

# Appendix B

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California Emissions Estimator Model

# Thousand Oaks GP Detailed Report

## Table of Contents

- 1. Basic Project Information
  - 1.1. Basic Project Information
  - 1.2. Land Use Types
  - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
  - 2.4. Operations Emissions Compared Against Thresholds
  - 2.5. Operations Emissions by Sector, Unmitigated
- 4. Operations Emissions Details
  - 4.1. Mobile Emissions by Land Use
    - 4.1.1. Unmitigated
  - 4.2. Energy
    - 4.2.1. Electricity Emissions By Land Use - Unmitigated
    - 4.2.3. Natural Gas Emissions By Land Use - Unmitigated
  - 4.3. Area Emissions by Source

4.3.2. Unmitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

#### 5.10.2. Architectural Coatings

#### 5.10.3. Landscape Equipment

### 5.11. Operational Energy Consumption

#### 5.11.1. Unmitigated

### 5.12. Operational Water and Wastewater Consumption

#### 5.12.1. Unmitigated

### 5.13. Operational Waste Generation

#### 5.13.1. Unmitigated

### 5.14. Operational Refrigeration and Air Conditioning Equipment

#### 5.14.1. Unmitigated

### 5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	Thousand Oaks GP
Operational Year	2045
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	22.6
Location	Thousand Oaks, CA, USA
County	Ventura
City	Thousand Oaks
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3542
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.13

## 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	1,193	Dwelling Unit	387	2,326,350	13,973,438	—	3,591	ADU assumed as SF

Apartments Low Rise	7,334	Dwelling Unit	458	7,774,040	0.00	—	22,075	—
Regional Shopping Center	1,754	1000sqft	40.3	1,754,400	0.00	—	—	—
Hotel	1,765	Room	58.8	2,562,780	0.00	—	—	Room amount adjusted to match estimated SF
General Office Building	1,564	1000sqft	35.9	1,564,000	0.00	—	—	—
Manufacturing	254	1000sqft	5.83	254,000	0.00	—	—	—
Industrial Park	534	1000sqft	12.3	534,000	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.	532	880	315	3,593	8.61	10.5	367	378	10.5	64.3	74.7	8,099	1,125,375	1,133,474	864	37.9	4,543	1,170,907
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	438	791	336	2,772	8.28	9.93	367	377	9.74	64.3	74.0	8,099	1,093,867	1,101,967	866	40.2	4,302	1,139,894
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Unmit.	416	770	295	2,703	7.14	9.73	311	320	9.66	54.3	64.0	8,099	977,401	985,500	860	34.4	4,386	1,021,66
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	75.8	141	53.8	493	1.30	1.78	56.7	58.5	1.76	9.92	11.7	1,341	161,820	163,161	142	5.70	726	169,148

### 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	426	401	220	2,762	8.03	3.05	367	370	2.85	64.3	67.1	—	816,049	816,049	27.3	31.7	248	826,435
Area	96.0	474	6.91	776	0.04	0.55	—	0.55	0.73	—	0.73	0.00	2,486	2,486	0.10	0.02	—	2,495
Energy	9.96	4.98	87.6	54.2	0.54	6.88	—	6.88	6.88	—	6.88	—	295,625	295,625	21.2	1.61	—	296,636
Water	—	—	—	—	—	—	—	—	—	—	—	1,836	11,214	13,050	189	4.56	—	19,132
Waste	—	—	—	—	—	—	—	—	—	—	—	6,263	0.00	6,263	626	0.00	—	21,913
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,296	4,296
Total	532	880	315	3,593	8.61	10.5	367	378	10.5	64.3	74.7	8,099	1,125,375	1,133,474	864	37.9	4,543	1,170,907
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	428	402	248	2,717	7.74	3.05	367	370	2.86	64.3	67.1	—	787,028	787,028	29.4	34.0	6.42	797,917
Area	0.00	385	0.00	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	9.96	4.98	87.6	54.2	0.54	6.88	—	6.88	6.88	—	6.88	—	295,625	295,625	21.2	1.61	—	296,636
Water	—	—	—	—	—	—	—	—	—	—	—	1,836	11,214	13,050	189	4.56	—	19,132
Waste	—	—	—	—	—	—	—	—	—	—	—	6,263	0.00	6,263	626	0.00	—	21,913
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,296	4,296
Total	438	791	336	2,772	8.28	9.93	367	377	9.74	64.3	74.0	8,099	1,093,867	1,101,967	866	40.2	4,302	1,139,894

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	358	336	204	2,266	6.58	2.58	311	313	2.42	54.3	56.8	—	669,336	669,336	24.2	28.3	90.4	678,453
Area	47.4	429	3.41	383	0.02	0.27	—	0.27	0.36	—	0.36	0.00	1,226	1,226	0.05	0.01	—	1,230
Energy	9.96	4.98	87.6	54.2	0.54	6.88	—	6.88	6.88	—	6.88	—	295,625	295,625	21.2	1.61	—	296,636
Water	—	—	—	—	—	—	—	—	—	—	—	1,836	11,214	13,050	189	4.56	—	19,132
Waste	—	—	—	—	—	—	—	—	—	—	—	6,263	0.00	6,263	626	0.00	—	21,913
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,296	4,296
Total	416	770	295	2,703	7.14	9.73	311	320	9.66	54.3	64.0	8,099	977,401	985,500	860	34.4	4,386	1,021,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	65.4	61.3	37.2	413	1.20	0.47	56.7	57.2	0.44	9.92	10.4	—	110,816	110,816	4.01	4.68	15.0	112,326
Area	8.64	78.3	0.62	69.9	< 0.005	0.05	—	0.05	0.07	—	0.07	0.00	203	203	0.01	< 0.005	—	204
Energy	1.82	0.91	16.0	9.89	0.10	1.26	—	1.26	1.26	—	1.26	—	48,944	48,944	3.51	0.27	—	49,111
Water	—	—	—	—	—	—	—	—	—	—	—	304	1,857	2,161	31.3	0.75	—	3,167
Waste	—	—	—	—	—	—	—	—	—	—	—	1,037	0.00	1,037	104	0.00	—	3,628
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	711	711
Total	75.8	141	53.8	493	1.30	1.78	56.7	58.5	1.76	9.92	11.7	1,341	161,820	163,161	142	5.70	726	169,148

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. 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
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	27.9	25.9	15.8	207	0.63	0.23	29.0	29.2	0.22	5.08	5.30	—	63,980	63,980	1.92	2.33	19.5	64,743
Apartments Low Rise	146	136	82.7	1,086	3.30	1.23	152	153	1.15	26.6	27.8	—	335,600	335,600	10.1	12.2	103	339,602
Regional Shopping Center	171	163	75.7	865	2.26	0.90	102	102	0.84	17.8	18.6	—	229,851	229,851	9.64	10.3	68.4	233,243
Hotel	36.1	33.5	20.4	267	0.81	0.30	37.4	37.7	0.28	6.54	6.82	—	82,397	82,397	2.48	3.01	25.2	83,381
General Office Building	37.2	34.6	21.0	276	0.84	0.31	38.6	38.9	0.29	6.75	7.04	—	85,066	85,066	2.56	3.11	26.0	86,082
Manufacturing	3.98	3.71	2.25	29.5	0.09	0.03	4.13	4.16	0.03	0.72	0.75	—	9,106	9,106	0.27	0.33	2.78	9,215
Industrial Park	4.40	4.09	2.48	32.6	0.10	0.04	4.56	4.59	0.03	0.80	0.83	—	10,049	10,049	0.30	0.37	3.07	10,169
Total	426	401	220	2,762	8.03	3.05	367	370	2.85	64.3	67.1	—	816,049	816,049	27.3	31.7	248	826,435
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	27.9	25.9	17.8	200	0.61	0.23	29.0	29.2	0.22	5.08	5.30	—	61,680	61,680	2.05	2.50	0.51	62,477
Apartments Low Rise	146	136	93.2	1,049	3.18	1.23	152	153	1.15	26.6	27.8	—	323,536	323,536	10.7	13.1	2.66	327,713
Regional Shopping Center	172	163	85.4	884	2.18	0.90	102	102	0.84	17.8	18.6	—	221,901	221,901	10.7	11.1	1.78	225,490
Hotel	36.1	33.6	22.9	258	0.78	0.30	37.4	37.7	0.28	6.54	6.82	—	79,436	79,436	2.64	3.22	0.65	80,463

General Office Building	37.3	34.7	23.7	266	0.81	0.31	38.6	38.9	0.29	6.75	7.04	—	82,009	82,009	2.73	3.33	0.67	83,069
Manufacturing	3.99	3.71	2.54	28.5	0.09	0.03	4.13	4.16	0.03	0.72	0.75	—	8,779	8,779	0.29	0.36	0.07	8,892
Industrial Park	4.41	4.10	2.80	31.5	0.10	0.04	4.56	4.59	0.03	0.80	0.83	—	9,688	9,688	0.32	0.39	0.08	9,813
Total	428	402	248	2,717	7.74	3.05	367	370	2.86	64.3	67.1	—	787,028	787,028	29.4	34.0	6.42	797,917
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	4.93	4.58	3.08	35.4	0.11	0.04	5.18	5.22	0.04	0.91	0.94	—	10,042	10,042	0.32	0.40	1.37	10,170
Apartments Low Rise	23.7	22.0	14.8	170	0.52	0.20	24.9	25.1	0.19	4.35	4.54	—	48,242	48,242	1.55	1.91	6.56	48,857
Regional Shopping Center	24.2	23.1	11.5	119	0.29	0.12	13.6	13.7	0.11	2.37	2.49	—	27,124	27,124	1.31	1.36	3.58	27,568
Hotel	6.24	5.79	3.89	44.6	0.14	0.05	6.52	6.57	0.05	1.14	1.19	—	12,645	12,645	0.41	0.50	1.72	12,806
General Office Building	5.10	4.74	3.18	36.5	0.11	0.04	5.33	5.37	0.04	0.93	0.97	—	10,338	10,338	0.33	0.41	1.41	10,470
Manufacturing	0.50	0.46	0.31	3.58	0.01	< 0.005	0.52	0.53	< 0.005	0.09	0.10	—	1,014	1,014	0.03	0.04	0.14	1,027
Industrial Park	0.70	0.65	0.43	4.98	0.02	0.01	0.73	0.73	0.01	0.13	0.13	—	1,411	1,411	0.05	0.06	0.19	1,429
Total	65.4	61.3	37.2	413	1.20	0.47	56.7	57.2	0.44	9.92	10.4	—	110,816	110,816	4.01	4.68	15.0	112,326

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	—	—	—	—	—	—	—	—	—	—	—	—	11,024	11,024	0.68	0.08	—	11,066
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	41,884	41,884	2.60	0.31	—	42,043
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	24,983	24,983	1.55	0.19	—	25,078
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	52,237	52,237	3.24	0.39	—	52,435
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	40,274	40,274	2.50	0.30	—	40,427
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	3,442	3,442	0.21	0.03	—	3,456
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	13,751	13,751	0.85	0.10	—	13,803
Total	—	—	—	—	—	—	—	—	—	—	—	—	187,596	187,596	11.6	1.41	—	188,307
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	11,024	11,024	0.68	0.08	—	11,066
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	41,884	41,884	2.60	0.31	—	42,043
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	24,983	24,983	1.55	0.19	—	25,078

Hotel	—	—	—	—	—	—	—	—	—	—	—	—	52,237	52,237	3.24	0.39	—	52,435
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	40,274	40,274	2.50	0.30	—	40,427
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	3,442	3,442	0.21	0.03	—	3,456
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	13,751	13,751	0.85	0.10	—	13,803
Total	—	—	—	—	—	—	—	—	—	—	—	—	187,596	187,596	11.6	1.41	—	188,307
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,825	1,825	0.11	0.01	—	1,832
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	6,934	6,934	0.43	0.05	—	6,961
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	4,136	4,136	0.26	0.03	—	4,152
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	8,648	8,648	0.54	0.07	—	8,681
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	6,668	6,668	0.41	0.05	—	6,693
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	570	570	0.04	< 0.005	—	572
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	2,277	2,277	0.14	0.02	—	2,285
Total	—	—	—	—	—	—	—	—	—	—	—	—	31,059	31,059	1.93	0.23	—	31,176

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
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.53	0.77	13.1	5.57	0.08	1.06	—	1.06	1.06	—	1.06	—	16,603	16,603	1.47	0.03	—	16,649
Apartments Low Rise	3.94	1.97	33.6	14.3	0.21	2.72	—	2.72	2.72	—	2.72	—	42,712	42,712	3.78	0.08	—	42,830
Regional Shopping Center	0.31	0.15	2.82	2.37	0.02	0.21	—	0.21	0.21	—	0.21	—	3,362	3,362	0.30	0.01	—	3,372
Hotel	2.22	1.11	20.1	16.9	0.12	1.53	—	1.53	1.53	—	1.53	—	24,027	24,027	2.13	0.05	—	24,094
General Office Building	1.23	0.61	11.2	9.37	0.07	0.85	—	0.85	0.85	—	0.85	—	13,308	13,308	1.18	0.03	—	13,345
Manufacturing	0.32	0.16	2.91	2.44	0.02	0.22	—	0.22	0.22	—	0.22	—	3,472	3,472	0.31	0.01	—	3,481
Industrial Park	0.42	0.21	3.81	3.20	0.02	0.29	—	0.29	0.29	—	0.29	—	4,544	4,544	0.40	0.01	—	4,557
Total	9.96	4.98	87.6	54.2	0.54	6.88	—	6.88	6.88	—	6.88	—	108,029	108,029	9.56	0.20	—	108,328
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.53	0.77	13.1	5.57	0.08	1.06	—	1.06	1.06	—	1.06	—	16,603	16,603	1.47	0.03	—	16,649
Apartments Low Rise	3.94	1.97	33.6	14.3	0.21	2.72	—	2.72	2.72	—	2.72	—	42,712	42,712	3.78	0.08	—	42,830
Regional Shopping Center	0.31	0.15	2.82	2.37	0.02	0.21	—	0.21	0.21	—	0.21	—	3,362	3,362	0.30	0.01	—	3,372
Hotel	2.22	1.11	20.1	16.9	0.12	1.53	—	1.53	1.53	—	1.53	—	24,027	24,027	2.13	0.05	—	24,094

General Office Building	1.23	0.61	11.2	9.37	0.07	0.85	—	0.85	0.85	—	0.85	—	13,308	13,308	1.18	0.03	—	13,345
Manufacturing	0.32	0.16	2.91	2.44	0.02	0.22	—	0.22	0.22	—	0.22	—	3,472	3,472	0.31	0.01	—	3,481
Industrial Park	0.42	0.21	3.81	3.20	0.02	0.29	—	0.29	0.29	—	0.29	—	4,544	4,544	0.40	0.01	—	4,557
Total	9.96	4.98	87.6	54.2	0.54	6.88	—	6.88	6.88	—	6.88	—	108,029	108,029	9.56	0.20	—	108,328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.28	0.14	2.39	1.02	0.02	0.19	—	0.19	0.19	—	0.19	—	2,749	2,749	0.24	0.01	—	2,757
Apartments Low Rise	0.72	0.36	6.14	2.61	0.04	0.50	—	0.50	0.50	—	0.50	—	7,071	7,071	0.63	0.01	—	7,091
Regional Shopping Center	0.06	0.03	0.51	0.43	< 0.005	0.04	—	0.04	0.04	—	0.04	—	557	557	0.05	< 0.005	—	558
Hotel	0.40	0.20	3.68	3.09	0.02	0.28	—	0.28	0.28	—	0.28	—	3,978	3,978	0.35	0.01	—	3,989
General Office Building	0.22	0.11	2.04	1.71	0.01	0.15	—	0.15	0.15	—	0.15	—	2,203	2,203	0.19	< 0.005	—	2,209
Manufacturing	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	575	575	0.05	< 0.005	—	576
Industrial Park	0.08	0.04	0.70	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	752	752	0.07	< 0.005	—	754
Total	1.82	0.91	16.0	9.89	0.10	1.26	—	1.26	1.26	—	1.26	—	17,885	17,885	1.58	0.03	—	17,935

4.3. Area Emissions by Source

4.3.2. 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	—	359	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	25.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	96.0	89.7	6.91	776	0.04	0.55	—	0.55	0.73	—	0.73	—	2,486	2,486	0.10	0.02	—	2,495
Total	96.0	474	6.91	776	0.04	0.55	—	0.55	0.73	—	0.73	0.00	2,486	2,486	0.10	0.02	—	2,495
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	—	359	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	25.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	385	0.00	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	—	65.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	4.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	8.64	8.07	0.62	69.9	< 0.005	0.05	—	0.05	0.07	—	0.07	—	203	203	0.01	< 0.005	—	204
Total	8.64	78.3	0.62	69.9	< 0.005	0.05	—	0.05	0.07	—	0.07	0.00	203	203	0.01	< 0.005	—	204

4.4. Water Emissions by Land Use

4.4.2. 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	—	—	—	—	—	—	—	—	—	—	—	86.6	2,156	2,243	9.02	0.23	—	2,536
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	533	2,758	3,291	54.8	1.32	—	5,053
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	249	1,289	1,538	25.6	0.62	—	2,362
Hotel	—	—	—	—	—	—	—	—	—	—	—	85.8	444	530	8.82	0.21	—	814
General Office Building	—	—	—	—	—	—	—	—	—	—	—	533	2,758	3,291	54.8	1.32	—	5,053
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	113	583	695	11.6	0.28	—	1,068
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	237	1,225	1,462	24.3	0.59	—	2,245
Total	—	—	—	—	—	—	—	—	—	—	—	1,836	11,214	13,050	189	4.56	—	19,132

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	86.6	2,156	2,243	9.02	0.23	—	2,536
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	533	2,758	3,291	54.8	1.32	—	5,053
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	249	1,289	1,538	25.6	0.62	—	2,362
Hotel	—	—	—	—	—	—	—	—	—	—	—	85.8	444	530	8.82	0.21	—	814
General Office Building	—	—	—	—	—	—	—	—	—	—	—	533	2,758	3,291	54.8	1.32	—	5,053
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	113	583	695	11.6	0.28	—	1,068
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	237	1,225	1,462	24.3	0.59	—	2,245
Total	—	—	—	—	—	—	—	—	—	—	—	1,836	11,214	13,050	189	4.56	—	19,132
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.3	357	371	1.49	0.04	—	420
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	88.2	457	545	9.07	0.22	—	837
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	41.2	213	255	4.24	0.10	—	391
Hotel	—	—	—	—	—	—	—	—	—	—	—	14.2	73.5	87.7	1.46	0.04	—	135
General Office Building	—	—	—	—	—	—	—	—	—	—	—	88.2	457	545	9.07	0.22	—	837

Manufact	—	—	—	—	—	—	—	—	—	—	—	18.6	96.5	115	1.92	0.05	—	177
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	39.2	203	242	4.03	0.10	—	372
Total	—	—	—	—	—	—	—	—	—	—	—	304	1,857	2,161	31.3	0.75	—	3,167

4.5. Waste Emissions by Land Use

4.5.2. 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	—	—	—	—	—	—	—	—	—	—	—	517	0.00	517	51.6	0.00	—	1,807
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	2,923	0.00	2,923	292	0.00	—	10,226
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	993	0.00	993	99.2	0.00	—	3,473
Hotel	—	—	—	—	—	—	—	—	—	—	—	521	0.00	521	52.1	0.00	—	1,822
General Office Building	—	—	—	—	—	—	—	—	—	—	—	784	0.00	784	78.3	0.00	—	2,743
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	170	0.00	170	17.0	0.00	—	594
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	357	0.00	357	35.7	0.00	—	1,249
Total	—	—	—	—	—	—	—	—	—	—	—	6,263	0.00	6,263	626	0.00	—	21,913

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	517	0.00	517	51.6	0.00	—	1,807
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	2,923	0.00	2,923	292	0.00	—	10,226
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	993	0.00	993	99.2	0.00	—	3,473
Hotel	—	—	—	—	—	—	—	—	—	—	—	521	0.00	521	52.1	0.00	—	1,822
General Office Building	—	—	—	—	—	—	—	—	—	—	—	784	0.00	784	78.3	0.00	—	2,743
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	170	0.00	170	17.0	0.00	—	594
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	357	0.00	357	35.7	0.00	—	1,249
Total	—	—	—	—	—	—	—	—	—	—	—	6,263	0.00	6,263	626	0.00	—	21,913
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	85.5	0.00	85.5	8.55	0.00	—	299
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	484	0.00	484	48.4	0.00	—	1,693
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	164	0.00	164	16.4	0.00	—	575
Hotel	—	—	—	—	—	—	—	—	—	—	—	86.2	0.00	86.2	8.62	0.00	—	302
General Office Building	—	—	—	—	—	—	—	—	—	—	—	130	0.00	130	13.0	0.00	—	454

Manufact	—	—	—	—	—	—	—	—	—	—	—	28.1	0.00	28.1	2.81	0.00	—	98.3
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	59.1	0.00	59.1	5.91	0.00	—	207
Total	—	—	—	—	—	—	—	—	—	—	—	1,037	0.00	1,037	104	0.00	—	3,628

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.7	16.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.42	8.42
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,006	4,006
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.80	3.80
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66.1	66.1
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	139	139
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,296	4,296

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.7	16.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.42	8.42
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,006	4,006
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.80	3.80
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66.1	66.1
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	139	139
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,296	4,296
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.76	2.76
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.22	9.22
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.39	1.39
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	663	663
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.63	0.63

Manufact	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.9	10.9
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.0	23.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	711	711

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)

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Single Family Housing	11,262	11,381	10,200	4,061,458	104,975	106,087	95,078	37,857,658
Apartments Low Rise	53,685	59,699	46,058	19,510,850	500,408	556,464	429,311	181,864,534
Regional Shopping Center	66,229	80,913	37,018	23,415,989	271,941	371,489	169,957	99,131,287
Hotel	14,755	14,455	10,502	5,148,278	136,600	133,822	97,221	47,660,795
General Office Building	15,233	3,456	1,095	4,208,869	141,025	31,998	10,135	38,964,107
Manufacturing	998	1,631	1,293	412,692	9,241	15,096	11,969	3,820,545
Industrial Park	1,800	1,356	662	574,428	16,660	12,557	6,130	5,317,832

### 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	1193
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	7334
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)
20453289.75	6,817,763	10,003,770	3,334,590	—

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	7,563,957	532	0.0330	0.0040	51,806,952
Apartments Low Rise	28,737,337	532	0.0330	0.0040	133,271,954
Regional Shopping Center	17,141,022	532	0.0330	0.0040	10,490,958
Hotel	35,840,505	532	0.0330	0.0040	74,971,988
General Office Building	27,632,633	532	0.0330	0.0040	41,525,834
Manufacturing	2,361,926	532	0.0330	0.0040	10,833,026
Industrial Park	9,434,671	532	0.0330	0.0040	14,178,258

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	45,218,786	220,785,061
Apartments Low Rise	277,983,719	0.00
Regional Shopping Center	129,952,832	0.00
Hotel	44,772,349	0.00
General Office Building	277,975,582	0.00

Manufacturing	58,737,500	0.00
Industrial Park	123,487,500	0.00

### 5.13. Operational Waste Generation

#### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	958	—
Apartments Low Rise	5,423	—
Regional Shopping Center	1,842	—
Hotel	966	—
General Office Building	1,455	—
Manufacturing	315	—
Industrial Park	662	—

### 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 Low 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 Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
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
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
Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

### 5.15. Operational Off-Road Equipment

#### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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### 5.16. Stationary Sources

#### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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#### 5.16.2. Process Boilers



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

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14.8	annual days of extreme heat
Extreme Precipitation	6.90	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	25.7	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7
AQ-PM	41.1
AQ-DPM	81.7

Drinking Water	59.8
Lead Risk Housing	33.6
Pesticides	0.00
Toxic Releases	26.0
Traffic	86.7
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	22.1
Haz Waste Facilities/Generators	40.1
Impaired Water Bodies	87.0
Solid Waste	52.9
Sensitive Population	—
Asthma	14.8
Cardio-vascular	19.5
Low Birth Weights	52.5
Socioeconomic Factor Indicators	—
Education	71.8
Housing	87.9
Linguistic	38.1
Poverty	46.6
Unemployment	60.6

## 7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	43.9753625

Employed	80.73912486
Median HI	26.34415501
Education	—
Bachelor's or higher	52.44450148
High school enrollment	100
Preschool enrollment	77.6337739
Transportation	—
Auto Access	18.65776979
Active commuting	53.41973566
Social	—
2-parent households	9.418709098
Voting	62.64596433
Neighborhood	—
Alcohol availability	21.69896061
Park access	81.35506224
Retail density	88.31002181
Supermarket access	73.66867702
Tree canopy	65.52033877
Housing	—
Homeownership	22.10958553
Housing habitability	14.59001668
Low-inc homeowner severe housing cost burden	6.120877711
Low-inc renter severe housing cost burden	37.22571539
Uncrowded housing	61.41408957
Health Outcomes	—
Insured adults	34.59514949
Arthritis	45.8

Asthma ER Admissions	80.1
High Blood Pressure	39.5
Cancer (excluding skin)	34.5
Asthma	37.3
Coronary Heart Disease	43.7
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	70.5
Life Expectancy at Birth	24.2
Cognitively Disabled	16.7
Physically Disabled	26.6
Heart Attack ER Admissions	63.6
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	47.8
Pedestrian Injuries	48.7
Physical Health Not Good	46.9
Stroke	45.2
Health Risk Behaviors	—
Binge Drinking	26.9
Current Smoker	45.9
No Leisure Time for Physical Activity	48.0
Climate Change Exposures	—
Wildfire Risk	17.9
SLR Inundation Area	0.0
Children	64.0
Elderly	47.3
English Speaking	51.5

Foreign-born	55.9
Outdoor Workers	82.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.0
Traffic Density	94.4
Traffic Access	23.0
Other Indices	—
Hardship	53.4
Other Decision Support	—
2016 Voting	69.3

### 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)	47.0
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