
APPENDIX D - AIR QUALITY ASSESSMENT

Hermosa Beach General Plan Update

Draft EIR

Air Quality Assessment Files

CalEEMod Output Files

EMFAC2014 – Mobile Source Emissions

Hermosa Beach General Plan Update

Hermosa Beach GP Non-Residential Operations

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,130.70	1000sqft	25.96	1,130,700.00	0
Fast Food Restaurant w/o Drive Thru	402.80	1000sqft	9.25	402,800.00	0
Hotel	826.90	Room	27.56	1,200,658.80	0
Strip Mall	102.70	1000sqft	2.36	102,700.00	0
Free-Standing Discount Store	104.90	1000sqft	2.41	104,900.00	0
General Light Industry	168.80	1000sqft	3.88	168,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Energy Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2035

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314
Energy	4.1301	37.5459	31.5386	0.2253		2.8535	2.8535		2.8535	2.8535		45,055.1201	45,055.1201	0.8636	0.8260	45,329.3181
Mobile	661.9563	1,275.5744	6,169.5121	25.2162	1,593.8294	34.5392	1,628.3686	426.1747	31.8784	458.0531		1,798.5120994	1,798,512.0994	46.1984		1,799,482.2654
Total	747.4507	1,313.1228	6,201.3285	25.4415	1,593.8294	37.3937	1,631.2231	426.1747	34.7329	460.9076		1,843,567.8185	1,843,567.8185	47.0635	0.8260	1,844,812.2148

Mitigated Operational

Hermosa Beach General Plan Update

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314
Energy	3.7018	33.6528	28.2683	0.2019		2.5576	2.5576		2.5576	2.5576		40,383.3075	40,383.3075	0.7740	0.7404	40,629.0736
Mobile	661.9563	1,275.5744	6,169.5121	25.2162	1,593.8294	34.5392	1,628.3686	426.1747	31.8784	458.0531		1,798,512.0994	1,798,512.0994	46.1984		1,799,482.2654
Total	747.0225	1,309.2297	6,198.0582	25.4182	1,593.8294	37.0978	1,630.9272	426.1747	34.4370	460.6117		1,838,896.0059	1,838,896.0059	46.9739	0.7404	1,840,111.9703

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.06	0.30	0.05	0.09	0.00	0.79	0.02	0.00	0.85	0.06	0.00	0.25	0.25	0.19	10.37	0.25

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	661.9563	1,275.5744	6,169.5121	25.2162	1,593.8294	34.5392	1,628.3686	426.1747	31.8784	458.0531		1,798,512.0994	1,798,512.0994	46.1984		1,799,482.2654
Unmitigated	661.9563	1,275.5744	6,169.5121	25.2162	1,593.8294	34.5392	1,628.3686	426.1747	31.8784	458.0531		1,798,512.0994	1,798,512.0994	46.1984		1,799,482.2654

4.2 Trip Summary Information

Hermosa Beach General Plan Update

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	288,404.80	280,348.80	201400.00	497,719,538	497,719,538
Free-Standing Discount Store	6,004.48	7,455.24	5912.16	11,632,887	11,632,887
General Light Industry	1,176.54	222.82	114.78	3,935,018	3,935,018
Government Office Building	77,939.15	0.00	0.00	131,091,711	131,091,711
Hotel	6,755.77	6,772.31	4920.06	15,500,305	15,500,305
Strip Mall	4,551.66	4,317.51	2098.16	7,929,470	7,929,470
Total	384,832.40	299,116.68	214,445.16	667,808,929	667,808,929

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
Free-Standing Discount Store	16.60	8.40	6.90	12.20	68.80	19.00	47.5	35.5	17
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.475956	0.062534	0.188657	0.147142	0.045607	0.007258	0.017370	0.042746	0.002183	0.002612	0.003879	0.000535	0.003521

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.7018	33.6528	28.2683	0.2019		2.5576	2.5576		2.5576	2.5576		40,383.3075	40,383.3075	0.7740	0.7404	40,629.0736
NaturalGas Unmitigated	4.1301	37.5459	31.5386	0.2253		2.8535	2.8535		2.8535	2.8535		45,055.1201	45,055.1201	0.8636	0.8260	45,329.3181

5.2 Energy by Land Use - NaturalGas

Hermosa Beach General Plan Update

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Free-Standing Discount Store	488.575	5.2700e-003	0.0479	0.0402	2.9000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003		57.4795	57.4795	1.1000e-003	1.0500e-003	57.8293
General Light Industry	8698.98	0.0938	0.8528	0.7164	5.1200e-003		0.0648	0.0648		0.0648	0.0648		1,023.4095	1,023.4095	0.0196	0.0188	1,029.6378
Government Office Building	33859	0.3652	3.3195	2.7884	0.0199		0.2523	0.2523		0.2523	0.2523		3,983.4169	3,983.4169	0.0764	0.0730	4,007.6593
Hotel	82302.7	0.8876	8.0689	6.7779	0.0484		0.6132	0.6132		0.6132	0.6132		9,682.6698	9,682.6698	0.1856	0.1775	9,741.5970
Strip Mall	478.329	5.1600e-003	0.0469	0.0394	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2740	56.2740	1.0800e-003	1.0300e-003	56.6165
Fast Food Restaurant w/o Drive Thru	257141	2.7731	25.2099	21.1763	0.1513		1.9160	1.9160		1.9160	1.9160		30,251.8704	30,251.8704	0.5798	0.5546	30,435.9783
Total		4.1301	37.5459	31.5386	0.2253		2.8535	2.8535		2.8535	2.8535		45,055.1201	45,055.1201	0.8636	0.8260	45,329.3181

Mitigated

Hermosa Beach General Plan Update

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day										lb/day						
Free-Standing Discount Store	0.401638	4.3300e-003	0.0394	0.0331	2.4000e-004		2.9900e-003	2.9900e-003		2.9900e-003	2.9900e-003			47.2515	47.2515	9.1000e-004	8.7000e-004	47.5391
General Light Industry	7.03873	0.0759	0.6901	0.5797	4.1400e-003		0.0525	0.0525		0.0525	0.0525			828.0857	828.0857	0.0159	0.0152	833.1253
Government Office Building	25.6963	0.2771	2.5193	2.1162	0.0151		0.1915	0.1915		0.1915	0.1915			3,023.0964	3,023.0964	0.0579	0.0554	3,041.4944
Hotel	65.0658	0.7017	6.3790	5.3584	0.0383		0.4848	0.4848		0.4848	0.4848			7,654.8045	7,654.8045	0.1467	0.1403	7,701.3904
Strip Mall	0.393214	4.2400e-003	0.0386	0.0324	2.3000e-004		2.9300e-003	2.9300e-003		2.9300e-003	2.9300e-003			46.2605	46.2605	8.9000e-004	8.5000e-004	46.5421
Fast Food Restaurant w/o Drive Thru	244.662	2.6385	23.9865	20.1487	0.1439		1.8230	1.8230		1.8230	1.8230			28,783.8089	28,783.8089	0.5517	0.5277	28,958.9823
Total		3.7018	33.6528	28.2683	0.2019		2.5576	2.5576		2.5576	2.5576			40,383.3075	40,383.3075	0.7740	0.7404	40,629.0736

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003			0.6314
Unmitigated	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003			0.6314

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	19.7499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	61.5891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0254	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314
Total	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	19.7499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	61.5891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0254	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314
Total	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Hermosa Beach General Plan Update

Hermosa Beach GP Non-Residential Operations

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	1,130.70	1000sqft	25.96	1,130,700.00	0
Fast Food Restaurant w/o Drive Thru	402.80	1000sqft	9.25	402,800.00	0
Hotel	826.90	Room	27.56	1,200,658.80	0
Strip Mall	102.70	1000sqft	2.36	102,700.00	0
Free-Standing Discount Store	104.90	1000sqft	2.41	104,900.00	0
General Light Industry	168.80	1000sqft	3.88	168,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2035
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Energy Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2035

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314
Energy	4.1301	37.5459	31.5386	0.2253		2.8535	2.8535		2.8535	2.8535		45,055.1201	45,055.1201	0.8636	0.8260	45,329.3181
Mobile	685.7408	1,323.9055	6,458.0609	23.9718	1,593.8294	34.7109	1,628.5403	426.1747	32.0363	458.2110		1,716,960.7496	1,716,960.7496	46.3647		1,717,934.4082
Total	771.2352	1,361.4539	6,489.8773	24.1971	1,593.8294	37.5654	1,631.3948	426.1747	34.8908	461.0655		1,762,016.4687	1,762,016.4687	47.2298	0.8260	1,763,264.3576

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314
Energy	3.7018	33.6528	28.2683	0.2019		2.5576	2.5576		2.5576	2.5576		40,383.3075	40,383.3075	0.7740	0.7404	40,629.0736
Mobile	685.7408	1,323.9055	6,458.0609	23.9718	1,593.8294	34.7109	1,628.5403	426.1747	32.0363	458.2110		1,716,960.7496	1,716,960.7496	46.3647		1,717,934.4082
Total	770.8070	1,357.5607	6,486.6071	24.1737	1,593.8294	37.2695	1,631.0989	426.1747	34.5949	460.7696		1,757,344.6561	1,757,344.6561	47.1402	0.7404	1,758,564.1131

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.06	0.29	0.05	0.10	0.00	0.79	0.02	0.00	0.85	0.06	0.00	0.27	0.27	0.19	10.37	0.27

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	685.7408	1,323.9055	6,458.0609	23.9718	1,593.8294	34.7109	1,628.5403	426.1747	32.0363	458.2110		1,716,960.7496	1,716,960.7496	46.3647		1,717,934.4082
Unmitigated	685.7408	1,323.9055	6,458.0609	23.9718	1,593.8294	34.7109	1,628.5403	426.1747	32.0363	458.2110		1,716,960.7496	1,716,960.7496	46.3647		1,717,934.4082

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	288,404.80	280,348.80	201400.00	497,719,538	497,719,538
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General Light Industry	1,176.54	222.82	114.78	3,935,018	3,935,018
Government Office Building	77,939.15	0.00	0.00	131,091,711	131,091,711
Hotel	6,755.77	6,772.31	4920.06	15,500,305	15,500,305
Strip Mall	4,551.66	4,317.51	2098.16	7,929,470	7,929,470
Total	384,832.40	299,116.68	214,445.16	667,808,929	667,808,929

4.3 Trip Type Information

Hermosa Beach General Plan Update

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
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General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Government Office Building	16.60	8.40	6.90	33.00	62.00	5.00	50	34	16
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.475956	0.062534	0.188657	0.147142	0.045607	0.007258	0.017370	0.042746	0.002183	0.002612	0.003879	0.000535	0.003521

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day											lb/day					
NaturalGas Mitigated	3.7018	33.6528	28.2683	0.2019		2.5576	2.5576		2.5576	2.5576		40,383.3075	40,383.3075	0.7740	0.7404	40,629.0736
NaturalGas Unmitigated	4.1301	37.5459	31.5386	0.2253		2.8535	2.8535		2.8535	2.8535		45,055.1201	45,055.1201	0.8636	0.8260	45,329.3181

5.2 Energy by Land Use - NaturalGas

Hermosa Beach General Plan Update

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant w/o Drive Thru	257141	2.7731	25.2099	21.1763	0.1513		1.9160	1.9160		1.9160	1.9160		30,251.8704	30,251.8704	0.5798	0.5546	30,435.9783
Free-Standing Discount Store	488.575	5.2700e-003	0.0479	0.0402	2.9000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003		57.4795	57.4795	1.1000e-003	1.0500e-003	57.8293
General Light Industry	8698.98	0.0938	0.8528	0.7164	5.1200e-003		0.0648	0.0648		0.0648	0.0648		1,023.4095	1,023.4095	0.0196	0.0188	1,029.6378
Government Office Building	33859	0.3652	3.3195	2.7884	0.0199		0.2523	0.2523		0.2523	0.2523		3,983.4169	3,983.4169	0.0764	0.0730	4,007.6593
Hotel	82302.7	0.8876	8.0689	6.7779	0.0484		0.6132	0.6132		0.6132	0.6132		9,682.6698	9,682.6698	0.1856	0.1775	9,741.5970
Strip Mall	478.329	5.1600e-003	0.0469	0.0394	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2740	56.2740	1.0800e-003	1.0300e-003	56.6165
Total		4.1301	37.5459	31.5386	0.2253		2.8535	2.8535		2.8535	2.8535		45,055.1201	45,055.1201	0.8636	0.8260	45,329.3181

Mitigated

Hermosa Beach General Plan Update

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day										lb/day						
Free-Standing Discount Store	0.401638	4.3300e-003	0.0394	0.0331	2.4000e-004		2.9900e-003	2.9900e-003		2.9900e-003	2.9900e-003			47.2515	47.2515	9.1000e-004	8.7000e-004	47.5391
General Light Industry	7.03873	0.0759	0.6901	0.5797	4.1400e-003		0.0525	0.0525		0.0525	0.0525			828.0857	828.0857	0.0159	0.0152	833.1253
Government Office Building	25.6963	0.2771	2.5193	2.1162	0.0151		0.1915	0.1915		0.1915	0.1915			3,023.0964	3,023.0964	0.0579	0.0554	3,041.4944
Hotel	65.0658	0.7017	6.3790	5.3584	0.0383		0.4848	0.4848		0.4848	0.4848			7,654.8045	7,654.8045	0.1467	0.1403	7,701.3904
Strip Mall	0.393214	4.2400e-003	0.0386	0.0324	2.3000e-004		2.9300e-003	2.9300e-003		2.9300e-003	2.9300e-003			46.2605	46.2605	8.9000e-004	8.5000e-004	46.5421
Fast Food Restaurant w/o Drive Thru	244.662	2.6385	23.9865	20.1487	0.1439		1.8230	1.8230		1.8230	1.8230			28,783.8089	28,783.8089	0.5517	0.5277	28,958.9823
Total		3.7018	33.6528	28.2683	0.2019		2.5576	2.5576		2.5576	2.5576			40,383.3075	40,383.3075	0.7740	0.7404	40,629.0736

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004			0.5990	0.5990	1.5400e-003	0.6314
Unmitigated	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004			0.5990	0.5990	1.5400e-003	0.6314

6.2 Area by SubCategory

Hermosa Beach General Plan Update

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	19.7499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	61.5891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0254	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314
Total	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	19.7499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	61.5891					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0254	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314
Total	81.3644	2.5000e-003	0.2778	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004		0.5990	0.5990	1.5400e-003		0.6314

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Hermosa Beach General Plan Update

Hermosa Beach GP Residential Operations

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	343.00	Dwelling Unit	111.36	617,400.00	981
Condo/Townhouse	280.00	Dwelling Unit	17.50	280,000.00	801
Apartments Mid Rise	419.00	Dwelling Unit	11.03	419,000.00	1198

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11	Operational Year		2035	
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Energy Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2035

2.0 Emissions Summary

Hermosa Beach General Plan Update

2.1 Overall Construction (Maximum Daily Emission)

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290
Energy	0.5470	4.6742	1.9890	0.0298		0.3779	0.3779		0.3779	0.3779		5,967.0498	5,967.0498	0.1144	0.1094	6,003.3643
Mobile	16.9652	42.5132	197.6290	0.9543	61.4627	1.2606	62.7232	16.4345	1.1632	17.5977		68,038.8988	68,038.8988	1.7065		68,074.7342
Total	322.0006	55.1033	809.0349	1.8219	61.4627	81.7118	143.1745	16.4345	81.6019	98.0365	9,760.3290	92,916.7401	102,677.0690	31.0754	0.7719	103,568.9274

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290
Energy	0.4364	3.7294	1.5870	0.0238		0.3015	0.3015		0.3015	0.3015		4,760.9706	4,760.9706	0.0913	0.0873	4,789.9451
Mobile	16.9652	42.5132	197.6290	0.9543	61.4627	1.2606	62.7232	16.4345	1.1632	17.5977		68,038.8988	68,038.8988	1.7065		68,074.7342
Total	321.8901	54.1585	808.6329	1.8159	61.4627	81.6355	143.0981	16.4345	81.5256	97.9601	9,760.3290	91,710.6609	101,470.9898	31.0522	0.7497	102,355.5082

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.03	1.71	0.05	0.33	0.00	0.09	0.05	0.00	0.09	0.08	0.00	1.30	1.17	0.07	2.87	1.17

4.0 Operational Detail - Mobile

Hermosa Beach General Plan Update

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	16.9652	42.5132	197.6290	0.9543	61.4627	1.2606	62.7232	16.4345	1.1632	17.5977		68,038.8988	68,038.8988	1.7065		68,074.7342
Unmitigated	16.9652	42.5132	197.6290	0.9543	61.4627	1.2606	62.7232	16.4345	1.1632	17.5977		68,038.8988	68,038.8988	1.7065		68,074.7342

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,761.21	3,000.04	2543.33	9,445,701	9,445,701
Condo/Townhouse	1,845.20	2,004.80	1699.60	6,312,163	6,312,163
Single Family Housing	3,282.51	3,457.44	3008.11	11,168,278	11,168,278
Total	7,888.92	8,462.28	7,251.04	26,926,142	26,926,142

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.475956	0.062534	0.188657	0.147142	0.045607	0.007258	0.017370	0.042746	0.002183	0.002612	0.003879	0.000535	0.003521

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4364	3.7294	1.5870	0.0238		0.3015	0.3015		0.3015	0.3015		4,760.9706	4,760.9706	0.0913	0.0873	4,789.9451
NaturalGas Unmitigated	0.5470	4.6742	1.9890	0.0298		0.3779	0.3779		0.3779	0.3779		5,967.0498	5,967.0498	0.1144	0.1094	6,003.3643

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	7828.76	0.0844	0.7215	0.3070	4.6100e-003		0.0583	0.0583		0.0583	0.0583		921.0302	921.0302	0.0177	0.0169	926.6354
Condo/Townhouse	13210	0.1425	1.2174	0.5180	7.7700e-003		0.0984	0.0984		0.0984	0.0984		1,554.1160	1,554.1160	0.0298	0.0285	1,563.5741
Single Family Housing	29681.2	0.3201	2.7353	1.1640	0.0175		0.2212	0.2212		0.2212	0.2212		3,491.9036	3,491.9036	0.0669	0.0640	3,513.1548
Total		0.5470	4.6742	1.9890	0.0298		0.3779	0.3779		0.3779	0.3779		5,967.0498	5,967.0498	0.1144	0.1094	6,003.3643

Mitigated

Hermosa Beach General Plan Update

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6.34854	0.0685	0.5851	0.2490	3.7300e-003		0.0473	0.0473		0.0473	0.0473		746.8869	746.8869	0.0143	0.0137	751.4323
Condo/Townhouse	10.4918	0.1132	0.9669	0.4114	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,234.3246	1,234.3246	0.0237	0.0226	1,241.8365
Single Family Housing	23.628	0.2548	2.1775	0.9266	0.0139		0.1761	0.1761		0.1761	0.1761		2,779.7591	2,779.7591	0.0533	0.0510	2,796.6762
Total		0.4364	3.7294	1.5870	0.0238		0.3015	0.3015		0.3015	0.3015		4,760.9706	4,760.9706	0.0913	0.0873	4,789.9451

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290
Unmitigated	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290

6.2 Area by SubCategory

Hermosa Beach General Plan Update

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	2.8209					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	26.0647					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Hearth	273.0415	6.9276	523.7528	0.8333		79.5966	79.5966		79.5841	79.5841	9,760.3290	18,756.0000	28,516.3290	29.1072	0.6625	29,332.9431	
Landscaping	2.5613	0.9883	85.6642	4.5400e-003		0.4767	0.4767		0.4767	0.4767		154.7915	154.7915	0.1474		157.8859	
Total	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290	

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	2.8209					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	26.0647					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Hearth	273.0415	6.9276	523.7528	0.8333		79.5966	79.5966		79.5841	79.5841	9,760.3290	18,756.0000	28,516.3290	29.1072	0.6625	29,332.9431	
Landscaping	2.5613	0.9883	85.6642	4.5400e-003		0.4767	0.4767		0.4767	0.4767		154.7915	154.7915	0.1474		157.8859	
Total	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290	

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Hermosa Beach General Plan Update

Hermosa Beach GP Residential Operations
South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	343.00	Dwelling Unit	111.36	617,400.00	981
Condo/Townhouse	280.00	Dwelling Unit	17.50	280,000.00	801
Apartments Mid Rise	419.00	Dwelling Unit	11.03	419,000.00	1198

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11	Operational Year		2035	
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Energy Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2035

2.0 Emissions Summary

Hermosa Beach General Plan Update

2.1 Overall Construction (Maximum Daily Emission)

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290
Energy	0.5470	4.6742	1.9890	0.0298		0.3779	0.3779		0.3779	0.3779		5,967.0498	5,967.0498	0.1144	0.1094	6,003.3643
Mobile	17.4201	44.3972	196.9920	0.9068	61.4627	1.2643	62.7270	16.4345	1.1666	17.6012		64,962.2247	64,962.2247	1.7101		64,998.1366
Total	322.4555	56.9873	808.3979	1.7745	61.4627	81.7156	143.1783	16.4345	81.6054	98.0399	9,760.3290	89,840.0660	99,600.3949	31.0790	0.7719	100,492.3298

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290
Energy	0.4364	3.7294	1.5870	0.0238		0.3015	0.3015		0.3015	0.3015		4,760.9706	4,760.9706	0.0913	0.0873	4,789.9451
Mobile	17.4201	44.3972	196.9920	0.9068	61.4627	1.2643	62.7270	16.4345	1.1666	17.6012		64,962.2247	64,962.2247	1.7101		64,998.1366
Total	322.3450	56.0426	807.9959	1.7685	61.4627	81.6392	143.1019	16.4345	81.5290	97.9635	9,760.3290	88,633.9868	98,394.3157	31.0559	0.7497	99,278.9106

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.03	1.66	0.05	0.34	0.00	0.09	0.05	0.00	0.09	0.08	0.00	1.34	1.21	0.07	2.87	1.21

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.4201	44.3972	196.9920	0.9068	61.4627	1.2643	62.7270	16.4345	1.1666	17.6012		64,962.2247	64,962.2247	1.7101		64,998.1366
Unmitigated	17.4201	44.3972	196.9920	0.9068	61.4627	1.2643	62.7270	16.4345	1.1666	17.6012		64,962.2247	64,962.2247	1.7101		64,998.1366

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,761.21	3,000.04	2543.33	9,445,701	9,445,701
Condo/Townhouse	1,845.20	2,004.80	1699.60	6,312,163	6,312,163
Single Family Housing	3,282.51	3,457.44	3008.11	11,168,278	11,168,278
Total	7,888.92	8,462.28	7,251.04	26,926,142	26,926,142

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.475956	0.062534	0.188657	0.147142	0.045607	0.007258	0.017370	0.042746	0.002183	0.002612	0.003879	0.000535	0.003521

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4364	3.7294	1.5870	0.0238		0.3015	0.3015		0.3015	0.3015		4,760.9706	4,760.9706	0.0913	0.0873	4,789.9451
NaturalGas Unmitigated	0.5470	4.6742	1.9890	0.0298		0.3779	0.3779		0.3779	0.3779		5,967.0498	5,967.0498	0.1144	0.1094	6,003.3643

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	7828.76	0.0844	0.7215	0.3070	4.6100e-003		0.0583	0.0583		0.0583	0.0583		921.0302	921.0302	0.0177	0.0169	926.6354
Condo/Townhouse	13210	0.1425	1.2174	0.5180	7.7700e-003		0.0984	0.0984		0.0984	0.0984		1,554.1160	1,554.1160	0.0298	0.0285	1,563.5741
Single Family Housing	29681.2	0.3201	2.7353	1.1640	0.0175		0.2212	0.2212		0.2212	0.2212		3,491.9036	3,491.9036	0.0669	0.0640	3,513.1548
Total		0.5470	4.6742	1.9890	0.0298		0.3779	0.3779		0.3779	0.3779		5,967.0498	5,967.0498	0.1144	0.1094	6,003.3643

Mitigated

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	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	6.34854	0.0685	0.5851	0.2490	3.7300e-003		0.0473	0.0473		0.0473	0.0473		746.8869	746.8869	0.0143	0.0137	751.4323
Condo/Townhouse	10.4918	0.1132	0.9669	0.4114	6.1700e-003		0.0782	0.0782		0.0782	0.0782		1,234.3246	1,234.3246	0.0237	0.0226	1,241.8365
Single Family Housing	23.628	0.2548	2.1775	0.9266	0.0139		0.1761	0.1761		0.1761	0.1761		2,779.7591	2,779.7591	0.0533	0.0510	2,796.6762
Total		0.4364	3.7294	1.5870	0.0238		0.3015	0.3015		0.3015	0.3015		4,760.9706	4,760.9706	0.0913	0.0873	4,789.9451

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290
Unmitigated	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.8209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	26.0647					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	273.0415	6.9276	523.7528	0.8333		79.5966	79.5966		79.5841	79.5841	9,760.3290	18,756.0000	28,516.3290	29.1072	0.6625	29,332.9431
Landscaping	2.5613	0.9883	85.6642	4.5400e-003		0.4767	0.4767		0.4767	0.4767		154.7915	154.7915	0.1474		157.8859
Total	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.8209					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	26.0647					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	273.0415	6.9276	523.7528	0.8333		79.5966	79.5966		79.5841	79.5841	9,760.3290	18,756.0000	28,516.3290	29.1072	0.6625	29,332.9431
Landscaping	2.5613	0.9883	85.6642	4.5400e-003		0.4767	0.4767		0.4767	0.4767		154.7915	154.7915	0.1474		157.8859
Total	304.4885	7.9160	609.4170	0.8378		80.0734	80.0734		80.0609	80.0609	9,760.3290	18,910.7915	28,671.1205	29.2545	0.6625	29,490.8290

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Hermosa Beach General Plan

Mobile Emissions

Year	Emission Factor (g/mi)						Daily VMT		Emissions w/o Project (lbs/day)						Emissions w/ Project (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2_5	w/o Project	w/ Project	VOC	NOx	CO	SOx	PM10	PM2.5	VOC	NOx	CO	SOx	PM10	PM2.5
2015	0.301	0.629	2.53	0.005	0.060	0.029	363,000	363,000	241	503	2,028	4	48	23	241	503	2,028	4	48	23
2040	0.086	0.157	0.61	0.003	0.053	0.022	356,000	341,000	236	493	1,989	4	47	23	226	473	1,905	4	45	22

0.002205 lbs/g

Hermosa Beach General Plan

Emission Factor Calculation

Row Labels	Data	
	Sum of Emissions (tons/day)	Sum of Emissions (g/day)
2015		
CO	608	551,838,149
NOx	151	136,931,727
PM10	14	13,113,166
PM2_5	7	6,246,417
ROG	72	65,487,528
SOx	1	1,067,507
2040		
CO	174	157,546,265
NOx	45	40,975,988
PM10	15	13,750,162
PM2_5	6	5,657,613
ROG	25	22,380,902
SOx	1	810,028

Sum of Daily VMT	
Row Labels	Total
2015	217,794,021
2040	260,172,160

1015687879.950 Total Emissions
 477966181 Total VMT
 2.12502039 Average Emission Rate

Aggregate	
Year	Emission Factor (g/mi)
2015	
CO	2.534
NOx	0.629
PM10	0.060
PM2_5	0.029
ROG	0.301
SOx	0.005
2040	
CO	0.606
NOx	0.157
PM10	0.053
PM2_5	0.022
ROG	0.086
SOx	0.003

Source: EMFAC2014