

La Mirada GPA Zone Change Maximum Potential Existing Development 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

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. 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	La Mirada GPA Zone Change Maximum Potential Existing Development
Operational Year	2024
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	18.8
Location	33.87455814204877, -118.01649755737472
County	Los Angeles-South Coast
City	La Mirada
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4838
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.28

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Regional Shopping Center	1,196	1000sqft	18.3	1,195,557	0.00	0.00	—	—
Manufacturing	266	1000sqft	12.2	265,679	0.00	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.	220	205	143	1,221	2.65	2.49	215	217	2.33	54.6	57.0	1,142	289,365	290,507	132	15.4	1,106	299,488
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	207	192	154	1,090	2.54	2.38	215	217	2.25	54.6	56.9	1,142	279,070	280,211	133	15.9	102	288,380
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	211	196	150	1,108	2.43	2.37	199	202	2.22	50.8	53.0	1,142	267,871	269,013	132	15.5	495	277,424
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	38.5	35.8	27.4	202	0.44	0.43	36.4	36.8	0.41	9.26	9.67	189	44,349	44,538	21.9	2.56	81.9	45,931

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	173	159	137	1,153	2.61	2.00	215	217	1.87	54.6	56.5	—	268,540	268,540	15.0	14.5	1,031	274,265

La Mirada GPA Zone Change Maximum Potential Existing Development Detailed Report, 11/8/2024

Area	46.3	45.4	0.54	63.5	< 0.005	0.11	—	0.11	0.09	—	0.09	—	261	261	0.01	< 0.005	—	262
Energy	0.55	0.27	4.98	4.18	0.03	0.38	—	0.38	0.38	—	0.38	—	19,588	19,588	1.82	0.17	—	19,684
Water	—	—	—	—	—	—	—	—	—	—	—	287	975	1,263	29.6	0.71	—	2,214
Waste	—	—	—	—	—	—	—	—	—	—	—	854	0.00	854	85.4	0.00	—	2,988
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	74.9	74.9
Total	220	205	143	1,221	2.65	2.49	215	217	2.33	54.6	57.0	1,142	289,365	290,507	132	15.4	1,106	299,488
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	171	157	149	1,086	2.51	2.00	215	217	1.87	54.6	56.5	—	258,506	258,506	15.8	15.1	26.7	263,419
Area	35.0	35.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.55	0.27	4.98	4.18	0.03	0.38	—	0.38	0.38	—	0.38	—	19,588	19,588	1.82	0.17	—	19,684
Water	—	—	—	—	—	—	—	—	—	—	—	287	975	1,263	29.6	0.71	—	2,214
Waste	—	—	—	—	—	—	—	—	—	—	—	854	0.00	854	85.4	0.00	—	2,988
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	74.9	74.9
Total	207	192	154	1,090	2.54	2.38	215	217	2.25	54.6	56.9	1,142	279,070	280,211	133	15.9	102	288,380
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	168	154	145	1,061	2.40	1.91	199	201	1.79	50.8	52.5	—	247,129	247,129	15.2	14.6	420	252,284
Area	42.7	42.1	0.37	43.5	< 0.005	0.08	—	0.08	0.06	—	0.06	—	179	179	0.01	< 0.005	—	180
Energy	0.55	0.27	4.98	4.18	0.03	0.38	—	0.38	0.38	—	0.38	—	19,588	19,588	1.82	0.17	—	19,684
Water	—	—	—	—	—	—	—	—	—	—	—	287	975	1,263	29.6	0.71	—	2,214
Waste	—	—	—	—	—	—	—	—	—	—	—	854	0.00	854	85.4	0.00	—	2,988
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	74.9	74.9
Total	211	196	150	1,108	2.43	2.37	199	202	2.22	50.8	53.0	1,142	267,871	269,013	132	15.5	495	277,424
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	30.6	28.1	26.5	194	0.44	0.35	36.4	36.7	0.33	9.26	9.59	—	40,915	40,915	2.52	2.42	69.5	41,768
Area	7.80	7.69	0.07	7.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Energy	0.10	0.05	0.91	0.76	0.01	0.07	—	0.07	0.07	—	0.07	—	3,243	3,243	0.30	0.03	—	3,259

Water	—	—	—	—	—	—	—	—	—	—	—	—	47.6	161	209	4.89	0.12	—	367
Waste	—	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	495
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.4	12.4
Total	38.5	35.8	27.4	202	0.44	0.43	36.4	36.8	0.41	9.26	9.67	189	44,349	44,538	21.9	2.56	81.9	45,931	

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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	158	147	90.7	976	1.96	1.36	170	172	1.27	43.3	44.5	—	200,067	200,067	12.4	9.06	776	203,853
Manufacturing	15.3	12.3	46.5	176	0.66	0.63	44.2	44.8	0.60	11.4	12.0	—	68,473	68,473	2.58	5.43	255	70,412
Total	173	159	137	1,153	2.61	2.00	215	217	1.87	54.6	56.5	—	268,540	268,540	15.0	14.5	1,031	274,265
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	156	144	99.3	927	1.87	1.36	170	172	1.27	43.3	44.5	—	191,761	191,761	13.2	9.55	20.1	194,957
Manufacturing	15.2	12.2	49.2	158	0.64	0.64	44.2	44.8	0.60	11.4	12.0	—	66,745	66,745	2.62	5.52	6.61	68,461

Total	171	157	149	1,086	2.51	2.00	215	217	1.87	54.6	56.5	—	258,506	258,506	15.8	15.1	26.7	263,419
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	27.9	25.9	17.4	164	0.32	0.23	28.4	28.6	0.22	7.21	7.43	—	29,788	29,788	2.09	1.50	51.3	30,340
Manufacturing	2.76	2.22	9.10	29.8	0.12	0.12	7.97	8.09	0.11	2.05	2.16	—	11,127	11,127	0.43	0.91	18.2	11,429
Total	30.6	28.1	26.5	194	0.44	0.35	36.4	36.7	0.33	9.26	9.59	—	40,915	40,915	2.52	2.42	69.5	41,768

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	11,216	11,216	1.06	0.13	—	11,281
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	2,434	2,434	0.23	0.03	—	2,448
Total	—	—	—	—	—	—	—	—	—	—	—	—	13,650	13,650	1.29	0.16	—	13,729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	11,216	11,216	1.06	0.13	—	11,281
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	2,434	2,434	0.23	0.03	—	2,448
Total	—	—	—	—	—	—	—	—	—	—	—	—	13,650	13,650	1.29	0.16	—	13,729
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	1,857	1,857	0.18	0.02	—	1,868
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	403	403	0.04	< 0.005	—	405
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,260	2,260	0.21	0.03	—	2,273

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	0.21	0.11	1.92	1.61	0.01	0.15	—	0.15	0.15	—	0.15	—	2,294	2,294	0.20	< 0.005	—	2,300
Manufacturing	0.34	0.17	3.05	2.57	0.02	0.23	—	0.23	0.23	—	0.23	—	3,644	3,644	0.32	0.01	—	3,655
Total	0.55	0.27	4.98	4.18	0.03	0.38	—	0.38	0.38	—	0.38	—	5,938	5,938	0.53	0.01	—	5,955
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Regional Shopping Center	0.21	0.11	1.92	1.61	0.01	0.15	—	0.15	0.15	—	0.15	—	2,294	2,294	0.20	< 0.005	—	2,300
Manufacturing	0.34	0.17	3.05	2.57	0.02	0.23	—	0.23	0.23	—	0.23	—	3,644	3,644	0.32	0.01	—	3,655
Total Annual	0.55	0.27	4.98	4.18	0.03	0.38	—	0.38	0.38	—	0.38	—	5,938	5,938	0.53	0.01	—	5,955
Regional Shopping Center	0.04	0.02	0.35	0.29	< 0.005	0.03	—	0.03	0.03	—	0.03	—	380	380	0.03	< 0.005	—	381
Manufacturing	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	603	603	0.05	< 0.005	—	605
Total	0.10	0.05	0.91	0.76	0.01	0.07	—	0.07	0.07	—	0.07	—	983	983	0.09	< 0.005	—	986

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	31.3	31.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	3.71	3.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	11.3	10.4	0.54	63.5	< 0.005	0.11	—	0.11	0.09	—	0.09	—	261	261	0.01	< 0.005	—	262
Total	46.3	45.4	0.54	63.5	< 0.005	0.11	—	0.11	0.09	—	0.09	—	261	261	0.01	< 0.005	—	262
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	31.3	31.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	3.71	3.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	35.0	35.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	5.71	5.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.68	0.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.41	1.30	0.07	7.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Total	7.80	7.69	0.07	7.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	170	576	746	17.5	0.42	—	1,307
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	118	399	517	12.1	0.29	—	907
Total	—	—	—	—	—	—	—	—	—	—	—	287	975	1,263	29.6	0.71	—	2,214
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	170	576	746	17.5	0.42	—	1,307
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	118	399	517	12.1	0.29	—	907
Total	—	—	—	—	—	—	—	—	—	—	—	287	975	1,263	29.6	0.71	—	2,214
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	28.1	95.3	123	2.89	0.07	—	216
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	19.5	66.1	85.6	2.00	0.05	—	150
Total	—	—	—	—	—	—	—	—	—	—	—	47.6	161	209	4.89	0.12	—	367

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	677	0.00	677	67.6	0.00	—	2,367
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.7	0.00	—	621
Total	—	—	—	—	—	—	—	—	—	—	—	854	0.00	854	85.4	0.00	—	2,988
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	677	0.00	677	67.6	0.00	—	2,367
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	178	0.00	178	17.7	0.00	—	621
Total	—	—	—	—	—	—	—	—	—	—	—	854	0.00	854	85.4	0.00	—	2,988
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	112	0.00	112	11.2	0.00	—	392
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	29.4	0.00	29.4	2.94	0.00	—	103
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	495

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.74	5.74
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	69.2	69.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	74.9	74.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.74	5.74
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	69.2	69.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	74.9	74.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.95	0.95
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.4	11.4

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.4	12.4
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	------	------

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)

Equipm ent 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)

Equipm ent 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)

Equipm ent 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)

Vegetati on	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

5.9. 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
Regional Shopping Center	44,248	44,248	44,248	16,150,361	214,856	240,336	240,336	81,079,549
Manufacturing	3,305	3,305	3,305	1,206,342	59,821	59,821	59,821	21,834,791

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	2,191,854	730,618	—

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Regional Shopping Center	11,742,003	349	0.0330	0.0040	7,157,733
Manufacturing	2,548,589	349	0.0330	0.0040	11,371,577

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Regional Shopping Center	88,557,922	0.00
Manufacturing	61,438,269	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Regional Shopping Center	1,255	—
Manufacturing	329	—

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

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16.1. Emergency Generators and Fire Pumps

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

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

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.48	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	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	47.4
AQ-PM	77.7
AQ-DPM	80.6
Drinking Water	36.6
Lead Risk Housing	68.8
Pesticides	0.00
Toxic Releases	86.8
Traffic	72.3
Effect Indicators	—
CleanUp Sites	54.6
Groundwater	95.0
Haz Waste Facilities/Generators	88.1
Impaired Water Bodies	66.7
Solid Waste	0.00
Sensitive Population	—
Asthma	37.2
Cardio-vascular	73.3
Low Birth Weights	76.4
Socioeconomic Factor Indicators	—
Education	41.6
Housing	30.2
Linguistic	57.4
Poverty	30.8
Unemployment	25.2

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	73.42486847
Employed	31.70794303
Median HI	78.96830489
Education	—
Bachelor's or higher	46.15680739
High school enrollment	15.50109072
Preschool enrollment	68.29205697
Transportation	—
Auto Access	89.83703323
Active commuting	9.983318363
Social	—
2-parent households	93.25035288
Voting	47.64532273
Neighborhood	—
Alcohol availability	77.19748492
Park access	81.35506224
Retail density	14.46169639
Supermarket access	42.409855
Tree canopy	54.35647376
Housing	—
Homeownership	82.57410497
Housing habitability	85.02502246
Low-inc homeowner severe housing cost burden	41.61426922
Low-inc renter severe housing cost burden	94.93134865

Uncrowded housing	31.74643911
Health Outcomes	—
Insured adults	49.96791993
Arthritis	0.0
Asthma ER Admissions	58.4
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	37.5
Cognitively Disabled	35.0
Physically Disabled	39.7
Heart Attack ER Admissions	17.7
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	72.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	61.0
Elderly	34.5
English Speaking	44.7
Foreign-born	37.7
Outdoor Workers	54.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	35.2
Traffic Density	77.8
Traffic Access	23.0
Other Indices	—
Hardship	38.4
Other Decision Support	—
2016 Voting	46.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	71.0
Healthy Places Index Score for Project Location (b)	64.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Before GPA-ZC data and La Mirada Industrial-Commercial GPA & ZC: Land Use Values Memo data. Retail land use used for freeway commercial consistent with its ITE code.
Operations: Vehicle Data	Trip rate for both land use types updated based on traffic study. Regional shopping center land use trip length used caleemod defaults. Manufacturing land use trip length updated based on data in the SCAQMD Staff Report for Rule 2305 and ITE trip generation data for manufacturing. Purpose and Percentage values used caleemod defaults.
Operations: Fleet Mix	Regional shopping center fleet mix values set at caleemod defaults. Manufacturing fleet mix updated based on ITE trip generation data for manufacturing.