

California Emission Estimation Modeling
(CalEEMod) 2022.1

B
APPENDIX

Vertis Water Treatment Plant Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Vertis Water Treatment Plant
Construction Start Date	4/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	4.90
Precipitation (days)	0.80
Location	36.226453957164935, -121.12275728794273
County	Monterey
City	King City
Air District	Monterey Bay ARD
Air Basin	North Central Coast
TAZ	3215
EDFZ	6
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

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 Light Industry	8.50	1000sqft	0.20	8,500	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.	ROG	NOx	CO	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—
Unmit.	33.6	10.1	10.4	12.5	1,775
Average Daily (Max)	—	—	—	—	—
Unmit.	0.62	1.56	2.12	1.17	400
Annual (Max)	—	—	—	—	—
Unmit.	0.11	0.29	0.39	0.21	66.3
Exceeds (Daily Max)	—	—	—	—	—
Threshold	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	—
Exceeds (Average Daily)	—	—	—	—	—
Threshold	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	—

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	PM10T	CO2e
Daily - Summer (Max)	—	—	—	—	—
2025	33.6	10.1	10.4	12.5	1,775
Daily - Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—

2025	0.62	1.56	2.12	1.17	400
Annual	—	—	—	—	—
2025	0.11	0.29	0.39	0.21	66.3

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	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—
Unmit.	0.26	< 0.005	0.37	< 0.005	94.2
Daily, Winter (Max)	—	—	—	—	—
Unmit.	0.20	0.00	0.00	0.00	92.6
Average Daily (Max)	—	—	—	—	—
Unmit.	0.24	< 0.005	0.25	< 0.005	93.7
Annual (Max)	—	—	—	—	—
Unmit.	0.04	< 0.005	0.05	< 0.005	15.5
Exceeds (Daily Max)	—	—	—	—	—
Threshold	137	137	550	82.0	—
Unmit.	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—
Threshold	137	137	550	82.0	—
Unmit.	No	No	No	No	—

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	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00
Area	0.26	< 0.005	0.37	< 0.005	1.53

Energy	0.00	0.00	0.00	0.00	48.4
Water	—	—	—	—	22.2
Waste	—	—	—	—	19.9
Refrig.	—	—	—	—	2.21
Total	0.26	< 0.005	0.37	< 0.005	94.2
Daily, Winter (Max)	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00
Area	0.20	—	—	—	—
Energy	0.00	0.00	0.00	0.00	48.4
Water	—	—	—	—	22.2
Waste	—	—	—	—	19.9
Refrig.	—	—	—	—	2.21
Total	0.20	0.00	0.00	0.00	92.6
Average Daily	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00
Area	0.24	< 0.005	0.25	< 0.005	1.04
Energy	0.00	0.00	0.00	0.00	48.4
Water	—	—	—	—	22.2
Waste	—	—	—	—	19.9
Refrig.	—	—	—	—	2.21
Total	0.24	< 0.005	0.25	< 0.005	93.7
Annual	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00
Area	0.04	< 0.005	0.05	< 0.005	0.17
Energy	0.00	0.00	0.00	0.00	8.01
Water	—	—	—	—	3.67
Waste	—	—	—	—	3.29
Refrig.	—	—	—	—	0.37

Total	0.04	< 0.005	0.05	< 0.005	15.5
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3. Construction Emissions Details

3.1. Site Preparation (2025) - 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	PM10T	CO2e
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	0.47	4.16	5.57	0.21	862
Dust From Material Movement	—	—	—	0.53	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	2.36
Dust From Material Movement	—	—	—	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	0.39
Dust From Material Movement	—	—	—	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Worker	0.02	0.02	0.23	3.52	36.8
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.10
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - 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	PM10T	CO2e
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	1.09	10.1	10.0	0.46	1,720
Dust From Material Movement	—	—	—	5.31	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.06	< 0.005	9.42
Dust From Material Movement	—	—	—	0.03	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	1.56
Dust From Material Movement	—	—	—	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Worker	0.04	0.02	0.34	5.27	55.2

Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.29
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.05
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2025) - 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	PM10T	CO2e
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	0.52	5.14	6.94	0.22	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Off-Road Equipment	0.14	1.41	1.90	0.06	359
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	0.03	0.26	0.35	0.01	59.4
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—

Worker	0.02	0.01	0.16	2.51	26.3
Vendor	< 0.005	0.04	0.02	0.63	28.7
Hauling	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.69	6.81
Vendor	< 0.005	0.01	0.01	0.17	7.86
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.13	1.13
Vendor	< 0.005	< 0.005	< 0.005	0.03	1.30
Hauling	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2025) - 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	PM10T	CO2e
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	0.51	4.37	5.31	0.19	826
Paving	0.00	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.07	< 0.005	11.3
Paving	0.00	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	1.87

Paving	0.00	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Worker	0.08	0.06	0.79	12.3	129
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.17	1.67
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.28
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2025) - 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	PM10T	CO2e
Onsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	0.03	134
Architectural Coatings	33.5	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	1.84

Architectural Coatings	0.46	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	0.30
Architectural Coatings	0.08	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.50	5.25
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
Average Daily	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.07
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00
Hauling	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	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—
General Light Industry	—	—	—	—	48.4
Total	—	—	—	—	48.4
Daily, Winter (Max)	—	—	—	—	—
General Light Industry	—	—	—	—	48.4
Total	—	—	—	—	48.4
Annual	—	—	—	—	—
General Light Industry	—	—	—	—	8.01
Total	—	—	—	—	8.01

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	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—
General Light Industry	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—
General Light Industry	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—
General Light Industry	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00

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	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—
Consumer Products	0.18	—	—	—	—
Architectural Coatings	0.01	—	—	—	—
Landscape Equipment	0.06	< 0.005	0.37	< 0.005	1.53
Total	0.26	< 0.005	0.37	< 0.005	1.53
Daily, Winter (Max)	—	—	—	—	—
Consumer Products	0.18	—	—	—	—
Architectural Coatings	0.01	—	—	—	—
Total	0.20	—	—	—	—
Annual	—	—	—	—	—
Consumer Products	0.03	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.05	< 0.005	0.17
Total	0.04	< 0.005	0.05	< 0.005	0.17

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	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—
General Light Industry	—	—	—	—	22.2
Total	—	—	—	—	22.2
Daily, Winter (Max)	—	—	—	—	—
General Light Industry	—	—	—	—	22.2

Total	—	—	—	—	22.2
Annual	—	—	—	—	—
General Light Industry	—	—	—	—	3.67
Total	—	—	—	—	3.67

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	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—
General Light Industry	—	—	—	—	19.9
Total	—	—	—	—	19.9
Daily, Winter (Max)	—	—	—	—	—
General Light Industry	—	—	—	—	19.9
Total	—	—	—	—	19.9
Annual	—	—	—	—	—
General Light Industry	—	—	—	—	3.29
Total	—	—	—	—	3.29

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	PM10T	CO2e
Daily, Summer (Max)	—	—	—	—	—
General Light Industry	—	—	—	—	2.21
Total	—	—	—	—	2.21

Daily, Winter (Max)	—	—	—	—	—
General Light Industry	—	—	—	—	2.21
Total	—	—	—	—	2.21
Annual	—	—	—	—	—
General Light Industry	—	—	—	—	0.37
Total	—	—	—	—	0.37

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	PM10T	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	PM10T	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	PM10T	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	PM10T	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	PM10T	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	PM10T	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	4/16/2025	4/17/2025	5.00	1.00	—
Grading	Grading	4/18/2025	4/20/2025	5.00	2.00	—
Building Construction	Building Construction	4/21/2025	9/8/2025	5.00	100	—
Paving	Paving	9/9/2025	9/16/2025	5.00	5.00	—
Architectural Coating	Architectural Coating	9/17/2025	9/24/2025	5.00	5.00	—

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	148	0.41
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40

Grading	Tractors/Loaders/Back	Diesel	Average	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	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	5.00	9.47	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.03	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	7.50	9.47	LDA,LDT1,LDT2
Grading	Vendor	—	6.03	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	3.57	9.47	LDA,LDT1,LDT2

Building Construction	Vendor	1.39	6.03	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	9.47	LDA,LDT1,LDT2
Paving	Vendor	—	6.03	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.71	9.47	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.03	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	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)
Architectural Coating	0.00	0.00	12,750	4,250	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	0.50	0.00	—

Grading	—	—	1.50	0.00	—
Paving	0.00	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 Light 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
2025	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	12,750	4,250	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

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)
General Light Industry	85,732	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	1,965,625	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	10.5	—

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 Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

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
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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	10.7	annual days of extreme heat
Extreme Precipitation	2.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	31.4	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 $\frac{3}{4}$ 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
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	30.0
AQ-PM	1.29
AQ-DPM	4.87
Drinking Water	59.9
Lead Risk Housing	39.1
Pesticides	82.4
Toxic Releases	1.38
Traffic	5.55
Effect Indicators	—
CleanUp Sites	50.3
Groundwater	72.9
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	66.7
Solid Waste	52.9
Sensitive Population	—
Asthma	36.9

Cardio-vascular	77.0
Low Birth Weights	25.4
Socioeconomic Factor Indicators	—
Education	97.6
Housing	75.7
Linguistic	96.3
Poverty	82.9
Unemployment	59.4

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	25.39458488
Employed	22.3662261
Median HI	30.4889003
Education	—
Bachelor's or higher	4.606698319
High school enrollment	100
Preschool enrollment	29.69331451
Transportation	—
Auto Access	54.54895419
Active commuting	12.8576928
Social	—
2-parent households	31.70794303
Voting	34.42833312
Neighborhood	—
Alcohol availability	79.84088284

Park access	29.12870525
Retail density	3.464647761
Supermarket access	47.52983447
Tree canopy	3.438983703
Housing	—
Homeownership	44.28333119
Housing habitability	11.6514821
Low-inc homeowner severe housing cost burden	31.61811882
Low-inc renter severe housing cost burden	18.22148082
Uncrowded housing	3.708456307
Health Outcomes	—
Insured adults	11.40767355
Arthritis	0.0
Asthma ER Admissions	74.1
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	38.1
Cognitively Disabled	76.7
Physically Disabled	85.5
Heart Attack ER Admissions	40.0
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	42.4

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	0.0
Children	23.1
Elderly	90.8
English Speaking	3.6
Foreign-born	89.1
Outdoor Workers	0.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.5
Traffic Density	1.0
Traffic Access	0.0
Other Indices	—
Hardship	92.2
Other Decision Support	—
2016 Voting	27.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	58.0
Healthy Places Index Score for Project Location (b)	24.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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	No demolition required
Construction: On-Road Fugitive Dust	Worker, vendor, and hauling travel will primarily take place on paved roads.
Construction: Paving	—
Operations: Road Dust	Future operational vehicle travel will take place on paved roads.
Operations: Energy Use	Operation of the treatment facility will not require the use of natural gas.