Class Hauling
All Phases	50	50	50	default	default	default	LDA,LDT1,LDT2	HHDT,MHDT	HHDT

Notes:

*Assumes crews of 5 members per priority area

*Assumes 10 vendor and 10 haul trips per day for concrete, materials, etc. per priority area

E.1-2 Construction Energy Calculations and Modeling

**SBCAG Broadband Program Project
Construction Energy Analysis**

Annual Fuel Summary

Heavy-Duty Construction Equipment	
496,353	Total Project Consumption
248,517	Annual Consumption
Haul Trucks	
88,527	Total Project Consumption
44,324	Annual Consumption
Vendor Trucks	
19,731	Total Project Consumption
9,879	Annual Consumption
Workers	
8,078	Total Project Consumption
4,044	Annual Consumption
108,257	Project Consumption of diesel for Haul Trucks and Vendors
54,203	Annual Consumption
604,610	Total Gallons Diesel
8,078	Total Gallons Gasoline

2.00 Estimated Project Construction Duration (years)

302,720 Annual Average Gallons Diesel
4,044 Annual Average Gallons Gasoline

Santa Barbara County			Percent of Annual Project Compared to Santa Barbara County	
Source	Fuel Type	Gallons		
Workers	Gasoline	170,000,000		0.0024%
Off-Road/Vendor/Haul Trucks	Diesel	34,600,000		0.8749%

Notes:

1 Gasoline and diesel amounts from CEC, 2023. Available: <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting>

Annual Electricity Summary

Temporary Construction Trailer - Electricity 40,936 kWh/year
Water Conveyance for Dust Control 256,989 kWh/year
Total 297,925 kWh/year

72,933,000,000 | Total PG&E, 2023
0.00000041% Project percentage of PG&E

Park Zone	Source	Acreage/Day	Number of Days	Total Construction Water Use (Mgal)	Electricity Demand from Water Conveyance (MWh)	Annual Electricity Demand from Water Conveyance (MWh)
Lower South	Trenching and Installation	87.273	288	75.404	513.3	257.0
Total				75.404	513.274	256.989

CalEEMod Water Electricity Factors	Electricity Intensity Factor To Supply (kWh/Mgal)	Electricity Intensity Factor To Treat (kWh/Mgal)	Electricity Intensity Factor To Distribute (kWh/Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWh/Mgal)
	3044	725	1537	1501

Sources and Assumptions:
 CalEEMod Appendix G, Table G-32
 -Electricity Intensity Factors - California Emissions Estimator Model (CalEEMod).
 -Estimated construction water use assumed to be generally equivalent to landscape irrigation, based on a factor of 20.94 gallons per year per square foot of landscaped area within the Los Angeles area (Mediterranean climate), which assumes high water demand landscaping materials and an irrigation system efficiency of 85%. Factor is therefore $(20.94 \text{ GAL/SF/year}) \times (43,560 \text{ SF/acre}) / (365 \text{ days/year}) / (0.85) = 2,940 \text{ gallons/acre/day}$, rounded up to 3,000 gallons/acre/day.
 (U.S. Department of Energy, Energy Efficiency & Renewable Energy, Federal Energy Management Program. "Guidelines for Estimating Unmetered Landscaping Water Use." July 2010, Page 12, Table 4 - Annual Irrigation Factor - Landscaped Areas with High Water Requirements).

**SBCAG Broadband Program Project
Construction Energy Analysis**

Temporary Construction Trailer - Electricity

Land Use	Square Feet	Energy Use per year (kWh)	Total Energy Use (kWh)	Energy Use per SF
General Office	2,000	40,936	81,760.25	20.5

Note: Energy use per sf is derived from CalEEMod User Guide, Appendix G, Table G-28 for the Statewide average for General Office Building land use

SBCAG Broadband Program Project
 Construction Energy Analysis
 Off-Road Equipment

Equipment ≤ 100 hp
 pounds diesel fuel/hp-hr (lb/hp-hr):² 0.408 lb/hp-hr
 diesel density (lb/gal):¹ 7.11 lb/gal
 diesel gallons/hp-hr: 0.0574 gal/hp-hr
 Total hp-hr: 4,563,974 hp-hr
 Total diesel gallons: 261,939 gal

Equipment > 100 hp
 pounds diesel fuel/hp-hr (lb/hp-hr):¹ 0.367 lb/hp-hr
 diesel density (lb/gal):¹ 7.11 lb/gal
 diesel gallons/hp-hr: 0.0516 gal/hp-hr
 Total hp-hr: 4,540,664 hp-hr
 Total diesel gallons: 234,414 gal

Total diesel gallons (off-road equipment): 496,353 gal

[1. OFFROAD2017 Emission Factor Documentation](#)

Construction Phase	Equipment	Fuel Type	Number	Hours/Day	HP	Load	Days	Total hp-hr
Site Preparation	Rubber Tired Dozers	Diesel	5	10	367	0.4	15	110,100
Site Preparation	Tractors/Loaders/Backhoes	Diesel	5	10	84	0.37	15	23,310
Paving	Pavers	Diesel	5	10	81	0.42	30	51,030
Paving	Paving Equipment	Diesel	5	10	89	0.36	30	48,060
Paving	Rollers	Diesel	5	10	36	0.38	30	20,520
Linear, Grubbing & Land Clearing	Trenchers	Diesel	10	10	40	0.5	43	86,000
Linear, Grubbing & Land Clearing	Rubber Tired Dozers	Diesel	5	10	367	0.4	43	315,620
Linear, Grubbing & Land Clearing	Tractors/Loaders/Backhoes	Diesel	5	10	84	0.37	43	66,822
Drilling and Plowing	Bore/Drill Rigs	Diesel	5	10	83	0.5	144	298,800
Drilling and Plowing	Tractors/Loaders/Backhoes	Diesel	10	10	84	0.37	144	447,552
Drilling and Plowing	Concrete/Industrial Saws	Diesel	5	10	33	0.73	144	173,448
Drilling and Plowing	Trenchers	Diesel	5	10	40	0.5	144	144,000
Drilling and Plowing	Excavators	Diesel	5	10	36	0.38	144	98,496
Trenching and Installation	Off-Highway Trucks	Diesel	10	10	376	0.38	288	4,114,944
Trenching and Installation	Trenchers	Diesel	10	10	40	0.5	288	576,000
Trenching and Installation	Excavators	Diesel	5	10	36	0.38	288	196,992
Trenching and Installation	Dumpers/Tenders	Diesel	5	10	16	0.38	288	87,552
Trenching and Installation	Tractors/Loaders/Backhoes	Diesel	5	10	84	0.37	288	447,552
Trenching and Installation	Bore/Drill Rigs	Diesel	10	10	83	0.5	288	1,195,200
Trenching and Installation	Concrete/Industrial Saws	Diesel	5	10	33	0.73	288	346,896
Trenching and Installation	Air Compressors	Diesel	5	10	37	0.48	288	255,744
Total - >100 hp								4,540,664
Total - <100 hp								4,563,974

**Santa Barbara County Broadband
Total On-Road Fuel Consumption**

gal/mile

2024Hauling Hauling	0.16534457
2024Vendor Vendor	0.13876713
2024Worker Worker	0.03808277
2025Hauling Hauling	0.17177294
2025Vendor Vendor	0.14415027
2025Worker Worker	0.03581366
2026Hauling Hauling	0.16947176
2026Vendor Vendor	0.1426924
2026Worker Worker	0.03503044
2027Hauling Hauling	0.16702144
2027Vendor Vendor	0.14116525
2027Worker Worker	0.03434517
2028Hauling Hauling	0.15595442
2028Vendor Vendor	0.13307229
2028Worker Worker	0.03513338

Source	Fuel Type	Total Fuel Use (gal)
Hauling	Diesel	88,527
Vendor	Diesel	19,731
Worker	Gasoline	8,078
Fuel Type	Total Fuel Use	Annual Fuel Use
Diesel	108,257	54,203
Gasoline	8,078	4,044
Duration of Construction		
Start	3/1/2025	
End	2/28/2027	
	2.0	years

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (gallons)				
						gal/mile	gal/min	gal/day	Total Gallons/yr	
<u>Linear, Grubbing and Land Cleari</u>										
	2025									
Total Haul Trips	0									
Hauling	50	43	10	20.0	15	0.17	0.00E+00	172		7,386
Vendor	50	43	10	5.3	15	0.14	0.00E+00	38		1,643
Worker	50	43	10	8.8	0	0.04	0.00E+00	16		678
<u>Drilling</u>										
	2025									
Total Haul Trips	0									
Hauling	50	144	10	20.0	15	0.17	0.00E+00	172		24,735
Vendor	50	144	10	5.3	15	0.14	0.00E+00	38		5,501
Worker	50	144	10	8.8	0	0.04	0.00E+00	16		2,269
<u>Trenching and Installation</u>										
	2025									
Total Haul Trips	0									
Hauling	50	31	10	20.0	15	0.17	0.00E+00	172		5,325
Vendor	50	31	10	5.3	15	0.14	0.00E+00	38		1,184
Worker	50	31	10	8.8	0	0.04	0.00E+00	16		488
<u>Trenching and Installation</u>										
	2026									
Total Haul Trips	0									
Hauling	50	257	10	20.0	15	0.17	0.00E+00	169		43,554
Vendor	50	257	10	5.3	15	0.14	0.00E+00	38		9,718
Worker	50	257	10	8.8	0	0.04	0.00E+00	15		3,961
<u>Site Preparation</u>										
	2026									
Total Haul Trips	0									
Hauling	50	4	10	20.0	15	0.17	0.00E+00	169		678
Vendor	50	4	10	5.3	15	0.14	0.00E+00	38		151
Worker	50	4	10	8.8	0	0.04	0.00E+00	15		62
<u>Site Preparation</u>										
	2027									
Total Haul Trips	0									
Hauling	50	11	10	20.0	15	0.17	0.00E+00	167		1,837
Vendor	50	11	10	5.3	15	0.14	0.00E+00	37		411
Worker	50	11	10	8.8	0	0.03	0.00E+00	15		166
<u>Paving</u>										
	2027									
Total Haul Trips	0									
Hauling	50	30	10	20.0	15	0.17	0.00E+00	167		5,011
Vendor	50	30	10	5.3	15	0.14	0.00E+00	37		1,122
Worker	50	30	10	8.8	0	0.03	0.00E+00	15		453

Santa Barbara County Last-Mile Broadband Program Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santa Barbara County Last-Mile Broadband Program
Construction Start Date	3/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.10
Precipitation (days)	27.8
Location	Los Alamos, CA, USA
County	Santa Barbara
City	Unincorporated
Air District	Santa Barbara County APCD
Air Basin	South Central Coast
TAZ	3361
EDFZ	6
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Southern California Gas
App Version	2022.1.1.28

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
User Defined Linear	72.0	Mile	87.3	0.00	—	—	—	—
Other Non-Asphalt Surfaces	8.64	1000sqft	0.20	0.00	0.00	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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15.7	13.0	99.9	129	0.32	3.55	1.45	4.99	3.25	0.39	3.64	—	34,580	34,580	1.45	0.94	10.7	34,907
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.3	13.5	105	130	0.34	3.55	1.45	4.99	3.25	0.39	3.64	—	34,628	34,628	1.48	0.97	0.28	34,953
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.1	9.19	71.1	91.7	0.22	2.20	1.02	3.22	2.01	0.28	2.28	—	24,469	24,469	1.03	0.67	3.11	24,698
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.03	1.68	13.0	16.7	0.04	0.40	0.19	0.59	0.37	0.05	0.42	—	4,051	4,051	0.17	0.11	0.51	4,089

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	11.4	9.40	86.4	81.3	0.17	3.55	1.44	4.99	3.25	0.39	3.64	—	17,904	17,904	0.80	0.83	10.7	18,182

2026	15.7	13.0	99.9	129	0.32	3.08	1.45	4.54	2.82	0.39	3.21	—	34,580	34,580	1.45	0.94	10.1	34,907
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	16.3	13.5	105	130	0.34	3.55	1.45	4.99	3.25	0.39	3.64	—	34,628	34,628	1.48	0.97	0.28	34,953
2026	15.7	13.0	100	130	0.32	3.08	1.45	4.54	2.82	0.39	3.21	—	34,575	34,575	1.45	0.94	0.26	34,893
2027	10.9	10.2	62.5	58.8	0.13	2.43	1.44	3.87	2.24	0.39	2.63	—	15,118	15,118	0.66	0.79	0.24	15,369
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	5.30	4.33	39.4	48.1	0.11	1.36	0.85	2.20	1.24	0.23	1.47	—	10,786	10,786	0.48	0.50	2.77	10,949
2026	11.1	9.19	71.1	91.7	0.22	2.20	1.02	3.22	2.01	0.28	2.28	—	24,469	24,469	1.03	0.67	3.11	24,698
2027	1.13	1.03	4.14	4.60	0.01	0.15	0.16	0.31	0.14	0.04	0.18	—	1,217	1,217	0.05	0.08	0.44	1,244
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.97	0.79	7.19	8.79	0.02	0.25	0.15	0.40	0.23	0.04	0.27	—	1,786	1,786	0.08	0.08	0.46	1,813
2026	2.03	1.68	13.0	16.7	0.04	0.40	0.19	0.59	0.37	0.05	0.42	—	4,051	4,051	0.17	0.11	0.51	4,089
2027	0.21	0.19	0.76	0.84	< 0.005	0.03	0.03	0.06	0.03	0.01	0.03	—	201	201	0.01	0.01	0.07	206

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

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

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Off-Road Equipm	7.54	6.34	58.6	56.0	0.10	2.52	—	2.52	2.31	—	2.31	—	10,432	10,432	0.42	0.08	—	10,468
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.69	0.66	< 0.005	0.03	—	0.03	0.03	—	0.03	—	122	122	< 0.005	< 0.005	—	123
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.12	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	20.3	20.3	< 0.005	< 0.005	—	20.3
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.21	0.16	1.77	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	302	302	0.01	0.01	0.03	306
Vendor	0.07	0.04	1.38	0.64	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	872	872	0.03	0.12	0.05	910
Hauling	0.27	0.07	5.07	1.69	0.02	0.07	0.90	0.97	0.04	0.25	0.30	—	3,614	3,614	0.19	0.56	0.17	3,787
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.55	3.55	< 0.005	< 0.005	0.01	3.61
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.7
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	42.4	42.4	< 0.005	0.01	0.03	44.5

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.59	0.59	< 0.005	< 0.005	< 0.005	0.60
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.70	1.70	< 0.005	< 0.005	< 0.005	1.77
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.02	7.02	< 0.005	< 0.005	0.01	7.37

3.3. Site Preparation (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	7.33	6.16	56.2	54.9	0.10	2.38	—	2.38	2.19	—	2.19	—	10,432	10,432	0.42	0.08	—	10,468
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.65	1.61	< 0.005	0.07	—	0.07	0.06	—	0.06	—	306	306	0.01	< 0.005	—	307
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	50.7	50.7	< 0.005	< 0.005	—	50.9

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	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.15	1.65	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	296	296	0.01	0.01	0.03	301	
Vendor	0.07	0.03	1.33	0.61	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	854	854	0.03	0.12	0.05	892	
Hauling	0.27	0.07	4.86	1.64	0.02	0.04	0.90	0.95	0.04	0.25	0.30	—	3,535	3,535	0.19	0.56	0.16	3,708	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.70	8.70	< 0.005	< 0.005	0.02	8.85	
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.1	25.1	< 0.005	< 0.005	0.02	26.2	
Hauling	0.01	< 0.005	0.14	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	104	104	0.01	0.02	0.08	109	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.44	1.44	< 0.005	< 0.005	< 0.005	1.47	
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.15	4.15	< 0.005	< 0.005	< 0.005	4.34	
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.01	18.0	

3.5. Paving (2027) - Unmitigated

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

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

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Off-Road Equipment	2.74	2.30	21.7	31.1	0.04	0.93	—	0.93	0.86	—	0.86	—	4,722	4,722	0.19	0.04	—	4,738
Paving	7.62	7.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.78	2.56	< 0.005	0.08	—	0.08	0.07	—	0.07	—	388	388	0.02	< 0.005	—	389
Paving	0.63	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.33	0.47	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64.3	64.3	< 0.005	< 0.005	—	64.5
Paving	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.15	1.65	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	296	296	0.01	0.01	0.03	301
Vendor	0.07	0.03	1.33	0.61	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	854	854	0.03	0.12	0.05	892
Hauling	0.27	0.07	4.86	1.64	0.02	0.04	0.90	0.95	0.04	0.25	0.30	—	3,535	3,535	0.19	0.56	0.16	3,708
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24.4	24.4	< 0.005	< 0.005	0.04	24.8
Vendor	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	70.2	70.2	< 0.005	0.01	0.07	73.4
Hauling	0.02	0.01	0.40	0.13	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	291	291	0.02	0.05	0.22	305
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.03	4.03	< 0.005	< 0.005	0.01	4.10
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.6	11.6	< 0.005	< 0.005	0.01	12.1
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.1	48.1	< 0.005	0.01	0.04	50.5

3.7. Linear, Grubbing & Land Clearing (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	10.8	9.06	79.7	77.0	0.12	3.47	—	3.47	3.20	—	3.20	—	13,019	13,019	0.53	0.11	—	13,064
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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	10.8	9.06	79.7	77.0	0.12	3.47	—	3.47	3.20	—	3.20	—	13,019	13,019	0.53	0.11	—	13,064
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road	1.27	1.07	9.39	9.07	0.01	0.41	—	0.41	0.38	—	0.38	—	1,534	1,534	0.06	0.01	—	1,539
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.71	1.66	< 0.005	0.07	—	0.07	0.07	—	0.07	—	254	254	0.01	< 0.005	—	255
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.23	0.16	1.87	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	315	315	0.02	0.01	1.39	321
Vendor	0.08	0.04	1.40	0.67	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	888	888	0.04	0.12	2.26	928
Hauling	0.29	0.07	5.13	1.78	0.05	0.07	0.90	0.97	0.04	0.25	0.30	—	3,682	3,682	0.22	0.59	7.09	3,869
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.22	0.18	1.91	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	308	308	0.02	0.01	0.04	313
Vendor	0.08	0.04	1.44	0.69	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	889	889	0.04	0.12	0.06	927
Hauling	0.29	0.07	5.27	1.80	0.05	0.07	0.90	0.97	0.04	0.25	0.30	—	3,683	3,683	0.22	0.59	0.18	3,863
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.22	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	36.3	36.3	< 0.005	< 0.005	0.07	37.0
Vendor	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	< 0.005	0.01	0.12	109
Hauling	0.03	0.01	0.63	0.21	0.01	0.01	0.11	0.11	0.01	0.03	0.03	—	434	434	0.03	0.07	0.36	455
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.02	6.02	< 0.005	< 0.005	0.01	6.12
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.3	17.3	< 0.005	< 0.005	0.02	18.1

Hauling	0.01	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	71.8	71.8	< 0.005	0.01	0.06	75.4
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3.9. Drilling and Plowing (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.92	4.96	44.6	65.7	0.10	1.55	—	1.55	1.43	—	1.43	—	9,730	9,730	0.39	0.08	—	9,763
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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.92	4.96	44.6	65.7	0.10	1.55	—	1.55	1.43	—	1.43	—	9,730	9,730	0.39	0.08	—	9,763
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.34	1.96	17.6	25.9	0.04	0.61	—	0.61	0.56	—	0.56	—	3,839	3,839	0.16	0.03	—	3,852
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.43	0.36	3.21	4.73	0.01	0.11	—	0.11	0.10	—	0.10	—	636	636	0.03	0.01	—	638
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.23	0.16	1.87	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	315	315	0.02	0.01	1.39	321
Vendor	0.08	0.04	1.40	0.67	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	888	888	0.04	0.12	2.26	928
Hauling	0.29	0.07	5.13	1.78	0.05	0.07	0.90	0.97	0.04	0.25	0.30	—	3,682	3,682	0.22	0.59	7.09	3,869
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.22	0.18	1.91	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	308	308	0.02	0.01	0.04	313
Vendor	0.08	0.04	1.44	0.69	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	889	889	0.04	0.12	0.06	927
Hauling	0.29	0.07	5.27	1.80	0.05	0.07	0.90	0.97	0.04	0.25	0.30	—	3,683	3,683	0.22	0.59	0.18	3,863
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.07	0.74	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	122	122	0.01	0.01	0.24	124
Vendor	0.03	0.02	0.57	0.27	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	350	350	0.02	0.05	0.39	366
Hauling	0.12	0.03	2.10	0.70	0.02	0.03	0.35	0.38	0.02	0.10	0.12	—	1,453	1,453	0.09	0.23	1.21	1,525
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.1	20.1	< 0.005	< 0.005	0.04	20.5
Vendor	0.01	< 0.005	0.10	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.0	58.0	< 0.005	0.01	0.06	60.6
Hauling	0.02	0.01	0.38	0.13	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	241	241	0.01	0.04	0.20	253

3.11. Trenching and Installation (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	15.7	13.2	98.3	126	0.29	3.43	—	3.43	3.15	—	3.15	—	29,748	29,748	1.21	0.24	—	29,850
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.32	1.11	8.27	10.6	0.02	0.29	—	0.29	0.27	—	0.27	—	2,503	2,503	0.10	0.02	—	2,512
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.51	1.93	< 0.005	0.05	—	0.05	0.05	—	0.05	—	414	414	0.02	< 0.005	—	416
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	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.22	0.18	1.91	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	308	308	0.02	0.01	0.04	313	
Vendor	0.08	0.04	1.44	0.69	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	889	889	0.04	0.12	0.06	927	
Hauling	0.29	0.07	5.27	1.80	0.05	0.07	0.90	0.97	0.04	0.25	0.30	—	3,683	3,683	0.22	0.59	0.18	3,863	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.02	0.02	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.0	26.0	< 0.005	< 0.005	0.05	26.4	
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	74.7	74.7	< 0.005	0.01	0.08	78.0	
Hauling	0.02	0.01	0.45	0.15	< 0.005	0.01	0.08	0.08	< 0.005	0.02	0.02	—	310	310	0.02	0.05	0.26	325	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.30	4.30	< 0.005	< 0.005	0.01	4.37	
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.01	12.9	
Hauling	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	51.3	51.3	< 0.005	0.01	0.04	53.9	

3.13. Trenching and Installation (2026) - Unmitigated

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

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

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Off-Road Equipment	15.1	12.6	93.5	125	0.29	3.00	—	3.00	2.76	—	2.76	—	29,787	29,787	1.21	0.24	—	29,889
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	15.1	12.6	93.5	125	0.29	3.00	—	3.00	2.76	—	2.76	—	29,787	29,787	1.21	0.24	—	29,889
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	10.6	8.88	65.7	88.2	0.20	2.11	—	2.11	1.94	—	1.94	—	20,926	20,926	0.85	0.17	—	20,998
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipm	1.94	1.62	12.0	16.1	0.04	0.39	—	0.39	0.35	—	0.35	—	3,465	3,465	0.14	0.03	—	3,476
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.21	0.15	1.72	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	308	308	0.02	0.01	1.29	314
Vendor	0.08	0.04	1.34	0.62	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	872	872	0.03	0.12	2.10	912
Hauling	0.27	0.07	4.92	1.67	0.02	0.07	0.90	0.97	0.04	0.25	0.30	—	3,613	3,613	0.19	0.56	6.68	3,793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.21	0.16	1.77	0.00	0.00	0.31	0.31	0.00	0.07	0.07	—	302	302	0.01	0.01	0.03	306
Vendor	0.07	0.04	1.38	0.64	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	872	872	0.03	0.12	0.05	910
Hauling	0.27	0.07	5.07	1.69	0.02	0.07	0.90	0.97	0.04	0.25	0.30	—	3,614	3,614	0.19	0.56	0.17	3,787
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.11	1.20	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	212	212	0.01	0.01	0.39	216
Vendor	0.05	0.03	0.97	0.44	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	613	613	0.02	0.09	0.64	640
Hauling	0.19	0.05	3.58	1.18	0.02	0.05	0.63	0.67	0.03	0.18	0.21	—	2,539	2,539	0.14	0.40	2.03	2,662
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.22	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	35.1	35.1	< 0.005	< 0.005	0.06	35.7
Vendor	0.01	0.01	0.18	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	101	101	< 0.005	0.01	0.11	106
Hauling	0.03	0.01	0.65	0.21	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	420	420	0.02	0.07	0.34	441

4. Operations Emissions Details

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	12/26/2026	1/15/2027	5.00	15.0	—
Paving	Paving	1/16/2027	2/28/2027	5.00	30.0	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	3/1/2025	4/30/2025	5.00	43.0	—
Drilling and Plowing	Linear, Grading & Excavation	5/1/2025	11/18/2025	5.00	144	—
Trenching and Installation	Linear, Trenching	11/19/2025	12/25/2026	5.00	288	—

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	Rubber Tired Dozers	Diesel	Average	5.00	10.0	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	5.00	10.0	84.0	0.37
Paving	Pavers	Diesel	Average	5.00	10.0	81.0	0.42
Paving	Paving Equipment	Diesel	Average	5.00	10.0	89.0	0.36

Paving	Rollers	Diesel	Average	5.00	10.0	36.0	0.38
Linear, Grubbing & Land Clearing	Trenchers	Diesel	Average	10.0	10.0	40.0	0.50
Linear, Grubbing & Land Clearing	Rubber Tired Dozers	Diesel	Average	5.00	10.0	367	0.40
Linear, Grubbing & Land Clearing	Tractors/Loaders/Back hoes	Diesel	Average	5.00	10.0	84.0	0.37
Drilling and Plowing	Bore/Drill Rigs	Diesel	Average	5.00	10.0	83.0	0.50
Drilling and Plowing	Tractors/Loaders/Back hoes	Diesel	Average	10.0	10.0	84.0	0.37
Drilling and Plowing	Concrete/Industrial Saws	Diesel	Average	5.00	10.0	33.0	0.73
Drilling and Plowing	Trenchers	Diesel	Average	5.00	10.0	40.0	0.50
Drilling and Plowing	Excavators	Diesel	Average	5.00	10.0	36.0	0.38
Trenching and Installation	Off-Highway Trucks	Diesel	Average	10.0	10.0	376	0.38
Trenching and Installation	Trenchers	Diesel	Average	10.0	10.0	40.0	0.50
Trenching and Installation	Excavators	Diesel	Average	5.00	10.0	36.0	0.38
Trenching and Installation	Dumpers/Tenders	Diesel	Average	5.00	10.0	16.0	0.38
Trenching and Installation	Tractors/Loaders/Back hoes	Diesel	Average	5.00	10.0	84.0	0.37
Trenching and Installation	Bore/Drill Rigs	Diesel	Average	10.0	10.0	83.0	0.50
Trenching and Installation	Concrete/Industrial Saws	Diesel	Average	5.00	10.0	33.0	0.73
Trenching and Installation	Air Compressors	Diesel	Average	5.00	10.0	37.0	0.48

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	50.0	8.80	LDA,LDT1,LDT2
Site Preparation	Vendor	50.0	5.30	HHDT,MHDT
Site Preparation	Hauling	50.0	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	50.0	8.80	LDA,LDT1,LDT2
Paving	Vendor	50.0	5.30	HHDT,MHDT
Paving	Hauling	50.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	50.0	8.80	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	50.0	5.30	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	50.0	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Drilling and Plowing	—	—	—	—
Drilling and Plowing	Worker	50.0	8.80	LDA,LDT1,LDT2
Drilling and Plowing	Vendor	50.0	5.30	HHDT,MHDT
Drilling and Plowing	Hauling	50.0	20.0	HHDT
Drilling and Plowing	Onsite truck	—	—	HHDT
Trenching and Installation	—	—	—	—
Trenching and Installation	Worker	50.0	8.80	LDA,LDT1,LDT2
Trenching and Installation	Vendor	50.0	5.30	HHDT,MHDT
Trenching and Installation	Hauling	50.0	20.0	HHDT
Trenching and Installation	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)
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5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Paving	0.00	0.00	0.00	0.00	87.5
Trenching and Installation	87,040	87,040	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	87.3	100%
Other Non-Asphalt Surfaces	0.20	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	6.86	annual days of extreme heat

Extreme Precipitation	5.85	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	45.1	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	N/A	N/A	N/A	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	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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
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Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	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 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	11.6
AQ-PM	5.49
AQ-DPM	4.74
Drinking Water	74.4
Lead Risk Housing	24.6
Pesticides	80.6
Toxic Releases	7.85
Traffic	9.24

Effect Indicators	—
CleanUp Sites	27.5
Groundwater	91.8
Haz Waste Facilities/Generators	61.6
Impaired Water Bodies	77.3
Solid Waste	95.0
Sensitive Population	—
Asthma	21.7
Cardio-vascular	22.9
Low Birth Weights	46.5
Socioeconomic Factor Indicators	—
Education	54.8
Housing	16.3
Linguistic	33.3
Poverty	29.2
Unemployment	19.6

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	51.81573207
Employed	89.04144745
Median HI	57.39766457
Education	—
Bachelor's or higher	52.99627871
High school enrollment	8.995252149
Preschool enrollment	79.78955473

Transportation	—
Auto Access	76.73553189
Active commuting	34.12036443
Social	—
2-parent households	98.02386757
Voting	95.64994226
Neighborhood	—
Alcohol availability	42.91030412
Park access	29.57782625
Retail density	4.131913255
Supermarket access	27.678686
Tree canopy	56.03746952
Housing	—
Homeownership	70.96111895
Housing habitability	39.17618375
Low-inc homeowner severe housing cost burden	39.58680867
Low-inc renter severe housing cost burden	27.78134223
Uncrowded housing	43.53907353
Health Outcomes	—
Insured adults	38.07262928
Arthritis	0.0
Asthma ER Admissions	83.7
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	44.2
Cognitively Disabled	88.7
Physically Disabled	74.5
Heart Attack ER Admissions	64.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	60.6
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	0.2
SLR Inundation Area	0.0
Children	67.0
Elderly	27.8
English Speaking	67.2
Foreign-born	28.6
Outdoor Workers	53.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	87.6
Traffic Density	11.4
Traffic Access	0.0
Other Indices	—
Hardship	38.1

Other Decision Support	—
2016 Voting	95.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	28.0
Healthy Places Index Score for Project Location (b)	67.0
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	Based off the 24-month construction timeframe, as described in Project Description
Construction: Off-Road Equipment	Assumptions articulated in the Project Assumptions sheet.
Construction: Dust From Material Movement	See assumptions sheet
Construction: Trips and VMT	see assumptions sheet

