

**Appendix C2 Greenhouse Gas Emissions Data  
(Sylmar)**



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## **Sylmar Assumptions And Calculations**

# Sylmar

## Reduction Measures

### R1 Reductions

R1 measures are federal, state, and local jurisdiction regulations that will provide greenhouse gas reductions for the City.

### M2 Reductions

M2 measures are those measures that further define and enhance existing City goals and policies to provide a quantifiable reduction.

### MM Reductions

MM measures are mitigation measures that are applied to further reduce the City's emission goals.

## Transportation Reduction Measures

### R1-T 1 Assembly Bill 1493: Pavley I & Pavley II

Assembly Bill (AB) 1493 (Pavley) required the California Air Resources Board (CARB) to adopt regulations that will reduce GHG from automobiles and light-duty trucks by 30 percent below 2002 levels by the year 2016, effective with 2009 models. By 2020, this requirement will reduce emissions in California by approximately 16.4 million metric tons of carbon dioxide equivalent (MMT<sub>CO<sub>2</sub>e</sub>). Pavley II committed to further strengthening the AB1493 standards beginning in 2017 to obtain a 45 percent GHG reduction from 2020 model year vehicles. By 2020, this requirement will reduce emissions in California by approximately 4.0 MMT<sub>CO<sub>2</sub>e</sub>.

Pavley Reduction Assumptions:	% of Emissions <sup>1</sup>	2030
	% LDA CO <sub>2</sub> Emissions	50.75%
	% LDT1 CO <sub>2</sub> Emissions	6.91%
	% LDT2 CO <sub>2</sub> Emissions	23.16%
	% MDV CO <sub>2</sub> Emissions	10.11%
	<b>% Reduction in CO<sub>2</sub><sup>2</sup></b>	
	LDA	30.60%
	LDT1	28.71%
	LDT2	20.63%
	MDV	20.47%

<sup>(1)</sup> Source: CalEEMod model

<sup>(2)</sup> Source: BAAQMD Greenhouse Gas Model (BGM), Version 1.1.9 Beta.

### R1-T 2 Executive Order S-1-07 (Low Carbon Fuel Standard)

The Low Carbon Fuel Standard (LCFS) requires a reduction of at least ten (10) percent in the carbon intensity of California's transportation fuels by 2020. This requirement will reduce emissions in California by approximately 15 MMT<sub>CO<sub>2</sub>e</sub> from passenger/light-duty vehicles in the state.

Reduction to automobiles & light duty Trucks <sup>(1)</sup>		<b>2030</b>
	=	7.20%

# Sylmar

## Reduction Measures

### R1-T 3 Tire Pressure Program

The AB 32 early action measure involves actions to ensure that vehicle tire pressure is maintained to manufacturer specifications. By 2020, this requirement will reduce emissions in California by approximately 0.55 MMTCO<sub>2</sub>e, representing 0.3 percent of emissions from passenger/light-duty vehicles in the state.

		<b>2030</b>
Reduction to automobiles & light duty Trucks	=	0.30%

### R1-T 4 Low Rolling Resistance Tires

This created an energy efficiency standard for automobile tires to reduce rolling resistance. By 2020, this requirement will reduce emissions in California by approximately 0.3 MMTCO<sub>2</sub>e, representing 0.2 percent of emissions from passenger/light-duty vehicles in the state.

		<b>2030</b>
Reduction to automobiles & light duty Trucks	=	0.30%

### R1-T 5 Low Friction Engine Oils

This AB 32 early action measure would increase vehicle efficiency by mandating the use of engine oils that meet certain low friction specifications. By 2020, this requirement will reduce emissions in California by approximately 2.8 MMTCO<sub>2</sub>e, representing 1.7 percent of emissions from passenger light-duty vehicles in the state.

		<b>2030</b>
Reduction to automobiles & light duty Trucks	=	1.70%

### R1-T 6 Cool Paints and Reflective Glazing

This AB 32 early action measure is based on measures to reduce the solar heat gain in a vehicle parked in the sun. By 2020, this requirement will reduce emissions in California by approximately 0.89 MMTCO<sub>2</sub>e, representing 0.6 percent of emissions from passenger/light-duty vehicles in the state.

		<b>2030</b>
Reduction to automobiles & light duty Trucks	=	0.60%

### R1-T 7 Goods Movement Efficiency Measures

This AB 32 early action measure targets system wide efficiency improvements in goods movement to achieve GHG reductions from reduced diesel combustion. By 2020, this requirement will reduce emissions in California by approximately 3.5 MMTCO<sub>2</sub>e, representing 1.6 Percent of emissions from all mobile sources (on-road and off-road) in the state.

		<b>2030</b>
Reduction afforded to Medium and Heavy Duty Vehicle emissions	=	1.60%

## Sylmar Reduction Measures

### R1-T 8 Heavy-Duty Vehicle GHG Emission Reduction (Aerodynamic Efficiency)

This AB 32 early action measure would increase heavy-duty vehicle (long-haul trucks) efficiency by requiring installation of best available technology and/or CARB approved technology to reduce aerodynamic drag and rolling resistance. By 2020, this requirement will reduce emissions in California by approximately 0.93 MMTCO<sub>2</sub>e, representing 1.9 percent of emissions from heavy-duty vehicles in the state.

Reduction afforded to Heavy Duty Vehicles	<b>2030</b>	
emissions	=	1.90%

### R1-T 9 Medium and Heavy Duty Vehicle Hybridization

The implementation approach for this AB 32 measure is to adopt a regulation and/or incentive program that reduce the GHG emissions of new trucks (parcel delivery trucks and vans, utility trucks, garbage trucks, transit buses, and other vocational work trucks) sold in California by replacing them with hybrids. By 2020, this requirement will reduce emissions in California by approximately 0.5 MMTCO<sub>2</sub>e, representing 0.2 percent of emissions from all on-road mobile sources in the state. This reduction is also equivalent to a 1.0 percent reduction of emissions from all heavy-duty trucks in the state.

Reduction afforded to Medium & Heavy Duty	<b>2030</b>	
Vehicle Emissions	=	0.20%

### MM 4.2-14 Anti-Idling Enforcement

The Applicant shall require by contract specifications that electrical outlets are included in the building design of the loading docks to allow use by refrigerated delivery trucks. The proposed project Applicant shall require that no trucks idled for more than five minutes. If loading and/or unloading of perishable goods would occur for more than 5 minutes, and continual refrigeration is required, all refrigerated delivery trucks shall use the electrical outlets to continue powering the truck refrigeration units when the delivery truck engine is turned off. Supports the City's Green Industry Goals (LU13 and 15).

#### Assumptions:

- \* By 2020, this measure results in a 1.8% reduction in exhaust from Medium Duty Vehicles in the City.
- \* By 2020, this measure results in a 1.8% reduction in exhaust from Heavy Duty Vehicles in the City.
- \* Measures R1-T1 through R1-T6 are implemented.

#### Reductions:

	<b>2030</b>
% Medium Duty that is diesel <sup>(2)</sup>	= 0.00%
% Heavy Duty that is diesel <sup>(2)</sup>	= 48.73%
% reduction afforded by this measure	= 1.80%
Reduction afforded to Medium Duty Vehicle	
Emissions	= 0.00%
Reduction afforded to Heavy Duty Vehicle	
Emissions	= 0.88%

<sup>(2)</sup> Source: URBEMIS 2007 Version 9.2.4.

# Sylmar

## Reduction Measures

### MM 4.2-18 Employment Based Trip and VMT Reduction

Project Applicant shall promote trip reduction through commuter-choice programs, employer transportation management, guaranteed ride home programs, and commuter assistance and outreach type programs intended to reduce commuter vehicle miles traveled. This measure would require employers with more than 100 employees establish a trip reduction plan that would incorporate annual employee commute surveys, marketing of commute alternatives, ride matching assistance, and transit information at a minimum, and implements secure bicycle parking, showers and lockers for employees who bike to work . Further this measure would encourage smaller businesses located in close proximity to cooperate in establishing joint trip reduction plans. Supports and enhances Community Plan Goal M9.

**Assumptions:**

- \* Assumes that a 100% eligibility rate is established by 2030 (6.2% reduction in emissions) for new industrial development.
- \* Assumes that a 10% eligibility rate is established by 2030 (0.62% reduction in emissions) for new commercial development.
- \* Measures R1-T1 through R1-T7 are implemented.
- \* Assumes that 75% of new development has Bicycle amenities.

**Reductions:**

	<b>2030</b>
Reduction afforded Industrial <sup>(3)</sup> =	6.20%
% Industrial Auto =	3.88%
% Auto Reduction =	0.24%
% commercial =	0.62%
% Commercial Auto =	27.04%
% auto reduction <sup>(3)</sup> =	0.17%
% Industrial and Commercial Auto =	30.92%
% reduction from bicycle amenities <sup>(3)</sup> =	0.47%
% auto Reduction =	0.14%

<sup>(3)</sup> Source: CAPCOA. *Quantifying Greenhouse Gas Mitigation Measures August 2010.*

### MM 4.2-19 Car and Bicycleshares

Project Applicant shall implement car and bicycle sharing programs. Project Applicant shall collaborate with service providers to identify potential sites for locating carshares, such that a minimum of 20 percent of new development participates in these programs by 2030. Supports and enhances Community Plan Goals M4, M5 and M9.

**Assumptions:**

- \* <sup>(3)</sup> Assumes a 20% implementation for all new development.
- \* <sup>(3)</sup> Reduction afforded for passenger and light duty trucks only.

**Reductions:**

	<b>2030</b>
Reduction afforded =	0.74%

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## Reduction Measures

### MM 4.2-20 Safe and Convenient Public Transit

Major employers (companies with more than 100 employees) shall provide employer-based “open-door” shuttles to local transit hubs. Collaborate with regional transportation agencies to maintain and enhance service within the City and region. Explore strategies to address affordability, access and safety. Expand outreach and information programs to promote transit use. Implementation of this measure shall increase transit network coverage and reduce headway by 20 percent by 2030. Supports and enhances Community Plan Policies M5, M6 and M9.

#### Assumptions:

- \* Reduction afforded for passenger and light duty trucks only.
- \* Measures R1-T1 through R1-T7 and R2-T1 - R2-T4 are implemented.
- \* Assumes reduction to City-wide emissions not just project.
- \* Assumes 20% reduction in headway
- \* Assumes 20% increase in transit network coverage

#### Reductions:

	<b>2030</b>
Reduction afforded for expanded transit service <sup>(3)</sup> =	1.64%
Reduction afforded for increase in service frequency <sup>(3)</sup> =	0.36%
Total Reduction =	2.00%

## Energy Reduction Measures

### R1-E 1 Renewable Portfolio Standard for Building Energy Use

Senate Bills (SBs) 1075 (2002) and 107 (2006) created the state's Renewable Portfolio Standard (RPS), with an initial goal of 20 percent renewable energy production by 2010. Executive Order (EO) S-14-08 establishes a RPS target of 33 percent by the year 2020 and requires state agencies to take all appropriate actions to ensure the target is met. The 33 percent RPS by 2020 goal is supported by the California Air Resources Board (CARB), though its feasibility is not certain due to current limitations in production and transmission of renewable energy.

#### Assumptions:

- \* LADWP reaches its 33% goal for 2020.
- \* Assumes that in 2009 SCE's renewable portfolio was at 17%
- \* Assumes a 33% reduction in new emissions generated past 2020.
- \* Assumes R1-E2 through R1-E6 have been implemented.

	<b>Residential</b>	<b>Non-Residential</b>
<b>Reductions:</b>	<b>2030</b>	<b>2030</b>
% of usage from Existing =	-	-
% reduction from 2005 levels =	-	-
Total % reduction from Existing =	-	-
% of usage from Growth =	100.00%	100.00%
% reduction from Growth =	33.00%	33.00%
Total % reduction from Growth =	33.00%	33.00%
% percent reduction =	33.00%	33.00%



# Sylmar

## Reduction Measures

### R1-E 2 & 3 AB 1109 Energy Efficiency Standard for Lighting

Assembly Bill (AB 1109) mandated that the California Energy Commission (CEC) adopt energy efficiency standards for general purpose lighting. These regulations, combined with other state efforts, shall be structured to reduce state-wide electricity consumption in the following ways:

- \* R1-E2: At least 50 percent reduction from 2007 levels for indoor residential lighting by 2018; and
- \* R1-E3: At least 25 percent reduction from 2007 levels for indoor commercial and outdoor lighting by 2018.

#### Reductions:

% reduction from residential electrical use	=	50.00%
% reduction from commercial/industrial electrical use	=	25.00%

### R1-E 4 Electrical Energy Efficiency

This measure captures the emission reductions associated with electricity energy efficiency activities included in CARB's AB 32 Scoping Plan that are not attributed to other R1 or R2 reductions as described in this report. This measure includes energy efficiency measures that CARB views as crucial to meeting the state-wide 2020 target, and will result in additional emissions reductions beyond those already accounted for in California's Energy Efficiency Standards for Residential and Non-Residential Buildings (Title 24, Part 6 of the California Code of Regulations; hereinafter referred to as, "Title 24 Energy Efficiency Standards"), etc. By 2020, this requirement will reduce emissions in California by approximately 21.3 MMTCO<sub>2e</sub>, representing 17.5 percent of emissions from all electricity in the State. This measure includes the following strategies:

- \* "Zero Net Energy" buildings (buildings that combine energy efficiency and renewable generation so that they, based on an annual average, extract no energy from the grid);
- \* Broader standards for new types of appliances and for water efficiency;
- \* Improved compliance and enforcement of existing standards;
- \* Voluntary efficiency and green building targets beyond mandatory codes;
- \* Voluntary and mandatory whole-building retrofits for existing buildings;
- \* Innovative financing to overcome first-cost and split incentives for energy efficiency, on-site renewables, and high efficiency distributed generation;
- \* More aggressive utility programs to achieve long-term savings;
- \* Water system and water use efficiency and conservation measures;
- \* Additional industrial and agricultural efficiency initiatives; and
- \* Providing real time energy information technologies to help consumers conserve and optimize energy performance.

#### Assumptions:

- \* Accounted for in CalEEMod modeling.

# Sylmar

## Reduction Measures

### R1-E 5 Natural Gas Energy Efficiency

This measure captures the emission reductions associated with natural gas energy efficiency activities included in CARB's AB 32 Scoping Plan that are not attributed to other R1 or R2 reductions, as described in this report. This measure includes energy efficiency measures that CARB views as crucial to meeting the state-wide 2020 target, and will result in additional emissions reductions beyond those already accounted for in California's Energy Efficiency Standards for Residential and Non-Residential Buildings (Title 24, Part 6 of the California Code of Regulations; hereinafter referred to as, "Title 24 Energy Efficiency Standards") etc. By 2020, this requirement will reduce emissions in California by approximately 4.3 MMTCO<sub>2</sub>e, representing 6.2 percent of emissions from all natural gas combustion in the state. This measure includes the following strategies:

- \* "Zero Net Energy" buildings (buildings that combine energy efficiency and renewable generation so that they, based on an annual average, extract no energy from the grid);
- \* Broader standards for new types of appliances and for water efficiency;
- \* Improved compliance and enforcement of existing standards;
- \* Voluntary efficiency and green building targets beyond mandatory codes;
- \* Voluntary and mandatory whole-building retrofits for existing buildings;
- \* Innovative financing to overcome first-cost and split incentives for energy efficiency, on-site renewables, and high efficiency distributed generation;
- \* More aggressive utility programs to achieve long-term savings;
- \* Water system and water use efficiency and conservation measures;
- \* Additional industrial and agricultural efficiency initiatives; and
- \* Providing real time energy information technologies to help consumers conserve and optimize energy performance.

#### Assumptions:

- \* Accounted for in CalEEMod modeling.

### R1-E 6 Increased Combined Heat and Power

This measure captures the reduction in building electricity emissions associated with the increase of combined heat and power activities, as outlined in CARB's AB 32 Scoping Plan. The Scoping Plan suggests that increased combined heat and power systems, which capture "waste heat" produced during power generation for local use, will offset 30,000 GWh state-wide in 2020. Approaches to lowering market barriers include utility-provided incentive payments, a possible CHP portfolio standard, transmission and distribution support systems, or the use of feed-in tariffs. By 2020, this requirement will reduce emissions in California by approximately 6.7 MMTCO<sub>2</sub>e, representing 7.6 percent of emissions from all electricity in the state.

#### Assumptions:

- \* The percent reduction from California's emissions is equal to the City's emissions from this measures or 7.6%.

#### Reductions:

	<b>2030</b>
% reduction afforded	= 7.60%

# Sylmar

## Reduction Measures

### Solid Waste Reduction Measures

#### R1-W1 Waste Reduction and recycling Program

California state regulations require a minimum diversion of 50% of all generated waste from landfills.

<b>Reductions:</b>		<b>2030</b>
	% reduction applied =	50.00%

\*Climate LA increases this to 70% and reductions are accounted for in the CalEEMod model.

### Other Fuels

#### R1-O1 Wood burning stoves and fireplaces

SCAQMD has banned the indoor use of all woodburning devices (stoves and furnaces).

#### Assumptions:

- \* Applies to all new construction.
- \* Assumes all non-natural gas emissions are eliminated from new residential properties.

<b>Reductions:</b>		<b>2030</b>
	% reduction applied	100.00%

\*Reductions are accounted for in the CalEEMod model.

#### MM 4.6-1 Landscape Equipment

The Project Applicant shall ensure that all new development is equipped with outdoor electrical outlets such that a minimum of 10% of all landscaping equipment's fuel use can be offset.

#### Assumptions:

- \* Applies to all new construction.
- \* Assumes 10% of landscape equipment is electric.

<b>Reductions:</b>		<b>2030</b>
	% new development participation	100.00%
	% reduction <sup>(2)</sup>	10.00%
	% reduction applied	10.00%

\*Reductions are accounted for in the CalEEMod model.

# Sylmar

## GHG Reduction Inputs

### Energy

#### Electric

	Total	Title 24	Non Title 24	Lighting
SFR	8,176.37	583.71	5,707.50	1,885.16
MFR	9,177.36	427.83	6,408.54	2,340.99
Commercial	25,579.46	9,893.78	8,133.32	7,552.37
Industrial	5,504.57	2,130.56	1,751.45	1,622.56

	Total	Total %	Title 24	%	Non Title 24	%	Lighting	%
SFR	6,412.50	100.00%	457.79	7.14%	4,476.23	69.80%	1,478.48	23.06%
MFR	3,435.59	100.00%	160.16	4.66%	2,399.07	69.83%	876.36	25.51%
Commercial	14.53	100.00%	5.62	38.68%	4.62	31.80%	4.29	29.53%
Industrial	14.52	100.00%	5.62	38.71%	4.62	31.82%	4.28	29.48%

#### Natural Gas

	Total	Title 24	Non-Title 24
SFR	5,582.18	4,773.05	809.13
MFR	5,884.89	5,096.57	788.32
Commercial	2,055.49	1,982.15	73.34
Industrial	442.33	426.55	15.78

	Total	Total %	Title 24	%	Non-Title 24	%
SFR	40,982.76	100.00%	35,042.36	85.51%	5,940.40	14.49%
MFR	20,623.06	100.00%	17,860.46	86.60%	2,762.60	13.40%
Commercial	10.93	100.00%	10.54	96.43%	0.39	3.57%
Industrial	10.93	100.00%	10.54	96.43%	0.39	3.57%

### Other Sources

	Landscape	Hearth	Waste	Water
	CalEEMod	CalEEMod	CalEEMod	CalEEMod
Residential	193.24	5,121.99	1,009.04	4,662.15
Comm	0.00	0.00	444.58	5,618.60
Industrial	0.00	0.00	1,266.12	22,033.49

\*Reductions directly from CalEEMod model

### Transportation

	Total	%
Residential	62,732.28	69.08%
Comm	24,555.22	27.04%
Industrial	3,519.38	3.88%
Total	90,806.88	

## Sylmar Residential Energy Reduction Summary

		%	%	%
Single Family	<b>2030</b>	Title 24	Non-T24	Lighting
Electricity	8,176	7.14%	69.80%	23.06%
Natural Gas	5,582	85.51%	14.49%	
	13,759			

Multi Family				
Electricity	9,177	4.66%	69.83%	25.51%
Natural Gas	5,885	86.60%	13.40%	
	15,062			

	Electricity		Natural Gas	
	SFR	MFR	SFR	MFR
<b>BAU:</b>	<b>8,176</b>	<b>9,177</b>		
<b>R1-E1:</b>	33.00%	33.00%		
	5,478	6,149		
<b>R1-E2:</b>	50.00%	50%		
T24	391.09	286.65		
No-T24	3,824.02	4,293.72		
Lighting	631.53	784.23		
	4,847	5,365		
<b>R1-E6:</b>	7.60%	7.60%		
T24	361.37	264.86		
No-T24	3,533.40	3,967.40		
Lighting	583.53	724.63		
	4,478	4,957		

Reduced	4,478.3	4,956.9	Total Reduced	5,582	5,885
% Reduction	45.23%		% Reduction	0.00%	0.00%

Combined reduced	9,435	Combined reduced	11,467
% Reduction	45.63%	% Reduction	0.00%

## Sylmar Commercial Energy Reduction Summary

	2030	% Title 24	% Non-T24	% Lighting
Electricity	25,579	38.68%	31.80%	29.53%
Natural Gas	2,055	96.43%	3.57%	
	27,635			

Electricity	
<b>BAU:</b>	<b>25,579</b>
<b>R1-E1:</b>	33.00%
	17,138
<b>R1-E3:</b>	25.00%
T24	6,628.83
No-T24	5,449.32
Lighting	3,795.06
	15,873
<b>R1-E6:</b>	7.60%
T24	6,125.04
No-T24	5,035.17
Lighting	3,506.64
	14,667

Natural Gas	
<b>BAU:</b>	<b>2,055</b>

Reduced	14,666.9
% Reduction	42.66%

Total Reduced	2,055
% Reduction	0.00%

## Sylmar Industrial Energy Reduction Summary

	2030	% Title 24	% Non-T24	% Lighting
Electricity	5,505	38.71%	31.82%	29.48%
Natural Gas	442	96.43%	3.57%	
	5,947			

Electricity		Natural Gas	
<b>BAU:</b>	<b>5,505</b>	<b>BAU:</b>	<b>442</b>
<b>R1-E1:</b>	33.00%		
	3,688		
<b>R1-E3:</b>	25.00%		
T24	1,427.47		
No-T24	1,173.47		
Lighting	815.34		
	3,416		
<b>R1-E6:</b>	7.60%		
T24	1,318.99		
No-T24	1,084.29		
Lighting	753.37		
	3,157		

Reduced	3,156.6	Total Reduced	442
% Reduction	42.65%	% Reduction	0.00%

# Sylmar

## Transportation Reduction Summary

### Business-As-Usual Inventory MT CO<sub>2</sub>e

	<b>2030</b>
Light Duty Auto	46,086
Light Duty Truck 1	6,274
Light Duty Truck 2	21,034
Medium Duty Vehicle	9,184
Heavy Duty Vehicles	7,085
Rest	1,145
<b>Total</b>	<b>90,807</b>

### Transportation Emission Reductions

<b>2030</b>		<b>2030</b>		<b>2030</b>	
<b>R1-T1</b>		<b>R1-T4</b>	0.30%	<b>R1-T7</b>	1.60%
LDA	31,983	LDA	29,503	LDA	29,326
LDT1	4,473	LDT1	4,126	LDT1	4,101
LDT2	16,694	LDT2	15,400	LDT2	15,307
MDV	7,304	MDV	7,304	MDV	7,187
HDV	7,085	HDV	7,085	HDV	6,971
Rest	1,145	Rest	1,145	Rest	1,145
	<b>68,684</b>		<b>64,562</b>		<b>64,038</b>
<b>R1-T2</b>	7.20%	<b>R1-T5</b>	1.70%	<b>R1-T8</b>	1.90%
LDA	29,681	LDA	29,001	LDA	29,326
LDT1	4,151	LDT1	4,056	LDT1	4,101
LDT2	15,492	LDT2	15,138	LDT2	15,307
MDV	7,304	MDV	7,304	MDV	7,050
HDV	7,085	HDV	7,085	HDV	6,839
Rest	1,145	Rest	1,145	Rest	1,145
	<b>64,857</b>		<b>63,728</b>		<b>63,769</b>
<b>R1-T3</b>	0.30%	<b>R1-T6</b>	0.60%	<b>R1-T9</b>	0.20%
LDA	29,592	LDA	29,326	LDA	29,326
LDT1	4,138	LDT1	4,101	LDT1	4,101
LDT2	15,446	LDT2	15,307	LDT2	15,307
MDV	7,304	MDV	7,304	MDV	7,050
HDV	7,085	HDV	7,085	HDV	6,825
Rest	1,145	Rest	1,145	Rest	1,145
	<b>64,709</b>		<b>64,268</b>		<b>63,755</b>



## Sylmar Transportation Reduction Summary

	<b>2030</b>		<b>2030</b>		
<b>TIMP</b>	0.46%	<b>MM 4.2-18</b>	0.17%	<b>MM 4.2-20</b>	2.00%
LDA	29,190	LDA	29,071	LDA	28,236
LDT1	4,082	LDT1	4,065	LDT1	3,949
LDT2	15,236	LDT2	15,174	LDT2	14,738
MDV	7,018	MDV	7,018	MDV	7,018
HDV	6,793	HDV	6,734	HDV	6,734
Rest	1,145	Rest	1,145	Rest	1,145
	<b>63,464</b>		<b>63,207</b>		<b>61,820</b>
<b>MM 4.2-14</b>	0.88%	<b>MM 4.2-18</b>	0.14%		
LDA	29,190	LDA	29,028		
LDT1	4,082	LDT1	4,059		
LDT2	15,236	LDT2	15,152		
MDV	7,018	MDV	7,018		
HDV	6,734	HDV	6,734		
Rest	1,145	Rest	1,145		
	<b>63,404</b>		<b>63,137</b>		
<b>MM 4.2-18</b>	0.24%	<b>MM 4.2-19</b>	0.74%		
LDA	29,119	LDA	28,814		
LDT1	4,072	LDT1	4,029		
LDT2	15,199	LDT2	15,040		
MDV	7,018	MDV	7,018		
Rest	1,145	Rest	1,145		
	<b>125,547</b>		<b>62,780</b>		
	<b>63,288</b>				
				<b>Total Reduced</b>	<b>61,820</b>
				% Reduction	31.92%
				% Reduction from Mitigation	2.59%

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## **Sylmar 2005 CalEEMod Output**

**Sylmar Existing Conditions**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
General Office Building	3231.05	1000sqft
Industrial Park	5950.57	1000sqft
Apartments Low Rise	2436	Dwelling Unit
Single Family Housing	12961	Dwelling Unit

**1.2 Other Project Characteristics**

**Urbanization** Urban                      **Wind Speed (m/s)** 2.2                      **Utility Company** Los Angeles Department of Water & Power  
**Climate Zone** 11                              **Precipitation Freq (Days)** 33

**1.3 User Entered Comments**

Project Characteristics -  
 Land Use - Acerages, Population, based on Project Description  
 Construction Phase - No construction for Existing conditions. Buildings already constructed.  
 Off-road Equipment - No construction

Vehicle Trips - average trip length listed in LA GPF

Woodstoves -

Energy Use - 2005 is the operational year. Historical Data appropriate.

## 2.0 Emissions Summary

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### 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	tons/yr										MT/yr					
Area	221.91	4.97	368.86	0.17		0.00	16.29		0.00	16.28	1,635.45	9,811.33	11,446.79	5.61	0.23	11,634.76
Energy	4.04	34.87	17.16	0.22		0.00	2.79		0.00	2.79	0.00	171,023.99	171,023.99	3.83	1.90	171,692.56
Mobile	379.18	806.51	3,789.47	5.85	267.14	25.84	292.98	10.27	25.84	36.12	0.00	269,470.52	269,470.52	26.11	0.00	270,018.73
Waste						0.00	0.00		0.00	0.00	20,733.82	0.00	20,733.82	1,225.33	0.00	46,465.82
Water						0.00	0.00		0.00	0.00	0.00	232,054.90	232,054.90	946.68	25.40	259,809.43
<b>Total</b>	<b>605.13</b>	<b>846.35</b>	<b>4,175.49</b>	<b>6.24</b>	<b>267.14</b>	<b>25.84</b>	<b>312.06</b>	<b>10.27</b>	<b>25.84</b>	<b>55.19</b>	<b>22,369.27</b>	<b>682,360.74</b>	<b>704,730.02</b>	<b>2,207.56</b>	<b>27.53</b>	<b>759,621.30</b>

## 2.2 Overall Operational

### 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	tons/yr										MT/yr					
Area	221.91	4.97	368.86	0.17		0.00	16.29		0.00	16.28	1,635.45	9,811.33	11,446.79	5.61	0.23	11,634.76
Energy	4.04	34.87	17.16	0.22		0.00	2.79		0.00	2.79	0.00	171,023.99	171,023.99	3.83	1.90	171,692.56
Mobile	379.18	806.51	3,789.47	5.85	267.14	25.84	292.98	10.27	25.84	36.12	0.00	269,470.52	269,470.52	26.11	0.00	270,018.73
Waste						0.00	0.00		0.00	0.00	20,733.82	0.00	20,733.82	1,225.33	0.00	46,465.82
Water						0.00	0.00		0.00	0.00	0.00	232,054.90	232,054.90	946.68	25.40	259,809.43
<b>Total</b>	<b>605.13</b>	<b>846.35</b>	<b>4,175.49</b>	<b>6.24</b>	<b>267.14</b>	<b>25.84</b>	<b>312.06</b>	<b>10.27</b>	<b>25.84</b>	<b>55.19</b>	<b>22,369.27</b>	<b>682,360.74</b>	<b>704,730.02</b>	<b>2,207.56</b>	<b>27.53</b>	<b>759,621.30</b>

## 3.0 Construction Detail

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### 3.1 Mitigation Measures Construction

## 4.0 Mobile Detail

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### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	379.18	806.51	3,789.47	5.85	267.14	25.84	292.98	10.27	25.84	36.12	0.00	269,470.52	269,470.52	26.11	0.00	270,018.73
Unmitigated	379.18	806.51	3,789.47	5.85	267.14	25.84	292.98	10.27	25.84	36.12	0.00	269,470.52	269,470.52	26.11	0.00	270,018.73
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	16,053.24	17,441.76	14,786.52	42,619,985	42,619,985
General Office Building	35,573.86	7,657.59	3,166.43	56,188,719	56,188,719
Industrial Park	41,415.97	14,816.92	4,343.92	68,992,998	68,992,998
Single Family Housing	124,036.77	130,646.88	11,366.97	327,526,485	327,526,485
<b>Total</b>	<b>217,079.84</b>	<b>170,563.15</b>	<b>135,964.84</b>	<b>495,328,187</b>	<b>495,328,187</b>

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Apartments Low Rise	10.00	7.00	7.00	40.20	19.20	40.60
General Office Building	7.00	7.00	7.00	33.00	48.00	19.00

Land Use	Miles			Trip %		
	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
Industrial Park	7.00	7.00	7.00	59.00	28.00	13.00
Single Family Housing	10.00	7.00	7.00	40.20	19.20	40.60

## 5.0 Energy Detail

### 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	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	131,034.52	131,034.52	3.07	1.16	131,459.73
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	131,034.52	131,034.52	3.07	1.16	131,459.73
NaturalGas Mitigated	4.04	34.87	17.16	0.22		0.00	2.79		0.00	2.79	0.00	39,989.47	39,989.47	0.77	0.73	40,232.84
NaturalGas Unmitigated	4.04	34.87	17.16	0.22		0.00	2.79		0.00	2.79	0.00	39,989.47	39,989.47	0.77	0.73	40,232.84
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	tons/yr										MT/yr					
Apartments Low Rise	5.35126e+007	0.29	2.47	1.05	0.02		0.00	0.20		0.00	0.20	0.00	2,855.64	2,855.64	0.05	0.05	2,873.01
General Office Building	4.01943e+007	0.22	1.97	1.66	0.01		0.00	0.15		0.00	0.15	0.00	2,144.92	2,144.92	0.04	0.04	2,157.97
Industrial Park	7.40251e+007	0.40	3.63	3.05	0.02		0.00	0.28		0.00	0.28	0.00	3,950.26	3,950.26	0.08	0.07	3,974.30
Single Family Housing	5.81642e+008	3.14	26.80	11.40	0.17		0.00	2.17		0.00	2.17	0.00	31,038.65	31,038.65	0.59	0.57	31,227.55
<b>Total</b>		<b>4.05</b>	<b>34.87</b>	<b>17.16</b>	<b>0.22</b>		<b>0.00</b>	<b>2.80</b>		<b>0.00</b>	<b>2.80</b>	<b>0.00</b>	<b>39,989.47</b>	<b>39,989.47</b>	<b>0.76</b>	<b>0.73</b>	<b>40,232.83</b>

### 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	tons/yr										MT/yr					
Apartments Low Rise	5.35126e+007	0.29	2.47	1.05	0.02		0.00	0.20		0.00	0.20	0.00	2,855.64	2,855.64	0.05	0.05	2,873.01
General Office Building	4.01943e+007	0.22	1.97	1.66	0.01		0.00	0.15		0.00	0.15	0.00	2,144.92	2,144.92	0.04	0.04	2,157.97
Industrial Park	7.40251e+007	0.40	3.63	3.05	0.02		0.00	0.28		0.00	0.28	0.00	3,950.26	3,950.26	0.08	0.07	3,974.30
Single Family Housing	5.81642e+008	3.14	26.80	11.40	0.17		0.00	2.17		0.00	2.17	0.00	31,038.65	31,038.65	0.59	0.57	31,227.55
<b>Total</b>		<b>4.05</b>	<b>34.87</b>	<b>17.16</b>	<b>0.22</b>		<b>0.00</b>	<b>2.80</b>		<b>0.00</b>	<b>2.80</b>	<b>0.00</b>	<b>39,989.47</b>	<b>39,989.47</b>	<b>0.76</b>	<b>0.73</b>	<b>40,232.83</b>



### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	8.46483e+006					4,755.40	0.11	0.04	4,770.83
General Office Building	4.92412e+007					27,662.88	0.65	0.25	27,752.65
Industrial Park	9.06867e+007					50,946.26	1.19	0.45	51,111.58
Single Family Housing	8.48548e+007					47,669.98	1.12	0.42	47,824.67
<b>Total</b>						<b>131,034.52</b>	<b>3.07</b>	<b>1.16</b>	<b>131,459.73</b>

#### Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	8.46483e+006					4,755.40	0.11	0.04	4,770.83
General Office Building	4.92412e+007					27,662.88	0.65	0.25	27,752.65
Industrial Park	9.06867e+007					50,946.26	1.19	0.45	51,111.58
Single Family Housing	8.48548e+007					47,669.98	1.12	0.42	47,824.67
<b>Total</b>						<b>131,034.52</b>	<b>3.07</b>	<b>1.16</b>	<b>131,459.73</b>

## 6.0 Area Detail

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### 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	tons/yr										MT/yr					
Mitigated	221.91	4.97	368.86	0.17		0.00	16.29		0.00	16.28	1,635.45	9,811.33	11,446.79	5.61	0.23	11,634.76
Unmitigated	221.91	4.97	368.86	0.17		0.00	16.29		0.00	16.28	1,635.45	9,811.33	11,446.79	5.61	0.23	11,634.76
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	tons/yr										MT/yr					
Architectural Coating	32.78					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	126.28					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	51.07	1.28	96.77	0.15		0.00	15.14		0.00	15.13	1,635.45	9,428.35	11,063.80	5.00	0.23	11,238.89
Landscaping	11.78	3.69	272.08	0.01		0.00	1.15		0.00	1.15	0.00	382.98	382.98	0.61	0.00	395.87
<b>Total</b>	<b>221.91</b>	<b>4.97</b>	<b>368.85</b>	<b>0.16</b>		<b>0.00</b>	<b>16.29</b>		<b>0.00</b>	<b>16.28</b>	<b>1,635.45</b>	<b>9,811.33</b>	<b>11,446.78</b>	<b>5.61</b>	<b>0.23</b>	<b>11,634.76</b>

### 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	tons/yr										MT/yr					
Architectural Coating	32.78					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	126.28					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	51.07	1.28	96.77	0.15		0.00	15.14		0.00	15.13	1,635.45	9,428.35	11,063.80	5.00	0.23	11,238.89
Landscaping	11.78	3.69	272.08	0.01		0.00	1.15		0.00	1.15	0.00	382.98	382.98	0.61	0.00	395.87
<b>Total</b>	<b>221.91</b>	<b>4.97</b>	<b>368.85</b>	<b>0.16</b>		<b>0.00</b>	<b>16.29</b>		<b>0.00</b>	<b>16.28</b>	<b>1,635.45</b>	<b>9,811.33</b>	<b>11,446.78</b>	<b>5.61</b>	<b>0.23</b>	<b>11,634.76</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					232,054.90	946.68	25.40	259,809.43
Unmitigated					232,054.90	946.68	25.40	259,809.43
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	158.715 / 100.06					1,787.29	4.89	0.14	1,932.07
General Office Building	574.267 / 351.97					6,403.98	17.68	0.49	6,927.61
Industrial Park	29258.6 / 0					214,354.15	898.12	24.05	240,669.96
Single Family Housing	844.461 / 532.378					9,509.48	26.00	0.72	10,279.79
<b>Total</b>						<b>232,054.90</b>	<b>946.69</b>	<b>25.40</b>	<b>259,809.43</b>

### Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	158.715 / 100.06					1,787.29	4.89	0.14	1,932.07
General Office Building	574.267 / 351.97					6,403.98	17.68	0.49	6,927.61
Industrial Park	29258.6 / 0					214,354.15	898.12	24.05	240,669.96
Single Family Housing	844.461 / 532.378					9,509.48	26.00	0.72	10,279.79
<b>Total</b>						<b>232,054.90</b>	<b>946.69</b>	<b>25.40</b>	<b>259,809.43</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					20,733.82	1,225.33	0.00	46,465.82
Unmitigated					20,733.82	1,225.33	0.00	46,465.82
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	1120.56					227.46	13.44	0.00	509.76
General Office Building	3004.88					609.96	36.05	0.00	1,366.97
Industrial Park	73237.8					14,866.61	878.59	0.00	33,317.03
Single Family Housing	24778.3					5,029.78	297.25	0.00	11,272.06
<b>Total</b>						<b>20,733.81</b>	<b>1,225.33</b>	<b>0.00</b>	<b>46,465.82</b>

### Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	1120.56					227.46	13.44	0.00	509.76
General Office Building	3004.88					609.96	36.05	0.00	1,366.97
Industrial Park	73237.8					14,866.61	878.59	0.00	33,317.03
Single Family Housing	24778.3					5,029.78	297.25	0.00	11,272.06
<b>Total</b>						<b>20,733.81</b>	<b>1,225.33</b>	<b>0.00</b>	<b>46,465.82</b>

## 9.0 Vegetation

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## **Sylmar 2030 CalEEMod Output**

**Sylmar - Growth Only - Residential**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Single Family Housing	2537	Dwelling Unit
Apartments Low Rise	5315	Dwelling Unit

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Utility Company</b>	Los Angeles Department of Water & Power
<b>Climate Zone</b>	11	<b>Precipitation Freq (Days)</b>	33		

**1.3 User Entered Comments**

Project Characteristics - LADWP December 2011  
 Land Use - Acres, du's, sqft, and population from project data.  
 Construction Phase - No construction scenario available.  
 Off-road Equipment - No Construction included.  
 Vehicle Trips - Based on LA GPF  
 Energy Use - Used Default

Mobile Land Use Mitigation -

Area Mitigation - Only natural gas hearths in SCAQMD

Water Mitigation - CalGreen Building Code

Waste Mitigation -

## 2.0 Emissions Summary

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### 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	tons/yr										MT/yr					
Area	69.17	2.02	168.53	0.08		0.00	8.38		0.00	8.38	834.03	5,003.48	5,837.51	2.73	0.12	5,930.70
Energy	1.15	9.84	4.19	0.06		0.00	0.80		0.00	0.80	0.00	28,688.48	28,688.48	0.67	0.38	28,820.79
Mobile	27.15	65.63	225.55	0.86	84.76	4.11	88.87	1.35	4.01	5.35	0.00	62,692.14	62,692.14	1.91	0.00	62,732.28
Waste						0.00	0.00		0.00	0.00	1,500.83	0.00	1,500.83	88.70	0.00	3,363.47
Water						0.00	0.00		0.00	0.00	0.00	5,135.91	5,135.91	15.75	0.44	5,602.57
<b>Total</b>	<b>97.47</b>	<b>77.49</b>	<b>398.27</b>	<b>1.00</b>	<b>84.76</b>	<b>4.11</b>	<b>98.05</b>	<b>1.35</b>	<b>4.01</b>	<b>14.53</b>	<b>2,334.86</b>	<b>101,520.01</b>	<b>103,854.87</b>	<b>109.76</b>	<b>0.94</b>	<b>106,449.81</b>

## 2.2 Overall Operational

### 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	tons/yr										MT/yr					
Area	43.48	1.34	116.37	0.01		0.00	1.00		0.00	1.00	0.00	5,280.52	5,280.52	0.27	0.09	5,315.22
Energy	1.15	9.84	4.19	0.06		0.00	0.80		0.00	0.80	0.00	28,688.48	28,688.48	0.67	0.38	28,820.79
Mobile	27.15	65.63	225.55	0.86	84.76	4.11	88.87	1.35	4.01	5.35	0.00	62,692.14	62,692.14	1.91	0.00	62,732.28
Waste						0.00	0.00		0.00	0.00	450.25	0.00	450.25	26.61	0.00	1,009.04
Water						0.00	0.00		0.00	0.00	0.00	4,288.16	4,288.16	12.61	0.35	4,662.15
<b>Total</b>	<b>71.78</b>	<b>76.81</b>	<b>346.11</b>	<b>0.93</b>	<b>84.76</b>	<b>4.11</b>	<b>90.67</b>	<b>1.35</b>	<b>4.01</b>	<b>7.15</b>	<b>450.25</b>	<b>100,949.30</b>	<b>101,399.55</b>	<b>42.07</b>	<b>0.82</b>	<b>102,539.48</b>

## 3.0 Construction Detail

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### 3.1 Mitigation Measures Construction

## 4.0 Mobile Detail

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### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	27.15	65.63	225.55	0.86	84.76	4.11	88.87	1.35	4.01	5.35	0.00	62,692.14	62,692.14	1.91	0.00	62,732.28
Unmitigated	27.15	65.63	225.55	0.86	84.76	4.11	88.87	1.35	4.01	5.35	0.00	62,692.14	62,692.14	1.91	0.00	62,732.28
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	35,025.85	38,055.40	32,262.05	92,990,649	92,990,649
Single Family Housing	24,279.09	25,572.96	22,249.49	64,110,384	64,110,384
<b>Total</b>	<b>59,304.94</b>	<b>63,628.36</b>	<b>54,511.54</b>	<b>157,101,033</b>	<b>157,101,033</b>

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Apartments Low Rise	10.00	7.00	7.00	40.20	19.20	40.60
Single Family Housing	10.00	7.00	7.00	40.20	19.20	40.60

### 5.0 Energy Detail

## 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	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	17,290.78	17,290.78	0.45	0.17	17,353.73
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	17,290.78	17,290.78	0.45	0.17	17,353.73
Natural Gas Mitigated	1.15	9.84	4.19	0.06		0.00	0.80		0.00	0.80	0.00	11,397.70	11,397.70	0.22	0.21	11,467.06
Natural Gas Unmitigated	1.15	9.84	4.19	0.06		0.00	0.80		0.00	0.80	0.00	11,397.70	11,397.70	0.22	0.21	11,467.06
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 5.2 Energy by Land Use - Natural Gas

### Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	1.09612e+008	0.59	5.05	2.15	0.03		0.00	0.41		0.00	0.41	0.00	5,849.29	5,849.29	0.11	0.11	5,884.89
Single Family Housing	1.03973e+008	0.56	4.79	2.04	0.03		0.00	0.39		0.00	0.39	0.00	5,548.41	5,548.41	0.11	0.10	5,582.18
<b>Total</b>		<b>1.15</b>	<b>9.84</b>	<b>4.19</b>	<b>0.06</b>		<b>0.00</b>	<b>0.80</b>		<b>0.00</b>	<b>0.80</b>	<b>0.00</b>	<b>11,397.70</b>	<b>11,397.70</b>	<b>0.22</b>	<b>0.21</b>	<b>11,467.07</b>

## 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	tons/yr										MT/yr					
Apartments Low Rise	1.09612e+008	0.59	5.05	2.15	0.03		0.00	0.41		0.00	0.41	0.00	5,849.29	5,849.29	0.11	0.11	5,884.89
Single Family Housing	1.03973e+008	0.56	4.79	2.04	0.03		0.00	0.39		0.00	0.39	0.00	5,548.41	5,548.41	0.11	0.10	5,582.18
<b>Total</b>		<b>1.15</b>	<b>9.84</b>	<b>4.19</b>	<b>0.06</b>		<b>0.00</b>	<b>0.80</b>		<b>0.00</b>	<b>0.80</b>	<b>0.00</b>	<b>11,397.70</b>	<b>11,397.70</b>	<b>0.22</b>	<b>0.21</b>	<b>11,467.07</b>

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	1.82602e+007					9,144.07	0.24	0.09	9,177.36
Single Family Housing	1.62685e+007					8,146.72	0.21	0.08	8,176.37
<b>Total</b>						<b>17,290.79</b>	<b>0.45</b>	<b>0.17</b>	<b>17,353.73</b>

### 5.3 Energy by Land Use - Electricity

#### Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	1.82602e+007					9,144.07	0.24	0.09	9,177.36
Single Family Housing	1.62685e+007					8,146.72	0.21	0.08	8,176.37
<b>Total</b>						<b>17,290.79</b>	<b>0.45</b>	<b>0.17</b>	<b>17,353.73</b>

### 6.0 Area Detail

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#### 6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths



	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	tons/yr										MT/yr					
Mitigated	43.48	1.34	116.37	0.01		0.00	1.00		0.00	1.00	0.00	5,280.52	5,280.52	0.27	0.09	5,315.22
Unmitigated	69.17	2.02	168.53	0.08		0.00	8.38		0.00	8.38	834.03	5,003.48	5,837.51	2.73	0.12	5,930.70
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	tons/yr										MT/yr					
Architectural Coating	3.86					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	35.71					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	26.04	0.65	49.35	0.08		0.00	7.72		0.00	7.72	834.03	4,808.17	5,642.20	2.55	0.12	5,731.49
Landscaping	3.56	1.37	119.18	0.01		0.00	0.66		0.00	0.66	0.00	195.31	195.31	0.19	0.00	199.21
<b>Total</b>	<b>69.17</b>	<b>2.02</b>	<b>168.53</b>	<b>0.09</b>		<b>0.00</b>	<b>8.38</b>		<b>0.00</b>	<b>8.38</b>	<b>834.03</b>	<b>5,003.48</b>	<b>5,837.51</b>	<b>2.74</b>	<b>0.12</b>	<b>5,930.70</b>

## 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	tons/yr										MT/yr					
Architectural Coating	3.86					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	35.71					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.51	0.00	0.03	0.00		0.00	0.36		0.00	0.35	0.00	5,091.00	5,091.00	0.10	0.09	5,121.99
Landscaping	3.40	1.34	116.35	0.01		0.00	0.64		0.00	0.64	0.00	189.52	189.52	0.18	0.00	193.24
<b>Total</b>	<b>43.48</b>	<b>1.34</b>	<b>116.38</b>	<b>0.01</b>		<b>0.00</b>	<b>1.00</b>		<b>0.00</b>	<b>0.99</b>	<b>0.00</b>	<b>5,280.52</b>	<b>5,280.52</b>	<b>0.28</b>	<b>0.09</b>	<b>5,315.23</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					4,288.16	12.61	0.35	4,662.15
Unmitigated					5,135.91	15.75	0.44	5,602.57
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr			MT/yr				
Apartments Low Rise	346.294 / 218.316					3,476.48	10.66	0.30	3,792.37
Single Family Housing	165.296 / 104.208					1,659.42	5.09	0.14	1,810.21
<b>Total</b>						<b>5,135.90</b>	<b>15.75</b>	<b>0.44</b>	<b>5,602.58</b>

## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	277.035 / 196.484					2,902.65	8.53	0.24	3,155.80
Single Family Housing	132.237 / 93.7874					1,385.52	4.07	0.11	1,506.35
<b>Total</b>						<b>4,288.17</b>	<b>12.60</b>	<b>0.35</b>	<b>4,662.15</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

**Category/Year**

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					450.25	26.61	0.00	1,009.04
Unmitigated					1,500.83	88.70	0.00	3,363.47
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	2444.9					496.29	29.33	0.00	1,112.22
Single Family Housing	4948.7					1,004.54	59.37	0.00	2,251.24
<b>Total</b>						<b>1,500.83</b>	<b>88.70</b>	<b>0.00</b>	<b>3,363.46</b>

## 8.2 Waste by Land Use

### Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	733.47					148.89	8.80	0.00	333.67
Single Family Housing	1484.61					301.36	17.81	0.00	675.37
<b>Total</b>						<b>450.25</b>	<b>26.61</b>	<b>0.00</b>	<b>1,009.04</b>

## 9.0 Vegetation

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**Sylmar - Growth Commercial**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
General Office Building	3502.78	1000sqft

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Utility Company</b>	Los Angeles Department of Water & Power
<b>Climate Zone</b>	11	<b>Precipitation Freq (Days)</b>	33		

**1.3 User Entered Comments**

- Project Characteristics - Based on LADWP, December 2011
- Land Use - Based on Project data
- Construction Phase - No construction available
- Off-road Equipment - No Construction
- Energy Use - Defaults used
- Area Mitigation -
- Water Mitigation -

Waste Mitigation -

Vehicle Trips - Based on LA GPF

## 2.0 Emissions Summary

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### 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	tons/yr										MT/yr					
Area	16.71	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.21	1.88	1.58	0.01		0.00	0.14		0.00	0.14	0.00	27,529.74	27,529.74	0.71	0.29	27,634.95
Mobile	11.47	28.38	92.92	0.34	32.87	1.61	34.48	0.52	1.57	2.10	0.00	24,539.21	24,539.21	0.76	0.00	24,555.22
Waste						0.00	0.00		0.00	0.00	661.26	0.00	661.26	39.08	0.00	1,481.93
Water						0.00	0.00		0.00	0.00	0.00	6,189.25	6,189.25	19.17	0.53	6,756.93
<b>Total</b>	<b>28.39</b>	<b>30.26</b>	<b>94.50</b>	<b>0.35</b>	<b>32.87</b>	<b>1.61</b>	<b>34.62</b>	<b>0.52</b>	<b>1.57</b>	<b>2.24</b>	<b>661.26</b>	<b>58,258.20</b>	<b>58,919.46</b>	<b>59.72</b>	<b>0.82</b>	<b>60,429.03</b>



## 2.2 Overall Operational

### 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	tons/yr										MT/yr					
Area	16.71	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.21	1.88	1.58	0.01		0.00	0.14		0.00	0.14	0.00	27,529.74	27,529.74	0.71	0.29	27,634.95
Mobile	11.47	28.38	92.92	0.34	32.87	1.61	34.48	0.52	1.57	2.10	0.00	24,539.21	24,539.21	0.76	0.00	24,555.22
Waste						0.00	0.00		0.00	0.00	198.38	0.00	198.38	11.72	0.00	444.58
Water						0.00	0.00		0.00	0.00	0.00	5,163.69	5,163.69	15.34	0.43	5,618.60
<b>Total</b>	<b>28.39</b>	<b>30.26</b>	<b>94.50</b>	<b>0.35</b>	<b>32.87</b>	<b>1.61</b>	<b>34.62</b>	<b>0.52</b>	<b>1.57</b>	<b>2.24</b>	<b>198.38</b>	<b>57,232.64</b>	<b>57,431.02</b>	<b>28.53</b>	<b>0.72</b>	<b>58,253.35</b>

## 3.0 Construction Detail

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### 3.1 Mitigation Measures Construction

## 4.0 Mobile Detail

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### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	11.47	28.38	92.92	0.34	32.87	1.61	34.48	0.52	1.57	2.10	0.00	24,539.21	24,539.21	0.76	0.00	24,555.22
Unmitigated	11.47	28.38	92.92	0.34	32.87	1.61	34.48	0.52	1.57	2.10	0.00	24,539.21	24,539.21	0.76	0.00	24,555.22
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	38,565.61	8,301.59	3,432.72	60,914,168	60,914,168
<b>Total</b>	<b>38,565.61</b>	<b>8,301.59</b>	<b>3,432.72</b>	<b>60,914,168</b>	<b>60,914,168</b>

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
General Office Building	7.00	7.00	7.00	33.00	48.00	19.00

### 5.0 Energy Detail

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#### 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	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	25,486.68	25,486.68	0.67	0.25	25,579.46
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	25,486.68	25,486.68	0.67	0.25	25,579.46
NaturalGas Mitigated	0.21	1.88	1.58	0.01		0.00	0.14		0.00	0.14	0.00	2,043.05	2,043.05	0.04	0.04	2,055.49
NaturalGas Unmitigated	0.21	1.88	1.58	0.01		0.00	0.14		0.00	0.14	0.00	2,043.05	2,043.05	0.04	0.04	2,055.49
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	tons/yr										MT/yr					
General Office Building	3.82854e+007	0.21	1.88	1.58	0.01		0.00	0.14		0.00	0.14	0.00	2,043.05	2,043.05	0.04	0.04	2,055.49
<b>Total</b>		<b>0.21</b>	<b>1.88</b>	<b>1.58</b>	<b>0.01</b>		<b>0.00</b>	<b>0.14</b>		<b>0.00</b>	<b>0.14</b>	<b>0.00</b>	<b>2,043.05</b>	<b>2,043.05</b>	<b>0.04</b>	<b>0.04</b>	<b>2,055.49</b>

## 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	tons/yr										MT/yr					
General Office Building	3.82854e+007	0.21	1.88	1.58	0.01		0.00	0.14		0.00	0.14	0.00	2,043.05	2,043.05	0.04	0.04	2,055.49
<b>Total</b>		<b>0.21</b>	<b>1.88</b>	<b>1.58</b>	<b>0.01</b>		<b>0.00</b>	<b>0.14</b>		<b>0.00</b>	<b>0.14</b>	<b>0.00</b>	<b>2,043.05</b>	<b>2,043.05</b>	<b>0.04</b>	<b>0.04</b>	<b>2,055.49</b>

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	5.08954e+007					25,486.68	0.67	0.25	25,579.46
<b>Total</b>						<b>25,486.68</b>	<b>0.67</b>	<b>0.25</b>	<b>25,579.46</b>

### 5.3 Energy by Land Use - Electricity

#### Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	5.08954e+007					25,486.68	0.67	0.25	25,579.46
<b>Total</b>						<b>25,486.68</b>	<b>0.67</b>	<b>0.25</b>	<b>25,579.46</b>

### 6.0 Area Detail

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#### 6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	tons/yr										MT/yr					
Mitigated	16.71	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	16.71	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	tons/yr										MT/yr					
Architectural Coating	4.06					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	12.66					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>16.72</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 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	tons/yr										MT/yr					
Architectural Coating	4.06					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	12.66					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>16.72</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					5,163.69	15.34	0.43	5,618.60
Unmitigated					6,189.25	19.17	0.53	6,756.93
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr			MT/yr				
General Office Building	622.562 / 381.57					6,189.25	19.17	0.53	6,756.93
<b>Total</b>						<b>6,189.25</b>	<b>19.17</b>	<b>0.53</b>	<b>6,756.93</b>



## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Office Building	498.05 / 343.413					5,163.69	15.34	0.43	5,618.60
<b>Total</b>						<b>5,163.69</b>	<b>15.34</b>	<b>0.43</b>	<b>5,618.60</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

### Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					198.38	11.72	0.00	444.58
Unmitigated					661.26	39.08	0.00	1,481.93
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	3257.59					661.26	39.08	0.00	1,481.93
<b>Total</b>						<b>661.26</b>	<b>39.08</b>	<b>0.00</b>	<b>1,481.93</b>

### Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	977.277					198.38	11.72	0.00	444.58
<b>Total</b>						<b>198.38</b>	<b>11.72</b>	<b>0.00</b>	<b>444.58</b>

## 9.0 Vegetation

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**Sylmar Growth - Industrial**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Industrial Park	753.78	1000sqft

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Utility Company</b>	Los Angeles Department of Water & Power
<b>Climate Zone</b>	11	<b>Precipitation Freq (Days)</b>	33		

**1.3 User Entered Comments**

- Project Characteristics - Based on LADWP December 2011
- Land Use - Based on Project Data
- Construction Phase - No construction scenario available.
- Off-road Equipment - No construction available
- Vehicle Trips - Based on LA GPF
- Energy Use - Defaults used
- Area Mitigation -

Water Mitigation -

Waste Mitigation -

## 2.0 Emissions Summary

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### 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	tons/yr										MT/yr					
Area	3.60	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.04	0.40	0.34	0.00		0.00	0.03		0.00	0.03	0.00	5,924.26	5,924.26	0.15	0.06	5,946.90
Mobile	1.63	4.03	13.24	0.05	4.72	0.23	4.95	0.07	0.23	0.30	0.00	3,517.09	3,517.09	0.11	0.00	3,519.38
Waste						0.00	0.00		0.00	0.00	1,883.21	0.00	1,883.21	111.29	0.00	4,220.39
Water						0.00	0.00		0.00	0.00	0.00	24,208.34	24,208.34	113.77	3.05	27,541.86
<b>Total</b>	<b>5.27</b>	<b>4.43</b>	<b>13.58</b>	<b>0.05</b>	<b>4.72</b>	<b>0.23</b>	<b>4.98</b>	<b>0.07</b>	<b>0.23</b>	<b>0.33</b>	<b>1,883.21</b>	<b>33,649.69</b>	<b>35,532.90</b>	<b>225.32</b>	<b>3.11</b>	<b>41,228.53</b>

## 2.2 Overall Operational

### 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	tons/yr										MT/yr					
Area	3.60	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.04	0.40	0.34	0.00		0.00	0.03		0.00	0.03	0.00	5,924.26	5,924.26	0.15	0.06	5,946.90
Mobile	1.63	4.03	13.24	0.05	4.72	0.23	4.95	0.07	0.23	0.30	0.00	3,517.09	3,517.09	0.11	0.00	3,519.38
Waste						0.00	0.00		0.00	0.00	564.96	0.00	564.96	33.39	0.00	1,266.12
Water						0.00	0.00		0.00	0.00	0.00	19,366.67	19,366.67	91.01	2.44	22,033.49
<b>Total</b>	<b>5.27</b>	<b>4.43</b>	<b>13.58</b>	<b>0.05</b>	<b>4.72</b>	<b>0.23</b>	<b>4.98</b>	<b>0.07</b>	<b>0.23</b>	<b>0.33</b>	<b>564.96</b>	<b>28,808.02</b>	<b>29,372.98</b>	<b>124.66</b>	<b>2.50</b>	<b>32,765.89</b>

## 3.0 Construction Detail

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### 3.1 Mitigation Measures Construction

## 4.0 Mobile Detail

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### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.63	4.03	13.24	0.05	4.72	0.23	4.95	0.07	0.23	0.30	0.00	3,517.09	3,517.09	0.11	0.00	3,519.38
Unmitigated	1.63	4.03	13.24	0.05	4.72	0.23	4.95	0.07	0.23	0.30	0.00	3,517.09	3,517.09	0.11	0.00	3,519.38
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	5,246.31	1,876.91	550.26	8,739,590	8,739,590
<b>Total</b>	<b>5,246.31</b>	<b>1,876.91</b>	<b>550.26</b>	<b>8,739,590</b>	<b>8,739,590</b>

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Industrial Park	7.00	7.00	7.00	59.00	28.00	13.00

### 5.0 Energy Detail

#### 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	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	5,484.60	5,484.60	0.14	0.05	5,504.57
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	5,484.60	5,484.60	0.14	0.05	5,504.57
NaturalGas Mitigated	0.04	0.40	0.34	0.00		0.00	0.03		0.00	0.03	0.00	439.65	439.65	0.01	0.01	442.33
NaturalGas Unmitigated	0.04	0.40	0.34	0.00		0.00	0.03		0.00	0.03	0.00	439.65	439.65	0.01	0.01	442.33
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	tons/yr										MT/yr					
Industrial Park	8.23882e+006	0.04	0.40	0.34	0.00		0.00	0.03		0.00	0.03	0.00	439.65	439.65	0.01	0.01	442.33
<b>Total</b>		<b>0.04</b>	<b>0.40</b>	<b>0.34</b>	<b>0.00</b>		<b>0.00</b>	<b>0.03</b>		<b>0.00</b>	<b>0.03</b>	<b>0.00</b>	<b>439.65</b>	<b>439.65</b>	<b>0.01</b>	<b>0.01</b>	<b>442.33</b>

## 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	tons/yr										MT/yr					
Industrial Park	8.23882e+006	0.04	0.40	0.34	0.00		0.00	0.03		0.00	0.03	0.00	439.65	439.65	0.01	0.01	442.33
<b>Total</b>		<b>0.04</b>	<b>0.40</b>	<b>0.34</b>	<b>0.00</b>		<b>0.00</b>	<b>0.03</b>		<b>0.00</b>	<b>0.03</b>	<b>0.00</b>	<b>439.65</b>	<b>439.65</b>	<b>0.01</b>	<b>0.01</b>	<b>442.33</b>

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Industrial Park	1.09524e+007					5,484.60	0.14	0.05	5,504.57
<b>Total</b>						<b>5,484.60</b>	<b>0.14</b>	<b>0.05</b>	<b>5,504.57</b>



### 5.3 Energy by Land Use - Electricity

#### Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Industrial Park	1.09524e+007					5,484.60	0.14	0.05	5,504.57
<b>Total</b>						<b>5,484.60</b>	<b>0.14</b>	<b>0.05</b>	<b>5,504.57</b>

## 6.0 Area Detail

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### 6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	tons/yr										MT/yr					
Mitigated	3.60	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	3.60	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	tons/yr										MT/yr					
Architectural Coating	0.87					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.72					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>3.59</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 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	tons/yr										MT/yr					
Architectural Coating	0.87					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.72					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>3.59</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					19,366.67	91.01	2.44	22,033.49
Unmitigated					24,208.34	113.77	3.05	27,541.86
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr			MT/yr				
Industrial Park	3706.29 / 0					24,208.34	113.77	3.05	27,541.86
<b>Total</b>						<b>24,208.34</b>	<b>113.77</b>	<b>3.05</b>	<b>27,541.86</b>

## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Industrial Park	2965.03 / 0					19,366.67	91.01	2.44	22,033.49
<b>Total</b>						<b>19,366.67</b>	<b>91.01</b>	<b>2.44</b>	<b>22,033.49</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

### Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					564.96	33.39	0.00	1,266.12
Unmitigated					1,883.21	111.29	0.00	4,220.39
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Industrial Park	9277.29					1,883.21	111.29	0.00	4,220.39
<b>Total</b>						<b>1,883.21</b>	<b>111.29</b>	<b>0.00</b>	<b>4,220.39</b>

### Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Industrial Park	2783.19					564.96	33.39	0.00	1,266.12
<b>Total</b>						<b>564.96</b>	<b>33.39</b>	<b>0.00</b>	<b>1,266.12</b>

## 9.0 Vegetation

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