

13.C.2 AIR QUALITY ANALYSIS VMT SUMMARY TABLE, CALEEMOD
OUTPUTS, EMFAC OUTPUTS

VMT used for Mobile Source Emissions Estimates

Scenarios	Regional VMT	NC Total VMT	NC Internal VMT	NC Internal-External VMT	Non- NC VMT	NC Intra Zonal VMT
	All trips	All NC trips	Trips w/ both ends in NC	Trips with one end in NC	No trip end in NC	Intra zonal trips
Original (scen 1296)	95,784,095	3,446,633	111,671	3,334,961	92,337,462	2,213
2050 NC Adopted	95,764,502	3,302,367	99,409	3,202,958	92,462,135	2,029
2050 NC Preferred	95,826,676	3,340,914	100,248	3,240,666	92,485,762	2,049
Delta						
Adopted - Original	(19,593)	(144,266)	(12,262)	(132,003)	124,673	(185)
Preferred - Adopted	62,174	38,547	839	37,708	23,627	21

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**National City - Parcel 4
San Diego County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	329.00	Dwelling Unit	1.87	213,850.00	941

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Lot acreage and SF from project data
- Architectural Coating - Limits according to SDAPCD Rule 67.0.1
- Woodstoves - Assume no woodstoves or fireplaces
- Area Coating - Limits set by SDAPCD Rule 67.0.1
- Construction Off-road Equipment Mitigation -
- Area Mitigation - SDACPD Rule 67.0.1

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblLandUse	LandUseSquareFeet	329,000.00	213,850.00

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	8.66	1.87
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2.0 Emissions Summary

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	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
Year	lb/day										lb/day					
2022	2.4743	17.0050	19.1947	0.0463	7.1647	0.8385	7.9075	3.4465	0.7834	4.1299	0.0000	4,514.1002	4,514.1002	0.6477	0.1673	4,574.6667
2023	134.1423	13.7265	18.5874	0.0455	2.1839	0.5342	2.7181	0.5847	0.5153	1.0999	0.0000	4,440.3401	4,440.3401	0.4141	0.1592	4,498.1065
Maximum	134.1423	17.0050	19.1947	0.0463	7.1647	0.8385	7.9075	3.4465	0.7834	4.1299	0.0000	4,514.1002	4,514.1002	0.6477	0.1673	4,574.6667

Mitigated Construction

	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
Year	lb/day										lb/day					
2022	2.4743	17.0050	19.1947	0.0463	3.2693	0.8385	4.0121	1.5629	0.7834	2.2463	0.0000	4,514.1002	4,514.1002	0.6477	0.1673	4,574.6667
2023	134.1423	13.7265	18.5874	0.0455	2.1839	0.5342	2.7181	0.5847	0.5153	1.0999	0.0000	4,440.3401	4,440.3401	0.4141	0.1592	4,498.1065
Maximum	134.1423	17.0050	19.1947	0.0463	3.2693	0.8385	4.0121	1.5629	0.7834	2.2463	0.0000	4,514.1002	4,514.1002	0.6477	0.1673	4,574.6667

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	510.7252	10.1454	648.6475	1.1274		87.2928	87.2928		87.2928	87.2928	9,136.8994	3,880.7561	13,017.6555	8.4787	0.7187	13,443.7923
Energy	0.0707	0.6044	0.2572	3.8600e-003		0.0489	0.0489		0.0489	0.0489		771.5779	771.5779	0.0148	0.0142	776.1630
Mobile	5.0445	5.6794	47.5575	0.0978	10.7578	0.0771	10.8348	2.8657	0.0719	2.9376		10,133.8234	10,133.8234	0.7308	0.4612	10,289.5346
Total	515.8404	16.4292	696.4622	1.2291	10.7578	87.4188	98.1765	2.8657	87.4136	90.2793	9,136.8994	14,786.1573	23,923.0567	9.2244	1.1941	24,509.4900

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	510.7252	10.1454	648.6475	1.1274		87.2928	87.2928		87.2928	87.2928	9,136.8994	3,880.7561	13,017.6555	8.4787	0.7187	13,443.7923
Energy	0.0707	0.6044	0.2572	3.8600e-003		0.0489	0.0489		0.0489	0.0489		771.5779	771.5779	0.0148	0.0142	776.1630
Mobile	5.0445	5.6794	47.5575	0.0978	10.7578	0.0771	10.8348	2.8657	0.0719	2.9376		10,133.8234	10,133.8234	0.7308	0.4612	10,289.5346
Total	515.8404	16.4292	696.4622	1.2291	10.7578	87.4188	98.1765	2.8657	87.4136	90.2793	9,136.8994	14,786.1573	23,923.0567	9.2244	1.1941	24,509.4900

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/22/2022	10/19/2022	5	20	
2	Site Preparation	Site Preparation	10/20/2022	10/21/2022	5	2	
3	Grading	Grading	10/22/2022	10/27/2022	5	4	
4	Building Construction	Building Construction	10/28/2022	8/3/2023	5	200	
5	Paving	Paving	8/4/2023	8/17/2023	5	10	
6	Architectural Coating	Architectural Coating	8/18/2023	8/31/2023	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 433,046; Residential Outdoor: 144,349; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	237.00	35.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	47.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	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					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0411	0.0278	0.3196	9.2000e-004	0.1068	6.0000e-004	0.1074	0.0283	5.6000e-004	0.0289		93.6743	93.6743	3.0300e-003	2.7600e-003	94.5739
Total	0.0411	0.0278	0.3196	9.2000e-004	0.1068	6.0000e-004	0.1074	0.0283	5.6000e-004	0.0289		93.6743	93.6743	3.0300e-003	2.7600e-003	94.5739

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	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					
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0411	0.0278	0.3196	9.2000e-004	0.1068	6.0000e-004	0.1074	0.0283	5.6000e-004	0.0289		93.6743	93.6743	3.0300e-003	2.7600e-003	94.5739
Total	0.0411	0.0278	0.3196	9.2000e-004	0.1068	6.0000e-004	0.1074	0.0283	5.6000e-004	0.0289		93.6743	93.6743	3.0300e-003	2.7600e-003	94.5739

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	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					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727		1,666.1738	1,666.1738	0.5389		1,679.6457
Total	1.3122	14.6277	7.0939	0.0172	6.2662	0.6225	6.8887	3.0041	0.5727	3.5768		1,666.1738	1,666.1738	0.5389		1,679.6457

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0171	0.1967	5.7000e-004	0.0657	3.7000e-004	0.0661	0.0174	3.4000e-004	0.0178		57.6457	57.6457	1.8600e-003	1.7000e-003	58.1993
Total	0.0253	0.0171	0.1967	5.7000e-004	0.0657	3.7000e-004	0.0661	0.0174	3.4000e-004	0.0178		57.6457	57.6457	1.8600e-003	1.7000e-003	58.1993

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	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					
Fugitive Dust					2.8198	0.0000	2.8198	1.3518	0.0000	1.3518			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457
Total	1.3122	14.6277	7.0939	0.0172	2.8198	0.6225	3.4423	1.3518	0.5727	1.9246	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0171	0.1967	5.7000e-004	0.0657	3.7000e-004	0.0661	0.0174	3.4000e-004	0.0178		57.6457	57.6457	1.8600e-003	1.7000e-003	58.1993
Total	0.0253	0.0171	0.1967	5.7000e-004	0.0657	3.7000e-004	0.0661	0.0174	3.4000e-004	0.0178		57.6457	57.6457	1.8600e-003	1.7000e-003	58.1993

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	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					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	7.0826	0.7423	7.8249	3.4247	0.6829	4.1076		1,995.4825	1,995.4825	0.6454		2,011.6169

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0214	0.2458	7.1000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		72.0572	72.0572	2.3300e-003	2.1300e-003	72.7491
Total	0.0316	0.0214	0.2458	7.1000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		72.0572	72.0572	2.3300e-003	2.1300e-003	72.7491

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	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					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	3.1872	0.7423	3.9294	1.5411	0.6829	2.2240	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0214	0.2458	7.1000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		72.0572	72.0572	2.3300e-003	2.1300e-003	72.7491
Total	0.0316	0.0214	0.2458	7.1000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		72.0572	72.0572	2.3300e-003	2.1300e-003	72.7491

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	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					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0773	1.9316	0.6419	7.4700e-003	0.2370	0.0203	0.2573	0.0682	0.0194	0.0877		804.8026	804.8026	0.0244	0.1169	840.2545
Worker	0.7484	0.5066	5.8264	0.0168	1.9469	0.0110	1.9579	0.5164	0.0102	0.5266		1,707.7548	1,707.7548	0.0552	0.0504	1,724.1542
Total	0.8257	2.4381	6.4682	0.0243	2.1839	0.0313	2.2153	0.5847	0.0296	0.6142		2,512.5574	2,512.5574	0.0795	0.1673	2,564.4087

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	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					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0773	1.9316	0.6419	7.4700e-003	0.2370	0.0203	0.2573	0.0682	0.0194	0.0877		804.8026	804.8026	0.0244	0.1169	840.2545
Worker	0.7484	0.5066	5.8264	0.0168	1.9469	0.0110	1.9579	0.5164	0.0102	0.5266		1,707.7548	1,707.7548	0.0552	0.0504	1,724.1542
Total	0.8257	2.4381	6.4682	0.0243	2.1839	0.0313	2.2153	0.5847	0.0296	0.6142		2,512.5574	2,512.5574	0.0795	0.1673	2,564.4087

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	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					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0406	1.5635	0.5570	7.1800e-003	0.2370	9.1900e-003	0.2462	0.0682	8.7900e-003	0.0770		774.7643	774.7643	0.0233	0.1123	808.8079
Worker	0.7028	0.4526	5.4193	0.0163	1.9469	0.0105	1.9574	0.5164	9.6400e-003	0.5261		1,663.7882	1,663.7882	0.0502	0.0469	1,679.0129
Total	0.7434	2.0161	5.9763	0.0234	2.1839	0.0197	2.2036	0.5847	0.0184	0.6031		2,438.5524	2,438.5524	0.0735	0.1592	2,487.8207

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	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					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0406	1.5635	0.5570	7.1800e-003	0.2370	9.1900e-003	0.2462	0.0682	8.7900e-003	0.0770		774.7643	774.7643	0.0233	0.1123	808.8079
Worker	0.7028	0.4526	5.4193	0.0163	1.9469	0.0105	1.9574	0.5164	9.6400e-003	0.5261		1,663.7882	1,663.7882	0.0502	0.0469	1,679.0129
Total	0.7434	2.0161	5.9763	0.0234	2.1839	0.0197	2.2036	0.5847	0.0184	0.6031		2,438.5524	2,438.5524	0.0735	0.1592	2,487.8207

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	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					
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846		1,297.6880	1,297.6880	0.4114		1,307.9725

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0386	0.0248	0.2973	8.9000e-004	0.1068	5.7000e-004	0.1074	0.0283	5.3000e-004	0.0289		91.2626	91.2626	2.7500e-003	2.5700e-003	92.0978
Total	0.0386	0.0248	0.2973	8.9000e-004	0.1068	5.7000e-004	0.1074	0.0283	5.3000e-004	0.0289		91.2626	91.2626	2.7500e-003	2.5700e-003	92.0978

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	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					
Off-Road	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6446	6.2357	8.8024	0.0136		0.3084	0.3084		0.2846	0.2846	0.0000	1,297.6880	1,297.6880	0.4114		1,307.9725

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0386	0.0248	0.2973	8.9000e-004	0.1068	5.7000e-004	0.1074	0.0283	5.3000e-004	0.0289		91.2626	91.2626	2.7500e-003	2.5700e-003	92.0978
Total	0.0386	0.0248	0.2973	8.9000e-004	0.1068	5.7000e-004	0.1074	0.0283	5.3000e-004	0.0289		91.2626	91.2626	2.7500e-003	2.5700e-003	92.0978

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	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					
Archit. Coating	133.8113					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	134.0030	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1394	0.0898	1.0747	3.2200e-003	0.3861	2.0800e-003	0.3882	0.1024	1.9100e-003	0.1043		329.9496	329.9496	9.9600e-003	9.3000e-003	332.9688
Total	0.1394	0.0898	1.0747	3.2200e-003	0.3861	2.0800e-003	0.3882	0.1024	1.9100e-003	0.1043		329.9496	329.9496	9.9600e-003	9.3000e-003	332.9688

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	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					
Archit. Coating	133.8113					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	134.0030	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	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					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1394	0.0898	1.0747	3.2200e-003	0.3861	2.0800e-003	0.3882	0.1024	1.9100e-003	0.1043		329.9496	329.9496	9.9600e-003	9.3000e-003	332.9688
Total	0.1394	0.0898	1.0747	3.2200e-003	0.3861	2.0800e-003	0.3882	0.1024	1.9100e-003	0.1043		329.9496	329.9496	9.9600e-003	9.3000e-003	332.9688

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	5.0445	5.6794	47.5575	0.0978	10.7578	0.0771	10.8348	2.8657	0.0719	2.9376		10,133.8234	10,133.8234	0.7308	0.4612	10,289.5346
Unmitigated	5.0445	5.6794	47.5575	0.0978	10.7578	0.0771	10.8348	2.8657	0.0719	2.9376		10,133.8234	10,133.8234	0.7308	0.4612	10,289.5346

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,789.76	1,615.39	1345.61	4,858,013	4,858,013
Total	1,789.76	1,615.39	1,345.61	4,858,013	4,858,013

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	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures 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	0.0707	0.6044	0.2572	3.8600e-003		0.0489	0.0489		0.0489	0.0489		771.5779	771.5779	0.0148	0.0142	776.1630
NaturalGas Unmitigated	0.0707	0.6044	0.2572	3.8600e-003		0.0489	0.0489		0.0489	0.0489		771.5779	771.5779	0.0148	0.0142	776.1630

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	6558.41	0.0707	0.6044	0.2572	3.8600e-003		0.0489	0.0489		0.0489	0.0489		771.5779	771.5779	0.0148	0.0142	776.1630
Total		0.0707	0.6044	0.2572	3.8600e-003		0.0489	0.0489		0.0489	0.0489		771.5779	771.5779	0.0148	0.0142	776.1630

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	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	6.55841	0.0707	0.6044	0.2572	3.8600e-003		0.0489	0.0489		0.0489	0.0489		771.5779	771.5779	0.0148	0.0142	776.1630
Total		0.0707	0.6044	0.2572	3.8600e-003		0.0489	0.0489		0.0489	0.0489		771.5779	771.5779	0.0148	0.0142	776.1630

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	510.7252	10.1454	648.6475	1.1274		87.2928	87.2928		87.2928	87.2928	9,136.8994	3,880.7561	13,017.6555	8.4787	0.7187	13,443.7923
Unmitigated	510.7252	10.1454	648.6475	1.1274		87.2928	87.2928		87.2928	87.2928	9,136.8994	3,880.7561	13,017.6555	8.4787	0.7187	13,443.7923

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.8330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	503.4999	9.8328	621.5160	1.1260		87.1425	87.1425		87.1425	87.1425	9,136.8994	3,831.8824	12,968.7818	8.4318	0.7187	13,393.7463
Landscaping	0.8158	0.3126	27.1315	1.4300e-003		0.1504	0.1504		0.1504	0.1504		48.8737	48.8737	0.0469		50.0461
Total	510.7251	10.1454	648.6475	1.1274		87.2929	87.2929		87.2929	87.2929	9,136.8994	3,880.7561	13,017.6555	8.4787	0.7187	13,443.7923

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	1.8330					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	503.4999	9.8328	621.5160	1.1260		87.1425	87.1425		87.1425	87.1425	9,136.8994	3,831.8824	12,968.7818	8.4318	0.7187	13,393.7463
Landscaping	0.8158	0.3126	27.1315	1.4300e-003		0.1504	0.1504		0.1504	0.1504		48.8737	48.8737	0.0469		50.0461
Total	510.7251	10.1454	648.6475	1.1274		87.2929	87.2929		87.2929	87.2929	9,136.8994	3,880.7561	13,017.6555	8.4787	0.7187	13,443.7923

7.0 Water Detail

7.1 Mitigation Measures Water

National City - Parcel 4 - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**National City Adopted Zoning
San Diego County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24,781.79	1000sqft	186.00	24,781,788.00	0
Government Office Building	981.70	1000sqft	15.00	981,701.00	0
Junior College (2yr)	19,895.02	1000sqft	227.00	19,895,019.00	0
General Heavy Industry	29,670.17	1000sqft	681.13	29,670,170.00	0
City Park	136.00	Acre	136.00	5,924,160.00	0
Apartments High Rise	13,304.00	Dwelling Unit	177.00	13,304,000.00	38049
Apartments High Rise	29,134.00	Dwelling Unit	422.00	29,134,000.00	83323
Apartments Low Rise	10,866.00	Dwelling Unit	1,207.00	10,866,000.00	31077
Apartments Mid Rise	3,031.00	Dwelling Unit	132.00	3,031,000.00	8669
Automobile Care Center	2,678.93	1000sqft	61.00	2,678,931.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use - Used Maximum Growth parameters for Adopted Zoning - most conservative analysis

Used project-specific acreage

Second High-Rise land use represents mixed use residential/commercial zoning

Assuming Service zoning type is Government Office Building

Construction Phase - No construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	24,781,800.00	24,781,788.00
tblLandUse	LandUseSquareFeet	981,700.00	981,701.00
tblLandUse	LandUseSquareFeet	19,895,000.00	19,895,019.00
tblLandUse	LandUseSquareFeet	29,670,200.00	29,670,170.00
tblLandUse	LandUseSquareFeet	2,678,930.00	2,678,931.00
tblLandUse	LotAcreage	568.91	186.00
tblLandUse	LotAcreage	22.54	15.00
tblLandUse	LotAcreage	456.73	227.00
tblLandUse	LotAcreage	214.58	177.00
tblLandUse	LotAcreage	469.90	422.00
tblLandUse	LotAcreage	679.13	1,207.00
tblLandUse	LotAcreage	79.76	132.00
tblLandUse	LotAcreage	61.50	61.00

2.0 Emissions Summary

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	155,154.2 374	3,005.495 7	191,227.9 210	338.2994		26,187.87 78	26,187.87 78		26,187.87 78	26,187.877 8	2,743,097. 1596	1,158,800. 7369	3,901,897. 8965	2,539.433 2	215.7653	4,029,681. 7835
Energy	60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5 092	662,283.5 092	12.6938	12.1419	666,219.1 290
Mobile	2,070.709 7	1,968.333 6	20,228.48 16	45.5222	6,540.281 6	21.0722	6,561.353 8	1,742.230 2	19.7084	1,761.9387		5,122,185. 0663	5,122,185. 0663	312.9366	207.7113	5,191,906. 4596
Total	157,285.6 565	5,518.492 7	211,866.9 112	387.1330	6,540.281 6	26,250.89 46	32,791.17 62	1,742.230 2	26,249.53 08	27,991.761 1	2,743,097. 1596	6,943,269. 3124	9,686,366. 4720	2,865.063 5	435.6185	9,887,807. 3720

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	155,154.2 374	3,005.495 7	191,227.9 210	338.2994		26,187.87 78	26,187.87 78		26,187.87 78	26,187.877 8	2,743,097. 1596	1,158,800. 7369	3,901,897. 8965	2,539.433 2	215.7653	4,029,681. 7835
Energy	60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5 092	662,283.5 092	12.6938	12.1419	666,219.1 290
Mobile	2,070.709 7	1,968.333 6	20,228.48 16	45.5222	6,540.281 6	21.0722	6,561.353 8	1,742.230 2	19.7084	1,761.9387		5,122,185. 0663	5,122,185. 0663	312.9366	207.7113	5,191,906. 4596
Total	157,285.6 565	5,518.492 7	211,866.9 112	387.1330	6,540.281 6	26,250.89 46	32,791.17 62	1,742.230 2	26,249.53 08	27,991.761 1	2,743,097. 1596	6,943,269. 3124	9,686,366. 4720	2,865.063 5	435.6185	9,887,807. 3720

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2050	12/31/2049	5	0	
2	Site Preparation	Site Preparation	1/1/2050	12/31/2049	5	0	
3	Grading	Grading	1/1/2050	12/31/2049	5	0	
4	Building Construction	Building Construction	1/1/2050	12/31/2049	5	0	
5	Paving	Paving	1/1/2050	12/31/2049	5	0	
6	Architectural Coating	Architectural Coating	1/1/2050	12/31/2049	5	0	

Acres of Grading (Site Preparation Phase): 9000

Acres of Grading (Grading Phase): 46500

Acres of Paving: 0

Residential Indoor: 114,078,375; Residential Outdoor: 38,026,125; Non-Residential Indoor: 117,011,414; Non-Residential Outdoor: 39,003,805; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	72,968.00	19,779.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14,594.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	2,070.709 7	1,968.333 6	20,228.48 16	45.5222	6,540.281 6	21.0722	6,561.353 8	1,742.230 2	19.7084	1,761.9387		5,122,185. 0663	5,122,185. 0663	312.9366	207.7113	5,191,906. 4596
Unmitigated	2,070.709 7	1,968.333 6	20,228.48 16	45.5222	6,540.281 6	21.0722	6,561.353 8	1,742.230 2	19.7084	1,761.9387		5,122,185. 0663	5,122,185. 0663	312.9366	207.7113	5,191,906. 4596

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	59,202.80	60,267.12	47761.36	164,809,122	164,809,122
Apartments High Rise	129,646.30	131,977.02	104591.06	360,910,173	360,910,173
Apartments Low Rise	79,539.12	88,449.24	68238.48	226,133,222	226,133,222
Apartments Mid Rise	16,488.64	14,882.21	12396.79	44,755,738	44,755,738
Automobile Care Center	63,544.22	63,544.22	31825.69	58,787,931	58,787,931
City Park	106.08	266.56	297.84	333,891	333,891
General Heavy Industry	116,603.77	190,482.49	151021.17	385,593,390	385,593,390
General Office Building	241,374.63	54,767.76	17347.25	436,637,945	436,637,945
Government Office Building	22,176.60	0.00	0.00	27,164,445	27,164,445
Junior College (2yr)	402,874.16	223,421.07	24072.97	820,584,201	820,584,201
Total	1,131,556.32	828,057.69	457,552.61	2,525,710,058	2,525,710,058

4.3 Trip Type Information

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 High Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments High Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments Low Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Junior College (2yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Apartments Low Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Apartments Mid Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Automobile Care Center	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
City Park	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
General Heavy Industry	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
General Office Building	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Government Office Building	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Junior College (2yr)	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Natural Gas Mitigated	60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5092	662,283.5092	12.6938	12.1419	666,219.1290
Natural Gas Unmitigated	60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5092	662,283.5092	12.6938	12.1419	666,219.1290

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 High Rise	265207	2.8601	24.4407	10.4003	0.1560		1.9761	1.9761		1.9761	1.9761		31,200.8281	31,200.8281	0.5980	0.5720	31,386.2390
Apartments High Rise	580768	6.2632	53.5218	22.7752	0.3416		4.3273	4.3273		4.3273	4.3273		68,325.6860	68,325.6860	1.3096	1.2526	68,731.7114
Apartments Low Rise	324323	3.4976	29.8886	12.7186	0.1908		2.4165	2.4165		2.4165	2.4165		38,155.6832	38,155.6832	0.7313	0.6995	38,382.4233
Apartments Mid Rise	60421.1	0.6516	5.5682	2.3695	0.0355		0.4502	0.4502		0.4502	0.4502		7,108.3667	7,108.3667	0.1362	0.1303	7,150.6081
Automobile Care Center	84551.5	0.9118	8.2894	6.9631	0.0497		0.6300	0.6300		0.6300	0.6300		9,947.2313	9,947.2313	0.1907	0.1824	10,006.3427
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Heavy Industry	936439	10.0989	91.8078	77.1185	0.5509		6.9774	6.9774		6.9774	6.9774		110,169.3339	110,169.3339	2.1116	2.0198	110,824.0152
General Office Building	1.35994e+006	14.6661	133.3278	111.9953	0.8000		10.1329	10.1329		10.1329	10.1329		159,993.3001	159,993.3001	3.0665	2.9332	160,944.0603
Government Office Building	53872.5	0.5810	5.2816	4.4366	0.0317		0.4014	0.4014		0.4014	0.4014		6,337.9439	6,337.9439	0.1215	0.1162	6,375.6072
Junior College (2yr)	1.96388e+006	21.1791	192.5376	161.7316	1.1552		14.6329	14.6329		14.6329	14.6329		231,045.1360	231,045.1360	4.4284	4.2358	232,418.1218
Total		60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5092	662,283.5092	12.6938	12.1419	666,219.1290

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	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 High Rise	265.207	2.8601	24.4407	10.4003	0.1560		1.9761	1.9761		1.9761	1.9761		31,200.8281	31,200.8281	0.5980	0.5720	31,386.2390
Apartments High Rise	580.768	6.2632	53.5218	22.7752	0.3416		4.3273	4.3273		4.3273	4.3273		68,325.6860	68,325.6860	1.3096	1.2526	68,731.7114
Apartments Low Rise	324.323	3.4976	29.8886	12.7186	0.1908		2.4165	2.4165		2.4165	2.4165		38,155.6832	38,155.6832	0.7313	0.6995	38,382.4233
Apartments Mid Rise	60.4211	0.6516	5.5682	2.3695	0.0355		0.4502	0.4502		0.4502	0.4502		7,108.3667	7,108.3667	0.1362	0.1303	7,150.6081
Automobile Care Center	84.5515	0.9118	8.2894	6.9631	0.0497		0.6300	0.6300		0.6300	0.6300		9,947.2313	9,947.2313	0.1907	0.1824	10,006.3427
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Heavy Industry	936.439	10.0989	91.8078	77.1185	0.5509		6.9774	6.9774		6.9774	6.9774		110,169.3339	110,169.3339	2.1116	2.0198	110,824.0152
General Office Building	1359.94	14.6661	133.3278	111.9953	0.8000		10.1329	10.1329		10.1329	10.1329		159,993.3001	159,993.3001	3.0665	2.9332	160,944.0603
Government Office Building	53.8725	0.5810	5.2816	4.4366	0.0317		0.4014	0.4014		0.4014	0.4014		6,337.9439	6,337.9439	0.1215	0.1162	6,375.6072
Junior College (2yr)	1963.88	21.1791	192.5376	161.7316	1.1552		14.6329	14.6329		14.6329	14.6329		231,045.1360	231,045.1360	4.4284	4.2358	232,418.1218
Total		60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5092	662,283.5092	12.6938	12.1419	666,219.1290

6.0 Area Detail

6.1 Mitigation Measures Area

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	155,154.2 374	3,005.495 7	191,227.9 210	338.2994		26,187.87 78	26,187.87 78		26,187.87 78	26,187.877 8	2,743,097. 1596	1,158,800. 7369	3,901,897. 8965	2,539.433 2	215.7653	4,029,681. 7835
Unmitigated	155,154.2 374	3,005.495 7	191,227.9 210	338.2994		26,187.87 78	26,187.87 78		26,187.87 78	26,187.877 8	2,743,097. 1596	1,158,800. 7369	3,901,897. 8965	2,539.433 2	215.7653	4,029,681. 7835

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	978.1747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,875.237 1					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	151,161.7 018	2,952.013 5	186,592.7 018	338.0534		26,162.07 57	26,162.07 57		26,162.07 57	26,162.075 7	2,743,097. 1596	1,150,414. 9412	3,893,512. 1007	2,531.423 5	215.7653	4,021,095. 7455
Landscaping	139.1239	53.4822	4,635.219 2	0.2460		25.8021	25.8021		25.8021	25.8021		8,385.795 7	8,385.795 7	8.0097		8,586.038 0
Total	155,154.2 374	3,005.495 7	191,227.9 210	338.2994		26,187.87 78	26,187.87 78		26,187.87 78	26,187.877 8	2,743,097. 1596	1,158,800. 7369	3,901,897. 8965	2,539.433 2	215.7653	4,029,681. 7835

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	978.1747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,875.2371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	151,161.7018	2,952.0135	186,592.7018	338.0534		26,162.0757	26,162.0757		26,162.0757	26,162.0757	2,743,097.1596	1,150,414.9412	3,893,512.1007	2,531.4235	215.7653	4,021,095.7455
Landscaping	139.1239	53.4822	4,635.2192	0.2460		25.8021	25.8021		25.8021	25.8021		8,385.7957	8,385.7957	8.0097		8,586.0380
Total	155,154.2374	3,005.4957	191,227.9210	338.2994		26,187.8778	26,187.8778		26,187.8778	26,187.8778	2,743,097.1596	1,158,800.7369	3,901,897.8965	2,539.4332	215.7653	4,029,681.7835

7.0 Water Detail

7.1 Mitigation Measures Water

National City Adopted Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**National City Adopted Zoning
San Diego County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24,781.79	1000sqft	186.00	24,781,788.00	0
Government Office Building	981.70	1000sqft	15.00	981,701.00	0
Junior College (2yr)	19,895.02	1000sqft	227.00	19,895,019.00	0
General Heavy Industry	29,670.17	1000sqft	681.13	29,670,170.00	0
City Park	136.00	Acre	136.00	5,924,160.00	0
Apartments High Rise	13,304.00	Dwelling Unit	177.00	13,304,000.00	38049
Apartments High Rise	29,134.00	Dwelling Unit	422.00	29,134,000.00	83323
Apartments Low Rise	10,866.00	Dwelling Unit	1,207.00	10,866,000.00	31077
Apartments Mid Rise	3,031.00	Dwelling Unit	132.00	3,031,000.00	8669
Automobile Care Center	2,678.93	1000sqft	61.00	2,678,931.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use - Used Maximum Growth parameters for Adopted Zoning - most conservative analysis

Used project-specific acreage

Second High-Rise land use represents mixed use residential/commercial zoning

Assuming Service zoning type is Government Office Building

Construction Phase - No construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	24,781,800.00	24,781,788.00
tblLandUse	LandUseSquareFeet	981,700.00	981,701.00
tblLandUse	LandUseSquareFeet	19,895,000.00	19,895,019.00
tblLandUse	LandUseSquareFeet	29,670,200.00	29,670,170.00
tblLandUse	LandUseSquareFeet	2,678,930.00	2,678,931.00
tblLandUse	LotAcreage	568.91	186.00
tblLandUse	LotAcreage	22.54	15.00
tblLandUse	LotAcreage	456.73	227.00
tblLandUse	LotAcreage	214.58	177.00
tblLandUse	LotAcreage	469.90	422.00
tblLandUse	LotAcreage	679.13	1,207.00
tblLandUse	LotAcreage	79.76	132.00
tblLandUse	LotAcreage	61.50	61.00

2.0 Emissions Summary

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	155,154.2 374	3,005.495 7	191,227.9 210	338.2994		26,187.87 78	26,187.87 78		26,187.87 78	26,187.877 8	2,743,097. 1596	1,158,800. 7369	3,901,897. 8965	2,539.433 2	215.7653	4,029,681. 7835
Energy	60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5 092	662,283.5 092	12.6938	12.1419	666,219.1 290
Mobile	2,008.183 1	2,134.913 6	20,917.09 35	43.5556	6,540.281 6	21.0825	6,561.364 1	1,742.230 2	19.7183	1,761.9485		4,898,348. 3889	4,898,348. 3889	325.9822	217.9918	4,971,459. 5124
Total	157,223.1 298	5,685.072 7	212,555.5 231	385.1664	6,540.281 6	26,250.90 49	32,791.18 65	1,742.230 2	26,249.54 07	27,991.770 9	2,743,097. 1596	6,719,432. 6350	9,462,529. 7946	2,878.109 1	445.8990	9,667,360. 4249

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	155,154.2 374	3,005.495 7	191,227.9 210	338.2994		26,187.87 78	26,187.87 78		26,187.87 78	26,187.877 8	2,743,097. 1596	1,158,800. 7369	3,901,897. 8965	2,539.433 2	215.7653	4,029,681. 7835
Energy	60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5 092	662,283.5 092	12.6938	12.1419	666,219.1 290
Mobile	2,008.183 1	2,134.913 6	20,917.09 35	43.5556	6,540.281 6	21.0825	6,561.364 1	1,742.230 2	19.7183	1,761.9485		4,898,348. 3889	4,898,348. 3889	325.9822	217.9918	4,971,459. 5124
Total	157,223.1 298	5,685.072 7	212,555.5 231	385.1664	6,540.281 6	26,250.90 49	32,791.18 65	1,742.230 2	26,249.54 07	27,991.770 9	2,743,097. 1596	6,719,432. 6350	9,462,529. 7946	2,878.109 1	445.8990	9,667,360. 4249

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2050	12/31/2049	5	0	
2	Site Preparation	Site Preparation	1/1/2050	12/31/2049	5	0	
3	Grading	Grading	1/1/2050	12/31/2049	5	0	
4	Building Construction	Building Construction	1/1/2050	12/31/2049	5	0	
5	Paving	Paving	1/1/2050	12/31/2049	5	0	
6	Architectural Coating	Architectural Coating	1/1/2050	12/31/2049	5	0	

Acres of Grading (Site Preparation Phase): 9000

Acres of Grading (Grading Phase): 46500

Acres of Paving: 0

Residential Indoor: 114,078,375; Residential Outdoor: 38,026,125; Non-Residential Indoor: 117,011,414; Non-Residential Outdoor: 39,003,805; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	72,968.00	19,779.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14,594.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	2,008.183 1	2,134.913 6	20,917.09 35	43.5556	6,540.281 6	21.0825	6,561.364 1	1,742.230 2	19.7183	1,761.9485		4,898,348. 3889	4,898,348. 3889	325.9822	217.9918	4,971,459. 5124
Unmitigated	2,008.183 1	2,134.913 6	20,917.09 35	43.5556	6,540.281 6	21.0825	6,561.364 1	1,742.230 2	19.7183	1,761.9485		4,898,348. 3889	4,898,348. 3889	325.9822	217.9918	4,971,459. 5124

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	59,202.80	60,267.12	47761.36	164,809,122	164,809,122
Apartments High Rise	129,646.30	131,977.02	104591.06	360,910,173	360,910,173
Apartments Low Rise	79,539.12	88,449.24	68238.48	226,133,222	226,133,222
Apartments Mid Rise	16,488.64	14,882.21	12396.79	44,755,738	44,755,738
Automobile Care Center	63,544.22	63,544.22	31825.69	58,787,931	58,787,931
City Park	106.08	266.56	297.84	333,891	333,891
General Heavy Industry	116,603.77	190,482.49	151021.17	385,593,390	385,593,390
General Office Building	241,374.63	54,767.76	17347.25	436,637,945	436,637,945
Government Office Building	22,176.60	0.00	0.00	27,164,445	27,164,445
Junior College (2yr)	402,874.16	223,421.07	24072.97	820,584,201	820,584,201
Total	1,131,556.32	828,057.69	457,552.61	2,525,710,058	2,525,710,058

4.3 Trip Type Information

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 High Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments High Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments Low Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Junior College (2yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Apartments Low Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Apartments Mid Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Automobile Care Center	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
City Park	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
General Heavy Industry	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
General Office Building	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Government Office Building	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Junior College (2yr)	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Natural Gas Mitigated	60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5092	662,283.5092	12.6938	12.1419	666,219.1290
Natural Gas Unmitigated	60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5092	662,283.5092	12.6938	12.1419	666,219.1290

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 High Rise	265207	2.8601	24.4407	10.4003	0.1560		1.9761	1.9761		1.9761	1.9761		31,200.8281	31,200.8281	0.5980	0.5720	31,386.2390
Apartments High Rise	580768	6.2632	53.5218	22.7752	0.3416		4.3273	4.3273		4.3273	4.3273		68,325.6860	68,325.6860	1.3096	1.2526	68,731.7114
Apartments Low Rise	324323	3.4976	29.8886	12.7186	0.1908		2.4165	2.4165		2.4165	2.4165		38,155.6832	38,155.6832	0.7313	0.6995	38,382.4233
Apartments Mid Rise	60421.1	0.6516	5.5682	2.3695	0.0355		0.4502	0.4502		0.4502	0.4502		7,108.3667	7,108.3667	0.1362	0.1303	7,150.6081
Automobile Care Center	84551.5	0.9118	8.2894	6.9631	0.0497		0.6300	0.6300		0.6300	0.6300		9,947.2313	9,947.2313	0.1907	0.1824	10,006.3427
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Heavy Industry	936439	10.0989	91.8078	77.1185	0.5509		6.9774	6.9774		6.9774	6.9774		110,169.3339	110,169.3339	2.1116	2.0198	110,824.0152
General Office Building	1.35994e+006	14.6661	133.3278	111.9953	0.8000		10.1329	10.1329		10.1329	10.1329		159,993.3001	159,993.3001	3.0665	2.9332	160,944.0603
Government Office Building	53872.5	0.5810	5.2816	4.4366	0.0317		0.4014	0.4014		0.4014	0.4014		6,337.9439	6,337.9439	0.1215	0.1162	6,375.6072
Junior College (2yr)	1.96388e+006	21.1791	192.5376	161.7316	1.1552		14.6329	14.6329		14.6329	14.6329		231,045.1360	231,045.1360	4.4284	4.2358	232,418.1218
Total		60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5092	662,283.5092	12.6938	12.1419	666,219.1290

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	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 High Rise	265.207	2.8601	24.4407	10.4003	0.1560		1.9761	1.9761		1.9761	1.9761		31,200.8281	31,200.8281	0.5980	0.5720	31,386.2390
Apartments High Rise	580.768	6.2632	53.5218	22.7752	0.3416		4.3273	4.3273		4.3273	4.3273		68,325.6860	68,325.6860	1.3096	1.2526	68,731.7114
Apartments Low Rise	324.323	3.4976	29.8886	12.7186	0.1908		2.4165	2.4165		2.4165	2.4165		38,155.6832	38,155.6832	0.7313	0.6995	38,382.4233
Apartments Mid Rise	60.4211	0.6516	5.5682	2.3695	0.0355		0.4502	0.4502		0.4502	0.4502		7,108.3667	7,108.3667	0.1362	0.1303	7,150.6081
Automobile Care Center	84.5515	0.9118	8.2894	6.9631	0.0497		0.6300	0.6300		0.6300	0.6300		9,947.2313	9,947.2313	0.1907	0.1824	10,006.3427
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Heavy Industry	936.439	10.0989	91.8078	77.1185	0.5509		6.9774	6.9774		6.9774	6.9774		110,169.3339	110,169.3339	2.1116	2.0198	110,824.0152
General Office Building	1359.94	14.6661	133.3278	111.9953	0.8000		10.1329	10.1329		10.1329	10.1329		159,993.3001	159,993.3001	3.0665	2.9332	160,944.0603
Government Office Building	53.8725	0.5810	5.2816	4.4366	0.0317		0.4014	0.4014		0.4014	0.4014		6,337.9439	6,337.9439	0.1215	0.1162	6,375.6072
Junior College (2yr)	1963.88	21.1791	192.5376	161.7316	1.1552		14.6329	14.6329		14.6329	14.6329		231,045.1360	231,045.1360	4.4284	4.2358	232,418.1218
Total		60.7093	544.6634	410.5086	3.3114		41.9446	41.9446		41.9446	41.9446		662,283.5092	662,283.5092	12.6938	12.1419	666,219.1290

6.0 Area Detail

6.1 Mitigation Measures Area

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	155,154.2374	3,005.4957	191,227.9210	338.2994		26,187.8778	26,187.8778		26,187.8778	26,187.8778	2,743,097.1596	1,158,800.7369	3,901,897.8965	2,539.4332	215.7653	4,029,681.7835
Unmitigated	155,154.2374	3,005.4957	191,227.9210	338.2994		26,187.8778	26,187.8778		26,187.8778	26,187.8778	2,743,097.1596	1,158,800.7369	3,901,897.8965	2,539.4332	215.7653	4,029,681.7835

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	978.1747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,875.2371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	151,161.7018	2,952.0135	186,592.7018	338.0534		26,162.0757	26,162.0757		26,162.0757	26,162.0757	2,743,097.1596	1,150,414.9412	3,893,512.1007	2,531.4235	215.7653	4,021,095.7455
Landscaping	139.1239	53.4822	4,635.2192	0.2460		25.8021	25.8021		25.8021	25.8021		8,385.7957	8,385.7957	8.0097		8,586.0380
Total	155,154.2374	3,005.4957	191,227.9210	338.2994		26,187.8778	26,187.8778		26,187.8778	26,187.8778	2,743,097.1596	1,158,800.7369	3,901,897.8965	2,539.4332	215.7653	4,029,681.7835

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	978.1747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,875.2371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	151,161.7018	2,952.0135	186,592.7018	338.0534		26,162.0757	26,162.0757		26,162.0757	26,162.0757	2,743,097.1596	1,150,414.9412	3,893,512.1007	2,531.4235	215.7653	4,021,095.7455
Landscaping	139.1239	53.4822	4,635.2192	0.2460		25.8021	25.8021		25.8021	25.8021		8,385.7957	8,385.7957	8.0097		8,586.0380
Total	155,154.2374	3,005.4957	191,227.9210	338.2994		26,187.8778	26,187.8778		26,187.8778	26,187.8778	2,743,097.1596	1,158,800.7369	3,901,897.8965	2,539.4332	215.7653	4,029,681.7835

7.0 Water Detail

7.1 Mitigation Measures Water

National City Adopted Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

National City Proposed Zoning

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	25,396.80	1000sqft	194.00	25,396,802.00	0
Government Office Building	981.70	1000sqft	15.00	981,701.00	0
Junior College (2yr)	27,280.78	1000sqft	209.00	27,280,780.00	0
General Heavy Industry	19,895.02	1000sqft	228.00	19,895,019.00	0
City Park	136.00	Acre	136.00	5,924,160.00	0
Apartments High Rise	13,289.00	Dwelling Unit	177.00	13,289,000.00	38007
Apartments High Rise	31,373.00	Dwelling Unit	468.00	31,373,000.00	89727
Apartments Low Rise	10,505.00	Dwelling Unit	1,167.00	10,505,000.00	30044
Apartments Mid Rise	3,655.00	Dwelling Unit	159.00	3,655,000.00	10453
Automobile Care Center	2,678.93	1000sqft	61.00	2,678,931.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use - Used Maximum Growth parameters for Proposed Zoning - most conservative analysis

Used project-specific acreage

Second High-Rise land use represents mixed use residential/commercial zoning

Assuming Service zoning type is Government Office Building

Construction Phase - No construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	25,396,800.00	25,396,802.00
tblLandUse	LandUseSquareFeet	981,700.00	981,701.00
tblLandUse	LandUseSquareFeet	27,280,800.00	27,280,780.00
tblLandUse	LandUseSquareFeet	19,895,000.00	19,895,019.00
tblLandUse	LandUseSquareFeet	2,678,930.00	2,678,931.00
tblLandUse	LotAcreage	583.03	194.00
tblLandUse	LotAcreage	22.54	15.00
tblLandUse	LotAcreage	626.28	209.00
tblLandUse	LotAcreage	456.73	228.00
tblLandUse	LotAcreage	214.34	177.00
tblLandUse	LotAcreage	506.02	468.00
tblLandUse	LotAcreage	656.56	1,167.00
tblLandUse	LotAcreage	96.18	159.00
tblLandUse	LotAcreage	61.50	61.00

2.0 Emissions Summary

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873,929.7830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588
Energy	66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044
Mobile	2,237.6023	2,124.5866	21,824.9031	49.0619	7,047.6242	22.7209	7,070.3451	1,877.3785	21.2502	1,898.6287		5,520,478.3887	5,520,478.3887	337.6194	224.1637	5,595,719.6584
Total	164,699.0299	5,866.6767	222,606.2285	407.1014	7,047.6242	27,505.2141	34,552.8383	1,877.3785	27,503.7434	29,381.1219	2,873,929.7830	7,455,659.1013	10,329,588.8844	3,011.9619	463.4409	10,542,993.3216

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	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873,929.7830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588
Energy	66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044
Mobile	2,237.6023	2,124.5866	21,824.9031	49.0619	7,047.6242	22.7209	7,070.3451	1,877.3785	21.2502	1,898.6287		5,520,478.3887	5,520,478.3887	337.6194	224.1637	5,595,719.6584
Total	164,699.0299	5,866.6767	222,606.2285	407.1014	7,047.6242	27,505.2141	34,552.8383	1,877.3785	27,503.7434	29,381.1219	2,873,929.7830	7,455,659.1013	10,329,588.8844	3,011.9619	463.4409	10,542,993.3216

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2050	12/31/2049	5	0	
2	Site Preparation	Site Preparation	1/1/2050	12/31/2049	5	0	
3	Grading	Grading	1/1/2050	12/31/2049	5	0	
4	Building Construction	Building Construction	1/1/2050	12/31/2049	5	0	
5	Paving	Paving	1/1/2050	12/31/2049	5	0	
6	Architectural Coating	Architectural Coating	1/1/2050	12/31/2049	5	0	

Acres of Grading (Site Preparation Phase): 9000

Acres of Grading (Grading Phase): 46500

Acres of Paving: 0

Residential Indoor: 119,114,550; Residential Outdoor: 39,704,850; Non-Residential Indoor: 114,349,850; Non-Residential Outdoor: 38,116,617; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	73,952.00	19,754.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14,790.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	2,237.602 3	2,124.586 6	21,824.90 31	49.0619	7,047.624 2	22.7209	7,070.345 1	1,877.378 5	21.2502	1,898.6287		5,520,478. 3887	5,520,478. 3887	337.6194	224.1637	5,595,719. 6584
Unmitigated	2,237.602 3	2,124.586 6	21,824.90 31	49.0619	7,047.624 2	22.7209	7,070.345 1	1,877.378 5	21.2502	1,898.6287		5,520,478. 3887	5,520,478. 3887	337.6194	224.1637	5,595,719. 6584

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	59,136.05	60,199.17	47707.51	164,623,302	164,623,302
Apartments High Rise	139,609.85	142,119.69	112629.07	388,646,766	388,646,766
Apartments Low Rise	76,896.60	85,510.70	65971.40	218,620,422	218,620,422
Apartments Mid Rise	19,883.20	17,946.05	14948.95	53,969,720	53,969,720
Automobile Care Center	63,544.22	63,544.22	31825.69	58,787,931	58,787,931
City Park	106.08	266.56	297.84	333,891	333,891
General Heavy Industry	78,187.43	127,726.03	101265.65	258,555,586	258,555,586
General Office Building	247,364.83	56,126.93	17777.76	447,473,994	447,473,994
Government Office Building	22,176.60	0.00	0.00	27,164,445	27,164,445
Junior College (2yr)	552,435.80	306,363.16	33009.74	1,125,215,107	1,125,215,107
Total	1,259,340.66	859,802.51	425,433.61	2,743,391,165	2,743,391,165

4.3 Trip Type Information

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 High Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments High Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments Low Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Junior College (2yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Apartments Low Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Apartments Mid Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Automobile Care Center	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
City Park	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
General Heavy Industry	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
General Office Building	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Government Office Building	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Junior College (2yr)	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Natural Gas Mitigated	66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044
Natural Gas Unmitigated	66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 High Rise	264908	2.8569	24.4131	10.3886	0.1558		1.9738	1.9738		1.9738	1.9738		31,165.6498	31,165.6498	0.5973	0.5714	31,350.8517
Apartments High Rise	625401	6.7445	57.6350	24.5256	0.3679		4.6599	4.6599		4.6599	4.6599		73,576.6371	73,576.6371	1.4102	1.3489	74,013.8663
Apartments Low Rise	313548	3.3814	28.8956	12.2960	0.1844		2.3362	2.3362		2.3362	2.3362		36,888.0409	36,888.0409	0.7070	0.6763	37,107.2480
Apartments Mid Rise	72860.2	0.7858	6.7146	2.8573	0.0429		0.5429	0.5429		0.5429	0.5429		8,571.7849	8,571.7849	0.1643	0.1572	8,622.7228
Automobile Care Center	84551.5	0.9118	8.2894	6.9631	0.0497		0.6300	0.6300		0.6300	0.6300		9,947.2313	9,947.2313	0.1907	0.1824	10,006.3427
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Heavy Industry	627920	6.7717	61.5607	51.7110	0.3694		4.6786	4.6786		4.6786	4.6786		73,872.8828	73,872.8828	1.4159	1.3543	74,311.8724
General Office Building	1.39369e+006	15.0300	136.6366	114.7747	0.8198		10.3844	10.3844		10.3844	10.3844		163,963.8821	163,963.8821	3.1426	3.0060	164,938.2374
Government Office Building	53872.5	0.5810	5.2816	4.4366	0.0317		0.4014	0.4014		0.4014	0.4014		6,337.9439	6,337.9439	0.1215	0.1162	6,375.6072
Junior College (2yr)	2.69295e+006	29.0416	264.0146	221.7723	1.5841		20.0651	20.0651		20.0651	20.0651		316,817.5676	316,817.5676	6.0723	5.8083	318,700.2560
Total		66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	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 High Rise	264.908	2.8569	24.4131	10.3886	0.1558		1.9738	1.9738		1.9738	1.9738		31,165.6498	31,165.6498	0.5973	0.5714	31,350.8517
Apartments High Rise	625.401	6.7445	57.6350	24.5256	0.3679		4.6599	4.6599		4.6599	4.6599		73,576.6371	73,576.6371	1.4102	1.3489	74,013.8663
Apartments Low Rise	313.548	3.3814	28.8956	12.2960	0.1844		2.3362	2.3362		2.3362	2.3362		36,888.0409	36,888.0409	0.7070	0.6763	37,107.2480
Apartments Mid Rise	72.8602	0.7858	6.7146	2.8573	0.0429		0.5429	0.5429		0.5429	0.5429		8,571.7849	8,571.7849	0.1643	0.1572	8,622.7228
Automobile Care Center	84.5515	0.9118	8.2894	6.9631	0.0497		0.6300	0.6300		0.6300	0.6300		9,947.2313	9,947.2313	0.1907	0.1824	10,006.3427
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Heavy Industry	627.92	6.7717	61.5607	51.7110	0.3694		4.6786	4.6786		4.6786	4.6786		73,872.8828	73,872.8828	1.4159	1.3543	74,311.8724
General Office Building	1393.69	15.0300	136.6366	114.7747	0.8198		10.3844	10.3844		10.3844	10.3844		163,963.8821	163,963.8821	3.1426	3.0060	164,938.2374
Government Office Building	53.8725	0.5810	5.2816	4.4366	0.0317		0.4014	0.4014		0.4014	0.4014		6,337.9439	6,337.9439	0.1215	0.1162	6,375.6072
Junior College (2yr)	2692.95	29.0416	264.0146	221.7723	1.5841		20.0651	20.0651		20.0651	20.0651		316,817.5676	316,817.5676	6.0723	5.8083	318,700.2560
Total		66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044

6.0 Area Detail

6.1 Mitigation Measures Area

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873.9297830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588
Unmitigated	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873.9297830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588

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	988.2260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,890.4872					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	158,371.3925	3,092.8104	195,492.2818	354.1769		27,409.8816	27,409.8816		27,409.8816	27,409.8816	2,873.9297830	1,205,284.2353	4,079,214.0183	2,652.1603	226.0563	4,212,882.7931
Landscaping	145.2172	55.8385	4,839.3185	0.2568		26.9393	26.9393		26.9393	26.9393		8,754.8570	8,754.8570	8.3604		8,963.8656
Total	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873.9297830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	988.2260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,890.4872					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	158,371.3925	3,092.8104	195,492.2818	354.1769		27,409.8816	27,409.8816		27,409.8816	27,409.8816	2,873,929.7830	1,205,284.2353	4,079,214.0183	2,652.1603	226.0563	4,212,882.7931
Landscaping	145.2172	55.8385	4,839.3185	0.2568		26.9393	26.9393		26.9393	26.9393		8,754.8570	8,754.8570	8.3604		8,963.8656
Total	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873,929.7830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588

7.0 Water Detail

7.1 Mitigation Measures Water

National City Proposed Zoning - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

National City Proposed Zoning

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	25,396.80	1000sqft	194.00	25,396,802.00	0
Government Office Building	981.70	1000sqft	15.00	981,701.00	0
Junior College (2yr)	27,280.78	1000sqft	209.00	27,280,780.00	0
General Heavy Industry	19,895.02	1000sqft	228.00	19,895,019.00	0
City Park	136.00	Acre	136.00	5,924,160.00	0
Apartments High Rise	13,289.00	Dwelling Unit	177.00	13,289,000.00	38007
Apartments High Rise	31,373.00	Dwelling Unit	468.00	31,373,000.00	89727
Apartments Low Rise	10,505.00	Dwelling Unit	1,167.00	10,505,000.00	30044
Apartments Mid Rise	3,655.00	Dwelling Unit	159.00	3,655,000.00	10453
Automobile Care Center	2,678.93	1000sqft	61.00	2,678,931.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use - Used Maximum Growth parameters for Proposed Zoning - most conservative analysis

Used project-specific acreage

Second High-Rise land use represents mixed use residential/commercial zoning

Assuming Service zoning type is Government Office Building

Construction Phase - No construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	155,000.00	0.00
tblConstructionPhase	NumDays	10,000.00	0.00
tblConstructionPhase	NumDays	15,500.00	0.00
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	NumDays	6,000.00	0.00
tblGrading	AcresOfGrading	0.00	46,500.00
tblGrading	AcresOfGrading	0.00	9,000.00
tblLandUse	LandUseSquareFeet	25,396,800.00	25,396,802.00
tblLandUse	LandUseSquareFeet	981,700.00	981,701.00
tblLandUse	LandUseSquareFeet	27,280,800.00	27,280,780.00
tblLandUse	LandUseSquareFeet	19,895,000.00	19,895,019.00
tblLandUse	LandUseSquareFeet	2,678,930.00	2,678,931.00
tblLandUse	LotAcreage	583.03	194.00
tblLandUse	LotAcreage	22.54	15.00
tblLandUse	LotAcreage	626.28	209.00
tblLandUse	LotAcreage	456.73	228.00
tblLandUse	LotAcreage	214.34	177.00
tblLandUse	LotAcreage	506.02	468.00
tblLandUse	LotAcreage	656.56	1,167.00
tblLandUse	LotAcreage	96.18	159.00
tblLandUse	LotAcreage	61.50	61.00

2.0 Emissions Summary

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873,929.7830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588
Energy	66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044
Mobile	2,169.5104	2,304.4516	22,574.0496	46.9429	7,047.6242	22.7320	7,070.3562	1,877.3785	21.2609	1,898.6394		5,279,295.6271	5,279,295.6271	351.7487	235.2722	5,358,200.4733
Total	164,630.9380	6,046.5418	223,355.3750	404.9824	7,047.6242	27,505.2252	34,552.8495	1,877.3785	27,503.7541	29,381.1326	2,873,929.7830	7,214,476.3397	10,088,406.1228	3,026.0912	474.5494	10,305,474.1365

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	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873,929.7830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588
Energy	66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044
Mobile	2,169.5104	2,304.4516	22,574.0496	46.9429	7,047.6242	22.7320	7,070.3562	1,877.3785	21.2609	1,898.6394		5,279,295.6271	5,279,295.6271	351.7487	235.2722	5,358,200.4733
Total	164,630.9380	6,046.5418	223,355.3750	404.9824	7,047.6242	27,505.2252	34,552.8495	1,877.3785	27,503.7541	29,381.1326	2,873,929.7830	7,214,476.3397	10,088,406.1228	3,026.0912	474.5494	10,305,474.1365

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2050	12/31/2049	5	0	
2	Site Preparation	Site Preparation	1/1/2050	12/31/2049	5	0	
3	Grading	Grading	1/1/2050	12/31/2049	5	0	
4	Building Construction	Building Construction	1/1/2050	12/31/2049	5	0	
5	Paving	Paving	1/1/2050	12/31/2049	5	0	
6	Architectural Coating	Architectural Coating	1/1/2050	12/31/2049	5	0	

Acres of Grading (Site Preparation Phase): 9000

Acres of Grading (Grading Phase): 46500

Acres of Paving: 0

Residential Indoor: 119,114,550; Residential Outdoor: 39,704,850; Non-Residential Indoor: 114,349,850; Non-Residential Outdoor: 38,116,617; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	73,952.00	19,754.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14,790.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	2,169.510 4	2,304.451 6	22,574.04 96	46.9429	7,047.624 2	22.7320	7,070.356 2	1,877.378 5	21.2609	1,898.6394		5,279,295. 6271	5,279,295. 6271	351.7487	235.2722	5,358,200. 4733
Unmitigated	2,169.510 4	2,304.451 6	22,574.04 96	46.9429	7,047.624 2	22.7320	7,070.356 2	1,877.378 5	21.2609	1,898.6394		5,279,295. 6271	5,279,295. 6271	351.7487	235.2722	5,358,200. 4733

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	59,136.05	60,199.17	47707.51	164,623,302	164,623,302
Apartments High Rise	139,609.85	142,119.69	112629.07	388,646,766	388,646,766
Apartments Low Rise	76,896.60	85,510.70	65971.40	218,620,422	218,620,422
Apartments Mid Rise	19,883.20	17,946.05	14948.95	53,969,720	53,969,720
Automobile Care Center	63,544.22	63,544.22	31825.69	58,787,931	58,787,931
City Park	106.08	266.56	297.84	333,891	333,891
General Heavy Industry	78,187.43	127,726.03	101265.65	258,555,586	258,555,586
General Office Building	247,364.83	56,126.93	17777.76	447,473,994	447,473,994
Government Office Building	22,176.60	0.00	0.00	27,164,445	27,164,445
Junior College (2yr)	552,435.80	306,363.16	33009.74	1,125,215,107	1,125,215,107
Total	1,259,340.66	859,802.51	425,433.61	2,743,391,165	2,743,391,165

4.3 Trip Type Information

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 High Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments High Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments Low Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Junior College (2yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Apartments Low Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Apartments Mid Rise	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Automobile Care Center	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
City Park	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
General Heavy Industry	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
General Office Building	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Government Office Building	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063
Junior College (2yr)	0.584721	0.061219	0.165591	0.108994	0.022611	0.007030	0.011356	0.006685	0.000606	0.000664	0.026637	0.000823	0.003063

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Natural Gas Mitigated	66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044
Natural Gas Unmitigated	66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 High Rise	264908	2.8569	24.4131	10.3886	0.1558		1.9738	1.9738		1.9738	1.9738		31,165.6498	31,165.6498	0.5973	0.5714	31,350.8517
Apartments High Rise	625401	6.7445	57.6350	24.5256	0.3679		4.6599	4.6599		4.6599	4.6599		73,576.6371	73,576.6371	1.4102	1.3489	74,013.8663
Apartments Low Rise	313548	3.3814	28.8956	12.2960	0.1844		2.3362	2.3362		2.3362	2.3362		36,888.0409	36,888.0409	0.7070	0.6763	37,107.2480
Apartments Mid Rise	72860.2	0.7858	6.7146	2.8573	0.0429		0.5429	0.5429		0.5429	0.5429		8,571.7849	8,571.7849	0.1643	0.1572	8,622.7228
Automobile Care Center	84551.5	0.9118	8.2894	6.9631	0.0497		0.6300	0.6300		0.6300	0.6300		9,947.2313	9,947.2313	0.1907	0.1824	10,006.3427
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Heavy Industry	627920	6.7717	61.5607	51.7110	0.3694		4.6786	4.6786		4.6786	4.6786		73,872.8828	73,872.8828	1.4159	1.3543	74,311.8724
General Office Building	1.39369e+006	15.0300	136.6366	114.7747	0.8198		10.3844	10.3844		10.3844	10.3844		163,963.8821	163,963.8821	3.1426	3.0060	164,938.2374
Government Office Building	53872.5	0.5810	5.2816	4.4366	0.0317		0.4014	0.4014		0.4014	0.4014		6,337.9439	6,337.9439	0.1215	0.1162	6,375.6072
Junior College (2yr)	2.69295e+006	29.0416	264.0146	221.7723	1.5841		20.0651	20.0651		20.0651	20.0651		316,817.5676	316,817.5676	6.0723	5.8083	318,700.2560
Total		66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	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 High Rise	264.908	2.8569	24.4131	10.3886	0.1558		1.9738	1.9738		1.9738	1.9738		31,165.6498	31,165.6498	0.5973	0.5714	31,350.8517
Apartments High Rise	625.401	6.7445	57.6350	24.5256	0.3679		4.6599	4.6599		4.6599	4.6599		73,576.6371	73,576.6371	1.4102	1.3489	74,013.8663
Apartments Low Rise	313.548	3.3814	28.8956	12.2960	0.1844		2.3362	2.3362		2.3362	2.3362		36,888.0409	36,888.0409	0.7070	0.6763	37,107.2480
Apartments Mid Rise	72.8602	0.7858	6.7146	2.8573	0.0429		0.5429	0.5429		0.5429	0.5429		8,571.7849	8,571.7849	0.1643	0.1572	8,622.7228
Automobile Care Center	84.5515	0.9118	8.2894	6.9631	0.0497		0.6300	0.6300		0.6300	0.6300		9,947.2313	9,947.2313	0.1907	0.1824	10,006.3427
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Heavy Industry	627.92	6.7717	61.5607	51.7110	0.3694		4.6786	4.6786		4.6786	4.6786		73,872.8828	73,872.8828	1.4159	1.3543	74,311.8724
General Office Building	1393.69	15.0300	136.6366	114.7747	0.8198		10.3844	10.3844		10.3844	10.3844		163,963.8821	163,963.8821	3.1426	3.0060	164,938.2374
Government Office Building	53.8725	0.5810	5.2816	4.4366	0.0317		0.4014	0.4014		0.4014	0.4014		6,337.9439	6,337.9439	0.1215	0.1162	6,375.6072
Junior College (2yr)	2692.95	29.0416	264.0146	221.7723	1.5841		20.0651	20.0651		20.0651	20.0651		316,817.5676	316,817.5676	6.0723	5.8083	318,700.2560
Total		66.1047	593.4412	449.7250	3.6057		45.6723	45.6723		45.6723	45.6723		721,141.6203	721,141.6203	13.8219	13.2209	725,427.0044

6.0 Area Detail

6.1 Mitigation Measures Area

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873.9297830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588
Unmitigated	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873.9297830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588

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	988.2260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,890.4872					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	158,371.3925	3,092.8104	195,492.2818	354.1769		27,409.8816	27,409.8816		27,409.8816	27,409.8816	2,873.9297830	1,205,284.2353	4,079,214.0183	2,652.1603	226.0563	4,212,882.7931
Landscaping	145.2172	55.8385	4,839.3185	0.2568		26.9393	26.9393		26.9393	26.9393		8,754.8570	8,754.8570	8.3604		8,963.8656
Total	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873.9297830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	988.2260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2,890.4872					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	158,371.3925	3,092.8104	195,492.2818	354.1769		27,409.8816	27,409.8816		27,409.8816	27,409.8816	2,873,929.7830	1,205,284.2353	4,079,214.0183	2,652.1603	226.0563	4,212,882.7931
Landscaping	145.2172	55.8385	4,839.3185	0.2568		26.9393	26.9393		26.9393	26.9393		8,754.8570	8,754.8570	8.3604		8,963.8656
Total	162,395.3229	3,148.6489	200,331.6004	354.4337		27,436.8209	27,436.8209		27,436.8209	27,436.8209	2,873,929.7830	1,214,039.0923	4,087,968.8753	2,660.5206	226.0563	4,221,846.6588

7.0 Water Detail

7.1 Mitigation Measures Water

National City Proposed Zoning - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Source: EMFAC2021 (v1.0.2) Emission Rates

Region Type: MPO

Region: SANDAG

Calendar Year: 2050

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	% VMT	National City VMT (adopted)	National City VMT (preferred)	CVMT	EVMT	Trips	NOx_RUNEX	PM2.5_RUNEX	PM2.5_PMTW	PM2.5_PMBW	PM10_RUNEX	PM10_PMTW	PM10_PMBW	ROG_RUNEX	CO_RUNEX	SOx_RUN EX
SANDAG	2050	HHDT	Aggregate	Aggregate	Gasoline	2.452446	341.6065	0.000%	10.14341052	10.26180993	341.6065	0	49.06854	2.43131248	0.001429811	0.005000001	0.033875167	0.00155505	0.020000006	0.096786193	0.427820192	29.00745038	0.017746
SANDAG	2050	HHDT	Aggregate	Aggregate	Diesel	22099.95	3194533	2.872%	94856.10175	95963.3138	3194533	0	373737.2	1.257423504	0.025102905	0.008918786	0.02913937	0.026237947	0.035675143	0.083255343	0.011110942	0.044048692	0.012038
SANDAG	2050	HHDT	Aggregate	Aggregate	Electricity	7281.592	660726.2	0.594%	19619.11348	19848.11845	0	660726.2	85816.31	0	0.00854476	0.015945796	0.034179042	0.045559418	0	0	0	0	0
SANDAG	2050	HHDT	Aggregate	Aggregate	Natural Gas	1097.262	68432.91	0.062%	2031.995866	2055.714428	68432.91	0	7274.593	0.180668451	0.00131515	0.009000003	0.061528241	0.001430345	0.03600001	0.175794973	0.007944545	8.279465844	0
SANDAG	2050	LDA	Aggregate	Aggregate	Gasoline	1146207	47755582	42.939%	1418018.766	1434570.653	47755582	0	5350192	0.019473549	0.000560224	0.002000016	0.002573106	0.000609295	0.008000063	0.007351732	0.003501892	0.477070727	0.002351
SANDAG	2050	LDA	Aggregate	Aggregate	Diesel	770.6086	28000.91	0.025%	831.4381947	841.1431938	28000.91	0	3407.35	0.011847425	0.000924995	0.002000016	0.002578642	0.000966819	0.008000063	0.007367548	0.008081143	0.257257349	0.001841
SANDAG	2050	LDA	Aggregate	Aggregate	Electricity	159411.4	6996707	6.291%	207755.0322	210180.062	0	6996707	749382.7	0	0.002000001	0.001537172	0	0.008000002	0.00439192	0	0	0	0
SANDAG	2050	LDA	Aggregate	Aggregate	Plug-in Hybrid	53992.46	2281208	2.051%	67736.48327	68527.14038	928869.2	1352338	223258.8	0.002920593	0.000228554	0.002000001	0.001391977	0.000248573	0.008000002	0.003977076	0.001510942	0.199568584	0.001215
SANDAG	2050	LDT1	Aggregate	Aggregate	Gasoline	79440.64	3062406	2.754%	90932.80391	91994.22109	3062406	0	357568.5	0.021113045	0.000606443	0.002000016	0.003144176	0.000659562	0.008000063	0.008983361	0.003865344	0.514583535	0.002724
SANDAG	2050	LDT1	Aggregate	Aggregate	Diesel	0.900073	36.28857	0.000%	1.07752569	1.090103157	36.28857	0	4.153715	0.034460287	0.0043434	0.002000016	0.003124312	0.00453979	0.008000063	0.008926605	0.024916391	0.2642401	0.003433
SANDAG	2050	LDT1	Aggregate	Aggregate	Electricity	2434.561	104184.7	0.094%	3093.582096	3129.69207	0	104184.7	11345.1	0	0.002000001	0.001538863	0	0.008000002	0.004396753	0	0	0	0
SANDAG	2050	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1849.505	76168.14	0.068%	2261.680072	2288.079633	30989.52	45178.61	7647.703	0.002918252	0.000227306	0.002000001	0.001394143	0.000247216	0.008000002	0.003983264	0.001509731	0.199380312	0.001214
SANDAG	2050	LDT2	Aggregate	Aggregate	Gasoline	582476.1	23920932	21.509%	710290.3868	718581.2828	23920932	0	2701874	0.022009153	0.000574214	0.002000016	0.003096593	0.00062451	0.008000063	0.00884741	0.004891639	0.561920167	0.002825
SANDAG	2050	LDT2	Aggregate	Aggregate	Diesel	2241.843	91950.62	0.083%	2730.313439	2762.183144	91950.62	0	10394.56	0.034516822	0.004262249	0.002000016	0.003097042	0.004454969	0.008000063	0.008848691	0.024734635	0.257330998	0.002544
SANDAG	2050	LDT2	Aggregate	Aggregate	Electricity	23794.51	723757.2	0.651%	21490.70902	21741.56028	0	723757.2	111930.7	0	0.002000001	0.001537955	0	0.008000002	0.004394156	0	0	0	0
SANDAG	2050	LDT2	Aggregate	Aggregate	Plug-in Hybrid	16114.25	667925.8	0.601%	19832.8929	20064.39322	271936.9	395989	66632.44	0.002920257	0.000228454	0.002000001	0.001393227	0.000248464	0.008000002	0.003980648	0.001510768	0.199536389	0.001215
SANDAG	2050	LHDT1	Aggregate	Aggregate	Gasoline	23526.9	954197.4	0.858%	28333.22811	28663.94898	954197.4	0	350515.8	0.013658825	0.001162617	0.002000001	0.027300008	0.001264452	0.008000002	0.078000022	0.003718482	0.597411054	0.00731
SANDAG	2050	LHDT1	Aggregate	Aggregate	Diesel	18897.26	725721.2	0.653%	21549.02545	21800.55741	725721.2	0	237703.7	0.205534949	0.016609996	0.003000001	0.027300008	0.017361026	0.012000003	0.078000022	0.083431066	0.207085416	0.00564
SANDAG	2050	LHDT1	Aggregate	Aggregate	Electricity	35904.85	1659415	1.492%	49273.42149	49848.56769	0	1659415	499722.9	0	0.002000001	0.013650004	0	0.008000002	0.039000011	0	0	0	0
SANDAG	2050	LHDT2	Aggregate	Aggregate	Gasoline	3362.222	128757	0.116%	3823.213717	3867.840348	128757	0	50092.1	0.017904952	0.00116444	0.002000001	0.031850009	0.001266435	0.008000002	0.091000026	0.003329344	0.60582116	0.008245
SANDAG	2050	LHDT2	Aggregate	Aggregate	Diesel	9410.853	342734.4	0.308%	10176.89932	10295.68962	342734.4	0	118376.7	0.292272892	0.021086342	0.003000001	0.031850009	0.022039772	0.012000003	0.091000026	0.102849656	0.25922804	0.006591
SANDAG	2050	LHDT2	Aggregate	Aggregate	Electricity	9874.991	437064.4	0.393%	12977.86549	13129.3502	0	437064.4	130645.9	0	0.002000001	0.015925005	0	0.008000002	0.045500013	0	0	0	0
SANDAG	2050	MCY	Aggregate	Aggregate	Gasoline	66182.71	391981.7	0.352%	11639.21221	11775.07143	391981.7	0	132365.4	0.471242902	0.002544071	0.001000008	0.004200001	0.002729113	0.004000031	0.012000003	0.963924034	10.18834476	0.001964
SANDAG	2050	MDV	Aggregate	Aggregate	Gasoline	337243.8	13848443	12.452%	411205.3855	416005.1986	13848443	0	1554527	0.02258281	0.00057302	0.002000016	0.00313278	0.000623212	0.008000063	0.008950801	0.005010832	0.574905733	0.003421
SANDAG	2050	MDV	Aggregate	Aggregate	Diesel	3765.778	150832.9	0.136%	4478.719588	4530.997641	150832.9	0	17153.98	0.011989454	0.000916365	0.002000016	0.003141095	0.000957799	0.008000063	0.008974556	0.008432221	0.273940018	0.003289
SANDAG	2050	MDV	Aggregate	Aggregate	Electricity	21869.33	655562.7	0.589%	19465.79077	19693.00608	0	655562.7	102319.5	0	0.002000001	0.001539741	0	0.008000002	0.004399926	0	0	0	0
SANDAG	2050	MDV	Aggregate	Aggregate	Plug-in Hybrid	10285.53	425727.3	0.383%	12641.2291	12788.78441	173340.5	252386.8	42530.68	0.00292045	0.000229502	0.002000001	0.001394479	0.000249605	0.008000002	0.003984225	0.001510868	0.199555052	0.001215
SANDAG	2050	MH	Aggregate	Aggregate	Gasoline	4120.046	48347.38	0.043%	1435.591247	1452.348249	48347.38	0	412.1694	0.212859238	0.001367795	0.003000001	0.015766634	0.001487602	0.012000003	0.045047526	0.008074387	0.145498723	0.019252
SANDAG	2050	MH	Aggregate	Aggregate	Diesel	2767.492	28038.49	0.025%	832.5541345	842.2721595	28038.49	0	276.7492	2.466220358	0.018256834	0.004000001	0.015694622	0.019082327	0.016000005	0.044841778	0.084193128	0.240465401	0.01033
SANDAG	2050	MHDT	Aggregate	Aggregate	Gasoline	1739.08	98058.36	0.088%	2911.672159	2945.658781	98058.36	0	34795.52	0.06294337	0.001379374	0.003000001	0.015766634	0.001500195	0.012000003	0.045047526	0.010526545	0.159612676	0.01512
SANDAG	2050	MHDT	Aggregate	Aggregate	Diesel	13105.47	539004.9	0.485%	16004.81118	16191.62804	539004.9	0	154678.2	0.305554309	0.002948003	0.003000001	0.015877363	0.003081298	0.012000003	0.045363895	0.006071341	0.04539315	0.009519
SANDAG	2050	MHDT	Aggregate	Aggregate	Electricity	16064.94	729155.3	0.656%	21650.99472	21903.71691	0	729155.3	205437.4	0	0.003000001	0.007950381	0	0.012000003	0.022715375	0	0	0	0
SANDAG	2050	MHDT	Aggregate	Aggregate	Natural Gas	198.2859	7550.813	0.007%	224.2082396	226.8253202	7550.813	0	2325.844	0.056461727	0.001532996	0.003000001	0.015951262	0.001667273	0.012000003	0.045575033	0.010716433	2.96176465	0
SANDAG	2050	OBUS	Aggregate	Aggregate	Gasoline	403.6258	17180.31	0.015%	510.1393051	516.0939288	17180.31	0	8075.745	0.254199051	0.001205116	0.003000001	0.015710307	0.001310673	0.012000003	0.04488659	0.006304521	0.159391817	0.014952
SANDAG	2050	OBUS	Aggregate	Aggregate	Diesel	746.648	53967.06	0.049%	1602.457806	1621.162565	53967.06	0	9604.749	0.746520542	0.012936246	0.003000001	0.022271241	0.013521165	0.012000003	0.063632116	0.012518197	0.062661915	0.011924
SANDAG	2050	OBUS	Aggregate	Aggregate	Electricity	322.7398	23339.42	0.021%	693.023272	701.1126169	0	23339.42	6457.379	0	0.003000001	0.007855153	0	0.012000003	0.022443295	0	0	0	0
SANDAG	2050	OBUS	Aggregate	Aggregate	Natural Gas	106.0815	5311.774	0.005%	157.7238689	159.5649078	5311.774	0	944.1257	0.101010962	0.001485927	0.003000001	0.016148056	0.001616082	0.012000003	0.046137304	0.011983074	3.386024147	0
SANDAG	2050	SBUS	Aggregate	Aggregate	Gasoline	222.6131	13139.84	0.012%	390.1647414	394.7189566	13139.84	0	890.4524	0.075523964	0.001177689	0.002000001	0.015720998	0.001280844	0.008000002	0.044917136	0.007837382	0.17944892	0.006891
SANDAG	2050	SBUS	Aggregate	Aggregate	Diesel	1055.802	21642.14	0.019%	642.6256362	650.1267124	21642.14	0	15288.01	0.275675776	0.002917524	0.003000001	0.015720998	0.003049442	0.012000003	0.044917136	0.006096736	0.051350373	0.00966
SANDAG	2050	SBUS	Aggregate	Aggregate	Electricity	1232.463	37036.61	0.033%	1099.73755	1112.574285	0	37036.61	15505.47	0	0.002643959	0.007860499	0	0.010575834	0.022458568	0	0	0	0
SANDAG	2050	SBUS	Aggregate	Aggregate	Natural Gas	21.91977	448.2535	0.000%	13.31010542	13.46546821	448.2535	0	317.3983	0.133357708	0.003378346	0.003000001	0.015720998	0.0036					