APPENDIX B

Air Quality Analysis:
CalEEMod Modelling and Calculation Data (RECON)

Oceanside GPU - Construction Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Oceanside GPU - Construction
Construction Start Date	1/1/2025
Lead Agency	City of Oceanside
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	20.6
Location	33.19476677689441, -117.35644053868447
County	San Diego
City	Oceanside
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6233
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

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
Apartments Mid Rise	450	Dwelling Unit	4.00	432,000	35,000	0.00	1,255	—

Strip Mall	20.0	1000sqft	1.00	20,000	9,000	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.	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.	2.91	2.51	13.2	29.1	0.03	0.45	3.12	3.57	0.41	0.75	1.16	—	6,818	6,818	0.30	0.31	15.1	6,933
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.46	64.6	32.8	34.7	0.05	1.39	8.37	9.77	1.28	4.11	5.39	—	6,644	6,644	0.31	0.32	0.39	6,747
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.08	9.45	10.8	19.2	0.02	0.39	2.26	2.64	0.36	0.63	0.99	—	4,463	4,463	0.20	0.20	3.93	4,531
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	1.72	1.97	3.50	< 0.005	0.07	0.41	0.48	0.07	0.12	0.18	—	739	739	0.03	0.03	0.65	750
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	250	250	550	250	—	—	100	—	—	67.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	250	250	550	250	—	—	100	—	—	67.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

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	2.91	2.51	13.2	29.1	0.03	0.45	3.12	3.57	0.41	0.75	1.16	—	6,818	6,818	0.30	0.31	15.1	6,933
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.46	64.6	32.8	34.7	0.05	1.39	8.37	9.77	1.28	4.11	5.39	—	6,644	6,644	0.31	0.32	0.39	6,747
2026	2.67	2.29	12.6	26.3	0.03	0.40	3.12	3.52	0.37	0.75	1.11	—	6,560	6,560	0.30	0.32	0.36	6,663
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.08	9.45	10.8	19.2	0.02	0.39	2.26	2.64	0.36	0.63	0.99	—	4,463	4,463	0.20	0.20	3.93	4,531
2026	0.21	0.20	1.11	2.13	< 0.005	0.04	0.20	0.23	0.04	0.05	0.08	—	483	483	0.02	0.02	0.38	490
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.38	1.72	1.97	3.50	< 0.005	0.07	0.41	0.48	0.07	0.12	0.18	—	739	739	0.03	0.03	0.65	750
2026	0.04	0.04	0.20	0.39	< 0.005	0.01	0.04	0.04	0.01	0.01	0.01	—	80.0	80.0	< 0.005	< 0.005	0.06	81.2

3. Construction Emissions Details

3.1. Demolition (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.62	0.62	—	0.09	0.09	—	—	—	—	—	—	—
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	0.16	0.13	1.22	1.09	< 0.005	0.05	—	0.05	0.05	—	0.05	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
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	0.03	0.02	0.22	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
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	0.00	0.00
Hauling	0.06	0.02	1.12	0.41	0.01	0.02	0.21	0.23	0.02	0.06	0.07	—	827	827	0.05	0.13	0.05	867
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.43	7.43	< 0.005	< 0.005	0.01	7.54
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	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.3	45.3	< 0.005	0.01	0.04	47.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.23	1.23	< 0.005	< 0.005	< 0.005	1.25
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	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.50	7.50	< 0.005	< 0.005	0.01	7.87

3.3. 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	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	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314

Dust From Material Movemen	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
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	0.11	0.09	0.87	0.83	< 0.005	0.04	—	0.04	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movemen	—	—	—	—	—	—	0.21	0.21	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movemen	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
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	0.08	0.07	0.06	0.71	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	157	157	0.01	0.01	0.02	159
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	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	0.00	0.00

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	—	4.33	4.33	< 0.005	< 0.005	0.01	4.40
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
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	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	0.00	0.00

3.5. Grading (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.07	1.74	16.3	17.9	0.03	0.72	—	0.72	0.66	—	0.66	—	2,959	2,959	0.12	0.02	—	2,970
Dust From Material Movemen	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
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	0.11	0.10	0.89	0.98	< 0.005	0.04	—	0.04	0.04	—	0.04	—	162	162	0.01	< 0.005	—	163

Dust From Material Movemen	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
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	0.02	0.16	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movemen	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
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	0.06	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
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	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.43	7.43	< 0.005	< 0.005	0.01	7.54
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.23	1.23	< 0.005	< 0.005	< 0.005	1.25
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	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	0.00	0.00

3.7. 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	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	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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	0.77	0.64	5.97	7.45	0.01	0.25	—	0.25	0.23	—	0.23	—	1,370	1,370	0.06	0.01	—	1,375
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	0.14	0.12	1.09	1.36	< 0.005	0.05	—	0.05	0.04	—	0.04	—	227	227	0.01	< 0.005	—	228
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	1.45	1.33	1.01	15.3	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	3,135	3,135	0.15	0.11	11.8	3,183
Vendor	0.11	0.05	1.71	0.79	0.01	0.02	0.33	0.35	0.02	0.09	0.11	—	1,286	1,286	0.06	0.18	3.34	1,345
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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.43	1.31	1.13	13.4	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,960	2,960	0.16	0.12	0.31	2,999
Vendor	0.11	0.05	1.78	0.82	0.01	0.02	0.33	0.35	0.02	0.09	0.11	—	1,287	1,287	0.06	0.18	0.09	1,342
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.81	0.74	0.64	7.77	0.00	0.00	1.58	1.58	0.00	0.37	0.37	—	1,707	1,707	0.09	0.07	2.90	1,732
Vendor	0.06	0.03	1.01	0.46	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	—	735	735	0.03	0.10	0.83	768
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.12	1.42	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	283	283	0.01	0.01	0.48	287
Vendor	0.01	0.01	0.18	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	122	122	0.01	0.02	0.14	127
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	0.00	0.00

3.9. Building Construction (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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	0.08	0.06	0.60	0.79	< 0.005	0.02	—	0.02	0.02	—	0.02	—	145	145	0.01	< 0.005	—	146
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	0.01	0.01	0.11	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.1	24.1	< 0.005	< 0.005	—	24.2
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	1.30	1.18	1.03	12.6	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,900	2,900	0.15	0.12	0.28	2,939
Vendor	0.10	0.04	1.69	0.78	0.01	0.02	0.33	0.35	0.02	0.09	0.11	—	1,263	1,263	0.05	0.18	0.08	1,318
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.77	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	178	178	0.01	0.01	0.28	180
Vendor	0.01	< 0.005	0.10	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	76.6	76.6	< 0.005	0.01	0.08	80.0
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	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.4	29.4	< 0.005	< 0.005	0.05	29.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.01	13.3
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	0.00	0.00

3.11. Paving (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	0.68	6.23	8.81	0.01	0.26	—	0.26	0.24	—	0.24	—	1,350	1,350	0.05	0.01	—	1,355
Paving	—	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.04	0.04	0.34	0.48	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.0	74.0	< 0.005	< 0.005	—	74.2
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.2	12.2	< 0.005	< 0.005	—	12.3
Paving	—	< 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.76	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	176	176	0.01	0.01	0.02	178
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	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.71	9.71	< 0.005	< 0.005	0.02	9.85
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.61	1.61	< 0.005	< 0.005	< 0.005	1.63
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	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	0.00	0.00

3.13. 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	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	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	60.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.11	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Architectural Coatings	—	7.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.79	2.79	< 0.005	< 0.005	—	2.80
Architectural Coatings	—	1.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.29	0.26	0.23	2.68	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	592	592	0.03	0.02	0.06	600

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	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.34	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	75.3	75.3	< 0.005	< 0.005	0.13	76.4
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.02	12.6
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	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	0.00	0.00

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
Demolition	Demolition	1/1/2025	1/29/2025	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2025	2/13/2025	5.00	10.0	—

Grading	Grading	2/14/2025	3/14/2025	5.00	20.0	—
Building Construction	Building Construction	3/15/2025	1/31/2026	5.00	230	—
Paving	Paving	2/1/2026	3/1/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	1/10/2025	3/14/2025	5.00	46.0	—

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
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
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
Demolition	—	—	—	—
Demolition	Worker	15.0	12.0	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63	HHDT,MHDT
Demolition	Hauling	11.5	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	330	12.0	LDA,LDT1,LDT2

Building Construction	Vendor	51.4	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	66.1	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	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	874,800	291,600	30,000	10,000	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)

Demolition	0.00	0.00	0.00	20,000	—
Site Preparation	—	—	15.0	0.00	—
Grading	—	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	2.50

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	2.00	100%
Strip Mall	0.50	100%

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	589	0.03	< 0.005
2026	0.00	589	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

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	8.18	annual days of extreme heat
Extreme Precipitation	3.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	18.8	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	0	0	0	N/A
Drought	N/A	N/A	N/A	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	1	1	1	2
Drought	N/A	N/A	N/A	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 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	29.9
AQ-PM	46.1
AQ-DPM	66.0
Drinking Water	54.3
Lead Risk Housing	57.5
Pesticides	0.00
Toxic Releases	15.2
Traffic	60.3
Effect Indicators	—
CleanUp Sites	2.07
Groundwater	74.8
Haz Waste Facilities/Generators	58.3
Impaired Water Bodies	72.2
Solid Waste	72.4

Sensitive Population	—
Asthma	22.2
Cardio-vascular	30.5
Low Birth Weights	46.8
Socioeconomic Factor Indicators	—
Education	77.1
Housing	88.5
Linguistic	61.1
Poverty	77.4
Unemployment	89.2

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	17.87501604
Employed	27.87116643
Median HI	22.85384319
Education	—
Bachelor's or higher	22.50737842
High school enrollment	100
Preschool enrollment	63.42871808
Transportation	—
Auto Access	21.39099192
Active commuting	68.24072886
Social	—
2-parent households	76.04260234

Voting	42.74348775
Neighborhood	—
Alcohol availability	37.28987553
Park access	81.35506224
Retail density	97.33093802
Supermarket access	81.40639035
Tree canopy	34.83895804
Housing	—
Homeownership	14.03823945
Housing habitability	33.85089183
Low-inc homeowner severe housing cost burden	78.50635185
Low-inc renter severe housing cost burden	33.00397793
Uncrowded housing	30.36058001
Health Outcomes	—
Insured adults	11.03554472
Arthritis	56.7
Asthma ER Admissions	38.3
High Blood Pressure	82.7
Cancer (excluding skin)	71.8
Asthma	19.7
Coronary Heart Disease	51.0
Chronic Obstructive Pulmonary Disease	22.0
Diagnosed Diabetes	44.3
Life Expectancy at Birth	36.7
Cognitively Disabled	44.8
Physically Disabled	46.5
Heart Attack ER Admissions	36.2

Mental Health Not Good	16.4
Chronic Kidney Disease	45.1
Obesity	30.3
Pedestrian Injuries	80.7
Physical Health Not Good	28.8
Stroke	39.4
Health Risk Behaviors	—
Binge Drinking	22.7
Current Smoker	17.7
No Leisure Time for Physical Activity	26.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	12.4
Elderly	86.3
English Speaking	14.5
Foreign-born	60.4
Outdoor Workers	30.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	45.1
Traffic Density	89.8
Traffic Access	59.1
Other Indices	—
Hardship	68.4
Other Decision Support	—
2016 Voting	49.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	63.0
Healthy Places Index Score for Project Location (b)	32.0
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
Land Use	450 units, 20,000 sf retail
Construction: Construction Phases	Architectural coatings simultaneous with last 20% of building construction
Construction: Paving	50% paved

BASELINE 2016

Summer	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	977.24	760.91	2,353.82	17,841.62	30.34	41.55	2,248.46	2,290.01	39.26	570.33	609.59
Area	753.85	4,796.41	56.98	5,125.49	0.25	6.46		6.46	4.88		4.88
Energy	61.80	30.90	539.38	307.09	3.37	42.70		42.70	42.70		42.70
Total	1,792.89	5,588.23	2,950.18	23,274.20	33.97	90.71	2,248.46	2,339.17	86.84	570.33	657.17

Winter	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	992.08	778.10	2,584.06	15,470.01	28.85	41.55	2,248.46	2,290.01	39.26	570.33	609.59
Area	0.00	4,084.86	0.00	0.00	0.00	0.00		0.00	0.00		0.00
Energy	61.80	30.90	539.38	307.09	3.37	42.70		42.70	42.70		42.70
Total	1,053.89	4,893.87	3,123.44	15,777.10	32.22	84.25	2,248.46	2,332.71	81.96	570.33	652.30

ADOPTED GENERAL PLAN 2050

Summer	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	274.17	213.93	317.67	5,797.77	20.84	7.77	2,362.74	2,370.50	7.28	598.83	606.11
Area	687.45	4,140.07	52.31	5,843.86	0.28	4.96		4.96	3.75		3.75
Energy	72.66	36.33	637.46	385.75	3.96	50.20		50.20	50.20		50.20
Total	1,034.27	4,390.34	1,007.44	12,027.38	25.09	62.93	2,362.74	2,425.67	61.23	598.83	660.06

Winter	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	265.28	207.08	348.95	4,909.13	19.84	7.77	2,362.74	2,370.50	7.28	598.83	606.11
Area	0.00	3,496.68	0.00	0.00	0.00	0.00		0.00	0.00		0.00
Energy	72.66	36.33	637.46	385.75	3.96	50.20		50.20	50.20		50.20
Total	337.94	3,740.09	986.41	5,294.87	23.81	57.97	2,362.74	2,420.70	57.48	598.83	656.31

GPU 2050

Summer	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	316.29	246.80	366.48	6,688.57	24.05	8.96	2,725.76	2,734.72	8.39	690.84	699.24
Area	777.39	4,667.33	60.11	6,704.49	0.32	5.52		5.52	4.18		4.18
Energy	81.08	40.54	711.17	429.33	4.42	56.02		56.02	56.02		56.02
Total	1,174.76	4,954.67	1,137.77	13,822.39	28.79	70.50	2,725.76	2,796.26	68.59	690.84	759.43

Winter	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	306.04	238.90	402.56	5,663.39	22.89	8.96	2,725.76	2,734.72	8.39	690.84	699.24
Area	0.00	3,939.32	0.00	0.00	0.00	0.00		0.00	0.00		0.00
Energy	81.08	40.54	711.17	429.33	4.42	56.02		56.02	56.02		56.02
Total	387.12	4,218.76	1,113.73	6,092.72	27.32	64.98	2,725.76	2,790.74	64.41	690.84	755.25

Change over Existing	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	-67.6%	-67.6%	-84.4%	-62.5%	-20.8%	-78.4%	21.2%	19.4%	-78.6%	21.1%	14.7%
Area	3.1%	-2.7%	5.5%	30.8%	27.3%	-14.5%		-14.5%	-14.4%		-14.4%
Energy	31.2%	31.2%	31.9%	39.8%	31.2%	31.2%		31.2%	31.2%		31.2%
Total	-34.5%	-11.3%	-61.4%	-40.6%	-15.2%	-22.3%	21.2%	19.5%	-21.0%	21.1%	15.6%

	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	-69.2%	-69.3%	-84.4%	-63.4%	-20.6%	-78.4%	21.2%	19.4%	-78.6%	21.1%	14.7%
Area		-3.6%									
Energy	31.2%	31.2%	31.9%	39.8%	31.2%	31.2%	#VALUE!	31.2%	31.2%	#VALUE!	31.2%
Total	-63.3%	-13.8%	-64.3%	-61.4%	-15.2%	-22.9%	21.2%	19.6%	-21.4%	21.1%	15.8%

Change over Adopted	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%
Area	13.1%	12.7%	14.9%	14.7%	14.0%	11.2%		11.2%	11.2%		11.2%
Energy	11.6%	11.6%	11.6%	11.3%	11.6%	11.6%		11.6%	11.6%		11.6%
Total	13.6%	12.9%	12.9%	14.9%	14.8%	12.0%	15.4%	15.3%	12.0%	15.4%	15.1%

	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Mobile	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%
Area		12.7%									
Energy	11.6%	11.6%	11.6%	11.3%	11.6%	11.6%		11.6%	11.6%		11.6%
Total	14.6%	12.8%	12.9%	15.1%	14.7%	12.1%	15.4%	15.3%	12.1%	15.4%	15.1%

Oceanside GPU - Baseline 2016 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Oceanside GPU - Baseline 2016
Operational Year	2016
Lead Agency	City of Oceanside
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	20.6
Location	Oceanside, CA, USA
County	San Diego
City	Oceanside
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6231
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

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
Single Family Housing	43,086	Dwelling Unit	8,000	84,017,700	0.00	—	120,210	—

Apartments Mid Rise	23,506	Dwelling Unit	619	22,565,760	0.00	—	65,582	—
Strip Mall	16,830	1000sqft	386	16,830,159	0.00	—	—	—
General Office Building	814	1000sqft	18.7	814,230	0.00	—	—	—
General Light Industry	10,505	1000sqft	241	10,504,727	0.00	—	—	—
Hotel	2,704	Room	90.1	3,926,208	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	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.	1,793	5,588	2,950	23,274	34.0	90.7	2,248	2,339	86.8	570	657	54,413	4,879,122	4,933,535	5,724	162	24,428	5,149,413
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,054	4,894	3,123	15,777	32.2	84.3	2,248	2,333	82.0	570	652	54,413	4,712,102	4,766,514	5,723	171	10,123	4,970,817
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,419	5,238	3,130	18,565	32.6	87.4	2,219	2,306	84.4	563	647	54,413	4,742,861	4,797,274	5,723	170	16,083	5,007,219

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	259	956	571	3,388	5.94	16.0	405	421	15.4	103	118	9,009	785,235	794,243	948	28.2	2,663	829,002

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	977	761	2,354	17,842	30.3	41.6	2,248	2,290	39.3	570	610	—	3,081,143	3,081,143	133	124	14,685	3,136,157
Area	754	4,796	57.0	5,125	0.25	6.46	—	6.46	4.88	—	4.88	0.00	15,838	15,838	0.66	0.13	—	15,894
Energy	61.8	30.9	539	307	3.37	42.7	—	42.7	42.7	—	42.7	—	1,713,721	1,713,721	118	8.35	—	1,719,153
Water	—	—	—	—	—	—	—	—	—	—	—	11,936	68,421	80,357	1,228	29.5	—	119,853
Waste	—	—	—	—	—	—	—	—	—	—	—	42,477	0.00	42,477	4,245	0.00	—	148,612
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9,742	9,742
Total	1,793	5,588	2,950	23,274	34.0	90.7	2,248	2,339	86.8	570	657	54,413	4,879,122	4,933,535	5,724	162	24,428	5,149,413
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	992	778	2,584	15,470	28.8	41.6	2,248	2,290	39.3	570	610	—	2,929,960	2,929,960	132	134	381	2,973,455
Area	0.00	4,085	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	61.8	30.9	539	307	3.37	42.7	—	42.7	42.7	—	42.7	—	1,713,721	1,713,721	118	8.35	—	1,719,153
Water	—	—	—	—	—	—	—	—	—	—	—	11,936	68,421	80,357	1,228	29.5	—	119,853
Waste	—	—	—	—	—	—	—	—	—	—	—	42,477	0.00	42,477	4,245	0.00	—	148,612
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9,742	9,742

Total	1,054	4,894	3,123	15,777	32.2	84.3	2,248	2,333	82.0	570	652	54,413	4,712,10	4,766,51	5,723	171	10,123	4,970,81
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	985	771	2,562	15,730	29.1	41.6	2,219	2,260	39.3	563	602	—	2,952,90 9	2,952,90 9	132	132	6,341	3,002,02 0
Area	372	4,436	28.1	2,528	0.12	3.19	—	3.19	2.41	—	2.41	0.00	7,810	7,810	0.33	0.07	—	7,838
Energy	61.8	30.9	539	307	3.37	42.7	—	42.7	42.7	—	42.7	—	1,713,72 1	1,713,72 1	118	8.35	—	1,719,15 3
Water	—	—	—	—	—	—	—	—	—	—	—	11,936	68,421	80,357	1,228	29.5	—	119,853
Waste	—	—	—	—	—	—	—	—	—	—	—	42,477	0.00	42,477	4,245	0.00	—	148,612
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9,742	9,742
Total	1,419	5,238	3,130	18,565	32.6	87.4	2,219	2,306	84.4	563	647	54,413	4,742,86 1	4,797,27 4	5,723	170	16,083	5,007,21 9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	180	141	468	2,871	5.31	7.58	405	412	7.17	103	110	—	488,888	488,888	21.9	21.9	1,050	497,019
Area	67.8	810	5.13	461	0.02	0.58	—	0.58	0.44	—	0.44	0.00	1,293	1,293	0.05	0.01	—	1,298
Energy	11.3	5.64	98.4	56.0	0.62	7.79	—	7.79	7.79	—	7.79	—	283,726	283,726	19.5	1.38	—	284,625
Water	—	—	—	—	—	—	—	—	—	—	—	1,976	11,328	13,304	203	4.89	—	19,843
Waste	—	—	—	—	—	—	—	—	—	—	—	7,033	0.00	7,033	703	0.00	—	24,604
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,613	1,613
Total	259	956	571	3,388	5.94	16.0	405	421	15.4	103	118	9,009	785,235	794,243	948	28.2	2,663	829,002

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	426,977	426,977	23.9	2.90	—	428,440
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	128,617	128,617	7.21	0.87	—	129,058
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	239,386	239,386	13.4	1.63	—	240,206
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21,803	21,803	1.22	0.15	—	21,878
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	152,108	152,108	8.52	1.03	—	152,629
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	74,432	74,432	4.17	0.51	—	74,687
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,043,324	1,043,324	58.5	7.09	—	1,046,897
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	426,977	426,977	23.9	2.90	—	428,440
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	128,617	128,617	7.21	0.87	—	129,058

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	239,386	239,386	13.4	1.63	—	240,206
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21,803	21,803	1.22	0.15	—	21,878
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	152,108	152,108	8.52	1.03	—	152,629
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	74,432	74,432	4.17	0.51	—	74,687
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,043,324	1,043,324	58.5	7.09	—	1,046,897
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	70,691	70,691	3.96	0.48	—	70,933
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	21,294	21,294	1.19	0.14	—	21,367
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	39,633	39,633	2.22	0.27	—	39,769
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	3,610	3,610	0.20	0.02	—	3,622
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	25,183	25,183	1.41	0.17	—	25,269
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	12,323	12,323	0.69	0.08	—	12,365
Total	—	—	—	—	—	—	—	—	—	—	—	—	172,734	172,734	9.68	1.17	—	173,326

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	36.3	18.2	310	132	1.98	25.1	—	25.1	25.1	—	25.1	—	393,774	393,774	34.8	0.74	—	394,866
Apartments Mid Rise	4.92	2.46	42.0	17.9	0.27	3.40	—	3.40	3.40	—	3.40	—	53,324	53,324	4.72	0.10	—	53,472
Strip Mall	2.15	1.08	19.6	16.4	0.12	1.49	—	1.49	1.49	—	1.49	—	23,341	23,341	2.07	0.04	—	23,406
General Office Building	0.77	0.39	7.00	5.88	0.04	0.53	—	0.53	0.53	—	0.53	—	8,356	8,356	0.74	0.02	—	8,380
General Light Industry	12.5	6.26	114	95.7	0.68	8.66	—	8.66	8.66	—	8.66	—	135,891	135,891	12.0	0.26	—	136,268
Hotel	5.14	2.57	46.7	39.2	0.28	3.55	—	3.55	3.55	—	3.55	—	55,710	55,710	4.93	0.10	—	55,865
Total	61.8	30.9	539	307	3.37	42.7	—	42.7	42.7	—	42.7	—	670,397	670,397	59.3	1.26	—	672,256
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	36.3	18.2	310	132	1.98	25.1	—	25.1	25.1	—	25.1	—	393,774	393,774	34.8	0.74	—	394,866
Apartments Mid Rise	4.92	2.46	42.0	17.9	0.27	3.40	—	3.40	3.40	—	3.40	—	53,324	53,324	4.72	0.10	—	53,472
Strip Mall	2.15	1.08	19.6	16.4	0.12	1.49	—	1.49	1.49	—	1.49	—	23,341	23,341	2.07	0.04	—	23,406
General Office Building	0.77	0.39	7.00	5.88	0.04	0.53	—	0.53	0.53	—	0.53	—	8,356	8,356	0.74	0.02	—	8,380
General Light Industry	12.5	6.26	114	95.7	0.68	8.66	—	8.66	8.66	—	8.66	—	135,891	135,891	12.0	0.26	—	136,268
Hotel	5.14	2.57	46.7	39.2	0.28	3.55	—	3.55	3.55	—	3.55	—	55,710	55,710	4.93	0.10	—	55,865

Total	61.8	30.9	539	307	3.37	42.7	—	42.7	42.7	—	42.7	—	670,397	670,397	59.3	1.26	—	672,256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	6.63	3.31	56.6	24.1	0.36	4.58	—	4.58	4.58	—	4.58	—	65,194	65,194	5.77	0.12	—	65,375
Apartments Mid Rise	0.90	0.45	7.67	3.26	0.05	0.62	—	0.62	0.62	—	0.62	—	8,828	8,828	0.78	0.02	—	8,853
Strip Mall	0.39	0.20	3.57	3.00	0.02	0.27	—	0.27	0.27	—	0.27	—	3,864	3,864	0.34	0.01	—	3,875
General Office Building	0.14	0.07	1.28	1.07	0.01	0.10	—	0.10	0.10	—	0.10	—	1,383	1,383	0.12	< 0.005	—	1,387
General Light Industry	2.29	1.14	20.8	17.5	0.12	1.58	—	1.58	1.58	—	1.58	—	22,498	22,498	1.99	0.04	—	22,561
Hotel	0.94	0.47	8.52	7.16	0.05	0.65	—	0.65	0.65	—	0.65	—	9,223	9,223	0.82	0.02	—	9,249
Total	11.3	5.64	98.4	56.0	0.62	7.79	—	7.79	7.79	—	7.79	—	110,992	110,992	9.82	0.21	—	111,300

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	2,967	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1,118	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	754	712	57.0	5,125	0.25	6.46	—	6.46	4.88	—	4.88	—	15,838	15,838	0.66	0.13	—	15,894
Total	754	4,796	57.0	5,125	0.25	6.46	—	6.46	4.88	—	4.88	0.00	15,838	15,838	0.66	0.13	—	15,894
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consum er Products	—	2,967	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	—	1,118	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	4,085	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consum er Products	—	542	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coatings	—	204	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipme nt	67.8	64.0	5.13	461	0.02	0.58	—	0.58	0.44	—	0.44	—	1,293	1,293	0.05	0.01	—	1,298
Total	67.8	810	5.13	461	0.02	0.58	—	0.58	0.44	—	0.44	0.00	1,293	1,293	0.05	0.01	—	1,298

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2,901	16,628	19,529	298	7.18	—	29,127
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1,583	9,072	10,654	163	3.92	—	15,891
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2,389	13,694	16,083	246	5.91	—	23,988
General Office Building	—	—	—	—	—	—	—	—	—	—	—	277	1,590	1,867	28.5	0.69	—	2,785
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	4,655	26,684	31,339	479	11.5	—	46,743
Hotel	—	—	—	—	—	—	—	—	—	—	—	131	753	885	13.5	0.33	—	1,320
Total	—	—	—	—	—	—	—	—	—	—	—	11,936	68,421	80,357	1,228	29.5	—	119,853
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2,901	16,628	19,529	298	7.18	—	29,127
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1,583	9,072	10,654	163	3.92	—	15,891
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2,389	13,694	16,083	246	5.91	—	23,988
General Office Building	—	—	—	—	—	—	—	—	—	—	—	277	1,590	1,867	28.5	0.69	—	2,785

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	4,655	26,684	31,339	479	11.5	—	46,743
Hotel	—	—	—	—	—	—	—	—	—	—	—	131	753	885	13.5	0.33	—	1,320
Total	—	—	—	—	—	—	—	—	—	—	—	11,936	68,421	80,357	1,228	29.5	—	119,853
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	480	2,753	3,233	49.4	1.19	—	4,822
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	262	1,502	1,764	26.9	0.65	—	2,631
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	396	2,267	2,663	40.7	0.98	—	3,971
General Office Building	—	—	—	—	—	—	—	—	—	—	—	45.9	263	309	4.72	0.11	—	461
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	771	4,418	5,189	79.3	1.91	—	7,739
Hotel	—	—	—	—	—	—	—	—	—	—	—	21.8	125	147	2.24	0.05	—	219
Total	—	—	—	—	—	—	—	—	—	—	—	1,976	11,328	13,304	203	4.89	—	19,843

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

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15,359	0.00	15,359	1,535	0.00	—	53,736
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9,368	0.00	9,368	936	0.00	—	32,775
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9,524	0.00	9,524	952	0.00	—	33,321
General Office Building	—	—	—	—	—	—	—	—	—	—	—	408	0.00	408	40.8	0.00	—	1,428
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	7,020	0.00	7,020	702	0.00	—	24,561
Hotel	—	—	—	—	—	—	—	—	—	—	—	798	0.00	798	79.7	0.00	—	2,791
Total	—	—	—	—	—	—	—	—	—	—	—	42,477	0.00	42,477	4,245	0.00	—	148,612
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15,359	0.00	15,359	1,535	0.00	—	53,736
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9,368	0.00	9,368	936	0.00	—	32,775
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9,524	0.00	9,524	952	0.00	—	33,321
General Office Building	—	—	—	—	—	—	—	—	—	—	—	408	0.00	408	40.8	0.00	—	1,428
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	7,020	0.00	7,020	702	0.00	—	24,561
Hotel	—	—	—	—	—	—	—	—	—	—	—	798	0.00	798	79.7	0.00	—	2,791
Total	—	—	—	—	—	—	—	—	—	—	—	42,477	0.00	42,477	4,245	0.00	—	148,612
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2,543	0.00	2,543	254	0.00	—	8,897
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1,551	0.00	1,551	155	0.00	—	5,426
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1,577	0.00	1,577	158	0.00	—	5,517
General Office Building	—	—	—	—	—	—	—	—	—	—	—	67.6	0.00	67.6	6.75	0.00	—	236
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1,162	0.00	1,162	116	0.00	—	4,066
Hotel	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Total	—	—	—	—	—	—	—	—	—	—	—	7,033	0.00	7,033	703	0.00	—	24,604

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	602	602
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	162	162
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	105	105

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.98	1.98
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,734	2,734
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,138	6,138
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9,742	9,742
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	602	602
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	162	162
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	105	105
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.98	1.98
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,734	2,734
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,138	6,138
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9,742	9,742
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	99.6	99.6
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26.8	26.8
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.4	17.4

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.33	0.33
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	453	453
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,016	1,016
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,613	1,613

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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. 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)

Equipme Type	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. 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	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. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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	3,183,465	3,183,465	3,183,465	1,161,964,725

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	43086
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	235060
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
215831506.5	71,943,836	48,112,986	16,037,662	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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)
Single Family Housing	264,603,086	589	0.0330	0.0040	1,228,680,585
Apartments Mid Rise	79,705,788	589	0.0330	0.0040	166,385,724
Strip Mall	148,350,423	589	0.0330	0.0040	72,831,107
General Office Building	13,511,794	589	0.0330	0.0040	26,074,109
General Light Industry	94,263,317	589	0.0330	0.0040	424,015,522
Hotel	46,126,416	589	0.0330	0.0040	173,831,011

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	1,513,743,669	0.00
Apartments Mid Rise	825,838,061	0.00
Strip Mall	1,246,652,314	0.00
General Office Building	144,716,150	0.00
General Light Industry	2,429,218,119	0.00
Hotel	68,591,746	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	28,499	—
Apartments Mid Rise	17,382	—
Strip Mall	17,672	—

General Office Building	757	—
General Light Industry	13,026	—
Hotel	1,480	—

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
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00

Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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

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	7.71	annual days of extreme heat
Extreme Precipitation	2.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	21.9	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	0	0	0	N/A
Drought	N/A	N/A	N/A	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	1	1	1	2
Drought	N/A	N/A	N/A	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 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	29.9
AQ-PM	49.8
AQ-DPM	90.7
Drinking Water	54.3
Lead Risk Housing	49.8
Pesticides	0.00
Toxic Releases	15.6
Traffic	72.5
Effect Indicators	—
CleanUp Sites	42.6
Groundwater	70.3
Haz Waste Facilities/Generators	7.35
Impaired Water Bodies	83.0
Solid Waste	35.7
Sensitive Population	—
Asthma	31.1
Cardio-vascular	49.3

Low Birth Weights	15.0
Socioeconomic Factor Indicators	—
Education	52.3
Housing	50.3
Linguistic	44.4
Poverty	68.6
Unemployment	70.9

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	38.58591043
Employed	52.13653279
Median HI	29.38534582
Education	—
Bachelor's or higher	59.05299628
High school enrollment	0.115488259
Preschool enrollment	95.7141024
Transportation	—
Auto Access	17.29757475
Active commuting	80.14885153
Social	—
2-parent households	0.731425638
Voting	47.61965867
Neighborhood	—
Alcohol availability	4.516874118

Park access	81.35506224
Retail density	80.05902733
Supermarket access	87.25779546
Tree canopy	10.61208777
Housing	—
Homeownership	10.18863082
Housing habitability	56.62774285
Low-inc homeowner severe housing cost burden	79.66123444
Low-inc renter severe housing cost burden	80.16168356
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	54.27948159
Arthritis	20.2
Asthma ER Admissions	38.3
High Blood Pressure	40.5
Cancer (excluding skin)	36.4
Asthma	23.6
Coronary Heart Disease	19.3
Chronic Obstructive Pulmonary Disease	12.3
Diagnosed Diabetes	34.4
Life Expectancy at Birth	26.1
Cognitively Disabled	21.0
Physically Disabled	21.0
Heart Attack ER Admissions	36.2
Mental Health Not Good	28.5
Chronic Kidney Disease	27.1
Obesity	39.2

Pedestrian Injuries	98.6
Physical Health Not Good	32.6
Stroke	22.5
Health Risk Behaviors	—
Binge Drinking	32.5
Current Smoker	28.0
No Leisure Time for Physical Activity	38.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	79.9
Children	56.6
Elderly	27.8
English Speaking	67.4
Foreign-born	16.0
Outdoor Workers	33.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	9.9
Traffic Density	92.4
Traffic Access	71.0
Other Indices	—
Hardship	44.7
Other Decision Support	—
2016 Voting	55.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	51.0

Healthy Places Index Score for Project Location (b)	14.0
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
Land Use	Baseline year 2016 land uses
Operations: Hearths	No fireplaces or woodstoves modeled

Oceanside GPU - Adopted General Plan 2050 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Oceanside GPU - Adopted General Plan 2050
Operational Year	2050
Lead Agency	City of Oceanside
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	20.6
Location	Oceanside, CA, USA
County	San Diego
City	Oceanside
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6231
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

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
Single Family Housing	43,176	Dwelling Unit	8,000	84,193,200	0.00	—	120,461	—

Apartments Mid Rise	28,184	Dwelling Unit	742	27,056,640	0.00	—	78,633	—
Strip Mall	17,331	1000sqft	398	17,330,988	0.00	—	—	—
General Office Building	1,928	1000sqft	44.3	1,928,100	0.00	—	—	—
General Light Industry	15,983	1000sqft	367	15,983,425	0.00	—	—	—
Hotel	3,834	Room	128	5,566,968	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	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.	1,034	4,390	1,007	12,027	25.1	62.9	2,363	2,426	61.2	599	660	64,400	3,300,519	3,364,918	6,660	101	14,017	3,575,665
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	338	3,740	986	5,295	23.8	58.0	2,363	2,421	57.5	599	656	64,400	3,181,357	3,245,756	6,658	104	13,779	3,456,946
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	679	4,059	1,009	8,316	24.1	60.4	2,331	2,392	59.3	591	650	64,400	3,205,761	3,270,161	6,659	104	13,878	3,481,405

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	124	741	184	1,518	4.40	11.0	425	437	10.8	108	119	10,662	530,750	541,412	1,102	17.2	2,298	576,386

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	274	214	318	5,798	20.8	7.77	2,363	2,371	7.28	599	606	—	2,118,633	2,118,633	40.7	53.9	245	2,135,965
Area	687	4,140	52.3	5,844	0.28	4.96	—	4.96	3.75	—	3.75	0.00	18,123	18,123	0.76	0.15	—	18,187
Energy	72.7	36.3	637	386	3.96	50.2	—	50.2	50.2	—	50.2	—	1,138,684	1,138,684	138	9.75	—	1,145,038
Water	—	—	—	—	—	—	—	—	—	—	—	15,190	25,079	40,269	1,562	37.6	—	90,534
Waste	—	—	—	—	—	—	—	—	—	—	—	49,210	0.00	49,210	4,918	0.00	—	172,168
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13,773	13,773
Total	1,034	4,390	1,007	12,027	25.1	62.9	2,363	2,426	61.2	599	660	64,400	3,300,519	3,364,918	6,660	101	14,017	3,575,665
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	265	207	349	4,909	19.8	7.77	2,363	2,371	7.28	599	606	—	2,017,594	2,017,594	39.2	56.6	6.34	2,035,433
Area	0.00	3,497	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	72.7	36.3	637	386	3.96	50.2	—	50.2	50.2	—	50.2	—	1,138,684	1,138,684	138	9.75	—	1,145,038
Water	—	—	—	—	—	—	—	—	—	—	—	15,190	25,079	40,269	1,562	37.6	—	90,534
Waste	—	—	—	—	—	—	—	—	—	—	—	49,210	0.00	49,210	4,918	0.00	—	172,168
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13,773	13,773

Total	338	3,740	986	5,295	23.8	58.0	2,363	2,421	57.5	599	656	64,400	3,181,35	3,245,75	6,658	104	13,779	3,456,94
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	268	209	346	5,048	20.0	7.77	2,331	2,339	7.28	591	598	—	2,033,061	2,033,061	39.6	56.3	106	2,050,923
Area	339	3,814	25.8	2,882	0.14	2.45	—	2.45	1.85	—	1.85	0.00	8,937	8,937	0.37	0.08	—	8,969
Energy	72.7	36.3	637	386	3.96	50.2	—	50.2	50.2	—	50.2	—	1,138,684	1,138,684	138	9.75	—	1,145,038
Water	—	—	—	—	—	—	—	—	—	—	—	15,190	25,079	40,269	1,562	37.6	—	90,534
Waste	—	—	—	—	—	—	—	—	—	—	—	49,210	0.00	49,210	4,918	0.00	—	172,168
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13,773	13,773
Total	679	4,059	1,009	8,316	24.1	60.4	2,331	2,392	59.3	591	650	64,400	3,205,761	3,270,161	6,659	104	13,878	3,481,405
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	48.9	38.2	63.2	921	3.65	1.42	425	427	1.33	108	109	—	336,596	336,596	6.56	9.32	17.5	339,554
Area	61.9	696	4.71	526	0.03	0.45	—	0.45	0.34	—	0.34	0.00	1,480	1,480	0.06	0.01	—	1,485
Energy	13.3	6.63	116	70.4	0.72	9.16	—	9.16	9.16	—	9.16	—	188,522	188,522	22.8	1.61	—	189,574
Water	—	—	—	—	—	—	—	—	—	—	—	2,515	4,152	6,667	259	6.22	—	14,989
Waste	—	—	—	—	—	—	—	—	—	—	—	8,147	0.00	8,147	814	0.00	—	28,504
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,280	2,280
Total	124	741	184	1,518	4.40	11.0	425	437	10.8	108	119	10,662	530,750	541,412	1,102	17.2	2,298	576,386

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	123,233	123,233	24.0	2.91	—	124,698
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	44,416	44,416	8.64	1.05	—	44,944
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	70,998	70,998	13.8	1.67	—	71,843
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	14,870	14,870	2.89	0.35	—	15,047
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	66,658	66,658	13.0	1.57	—	67,451
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	30,396	30,396	5.91	0.72	—	30,758
Total	—	—	—	—	—	—	—	—	—	—	—	—	350,572	350,572	68.2	8.27	—	354,740
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	123,233	123,233	24.0	2.91	—	124,698
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	44,416	44,416	8.64	1.05	—	44,944
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	70,998	70,998	13.8	1.67	—	71,843

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	14,870	14,870	2.89	0.35	—	15,047
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	66,658	66,658	13.0	1.57	—	67,451
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	30,396	30,396	5.91	0.72	—	30,758
Total	—	—	—	—	—	—	—	—	—	—	—	—	350,572	350,572	68.2	8.27	—	354,740
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	20,403	20,403	3.97	0.48	—	20,645
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	7,354	7,354	1.43	0.17	—	7,441
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	11,755	11,755	2.29	0.28	—	11,894
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	2,462	2,462	0.48	0.06	—	2,491
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	11,036	11,036	2.15	0.26	—	11,167
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	5,032	5,032	0.98	0.12	—	5,092
Total	—	—	—	—	—	—	—	—	—	—	—	—	58,041	58,041	11.3	1.37	—	58,731

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

Single Family Housing	36.4	18.2	311	132	1.98	25.1	—	25.1	25.1	—	25.1	—	394,597	394,597	34.9	0.74	—	395,691
Apartments Mid Rise	5.89	2.95	50.4	21.4	0.32	4.07	—	4.07	4.07	—	4.07	—	63,936	63,936	5.66	0.12	—	64,114
Strip Mall	2.22	1.11	20.1	16.9	0.12	1.53	—	1.53	1.53	—	1.53	—	24,036	24,036	2.13	0.05	—	24,103
General Office Building	1.82	0.91	16.6	13.9	0.10	1.26	—	1.26	1.26	—	1.26	—	19,788	19,788	1.75	0.04	—	19,843
General Light Industry	19.1	9.53	173	146	1.04	13.2	—	13.2	13.2	—	13.2	—	206,764	206,764	18.3	0.39	—	207,337
Hotel	7.28	3.64	66.2	55.6	0.40	5.03	—	5.03	5.03	—	5.03	—	78,992	78,992	6.99	0.15	—	79,211
Total	72.7	36.3	637	386	3.96	50.2	—	50.2	50.2	—	50.2	—	788,112	788,112	69.7	1.48	—	790,298
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	36.4	18.2	311	132	1.98	25.1	—	25.1	25.1	—	25.1	—	394,597	394,597	34.9	0.74	—	395,691
Apartments Mid Rise	5.89	2.95	50.4	21.4	0.32	4.07	—	4.07	4.07	—	4.07	—	63,936	63,936	5.66	0.12	—	64,114
Strip Mall	2.22	1.11	20.1	16.9	0.12	1.53	—	1.53	1.53	—	1.53	—	24,036	24,036	2.13	0.05	—	24,103
General Office Building	1.82	0.91	16.6	13.9	0.10	1.26	—	1.26	1.26	—	1.26	—	19,788	19,788	1.75	0.04	—	19,843
General Light Industry	19.1	9.53	173	146	1.04	13.2	—	13.2	13.2	—	13.2	—	206,764	206,764	18.3	0.39	—	207,337
Hotel	7.28	3.64	66.2	55.6	0.40	5.03	—	5.03	5.03	—	5.03	—	78,992	78,992	6.99	0.15	—	79,211
Total	72.7	36.3	637	386	3.96	50.2	—	50.2	50.2	—	50.2	—	788,112	788,112	69.7	1.48	—	790,298
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	6.64	3.32	56.7	24.1	0.36	4.59	—	4.59	4.59	—	4.59	—	65,330	65,330	5.78	0.12	—	65,511
Apartments Mid Rise	1.08	0.54	9.19	3.91	0.06	0.74	—	0.74	0.74	—	0.74	—	10,585	10,585	0.94	0.02	—	10,615
Strip Mall	0.40	0.20	3.68	3.09	0.02	0.28	—	0.28	0.28	—	0.28	—	3,979	3,979	0.35	0.01	—	3,990
General Office Building	0.33	0.17	3.03	2.54	0.02	0.23	—	0.23	0.23	—	0.23	—	3,276	3,276	0.29	0.01	—	3,285
General Light Industry	3.48	1.74	31.6	26.6	0.19	2.40	—	2.40	2.40	—	2.40	—	34,232	34,232	3.03	0.06	—	34,327
Hotel	1.33	0.66	12.1	10.1	0.07	0.92	—	0.92	0.92	—	0.92	—	13,078	13,078	1.16	0.02	—	13,114
Total	13.3	6.63	116	70.4	0.72	9.16	—	9.16	9.16	—	9.16	—	130,481	130,481	11.5	0.25	—	130,843

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	3,254	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	243	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipme	687	643	52.3	5,844	0.28	4.96	—	4.96	3.75	—	3.75	—	18,123	18,123	0.76	0.15	—	18,187
Total	687	4,140	52.3	5,844	0.28	4.96	—	4.96	3.75	—	3.75	0.00	18,123	18,123	0.76	0.15	—	18,187
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	3,254	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	243	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	3,497	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	594	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	44.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	61.9	57.9	4.71	526	0.03	0.45	—	0.45	0.34	—	0.34	—	1,480	1,480	0.06	0.01	—	1,485
Total	61.9	696	4.71	526	0.03	0.45	—	0.45	0.34	—	0.34	0.00	1,480	1,480	0.06	0.01	—	1,485

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2,907	4,799	7,706	299	7.19	—	17,325
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1,897	3,133	5,030	195	4.70	—	11,309
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2,460	4,061	6,521	253	6.09	—	14,662
General Office Building	—	—	—	—	—	—	—	—	—	—	—	657	1,084	1,741	67.5	1.63	—	3,914
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	7,083	11,694	18,776	729	17.5	—	42,214
Hotel	—	—	—	—	—	—	—	—	—	—	—	186	308	494	19.2	0.46	—	1,111
Total	—	—	—	—	—	—	—	—	—	—	—	15,190	25,079	40,269	1,562	37.6	—	90,534
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2,907	4,799	7,706	299	7.19	—	17,325
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1,897	3,133	5,030	195	4.70	—	11,309
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2,460	4,061	6,521	253	6.09	—	14,662
General Office Building	—	—	—	—	—	—	—	—	—	—	—	657	1,084	1,741	67.5	1.63	—	3,914

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	7,083	11,694	18,776	729	17.5	—	42,214
Hotel	—	—	—	—	—	—	—	—	—	—	—	186	308	494	19.2	0.46	—	1,111
Total	—	—	—	—	—	—	—	—	—	—	—	15,190	25,079	40,269	1,562	37.6	—	90,534
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	481	795	1,276	49.5	1.19	—	2,868
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	314	519	833	32.3	0.78	—	1,872
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	407	672	1,080	41.9	1.01	—	2,427
General Office Building	—	—	—	—	—	—	—	—	—	—	—	109	179	288	11.2	0.27	—	648
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1,173	1,936	3,109	121	2.90	—	6,989
Hotel	—	—	—	—	—	—	—	—	—	—	—	30.9	50.9	81.8	3.17	0.08	—	184
Total	—	—	—	—	—	—	—	—	—	—	—	2,515	4,152	6,667	259	6.22	—	14,989

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

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15,391	0.00	15,391	1,538	0.00	—	53,848
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	11,232	0.00	11,232	1,123	0.00	—	39,297
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9,807	0.00	9,807	980	0.00	—	34,313
General Office Building	—	—	—	—	—	—	—	—	—	—	—	966	0.00	966	96.6	0.00	—	3,381
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	10,681	0.00	10,681	1,068	0.00	—	37,371
Hotel	—	—	—	—	—	—	—	—	—	—	—	1,131	0.00	1,131	113	0.00	—	3,958
Total	—	—	—	—	—	—	—	—	—	—	—	49,210	0.00	49,210	4,918	0.00	—	172,168
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15,391	0.00	15,391	1,538	0.00	—	53,848
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	11,232	0.00	11,232	1,123	0.00	—	39,297
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9,807	0.00	9,807	980	0.00	—	34,313
General Office Building	—	—	—	—	—	—	—	—	—	—	—	966	0.00	966	96.6	0.00	—	3,381
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	10,681	0.00	10,681	1,068	0.00	—	37,371
Hotel	—	—	—	—	—	—	—	—	—	—	—	1,131	0.00	1,131	113	0.00	—	3,958
Total	—	—	—	—	—	—	—	—	—	—	—	49,210	0.00	49,210	4,918	0.00	—	172,168
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2,548	0.00	2,548	255	0.00	—	8,915
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1,860	0.00	1,860	186	0.00	—	6,506
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1,624	0.00	1,624	162	0.00	—	5,681
General Office Building	—	—	—	—	—	—	—	—	—	—	—	160	0.00	160	16.0	0.00	—	560
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1,768	0.00	1,768	177	0.00	—	6,187
Hotel	—	—	—	—	—	—	—	—	—	—	—	187	0.00	187	18.7	0.00	—	655
Total	—	—	—	—	—	—	—	—	—	—	—	8,147	0.00	8,147	814	0.00	—	28,504

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	603	603
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	194	194
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	108	108

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.69	4.69
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,161	4,161
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8,703	8,703
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13,773	13,773
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	603	603
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	194	194
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	108	108
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.69	4.69
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,161	4,161
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8,703	8,703
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13,773	13,773
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	99.8	99.8
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.1	32.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.9	17.9

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.78	0.78
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	689	689
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,441	1,441
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,280	2,280

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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. 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)

Equipme Type	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. 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	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. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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	3,350,728	3,350,728	3,350,728	1,223,015,720

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	43176
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	28184
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
225280926	75,093,642	61,214,222	20,404,741	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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)
Single Family Housing	265,155,800	170	0.0330	0.0040	1,231,247,109
Apartments Mid Rise	95,568,278	170	0.0330	0.0040	199,498,649
Strip Mall	152,765,009	170	0.0330	0.0040	74,998,402
General Office Building	31,995,984	170	0.0330	0.0040	61,743,597
General Light Industry	143,425,969	170	0.0330	0.0040	645,159,107
Hotel	65,402,617	170	0.0330	0.0040	246,474,888

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	1,516,905,646	0.00
Apartments Mid Rise	990,190,586	0.00
Strip Mall	1,283,749,981	0.00
General Office Building	342,688,440	0.00
General Light Industry	3,696,167,031	0.00
Hotel	97,256,196	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	28,558	—
Apartments Mid Rise	20,841	—
Strip Mall	18,198	—

General Office Building	1,793	—
General Light Industry	19,819	—
Hotel	2,099	—

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
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00

Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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

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	7.71	annual days of extreme heat
Extreme Precipitation	2.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	21.9	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	0	0	0	N/A
Drought	N/A	N/A	N/A	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	1	1	1	2
Drought	N/A	N/A	N/A	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 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	29.9
AQ-PM	49.8
AQ-DPM	90.7
Drinking Water	54.3
Lead Risk Housing	49.8
Pesticides	0.00
Toxic Releases	15.6
Traffic	72.5
Effect Indicators	—
CleanUp Sites	42.6
Groundwater	70.3
Haz Waste Facilities/Generators	7.35
Impaired Water Bodies	83.0
Solid Waste	35.7
Sensitive Population	—
Asthma	31.1
Cardio-vascular	49.3

Low Birth Weights	15.0
Socioeconomic Factor Indicators	—
Education	52.3
Housing	50.3
Linguistic	44.4
Poverty	68.6
Unemployment	70.9

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	38.58591043
Employed	52.13653279
Median HI	29.38534582
Education	—
Bachelor's or higher	59.05299628
High school enrollment	0.115488259
Preschool enrollment	95.7141024
Transportation	—
Auto Access	17.29757475
Active commuting	80.14885153
Social	—
2-parent households	0.731425638
Voting	47.61965867
Neighborhood	—
Alcohol availability	4.516874118

Park access	81.35506224
Retail density	80.05902733
Supermarket access	87.25779546
Tree canopy	10.61208777
Housing	—
Homeownership	10.18863082
Housing habitability	56.62774285
Low-inc homeowner severe housing cost burden	79.66123444
Low-inc renter severe housing cost burden	80.16168356
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	54.27948159
Arthritis	20.2
Asthma ER Admissions	38.3
High Blood Pressure	40.5
Cancer (excluding skin)	36.4
Asthma	23.6
Coronary Heart Disease	19.3
Chronic Obstructive Pulmonary Disease	12.3
Diagnosed Diabetes	34.4
Life Expectancy at Birth	26.1
Cognitively Disabled	21.0
Physically Disabled	21.0
Heart Attack ER Admissions	36.2
Mental Health Not Good	28.5
Chronic Kidney Disease	27.1
Obesity	39.2

Pedestrian Injuries	98.6
Physical Health Not Good	32.6
Stroke	22.5
Health Risk Behaviors	—
Binge Drinking	32.5
Current Smoker	28.0
No Leisure Time for Physical Activity	38.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	79.9
Children	56.6
Elderly	27.8
English Speaking	67.4
Foreign-born	16.0
Outdoor Workers	33.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	9.9
Traffic Density	92.4
Traffic Access	71.0
Other Indices	—
Hardship	44.7
Other Decision Support	—
2016 Voting	55.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	51.0

Healthy Places Index Score for Project Location (b)	14.0
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
Land Use	Adopted General Plan land uses
Operations: Hearths	No fireplaces or woodstoves modeled

Oceanside GPU - GPU 2050 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Oceanside GPU - GPU 2050
Operational Year	2050
Lead Agency	City of Oceanside
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	20.6
Location	Oceanside, CA, USA
County	San Diego
City	Oceanside
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6231
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

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
Single Family Housing	47,125	Dwelling Unit	8,000	91,893,750	0.00	—	131,479	—

Apartments Mid Rise	37,025	Dwelling Unit	974	35,544,000	0.00	—	103,300	—
Strip Mall	17,832	1000sqft	409	17,831,816	0.00	—	—	—
General Office Building	1,990	1000sqft	45.7	1,990,359	0.00	—	—	—
General Light Industry	16,799	1000sqft	386	16,799,481	0.00	—	—	—
Hotel	4,964	Room	165	7,207,728	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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.	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.	1,175	4,955	1,138	13,822	28.8	70.5	2,726	2,796	68.6	691	759	71,894	3,762,195	3,834,089	7,435	114	16,951	4,070,971
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	387	4,219	1,114	6,093	27.3	65.0	2,726	2,791	64.4	691	755	71,894	3,625,029	3,696,923	7,433	117	16,676	3,934,316
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	773	4,580	1,140	9,560	27.7	67.7	2,690	2,757	66.5	682	748	71,894	3,653,033	3,724,927	7,434	117	16,791	3,962,383

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	141	836	208	1,745	5.05	12.4	491	503	12.1	124	137	11,903	604,801	616,704	1,231	19.3	2,780	656,018

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	316	247	366	6,689	24.0	8.96	2,726	2,735	8.39	691	699	—	2,444,151	2,444,151	46.9	62.2	282	2,464,146
Area	777	4,667	60.1	6,704	0.32	5.52	—	5.52	4.18	—	4.18	0.00	20,603	20,603	0.86	0.17	—	20,676
Energy	81.1	40.5	711	429	4.42	56.0	—	56.0	56.0	—	56.0	—	1,270,100	1,270,100	154	10.9	—	1,277,185
Water	—	—	—	—	—	—	—	—	—	—	—	16,560	27,341	43,900	1,703	41.0	—	98,699
Waste	—	—	—	—	—	—	—	—	—	—	—	55,334	0.00	55,334	5,530	0.00	—	193,596
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16,669	16,669
Total	1,175	4,955	1,138	13,822	28.8	70.5	2,726	2,796	68.6	691	759	71,894	3,762,195	3,834,089	7,435	114	16,951	4,070,971
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	306	239	403	5,663	22.9	8.96	2,726	2,735	8.39	691	699	—	2,327,588	2,327,588	45.2	65.2	7.32	2,348,168
Area	0.00	3,939	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	81.1	40.5	711	429	4.42	56.0	—	56.0	56.0	—	56.0	—	1,270,100	1,270,100	154	10.9	—	1,277,185
Water	—	—	—	—	—	—	—	—	—	—	—	16,560	27,341	43,900	1,703	41.0	—	98,699
Waste	—	—	—	—	—	—	—	—	—	—	—	55,334	0.00	55,334	5,530	0.00	—	193,596
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16,669	16,669

Total	387	4,219	1,114	6,093	27.3	65.0	2,726	2,791	64.4	691	755	71,894	3,625,02	3,696,92	7,433	117	16,676	3,934,31
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	309	241	399	5,824	23.1	8.96	2,690	2,699	8.39	682	690	—	2,345,43 2	2,345,43 2	45.7	64.9	122	2,366,03 8
Area	383	4,298	29.6	3,306	0.16	2.72	—	2.72	2.06	—	2.06	0.00	10,160	10,160	0.43	0.09	—	10,197
Energy	81.1	40.5	711	429	4.42	56.0	—	56.0	56.0	—	56.0	—	1,270,10 0	1,270,10 0	154	10.9	—	1,277,18 5
Water	—	—	—	—	—	—	—	—	—	—	—	16,560	27,341	43,900	1,703	41.0	—	98,699
Waste	—	—	—	—	—	—	—	—	—	—	—	55,334	0.00	55,334	5,530	0.00	—	193,596
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16,669	16,669
Total	773	4,580	1,140	9,560	27.7	67.7	2,690	2,757	66.5	682	748	71,894	3,653,03 3	3,724,92 7	7,434	117	16,791	3,962,38 3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	56.4	44.0	72.9	1,063	4.21	1.64	491	492	1.53	124	126	—	388,313	388,313	7.56	10.7	20.2	391,725
Area	70.0	784	5.41	603	0.03	0.50	—	0.50	0.38	—	0.38	0.00	1,682	1,682	0.07	0.01	—	1,688
Energy	14.8	7.40	130	78.4	0.81	10.2	—	10.2	10.2	—	10.2	—	210,280	210,280	25.5	1.80	—	211,452
Water	—	—	—	—	—	—	—	—	—	—	—	2,742	4,527	7,268	282	6.79	—	16,341
Waste	—	—	—	—	—	—	—	—	—	—	—	9,161	0.00	9,161	916	0.00	—	32,052
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,760	2,760
Total	141	836	208	1,745	5.05	12.4	491	503	12.1	124	137	11,903	604,801	616,704	1,231	19.3	2,780	656,018

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	134,504	134,504	26.2	3.17	—	136,103
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	58,349	58,349	11.4	1.38	—	59,042
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	73,050	73,050	14.2	1.72	—	73,919
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	15,350	15,350	2.99	0.36	—	15,533
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	70,061	70,061	13.6	1.65	—	70,894
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	39,355	39,355	7.66	0.93	—	39,823
Total	—	—	—	—	—	—	—	—	—	—	—	—	390,669	390,669	76.0	9.21	—	395,315
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	134,504	134,504	26.2	3.17	—	136,103
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	58,349	58,349	11.4	1.38	—	59,042
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	73,050	73,050	14.2	1.72	—	73,919

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	15,350	15,350	2.99	0.36	—	15,533
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	70,061	70,061	13.6	1.65	—	70,894
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	39,355	39,355	7.66	0.93	—	39,823
Total	—	—	—	—	—	—	—	—	—	—	—	—	390,669	390,669	76.0	9.21	—	395,315
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	22,269	22,269	4.33	0.53	—	22,533
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	9,660	9,660	1.88	0.23	—	9,775
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	12,094	12,094	2.35	0.29	—	12,238
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	2,541	2,541	0.49	0.06	—	2,572
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	11,599	11,599	2.26	0.27	—	11,737
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	6,516	6,516	1.27	0.15	—	6,593
Total	—	—	—	—	—	—	—	—	—	—	—	—	64,680	64,680	12.6	1.53	—	65,449

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

Single Family Housing	39.7	19.9	339	144	2.17	27.4	—	27.4	27.4	—	27.4	—	430,688	430,688	38.1	0.81	—	431,882
Apartments Mid Rise	7.74	3.87	66.2	28.2	0.42	5.35	—	5.35	5.35	—	5.35	—	83,993	83,993	7.43	0.16	—	84,225
Strip Mall	2.28	1.14	20.7	17.4	0.12	1.58	—	1.58	1.58	—	1.58	—	24,730	24,730	2.19	0.05	—	24,799
General Office Building	1.88	0.94	17.1	14.4	0.10	1.30	—	1.30	1.30	—	1.30	—	20,427	20,427	1.81	0.04	—	20,484
General Light Industry	20.0	10.0	182	153	1.09	13.8	—	13.8	13.8	—	13.8	—	217,321	217,321	19.2	0.41	—	217,923
Hotel	9.43	4.71	85.7	72.0	0.51	6.51	—	6.51	6.51	—	6.51	—	102,273	102,273	9.05	0.19	—	102,557
Total	81.1	40.5	711	429	4.42	56.0	—	56.0	56.0	—	56.0	—	879,431	879,431	77.8	1.66	—	881,870
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	39.7	19.9	339	144	2.17	27.4	—	27.4	27.4	—	27.4	—	430,688	430,688	38.1	0.81	—	431,882
Apartments Mid Rise	7.74	3.87	66.2	28.2	0.42	5.35	—	5.35	5.35	—	5.35	—	83,993	83,993	7.43	0.16	—	84,225
Strip Mall	2.28	1.14	20.7	17.4	0.12	1.58	—	1.58	1.58	—	1.58	—	24,730	24,730	2.19	0.05	—	24,799
General Office Building	1.88	0.94	17.1	14.4	0.10	1.30	—	1.30	1.30	—	1.30	—	20,427	20,427	1.81	0.04	—	20,484
General Light Industry	20.0	10.0	182	153	1.09	13.8	—	13.8	13.8	—	13.8	—	217,321	217,321	19.2	0.41	—	217,923
Hotel	9.43	4.71	85.7	72.0	0.51	6.51	—	6.51	6.51	—	6.51	—	102,273	102,273	9.05	0.19	—	102,557
Total	81.1	40.5	711	429	4.42	56.0	—	56.0	56.0	—	56.0	—	879,431	879,431	77.8	1.66	—	881,870
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	7.25	3.62	61.9	26.4	0.40	5.01	—	5.01	5.01	—	5.01	—	71,305	71,305	6.31	0.13	—	71,503
Apartments Mid Rise	1.41	0.71	12.1	5.14	0.08	0.98	—	0.98	0.98	—	0.98	—	13,906	13,906	1.23	0.03	—	13,944
Strip Mall	0.42	0.21	3.78	3.18	0.02	0.29	—	0.29	0.29	—	0.29	—	4,094	4,094	0.36	0.01	—	4,106
General Office Building	0.34	0.17	3.12	2.62	0.02	0.24	—	0.24	0.24	—	0.24	—	3,382	3,382	0.30	0.01	—	3,391
General Light Industry	3.66	1.83	33.2	27.9	0.20	2.53	—	2.53	2.53	—	2.53	—	35,980	35,980	3.18	0.07	—	36,080
Hotel	1.72	0.86	15.6	13.1	0.09	1.19	—	1.19	1.19	—	1.19	—	16,932	16,932	1.50	0.03	—	16,979
Total	14.8	7.40	130	78.4	0.81	10.2	—	10.2	10.2	—	10.2	—	145,600	145,600	12.9	0.27	—	146,004

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	3,665	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	274	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipme	777	728	60.1	6,704	0.32	5.52	—	5.52	4.18	—	4.18	—	20,603	20,603	0.86	0.17	—	20,676
Total	777	4,667	60.1	6,704	0.32	5.52	—	5.52	4.18	—	4.18	0.00	20,603	20,603	0.86	0.17	—	20,676
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	3,665	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	274	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	3,939	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	669	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	50.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	70.0	65.5	5.41	603	0.03	0.50	—	0.50	0.38	—	0.38	—	1,682	1,682	0.07	0.01	—	1,688
Total	70.0	784	5.41	603	0.03	0.50	—	0.50	0.38	—	0.38	0.00	1,682	1,682	0.07	0.01	—	1,688

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3,173	5,238	8,411	326	7.85	—	18,909
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2,493	4,115	6,608	256	6.17	—	14,856
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2,531	4,179	6,710	260	6.26	—	15,085
General Office Building	—	—	—	—	—	—	—	—	—	—	—	678	1,119	1,797	69.7	1.68	—	4,040
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	7,444	12,291	19,735	766	18.4	—	44,369
Hotel	—	—	—	—	—	—	—	—	—	—	—	241	398	640	24.8	0.60	—	1,438
Total	—	—	—	—	—	—	—	—	—	—	—	16,560	27,341	43,900	1,703	41.0	—	98,699
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3,173	5,238	8,411	326	7.85	—	18,909
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2,493	4,115	6,608	256	6.17	—	14,856
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2,531	4,179	6,710	260	6.26	—	15,085
General Office Building	—	—	—	—	—	—	—	—	—	—	—	678	1,119	1,797	69.7	1.68	—	4,040

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	7,444	12,291	19,735	766	18.4	—	44,369
Hotel	—	—	—	—	—	—	—	—	—	—	—	241	398	640	24.8	0.60	—	1,438
Total	—	—	—	—	—	—	—	—	—	—	—	16,560	27,341	43,900	1,703	41.0	—	98,699
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	525	867	1,392	54.0	1.30	—	3,131
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	413	681	1,094	42.4	1.02	—	2,460
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	419	692	1,111	43.1	1.04	—	2,498
General Office Building	—	—	—	—	—	—	—	—	—	—	—	112	185	298	11.5	0.28	—	669
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1,232	2,035	3,267	127	3.05	—	7,346
Hotel	—	—	—	—	—	—	—	—	—	—	—	39.9	66.0	106	4.11	0.10	—	238
Total	—	—	—	—	—	—	—	—	—	—	—	2,742	4,527	7,268	282	6.79	—	16,341

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

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	16,799	0.00	16,799	1,679	0.00	—	58,774
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	14,756	0.00	14,756	1,475	0.00	—	51,625
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	10,091	0.00	10,091	1,009	0.00	—	35,304
General Office Building	—	—	—	—	—	—	—	—	—	—	—	998	0.00	998	99.7	0.00	—	3,490
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	11,227	0.00	11,227	1,122	0.00	—	39,279
Hotel	—	—	—	—	—	—	—	—	—	—	—	1,465	0.00	1,465	146	0.00	—	5,125
Total	—	—	—	—	—	—	—	—	—	—	—	55,334	0.00	55,334	5,530	0.00	—	193,596
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	16,799	0.00	16,799	1,679	0.00	—	58,774
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	14,756	0.00	14,756	1,475	0.00	—	51,625
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	10,091	0.00	10,091	1,009	0.00	—	35,304
General Office Building	—	—	—	—	—	—	—	—	—	—	—	998	0.00	998	99.7	0.00	—	3,490
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	11,227	0.00	11,227	1,122	0.00	—	39,279
Hotel	—	—	—	—	—	—	—	—	—	—	—	1,465	0.00	1,465	146	0.00	—	5,125
Total	—	—	—	—	—	—	—	—	—	—	—	55,334	0.00	55,334	5,530	0.00	—	193,596
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2,781	0.00	2,781	278	0.00	—	9,731
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2,443	0.00	2,443	244	0.00	—	8,547
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1,671	0.00	1,671	167	0.00	—	5,845
General Office Building	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1,859	0.00	1,859	186	0.00	—	6,503
Hotel	—	—	—	—	—	—	—	—	—	—	—	243	0.00	243	24.2	0.00	—	848
Total	—	—	—	—	—	—	—	—	—	—	—	9,161	0.00	9,161	916	0.00	—	32,052

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	658	658
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	255	255
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	111	111

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.84	4.84
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,373	4,373
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,268	11,268
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16,669	16,669
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	658	658
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	255	255
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	111	111
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.84	4.84
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,373	4,373
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,268	11,268
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16,669	16,669
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	109	109
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42.1	42.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.80	0.80
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	724	724
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,865	1,865
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,760	2,760

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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. 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)

Equipme Type	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. 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	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. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

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	3,865,552	3,865,552	3,865,552	1,410,926,480

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	47125
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	37025
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
258061443.75	86,020,481	65,744,076	21,914,692	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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)
Single Family Housing	289,407,706	170	0.0330	0.0040	1,343,860,478
Apartments Mid Rise	125,546,959	170	0.0330	0.0040	262,079,104
Strip Mall	157,179,587	170	0.0330	0.0040	77,165,694
General Office Building	33,029,145	170	0.0330	0.0040	63,737,318
General Light Industry	150,748,782	170	0.0330	0.0040	678,098,603
Hotel	84,678,819	170	0.0330	0.0040	319,118,765

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	1,655,646,159	0.00
Apartments Mid Rise	1,300,802,102	0.00
Strip Mall	1,320,847,574	0.00
General Office Building	353,753,965	0.00
General Light Industry	3,884,879,981	0.00
Hotel	125,920,646	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	31,170	—
Apartments Mid Rise	27,379	—
Strip Mall	18,723	—

General Office Building	1,851	—
General Light Industry	20,831	—
Hotel	2,718	—

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
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00

Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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

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	7.71	annual days of extreme heat
Extreme Precipitation	2.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	21.9	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	0	0	0	N/A
Drought	N/A	N/A	N/A	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	1	1	1	2
Drought	N/A	N/A	N/A	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 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	29.9
AQ-PM	49.8
AQ-DPM	90.7
Drinking Water	54.3
Lead Risk Housing	49.8
Pesticides	0.00
Toxic Releases	15.6
Traffic	72.5
Effect Indicators	—
CleanUp Sites	42.6
Groundwater	70.3
Haz Waste Facilities/Generators	7.35
Impaired Water Bodies	83.0
Solid Waste	35.7
Sensitive Population	—
Asthma	31.1
Cardio-vascular	49.3

Low Birth Weights	15.0
Socioeconomic Factor Indicators	—
Education	52.3
Housing	50.3
Linguistic	44.4
Poverty	68.6
Unemployment	70.9

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	38.58591043
Employed	52.13653279
Median HI	29.38534582
Education	—
Bachelor's or higher	59.05299628
High school enrollment	0.115488259
Preschool enrollment	95.7141024
Transportation	—
Auto Access	17.29757475
Active commuting	80.14885153
Social	—
2-parent households	0.731425638
Voting	47.61965867
Neighborhood	—
Alcohol availability	4.516874118

Park access	81.35506224
Retail density	80.05902733
Supermarket access	87.25779546
Tree canopy	10.61208777
Housing	—
Homeownership	10.18863082
Housing habitability	56.62774285
Low-inc homeowner severe housing cost burden	79.66123444
Low-inc renter severe housing cost burden	80.16168356
Uncrowded housing	60.05389452
Health Outcomes	—
Insured adults	54.27948159
Arthritis	20.2
Asthma ER Admissions	38.3
High Blood Pressure	40.5
Cancer (excluding skin)	36.4
Asthma	23.6
Coronary Heart Disease	19.3
Chronic Obstructive Pulmonary Disease	12.3
Diagnosed Diabetes	34.4
Life Expectancy at Birth	26.1
Cognitively Disabled	21.0
Physically Disabled	21.0
Heart Attack ER Admissions	36.2
Mental Health Not Good	28.5
Chronic Kidney Disease	27.1
Obesity	39.2

Pedestrian Injuries	98.6
Physical Health Not Good	32.6
Stroke	22.5
Health Risk Behaviors	—
Binge Drinking	32.5
Current Smoker	28.0
No Leisure Time for Physical Activity	38.1
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	79.9
Children	56.6
Elderly	27.8
English Speaking	67.4
Foreign-born	16.0
Outdoor Workers	33.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	9.9
Traffic Density	92.4
Traffic Access	71.0
Other Indices	—
Hardship	44.7
Other Decision Support	—
2016 Voting	55.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	51.0

Healthy Places Index Score for Project Location (b)	14.0
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
Land Use	GPU land uses
Operations: Hearths	No fireplaces or woodstoves modeled