Greenhouse Gas Emissions Analysis for the Del Mar Village Specific Plan, City of Del Mar, California

Prepared for

City of Del Mar
1050 Camino del Mar
Del Mar, CA 92014
Contact: Kathleen Garcia

Prepared by

RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, CA 92101-2358
P 619.308.9333 F 619.308.9334
RECON Number 6447
March 19, 2012

Karen Bowling

Karen Bowling, Senior Environmental Analyst

TABLE OF CONTENTS

TABLE OF CONTENTS (CONT.)

FIGURES

TABLES

ATTACHMENTS

Executive Summary

The proposed Del Mar Village Specific Plan project (proposed Plan) encompasses an approximate 40-acre area in the developed downtown central business district of the City of Del Mar, California. The proposed Plan includes new development standards that would allow for an approximate doubling of the square footage of existing land uses. The proposed Plan also includes new green building standards and sustainability strategies for the Plan area that would serve to lessen the greenhouse gas (GHG) impacts of the increased density. The existing City of Del Mar Solar Energy Ordinance would also apply to the Plan area's new development and requires the incorporation of on-site renewable energy generation, where feasible, to supply roughly 60 percent of a building's energy requirements.

As evaluated in this report, by accounting for future projects' adherence to only the proposed Plan's green building recommendations, future Plan area GHG emissions could be reduced to 29 to 30 percent below business-as-usual (BAU) GHG emissions; thus achieving the 28.3 percent reduction relative to BAU emissions target (as established by Assembly Bill [AB] 32 and the state BAU 2020 GHG Emissions Forecast). By accounting for future projects' adherence to only the Solar Energy Ordinance, future Plan area GHG emissions could be reduced 30 percent (with a 40 percent renewable energy mix) to 34 percent (with a 60 percent renewable energy mix) overall relative to BAU emissions. A combination of providing on-site solar (per the Solar Energy Ordinance) and Plan-recommended green building practices would achieve even more substantial reductions in the Plan area emissions relative to BAU emissions.

These Plan area GHG emissions estimates were based on the maximum square footages of the different land use types allowed by the proposed Plan. To ensure that future projects would conform to these Plan-level results, the proposed Plan includes a sustainability implementing measure that requires all permit applications for new construction or major remodeling projects in the Plan area to indicate the specific green building and energy standards, product specifications, and method of construction in the general notes or individual drawings of the building permit application. Documentation must also be provided that demonstrates compliance with the 28.3 percent GHG reduction relative to BAU GHG emissions target.

In conclusion, impacts associated with Plan area GHG emissions contributions to statewide GHG emissions and relative to statewide GHG emissions reduction targets would be less than significant. Impacts associated with potential Plan conflicts with adopted GHG reduction plans' goals and strategies would also be less than significant given Plan features that reduce average community-wide VMT by enhancing the pedestrian, bicycle and transit facilities in the Plan area, and through Plan implementing strategies that ensure optimal energy efficiency and minimization of GHG emissions in individual future projects.

1.0 Introduction

The proposed Del Mar Village Specific Plan project (proposed Plan) encompasses an approximate 40-acre area in the downtown central business district of the City of Del Mar, California. The proposed Plan includes new development standards that would allow for an approximate doubling of the square footage of existing land uses. Existing land uses in the Plan area consist primarily of commercial retail and restaurant and office uses with some civic uses and two residential units. The proposed Plan would provide mixed-use zoning that would allow for a substantial increase in residential and lodging units in the Plan area, as well as increases in retail, personal services and restaurant uses, and modest increases in civic and public park/plaza uses. The square footage of allowable office space would remain essentially the same as existing. The purpose of this report is to determine the proposed Plan's greenhouse gas (GHG) emissions and their impact on statewide GHG emissions and global climate change.

1.1 Understanding Global Climate Change

To evaluate the incremental effect of the proposed Plan on statewide GHG emissions and global climate change, it is important to have a basic understanding of the nature of the global climate change problem. Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. The earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of the earth's geologic history, these periods of warming and cooling have been the result of many complicated interacting natural factors that include: volcanic eruptions that spew gases and particles (dust) into the atmosphere; the amount of water, vegetation, and ice covering the earth's surface; subtle changes in the earth's orbit; and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances not found in nature. This in turn has led to a marked increase in the emissions of gases shown to influence the world's climate. These gases, termed "greenhouse" gases, influence the amount of heat trapped in the earth's atmosphere. Because recently observed increased concentrations of GHGs in the atmosphere are related to increased emissions resulting from human activity, the current cycle of "global warming" is generally believed to be largely due to human activity. Of late, the issue of global warming or global climate change has arguably become the most important and widely debated environmental issue in the United States and the world. Because it is the collective of human actions taking place throughout the world that contributes to climate change, it is quintessentially a global or cumulative issue.

1.2 Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and manmade. Table 1 summarizes some of the most common. Each GHG has variable atmospheric lifetime and global warming potential (GWP).

TABLE 1
GHGs ATMOSPHERIC LIFETIMES AND GLOBAL WARMING POTENTIALS

Gas	Atmospheric Lifetime	100-year GWP	20-year GWP	500-year GWP
Carbon dioxide (CO_2)	50–200	1	1	1
Methane (CH_4)*	12±3	21	56	6.5
Nitrous oxide (N_2O)	120	310	280	170
HFC-23	264	11,700	9,100	9,800
HFC-32	5.6	650	2,100	200
HFC-125	32.6	2,800	4,600	920
HFC-134a	14.6	1,300	3,400	420
HFC-143a	48.3	3,800	5,000	1,400
HFC-152a	1.5	140	460	42
HFC-227ea	36.5	2,900	4,300	950
HFC-236fa	209	6,300	5,100	4,700
HFC-43-10mee	17.1	1,300	3,000	400
CF_4	50,000	6,500	4,400	10,000
C_2F_6	10,000	9,200	6,200	14,000
C_3F_8	2,600	7,000	4,800	10,100
C_4F_{10}	2,600	7,000	4,800	10,100
c-C_4F_8	3,200	8,700	6,000	12,700
C_5F_{12}	4,100	7,500	5,100	11,000
C_6F_{14}	3,200	7,400	5,000	10,700
SF_6	3,200	23,900	16,300	34,900

Source: U.S. EPA 2010a, Annex 6.

*The methane global warming potential includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

The atmospheric lifetime of the GHG is the average time the molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. The potential of a gas to trap heat and warm the atmosphere is measured by its global warming potential (GWP). Specifically, GWP is defined as (U.S. Environmental Protection Agency [EPA] 2010a):

> the cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas.

The reference gas for establishing GWP is carbon dioxide (CO_2), which as shown in Table 1, consequently has a GWP of 1. While methane (CH_4) has a shorter atmospheric lifetime than carbon dioxide, it has a 100-year GWP of 21, which means that it has a greater global warming effect than carbon dioxide on a molecule-by-molecule basis.

Of the gases listed in Table 1, carbon dioxide ($CO_{2)}$, methane ($CH_{4)}$, and nitrous oxide (N_2O) are produced by both biogenic (natural) and anthropogenic (human) sources. The remaining gases occur solely as the result of human processes. Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals used as substitutes for ozone-depleting chlorofluorocarbons used in air conditioners and as refrigerants. Perfluorocarbons such as tetrafluoromethane (CF_4) are used primarily in aluminum production and semiconductor manufacture. Sulfur hexafluoride (SF_6) is used for insulation in electric power transmission and distribution equipment. HFCs, PFCs, and sulfur hexafluoride are not of primary concern to the proposed project.

CO_2, CH_4 and N_2O are the GHGs of primary concern in this analysis. CO_2would be emitted by the proposed Plan land uses due to the combustion of fossil fuels in vehicles (including construction), from electricity generation and natural gas consumption, water use, and from solid waste disposal. Smaller amounts of CH_4 and N_2O would be emitted from the same Plan area land uses.

More information on the background of global warming and GHGs is contained in Attachment 1, Understanding Global Climate Change.

2.0 Project Description

The intent of the proposed Plan is to provide new land use and development regulations to facilitate and encourage redevelopment and improvements that will help realize the community's vision for the Del Mar downtown. The 40-acre downtown area (10 acres in streets) is centered on the business corridor that extends along both sides of Camino del Mar from 9th Street to just north of 15 Street. The new development standards and allowable uses in the proposed Plan are based on the following factors:

- Mixed-use zoning, allowing multi-family residential development within the commercial district

- Additional land uses to include boutique hotels and parking structures
- Camino del Mar as a 2-lane arterial with roundabouts
- A 26-foot building height limit on both sides of Camino del Mar
- Minimum 10-foot-wide continuous sidewalks.

Based on the new development standards including an increase in building height and in the existing 0.45 floor area ratio (FAR) to a 1.0 FAR (with an additional increase up to a maximum of 1.50 FAR restrictively allowed for projects that provide public benefits as defined in the Plan), the projected maximum buildout of the Plan area could include the redevelopment of a total of 140 dwelling units, 60 hotel rooms, 138,500 square feet of retail/personal services, 66,00 square feet of restaurants, 35,000 square feet of civic use, 170,000 square feet of office space, and 6,096 square feet of public park/plaza space. Compared to existing land uses, this would represent an increase of 138 dwelling units, 43 hotel rooms, 96,689 square feet of retail/personal services, 33,606 square feet of restaurant uses, 6,534 square feet of civic use, 354 square feet of office space, and 3,920 square feet of public park/plaza space; over the next approximate 25 to 30 years.

In addition to these land use changes, the proposed Plan envisions reconfiguring the existing 4-lane Camino del Mar roadway. To this end, the proposed Plan identifies two alternative configurations for Camino del Mar that differ from the existing configuration. One configuration involves narrowing Camino del Mar to one lane in each direction with roundabouts at the intersections of 15th, 13th, 11th, and 9th streets. The existing stop signs and traffic signals at these intersections would be removed; and the speed limit would remain at 25 mph. This 2-lane-with-roundabouts configuration is intended to increase vehicle capacity from 15,500 to 26,000 vehicles per day and to increase on-street parking by providing diagonal parking along both sides of Camino del Mar (where the existing second travel lane is). Existing bike lanes would continue to be provided on Camino del Mar and would be located between the diagonal parking and the edge of the travel lane.

The second Camino del Mar configuration included in the proposed Plan involves replacing the stop signs at 11th Street and 13th Street with traffic signals; keeping the existing traffic signals at 9th and 15th Streets; and retaining four lanes of travel as in the existing condition, two lanes in each direction. By signalizing all of the key intersections along Camino del Mar, an increase in traffic capacity from 15,500 to 30,000 vehicles per day would be allowed.

In order to adopt the proposed Plan, a Community Plan Amendment and two Local Coastal Program/Del Mar Land Use Plan amendments would be required along with adoption of an ordinance to establish a new chapter in the Del Mar Municipal Code for the Village Specific Plan. Once adopted, the proposed Plan would become a regulatory document and take precedence over any other laws or ordinances of Del Mar pertaining to the Plan area. It is also intended that once adopted, the proposed Village Specific Plan would implement and satisfy the requirement for preparation and voter approval of a specific plan for projects currently subject to the Downtown Initiative Overlay Zone (DI-OZ/Measure B) ordinance. Any project approved in conformance with the proposed Plan shall be deemed to have satisfied the requirements of the DI-OZ.

Figure 1 shows the Plan area in the regional San Diego county context. Figure 2 shows an aerial photograph of the Plan area and vicinity.

3.0 Existing Conditions

3.1 Environmental Setting

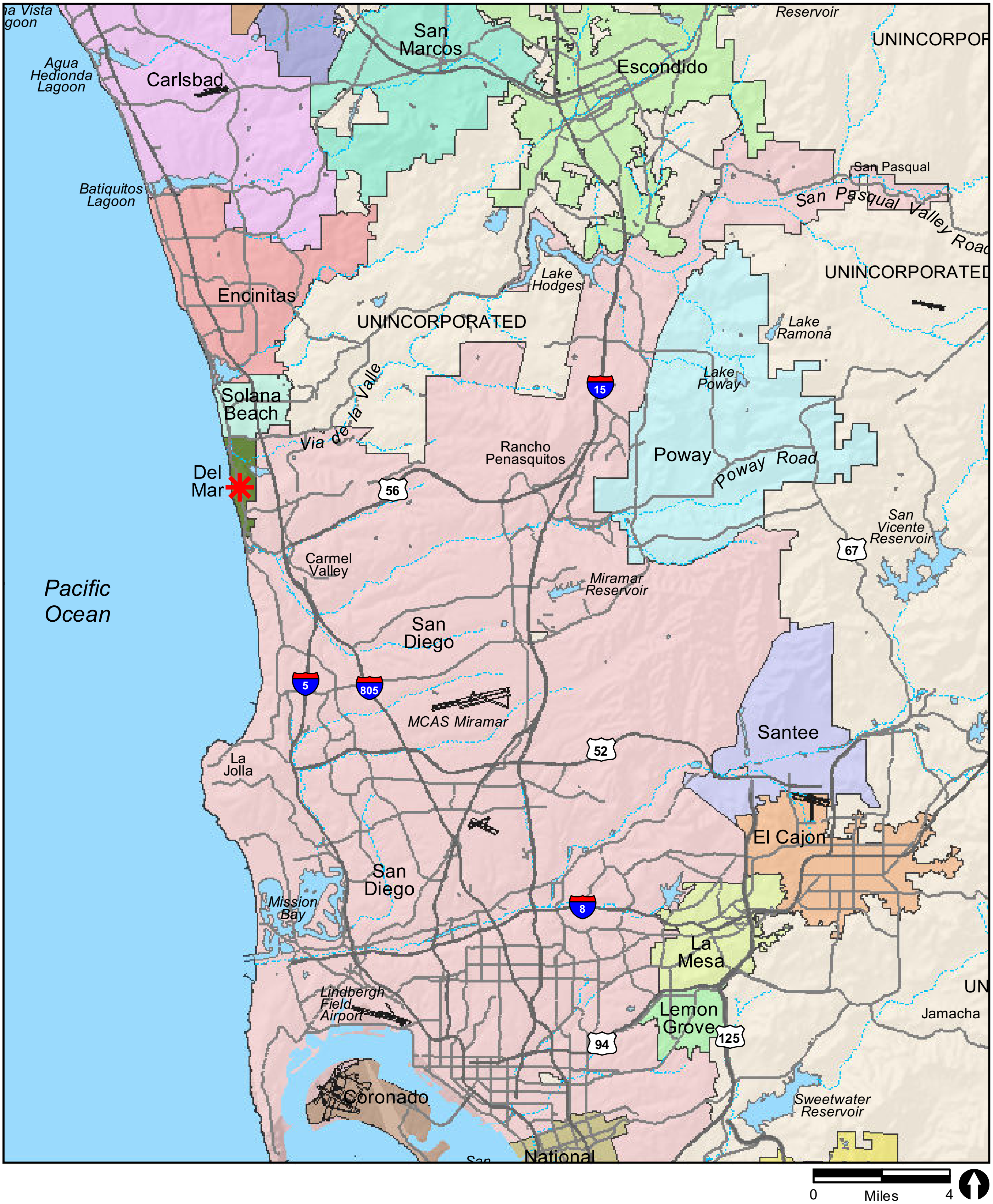
3.1.1 State and Regional GHG Inventories

The California Air Resources Board (CARB) performs statewide GHG inventories that are divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of CO_2 equivalent ($MMTCO_2E$). Table 2 shows the estimated statewide GHG emissions for the years 1990, 2000, 2004, and 2008.

TABLE 2
CALIFORNIA GHG EMISSIONS BY SECTOR IN 1990, 2000, 2004, AND 2008

Sector	1990 Emissions in $MMTCO_2E$ (% total)[1]	2000 Emissions in $MMTCO_2E$ (% total)[1]	2004 Emissions in $MMTCO_2E$ (% total)[1]	2008 Emissions in $MMTCO_2E$ (% total)[1]
Sources				
Agriculture	23.4 (5%)	25.44 (6%)	28.82 (6%)	28.06 (6%)
Commercial	14.4 (3%)	12.80 (3%)	13.20 (3%)	14.68 (3%)
Electricity Generation	110.6 (26%)	103.92 (23%)	119.96 (25%)	116.35 (24%)
Forestry (excluding sinks)	0.2 (<1%)	0.19 (<1%)	0.19 (<1%)	0.19 (<1%)
High GWP	--	10.95 (2%)	13.57 (3%)	15.65 (3%)
Industrial	103.0 (24%)	97.27 (21%)	90.87 (19%)	92.66 (19%)
Recycling and Waste	--	6.20 (1%)	6.23 (1%)	6.71 (1%)
Residential	29.7 (7%)	30.13 (7%)	29.34 (6%)	28.45 (6%)
Transportation	150.7 (35%)	171.13 (37%)	181.71 (38%)	174.99 (37%)
Unspecified Remaining[2]	1.3 (<1%)	--	--	--
Subtotal	*433.3*	*458.03*	*483.89*	*477.74*
Sinks				
Forestry Sinks	-6.7 (--)	-4.72 (--)	-4.32 (--)	-3.98 (--)
Total	**426.6**	**453.31**	**479.57**	**473.76**

Source: CARB 2007, 2010a
[1] Percentages may not total 100 due to rounding.
[2] Unspecified fuel combustion and ozone depleting substance (ODS) substitute use, which could not be attributed to an individual sector.



Village Specific Plan Location

FIGURE 1

Regional Location

M:\JOBS4\6447\common_gis\fig1_air.mxd 3/13/2012

Image Source: Aerials Express (flown March 2010)

Village Specific Plan Boundary

FIGURE 2

Project Location on Aerial Photograph

M:\JOBS4\6447\common_gis\fig2_air.mxd 3/13/2012

As shown in Table 2, statewide GHG emissions totaled 433 MMTCO_2E in 1990, 458 MMTCO_2E in 2000, 484 MMTCO_2E in 2004, and 478 MMTCO_2E in 2008. According to data from the CARB, it appears that statewide GHG emissions peaked in 2004 and are now beginning to decrease (CARB 2010a). Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

The forestry sector is unique because it not only includes emissions associated with harvest, fire, and land use conversion (sources), but also includes removals of atmospheric CO_2 (sinks) by photosynthesis, which is then bound (sequestered) in plant tissues. As seen in Table 2, the forestry sector consistently removes more CO_2 from the atmosphere statewide than it emits. As a result, although decreasing over time, this sector represents a net sink, removing a net 6.5 MMTCO_2E from the atmosphere in 1990, a net 4.5 MMTCO_2E in 2000, a net 4.1 MMTCO_2E in 2004, and a net 3.8 MMTCO_2E in 2008.

A San Diego regional emissions inventory was prepared by the University of San Diego School of Law, Energy Policy Initiative Center (EPIC) that took into account the unique characteristics of the region. Their 2006 emissions inventory for San Diego County is duplicated below in Table 3. The sectors included in this inventory are somewhat different from those in the statewide inventory.

TABLE 3
SAN DIEGO COUNTY GHG EMISSIONS BY SECTOR IN 2006

Sector	2006 Emissions in MMTCO_2E (% total)[1]	
Agriculture/Forestry/Land Use	0.7	(2%)
Waste	0.7	(2%)
Electricity	9.0	(25%)
Natural Gas Consumption	3.0	(8%)
Industrial Processes & Products	1.6	(5%)
On-Road Transportation	16.0	(45%)
Off-Road Equipment & Vehicles	1.3	(4%)
Civil Aviation	1.7	(5%)
Rail	0.3	(<1%)
Water-Borne Navigation	0.127	(<0.5%)
Other Fuels/Other	1.1	(3%)
Total	**35.5**	

Source: University of San Diego 2008
[1] Percentages may not total 100 due to rounding.

Similar to the statewide emissions, transportation-related GHG emissions contributed the most countywide, followed by emissions associated with energy use.

3.1.2 Del Mar GHG Inventories

3.1.2.1 Community-wide GHG Emissions in 2005

In March 2011, Del Mar worked with the International Council for Local Environmental Initiatives (ICLEI) to develop a government operations and community-wide GHG emissions inventory. These inventories are meant to establish the City's baseline GHG emissions and comprise the first step in developing and then implementing a Climate Action Plan (CAP) for Del Mar. These inventories use the protocol developed by CARB in conjunction with ICLEI, the California Climate Action Registry, and The Climate Registry for conducting both a community-wide inventory and government operations inventory. Their community-wide GHG emissions inventory for Del Mar is duplicated below in Table 4.

TABLE 4
DEL MAR COMMUNITY-WIDE GHG EMISSIONS IN 2005

Sector	2005 Emissions in $MTCO_2E$ (% total)[1]	
Transportation	25,825	53%
Residential	10,279	21%
Commercial/Industrial	9,184	19%
Solid Waste	3,279	6.6%
Wastewater	210	0.4%
TOTAL	**48,776**	

SOURCE: ICLEI 2011
[1]Percentages may not total 100 due to rounding.
$MTCO_2E$ = metric ton CO_2 equivalent

In 2005, the Del Mar community emitted approximately 48,776 metric ton CO_2 equivalent ($MTCO_2E$; or 0.049 $MMTCO_2E$). This amount equals roughly 0.14 percent of county-wide GHG emissions and 0.01 percent on state-wide emissions. As shown in Table 4, transportation comprised the largest source of GHG emissions, generating approximately 53 percent of Del Mar's total 2005 emissions.

Based on the ICLEI government operation inventory, GHG emissions in 2005 from the City of Del Mar's governmental operations totaled 579 $MTCO_2E$ (ICLEI 2011). Of the total emissions accounted for in this inventory, transportation-related emissions were also the largest, with the City's vehicle fleet accounting for 26.9 percent, closely followed by employee commute emissions, accounting for 25.2 percent of total government operations emissions.

Under a business-as-usual (BAU) scenario, the City's emissions are projected to grow by approximately 17 percent by year 2020, from 48,776 to 57,285 $MTCO_2E$ (ICLEI 2011). A variety of different reports and projections were used to create this emissions forecast, as detailed in the ICLEI inventory.

3.1.2.2 Plan Area Existing Emissions

The GHG emissions currently being generated within the Plan area were estimated based on an inventory of existing land uses and associated traffic. GHG emissions were quantified by modeling the existing land uses and associated traffic using CARB's California Emissions Estimator Model (CalEEMod). This model was released by CARB in March 2011. Its methodology and input parameter assumptions are discussed in detail in Section 4.2 below.

Table 5 summarizes the results of the existing Plan area GHG emissions inventory. As shown in Table 5, land uses and associated traffic within the Plan area currently emit approximately 8,827.25 $MTCO_2E$ annually. This amounts to approximately 18 percent of Del Mar's total community-wide GHG emissions. GHG emissions from vehicles associated with Plan area land uses comprise the largest existing contributor of GHG emissions, with emissions from energy use the second largest contributor. These patterns are in keeping with regional and state patterns of GHG emissions generation.

TABLE 5
PLAN AREA ESTIMATED GHG EMISSIONS IN 2011
($MTCO_2E$)

Emission Source	Existing Emissions 2011
Energy Use	2,418.08
Vehicles	5,867.48
Solid Waste	173.05
Water Use	363.85
Area Sources	4.79
TOTAL	**8,827.25**

3.1.3 Consequences of Global Climate Change

CARB projects a future statewide GHG emissions increase of more than 23 percent (from 2004) by 2020 given current trends (CARB 2008a). The 2008 EPIC study predicts a countywide increase to 43 $MMTCO_2E$, or roughly 20 percent (from 2006) by 2020, given a business-as-usual (BAU) trajectory. Global GHG emissions forecasts also predict similar substantial increases, given a BAU trajectory.

The potential consequences of global climate change on the San Diego region are far reaching. The Climate Scenarios analysis report, published in 2006 by the California Climate Change Center, uses a range of emissions scenarios to project a series of potential warming ranges (low, medium, or high temperature increases) that may occur in California during the 21st century. Throughout the state and the region, global climate and local microclimate changes could cause an increase in extreme heat days; higher concentrations, frequency, and duration of air pollutants; an increase in wildfires; more intense coastal storms; sea level rise; impacts to water supply and water quality through reduced snowpack and saltwater influx; public health impacts; impacts to near-shore marine ecosystems; reduced quantity and quality of agricultural products; pest population increases; and altered natural ecosystems and biodiversity.

Throughout the state and the region, global climate and local microclimate changes could cause a sea level rise. The absorbed infrared radiation from increasing atmospheric GHG concentrations is expected to increase oceanic temperatures, causing thermal expansion of the world's oceans. It is predicted that the mean sea level rise in California will be between 1.0 meter and 1.4 meters by 2100 (Cayan 2008). It is believed that while large sections of the Pacific coast are not vulnerable to flooding, they are highly susceptible to erosion. It is estimated that a 1.4 meter sea-level rise will accelerate erosion, resulting in a loss of 41 square miles of California's coast by 2100.ea level rise inundation mapping prepared in 2009 by the Pacific Institute, with support from the California Energy Commission, Caltrans, and the Ocean Protection Council, indicates that the Plan area would not be subject to 100-year flooding with a projected sea level rise of 1.4 meters. Nor would erosion due to sea level rise pose a direct concern for the Plan area. However, the bluffs to the west of the Plan area may be vulnerable to erosion caused by sea level rise and adaptations for these areas, including the construction of dikes and seawalls, beach nourishment, and elevating structures and roadways, may be necessary in the future.

3.2 Regulatory Background

In response to rising concern associated with increasing GHG emissions and global climate change impacts, numerous plans and regulations have been adopted at the international, national, state, and regional/local levels with the aim of reducing GHG emissions.

3.2.1 International

3.2.1.1 Montreal Protocol on Substances that Deplete the Ozone Layer

Human caused effects on the global atmosphere first became widely known to the public at large in the mid-1970s when it was discovered that a number of substances, particularly chlorofluorocarbons (CFCs) used in refrigeration, when released into the atmosphere, could cause the breakdown of significant quantities of the earth's protective ozone (O_3) in the stratosphere (i.e., the "ozone layer"). Somewhat concurrent with this was the discovery of the now well documented "ozone hole" over Antarctica. The ozone layer filters out most of the ultraviolet-B (UV-B) radiation reaching the earth. Therefore, destruction of the ozone layer would allow more UV-B radiation to reach the earth's surface potentially leading to increases in skin cancer and other effects such as crop damage and adverse effects on marine phytoplankton.

In response to these concerns, the Coordinating Committee on the Ozone Layer was established by the United Nations Environment Programme (UNEP) in 1977, and UNEP's Governing Council adopted the World Plan of Action on the Ozone Layer. Continuing efforts led to the signing in 1985 of the Vienna Convention on the Protection of the Ozone Layer. This led to the creation of the Montreal Protocol on Substances That Deplete the Ozone Layer (Montreal Protocol), an international treaty designed to protect the stratospheric ozone layer by phasing out production of ozone depleting substances. The Montreal Protocol was adopted on September 16, 1987 and was enacted on January 1, 1989. The Protocol has been amended four times since 1989: the London Amendment in 1990, Copenhagen Amendment in 1992, Montreal Amendment in 1997, and most recently the Beijing Amendment in 1999 (U.S. EPA 2010b).

This treaty is considered one of the most successful international treaties on environmental protection in the world, with ratification by 191 countries including the United States. By the end of 2006, the 191 parties to the treaty had phased out over 95 percent of ozone depleting substances (UNEP 2007). Because of this success, scientists are now predicting that the ozone hole will “heal” later this century.

The elimination of these ozone-depleting substances also has benefits relative to global climate change because most of these substances are also potent GHGs, with very high GWPs ranging from 4,680 to 10,720 (UNEP 2007; Australian Government 2007). However, the phasing out of ozone depleting substances has led to an increase in the use of non-ozone depleting substances such as hydrofluorocarbons (HFCs) which, although not detrimental to the ozone layer, are also potent GHGs. As shown in Table 1, these substances have GWPs ranging from 140 to 11,700.

3.2.1.2 Intergovernmental Panel on Climate Change

In response to growing concern about pollutants in the upper atmosphere and the potential problem of climate change, the World Meteorological Organization and the UNEP established the Intergovernmental Panel on Climate Change (IPCC) in 1988. The IPCC was tasked with assessing the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, economy, and human health and welfare are unavoidable.

3.2.1.3 United Nations Framework Convention on Climate Change

In 1994, the Unites States joined a number of other nations in signing an international treaty known as the United Nations (UN) Framework Convention on Climate Change (UNFCCC). The UNFCCC recognized that global climate is a shared resource that can be affected by industrial and other emissions of GHGs and set an overall framework for intergovernmental efforts to tackle the challenges posed by global climate change.

As with the Montreal Protocol, UNFCCC was ratified by 191 countries including the United States. Under this treaty, governments were to (UNFCCC 2007a):

- gather and share information on GHG emissions, national policies, and best practices;
- launch national strategies for addressing GHG emissions and adapting to expected impacts; and
- cooperate with other nations in preparing for adaptation to the impacts of climate change.

The UNFCCC divided countries into three main groups according to differing commitments based on economic strength, vulnerability to adverse climate change impacts, and capacity to respond or adapt to climate change effects. The stronger economic nations, including the United States, were to provide financial and technological support to developing countries to enable them to undertake emissions reduction activities and to help them adapt to adverse effects of climate change.

The UNFCCC was enacted in March 1994; however, it generally lacked powerful, legally binding measures. This led to the development of the Kyoto Protocol.

3.2.1.4 Kyoto Protocol to the UNFCCC

Knowing that the UNFCCC did not contain the legally binding measures that would be required to meaningfully address global climate change, a conference of the UNFCCC signatory nations was held in Berlin in 1995 that launched a new round of discussions to determine more detailed and stronger commitments for industrialized countries (the Berlin Mandate). After 2.5 years of negotiations, the Kyoto Protocol was adopted in December 1997 (UNFCCC 2007b). While the 1997 Kyoto Protocol shared the UNFCCC's objectives, it committed signatories to individual, legally binding targets to limit or reduce their GHG emissions. By March 1999, 84 countries, including the United States, had signed the Kyoto Protocol (UNFCCC 2009).

Only Parties to the UNFCCC that have also become Parties to the Kyoto Protocol are bound by the Kyoto Protocol's commitments. Governments become Parties to the Protocol by ratifying, accepting, approving, or acceding to it. Because of the complexity of the negotiations and uncertainty associated with the rules or how they would operate, several of the signing countries, including the United States, were reluctant to actually ratify the Protocol. Therefore, a new round of negotiations was undertaken to flesh out the Kyoto Protocol's rulebook. These negotiations concluded with the adoption of the Marrakesh Accords in 2001. With the adoption of the Marrakesh Accords, the Protocol was enacted in February 2005, and by July 2009 184 governments had become Parties to the Protocol (UNFCCC 2007b, 2009). In December 2009, a Copenhagen Accord was held to address global climate change issues in the future; however, no further measures were adopted. The two most recent United Nations' Climate Change Conferences occurred in Cancun, Mexico from November 29 to December 10, 2010 that resulted in 26 agreements related to GHG emission reductions (Cancun Accords); and in Durban, South Africa in November 2011.

Although a signer to the Kyoto Protocol, the U.S. has not ratified the Kyoto Protocol to date because it does not mandate emissions reductions from all countries including several developing countries whose GHG emissions are expected to exceed emissions from developed countries within the next 25 years (U.S. EPA 2007a).

3.2.2 National

3.2.2.1 Clean Air Act, Title VI—Stratospheric Ozone Protection

Similar to the Montreal Protocol discussed above, Title VI of the Clean Air Act was established to protect stratospheric ozone by phasing out the manufacture of ozone-depleting substances and by restricting their use and distribution (U.S. EPA 2007b). Also similar to the Montreal Protocol, while successful in phasing out ozone depleting substances, Title VI has inadvertently led to an increase in the production and use of non-ozone depleting substitutes such as HFCs that are global warming gases with high GWPs and relatively long atmospheric lifetimes.

3.2.2.2 Climate Change Action Plan

Adopted in 1993, the U.S. Climate Change Action Plan (CCAP) consists of voluntary actions to reduce all significant GHGs from all economic sectors. Backed by federal funding, the CCAP supports cooperative partnerships between the government and the private sector in establishing flexible and cost-effective ways to reduce GHG emissions. The CCAP encourages investments in new technologies, but also relies on previous actions and programs focused on saving energy, reducing transportation emissions, improving forestry management, and reducing waste. With respect to energy and transportation-related GHG emissions reductions, the CCAP includes the following:

- Energy Demand Actions to accelerate the use of existing energy saving technologies and encourage the development of more advanced technologies. Commercial actions focus on installing efficient heating and cooling systems in commercial buildings and upgrading to energy-efficient lighting systems (the Green Lights program). The State Buildings Energy Incentive Fund provides funding to states for the development of public building energy management programs. Residential actions focus on developing new residential energy standards and building codes and providing money-saving energy efficient options to homeowners.

- Energy Supply Actions to reduce emissions from energy supply. These actions focus on increasing the use of natural gas, which emits less CO_2 than coal or oil, and investing in renewable energy sources, such as solar and wind power, which result in zero net CO_2 emissions. Energy supply strategies also focus on reducing the amount of energy lost during distribution from power plants to consumers.

- Transportation Actions to reduce transportation-related emissions are focused on investing in cleaner fuels and more efficient technologies, and reducing VMT. In addition, the U.S. EPA and Department of Transportation (DOT) are to draft guidance documents for reducing VMTs for use in developing local clean air programs.

3.2.2.3 GHG Emissions Intensity Reduction Programs

The GHG Emissions Intensity is the ratio of GHG emissions to economic output. In 2000, the U.S. GHG Emissions Intensity was 722 metric tons per million dollars of gross domestic product (GDP; World Resources Institute 2006). In February 2002, the U.S. set a goal to reduce the 2002 GHG Emissions Intensity by 18 percent by 2012, which would lower emissions from 670 to 553 metric tons per million dollars of GDP, through various reduction programs. A number of ongoing voluntary programs have thus been instituted to reduce nationwide GHG emissions. These include (U.S. EPA 2007c):

- **Climate VISION Partnership:** In 2003, this program established a partnership between 12 major industries and the U.S. Department of Energy (U.S. DOE), the U.S. EPA, the DOT and the U.S. Department of Agriculture. The involved industries include electric utilities; petroleum refiners and natural gas producers; automobile, iron and steel, chemical and magnesium manufacturers; forest and paper producers; railroads; and cement, mining, aluminum, and semiconductor industries. These industries are working with the four agencies to reduce their GHG emissions by developing cost-effective solutions, measuring and reporting emissions, developing strategies for the adoption of advanced technologies, and implementing voluntary mitigation actions.

- **Cleaner Energy–Environment State Partnership:** This program established a partnership between federal and state agencies to support states in implementing strategies and policies to promote renewable energy, energy efficiency, and other cost-effective clean energies. States receive technical assistance from the U.S. EPA.

- **Climate Leaders:** The Climate Leaders program was established in 2002. Climate Leaders is a U.S. EPA's voluntary program that establishes partnerships with individual companies. Together they establish individual corporate goals for GHG emissions reduction and monitor their emissions to measure progress. On September 15, 2010, the EPA announced that the Climate Leaders program will phase down the services it offers because climate programs operated by states are now robust enough to service individual companies that wish to continue to advance climate leadership through reporting and reduction goals.

- **Energy Star:** Energy Star was established in 1992 by the U.S. EPA and became a joint program with the U.S. DOE in 1996. Energy Star is a program that labels energy efficient products with the Energy Star label. Energy Star enables consumers to choose energy-efficient and cost-saving products. More than 1,400 manufacturers use Energy Star labels on their energy-efficient products.

- **Green Power Partnership:** This program establishes partnerships between the U.S. EPA, and companies and organizations that have bought or are considering buying green power, which is power generated from renewable energy sources. The U.S. EPA offers recognition and promotion to organizations that replace electricity consumption with green power.

3.2.2.4 Corporate Average Fuel Economy Standards

The federal Corporate Average Fuel Economy (CAFE) standards determine the fuel efficiency of certain vehicle classes in the U.S. While the standards had not changed since 1990, as part of the Energy and Security Act of 2007, the CAFE standards were increased in 2007 for new light-duty vehicles to 35 miles per gallon (mpg) by 2020. In May 2009, President Obama announced further plans to increase CAFE standards to require light duty vehicles to meet an average fuel economy of 35.5 mpg by 2016. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

3.2.2.5 Mandatory Reporting of GHGs Rule

Starting January 1, 2010, large emitters of heat-trapping gases began collecting GHG data and reporting their annual GHG emissions to the U.S. EPA. The first reports were generally due March 31, 2011, with extensions available under certain circumstances to September 30, 2011. Under this reporting rule, approximately 10,000 facilities are covered, accounting for nearly 85 percent of the nation's GHG emissions. This mandatory reporting applies to fossil fuel and industrial GHG suppliers, motor vehicle and engine manufacturers, and facilities that emit 25,000 $MTCO_2E$ or more per year. Vehicle and engine manufacturers outside of the light-duty sector are required to begin phasing in their GHG reporting starting with engine/vehicle model year 2011.

3.2.3 State

The State of California has adopted a number of plans and regulations aimed at identifying statewide and regional GHG emissions caps, GHG emissions reduction targets, and actions and timelines to achieve the target GHG reductions.

3.2.3.1 EO S-3-05—Statewide GHG Emission Targets

This executive order (EO) signed by Governor Schwarzenegger on June 1, 2005, established the following GHG emission reduction targets for the state of California:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020 reduce GHG emissions to 1990 levels;
- by 2050 reduce GHG emissions to 80 percent below 1990 levels.

This executive order also directs the secretary of the California EPA (CalEPA) to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006 and has been updated every two years.

3.2.3.2 AB 32—California Global Warming Solutions Act

In response to Executive Order S-3-05, the California legislature passed Assembly Bill (AB) 32 (Nuñez), the “California Global Warming Solutions Act of 2006,” which was signed by the governor on September 27, 2006. It requires the CARB to adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. The CARB is also required to publish a list of discrete GHG emission reduction measures.

Specifically, AB 32, the California Global Warming Solutions Act of 2006, requires CARB to (State of California 2006):

- Establish a statewide GHG emissions cap for 2020, based on 1990 emissions by January 1, 2008.

  - ✓ In December 2007, CARB approved a 2020 emission limit of 427 million metric tons of CO_2 equivalent.

- Adopt mandatory reporting rules for significant sources of GHGs by January 1, 2009.

  - ✓ In December 2007, CARB adopted regulations requiring the largest industrial sources to report and verify their GHG emissions. Facilities began tracking emissions in 2008 and reports were due June 1, 2009. Emissions reporting for 2008 was allowed to be based on best available data. Beginning in 2010, emissions reports became more rigorous and subject to third-party verification.

    This action builds on the earlier Senate Bill (SB) 177 (Sher) enacted in 2000, which established a nonprofit California Climate Action Registry for the purpose of administering a voluntary GHG emissions registry.

- Adopt a plan by January 1, 2009 indicating how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

  - ✓ A Climate Change Scoping Plan (Scoping Plan) was approved on December 12, 2008. The Scoping Plan contains the main strategies California will implement to achieve a reduction of 174 million $MTCO_2E$ GHG emissions, or approximately 29 percent from the state's projected 2020 emission level of 596 million $MTCO_2E$ under a BAU scenario. The Scoping Plan is discussed in detail in Section 3.2.3.3 below.

- Adopt regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms.

- Convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee to advise CARB.

  - ✓ In January 2007, the CARB appointed a 10-member Environmental Justice Advisory Committee and appointed members to the Economic and Technology Advancement Advisory Committee.

- Ensure public notice and opportunity for comment for all CARB actions.

  - ✓ A number of CARB documents, including the 2020 Emissions Forecast, the Scoping Plan, and the Draft Recommended Approaches for Setting Interim Significance Thresholds, have been circulated for public review and comment.

- Prior to imposing any mandates or authorizing market mechanisms, CARB must evaluate several factors, including but not limited to impacts on California's economy, the environment, and public health; equity between regulated entities;

electricity reliability; conformance with other environmental laws; and ensure that the rules do not disproportionately impact low-income communities.

3.2.3.3 Climate Change Scoping Plan

As directed by AB 32, the Climate Change Scoping Plan prepared by CARB in December 2008 includes measures to reduce statewide GHG emissions to 1990 levels by 2020. These reductions are what CARB identified as necessary to reduce forecasted BAU 2020 emissions. CARB will update the Scoping Plan at least once every 5 years to allow evaluation of progress made and to correct the Scoping Plan's course where necessary. Table 6 is a duplicate of the Scoping Plan's Table 2, which lists and quantifies the statewide reduction measures needed to achieve the target 2020 GHG emissions level.

As indicated in Table 6, the majority of reductions is directed at the sectors with the largest GHG emissions contributions—transportation and electricity generation—and involve statutory mandates affecting vehicle or fuel manufacture, public transit, and public utilities. For transportation, these most notably include new standards on passenger vehicle emissions (i.e., the California Light-Duty Vehicle Greenhouse Gas Standards) and a new Low Carbon Fuel Standard for vehicle fuel. For energy, the notable measures include new programs to increase energy efficiency and the Renewables Portfolio Standard that requires public utilities to supply up to 33 percent of their energy demand from renewable energy sources.

The two measures most applicable to land use planning and development are the Regional Transportation Related GHG Targets and the Energy Efficiency measures. Implementing these two measures accounts for reduction of 31.3 $MMTCO_2E$ emissions, or 21 percent of the total 146.7 $MMTCO_2E$ in reductions needed for capped sectors and 18 percent of the total 174 $MMTCO_2E$ in reductions needed overall. By applying the concept of the Million Solar Roofs measure to local jurisdictions (in addition to public utilities as the measure is intended), an additional 2.1 $MMTCO_2E$ emissions could be attributed to land use and development, for a total of 23 percent of the total 146.7 $MMTCO_2E$ in reductions needed for capped sectors and 19 percent of the total 174 $MMTCO_2E$ in reductions needed overall.

The Scoping Plan also identifies several other recommended measures which will contribute toward achieving the 2020 statewide reduction goal, but whose reductions are not (for various reasons, including the potential for double counting) additive with the measures listed in Table 6. These include state and local government operations measures, green building, mandatory commercial recycling and other additional waste and recycling measures, water sector measures, and methane capture at large dairies.

TABLE 6
CLIMATE CHANGE SCOPING PLAN-RECOMMENDED GHG REDUCTION MEASURES

Recommended Reduction Measures	Reductions Counted Towards 2020 Target In $MMTCO_2E$ (% total)((% total))[2]	
ESTIMATED REDUCTIONS RESULTING FROM THE COMBINATION OF CAPPED SECTORS AND COMPLEMENTARY MEASURES	**146.7**	
California Light-Duty Vehicle Greenhouse Gas Standards • Implement Pavley Standards • Develop Pavley II light-duty vehicle standards	31.7	(22%)((18%))
Energy Efficiency • Building/appliance efficiency, new programs, etc. • Increase CHP generation by 30,000 gigaWatts (GWh) • Solar Water Heating (AB 1470 goal)	26.3	(18%)((15%))
Renewables Portfolio Standard (RPS) (33% by 2020)	21.3	(14%)((12%))
Low Carbon Fuel Standard	15.0	(10%)((9%))
Regional Transportation-related GHG Targets[1]	5.0	(4%)((3%))
Vehicle Efficiency Measures	4.5	(3%)((2%))
Goods Movement • Ship Electrification at Ports • System-Wide Efficiency Improvements	3.7	(3%)
Million Solar Roofs	2.1	(2%)((1%))
Medium/Heavy Duty Trucks • Heavy-Duty Vehicle Greenhouse Gas Emissions Reduction (Aerodynamic Efficiency) • Medium- and Heavy-Duty Vehicle Hybridization	1.4	(<1%)((<1%))
High Speed Rail	1.0	(<1%)((<1%))
Industrial Measures (for sources covered under cap & trade program) • Refinery Measures • Energy Efficiency and Co-Benefits Audits	0.3	(<.5%)((<.5%))
Additional Reductions Necessary to Achieve the Cap	34.4	(23%)((20%))
ESTIMATED REDUCTIONS RESULTING FROM UNCAPPED SECTORS	**27.3**	
Industrial Measures (for sources not covered under cap & trade program) • Oil and Gas Extraction and Transmission	1.1	((<1%))
High Global Warming Potential Gas Measures	20.2	((12%))
Sustainable Forests	5.0	((3%))
Recycling and Waste (landfill methane capture)	1.0	((.6%))
TOTAL REDUCTIONS COUNTED TOWARDS 2020 TARGET	**174.0**[3]	

SOURCE: Table 2 of the Climate Change Scoping Plan: A Framework for Change. Prepared by the California Air Resources Board, pursuant to AB 32 the California Global Warming Solution Act of 2006. December 2008. (CARB 2008).

[1]This measure is related to SB 375, which requires that regional targets be set. This number represents an estimate of what may be achieved from local land use changes statewide. (CARB has since established specific regional targets for some Metropolitan Planning Areas including San Diego/SANDAG.)

[2](Percentages) are relative to the capped sector subtotal of 146.7 $MMTCO_2E$, and ((percentages)) are relative to the total target reduction of 174 $MMTCO_2E$, and may not total 100 due to rounding.

[3]The total reduction for the recommended measures slightly exceeds the 169 MMTCO2E of reductions estimated in the CARB BAU 2020 Emissions Forecast. This is the net effect of adding several measures and adjusting the emissions reduction estimates for some other measures.

The Scoping Plan reduction measures and complementary regulations are described further in the following sections, and are grouped under the two headings of Transportation-related Measures and Non-Transportation-Related Measures as representative of the sectors to which they apply.

3.2.3.4 Transportation-related Emissions Reductions

Transportation accounts for the largest share of the state's GHG emissions. Accordingly, a large share of the reduction of GHG emissions from the recommended measures comes from this sector. To address emissions from vehicles, CARB is proposing a comprehensive three-prong strategy: reducing GHG emissions from vehicles, reducing the carbon content of the fuel these vehicles burn, and reducing the miles these vehicles travel.

a. AB 1493—Pavley Light Duty Vehicle GHG Standards

AB 1493 (Pavley) enacted July 2002, directed CARB to adopt vehicle standards that lowered GHG emissions from passenger vehicles and light duty trucks to the maximum extent technologically feasible, beginning with the 2009 model year. CARB adopted regulations in 2004 and applied to the U.S. EPA for a waiver under the federal Clean Air Act to implement them. Termed "Pavley I," these regulations cover Model Years 2009 to 2016.

Under federal law, California is the only state allowed to adopt its own vehicle standards, but it cannot implement them until the U.S. EPA grants an administrative waiver. In December 2004, the Alliance of Automobile Manufacturers sued CARB to block implementation of the new regulations and ultimately, in December 2007, a federal judge decided the case in favor of the CARB (Sacramento Bee 2007). Despite this ruling, on December 19, 2007 the U.S. EPA announced that it would deny CARB's waiver request. In January 2008, the State of California sued the U.S. EPA in an attempt to overturn the U.S. EPA's denial (Marten Law Group 2008).

On June 30, 2009, the U.S. EPA rejected its earlier waiver denial reasoning and granted California the authority to implement these GHG emissions reduction standards for new passenger cars, pickup trucks, and sport utility vehicles. CARB adopted amendments to its new regulations in September 2009 that would enforce AB 1493 but provide vehicle manufacturers with new compliance flexibility.

With these actions, it is expected that the new regulations (Pavley I) will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016 (CARB 2010b) for a total reduction of 31.7 $MMTCO_2E$ counted toward the total statewide reduction target (CARB 2008b) (see Table 6). These reductions are to come from improved vehicle technologies such as small engines with superchargers, continuously variable transmissions, and hybrid electric drives.

CARB planned to adopt sometime in 2010 a second, more stringent, phase of the Pavley regulations, termed “Pavley II” [now known as “Low Emission Vehicle (LEV) III”], that would cover Model Years 2017 to 2025. Several public workshops on LEV III have been held by the CARB, but to date new regulations have not been adopted.

b. EO S-01-07—Low Carbon Fuel Standard

This executive order signed by Governor Schwarzenegger in January 2007 directed that a statewide goal be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020 through a Low Carbon Fuel Standard (LCFS). CARB adopted the LCFS as a discrete early action measure pursuant to AB 32 in April 2009 and includes it as a reduction measure in its Scoping Plan (see Table 6).

The LCFS is a performance standard with flexible compliance mechanisms intended to incentivize the development of a diverse set of clean, low-carbon transportation fuel options. Its aim is to accelerate the availability and diversity of low-carbon fuels such as biofuels, electricity, and hydrogen, by taking into consideration the full life cycle of GHG emissions. A 10 percent reduction in the intensity of transportation fuels is expected to equate to a reduction of 16.5 $MMTCO_2E$ in 2020. However, in order to account for possible overlap of benefits between LCFS and the Pavley GHG standards, CARB has discounted the contribution of LCFS to 15 $MMTCO_2E$ (CARB 2008b).

c. Regional Transportation-related GHG Targets

The Regional Transportation-Related GHG Targets measure included in the Scoping Plan identifies policies to reduce transportation emissions through changes in future land use patterns and community design, as well as through improvements in public transportation, that reduce VMT. By reducing the miles vehicles travel, vehicle emissions will be reduced. Improved planning and the resulting development are seen as essential for meeting the 2050 emissions target (CARB 2008b p. 20). CARB expects that this measure will reduce transportation-related GHG emissions by about 5 $MMTCO_2E$ or 4 percent of the total statewide reductions attributed to the capped sectors (see Table 6). Specific regional reduction targets established through SB-375 (see discussion below) will determine more accurately what reductions can be achieved through this measure.

d. SB 375—Regional Emissions Targets

SB 375 was signed in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan measure described above. Its purpose is to align regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation to reduce GHG emissions by promoting high-density, mixed-use developments around mass transit hubs.

The CARB, in consultation with the Metropolitan Planning Organizations (MPOs), was required to provide each affected region with passenger vehicle GHG emissions reduction targets for 2020 and 2035 by September 30, 2010. The San Diego Association of Governments (SANDAG) is the San Diego region's MPO. On August 9, 2010, CARB released the staff report on the proposed reduction target, which was subsequently approved by CARB on September 23, 2010. The San Diego region will be required to reduce greenhouse gas emissions from cars and light trucks 7 percent per capita by 2020 and 13 percent by 2035 (SANDAG 2011).

The reduction targets are to be updated every 8 years, but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets.

Once reduction targets are established, each of California's MPOs must prepare and adopt a Sustainable Communities Strategy (SCS) that demonstrates how the region will meet its greenhouse gas reduction targets through integrated land use, housing, and transportation planning. Enhanced public transit service combined with incentives for land use development that provides a better market for public transit will play an important role in the SCS. After the SCS is adopted by the MPO, the SCS will be incorporated into that region's federally enforceable regional transportation plan (RTP).

On October 28, 2011, the SANDAG Board of Directors certified the Final EIR and adopted the 2050 RTP/SCS. It is the first such plan in the state that includes an SCS (SANDAG 2011).

CARB is also required to review each final SCS to determine whether it would, if implemented, achieve the greenhouse gas emission reduction target for its region. If the combination of measures in the SCS will not meet the region's target, the MPO must prepare a separate Alternative Planning Strategy (APS) to meet the target. The APS is not a part of the RTP. The SANDAG Board of Directors found that the measures in the 2050 RTP/SCS would meet the region's target of reducing GHG emissions from cars and light trucks 7 percent per capita by 2020 and 13 percent by 2035 (SANDAG 2011).

As an incentive to encourage implementation of the SCS and APS, developers can obtain relief from certain requirements under the California Environmental Quality Act (CEQA) for those projects that are consistent with either the SCS or APS (CARB 2010c).

With regard to the Del Mar area, the 2050 RTP/SCS outlines several freeway improvements, including expansion of a segment of I-5 east of Del Mar. Many of the planned transit expansions in the RTP would not occur until late in the RTP horizon due to the projected need for acquiring funding and ridership demand. Thus far, none of the planned major transit improvements, such as extension of trolley/commuter rail lines, occurs within the Plan area, although a new Coaster/commuter rail station is potentially planned at the site of the existing fairgrounds just to the northeast of the Plan area.

e. EO S-7-04/SB 1505—California Hydrogen Highway Network

This executive order signed in 2004 designated California's 21 interstate freeways as the California Hydrogen Highway Network, and directed the CalEPA and all other relevant state agencies to plan and build a network of hydrogen-fueling stations along these roadways and in the urban centers. This EO also called for the CalEPA and others to develop by January 1, 2005 a California Hydrogen Economy Blueprint Plan (Blueprint Plan) for the rapid transition to a hydrogen economy in California. The Blueprint Plan was delivered to the Governor in May 2005.

In response to this EO, SB 1505 (Lowenthal), chaptered on September 30, 2006, required the CARB to adopt regulations to ensure that the production and use of hydrogen for transportation purposes contributes to the reduction of GHGs and other air contaminants (Union of Concerned Scientists 2007). The regulation, referenced as the Environmental and Energy Standards for Hydrogen Production, is currently in the development process and was expected to be approved by CARB before the end of 2010. To date this has not occurred.

3.2.3.5 Non-transportation-related Emissions Reductions

In the energy sector, Scoping Plan measures aim to provide better information and overcome institutional barriers that slow the adoption of cost-effective energy-efficiency technologies. They include enhanced energy-efficiency programs to provide incentives for customers to purchase and install more efficient products and processes and building and appliance standards to ensure that manufacturers and builders bring improved products to market. Over the long term, the recommended measures will increase the amount of electricity from renewable energy sources and improve the energy efficiency of industries, homes, and buildings. While energy efficiency accounts for the largest emissions reductions from this sector, other applicable land development measures such as water conservation, materials use and waste reduction, and green building design and development practices, achieve additional emissions reduction.

a. Renewables Portfolio Standard

The Renewables Portfolio Standard (RPS) promotes diversification of the state's electricity supply. Originally adopted in 2002 with a goal to achieve a 20-percent renewable energy mix by 2020, the goal has been accelerated and increased, most recently so by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. Its purpose is to achieve a 33-percent renewable energy mix statewide; providing 33 percent of the state's electricity needs met by renewable resources by 2020 (CARB 2008b). The RPS is included in CARB's Scoping Plan list of reduction measures (see Table 6). Increasing the RPS to 33 percent is designed to accelerate the transformation of the electricity sector, including investment in the transmission infrastructure and systems changes to allow integration of large quantities of intermittent wind and solar generation. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Increased use of renewables would decrease California's reliance on fossil fuels, thus reducing emissions of GHGs from the electricity sector. CARB estimates that full achievement of the RPS would decrease statewide GHG emissions by 21.3 $MMTCO_2E$ (CARB 2008b).

b. Million Solar Roofs Program

The Million Solar Roofs Program was created by SB 1 in 2006 and includes the California Public Utilities Commission's (CPUC's) California Solar Initiative and California Energy Commission's (CEC's) New Solar Homes Partnership. It requires publicly owned utilities to adopt, implement, and finance solar-incentive programs to lower the cost of solar systems and help achieve the goal of installing 3,000 megaWatts (MW) of new solar capacity by 2020. The Million Solar Roofs Program is one of CARB's GHG-reduction measures identified in the 2008 Scoping Plan (see Table 6). Achievement of the program's goal is expected to equate to a reduction of 2.1 $MMTCO_2E$ in 2020 statewide BAU emissions (CARB 2008b).

c. SB 1368—Public Utility Emission Standards

The SB 1368 (Parata), passed in 2006, requires the CEC to set GHG-emission standards for entities providing electricity in the state. The bill further requires that the CPUC prohibit electricity providers and corporations from entering into long-term contracts, if those providers and corporations do not meet the CEC's standards (Union of Concerned Scientists 2007).

d. CCR, Title 24, Part 6—California Energy Code

The California Code of Regulations, Title 24, Part 6 is the California Energy Code. This code, originally enacted in 1978 in response to legislative mandates, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. The most recent amendments to the Energy Code, known as 2008 Title 24, or the 2008 Energy Code, became effective January 1, 2010. 2008 Title 24 requires energy savings of 15–35 percent above the former 2005 Title 24 Energy Code. At a minimum, residential buildings must achieve a 15-percent reduction in their combined space heating, cooling, and water heating energy compared to the 2005 Title 24 standards. Incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum 15 percent reduction over 2005 Title 24. The reference to 2005 Title 24 is relevant in that many of the State's long-term energy and GHG reduction goals identify energy-saving targets relative to Title 24 2005. By reducing California's energy consumption, emissions of statewide GHGs may also be reduced.

New construction and major renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The compliance reports must demonstrate a building's energy performance through use of CEC-approved energy performance software that shows iterative increases in energy efficiency given selection of various HVAC, sealing, glazing, insulation, and other components related to the building envelope. Title 24 governs energy consumed by the built environment, by the major building envelope systems such as space heating, space cooling, water heating, some aspects of the fixed lighting system, and ventilation. Non-building energy use, or "plug-in" energy use (such as appliances, equipment, electronics, plug-in lighting), are independent of building design and are not subject to Title 24.

e. CCR, Title 24, Part 11—California Green Building Standards

In 2007, Governor Schwarzenegger directed the California Building Standards Commission to work with state agencies on the adoption of green building standards for residential, commercial, and public building construction for the 2010 code adoption process. A voluntary version of the California Green Building Standards Code, referred to as CalGreen, was added to Title 24 as Part 11 in 2009. The 2010 version of CalGreen took effect January 1, 2011 and instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial and low-rise residential buildings, state-owned buildings, schools, and hospitals. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory requirements and may also adopt the Green Building Standards with amendments for stricter requirements.

The mandatory standards require:

- 20 percent mandatory reduction in indoor water use relative to specified baseline levels;
- 50-percent construction/demolition waste diverted from landfills;
- mandatory inspections of energy systems to ensure optimal working efficiency; and
- requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards.

The voluntary standards require:

- Tier I — 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, cool/solar reflective roof; and
- Tier II — 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, cool/solar reflective roof.

Similar to the compliance reporting procedure described above for demonstrating energy code compliance in new buildings and major renovations, compliance with the CalGreen water reduction requirements must be demonstrated through completion of water use reporting forms for new low-rise residential and non-residential buildings. The water use compliance form must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CalGreen or a reduced per-plumbing-fixture water use rate.

Related to CalGreen are the earlier 2000 Sustainable Building Goal (EO D-16-00) and 2004 Green Building Initiative (EO S-20-04). The 2000 Sustainable Building Goal instructed that all state buildings be constructed or renovated and maintained as models of energy, water, and materials efficiency. The 2004 Green Building Initiative recognized further that significant reductions in GHG emissions could be achieved through the design and construction of new green buildings as well as the sustainable operation, retrofitting, and renovation of existing buildings.

The CARB Scoping Plan includes a Green Building Strategy with the goal of expanding the use of green building practices to reduce the carbon footprint of new and existing buildings. Consistent with CalGreen, the Scoping Plan recognized that GHG reductions would be achieved through buildings that exceed minimum energy-efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable materials. Green building is thus a vehicle to achieve the Scoping Plan’s statewide electricity and natural gas efficiency targets, and lower GHG emissions from waste and water transport sectors.

In the Scoping Plan, CARB projects that an additional 26 $MMTCO_2E$ could be reduced through expanded green building (CARB 2008b, p.17). However, this reduction is not counted toward the BAU 2020 reduction goal to avoid any double counting, as most of these reductions are accounted for in the electricity, waste, and water sectors. Because of this, CARB has assigned all emissions reductions that occur because of green building strategies to other sectors for meeting AB 32 requirements, but will continue to evaluate and refine the emissions from this sector.

f. SB 97—CEQA GHG Amendments

SB 97 (Dutton), passed by the legislature and signed by the governor on August 24, 2007, required the office of Planning and Research (OPR) on or before July 1, 2009, to prepare, develop, and transmit to the Resources Agency amendments to the CEQA guidelines (Guidelines) to assist public agencies in the evaluation and mitigation of GHGs or the effects of GHGs as required under CEQA, including the effects associated with transportation and energy consumption. SB 97 required the Resources Agency to certify and adopt those guidelines by January 1, 2010. Proposed amendments to the state CEQA Guidelines for GHG emissions were submitted on April 13, 2009, adopted on December 30, 2009, and became effective March 18, 2010.

Section 15064.4 of the amended Guidelines includes the following requirements for determining the significance of impacts from GHG emissions:

> (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:
>
> (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
>
> (2) Rely on a qualitative analysis or performance-based standards.

While the amendments require calculation of a project's contribution, they clearly do not establish a standard by which to judge a significant effect or a means to establish such a standard.

3.2.3.6 Cap-and-Trade Program

As discussed previously, the Scoping plan was considered by CARB at a December 11, 2008 public hearing, and was subsequently adopted by the Board's Executive Officer in May 11, 2009. As one of the alternatives presented in the Scoping Plan, CARB staff were directed to develop a cap-and-trade regulation, which is a type of market-based compliance mechanism. The cap-and-trade program establishes the total amount of GHG emissions that major sources would be permitted to emit. Subsequent litigation challenged certain aspects of the Scoping Plan, and on March 17, 2011, a California Superior Court decision upheld the legal challenge that CARB did not adequately evaluate alternatives under CEQA and approved the Scoping Plan before receiving and responding to the necessary public comment.

As such, the CARB was prevented from moving forward with the cap-and-trade program. However, the decision was appealed, and in June 2011, a California appeals court temporarily stayed the injunction, allowing the CARB to continue development of the cap-and-trade program. On October 20, 2011, the CARB adopted the final cap-and-trade regulation. The program takes effect on January 1, 2012, the first auctions will be held in 2012 (see discussion below), and compliance obligation for GHG emissions begins January 1, 2013. Once implemented, the cap-and-trade regulation will provide a fixed limit on GHG emissions from the sources responsible for about 85 percent of the state's total GHG emissions.

CARB will distribute allowances to emit GHGs, and the total number of allowances created would be equal to the total amount set for cumulative emissions from all covered entities. Each allowance would permit the holder to emit one $MTCO_2E$ of GHG. Starting in 2013, the covered entities include major GHG emitting sources, such as electricity generation (including imports and large stationary sources), that emit more than 25,000 $MTCO_2E$ per year. The program will expand in 2015 to cover natural gas and propane fuel providers and transportation fuel providers. The cap is divided into annual budgets that specify the total number of allowances for each year from 2013 to 2020. Those that need additional allowances to cover their emissions can purchase them at regular auction from entities that hold excess allowances (i.e., facilities whose actual emissions are less than the total allowances they hold). Each year, fewer allowances will be issued on an annual basis. The cap in 2020 is set at a level designed to allow California to achieve the AB 32 target in 2020. The program also allows for offset credits. An offset credit represents a reduction or removal of one $MTCO_2E$ of GHGs through the modification or replacement of existing covered equipment. This credit, once measured, quantified, and verified, can be sold and used by a covered entity to meet a portion of its compliance obligation. Covered entities can purchase offset credits to satisfy up to 8 percent of the entity's total compliance obligations during a single compliance period. It is estimated that implementation of the cap and trade regulation will reduce GHG emissions by 18 to 27 million $MTCO_2E$ in 2020 (CARB 2011a).

3.2.4 Local

The City of Del Mar has recognized that human-caused climate change is a reality, with potentially disruptive effects to the City's residents and businesses. The City also recognizes that local governments play a lead role in both reducing GHG emissions and adapting to the potential impacts of climate change.

3.2.4.1 Cool Cities Program and Mayors Climate Protection Agreement

Del Mar participates in the Cool Cities Program promoted by the nongovernmental organization the Sierra Club. The Cool Cities Program is a voluntary program that strives to reduce GHGs and increase energy efficiency. The participating cities make commitments to reduce GHG emissions from municipal operations and the community at large by signing the United States Climate Protection Mayor's Agreement, establishing a Cool Cities campaign, engaging the community to participate, taking initial solution steps, and performing a GHG audit.

The City of Del Mar was one of the first municipalities in the region to sign the Mayor's Climate Protection Agreement and voluntarily commit to reducing the City's GHG emissions to below 1990 levels. In 2010 the City reaffirmed its commitment to address climate change by becoming a member of ICLEI-Local Governments for Sustainability.

3.2.4.2 Local Governments for Sustainability/Regional Climate Protection Initiative

The City of Del Mar is a member of the Local Governments for Sustainability network and San Diego Regional Climate Protection Initiative. Established in 1990 as the ICLEI, the now officially named ICLEI-Local Governments for Sustainability is an international membership association made up of local governments dedicated to climate protection and sustainable development. ICLEI USA was launched in 1995 and has grown from a handful of local governments participating in a pilot project to a solid network of more than 600 cities (including the City of Del Mar) and counties actively striving to achieve tangible reductions in GHG emissions and create more sustainable communities.

ICLEI USA establishes the following five-milestone process to which participating members commit:

- Milestone One: Conduct a baseline emissions inventory and forecast.
- Milestone Two: Adopt an emissions reduction target for the forecast year.
- Milestone Three: Develop a local CAP.
- Milestone Four: Implement the CAP.
- Milestone Five: Monitor progress and report results.

The San Diego Regional Climate Protection Initiative is a regional platform that was established to address ICLEI's five milestones. To gain a greater understanding of how to grow in a more sustainable way, Del Mar will undertake the Sustainability Community self-evaluation being developed by SANDAG in Fiscal Year 2012. Also, as part of its involvement in ICLEI USA and the Regional Climate Protection Initiative, the City is in the process of preparing applicable policies and regulatory amendments, including preparation and implementation of requirements for drought-tolerant landscape planning for new commercial and residential sites (ICLEI 2011).

3.2.4.3 Del Mar Climate Action Plan Development

In March 2011, Del Mar worked with ICLEI to develop both government operations and community-wide GHG emissions inventories. These inventories (discussed in Section 4.6.1.1.d above) establish the City's baseline (year 2005) GHG emissions and comprise the first step in developing a CAP for Del Mar. The City Council accepted this GHG emissions report in April 2011. Currently, City staff is working with citizen advisory groups to develop emission reductions for approval and have begun to scope out the process and funding opportunities for the CAP. Once the budget is established, the CAP will be proposed for inclusion in the Fiscal Year 2012–2013 operating and capital budget for completion by the end of Fiscal Year 2013. The goal of the CAP will be to reduce GHG emissions, curtail global warming, and establish adaptation strategies for Del Mar in response to climate change.

City staff is also presently participating in SANDAG's Energy Road Map program to develop an energy action plan tailored to the unique characteristics of Del Mar. Del Mar's road map will provide a framework for the City to save energy in government operations and in the community, resulting in cost savings and benefits to the environment until the CAP is completed.

3.2.4.4 Del Mar Sustainability Advisory Board

In 2006 the City Council established the Sustainability Advisory Board (SAB) (formerly known as the Energy Issues Advisory Committee) in order to assist the Council in promoting clean and reliable energy and in educating Del Mar residents and businesses about energy savings programs and other sustainable practices. The SAB works with other regional and municipal groups, advises the City Council on any bills before the California Legislature that the City should take a position to support or oppose, reviews the Municipal Code sections relevant to energy consumption and savings in the City, and works with the Planning Commission and Planning staff to propose revised Municipal Code language. The SAB consists of six voting members selected by the City Council for 4-year terms. Since 2006, the SAB has:

- Given input on SANDAG Regional Energy Strategy document to City Staff/Planning;
- Lobbied City Council to join California FIRST, a property-assessed clean energy program;

- Lobbied City Council to take a position against Prop 23, and in favor of AB32, the Global Warming Solutions Act;
- Published numerous outreach articles in local newspapers regarding City activities promoting sustainability;
- Become a member in local North County Sustainability Coalition, with representatives from Solana Beach, Encinitas, Carlsbad, and Oceanside;
- Made recommendations to City Council regarding Fairgrounds EIR and compliance issues with AB 32;
- Lobbied City Council to join ICLEI and conduct a GHG assessment, and assisted City staff and ICLEI intern with report creation and presentation; and
- Provided detailed consultation and ongoing input on new waste management contract.
- Published Reduce Your Carbon Footprint and Think Renewable, Recyclable, Reusable, and Sustainable guides offering useful tips on reducing energy and water consumption and waste and include links to local and state programs and organizations that offer additional funding and technological assistance.

3.2.4.5 Del Mar Solar Energy Ordinance

Chapter 23.20 of Del Mar's Municipal Code comprises the Del Mar Solar Energy Ordinance. The purpose of this ordinance is to decrease the City's dependence on nonrenewable energy sources through encouraging solar energy systems for the heating and cooling of new building spaces. If swimming pools are to be heated, all pool water heating is also required to be provided by solar systems. The Ordinance applies to all new construction and major remodels of existing structures where the structural alterations encompass 50 percent or more of the floor area of the structure as it existed prior to the alteration. In these cases, the entire structure is required to conform to the Ordinance.

As stated in the Ordinance "it is intended that the energy requirements from conventional sources for space heating [cooling, and ventilating] shall be reduced by sixty percent or more for each structure falling within purview of this Chapter." Essentially all conventional HVAC system needs are to be provided with an active, passive, or hybrid solar system as follows:

Space Heating: All space heating is required to be provided with an active, passive, or hybrid solar space heating system, and "required solar space heating systems will at minimum meet or exceed guidelines of this policy, or shall consist of an alternative design, which is sufficient to meet or exceed the stated intent of this Chapter" (Municipal Code 23.20.040).

Space Cooling: “The installation of conventional air refrigeration systems will be discouraged in all structures. This policy will not apply to rooms where air refrigerants are necessary such as medical rooms, or rooms designed for storage, maintenance, or processing of temperature sensitive materials or equipment” (Municipal Code 23.20.040).

All required solar energy systems shall be delineated on preliminary plans and submitted to the City Planning Department prior to Design Review Board review. The plans shall contain a statement briefly describing the solar system and affirming that the system is designed to meet the requirements of Chapter 23.20. This statement shall be signed by a licensed architect, registered engineer, or qualified solar consultant or solar installation contractor.

4.0 Significance Criteria and Analysis Methodologies

4.1 Determining Significance

4.1.1 CEQA Guidelines Questions

The current CEQA Guidelines Appendix G Environmental Checklist includes the following two questions regarding assessment of GHG emissions:

1) Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

2) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs?

As stated in the Guidelines, these questions are “intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance” (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, VII Greenhouse Gas Emissions). To date, there have been no local, regional, state, or federal regulations establishing a threshold of significance to determine project-specific impacts of GHG emissions. The CEQA Guidelines require Lead Agencies to adopt GHG thresholds of significance. When adopting these thresholds, the amended Guidelines allow Lead Agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence, and/or to develop their own significance threshold.

The City has not adopted its own GHG Thresholds of Significance for CEQA and is following guidance from AB 32 and the CARB Scoping Plan and BAU 2020 Forecast to determine when a cumulatively significant contribution of GHGs has occurred.

Although the thresholds discussed below are interim guidance, they represent a good faith effort to evaluate whether GHG impacts from a plan or project are significant, taking into account the type and location of the proposed development, the best available scientific data regarding GHG emissions, and the current statewide goals and strategies for reduction of GHG emissions. It is also important to note that the San Diego Air Pollution Control District (SDAPCD) has not provided guidance on the quantification of GHG emissions thresholds for the San Diego Region.

4.1.2 California GHG Emissions Thresholds

While the CEQA Guidelines require calculation of a project's contribution, they do not establish a clear measure by which to judge whether a significant generation of GHGs has occurred. Guidance on determining when a cumulatively significant contribution of GHGs has occurred from a plan or project can be interpreted from AB 32, EO S-3-05, and other relevant documents, including the CARB Scoping Plan and BAU 2020 GHG Emissions Forecast. As outlined in Section 3.2.3 above, AB 32/EO S-3-05 established a GHG emissions reduction target to reduce 2020 statewide emissions to 1990 levels. CARB estimated that 1990 statewide GHG emission levels in 1990 were 427 $MMTCO_2E$. Thus, statewide 2020 GHG emissions are to be capped at 427 $MMTCO_2E$.

Statewide GHG emissions at the time of AB 32/EO S-3-05 exceeded this amount and were trending upward. In order to assess the scope of the reductions California would need to return to 1990 emissions levels by 2020, CARB estimated statewide 2020 GHG emissions under a BAU scenario.

4.1.2.1 California BAU 2020 Emissions Forecast

The BAU 2020 emissions forecast represents the emissions that would be expected to occur given projected population growth without any of the GHG reduction measures in the Scoping Plan. This GHG emissions forecast was also based on the regulatory environment in existence at the time the estimate was prepared. Specifically, this meant the absence of Scoping Plan reduction measures and subsequent implementing actions such as the Pavley and LCFS regulations on vehicle emissions, the RPS and Million Solar Roofs energy transition programs, and the post-2005 updates to the CBC's energy and plumbing codes. Given these parameters, CARB staff estimated that statewide BAU 2020 GHG emissions would be 596 $MMTCO_2E$, as shown in Table 7.

TABLE 7
CALIFORNIA BAU 2020 GHG EMISSIONS FORECAST

Sector	Projected BAU 2020 Emissions in $MMTCO_2E$ (% total)
Transportation	225.4 (38%)
Electricity	139.2 (23%)
Commercial and Residential	46.7 (8%)
Industry	100.5 (17%)
Recycling and Waste	7.7 (1%)
High GWP	46.9 (8%)
Agriculture	29.8 (5%)
Forest Net Emissions	0.0
TOTAL	**596.4**

SOURCE: CARB 2008a.

To attain the 2020 emissions limit of 427 $MMTCO_2E$, a reduction of 169 $MMTCO_2E$ statewide would be required. This equates to a 28.3 percent reduction in GHG emissions relative to BAU.

AB 32 and the CARB Scoping Plan and 2020 BAU Emissions Forecast thus serve as the basis for establishing a 28.3 percent reduction relative to BAU goal for the City of Del Mar, consistent with several other jurisdictions in the state. It should be noted, however, that the CARB 28.3 percent reduction target encompasses all statewide sectors of GHG emissions generation, including major source emitters (i.e., large manufacturers, industries), transportation, and electricity/power plants. The GHG emissions reduction attributed solely to land use and development projects is somewhat difficult to tease out of the statewide total given overlap, but would generally be on the order of 18 to 23 percent or less, given the most applicable Scoping Plan reduction measures. (See discussion in Section 3.2.3.3, Climate Change Scoping Plan.)

A significance threshold of 28.3 percent reduction relative to BAU nonetheless represents a good faith effort to evaluate whether GHG impacts from the proposed Plan are significant, taking into account the best available scientific data regarding GHG emissions, and the current statewide goals and strategies for reduction of GHG emissions. It is also consistent with the current CEQA Guidelines which state that cumulative impacts may be measured relative to a cumulative baseline that includes a:

> summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include a general plan, regional transportation plan, or plans for the reduction of GHG emissions.

4.2 Methodology and Assumptions

The Plan area's existing, BAU and future Plan GHG emissions were estimated using CalEEMod Version 2011.1.1 released by CARB in March 2011. CalEEMod was developed by the CARB and an air quality consultant, with the participation of several state air districts including the South Coast Air Quality Management District (SCAQMD) and the San Diego Air Pollution Control District (SDAPCD).

As stated by CARB,

> "the purpose of CALEEMod it to provide a uniform platform for government agencies, land use planners, and environmental professionals to estimate potential emissions associated with both construction and operational use of land use projects. It is intended that these emission estimates are suitable for use in CEQA compliant documents for air quality and climate change impacts. CalEEMod utilizes widely accepted models for emissions estimates combined with appropriate default data that can be used if site-specific information is not available. These models and default estimates use sources such as the USEPA AP-42 emission factors, CARB vehicle emissions models, studies commissioned by California agencies such as the California Energy Commission and CALRecycle."

In brief, the model estimates criteria air pollutants and GHG emissions by multiplying emission source intensity factors by estimated quantities of emission sources based on the land use information entered by the user in the first module of the model. In the first module, the user defines the specific land uses that will occur at the project site. The user also selects the appropriate land use setting (urban or rural), operational year, air basin, and utility provider. The input land uses, size features, and population are used throughout CalEEMod in determining default variables and calculations in each of the subsequent modules. The subsequent modules include construction (including off-road vehicle emissions), mobile (on-road vehicle emissions), area sources (woodstoves, fireplaces, consumer products [cleansers, aerosols, solvents], landscape maintenance equipment, architectural coatings), water and wastewater, and solid waste. Each module comprises multiple components including an associated mitigation module to account for further reductions in the reported baseline calculations. These reductions are linked to several of the quantifiable mitigation measures identified in the CAPCOA *Quantifying Greenhouse Gas Mitigation Measures* August 2010 report (CAPCOA 2010).

CalEEMod estimates emissions in terms of total metric ton CO_2 equivalent ($MTCO_2E$). CO_2-equivalent emissions are the preferred way to assess combined GHG emissions because they give weight to the GWP of a gas. The GWP, as described above in Section 1.1, is the potential of a gas to warm the global climate in the same amount as an equivalent amount of emissions of CO_2. Carbon dioxide (CO_2) thus has a GWP of 1. Methane (CH_4) has a GWP of 21 and nitrous oxide (N_2O) has a GWP of 310, which means they have a greater global warming effect than CO_2.

Each of the modules' methodology and input data are described below and are based on information provided in the CalEEMod User's Guide (CARB 2011b). The reported GHG emission estimates based on these inputs are provided in Section 5.1. Attachment 2 includes the entire CalEEMod input and output files.

4.2.1 Defining Project Characteristics and Land Use

In this module the user is prompted to enter the project's location, setting, climate zone, utility provider, and the specific land uses that will occur. For this analysis, the location was selected as the San Diego Air Pollution Control District area with an urban (versus suburban) setting, in climate zone 13, served by San Diego Gas and Electric (SDG&E). By identifying the utility provider, its specific energy intensity factors are loaded into the model's calculations. SDG&E's energy intensity factors are shown in Table 8 below.

TABLE 8
SAN DIEGO GAS & ELECTRIC INTENSITY FACTORS

GHG	Intensity Factor[1] (lbs/MWh)
Carbon Dioxide (CO_2)	780.79
Methane (CH_4)	0.029
Nitrous Oxide (N_2O)	0.011

[1]SOURCE: CalEEMod Version 2011.1.1.
lbs = pounds
MWh = megaWatt hour

These energy intensity values are used in CalEEMod to determine the GHG emissions associated with electricity use in various modules and are based on CARB's Local Government Operations Protocol (LGOP) (for CO_2) and E-Grid (for CH_4 and N_2O) values.

Table 9 summarizes the existing and future land uses used to model Plan area GHG emissions.

The existing and future land uses shown in Table 9 were obtained from the City of Del Mar planning staff, and their associated vehicle trips were obtained from the Traffic Impact Study (TIS). The future land uses shown in Table 9 were used to model the proposed Plan under both BAU conditions and the Plan as proposed, with GHG reductions. For ease of discussion, the future BAU GHG estimates of the proposed Plan land uses will be hereafter referred to as "BAU emissions" while the estimates of the future proposed Plan land uses with Scoping Plan and current CBC reductions will be hereafter referred to as "Plan emissions." While BAU emissions are the GHG emissions that would be expected to occur in the absence of Scoping Plan GHG reduction measures, the Plan emissions are the GHG emissions that would be expected to occur with GHG-reductions gained through the Scoping Plan, proposed Plan features, and/or requirements in other current regulations.

TABLE 9
EXISTING AND FUTURE MODELED LAND USES

Land Use				Proposed	Trip Rate[2]		
Type[1]	Subtype[1]	Unit	Existing Intensity	Plan (2035) Intensity	Weekday	Saturday	Sunday
Residential	Apartments Low Rise	DU	2	140	8.00	7.16	6.07
Commercial	Motel	RM	17	60	9.00	10.50	8.40
Commercial	Government	KSF	23.592	30.126	30.00	0.00	0.00
Educational	Library	KSF	4.874	4.874	50.00	46.55	25.49
Retail	Strip Mall	KSF	41.811	138.5	40.00	42.04	20.43
Commercial	General Office	KSF	169.646	170.00	20.00	0.41	0.14
Recreational	Quality Restaurant	KSF	32.394	66.00	160.00	94.36	72.16
Recreational	City Park	Acres	0.05	0.14	1.59[3]	1.59[3]	1.59[3]

RM = room; KSF = 1,000 square feet; DU = dwelling unit.
[1]Land use types and subtypes are those as named in CalEEMod and correspond with the proposed Plan categories of multi-family residential, hotel, civic, retail/personal services, restaurant, office and park uses shown in Table 3-1 of this PEIR.
[2]SOURCE: KOA Traffic Impact Study 2012
[3]Trip rates for City Parks were not provided by the KOA Traffic Impact Study. CalEEMod default values were used.

Thus, when assessing Plan emissions against the 28.3 percent reduction relative to BAU threshold, Plan emissions estimates account for, at a minimum, the following:

- California Light-Duty Vehicle GHG Emissions Standards (Pavley/AB 1493);
- Low Carbon Fuel Standard (EO S-01-07);
- 2008 Energy Efficiency Standards Code update to the California Building Code; and
- 2011 CalGreen water efficiency standards update to the California Building Code.

Emission estimates were calculated for the three GHGs of primary concern (CO_2, CH_4, and N_2O) that would be emitted from construction and the five primary operational sources that would be associated with Plan buildout: on-road vehicular traffic, area sources (such as fireplaces and landscaping equipment), energy use (composed of electricity use and natural gas consumption), water use, and solid waste disposal. Differences in the modeling for the two future input scenarios for each emissions source are described in further detail in the following paragraphs.

4.2.2 Estimating Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and in the commute vehicles of the construction workers. Smaller amounts of GHGs are also emitted through the energy use embodied in any water use (for fugitive dust control) and lighting for the construction activity. Every phase of the construction process, including demolition, grading, paving, and building, emits GHGs, in volumes proportional to the quantity and type of construction equipment used. The heavier equipment typically emits more GHGs per hour of use than the lighter equipment because of their greater fuel consumption and engine design.

GHG emissions associated with each phase of project construction are calculated in CalEEMod by multiplying the total fuel consumed by the construction equipment and worker trips by applicable emission factors. CalEEMod forecasts the number and pieces of construction equipment that would be used given project-specific design. In the absence of project-specific construction information, needed equipment for all phases of construction are estimated based on the size of the land use subtype features entered in the land use module.

No construction emissions were modeled for the existing Plan area GHG estimates. For the BAU and Plan emissions estimates, the CalEEmod default construction module assumptions were used. CalEEMod estimates construction emissions for each year of construction activity based on the annual construction equipment profile and other factors determined as needed to complete all phases of construction by the target completion year. As such, each year having reported construction emissions has varying quantities of GHG emissions. However, the Association of Environmental Professionals (AEP) has recently recommended that total construction GHG emissions resulting from a project be amortized over 30 years and added to operational GHG emissions (AEP 2010). Estimates of the total emissions from construction activities estimated by CalEEMod (based on constructing the maximum allowable land uses as identified in Table 9) were thus divided by 30 and then added to the operational emissions, in accordance with the AEP recommendations.

4.2.3 Estimating Vehicle Emissions

Transportation-related GHG emissions comprise the largest sector contributing to both inventoried and projected statewide GHG emissions, accounting for 38 percent of the projected total statewide 2020 BAU emissions (CARB 2008a). On-road vehicles alone account for 35 percent of forecasted 2020 BAU emissions. GHG emissions from vehicles come from the combustion of fossil fuels in vehicle engines. The CalEEMod model estimates vehicle emissions by first calculating trip rate, trip length, trip purpose, and trip type percentages (e.g., home to work, home to shop, home to other) for each land use type, based on the land use types and quantities entered by the user in the land use module. CalEEMod's default trip rates are based on the Institute of Transportation Engineers (ITE) Trip Generation 8th Edition trip rates for each respective land use category. These rates can be overridden to enter project-specific trip rates.

 RECON

Trip rates obtained from the Traffic Impact Study (TIS) prepared for the proposed Plan (KOA 2012) were used to model both existing and future BAU and Plan vehicle emissions. The CalEEMod default fleet mix was assumed for both the existing and future land uses. Default trip lengths in CalEEMod are based on either information provided by the local air district or, if not provided by an air district, are based on statewide averages. CalEEMod assumes the statewide trip length average for San Diego. These default trip lengths were changed in this analysis to the existing regional average trip length of 5.8 miles (SANDAG 2009). CalEEMod default vehicle emission factors and fleet mix are derived from the Emission Factors (EMFAC) 2007 model and adjusted for Pavley and the LCFS. Vehicle emissions for the existing land uses were calculated for year 2011, and emissions for the future land uses were calculated for the year 2035 (to be consistent with the TIS traffic projections).

4.2.4 Estimating Energy Use Emissions

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. GHGs are generated during the generation of electricity from fossil fuels off-site in power plants. These emissions are considered indirect but are calculated in CalEEMod as associated with a building's operation. Electric power generation accounts for the second largest sector contributing to both inventoried and projected statewide GHG emissions, comprising 24 percent of the projected total 2020 statewide BAU emissions (CARB 2008a). Combustion of fossil fuel emits criteria pollutants and GHGs directly into the atmosphere. When this occurs in a building this is considered a direct emissions source associated with that building. CalEEMod only estimates emissions from the direct combustion of natural gas. Fuel oil, kerosene, liquefied petroleum gas, and wood can also be used as fuels, but they generally contribute only small amounts, and thus CalEEMod does not account for their emissions. Use of these other fuels is not anticipated for the proposed project.

CalEEMod estimates GHG emissions from energy use by multiplying average rates of residential and non-residential energy consumption by the quantities of residential units and non-residential square footage entered in the land use module to obtain total projected energy use. This value is then multiplied by electricity and natural gas GHG emission factors applicable to the project location and utility provider.

Building energy use is typically divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as plug-in appliances. In California, Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use, or "plug-in energy use," can be further subdivided by specific end-use (refrigeration, cooking, office equipment, etc.). CalEEMod thus calculates electricity use by:

- Calculating energy use from systems covered by Title 24 (i.e., Heating, Ventilating, and Air Conditioning (HVAC) system, water heating system, and the lighting system);
- Calculating energy use from lighting use; and
- Calculating energy use from office equipment, appliances, plug-in electronics, and other sources not covered by Title 24 or lighting.

Lighting is calculated separately, since it can be both part and not part of Title 24. Natural gas use is just distinguished in the model as Title 24 or Non-Title 24 similar to electricity consumption.

CalEEMod default energy values are based on the CEC-sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies, which identify energy use by building type and climate zone. Each land use type input to the land use module is mapped in the energy module to the appropriate CEUS and RASS building type. Because these studies are based on older buildings, adjustments have been made in CalEEMod to account for changes to Title 24 building codes. The default adjustment is to the current 2008 Title 24 energy code (part 6 of the building code). Adjustments to simulate the 2005 Title 24 energy code are available in the model by selecting the “use historical data” box. The CalEEMod User’s Guide states that “a user should select the use historical box if they only want an adjustment to the 2005 standards which were in effect when CARB developed its Scoping Plan 2020 No Action Taken [i.e., BAU] predictions” (CARB 2011b, page 30).

Therefore, for the existing conditions and future BAU estimates, the historical data box was selected in order to reflect GHG emissions from energy use as associated with a building built to the 2005 Title 24 energy code. For the estimates of the proposed Plan with GHG reducing design features, energy emissions were estimated using the default 2008 Title 24 energy code adjustments.

To model future Plan energy reduction scenarios due to the City’s Solar Energy Ordinance and green building recommendations in the proposed Plan, the building energy mitigation module was used. Several separate model runs were made to account for 60, 50 and 40 percent on-site renewable energy options; and to account for two green building options that included an additional 30 percent improvement over the 2008 Title 24 energy code, installation of energy star appliances in residential units, and installation of high efficiency lighting in commercial uses.

4.2.5 Estimating Area Source Emissions

This CalEEMod module estimates the GHG emissions that would occur from the use of hearths, woodstoves, and landscaping equipment. This module also estimates emissions due to use of consumer products and architectural coatings that have volatile organic content. However, the use of consumer products and architectural coatings does not emit GHGs. The use of hearths (fireplaces) and woodstoves directly emits CO_2 from the combustion of natural gas, wood, or biomass, some of which are thus classified as biogenic. CalEEMod estimates emissions from hearths and woodstoves only for residential uses based on the type and size features of the residential land use inputs. By default, commercial land uses do not have any hearths or woodstoves in CalEEMod but can be added for those cases where they may occur such as in restaurants or hotels if such information is known. The use of landscape equipment emits GHGs associated with the equipment's fuel combustion. CalEEMod estimates the number and type of equipment needed based on the number of summer days given the project's location as entered in the project characteristics module. For the existing, BAU and initial Plan GHG emissions estimates, the model defaults for hearths, woodstoves, and landscaping equipment were assumed.

However, to model the proposed Plan's buildout under two green building scenarios, the area source mitigation module was used (in separate runs) to model two options for area sources: one with no fireplaces and default landscaping equipment and another with no fireplaces and no landscaping equipment.

4.2.6 Estimating Water and Wastewater Emissions

The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both methane and nitrous oxide.

The CalEEMod water/wastewater module estimates the land uses contribution to GHG emissions associated with supplying and treating the water and wastewater. CalEEMod's default rates of indoor and outdoor water use for each residential land use subtype comes from Table ES-1 of the Pacific Institute's *Waste Not, Want Not: The Potential for Urban Water Conservation in California* 2003 report that gives water demand in gallons per dwelling unit type (as cited in CARB 2011b). Water use data for most commercial and industrial land uses were obtained from Appendices E and F of that same report. Figures in the report show the percent of water use dedicated to landscape irrigation. This percent was multiplied by the total water use to obtain outdoor water use; with the remainder assigned to indoor water use. Wastewater generation was similarly based on a reported percentage of total indoor water use. For a few land uses (place of worship, movie theater, civic center) where the Pacific Institute report did not provide sufficient data, CalEEMod uses the American Water Works Association Research Foundation's Commercial and Institutional End Uses of Water report (CARB 2011b).

CalEEMod uses default electricity intensity values for various phases of supplying and treating water from CEC's 2006 *Refining Estimates of Water-related Energy Use in California*. The model estimates water/wastewater emissions by multiplying the total projected water/wastewater demand by the applicable water electricity intensities and by the utility intensity GHG factors.

The default water module assumptions were used for the estimates of existing and BAU conditions. However, for the proposed Plan, the water mitigation module was used to account for an overall 20 percent reduction in water use. This reduction is currently required in CalGreen but is not a default option in CalEEMod.

To model the proposed Plan buildout under a green building scenario, the water mitigation module was used again to account for an overall 35 percent reduction in water use.

4.2.7 Estimating Solid Waste Emissions

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. CalEEMod determines the GHG emissions associated with disposal of solid waste into landfills. Portions of these emissions are biogenic. To estimate the GHG emissions that would be generated by disposing of the solid waste associated with a given project, the total volume of solid waste is first estimated in the model using waste disposal rates identified by CalRecycle. CalEEMod methods for quantifying GHG emissions from solid waste are based on the IPCC method using the degradable organic content of waste. Both existing and future BAU and initial Plan GHG emissions, associated with waste disposal, were calculated using CalEEMod's default parameters.

To additionally model the proposed Plan buildout under a green building scenario, the waste mitigation module was used to account for both a 25 percent and 50 percent (in two separate model runs) reduction in operational waste disposal rate.

5.0 Impact Analysis

In accordance with CEQA and City guidelines, this analysis evaluates the significance of the proposed project in terms of (1) its contribution of GHGs to cumulative statewide emissions and (2) its consistency with local and state regulations, plans, and policies aimed at reducing GHG emissions.

5.1 Cumulative GHG Emissions

5.1.1 Impacts

The first CEQA threshold identified above in Section 4.1.1 states that GHG emissions impacts would be significant if implementation of the proposed Plan would generate GHGs that may have a significant impact on the environment. To evaluate this threshold quantitatively and in accordance with the established 2020 emissions reduction target in AB 32, the Plan area's total GHG emissions would need to equal a 28.3 percent or greater reduction relative to BAU emissions.

Thus, first annual BAU emissions are identified, and then a target annual emissions cap for the Plan area is identified that amounts to 71.7 percent of the BAU emissions (for a 28.3 percent reduction in BAU emissions).

5.1.1.1 BAU and Target Emissions

Table 10 summarizes the CalEEMod-estimated GHG emissions that would occur each year with buildout of the maximum allowable land uses proposed by the Plan assuming BAU conditions. To calculate these emissions, the proposed Plan land uses shown in Table 9 were modeled based on emission source factors pertinent to approximately the 2005 regulatory environment. This means that recently adopted vehicle GHG emissions and carbon fuel reduction standards were not factored into the calculations. Recent updates to the energy- and water-efficiency standards in the building code were also not factored into the calculations. This is because CARB's BAU 2020 GHG Emissions Forecast was based on growth rates applied to the 2003-2005 statewide inventory data and did not account for GHG reductions that would come from such subsequent legislative updates.

As shown in Table 10, total annual Plan area BAU emissions would be 17,045.84 $MTCO_2E$. Of the total BAU emissions, roughly 68 percent would be associated with vehicle use, 25 percent would be associated with energy use, and the remaining 7 percent would be associated with water use, waste disposal, area sources, and building construction.

TABLE 10
VILLAGE SPECIFIC PLAN
ANNUAL ESTIMATED BAU AND TARGET GHG EMISSIONS
($MTCO_2E$)

Emission Source	BAU	Target Emissions[1]
Vehicles	11,520.11	
Energy Use	4,280.52	
Water Use	569.49	
Area Sources	335.38	
Solid Waste	289.89	
Construction[2]	50.45	
TOTAL	**17,045.84**	**12,221.87**

[1]Target emissions are emissions equal to a 28.3 percent reduction in BAU emissions. Total emissions reduction can come from any one or combination of emissions sources.
[2]Construction amortized over 30 years.

Based on the estimated BAU emissions of 17,045.84 $MTCO_2E$ each year and the goal of a 28.3 percent reduction in BAU emissions, an emissions cap for the Plan area can be determined as 12,221.87 $MTCO_2E$. Therefore, the proposed Plan would be considered to be consistent with the Scoping Plan and AB 32 Year 2020 reduction goals if its allowable land uses were to emit total annual emissions resulting from vehicles, electricity, natural gas and water use, solid waste disposal, and construction activities, equal to or less than 12,221.87 $MTCO_2E$.

5.1.1.2 Plan Emissions

Table 11 summarizes the CalEEMod-estimated GHG emissions that would occur each year with buildout of the maximum allowable land uses proposed by the Plan given current state regulations on vehicle emissions and building design. To calculate these emissions, the future land uses shown in Table 9 were modeled based on emission factors pertinent to the current/known regulatory environment. This means that recently adopted vehicle GHG emissions and carbon fuel reduction standards, and updates to the energy- and water-efficiency standards in the building code, were factored into the calculations.

The Plan area’s future GHG emission estimates were also calculated to account for two different roadway configurations of Camino del Mar. As described in the proposed Plan and in this PEIR’s Project Description, the City proposes to reconfigure Camino del Mar from a 4-lane with stop-controls or signals at key intersections to a 2-lane with roundabouts at key intersections. CalEEMod considers roundabouts to be one of several different types of traffic-calming measures that can reduce VMT and associated GHG emissions depending on the extent of their implementation. Based on information in the TIS, the lowest percentage (25 percent) was selected in the model to account for the affected study area intersections. As indicated in Table 11, the presence of roundabouts on Camino del Mar could reduce the Plan's estimated annual mobile emissions by 380.01 $MTCO_2E$, or roughly 3 percent.

TABLE 11
VILLAGE SPECIFIC PLAN
ANNUAL ESTIMATED GHG EMISSIONS
($MTCO_2E$)

Emission Source	BAU	Plan with Roundabouts	Percent Reduction	Plan without Roundabouts	Percent Reduction
Vehicles	11,520.11	7,774.14	32.52[1]	8,154.15	29.2[4]
Energy Use	4,280.52	4,113.40	3.9[2]	4,113.40	3.9[2]
Water Use	569.49	455.59	20.0[3]	455.59	20.0[3]
Area Sources	335.38	335.38	0.0	335.38	0.0
Solid Waste	289.89	289.89	0.0	289.89	0.0
Construction*	50.45	50.45	0.0	50.45	0.0
TOTAL	**17,045.84**	**13,018.85**	**23.6**	**13,398.86**	**21.4**

NOTE: Construction amortized over 30 years.
[1]Due to Pavley vehicle emissions standards, LCFS, and traffic-calming roundabouts.
[2]Due to updated energy efficiency standards (2008) in the current CBC.
[3]Due to updated water efficiency standards (2011) in the current CBC.
[4]Due to Pavley vehicle emissions standards and LCFS.

Compared to total annual BAU emissions of 17,045.84 $MTCO_2E$, CalEEMod estimates total annual Plan emissions to be 13,018.85 $MTCO_2E$ with roundabouts and 13,398.86 $MTCO_2E$ without roundabouts. Neither Plan scenario would achieve the annual target emissions level of 12,221.87 $MTCO_2E$ without further GHG reduction measures, although the Plan with roundabouts option would achieve a greater reduction (23.6 percent) relative to BAU than would the non-roundabout option (21.4 percent).

Thus, unless additional GHG reductions that go beyond currently mandated GHG reductions are implemented, projected buildout under the Plan could lead to the generation of a significant contribution of GHGs that would be in excess of target GHG reductions.

As evaluated in the following section, both existing City regulations (i.e., the Del Mar Solar Energy Ordinance) and proposed Plan implementing standards have the potential to substantially reduce GHG emissions from future land uses and traffic within the Plan area to levels below significance.

5.1.1.3 Plan Emissions with Additional GHG Reductions

Despite GHG reductions gained through current state standards on vehicle emissions and energy- and water-efficiency in building design, total Plan area emissions could exceed the annual Target emissions cap established for the Plan area in order to achieve a 28.3 percent emissions reduction in accordance with AB 32. However, the City of Del Mar includes two additional pathways to reduce GHGs from land use development projects. One is the City's Solar Energy Ordinance and another is the proposed Plan that includes new green building standards and sustainability strategies for the Plan area. These regulations and their effects on reducing GHG emissions are evaluated below.

a. Solar Energy Ordinance

The City of Del Mar has a Solar Energy Ordinance (Chapter 23.20 of the Municipal Code) that requires all new construction and major remodels to supply 60 percent of their space heating, cooling, and ventilating energy needs through on-site renewable energy sources such as photovoltaic or passive solar. (This ordinance is described in greater detail in Section 3.2.4.5.) The 60 percent mix is a stated goal of the ordinance but exceptions are allowed for hardship cases where either inadequate or inaccessible on-site energy resources exist. These are to be decided on a case-by-case basis by the City's Design Review Board. The overall intent of the ordinance is to reduce consumption of fossil-fuel energy and transition to carbon-neutral energy supply.

To capture the intent of this ordinance for future Plan area land uses, the CalEEMod energy mitigation module was used to input a 60 percent of electricity use generated by on-site renewable energy calculation. The resulting energy GHG emissions estimate, shown in Table 12, amounts to 1,992.33 $MTCO_2E$ less per year than BAU energy emissions, for an overall 46.5 percent reduction in annual BAU energy emissions. Because renewable energies are largely carbon-free (depending on source type and/or storage and delivery system) their incorporation into building design yields substantial energy GHG emissions reductions; much higher than building design that solely incorporates improvements in building envelope energy efficiency of conventional carbon-based energy (such as through Title 24 exceedances).

Table 12 also shows the resulting GHG emissions reductions that would be achieved through 50 and 40 percent of electricity being generated on-site by renewable energy as modeled in CalEEMod. As shown, even with a lesser renewable energy component (i.e., 40 percent) annual Plan area GHG emissions could be reduced to below the target emissions level.

TABLE 12
VILLAGE SPECIFIC PLAN RENEWABLE ENERGY OPTIONS
TO ACHIEVE ANNUAL TARGET GHG EMISSIONS
($MTCO_2E$)

Emission Source	BAU	Plan with Roundabouts	Percent Reduction	Plan without Roundabouts	Percent Reduction
60 Percent Renewable Energy Use:					
Vehicles	11,520.11	7,774.14	32.5	8,154.15	29.2
Energy Use	4,280.52	2,288.19	46.5	2,288.19	46.5
Water Use	569.49	455.59	20.0	455.59	20.0
Area Sources	335.38	335.38	0.0	335.38	0.0
Solid Waste	289.89	289.89	0.0	289.89	0.0
Construction	50.45	50.45	0.0	50.45	0.0
TOTAL	17,045.84	**11,193.64**	**34.3**	**11,573.65**	**32.1**
50 Percent Renewable Energy Use:					
Vehicles	11,520.11	7,774.14	32.5	8,154.15	29.2
Energy Use	4,280.52	2,592.39	39.4	2,592.39	39.4
Water Use	569.49	455.59	20.0	455.59	20.0
Area Sources	335.38	335.38	0.0	335.38	0.0
Solid Waste	289.89	289.89	0.0	289.89	0.0
Construction	50.45	50.45	0.0	50.45	0.0
TOTAL	17,045.84	**11,193.64**	**32.6**	**11,877.85**	**30.3**
40 Percent Renewable Energy Use:					
Vehicles	11,520.11	7,774.14	32.5	8,154.15	29.2
Energy Use	4,280.52	2,896.60	32.3	2,896.60	32.3
Water Use	569.49	455.59	20.0	455.59	20.0
Area Sources	335.38	335.38	0.0	335.38	0.0
Solid Waste	289.89	289.89	0.0	289.89	0.0
Construction	50.45	50.45	0.0	50.45	0.0
TOTAL	17,045.84	**11,802.05**	**30.8**	**12,182.06**	**28.5**
TARGET EMISSIONS = 12,221.87 $MTCO_2E$					

b. Proposed Plan Green Building Strategies

The proposed Plan includes the following prescriptions for future development in the Plan area that would reduce GHG emissions from long-term building occupancy:

- Ensure that all residential and non-residential construction complies with all applicable City of Del Mar energy efficiency measures that are in effect at the time of discretionary permit review and approval or building permit issuance, whichever is applicable.

- All permit applications for new construction or major remodeling projects shall be submitted for review to the Del Mar Planning and Community Development

Department and Design Review Board to determine whether the project design meets the greenhouse gas emissions reduction target of 28.3 percent reduction relative to BAU emissions established in the Village Specific Plan PEIR or other applicable GHG emission measure, whichever is applicable at the time of project submittal.

- As part of the building permit application, project construction plans and specifications shall indicate the energy and green building standards, product specifications, and method of construction, in the general notes or individual drawings.
- No building permit shall be issued for any project until the Planning and Community Development Department and Design Review Board building official determines that the plans and specifications are in compliance with the requirements of this policy.
- Additional inspections may be conducted as needed to ensure compliance and if at any stage of construction the building official determines that the project is not being constructed in accordance with the permitted plans and documents, a stop order may be issued that will remain in effect until the building official allows.
- Prior to issuance of a certificate of occupancy, the building official shall review all relevant information and determine whether the project has been built in accordance with the permit. If the building official determines that a project applicant has failed to construct the project in accordance with the permitted plans and documents, then the final building approval and certificate of occupancy may be withheld.

- [Per the Specific Plan's Development Standards chapter, VSP.400 Sustainable Development] All development in the Village Specific Plan shall incorporate Sustainable or "green" building practices. Sustainable building practices shall include, but not be limited to, those recommended by the U.S. Green Building Council's LEED Program certification or Build It Green's Green Building Guidelines and Rating Systems, or other comparable industry standards [such as the minimum Tier I standards of CalGreen], as may be adopted or recognized by the City of Del Mar.

The importance of building sustainably is also stated in the proposed Plan's Protection of Community Resources chapter. In the Village Sustainability section of this chapter, several sustainability implementing strategies are identified, including:

- Encourage all new structures to achieve Tier II CalGreen Code standards to achieve more energy and sustainable efficiencies than a building complying solely with the mandatory measures.

 RECON

- Promote the use of rainwater harvesting for non-potable uses such as irrigation or toilet flushing.
- Promote the use of renewable energy by encouraging photovoltaic (solar) panels.
- Promote “green roofs” for the reduction of building energy consumption.
- Encourage all buildings to take advantage of natural ventilation and natural daylighting.
- Encourage all building materials to be of recycled content or rapidly renewable, and locally sourced.
- Promote the use of alternative forms of mobility not dependent on fossil fuels, including the installation of electric vehicle charging stations in parking structures; the provisions of bicycle racks; and the accommodation of golf carts, scooters, and motorcycle parking.

Such sustainable/green building practices would reduce GHG emissions from future development projects allowed by the Plan, as demonstrated below.

Green Building Options to Achieve Annual Plan Area Target GHG Emissions

In addition to the use of renewable over non-renewable carbon-based energy, there are numerous other green building practices that serve to reduce GHG emissions from building occupancy. These include measures to reduce energy consumption through increased building envelope energy efficiency, energy-efficient appliances (such as energy star appliances), high-efficiency lighting systems, prohibition of wood-burning or all (including natural gas burning) fireplaces, use of electric versus gasoline-powered landscaping equipment, increased water efficient plumbing fixtures, use of reclaimed water or gray water systems for outdoor water use, smart irrigation systems, drought-tolerant landscaping, reduction of packaging/waste generated, increased reuse and recycling, and so on. These are the types of practices that would be incorporated into future projects in order to comply with the Plan’s standards and implementing strategies.

All projects would undergo review by the Community Planning and Development Director and the Design Review Board to ensure appropriate green building design is incorporated into future projects.

To illustrate the type and extent of green building practices that may be required to adequately reduce GHG emissions to target levels, Table 13 includes the estimated annual GHG emissions that would occur from two different green building scenarios for the proposed Plan's maximum allowable land uses. These estimates were calculated using CalEEMod's mitigation modules for area sources, energy, water and solid waste. Additional or alternate GHG reductions could also come from greener construction practices and vehicle commute VMT reduction practices such as the provision of transit subsidies, employee vanpools or shuttles, ride-sharing programs, or telecommuting and alternative work schedules. These and all types of green building practices would be determined and evaluated at the project-level based on-site and design/function. What Table 13 shows is the range of GHG emissions reductions that could come from a broad menu of design choices. These estimates also show that, as modeled through CalEEMod, substantial energy GHG emissions reductions, when they do not come from use of alternate/renewable energy, can only come through a rigorous combination of increased building efficiency design and installation of high-efficiency lighting and appliances. These estimates also show that area source emissions can be essentially eliminated through prohibition of wood-burning and natural gas fireplaces. Prohibiting gas-powered landscaping equipment adds only a negligible further reduction. What is also shown is that for water and waste emissions, by reducing the resource a certain amount, the equal amount of GHG emissions reduction would occur. This is less the case for energy for example, where a 30 percent Title 24 exceedance combined with a 30 percent increase in lighting efficiency leads to a 20 percent reduction in overall energy GHG emissions.

Most of these green building practices can be demonstrated through standard construction and engineering drawings, or modeling software and reporting tools (such as current California Energy Commission-approved Title 24 compliance models) that would be reviewed for compliance with not only all relevant CBC standards but with the green building rating system/standards to which the project aspires. Some of the green building GHG reduction measures, however, would, in order to take credit for them at project submittal, require the project applicant to develop a program or plan that provides detailed and substantial evidence supporting their reduction claims. For example, in order to take credit for instituting recycling and composting services, a project applicant would need to provide detailed evidence such as in a waste management plan supporting the amount of waste reduced or diverted to recycling and composting due to the institution of the services. This waste management plan would also need to identify the means for implementing the program and monitoring its progress.

TABLE 13
VILLAGE SPECIFIC PLAN GREEN BUILDING OPTIONS
TO ACHIEVE ANNUAL TARGET GHG EMISSIONS
($MTCO_2E$)

Emission Source	BAU	Plan with Roundabouts	Percent Reduction	Plan without Roundabouts	Percent Reduction
30% Title 24 Exceedance; 30% High Efficiency Lighting; Energy Star Appliances In Residential and Lodging; No Fireplaces; 35% Baseline Water Reduction; 25% Operational Waste Reduction:					
Vehicles	11,520.11	7,774.14	32.5	8,154.15	29.2
Energy Use	4,280.52	3,412.70	20.3	3,412.70	20.3
Water Use	569.49	370.17	35.0	370.17	35.0
Area Sources	335.38	1.75	99.5	1.75	99.5
Solid Waste	289.89	217.42	25.0	217.42	25.0
Construction	50.45	50.45	0.0	50.45	0.0
TOTAL	17,045.84	**11,826.63**	**30.6**	**12,206.64**	**28.3**
30% Title 24 Exceedance; Energy Star Appliances in Residential; No Fireplaces; No Gas-Powered Lawn Equipment; 35% Baseline Water Reduction; 50% Operational Waste Reduction:					
Vehicles	11,520.11	7,774.14	32.5	8,154.15	29.2
Energy Use	4,280.52	3,690.81	13.8	3,690.81	13.8
Water Use	569.49	370.17	35.0	370.17	35.0
Area Sources	335.38	1.23	99.6	1.23	99.6
Solid Waste	289.89	144.95	50.0	144.95	50.0
Construction	50.45	50.45	0.0	50.45	0.0
TOTAL	17,045.84	**12,031.75**	**29.4**	**12,411.76***	**27.2**
TARGET EMISSIONS = 12,221.87 $MTCO_2E$					

*To achieve Target emissions, additional needed reduction of 380.01 $MTCO_2E$ per year could include further increased energy and water efficiency, alternative energy/water supply, or numerous other combinations of GHG reduction measures.

5.1.2 Significance of Impacts

Impacts associated with the first CEQA GHG threshold pertaining to significant GHG emissions, defined as not achieving a GHG 28.3 percent reduction relative to BAU 2020 GHG emissions, would be less than significant given the proposed Plan's new GHG reduction and green building implementing strategies and existing City renewable energy regulations. As illustrated in Section 5.1.1.3.a, Plan area GHG emissions would be reduced by 34 percent relative to BAU emissions with future projects' incorporation of 60 percent on-site renewable energy generation. With future projects' incorporation of 50 percent on-site renewable energy generation, Plan area GHG emissions would be reduced by roughly 32 percent relative to BAU emissions. With future projects' incorporation of 40 percent on-site renewable energy generation, Plan area GHG emissions would be reduced by roughly 30 percent relative to BAU emissions. Thus, just by future projects' adherence to the Solar Energy Ordinance alone (generating 40 percent or more of their building energy needs through on-site solar), GHG emissions would be reduced to below target levels.

As illustrated in Section 5.1.1.3.b, Plan area GHG emissions would be reduced by 29 to 30 percent relative to BAU emissions with future projects' incorporation of green building design that includes exceeding the CCR Title 24 energy efficiency code by a minimum of 30 percent combined with other measures such as the installation of energy-star appliances in all residential units, high-efficiency lighting, the omission of wood- or natural-gas burning fireplaces in residential units, water efficient fixtures that exceed the plumbing code by 15 percent, and 25 to 50 percent increased operational waste diversion. Thus, by future projects' adherence to only the proposed Plan's green building recommendations, GHG emissions could be reduced to below target levels. A combination of providing on-site solar (per the Solar Energy Ordinance) and Plan-recommended green building practices, would substantially reduce BAU GHG emissions.

5.2 Consistency with Adopted GHG Plans, Policies, and Regulations

5.2.1 Impacts

The second threshold identified above in Section 4.1 states that GHG emissions impacts would be significant if implementation of the proposed Plan would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

As outlined in Section 3.2, there are numerous local, state, and national plans, policies, and regulations that have been adopted for the purpose of reducing GHG emissions. Key among the adopted plans and regulations are the AB 32/EO S-3-05 statewide GHG emissions reduction targets and the state Scoping Plan which identifies the measures needed to achieve the AB 32/EO S-3-05 targets. An important local document is the 2005 Del Mar GHG Emissions Inventory that identifies long-term GHG reduction strategies specifically for the City of Del Mar. These plans, policies, and regulations aim to reduce GHG emissions by primarily targeting the largest emitters of GHGs: the transportation and energy sectors.

5.2.1.1 Transportation GHG-reduction Strategies

For the transportation sector, the reduction strategy of the Scoping Plan and other complementary plans is generally three pronged: to reduce GHG emissions from vehicles by improving engine design; to reduce the carbon content of transportation fuels through research, funding, and incentives to fuel suppliers; and to reduce the miles vehicles travel through land use change and infrastructure investments. Land use and development projects such as the proposed Plan do not play a role in the first and second transportation strategies; these strategies are aimed at automobile manufacturers and fuel suppliers. The adopted Light-Duty Vehicle GHG Emissions Standards and the Low Carbon Fuel Standards are two such implementing regulations now in effect. Land use and development projects such as the proposed Plan do play an important role in the third transportation strategy: reducing VMT through land use change and infrastructure improvements. The types of land use changes that can measurably reduce GHG emissions associated with vehicle use include: increased density; increased diversity (mixed-use); improved walkability design; improved transit accessibility; transit improvements; integration of below market-rate housing; and constrained parking. The Plan proposes land use changes that address nearly all of these strategies.

By increasing density, especially within proximity of transit, people's travel distances are affected and greater options for the mode of travel are provided. This can result in a substantial reduction in VMT depending on the change in density compared to a typical suburban residential density (CAPCOA 2010). And by increasing the diversity of land use (i.e., through mixed-use developments), a similar reduction in VMT can occur because trips between land use types would be shorter and may be accommodated by non-auto modes of transport. The Plan allows for an approximate twofold increase in density in the Plan area and proposes new mixed-use zoning and development standards to allow for more residential and lodging uses as well as a better balance of commercial and civic uses. This increase in density and mixed-use was accounted for in the Plan's traffic study through a 10 percent reduction in suburban rates of vehicle trip generation. The total projected VMT associated with buildout of Plan land uses was thus also reduced; leading to reduced vehicle emissions compared to BAU emissions.

By increasing transit accessibility (e.g., by locating a project near transit or improving transit facilities), a shift in travel mode can be facilitated along with reduced VMT. Income has a statistically significant effect on the probability that a commuter will take transit or walk to work, as lower income families tend to have lower levels of auto ownership (CAPCOA 2010). Therefore, by integrating affordable and below market rate housing, vehicle trip generation rates and resulting VMT can be further reduced. The Plan proposes to enhance transit use in the Plan area through bus stop improvements and higher frequency bus transit (by 2020). The Plan also proposes to require affordable housing per state requirements and to incentivize additional affordable housing through its Exceptional Public Benefits program that awards increases in FAR for projects that include various benefits such as affordable housing. The Plan's traffic study accounted for a 5 percent reduction in average (i.e., suburban) rates of vehicle trip generation due to transit proximity. Thus, the total projected VMT and associated vehicle GHG emissions account for reduced vehicle emissions due to transit use.

5.2.1.2 Building Occupancy GHG-reduction Strategies

Second to the transportation sector, the energy sector is the next largest emitter of GHGs that the Scoping Plan and other plans focus on. Energy is consumed in the heating, cooling, ventilating, and lighting of all building spaces we occupy and visit, including the buildings we live and work in, shop and recreate in. Energy is also consumed in the treatment and delivery of water we consume both indoors and outdoors. For the energy sector, local, state and national reduction strategies aim to: reduce energy demand, impose emission caps on energy providers, establish minimum building energy and green building standards, transition to renewable non-fossil fuels, incentivize homeowners and builders, fully recover landfill gas for energy, and expand research and development.

Policies or incentive programs for builders to exceed the current Title 24 energy efficiency standards, to install high-efficiency lighting and energy-efficient plug-in appliances (for energy uses not subject to Title 24), and to incorporate on-site renewable energy generation can result in substantial GHG emissions reductions. The energy use associated with water consumption and wastewater treatment can also be reduced by mandating water conservation standards, applying an overall water reduction strategy (i.e., a percentage reduction indoor and outdoor water use) and/or through policies and actions related to using reclaimed and gray water, installation of low-flow plumbing fixtures, use of water-efficient landscape design including turf reduction, and use of water-efficient irrigation systems. The institution of recycling and composting services can also reduce the energy embodied in the disposal of solid waste.

The proposed Plan incorporates such actions as implementing strategies to reduce building energy consumption and associated GHG emissions. First, the Plan includes a requirement (described above in Section 4.6.4.1.c) that all development be reviewed for compliance with the adopted Del Mar Solar Energy Ordinance. This ordinance calls for the use of renewable, carbon-free energy to replace 60 percent of a project’s electricity needs. Preliminary calculations of buildout land uses given implementation of this requirement/ordinance demonstrate that substantial GHG reductions (see Table 4.6-11) would occur; sufficient to reduce annual BAU emissions to below annual Target GHG emissions levels.

Second, the Plan requires all future developments to be reviewed for compliance with the Plan area’s Target emissions cap through demonstrating a 28.3 percent reduction in annual BAU emissions. Project applicants must prepare a GHG emissions report or other documentation substantiating the anticipated GHG emissions reductions. Where a proposed project is initially determined it would not achieve a 28.3 percent reduction in BAU emissions, the Plan further requires that the project be redesigned to meet the target emissions reduction.

Third, the Plan includes new development standards and design guidelines that require all development in the Plan area to incorporate sustainable building practices. These would include green building practices as recommended by the U.S. Green Building Council in its LEED program, the Build It Green's guidelines, the CalGreen voluntary Tier I/II standards, and/or other comparable standards. Green building strategies not only address energy reduction through siting and building design, but also address innovative water, waste/materials, and chemical pollutants/indoor air quality features of the built environment. Through reducing potable water consumption, the use of non-renewable or carbon-intensive materials, and the use of materials or process that emit contaminants, GHG emissions are also reduced.

5.2.1.3 GHG Emissions Reduction Targets

In general the proposed Plan's regulatory standards and implementing strategies outlined above in Section 5.1.1.3 implement for the Plan area the intent of the statewide GHG reduction measures identified in the Scoping Plan in order to achieve the AB 32 2020 target emissions reductions. Quantification of the projected GHG emissions and reductions due to Plan implementation, relative to AB 32 and a 28.3 percent reduction in BAU emissions goal, are addressed above under Issue 1 (see Section 4.6.4.1). In that analysis, it was determined that the Plan's maximum allowable land uses and associated traffic would generate GHG emissions below threshold emissions by accounting for the GHG reductions that would occur through new development standards and implementing strategies contained in the Plan, as well as through existing Del Mar Municipal Code (DMMC) regulations requiring renewable energy use and alternate heating/cooling/ ventilating systems instead of conventional HVAC systems. By factoring in these parameters, the annual estimated GHG emissions for Plan area buildout would be up to 34 percent less than the GHG emissions estimated for BAU. More specific GHG reductions relative to BAU quantities would be refined through future project-level analyses and would be dependent on the specific energy-saving and green building design features incorporated into each individual project. Overall, it was estimated that given adherence to Plan policies and the DMMC, buildout GHG emissions would achieve a 28.3 percent or greater reduction relative to BAU emissions, and Plan implementation would thus be consistent with AB 32's 2020 GHG reduction target.

While the Scoping Plan did not specifically address the measures needed to achieve AB 32's 2050 GHG reduction target due to the difficulty in speculating that far ahead, it did identify that green building practices would play an increasingly important role in achieving the 2050 reductions. Thus, the Scoping Plan includes a Green Building Strategy with the goal of expanding the use of green building practices to reduce the carbon footprint of new and existing buildings. The proposed Plan is consistent with this strategy.

Not only would the Plan's support of green building be consistent with a longer-term GHG reduction strategy, it would be consistent with more recent policies and strategies that focus on climate adaptation. Such strategies focus on increasing climate adaptability and resilience through climate-sensitive building guidelines (e.g., through appropriate building orientation and glazing design, transition to on-site generated renewable energy sources), sea-level monitoring, and defensible building design.

5.2.1.4. 2005 Del Mar GHG Emissions Inventory

This report prepared by ICLEI in March 2011 included community-wide and government operations baseline GHG emissions inventories as part of developing a CAP for Del Mar (see Section 4.6.1.2). The goal of the CAP will be to reduce GHG emissions, curtail global warming, and establish adaptation strategies for Del Mar in response to climate change. Del Mar's CAP is anticipated to be completed by the end of 2013.

The ICLEI report included a section entitled Creating an Emissions Reduction Strategy, that outlined recommended policies and actions to help reduce emissions throughout the community. These include:

- Promote growth through redevelopment and infill that maintains or improves the quality of life for existing neighborhoods;
- Adopt local parking standards that encourage reduced single-occupancy vehicle travel;
- Adopt building codes that exceed Title 24 energy requirements, on either a mandatory or voluntary basis;
- Establish water conserving guidelines and standards for existing development, new development and City facilities; and
- Provide public educations programs on waste prevention, source reduction, recycling, yard waste, wood waste and hazardous waste.

The report states that "by implementing these types of strategies, the City should be able to reduce and reverse its impact upon global warming. In the process, it may also be able to improve the quality of its services, reduce costs, stimulate local economic development, and inspire local residents and businesses to redouble their own efforts to combat climate change" (ICLEI 2011:51).

As described earlier, the proposed Plan represents a smart growth infill plan for redevelopment that would provide resident-serving uses, a balanced mix of residential, commercial, and civic uses, improved streetscapes and pedestrian and bicycle amenities, transit enhancements and facilitation of park and walk (or shuttle) parking. The Plan would thus be consistent with the first two bullet points above.

New standards and implementing strategies in the Plan would also ensure that existing DMMC renewable energy requirements, as well as new requirements and incentives for the incorporation of green building practices, would be incorporated into future projects. Such practices could include Title 24 exceedances of both its energy efficiency standards and its plumbing/water conservation standards. The Plan would thus be consistent with the third and fourth bullet points above.

The fifth bullet point is largely already being addressed by Del Mar's Sustainability Advisory Board (see Section 4.6.1.2.d). The public education and outreach efforts of the Board would be supported by the new green building requirement in the Plan's Allowed Uses and Development Standards chapter, as well as through recommendations and guidance provided in the Design Guidelines. The Plan would thus be consistent with the last bullet point above, and represents a Plan that is consistent overall with the long-term GHG reduction strategies identified in the ICLEI report.

5.2.2 Significance of Impacts

Impacts associated with potential Plan conflict with adopted GHG reduction plans' goals and strategies, would be less than significant given Plan features that reduce average community-wide VMT by enhancing the pedestrian, bicycle and transit facilities in the Plan area, and through Plan implementing strategies that ensure optimal energy efficiency and minimization of GHG emissions in individual future projects.

6.0 Conclusions and Recommendations

The GHG reduction and green building implementing strategies provided in the proposed Plan, in combination with existing City regulations, would ensure that the GHG emissions of future projects in the Plan area would be limited to levels that are less than significant. These implementing strategies and regulations require renewable energy and other green building practices to be incorporated into all development projects in the Plan area. The Plan implementing strategies additionally require that the GHG reductions resulting from these project design features be demonstrated and verified in project-level analyses.

Plan implementation is thus not projected to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and impacts would be reduced to below a level of significance, given the energy and green building GHG reduction features of the proposed Plan.

Impacts associated with a potential conflict with adopted GHG reduction goals and strategies, would also be less than significant given Plan features that reduce average community-wide VMT by enhancing the pedestrian, bicycle and transit facilities in the Plan area, and through Plan implementing strategies that ensure optimal energy efficiency and minimization of GHG emissions in individual future projects.

No mitigation is required.

7.0 References Cited

Association of Environmental Professionals (AEP)

2010 Spring 2010 Advanced CEQA Workshop. San Diego Chapter. May 13.

Australian Government

2007 Montreal Protocol on Substances that Deplete the Ozone Layer. Department of the Environment and Water Resources (DEWR). Obtained from the DEWR website at http://www.environment.gov.au/atmosphere/ozone/legislation/montp.html on July 27, 2007.

California Air Pollution Control Officers Association (CAPCOA)

2010 Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. August.

California Air Resources Board (CARB)

2007 California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit. November 16.

2008a California 2020 GHG Emissions Forecast. Accessed June 1, 2010 from the CARB website at http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Last updated October 2008; last reviewed May 28, 2010.

2008b Climate Change Scoping Plan: A Framework for Change. Accessed from the CARB website April 15, 2010 at http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. December.

2010a *Greenhouse Gas Inventory Data – 2000 to 2008*. Obtained from the CARB website at http://www.arb.ca.gov/cc/inventory/data/data.htm (last updated May 12, 2010) on December 28.

2010b *Climate Car Standards – Pavley, Assembly Bill 1493.* Obtained from the CARB website at http://www.arb.ca.gov/cc/ccms/ccms.htm, last reviewed March 10, 2010, on April 22.

2010c *Senate Bill 375 – Regional Targets*. Obtained from the CARB website at http://www.arb.ca.gov/cc/sb375/sb375.htm on October 29.

2011a Cap and Trade Program. Accessed from the CARB website at http://arb.ca.gov/cc/capandtrade/capandtrade.htm on November 11.

2011 California Emissions Estimator model (CalEEMod). User's Guide Version 2011.1. Prepared for the South Coast Air Quality Management district by ENVIRON International Corporation. February.

California, State of

2006 *Press Release - Gov. Schwarzenegger Signs Landmark Legislation to Reduce Greenhouse Gas Emissions.* Office of the Governor. September 27. Obtained from the Governor's website at http://gov.ca.gov/index.php?/press-release/4111/ on May 24, 2007.

CalRecycle (California Department of Resources Recycling and Recovery)

2008 Statewide Waste Characterization Study. Contractors Report to the California Integrated Waste Management Board. April.

Cayan, D. R., P. D. Bromirski, K. Hayoe, M. Tyree, M. D. Dettinger, and R. E. Flick

2008 Climate Change Projections of Sea Level Extremes along the California Coast. "*Climatic Change 87*:S57–S73.

KOA Corporation

2012 City of Del Mar Village Specific Plan Traffic Impact Study. February.

Marten Law Group

2008 *California Sues EPA over Vehicle Emissions Standards.* Accessed May 19, 2008 at: http://www.martenlaw.com/news/?20080109-calif-sues-epa.

Sacramento Bee

2007 California gets a win on emissions-cut law. By Dale Kasler, December 13. Accessed May 19, 2008 at: http://www.shns.com/shns/g_index2.cfm?action=detail&pk=CAL-EMISSIONSCUT-12-13-07.

San Diego Association of Governments (SANDAG)

2009 Transportation: Roads and Highways. Accessed from the SANDAG website at http://www.sandag.org/index.asp?subclassid=10&fuseaction=home.subclasshome. November 13.

2011 2050 Regional Transportation Plan and Finale EIR. Accessed from the SANDAG website at http://www.sandag.org/index.asp?projectid=349&fuseaction=projects.detail on November 9.

Union of Concerned Scientists (UCS)

2007 SB 1368 (Perata) Greenhouse Gas Emissions Performance Standard for Major Power Plant Investments – A Fact Sheet of the Union of Concerned

Scientists. Obtained from the UCS web site at http://www.ucsusa.org/assets/documents/global_warming/SB-1368-Perata-fact-sheet.pdf on June 7, 2007.

United Nations Environment Programme (UNEP)

2007 *Achievements in Stratospheric Ozone Protection, The Montreal Protocol on Substances that Deplete the Ozone Layer, Progress Report 1987–2007.* Obtained from the UNEP website at http://ozone.unep.org/Publications/MP_Acheivements-E.pdf on May 23, 2007.

United Nations Framework Convention on Climate Change (UNFCCC)

2007a The United Nations Framework Convention on Climate Change. Obtained from the UNFCCC website at http://unfccc.int/essential_background/convention/items/2627.php on May 23, 2007.

2007b *Kyoto Protocol*. Obtained from the UNFCCC website at http://unfccc.int/kyoto_protocol/items/2830.php on May 24, 2007.

2009 *Status of Ratification*. Obtained from the UNFCCC website at http://unfccc.int/kyoto_protocol/background/status_of_ratification/items/2613.php on July 24, 2009.

U.S. Environmental Protection Agency (U.S. EPA)

2007a *International Cooperation*. Obtained from the EPA Climate Change website at http://www.epa.gov/climatechange/policy/internationalcooperation.html on May 24, 2007.

2007b *Ozone Depletion Rule and Regulations*. Obtained from the EPA Ozone Depletion website at http://www.epa.gov/ozone/title6/index.html on May 23, 2007.

2007c *U.S. Climate Policy and Actions*. Obtained from the EPA Climate Change website at http://www.epa.gov/climatechange/policy/index.html on May 25, 2007.

2010a *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008*. U.S. Greenhouse Gas Inventory Program, Office of Atmospheric Programs. 430-R-10-006. April 15.

2010b *Amendments to the Montreal Protocol*. Obtained from the EPA website at http://www.epa.gov/ozone/intpol/history.html on December 28.

University of San Diego
2008 Greenhouse Gas Inventory: An Analysis of Regional Emissions and Strategies to Achieve AB 32 Targets. Prepared by the University of San Diego School of Law, Energy Policy Initiative Center (EPIC), and available online at http://www.sandiego.edu/epic/ghginventory/. September.

ATTACHMENTS

ATTACHMENT 1

RECON

Understanding Global Climate Change

Prepared by

RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, CA 92101-2358
P 619.308.9333 F 619.308.9334

TABLE OF CONTENTS

FIGURES

TABLES

Understanding Global Climate Change

The earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of Earth's geologic history, these periods of warming and cooling have been the result of many complicated, interacting natural factors that include volcanic eruptions which spew gases and particles (dust) into the atmosphere, the amount of water, vegetation, and ice covering the earth's surface, subtle changes in the Earth's orbit, and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the Earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

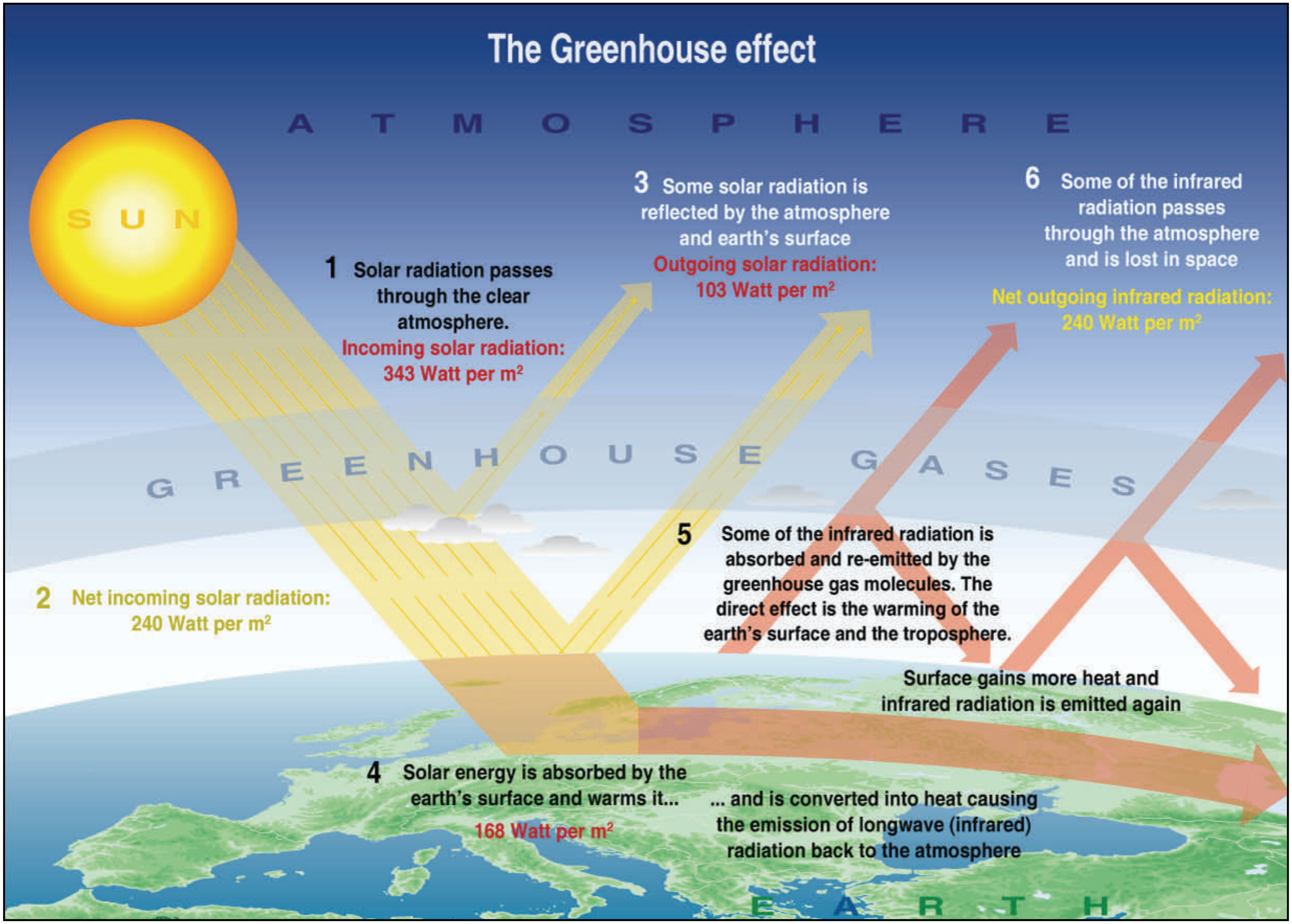
With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, and "biofuels." Industrial processes have also created emissions of substances that are not found in nature. This in turn has led to a marked increase in the emissions of gases that have been shown to influence the world's climate. These gases, termed "greenhouse gases," influence the amount of heat that is trapped in the earth's atmosphere. Because recently observed increased concentrations of GHGs in the atmosphere are related to increased emissions resulting from human activity, the current cycle of "global warming" is generally believed to be largely due to human activity. Of late, "global warming" has arguably become the most important and widely debated environmental issue in the United States and the world.

1.0 The Greenhouse Effect

The presence of natural GHGs in the atmosphere is necessary for life on earth as we know it. The Earth absorbs and reflects incoming solar radiation. The Earth also emits terrestrial (thermal) radiation back out into space. On average, the absorbed solar radiation is balanced by the emitted thermal radiation, thus keeping the Earth at a relatively stable temperature. However, GHGs in the atmosphere absorb a portion of the terrestrial thermal radiation, thus "trapping" heat. The warming of the Earth's surface and atmosphere caused by this trapped heat is known as the "natural greenhouse effect" (United States Environmental Protection Agency [U.S. EPA] 2002). Figure 1 illustrates the "Greenhouse Effect."

Because GHGs "trap" heat in the atmosphere, the Earth's surface is warmer than it would be without the gases. Estimates indicate that without these natural GHGs, the Earth's surface would be about 60 degrees Fahrenheit (°F) colder (U.S. EPA 2007a).

Source: UNEP/GRID–Adrenal 2002a



RECON

FIGURE 1
Greenhouse Effect

2.0 Greenhouse Gases (GHGs)

There are numerous GHGs, both naturally occurring and manmade. Table 1 summarizes some of the most common.

TABLE 1
GLOBAL WARMING POTENTIALS (GWPs) AND ATMOSPHERIC LIFETIMES (YEARS) USED IN THE INVENTORY

Gas	Atmospheric Lifetime	100-year GWP[a]	20-year GWP	500-year GWP
Carbon Dioxide (CO_2)	50-200	1	1	1
Methane (CH_4)[b]	12±3	21	56	6.5
Nitrous oxide (N_20)	120	310	280	170
HFC-23	264	11,700	9,100	9,800
HFC-125	32.6	2,800	4,600	920
HFC-134a	14.6	1,300	3,400	420
HFC-143a	48.3	3,800	5,000	1,400
HFC-152a	1.5	140	460	42
HFC-227ea	36.5	2,900	4,300	950
HFC-236fa	209	6,300	5,100	4,700
HFC-4310mee	17.1	1,300	3,000	400
CF_4	50,000	6,500	4,400	10,000
C_2F_6	10,000	9,200	6,200	14,000
C_4F_{10}	2,600	7,000	4,800	10,100
C_6F_{14}	3,200	7,400	5,000	10,700
SF_6	3,200	23,900	16,300	34,900

Source: U.S. EPA 2002.
[a] GWPs used here are calculated over 100 year time horizon.
[b] The methane GWP includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

Of the gases listed in Table 1, carbon dioxide, methane, and nitrous oxide are produced by both natural and anthropogenic (human) sources. The remaining gases (hydrofluorocarbons [HFCs; such as HFC-23], perfluorocarbons [PFCs; such as CF_4], and sulfur hexafluoride [SF_6]) are the result of human processes.

The potential of a gas to trap heat and warm the atmosphere is measured by its “global warming potential” or GWP. Specifically, GWP is defined as the cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas (U.S. EPA 2002).

GHGs breakdown or are absorbed over time. Thus the potential of a gas to contribute to global warming is limited by the time it is in the atmosphere, its “atmospheric lifetime.” To account for these effects, GWPs are calculated over a specific period of time, such as 20, 100, or 500 years. The parties to the United Nations (UN) Framework Convention on Climate Change (UNFCCC) agreed to use consistent GWPs based upon a 100-year time horizon

(U.S. EPA 2002). Because of its relative abundance in the atmosphere and its relatively long atmospheric lifetime, carbon dioxide (CO_2) has been designated the reference gas for comparing GWPs. Thus the 100-year GWP of CO_2 is equal to 1 (see Table 1).

The importance of these gases to climate change is expressed in terms of the amount (concentration) in the atmosphere and the gas' GWP. For comparison, emissions of all GHGs are often expressed in terms of teragrams of carbon dioxide equivalent (Tg CO_2 Eq.). The relationship between gigagrams (Gg) of a gas and Tg CO_2 Eq. is determined by the following (U.S. EPA 2002):

$$Tg\ CO_2\ Eq. = (Gg\ of\ gas)\ x\ (GWP)\ x \left(\frac{Tg}{1{,}000\,Gg}\right)$$

where:

Tg CO_2 Eq.	=	teragrams of carbon dioxide equivalents
Gg	=	gigagrams (equivalent to a thousand metric tons)
GWP	=	global warming potential
Tg	=	teragrams

In addition to those shown in Table 1, there are other GHGs typically not considered when evaluating the effects on global climate change. These are short-lived gases such as carbon monoxide, water vapor, tropospheric ozone, tropospheric aerosols (e.g. sulfur dioxide products and black carbon), and other ambient air pollutants such, as NO_X and non-methane volatile organic compounds (NMVOCs). Because they are short-lived, concentrations of these gases tend to vary spatially and it is difficult to determine their global radiative forcing impacts. Therefore, GWPs are typically not attributed to these short-lived, spatially inhomogeneous atmospheric gases (U.S. EPA 2002).

Descriptions of the main GHGs follow.

2.1 Non-Fluorinated Gases

These GHGs are created and emitted through both natural and human-associated activities.

2.1.1 Carbon Dioxide (CO_2)

Carbon dioxide is the most prevalent GHG. It is both emitted and absorbed through the "carbon cycle" whereby living organisms both utilize and expel CO_2. CO_2 is also emitted through the combustion of carbon based fuels, wildfires, and other processes. Deforestation contributes to increased atmospheric concentrations of CO_2 by removing CO_2 "sinks." In addition, certain specialized industrial production processes and product uses such as mineral production, metal production and the use of petroleum-based products can also lead to CO_2 emissions (U.S. EPA 2007b).

Processes that absorb CO_2 are known as "sinks," while processes that emit CO_2 are "sources." The primary "non-natural" source of CO_2 emissions is combustion of carbon-based fuels. The primary natural sources of CO_2 emissions are (U.S. EPA 2007b):

- Plant respiration, by which plants convert oxygen and nutrients into CO_2 and energy;
- Ocean–atmosphere exchange, in which the oceans absorb and release CO_2 at the sea surface; and
- Volcanic eruptions, which release carbon from rocks deep in the Earth's crust (this source is very small).

Humans and animals also produce CO_2 that is expelled during respiration (breathing). Natural sinks of CO_2 include:

- carbon dioxide used in plants during photosynthesis; and
- the exchange of CO_2 between the atmosphere and the oceans.

When in balance, natural sources and sinks keep CO_2 concentrations in the atmosphere relatively steady. However, since the Industrial Revolution, human activities have increased CO_2 concentrations in the atmosphere by about 35 percent relative to pre-Industrial Revolution levels, primarily related to carbon-based fuel combustion (U.S. EPA 2007b).

In addition to methods for directly reducing CO_2 emissions to the atmosphere (e.g., burning less fuel), a number of programs are being developed that are designed to remove CO_2 from the atmosphere. These human-influenced or -created carbon sinks include (U.S. EPA 2007b):

- *Geologic sequestration.* Rather than releasing CO_2 emissions to the atmosphere, CO_2 emissions from industrial or energy-related sources are separated and captured, transported to a storage location, and then injected deep underground for long-term isolation (storage) from the atmosphere.
- *Carbon sequestration.* In this process agricultural and forestry practices are used to remove CO_2 from the atmosphere. Plants on agricultural and forestry lands act as sinks that absorb CO_2 through natural photosynthesis. However, agricultural and forestry practices can also release CO_2 and other GHGs to the atmosphere. Sequestration activities can help prevent global climate change by enhancing carbon storage in trees and soils, preserving existing tree and soil carbon, and by reducing emissions of CO_2,

methane (CH_4) and nitrous oxide (N_2O). This sequestration generally only lasts as long as the plants are alive, after which their carbon may be released during decay.

2.1.2 Methane (CH_4)

Human-related sources of methane include fossil fuel production, animal husbandry (enteric [intestinal] fermentation in livestock and manure management) and other agricultural activities, rice cultivation, biomass burning, waste management (landfills), natural gas and petroleum systems, coal mining, stationary and mobile combustion, wastewater treatment, and certain industrial processes. It is estimated that 60 present of global methane emissions to the atmosphere are related to these human-related activities. Natural sources of methane include wetlands (biomass decomposition), gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires (U.S. EPA 2007c).

2.1.3 Nitrous Oxide (N_2O)

The primary human-related sources of N_2O are agricultural soil management (e.g., fertilizers), animal manure management, sewage treatment, mobile and stationary fuel combustion, adipic acid production (primarily used for the production of nylon), and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests (U.S. EPA 2007d).

2.2 Fluorinated Gases

The remaining gases listed in Table 1 are fluorinated gases that are solely created and emitted through human activities. These gases, also known as “High GWP Gases,” are considered the most potent because they have both high GWPs and extremely long atmospheric lifetimes. The result of these long atmospheric lifetimes is the essentially irreversible accumulation of these gases in the atmosphere once they are emitted (U.S. EPA 2007e). However, current concentrations of these gases in the atmosphere are relatively low.

2.2.1 Hydrofluorocarbons (HFCs)

HFCs are man-made chemicals primarily developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. As seen in Table 1, the global warming potentials of HFCs range from 140 (HFC-152a) to 11,700 (HFC-23), while the atmospheric lifetime for HFCs varies from just over a year (HFC-152a) to over 260 years (HFC-23). Most of the commercially used HFCs have atmospheric lifetimes less than 15 years. For example, the atmospheric lifetime of HFC-134a, which is used in automobile air conditioning and refrigeration, is 14 years (U.S. EPA 2007e).

The only significant emissions of HFCs before 1990 were of the chemical HFC-23. Between 1978 and 1995, HFC-23 concentrations increased from 3 to 10 parts per trillion (ppt) and continue to rise. Since 1990, when it was almost undetectable, global average concentrations of HFC-134a have risen significantly to almost 10 ppt (parts per trillion). The abundance of certain HFCs is expected to continue to rise in line with their increasing use, particularly as refrigerants around the world (U.S. EPA 2007e).

2.2.2 Perfluorocarbons (PFCs)

The largest known man-made sources of PFCs are primary aluminum production and semiconductor manufacturing. PFCs are also minor substitutes for ozone depleting substances. PFCs are particularly troublesome as GHGs because, in addition to their high GWPs, they also have extremely stable molecular structures and are largely immune to the chemical processes in the lower atmosphere that break down most atmospheric pollutants. It is not until they reach the upper atmosphere (approximately 37 miles above the earth) that they are broken down by high-energy ultraviolet rays from the sun. Thus they have extremely long atmospheric lifetimes (up to tens of thousands of years). Recent relative rates of increase in atmospheric concentrations for two of the most important PFCs are 1.3 percent per year for CF_4 and 3.2 percent per year for C_2F_6 (U.S. EPA 2007e).

2.2.3 Sulfur Hexafluoride (SF_6)

Sulfur hexafluoride is considered the most potent GHG because it has a 100-year GWP of 23,900 coupled with an atmospheric lifetime of 3,200 years. Because of its excellent dielectric properties, SF_6 is used for insulation and current interruption in electric power transmission and distribution equipment. It is also used in the magnesium industry to protect molten magnesium from oxidation and potentially violent burning, in semiconductor manufacturing to create circuitry patterns on silicon wafers, and as a tracer gas for leak detection. Measurements of SF_6 show that its global average concentration has increased by about 7 percent per year during the 1980s and 1990s, from less than 1 ppt in 1980 to almost 4 ppt in the late 1990s (U.S. EPA 2007e).

3.0 Human Induced Climate Change

In 1988, in response to growing concern about the problem of potential global climate change, the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) established the Intergovernmental Panel on Climate Change (IPCC). The IPCC is open to all members of the UN and WMO.

The role of the IPCC is (IPCC 2007a):

> to assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation. The IPCC does not carry out research nor does it monitor climate related data or other relevant parameters. It bases its assessment mainly on peer reviewed and published scientific/technical literature.

The IPCC recently published its findings that it is highly likely that observed increases in the globally averaged temperature since the mid-20th century are due to human-caused increases in measured GHG concentrations (IPCC 2007b).

As indicated, GHGs are necessary to life as we know it, because they keep the planet's surface warmer than it otherwise would be. For example, Figure 2 shows how the average earth temperature has varied with CO_2 concentrations in the atmosphere over the last 400,000 years. As also evident by the data shown in this figure, there is a strong correlation between CO_2 concentrations in the atmosphere and the average global temperature.

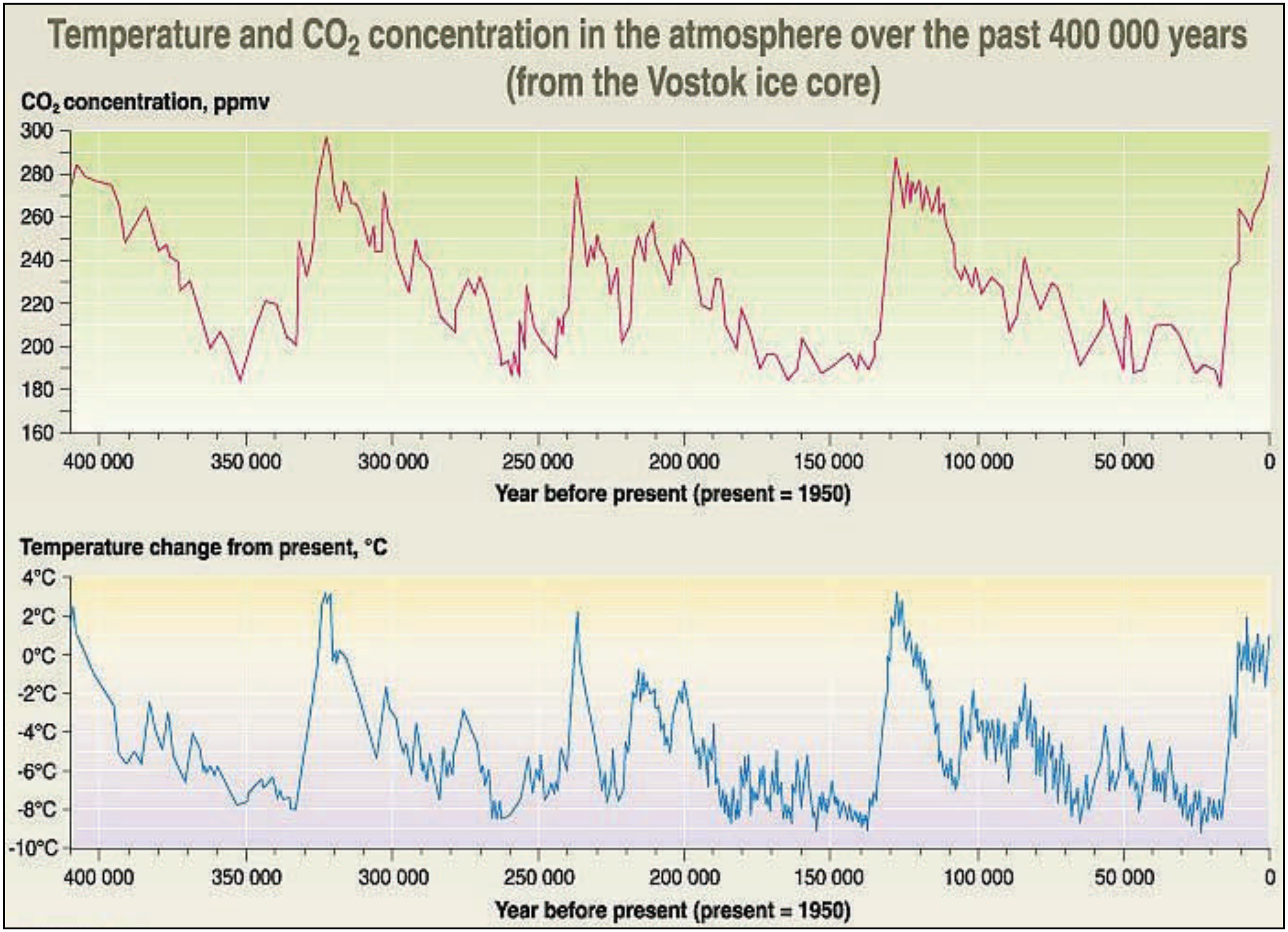
However, concentrations of GHGs are continuing to increase in the atmosphere and it has been observed that the Earth's temperature is climbing above typical past levels. According to National Oceanic and Atmospheric Administration (NOAA) and National Aeronautics and Space Administration (NASA) data, the following observations have been made (U.S. EPA 2007f; NASA 2007):

- Since 1900, the average surface temperature has warmed by about 1.2–1.4 ºF.
- Since the mid 1970s, the average surface temperature has warmed about 1 ºF.
- The Earth's surface is currently warming at a rate of about 0.32 ºF/decade or 3.2 ºF/century.
- The five warmest years over the last century have likely been (in order from hottest to coolest): 2005, 1998, 2002, 2003, 2006. The top 10 warmest years have all occurred since 1990.

In addition to temperature increase, other aspects of the global climate are also changing such as rainfall patterns, snow and ice cover, and average sea levels.

In an attempt to evaluate and predict the relationship between GHG emissions and global temperature changes, atmospheric models have been created to simulate the atmospheric temperature changes that occur from both natural and human created emissions of GHGs. Figure 3 shows the results of some such simulations.

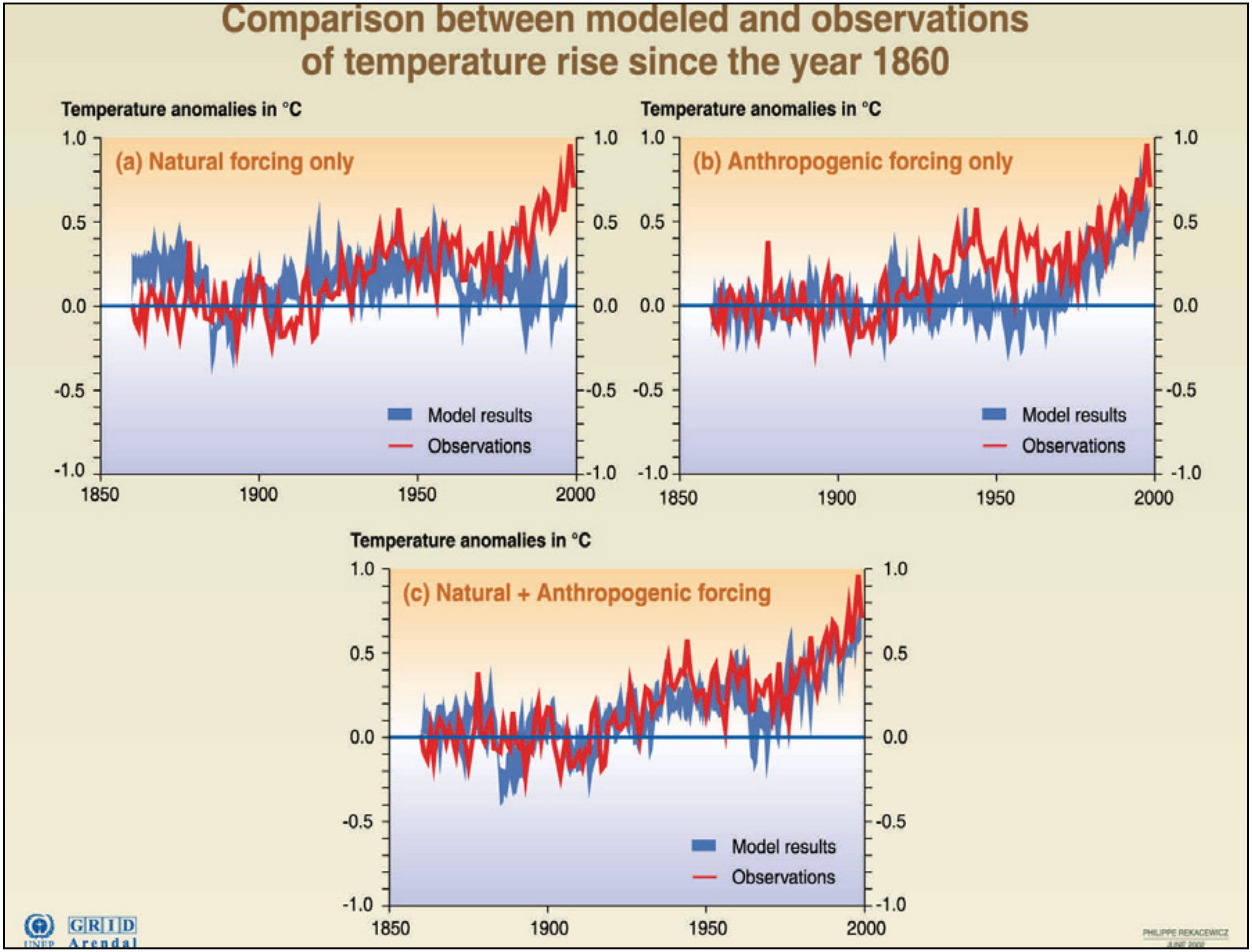
Source: UNEP/GRID–Adrenal 2000



RECON

FIGURE 2
Temperature and CO2 Concentration

Source: UNEP/GRID–Adrenal 2002b



RECON

FIGURE 3
Comparison between Modeled and Observed Temperature

In Figure 3, simulation (a) only includes natural forcings: solar radiation and volcanic activity. As seen, when only natural forcings are included, modeled temperatures do not correlate well with observations, particularly since 1950. Simulation (b) only includes human-caused forcings: GHGs and sulfate aerosols. In this simulation the recent observed rise in temperature matches the modeled temperature fairly well, but modeled temperatures do not match observations around 1950.

Simulation (c) includes both natural and human-caused forcings. As seen, the best match occurs when both natural and human forcings are included.

The relationships between GHG emissions and global climate change are very complex. Therefore, much controversy and debate continues regarding the extent to which human caused GHG emissions are influencing global climate change. Nevertheless, as a result of observations and modeling simulations such as those indicated above, the IPCC has concluded that it is highly likely that most of the warming observed in recent decades is the result of human activities (IPCC 2007b).

4.0 Future Projections of Climate Change

In order to project anticipated future climate changes resulting from human-caused emissions of GHGs, the IPCC developed a series of GHG emission scenarios for use in driving global circulation models for developing climate change scenarios. The emission scenarios were originally released by the IPCC in 1992 and are referred to as the "IS92" scenarios. Subsequent re-evaluation of the scenarios in response to new understanding of possible future GHG emissions and their relationship to climate change led to the development and release of new emission scenarios in 2000. The emission scenarios are based on a number of very complex factors and include not only emission baselines, but also (IPCC 2000):

- Include the latest information on economic restructuring throughout the world;
- Examine different rates and trends in technological change; and
- Expand the range of different economic-development pathways, including narrowing of the income gap between developed and developing countries.

Thus the emissions scenarios cover a wide range of the main driving forces of future emissions, including demographic, technological, and economical factors. As required by IPCC assumptions, none of the scenarios include future policies aimed specifically at climate change. It is intended that the emissions scenarios developed encompass the range of possible emissions of all relevant GHGs, sulfur, and their driving forces (IPCC 2000). The development of the emission scenarios is documented in the IPCC Special Report on Emissions Scenarios (SRES; IPCC 2000). Emissions were developed using four qualitative "storylines" that yielded four sets of scenarios called "families": A1, A2, B1, and B2. The process resulted in a total of 40 SRES emission scenarios. The 40 emission scenarios were grouped into six scenario groups. All emission scenarios are considered equally valid with no assigned probability of occurrence (IPCC 2000). Figure 4 presents a schematic and narrative of the main characteristics of the SRES emission scenarios.

The emission scenario groups are used to estimate the future CO_2 and other GHG concentrations in the atmosphere. Figure 5 shows the past and projected CO_2 concentrations from the years 1000 to 2100. As seen in this figure, all scenarios project a marked increase in CO_2 concentrations by 2100 relative to past conditions. Figure 6 shows the projected variations in the earth's temperature, relative to the 1990 temperature, that correspond to the emission scenario groups. The results shown in this figure indicate that under best-case emissions, the earth's average temperature is projected to increase by approximately another 2.5 °F by the year 2100. Under worst-case emissions, the earth's average temperature is projected to increase by as much as 10 °F.

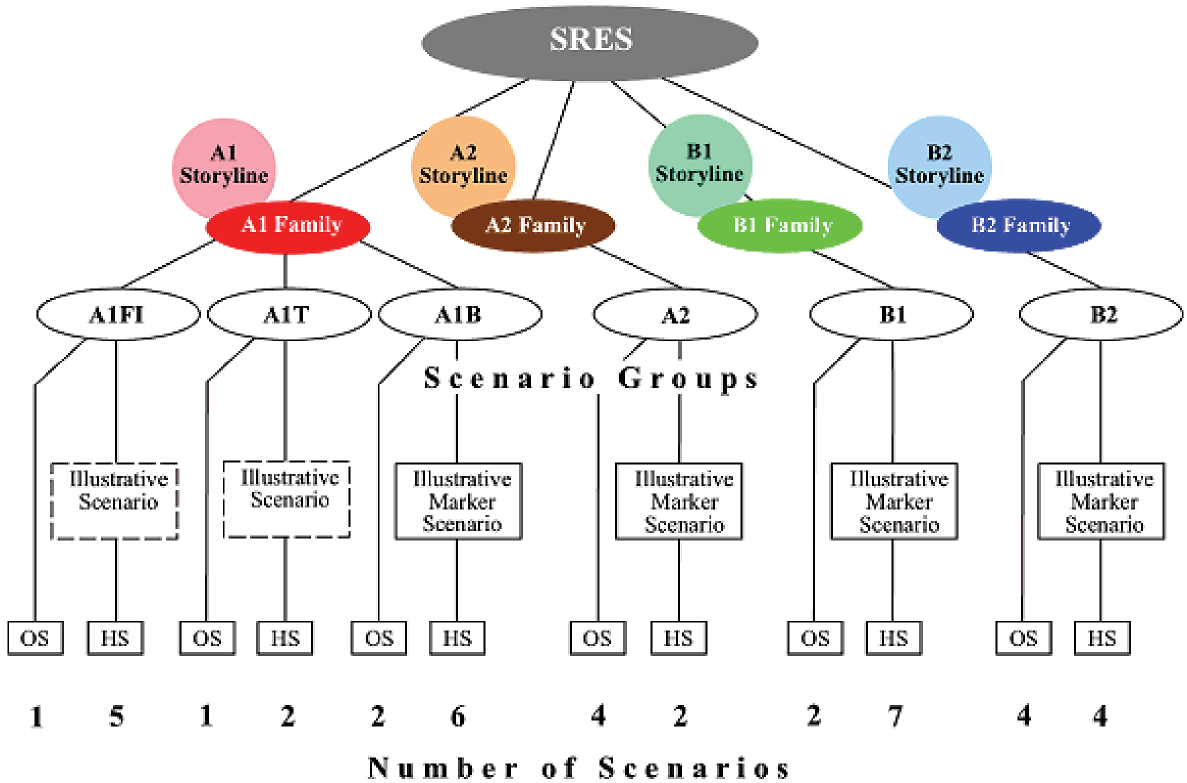
5.0 Implications of Climate Change

The increase in the earth's temperature is expected to have wide ranging effects on the environment. Although global climate change is anticipated to affect all areas of the globe, there are numerous implications of direct importance to California. Statewide average temperatures are anticipated to increase by between 3 and 10.5 °F by 2100. Some climate models indicate that this warming may be greater in the summer than in the winter. This could result in widespread adverse impacts to ecosystem health, agricultural production, water use and supply, and energy demand. A report prepared by the California Climate Change Center focuses on these potential impacts, which are summarized below (State of California 2006a).

- **Precipitation and Water Resources.** Projections indicate that total annual precipitation and rainfall statewide patterns are anticipated to change little over the next century. The predominantly Mediterranean precipitation pattern of most precipitation occurring in the winter months is expected to continue. It is also possible that the intensity and frequency of extreme storm events could increase, thus affecting the balance between water storage and the need for flood control.

  Although most of the precipitation falls during the winter months, water demand is greatest during the summer months. Much of California is reliant on the winter Sierra Nevada snowpack. If temperatures continue to rise as expected, more precipitation will fall as rain instead of snow. Further, that snow which does fall will melt earlier reducing the spring snowpack by as much as 70 to 90 percent. This has potentially major implications for water supply, agriculture, and hydropower generation. This also would adversely impact the economies of communities reliant on winter recreational activities.

Source: IPCC 2000



Schematic illustration of SRES scenarios. Four qualitative storylines yield four sets of scenarios called "families": A1, A2, B1, and B2. Altogether 40 SRES scenarios have been developed by six modeling teams. All are equally valid with no assigned probabilities of occurrence. The set of scenarios consists of six scenario groups drawn from the four families: one group each in A2, B1, B2, and three groups within the A1 family, characterizing alternative developments of energy technologies: A1FI (fossil fuel intensive), A1B (balanced), and A1T (predominantly non-fossil fuel). Within each family and group of scenarios, some share "harmonized" assumptions on global population, gross world product, and final energy. These are marked as "HS" for harmonized scenarios. "OS" denotes scenarios that explore uncertainties in driving forces beyond those of the harmonized scenarios. The number of scenarios developed within each category is shown. For each of the six scenario groups an illustrative scenario (which is always harmonized) is provided. Four illustrative marker scenarios, one for each scenario family, were used in draft form in the 1998 SRES open process and are included in revised form in this report. Two additional illustrative scenarios for the groups A1FI and A1T are also provided and complete a set of six that illustrate all scenario groups. All are equally sound.

By 2100 the world will have changed in ways that are difficult to imagine - as difficult as it would have been at the end of the 19th century to imagine the changes of the 100 years since. Each storyline assumes a distinctly different direction for future developments, such that the four storylines differ in increasingly irreversible ways. Together they describe divergent futures that encompass a significant portion of the underlying uncertainties in the main driving forces. They cover a wide range of key "future" characteristics such as demographic change, economic development, and technological change. For this reason, their plausibility or feasibility should not be considered solely on the basis of an extrapolation of current economic, technological, and social trends.

The A1 storyline and scenario family describes a future world of very rapid economic growth, global population that peaks in mid-century and declines thereafter, and the rapid introduction of new and more efficient technologies. Major underlying themes are convergence among regions, capacity building, and increased cultural and social interactions, with a substantial reduction in regional differences in per capita income. The A1 scenario family develops into three groups that describe alternative directions of technological change in the energy system. The three A1 groups are distinguished by their technological emphasis: fossil intensive (A1FI), non-fossil energy sources (A1T), or a balance across all sources (A1B)[3].

The A2 storyline and scenario family describes a very heterogeneous world. The underlying theme is self-reliance and preservation of local identities. Fertility patterns across regions converge very slowly, which results in continuously increasing global population. Economic development is primarily regionally oriented and per capita economic growth and technological change are more fragmented and slower than in other storylines.

The B1 storyline and scenario family describes a convergent world with the same global population that peaks in mid-century and declines thereafter, as in the A1 storyline, but with rapid changes in economic structures toward a service and information economy, with reductions in material intensity, and the introduction of clean and resource-efficient technologies. The emphasis is on global solutions to economic, social, and environmental sustainability, including improved equity, but without additional climate initiatives.

The B2 storyline and scenario family describes a world in which the emphasis is on local solutions to economic, social, and environmental sustainability. It is a world with continuously increasing global population at a rate lower than A2, intermediate levels of economic development, and less rapid and more diverse technological change than in the B1 and A1 storylines. While the scenario is also oriented toward environmental protection and social equity, it focuses on local and regional levels.

Source: UNEP/GRID–Adrenal 2005a

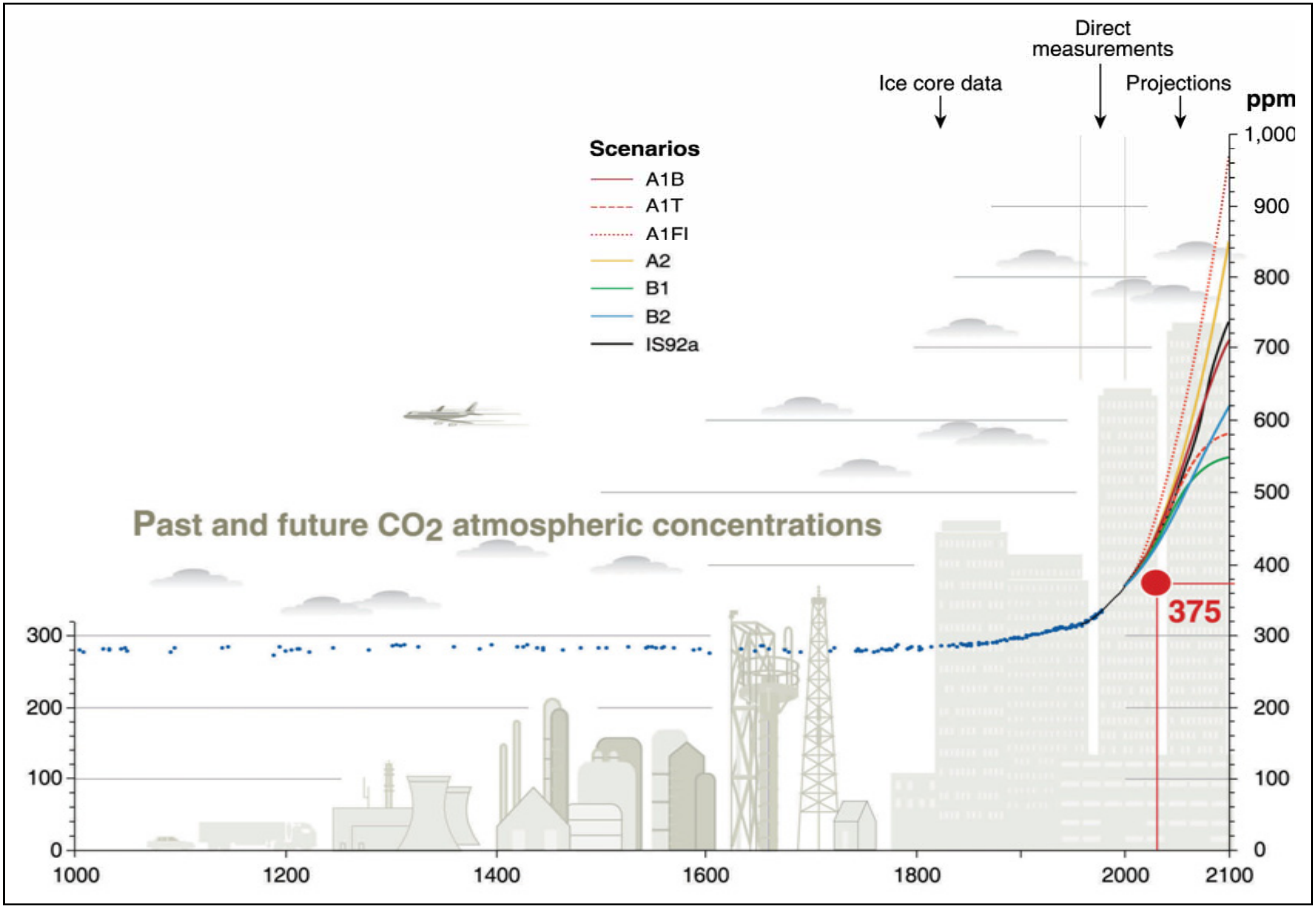
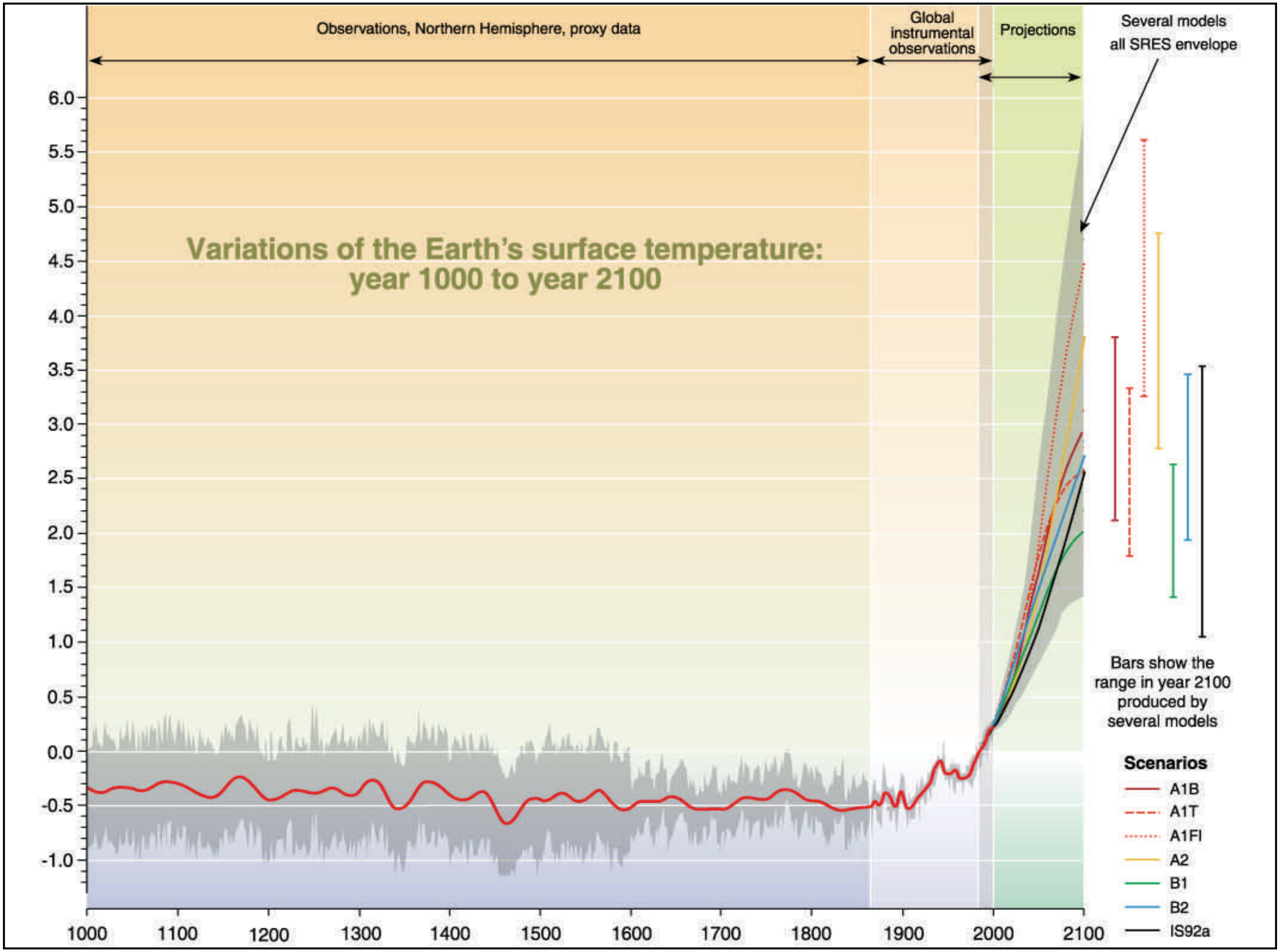


FIGURE 5
CO_2 Scenarios

Source: UNEP/GRID–Adrenal 2005b



RECON

FIGURE 6
Surface Temperature Scenarios

Water supplies could also be adversely affected by saltwater intrusion associated with anticipated sea level rises (see below).

- **Public Health.** Although the change in statewide average temperature may not appear to be large, the incidence of extreme temperature events, particularly high temperatures, is anticipated to increase. It is these extreme conditions that pose the greatest health risk. Higher temperatures are expected to increase the frequency, duration, and severity of conditions conducive to the formation of air pollutants, particularly ozone. Furthermore, increased temperatures will be favorable for conditions that lead to increases in wildfires, which emit large quantities of particulate matter.

  By 2100, models indicate that under the worst-case emission trends there could be up to 100 more days with temperatures over 90 °F in Los Angeles and over 95 °F in Sacramento. Such temperature extremes, particularly in densely populated urban centers, could cause a marked increase in heat-related death, particularly due to dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory diseases. Increased demand for air conditioning would put additional stresses on the state's energy supplies. Increased temperatures could also lead to increases in disease vectors such as mosquitoes.

- **Agriculture.** California agriculture is the largest and most diverse industry in the nation producing more than half of the country's fruits and vegetables. The anticipated climate changes will have widespread affects on the quantity and quality of agricultural products produced in the state. Many fruit and nut trees are particularly sensitive to changes in temperature. High temperatures can stress dairy cows reducing milk production. Rising temperatures will affect the State's ecosystems and will likely shift or increase the range of noxious and invasive weeds. Further, increased temperatures would be beneficial to certain pests and pathogens that otherwise do not survive the winter months, thus leading to an increase in areas subject to infestation as well as increasing the frequency and severity of damaging outbreaks.

- **Forests and Landscapes.** Global climate change is expected to increase the frequency and severity of wildfires, and to alter the distribution and character of natural vegetation. Alpine and sub-alpine ecosystems are the most threatened in the state and are expected to decline by as much as 60 to 80 percent by the end of the century as temperatures continue to increase. Conifer forests may decline by as much as 18 percent by the end of the century, with corresponding economic impacts resulting from decreased forest production and recreation. Overall, much of California's native ecosystems may transition to plants and animals more suited to warmer conditions.

- **Sea Level Rise.** California has more than 1,100 miles of coastline along the Pacific Ocean. These coastlines are also home to unique ecosystems that are considered some of the world's most threatened. These regions will be increasingly threatened by rising sea levels, more intense coastal storms, and warmer water temperatures. Sea levels have risen about seven inches in the last century. Projections indicate that with increased global temperatures sea levels could rise between 22 and 35 inches by the end of the century. Sea level increases of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and vital habitats.

Increased sea levels combined with storm surges from severe storms could cause widespread damage along the coast, including levee breaches in low-lying areas such as the San Francisco Bay Delta. Rising sea levels will also reduce beach areas. Increased storms could also accelerate beach erosion leading to significant monetary expenditures on beach replenishment projects in an attempt to maintain the beaches.

It is also important to note that even if GHG emissions were to be eliminated or dramatically reduced, it is projected that the effect of those emissions would continue to affect global climate for centuries. Figure 7 schematically illustrates this persistence effect.

All of the effects outlined above could dramatically impact the economy of the State through increased costs associated with water management strategies, public health costs, agricultural losses or increased pest management costs, and damage resulting from severe storms, wildfires, and sea level rises. Such effects are not limited to the state and similar or related effects are anticipated for other parts of the country and around the earth. These effects are anticipated to impact both national and worldwide population distributions and economies as populations attempt to shift from areas that become uninhabitable or infertile, or in response to disease outbreaks and shortages. Overall, continued global climate change will likely affect every person on the planet in some way.

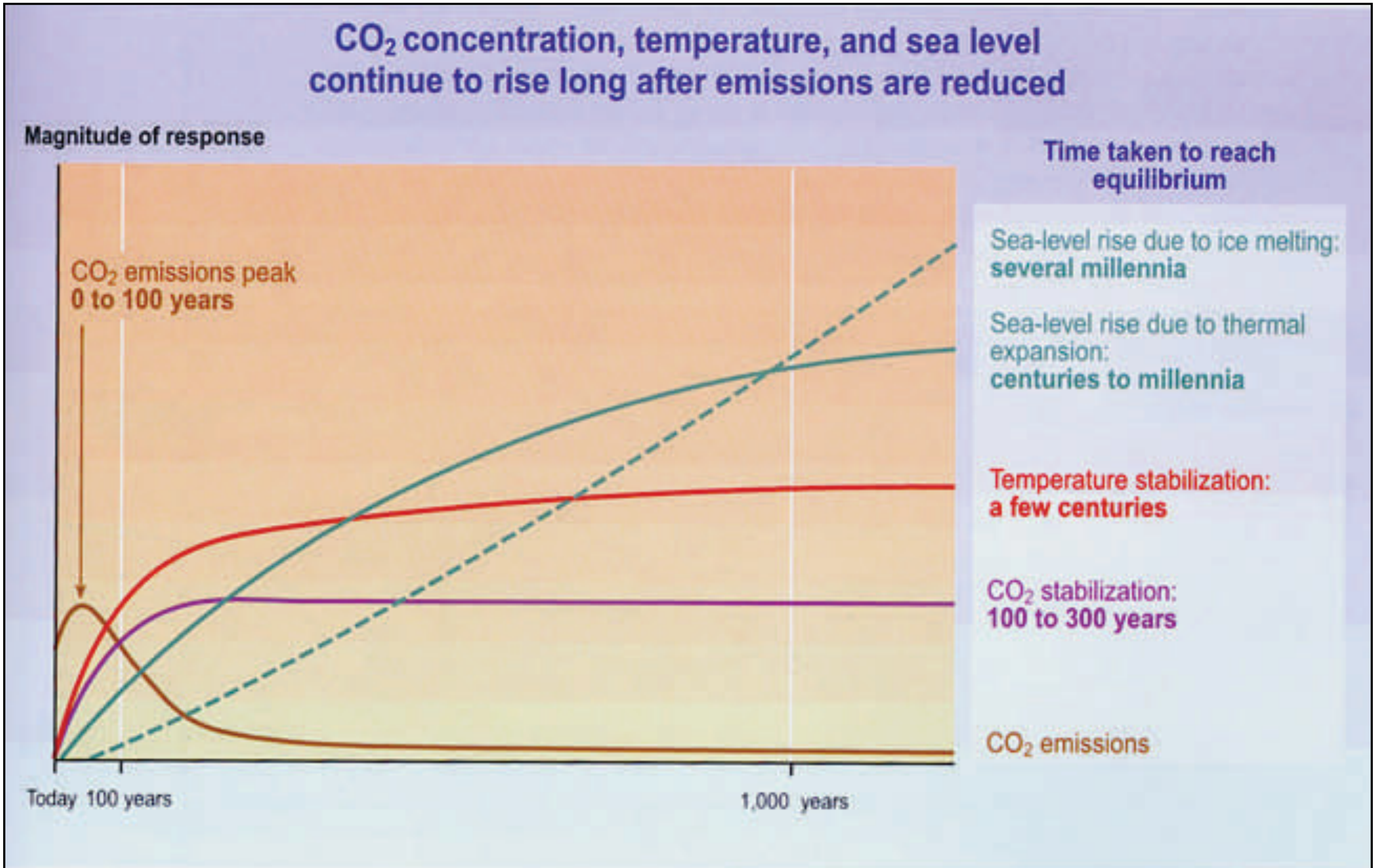
6.0 Global, National, and State GHG Emissions

Estimates of global emissions of GHGs are provided by the UNFCCC for nations that are and are not included in Annex I to the Convention (Annex I and Non-Annex I Parties; see discussion in Section 3.1 below). Given the complexity of estimating global emissions, emission estimates are not available for all countries for all years. Table 2 shows the total equivalent CO_2 emissions for all parties included in Annex I to the Convention (Annex I Parties, made up of 41 nations) for the years 1990, 1995, and 2000 through 2004 (UNFCCC 2006).

TABLE 2
TOTAL AGGREGATE ANTHROPOGENIC EMISSIONS OF CO_2, CH_4, N_2O, HFCs, PFCs, AND SF_6 INCLUDING EMISSIONS/REMOVALS FROM LAND USE, LAND-USE CHANGE, AND REFORESTRY (Tg CO_2 Equivalent)

1990	1995	2000	2001	2002	2003	2004
16,516	15,500	15,709	15,538	15,267	15,291	16,077

Source: IPCC 2001



After CO_2 emissions are reduced and atmospheric concentrations stabilize, surface air temperature continues to rise by a few tenths of a degree per century for a century or more. Thermal expansion of the ocean continues long after CO_2 emissions have been reduced, and melting of ice sheets continues to contribute to sea-level rise for many centuries. This figure is a generic illustration for stabilization at any level between 450 and 1,000 ppm, and therefore has no units on the response axis. Responses to stabilization trajectories in this range show broadly similar time courses, but the impacts become progressively larger at higher concentrations of CO_2.

RECON

FIGURE 7
Persistence Effect

Land-use change and forestry often act as sinks, thus reducing a nation's total GHG emissions. Because nations that are not included in Annex I to the Convention (Non-Annex I Parties comprised of 122 nations) are largely developing countries, emissions data for these countries are more sporadic and incomplete. The most recent emissions data from non-Annex I Parties indicate that total emissions from these nations were approximately 11,931 Tg CO_2 equivalent, including land use-change and forestry (UNFCCC 2005). As such, using the most recent data available for Annex I and Non-Annex I Parties, 2004 global emissions of GHGs were approximately 28,008 Tg CO_2 equivalent, including land-use change and forestry.

Each year, the U.S. EPA prepares an inventory of GHG emissions and sinks report. The report provides information on GHG emissions and sink sources and is used to develop policies and track progress. Inventories are submitted to the UN. The most recent final report, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2007*, was completed in April 2009 (U.S. EPA 2009). The 2010 update is currently undergoing public review. The U.S. EPA also provides guidance for states to develop GHG inventories. The *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004* completed in December 2006, including subsequent revisions to the in-state electricity production estimates, is the most recent report for California (State of California 2006b, 2007). Tables 3 and 4 summarize the national GHG emissions in 1990, 1995, 2000, and 2005 through 2007, and State GHG emissions from 1990 through 2004, respectively.

TABLE 3
NET NATIONAL GHG EMISSIONS
(Tg CO_2 Equivalent)

Year	CO_2	CH_4	N_2O	HFCs, PFCs, and SF_6[1]	Total[2]	National Population[3]	Total (Mg CO_2 Eq) per Capita
1990	4,235.3	616.6	315.0	90.5	5,257.3	249,464,396	21.1
1995	4,556.9	615.8	334.1	105.5	5,612.3	262,803,276	21.4
2000	5,237.7	591.1	329.2	132.8	6,290.7	282,194,308	22.3
2005	4,968.1	561.7	315.9	140.2	5,985.9	295,895,897	20.2
2006	4,964.4	582.0	312.1	142.1	6,000.6	298,754,819	20.1
2007	5,040.8	585.3	311.9	149.5	6,087.5	301,621,157	20.2

SOURCE: U.S. EPA 2009
[1]Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride
[2]Totals may vary from the sum of the sources due to independent rounding
[3]U.S. Census Bureau 2009
Tg = terragrams = one million metric tons; Mg = megagrams = one metric ton

TABLE 4
NET CALIFORNIA GHG EMISSIONS
(Tg CO_2 Equivalent)

Year	CO_2	CH_4	N_2O	HFCs, PFCs, and SF_6[1]	Total[2]	California Population[3]	Total (Mg CO_2 Eq) per Capita
1990	301.6	26.0	32.7	7.1	367.4	29,950,111	12.3
1991	293.4	24.9	30.4	7.4	356.1	30,414,114	11.7
1992	299.9	23.8	30.5	7.9	362.2	30,875,920	11.7
1993	295.3	25.4	31.5	8.4	360.5	31,147,208	11.6
1994	313.9	25.4	30.0	8.9	378.2	31,317,179	12.1
1995	297.7	26.2	31.9	9.3	365.1	31,493,525	11.6
1996	302.3	25.5	30.8	11.4	370.0	31,780,829	11.6
1997	312.3	24.2	28.8	12.6	378.0	32,217,708	11.7
1998	330.3	25.3	29.2	8.9	393.7	32,682,794	12.0
1999	333.3	26.3	29.4	9.9	398.9	33,145,121	12.0
2000	352.6	26.4	31.4	10.5	420.9	34,004,051	12.4
2001	357.8	26.7	30.8	11.2	426.5	34,525,902	12.4
2002	351.0	27.1	34.5	12.0	424.6	34,963,856	12.1
2003	328.4	27.5	33.9	12.9	402.7	35,376,833	11.4
2004	342.9	27.9	33.3	14.2	418.3	35,721,991	11.7

SOURCE: State of California 2007
[1]Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride
[2]Totals may vary from the sum of the sources due to independent rounding
[3]US Census Bureau 2009
Tg = terragrams = one million metric tons; Mg = megagrams = one metric ton

Net GHG emissions are gross emissions minus GHG sinks. As seen in Tables 3 and 4, in 2000, California emitted approximately 421 million metric tons of GHGs compared to approximately 6,291 million metric tons of GHG emissions for the nation as a whole, or about 6.7 percent of the nation's emissions. Tables 3 and 4 also illustrate that although California emits a substantial portion of the nation's GHGs, California's per capita emissions are roughly half the national average. In fact, as illustrated in Figure 8, California has the fourth lowest emission per capita of CO_2 in the nation. According to the data presented in Tables 3 and 4, per capita emissions over the 15-year period illustrated have remained relatively flat. This would imply that the increase in total GHG emissions over time is primarily a result of the increasing population of the state and country, and not due to increased per capita emissions.

Figure 8 compares total GHG emissions from California and the United States to other major emitting countries in the world.

As seen in Figure 9, in 2002 the United States was the largest emitter of GHGs in the world, with China ranking second and California ranking as the 16th largest emitter of GHGs globally. Recent data indicate that China may have surpassed the United States as the greatest emitter of GHGs globally (Environmental News Network 2007), although on a per

Source: State of California 2006b

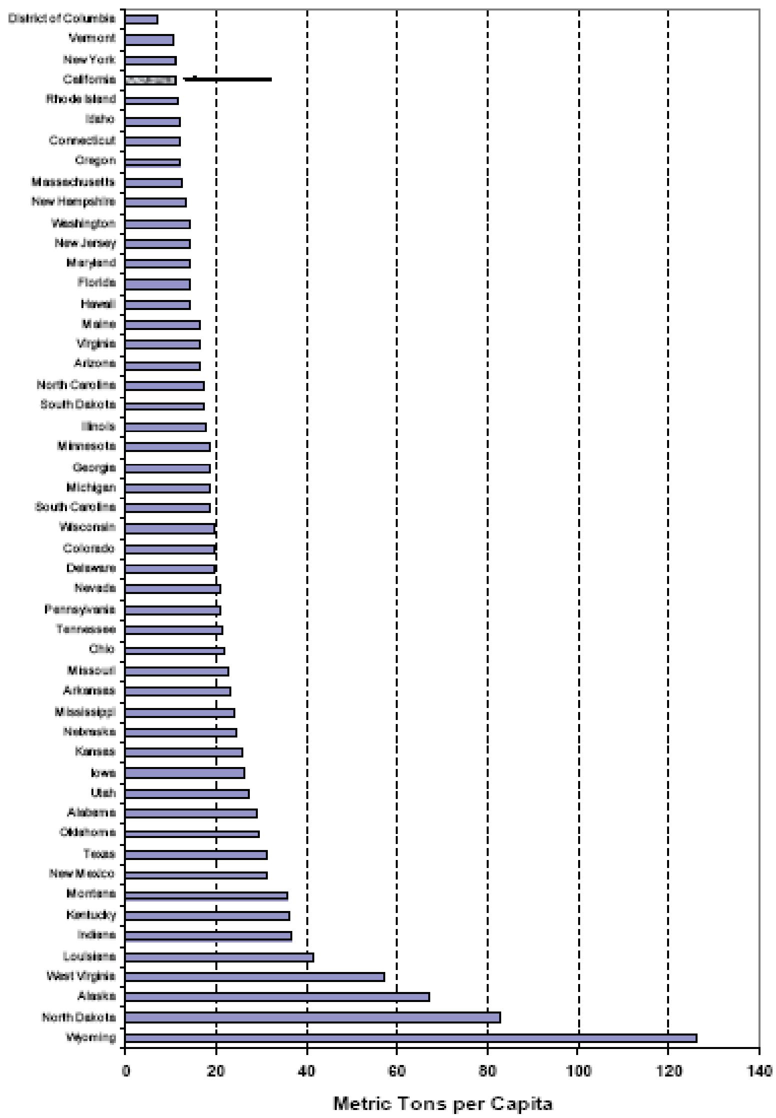


FIGURE 8

CO_2 Emissions from Fossil Fuels per Capita (2001)

Source: State of California 2006b

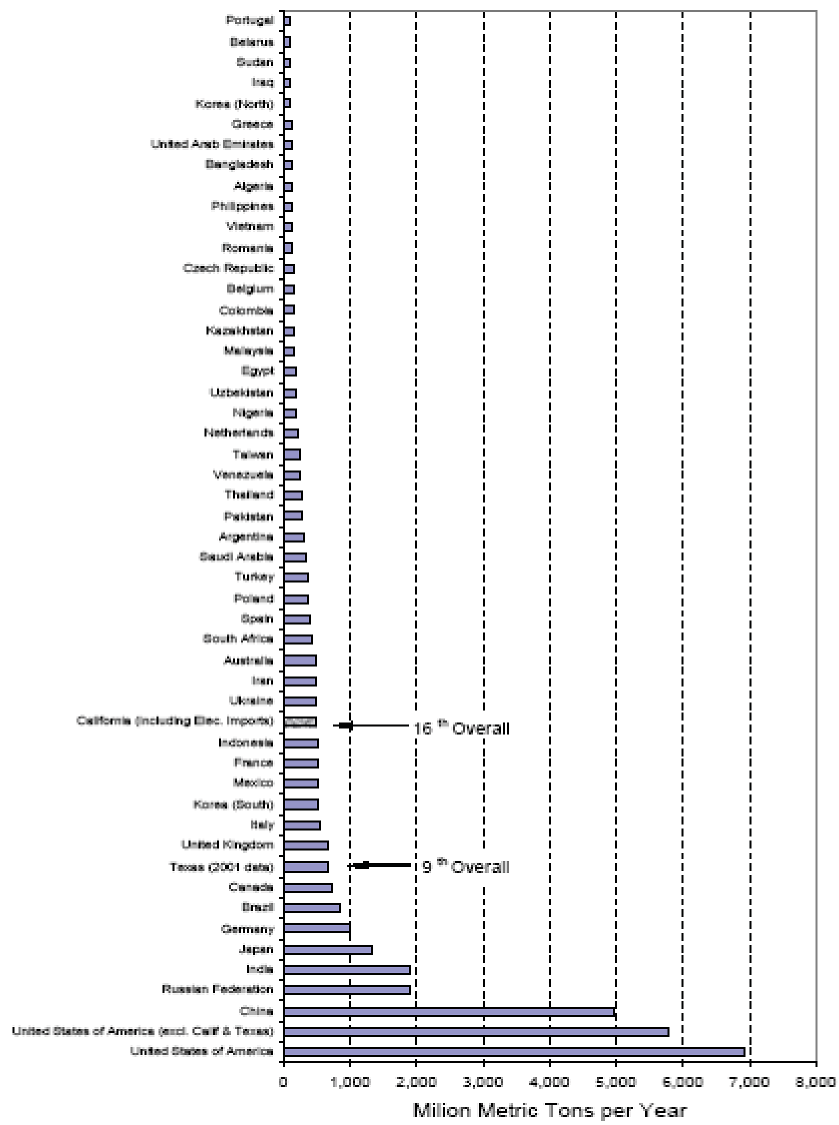


FIGURE 9
Global Greenhouse Gas
Emission Comparison (2002 data)

capita basis China remains well below the United States and California with a per capital CO_2 emission rate around 3 metric tons per year in 2001 (State of California 2006b).

It is important to note that given the global nature of global climate change, it is the total emissions of GHGs to the atmosphere that is important, not necessarily the per capita or total emissions from any single country. However, per capita emissions provide a relative benchmark by which to evaluate emissions.

7.0 References Cited

California, State of

2006a *Our Changing Climate – Assessing the Risks to California*. California Energy Commission, California Climate Change Center. CEC-500-2006-077. July.

2006b *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*. CEC-600-2006-013-SF. Fuels and Transportation Division, California Energy Commission. December. Obtained from the State of California website at http://www.climatechange.ca.gov/inventory/index.html on July 23, 2009.

2007 Memorandum: Revisions to the 1990 to 2004 Greenhouse Gas Emissions Inventory Report, Published in December 2006 (CEC 600-2006-013). Fuels and Transportation Division, California Energy Commission. December. Obtained from the State of California website at http://www.climatechange.ca.gov/inventory/index.html on July 23, 2009.

Environmental News Network (ENN)

2007 *China Overtakes U.S. as Top CO2 Emitter.* June 21 by Reuters. Obtained from the ENN website at http://www.enn.com/globe.html?id=1700 on July 31, 2007.

Intergovernmental Panel on Climate Change (IPCC)

2000 *Emissions Scenarios, Summary for Policymakers.* A special report of the IPCC Working Group III.

2001 *Climate Change 2001: Synthesis Report. A Contribution of Working Groups I, II, and III to the Third Assessment Report of the Intergovernmental Panel on Climate Change* [Watson, R.T. and the Core Writing Team (eds.)]. Cambridge University Press, Cambridge, United Kingdom, and New York, NY, USA, 398 pp. Obtained from the IPCC Website at http://www.grida.no/climate/ipcc_tar/vol4/english/042.htm#figspm52 on May 21, 2007.

2007a *About IPCC.* Obtained from the IPCC website at http://www.ipcc.ch/about/about.htm on July 31, 2007.

2007b *Climate Change 2007: The Physical Science Basis, Summary for Policymakers.* February.

National Aeronautics and Space Administration (NASA)

2007 *2006 Was Earth's Fifth Warmest Year.* Accessed from the NASA Goddard Space Flight Center Website at http://www.nasa.gov/centers/goddard/news/topstory/2006/2006_warm.html on May 21, 2007. February 8.

United Nations Environment Programme (UNEP)/GRID-Arendal

2000 *Temperature and CO2 concentration in the atmosphere over the past 400 000 years.* UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/temperature_and_co2_concentration_in_the_atmosphere_over_the_past_400_000_years (Accessed 16 May 2007)

2002a *Greenhouse effect.* UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/greenhouse_effect (Accessed 18 May 2007)

2002b *Comparison between modeled temperature rise and observations of temperature since 1860.* UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/comparison_between_modeled_temperature_rise_and_observations_of_temperature_since_1860 (Accessed 16 May 2007)

2005a *Past and future CO2 concentrations.* UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/past_and_future_co2_concentrations (Accessed 18 May 2007)

2005b *Temperature trends and projections.* UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/temperature_trends_and_projections1 (Accessed 21 May 2007)

The United Nations Framework Convention on Climate Change (UNFCCC)

2005 *Sixth Compilation and Synthesis of Initial National Communications from Parties not Included in Annex I to the Convention.* FCCC/SBI/2005/18/Add.2. October 25.

2006 *National Greenhouse Gas Inventory Data for the Period 1990-2004 and Status of Reporting.* FCCC/SBI/2006/26. October 19.

United States Environmental Protection Agency (U.S. EPA)

2002 *Greenhouse Gases and Global Warming Potential Values – Excerpt from the Inventory of U.S. Greenhouse Emissions and Sinks: 1990-2000.* U.S. Greenhouse Gas Inventory Program, Office of Atmospheric Programs. April.

2007a *Greenhouse Effect*. Obtained from the EPA Climate Change website at http://www.epa.gov/climatechange/kids/greenhouse.html on May 9, 2007.

2007b *Carbon Dioxide*. Obtained from the EPA Climate Change website at http://epa.gov/climatechange/emissions/co2.html on May 18, 2007.

2007c *Methane – Sources and Emissions*. Obtained from the EPA Climate Change website at http://www.epa.gov/methane/sources.html on May 15, 2007.

2007d *Nitrous Oxide – Sources and Emissions*. Obtained from the EPA Climate Change website at http://www.epa.gov/nitrousoxide/sources.html on May 15, 2007.

2007e *High GWP Gases and Climate Change*. Obtained from the EPA Climate Change website at http://www.epa.gov/highgwp/scientific.html on May 18, 2007.

2007f *Temperature Changes*. Obtained from the EPA Climate Change website at http://www.epa.gov/climatechange/science/recenttc.html on May 18, 2007.

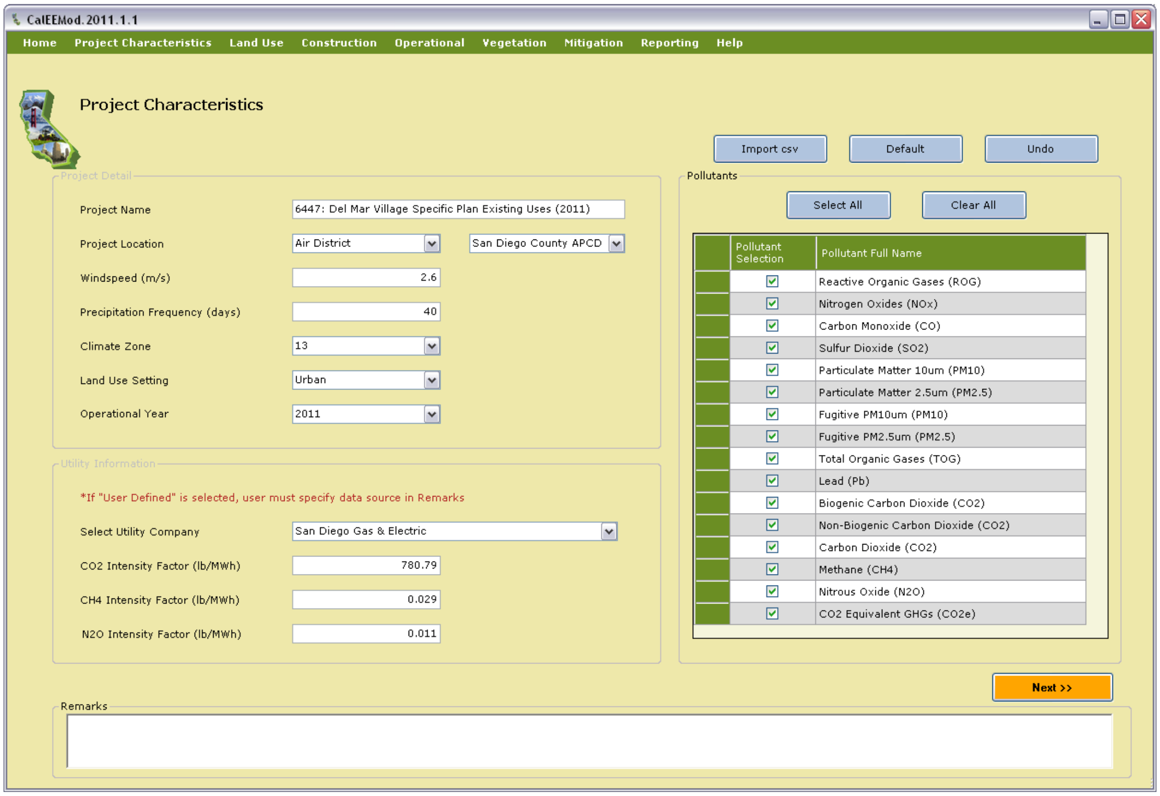
2009 Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2007. April 15.

ATTACHMENT 2

CalEEMod Input
2011 Existing Use

CalEEMod Input

2011 Existing Use



CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Project Characteristics

Import csv | Default | Undo

Project Detail

Project Name	6447: Del Mar Village Specific Plan Existing Uses (2011)
Project Location	Air District; San Diego County APCD
Windspeed (m/s)	2.6
Precipitation Frequency (days)	40
Climate Zone	13
Land Use Setting	Urban
Operational Year	2011

Utility Information

*If "User Defined" is selected, user must specify data source in Remarks

Select Utility Company	San Diego Gas & Electric
CO2 Intensity Factor (lb/MWh)	780.79
CH4 Intensity Factor (lb/MWh)	0.029
N2O Intensity Factor (lb/MWh)	0.011

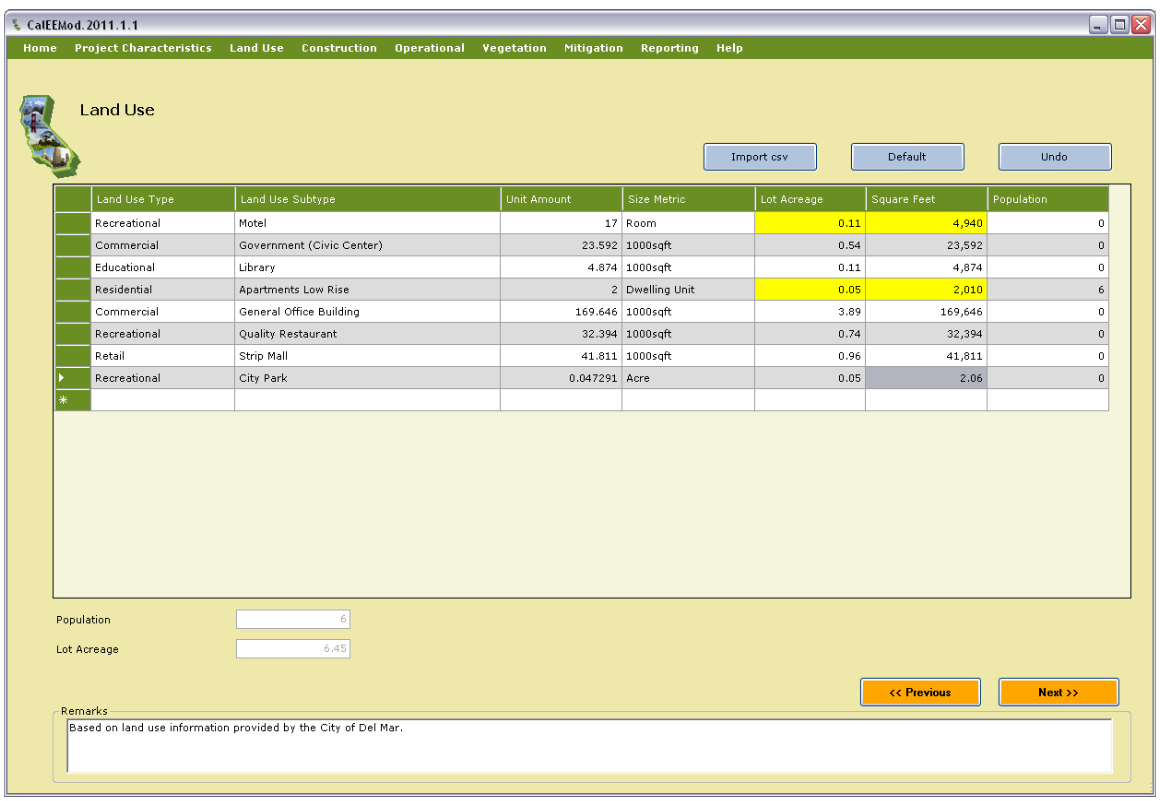
Pollutants

Select All | Clear All

Pollutant Selection	Pollutant Full Name
☑	Reactive Organic Gases (ROG)
☑	Nitrogen Oxides (NOx)
☑	Carbon Monoxide (CO)
☑	Sulfur Dioxide (SO2)
☑	Particulate Matter 10um (PM10)
☑	Particulate Matter 2.5um (PM2.5)
☑	Fugitive PM10um (PM10)
☑	Fugitive PM2.5um (PM2.5)
☑	Total Organic Gases (TOG)
☑	Lead (Pb)
☑	Biogenic Carbon Dioxide (CO2)
☑	Non-Biogenic Carbon Dioxide (CO2)
☑	Carbon Dioxide (CO2)
☑	Methane (CH4)
☑	Nitrous Oxide (N2O)
☑	CO2 Equivalent GHGs (CO2e)

Next >>

Remarks



CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Land Use

Import csv | Default | Undo

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet	Population
Recreational	Motel	17	Room	0.11	4,940	0
Commercial	Government (Civic Center)	23.592	1000sqft	0.54	23,592	0
Educational	Library	4.874	1000sqft	0.11	4,874	0
Residential	Apartments Low Rise	2	Dwelling Unit	0.05	2,010	6
Commercial	General Office Building	169.646	1000sqft	3.89	169,646	0
Recreational	Quality Restaurant	32.394	1000sqft	0.74	32,394	0
Retail	Strip Mall	41.811	1000sqft	0.96	41,811	0
Recreational	City Park	0.047291	Acre	0.05	2.06	0

Population: 6

Lot Acreage: 6.45

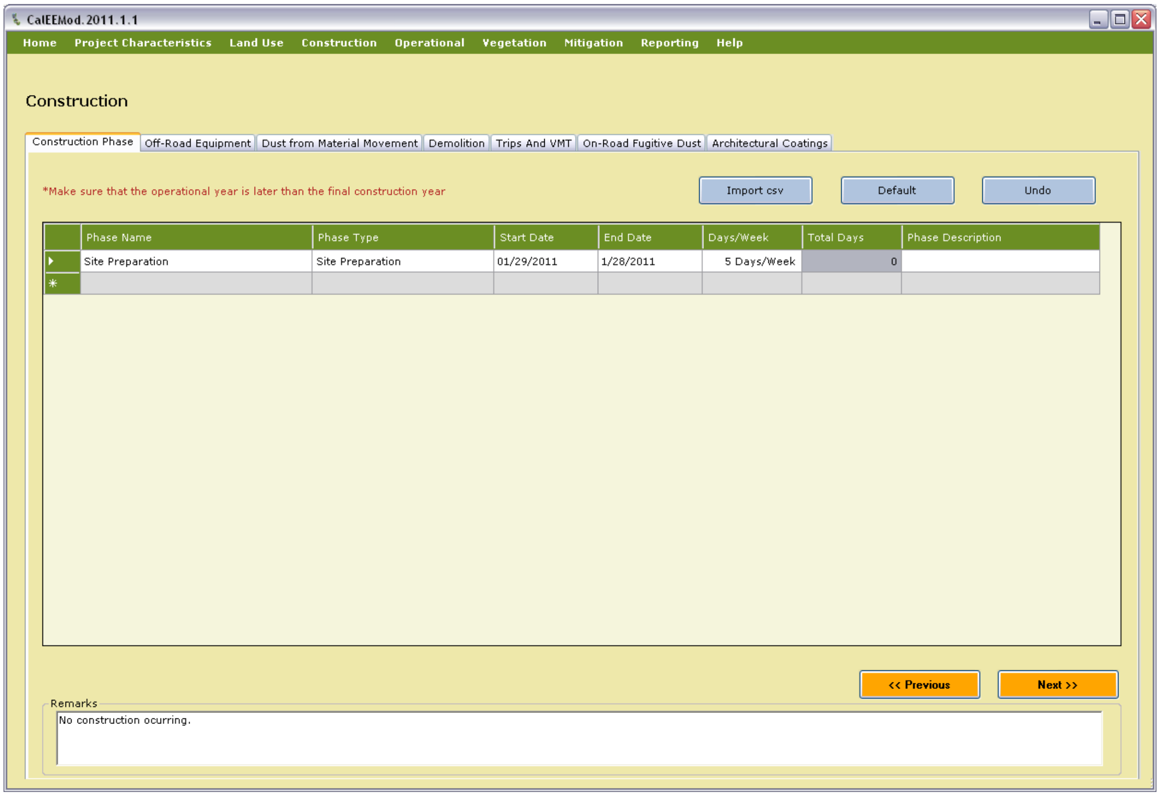
<< Previous | Next >>

Remarks

Based on land use information provided by the City of Del Mar.

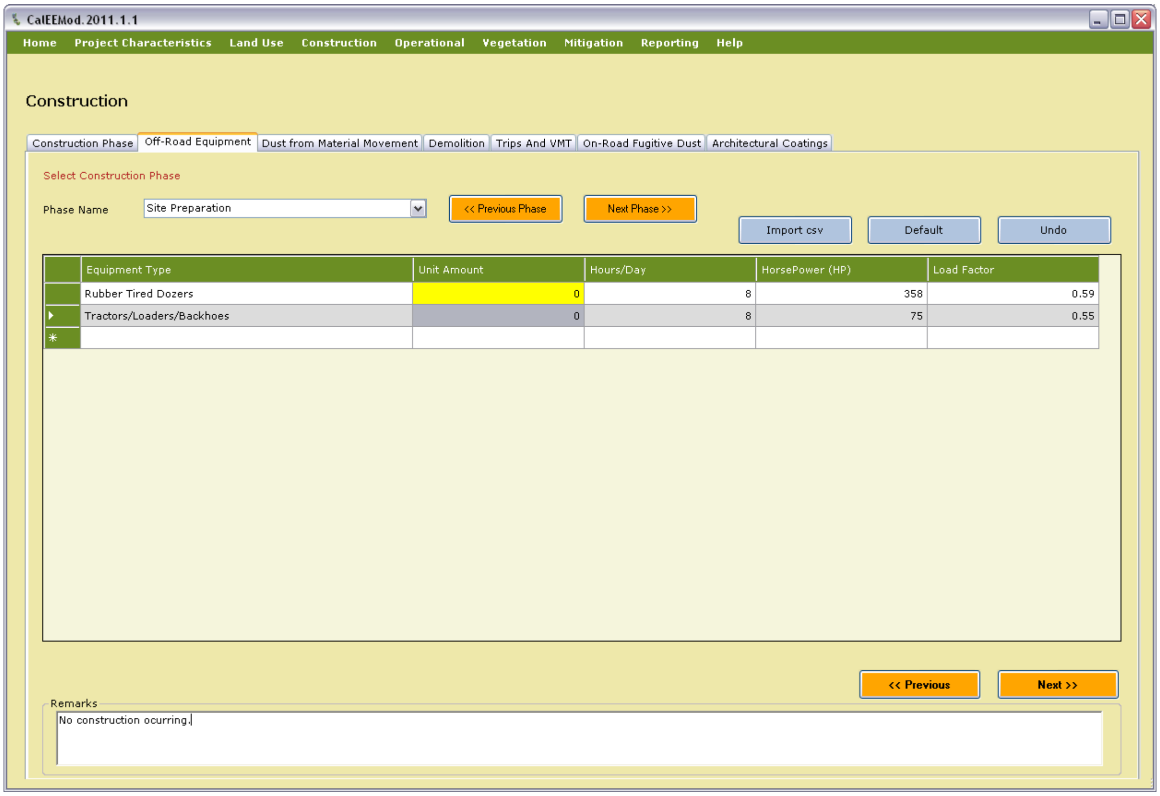
CalEEMod Input

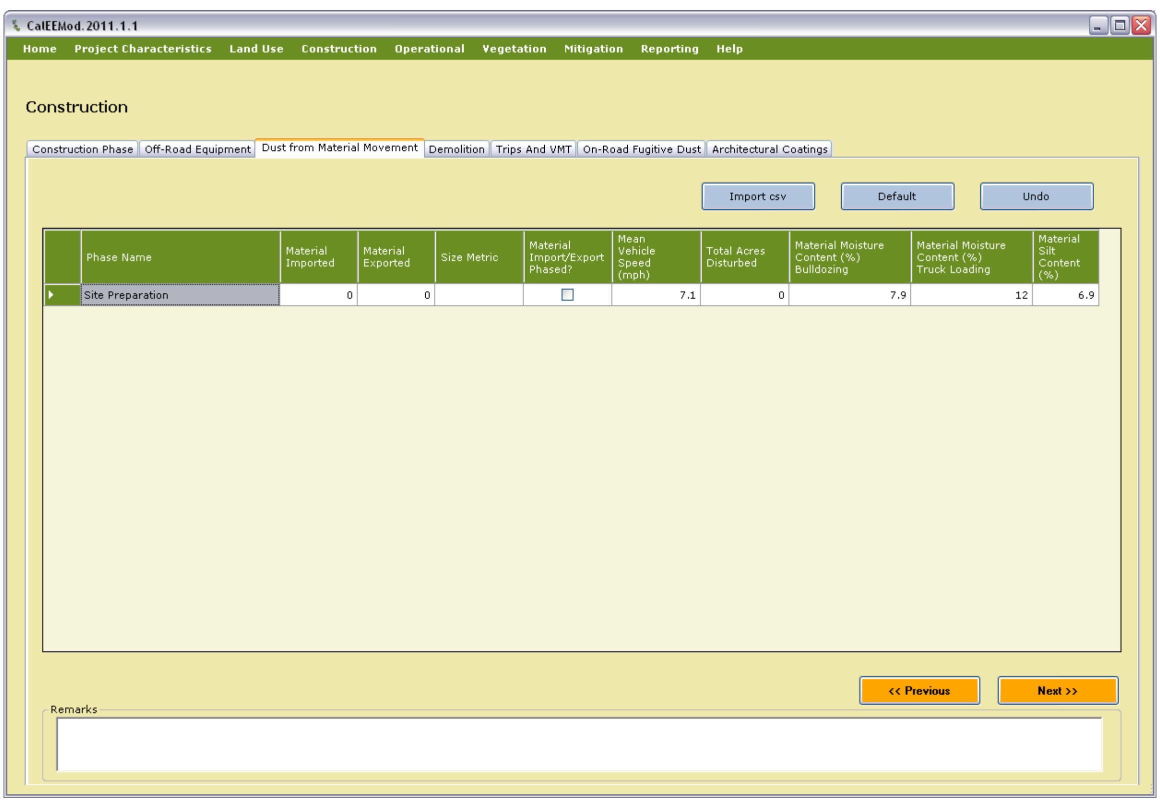
2011 Existing Use



CalEEMod Input

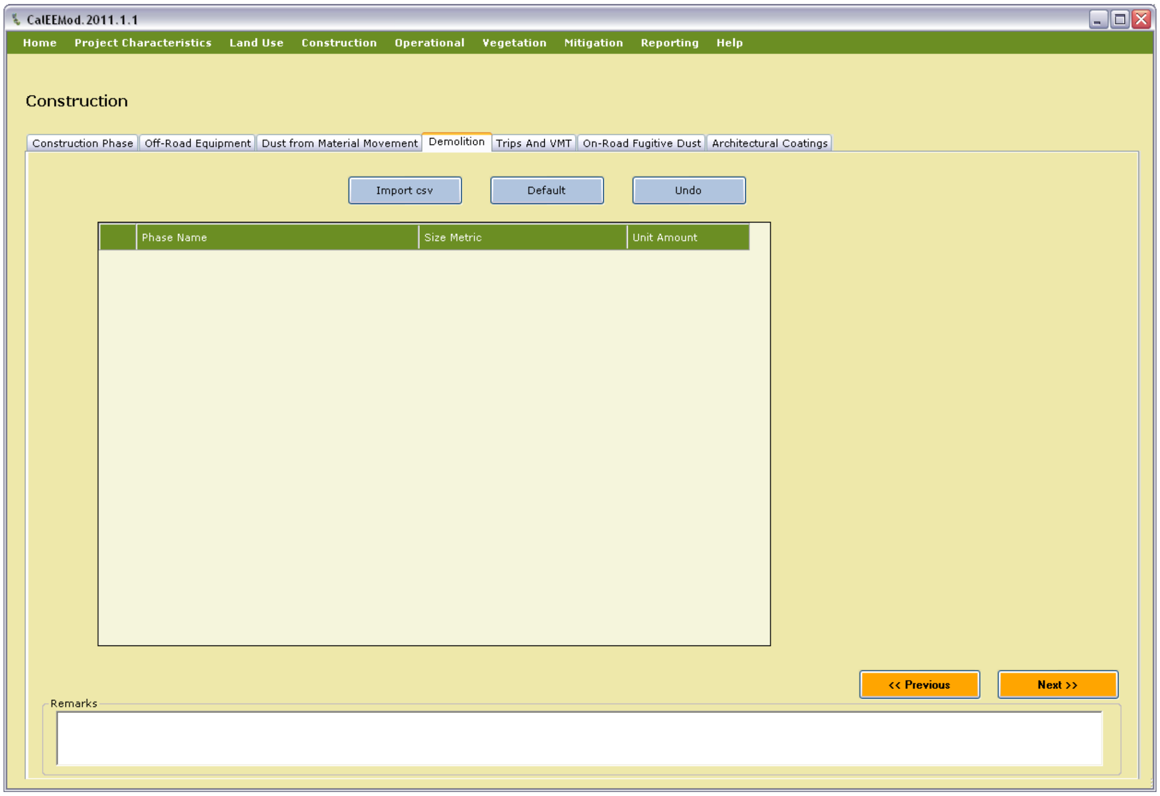
2011 Existing Use

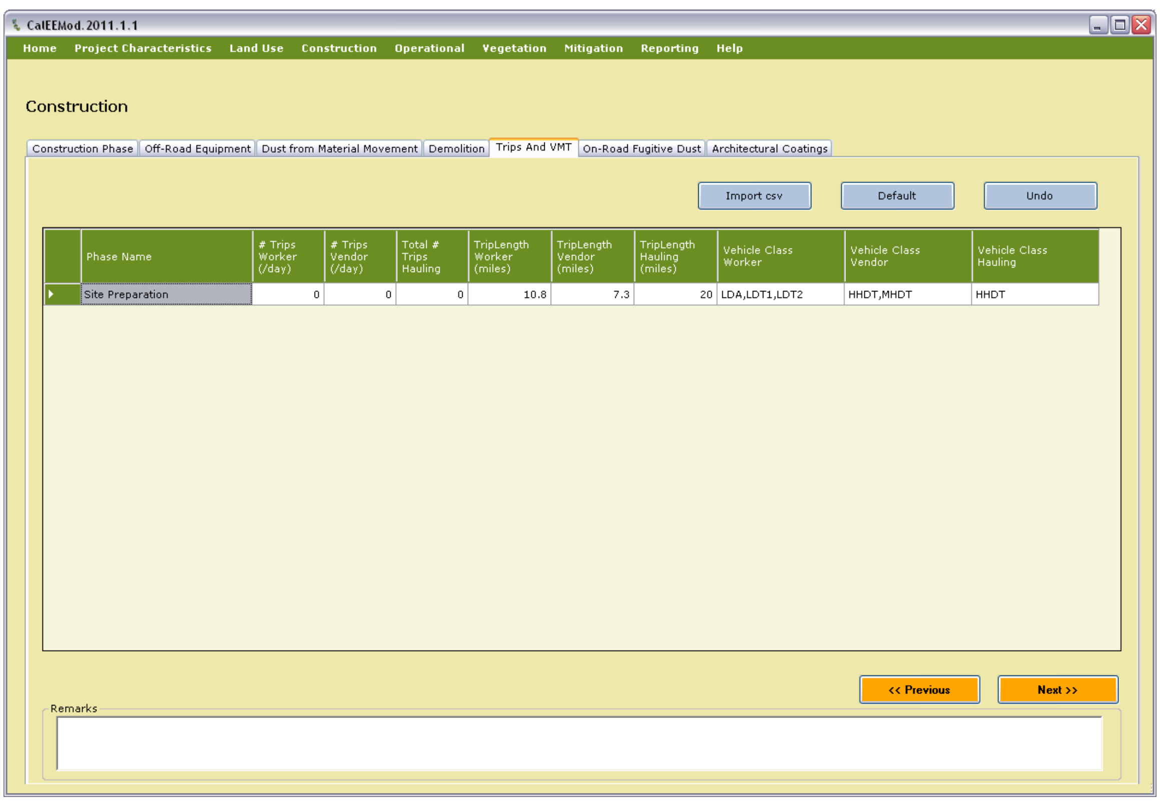




CalEEMod Input

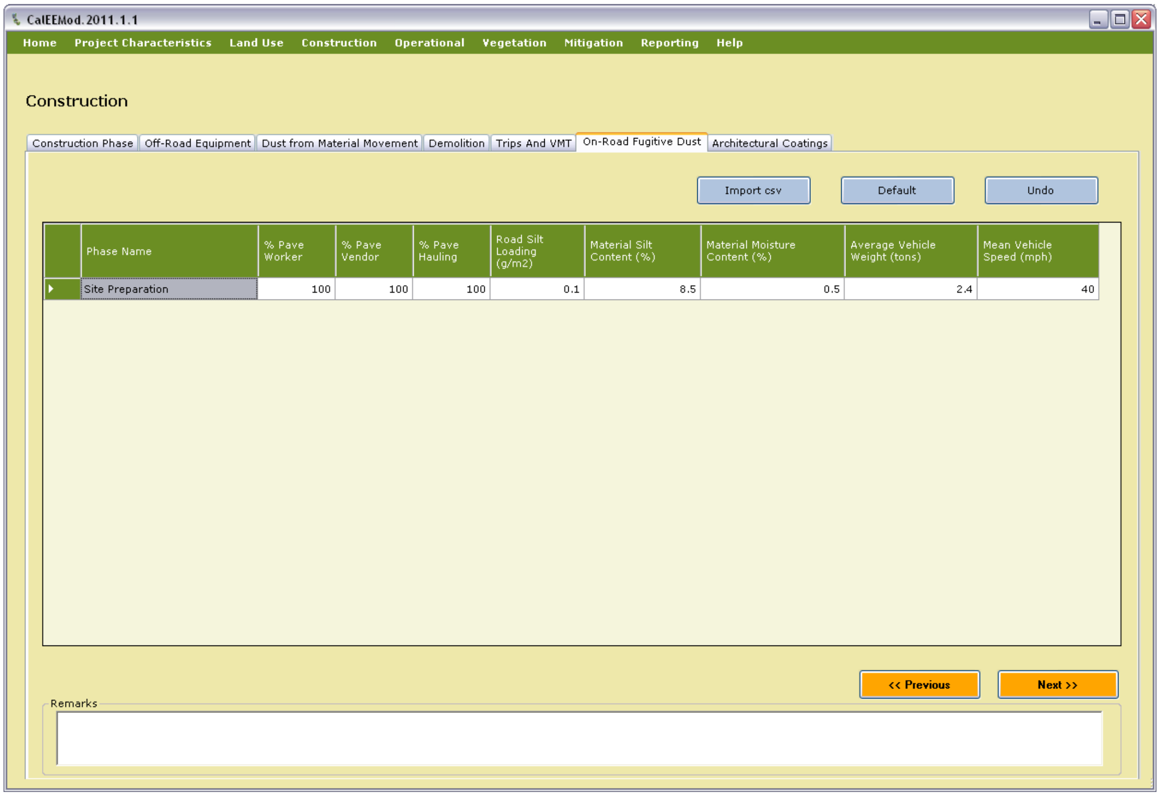
2011 Existing Use

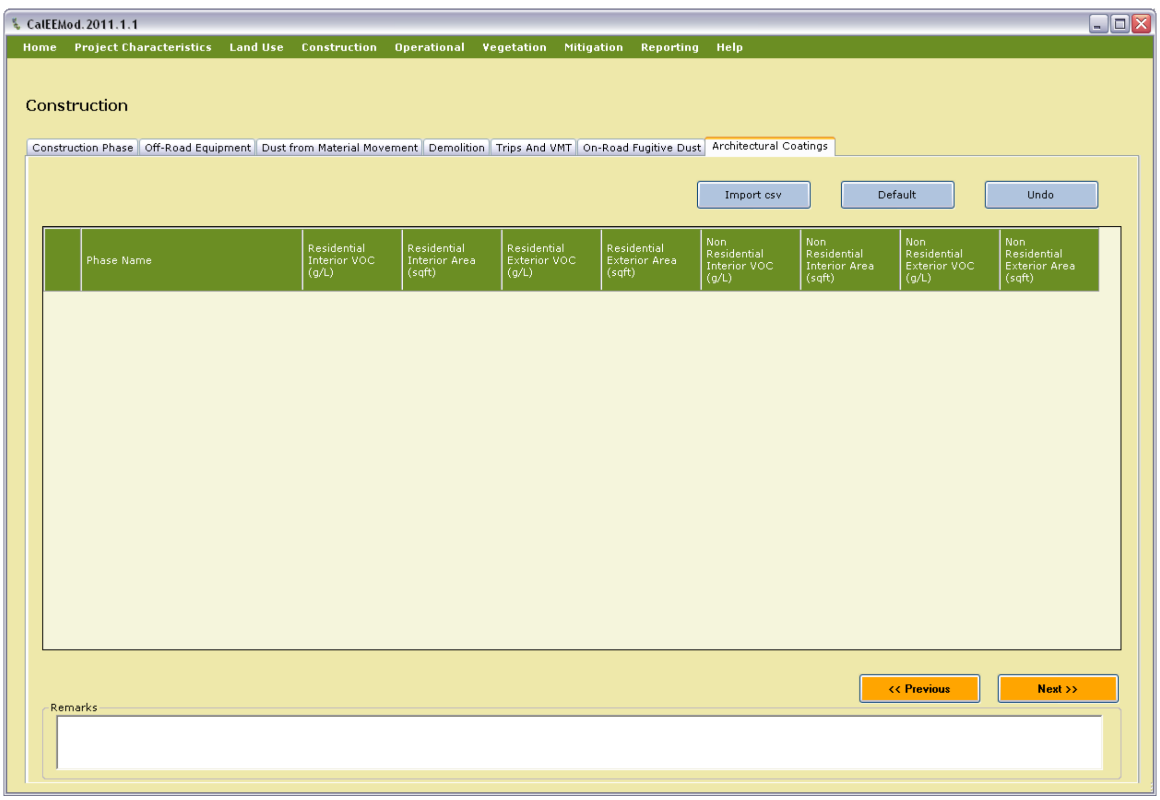




CalEEMod Input

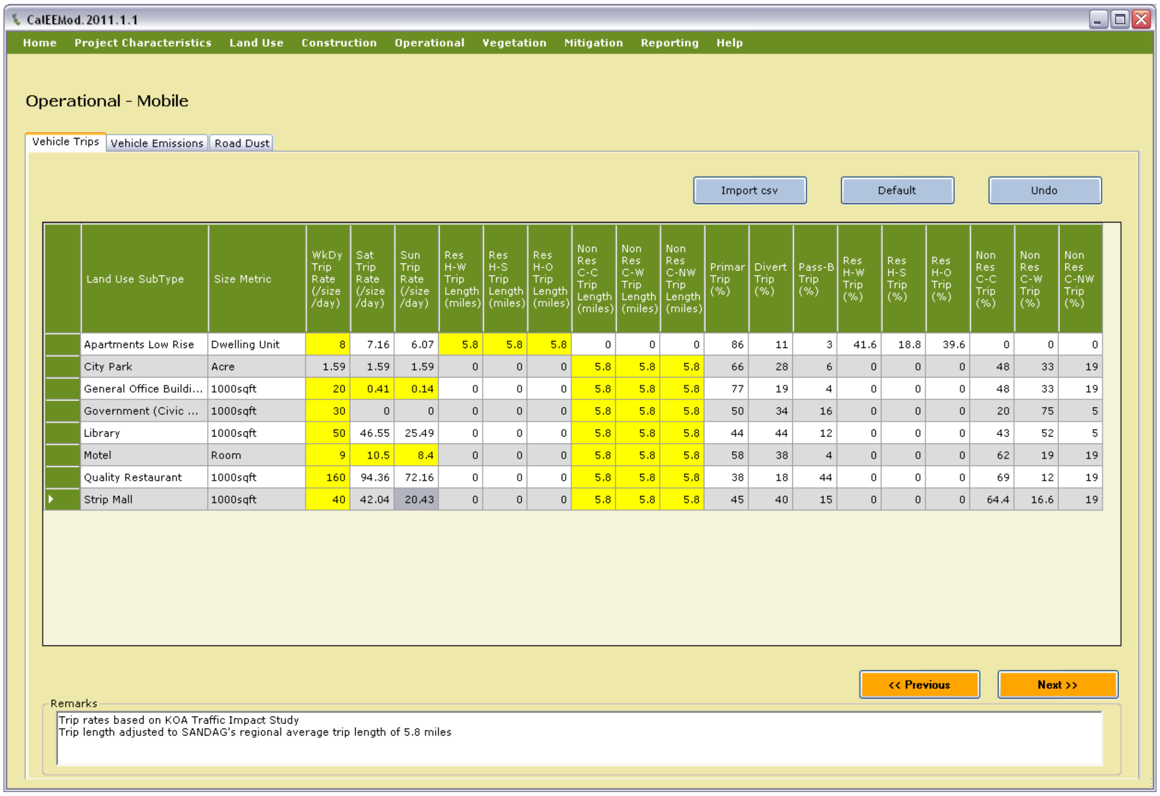
2011 Existing Use





CalEEMod Input

2011 Existing Use



Land Use SubType	Size Metric	WkDy Trip Rate (/size /day)	Sat Trip Rate (/size /day)	Sun Trip Rate (/size /day)	Res H-W Trip Length (miles)	Res H-S Trip Length (miles)	Res H-O Trip Length (miles)	Non Res C-C Trip Length (miles)	Non Res C-W Trip Length (miles)	Non Res C-NW Trip Length (miles)	Primar Trip (%)	Divert Trip (%)	Pass-B Trip (%)	Res H-W Trip (%)	Res H-S Trip (%)	Res H-O Trip (%)	Non Res C-C Trip (%)	Non Res C-W Trip (%)	Non Res C-NW Trip (%)
Apartments Low Rise	Dwelling Unit	8	7.16	6.07	5.8	5.8	5.8	0	0	0	86	11	3	41.6	18.8	39.6	0	0	0
City Park	Acre	1.59	1.59	1.59	0	0	0	5.8	5.8	5.8	66	28	6	0	0	0	48	33	19
General Office Buildi...	1000sqft	20	0.41	0.14	0	0	0	5.8	5.8	5.8	77	19	4	0	0	0	48	33	19
Government (Civic ...	1000sqft	30	0	0	0	0	0	5.8	5.8	5.8	50	34	16	0	0	0	20	75	5
Library	1000sqft	50	46.55	25.49	0	0	0	5.8	5.8	5.8	44	44	12	0	0	0	43	52	5
Motel	Room	9	10.5	8.4	0	0	0	5.8	5.8	5.8	58	38	4	0	0	0	62	19	19
Quality Restaurant	1000sqft	160	94.36	72.16	0	0	0	5.8	5.8	5.8	38	18	44	0	0	0	69	12	19
Strip Mall	1000sqft	40	42.04	20.43	0	0	0	5.8	5.8	5.8	45	40	15	0	0	0	64.4	16.6	19

Trip rates based on KOA Traffic Impact Study
Trip length adjusted to SANDAG's regional average trip length of 5.8 miles

CalEEMod Input

2011 Existing Use

CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Operational - Mobile

Vehicle Trips | Vehicle Emissions | Road Dust

Annual | Summer | Winter

Import csv | Default | Undo

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
FleetMix	0.49369	0.088915	0.241984	0.100377	0.021054	0.005557	0.013439	0.017887	0.001109	0.001415	0.009099	0.00114	0.004334
CH4_IDLEX	0	0	0	0	0.0015	0.0013	0.0009	0.11	0.0013	0	0	0.03	0
CH4_RUNEX	0.02	0.02	0.03	0.04	0.03	0.02	0.02	0.05	0.04	0.04	0.24	0.04	0.05
CH4_STREX	0.02	0.02	0.03	0.03	0.02	0.02	0.03	0.11	0.05	0.04	0.14	0.04	0.05
CO_IDLEX	0	0	0	0	0.21	0.18	0.14	9.86	0.19	0	0	5.61	0
CO_RUNEX	2.44	3.05	2.94	3.57	3.93	2.85	3.5	5.56	6.01	6.08	40.49	9.96	12.15
CO_STREX	5.71	5.62	6.73	7.79	6.18	4.69	7.41	28.88	14.57	8.1	9.58	8.63	15.35
CO2_IDLEX	0	0	0	0	8.1396	8.748	12.6882	1,366.2...	10.9525	0	0	554.3805	0
CO2_RUNEX	376.626	465.7626	472.3561	645.6019	858.8774	748.4641	1,379.8...	1,786.4...	1,146.2...	2,312.7...	146.4729	1,391.2...	771.5562
CO2_STREX	71.82	86.184	89.2662	122.1937	36.6681	29.3364	15.0423	18.0447	25.4562	29.2965	49.9348	22.3539	37.496
NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	23.08	0.1	0	0	8.53	0
NOX_RUNEX	0.23	0.3	0.39	0.49	1.4	2.73	6.89	13.4	5.34	15.1	1.2	10.04	2.09
NOX_STREX	0.37	0.35	0.66	0.77	1.57	1.26	0.77	2.97	1.91	1.2	0.3	0.49	1.31
PM10_IDLEX	0	0	0	0	0.0002	0.0007	0.0023	0.35	0.0015	0	0	0.1	0
PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0088	0.004	0.01	0.01
PM10_RUNEX	0.01	0.01	0.03	0.02	0.02	0.04	0.22	0.55	0.14	0.26	0.03	0.39	0.02

<< Previous | Next >>

Remarks

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
PM10_RUNEX	0.01	0.01	0.03	0.02	0.02	0.04	0.22	0.55	0.14	0.26	0.03	0.39	0.02
PM10_STREX	0.0072	0.0077	0.01	0.01	0.0021	0.002	0.0012	0.002	0.0027	0.0024	0.01	0.0013	0.0011
PM25_IDLEX	0	0	0	0	0.0002	0.0007	0.0021	0.32	0.0014	0	0	0.09	0
PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0088	0.003	0.0022	0.001	0.003	0.003
PM25_RUNEX	0.01	0.01	0.02	0.02	0.02	0.03	0.2	0.51	0.13	0.23	0.02	0.36	0.02
PM25_STREX	0.0066	0.0071	0.01	0.01	0.002	0.0019	0.0011	0.0018	0.0025	0.0022	0.01	0.0012	0.001
ROG_DIURN	0.1	0.1	0.1	0.08	0.0023	0.0018	0.0009	0.0009	0.001	0.0031	0.84	0.0084	1.69
ROG_HTSK	0.18	0.18	0.17	0.14	0.04	0.04	0.02	0.02	0.02	0.07	0.38	0.07	0.11
ROG_IDLEX	0	0	0	0	0.03	0.02	0.02	2.49	0.02	0	0	0.78	0
ROG_RESTL	0.08	0.08	0.08	0.07	0.0009	0.0008	0.0004	0.0005	0.0005	0.0024	0.52	0.0039	0.76
ROG_RUNEX	0.09	0.11	0.08	0.12	0.36	0.31	0.28	1.06	0.38	0.87	3.39	0.71	0.45
ROG_RUNLS	0.092622	0.12696	0.134894	0.101632	0.360357	0.277543	0.13443	0.017319	0.191757	0.011371	0.381082	0.052364	0.018046
ROG_STREX	0.5	0.43	0.53	0.69	0.51	0.43	0.58	1.93	0.96	0.82	2.24	0.75	0.99
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0054	0
SO2_RUNEX	0.0037	0.0046	0.0047	0.0063	0.0083	0.0072	0.01	0.01	0.01	0.02	0.0021	0.01	0.0076
SO2_STREX	0.0008	0.0009	0.001	0.0013	0.0005	0.0004	0.0003	0.0007	0.0005	0.0004	0.0007	0.0004	0.0006

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
ROG_HTSK	0.18	0.18	0.17	0.14	0.04	0.04	0.02	0.02	0.02	0.07	0.38	0.07	0.11
ROG_IDLEX	0	0	0	0	0.03	0.02	0.02	2.49	0.02	0	0	0.78	0
ROG_RESTL	0.08	0.08	0.08	0.07	0.0009	0.0008	0.0004	0.0005	0.0005	0.0024	0.52	0.0039	0.76
ROG_RUNEX	0.09	0.11	0.08	0.12	0.36	0.31	0.28	1.06	0.38	0.87	3.39	0.71	0.45
ROG_RUNLS	0.092622	0.12696	0.134894	0.101632	0.360357	0.277543	0.13443	0.017319	0.191757	0.011371	0.381082	0.052364	0.018046
ROG_STREX	0.5	0.43	0.53	0.69	0.51	0.43	0.58	1.93	0.96	0.82	2.24	0.75	0.99
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0054	0
SO2_RUNEX	0.0037	0.0046	0.0047	0.0063	0.0083	0.0072	0.01	0.01	0.01	0.02	0.0021	0.01	0.0076
SO2_STREX	0.0008	0.0009	0.001	0.0013	0.0005	0.0004	0.0003	0.0007	0.0005	0.0004	0.0007	0.0004	0.0006
TOG_DIURN	0.1	0.1	0.1	0.08	0.0023	0.0018	0.0009	0.0009	0.001	0.0031	0.84	0.0084	1.69
TOG_HTSK	0.18	0.18	0.17	0.14	0.04	0.04	0.02	0.02	0.02	0.07	0.38	0.07	0.11
TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.84	0.03	0	0	0.86	0
TOG_RESTL	0.08	0.08	0.08	0.07	0.0009	0.0008	0.0004	0.0005	0.0005	0.0024	0.52	0.0039	0.76
TOG_RUNEX	0.12	0.14	0.12	0.17	0.4	0.35	0.32	1.2	0.45	0.98	3.68	0.79	0.52
TOG_RUNLS	0.092622	0.12696	0.134894	0.101632	0.360357	0.277543	0.13443	0.017319	0.191757	0.011371	0.381082	0.052364	0.018046
TOG_STREX	0.53	0.46	0.57	0.74	0.54	0.46	0.62	2.07	1.03	0.88	2.41	0.81	1.06

CalEEMod Input

2011 Existing Use

CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Operational - Mobile

Vehicle Trips | Vehicle Emissions | Road Dust

Annual | Summer | Winter

Import csv | Default | Undo

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
FleetMix	0.49369	0.088915	0.241984	0.100377	0.021054	0.005557	0.013439	0.017887	0.001109	0.001415	0.009099	0.00114	0.004334
CH4_IDLEX	0	0	0	0	0.0015	0.0013	0.0009	0.1	0.0013	0	0	0.03	0
CH4_RUNEX	0.02	0.02	0.03	0.04	0.03	0.02	0.02	0.05	0.04	0.04	0.23	0.04	0.05
CH4_STREX	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.09	0.04	0.04	0.12	0.04	0.04
CO_IDLEX	0	0	0	0	0.21	0.18	0.14	7.17	0.19	0	0	5.61	0
CO_RUNEX	2.68	3.27	3.24	3.88	4.01	2.89	3.51	5.58	6.1	6.03	38.78	9.65	12.32
CO_STREX	4.36	4.35	5.13	5.97	4.88	3.75	6.25	24.31	11.93	6.94	8.66	7.59	12.12
CO2_IDLEX	0	0	0	0	8.1396	8.748	12.6882	1,444.1...	10.9525	0	0	554.3805	0
CO2_RUNEX	401.8927	494.9196	502.8597	687.5967	858.8774	748.4641	1,379.8...	1,786.4...	1,146.2...	2,312.7...	146.4729	1,391.2...	771.5562
CO2_STREX	71.82	86.184	89.2662	122.1937	36.6681	29.3364	15.0423	18.0447	25.4562	29.2965	49.9348	22.3539	37.496
NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	23.9	0.1	0	0	8.53	0
NOX_RUNEX	0.24	0.31	0.4	0.5	1.44	2.82	7.13	13.85	5.51	15.62	1.22	10.37	2.15
NOX_STREX	0.34	0.32	0.6	0.7	1.51	1.21	0.73	2.85	1.83	1.15	0.29	0.46	1.26
PM10_IDLEX	0	0	0	0	0.0002	0.0007	0.0023	0.29	0.0015	0	0	0.1	0
PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0088	0.004	0.01	0.01
PM10_RUNEX	0.01	0.01	0.03	0.02	0.02	0.04	0.22	0.55	0.14	0.26	0.03	0.39	0.02

<< Previous | Next >>

Remarks

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
PM10_RUNEX	0.01	0.01	0.03	0.02	0.02	0.04	0.22	0.55	0.14	0.26	0.03	0.39	0.02
PM10_STREX	0.0072	0.0077	0.01	0.01	0.0021	0.002	0.0012	0.002	0.0027	0.0024	0.01	0.0013	0.0011
PM25_IDLEX	0	0	0	0	0.0002	0.0007	0.0021	0.27	0.0014	0	0	0.09	0
PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0088	0.003	0.0022	0.001	0.003	0.003
PM25_RUNEX	0.01	0.01	0.02	0.02	0.02	0.03	0.2	0.51	0.13	0.23	0.02	0.36	0.02
PM25_STREX	0.0066	0.0071	0.01	0.01	0.002	0.0019	0.0011	0.0018	0.0025	0.0022	0.01	0.0012	0.001
ROG_DIURN	0.17	0.16	0.17	0.14	0.0036	0.0029	0.0014	0.0015	0.0016	0.0047	1.43	0.01	2.64
ROG_HTSK	0.2	0.19	0.19	0.16	0.04	0.04	0.02	0.02	0.02	0.08	0.44	0.07	0.11
ROG_IDLEX	0	0	0	0	0.03	0.02	0.02	2.34	0.02	0	0	0.78	0
ROG_RESTL	0.15	0.15	0.14	0.13	0.0017	0.0014	0.0008	0.001	0.0009	0.0042	1.11	0.0071	1.29
ROG_RUNEX	0.09	0.11	0.09	0.13	0.37	0.32	0.28	1.06	0.39	0.87	3.24	0.7	0.46
ROG_RUNLS	0.087305	0.117783	0.124107	0.093965	0.348302	0.267952	0.132299	0.017349	0.188147	0.010556	0.353475	0.047497	0.017602
ROG_STREX	0.41	0.35	0.44	0.58	0.44	0.37	0.5	1.65	0.83	0.73	1.93	0.65	0.81
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0054	0
SO2_RUNEX	0.004	0.0049	0.005	0.0068	0.0083	0.0072	0.01	0.01	0.01	0.02	0.0021	0.01	0.0076
SO2_STREX	0.0008	0.0009	0.001	0.0013	0.0004	0.0004	0.0003	0.0006	0.0005	0.0004	0.0007	0.0003	0.0006

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
ROG_HTSK	0.2	0.19	0.19	0.16	0.04	0.04	0.02	0.02	0.02	0.08	0.44	0.07	0.11
ROG_IDLEX	0	0	0	0	0.03	0.02	0.02	2.34	0.02	0	0	0.78	0
ROG_RESTL	0.15	0.15	0.14	0.13	0.0017	0.0014	0.0008	0.001	0.0009	0.0042	1.11	0.0071	1.29
ROG_RUNEX	0.09	0.11	0.09	0.13	0.37	0.32	0.28	1.06	0.39	0.87	3.24	0.7	0.46
ROG_RUNLS	0.087305	0.117783	0.124107	0.093965	0.348302	0.267952	0.132299	0.017349	0.188147	0.010556	0.353475	0.047497	0.017602
ROG_STREX	0.41	0.35	0.44	0.58	0.44	0.37	0.5	1.65	0.83	0.73	1.93	0.65	0.81
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0054	0
SO2_RUNEX	0.004	0.0049	0.005	0.0068	0.0083	0.0072	0.01	0.01	0.01	0.02	0.0021	0.01	0.0076
SO2_STREX	0.0008	0.0009	0.001	0.0013	0.0004	0.0004	0.0003	0.0006	0.0005	0.0004	0.0007	0.0003	0.0006
TOG_DIURN	0.17	0.16	0.17	0.14	0.0036	0.0029	0.0014	0.0015	0.0016	0.0047	1.43	0.01	2.64
TOG_HTSK	0.2	0.19	0.19	0.16	0.04	0.04	0.02	0.02	0.02	0.08	0.44	0.07	0.11
TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.67	0.03	0	0	0.86	0
TOG_RESTL	0.15	0.15	0.14	0.13	0.0017	0.0014	0.0008	0.001	0.0009	0.0042	1.11	0.0071	1.29
TOG_RUNEX	0.12	0.14	0.12	0.17	0.41	0.36	0.32	1.2	0.45	0.98	3.53	0.78	0.52
TOG_RUNLS	0.087305	0.117783	0.124107	0.093965	0.348302	0.267952	0.132299	0.017349	0.188147	0.010556	0.353475	0.047497	0.017602
TOG_STREX	0.44	0.38	0.47	0.62	0.47	0.4	0.53	1.77	0.89	0.78	2.08	0.7	0.87

CalEEMod Input

2011 Existing Use

CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Operational - Mobile

Vehicle Trips | Vehicle Emissions | Road Dust

Annual | Summer | Winter

Import csv | Default | Undo

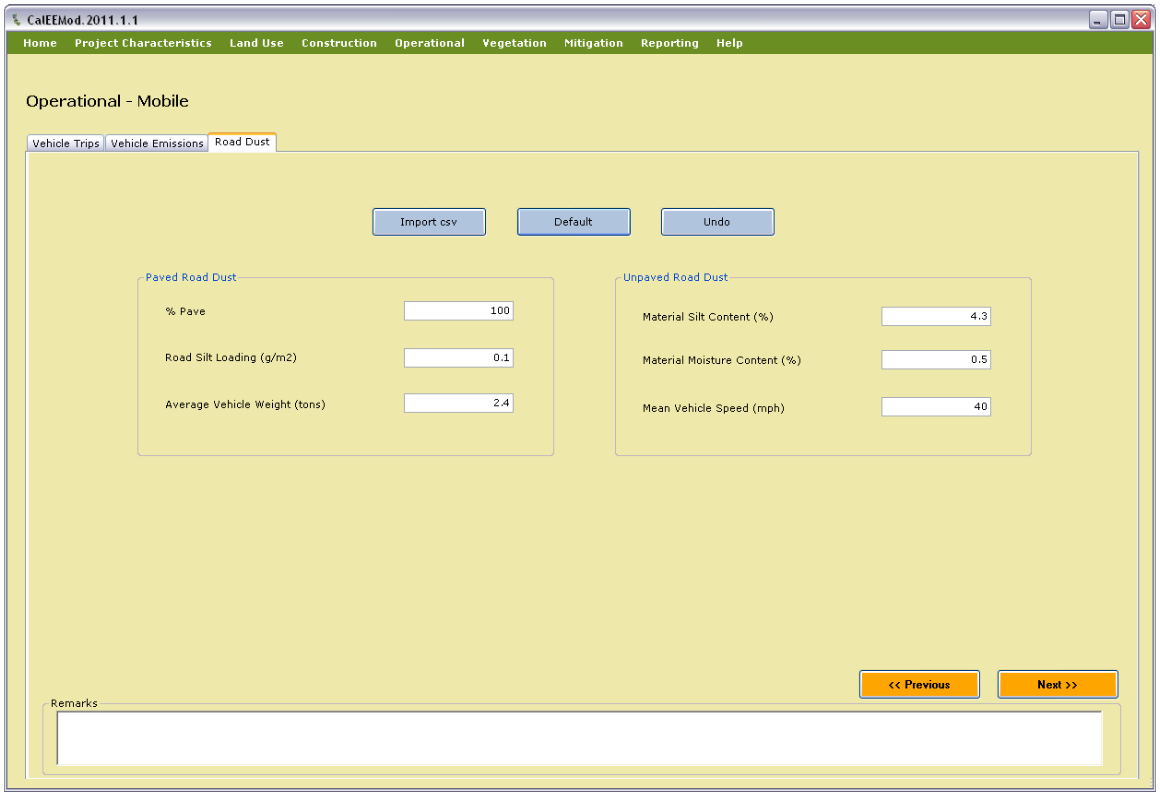
Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
FleetMix	0.49369	0.088915	0.241984	0.100377	0.021054	0.005557	0.013439	0.017887	0.001109	0.001415	0.009099	0.00114	0.004334
CH4_IDLEX	0	0	0	0	0.0015	0.0013	0.0009	0.12	0.0013	0	0	0.03	0
CH4_RUNEX	0.02	0.02	0.03	0.04	0.03	0.02	0.02	0.05	0.04	0.04	0.24	0.04	0.05
CH4_STREX	0.02	0.02	0.03	0.04	0.02	0.02	0.03	0.11	0.05	0.04	0.14	0.04	0.05
CO_IDLEX	0	0	0	0	0.21	0.18	0.14	13.63	0.19	0	0	5.61	0
CO_RUNEX	2.39	3.01	2.88	3.51	3.93	2.85	3.5	5.55	6	6.09	40.74	10.1	12.14
CO_STREX	5.77	5.68	6.8	7.88	6.19	4.7	7.35	28.61	14.42	8.12	9.62	9.04	15.16
CO2_IDLEX	0	0	0	0	8.1396	8.748	12.6882	1,257.2...	10.9525	0	0	554.3805	0
CO2_RUNEX	369.843	457.9622	464.1966	634.3601	858.8774	748.4641	1,379.8...	1,786.4...	1,146.2...	2,312.7...	146.4729	1,391.2...	771.5562
CO2_STREX	71.82	86.184	89.2662	122.1937	36.6681	29.3364	15.0423	18.0447	25.4562	29.2965	49.9348	22.3539	37.496
NOX_IDLEX	0	0	0	0	0.02	0.05	0.18	21.94	0.1	0	0	8.53	0
NOX_RUNEX	0.26	0.34	0.44	0.55	1.52	2.93	7.42	14.37	5.82	16.21	1.36	10.76	2.33
NOX_STREX	0.37	0.35	0.66	0.77	1.57	1.25	0.76	2.96	1.91	1.21	0.3	0.51	1.31
PM10_IDLEX	0	0	0	0	0.0002	0.0007	0.0023	0.43	0.0015	0	0	0.1	0
PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0088	0.004	0.01	0.01
PM10_RUNEX	0.01	0.01	0.03	0.02	0.02	0.04	0.22	0.55	0.14	0.26	0.03	0.39	0.02
PM10_STREX	0.0072	0.0077	0.01	0.01	0.0021	0.002	0.0012	0.002	0.0027	0.0024	0.01	0.0013	0.0011
PM25_IDLEX	0	0	0	0	0.0002	0.0007	0.0021	0.39	0.0014	0	0	0.09	0
PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0088	0.003	0.0022	0.001	0.003	0.003
PM25_RUNEX	0.01	0.01	0.02	0.02	0.02	0.03	0.2	0.51	0.13	0.23	0.02	0.36	0.02
PM25_STREX	0.0066	0.0071	0.01	0.01	0.002	0.0019	0.0011	0.0018	0.0025	0.0022	0.01	0.0012	0.001
ROG_DIURN	0.11	0.1	0.1	0.08	0.0031	0.0024	0.0012	0.0012	0.0013	0.0037	0.94	0.01	2.3
ROG_HTSK	0.24	0.24	0.23	0.19	0.06	0.05	0.03	0.03	0.03	0.1	0.63	0.1	0.17
ROG_IDLEX	0	0	0	0	0.03	0.02	0.02	2.7	0.02	0	0	0.78	0
ROG_RESTL	0.09	0.09	0.09	0.08	0.0013	0.001	0.0006	0.0008	0.0007	0.0033	0.64	0.0057	1.05
ROG_RUNEX	0.09	0.11	0.08	0.12	0.36	0.31	0.28	1.06	0.38	0.87	3.41	0.72	0.45
ROG_RUNLS	0.107918	0.153593	0.165912	0.123957	0.402489	0.310163	0.144326	0.018451	0.207226	0.013638	0.457299	0.063287	0.019288
ROG_STREX	0.5	0.43	0.53	0.7	0.51	0.43	0.57	1.91	0.95	0.82	2.25	0.79	0.97
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0054	0
SO2_RUNEX	0.0037	0.0045	0.0046	0.0062	0.0083	0.0072	0.01	0.01	0.01	0.02	0.0021	0.01	0.0076
SO2_STREX	0.0008	0.0009	0.001	0.0013	0.0005	0.0004	0.0003	0.0007	0.0005	0.0004	0.0007	0.0004	0.0006
TOG_DIURN	0.11	0.1	0.1	0.08	0.0031	0.0024	0.0012	0.0012	0.0013	0.0037	0.94	0.01	2.3
TOG_HTSK	0.24	0.24	0.23	0.19	0.06	0.05	0.03	0.03	0.03	0.1	0.63	0.1	0.17
TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	3.08	0.03	0	0	0.86	0
TOG_RESTL	0.09	0.09	0.09	0.08	0.0013	0.001	0.0006	0.0008	0.0007	0.0033	0.64	0.0057	1.05
TOG_RUNEX	0.12	0.14	0.11	0.17	0.4	0.35	0.32	1.2	0.44	0.98	3.7	0.79	0.52
TOG_RUNLS	0.107918	0.153593	0.165912	0.123957	0.402489	0.310163	0.144326	0.018451	0.207226	0.013638	0.457299	0.063287	0.019288
TOG_STREX	0.54	0.46	0.57	0.75	0.54	0.46	0.62	2.05	1.02	0.88	2.42	0.84	1.04

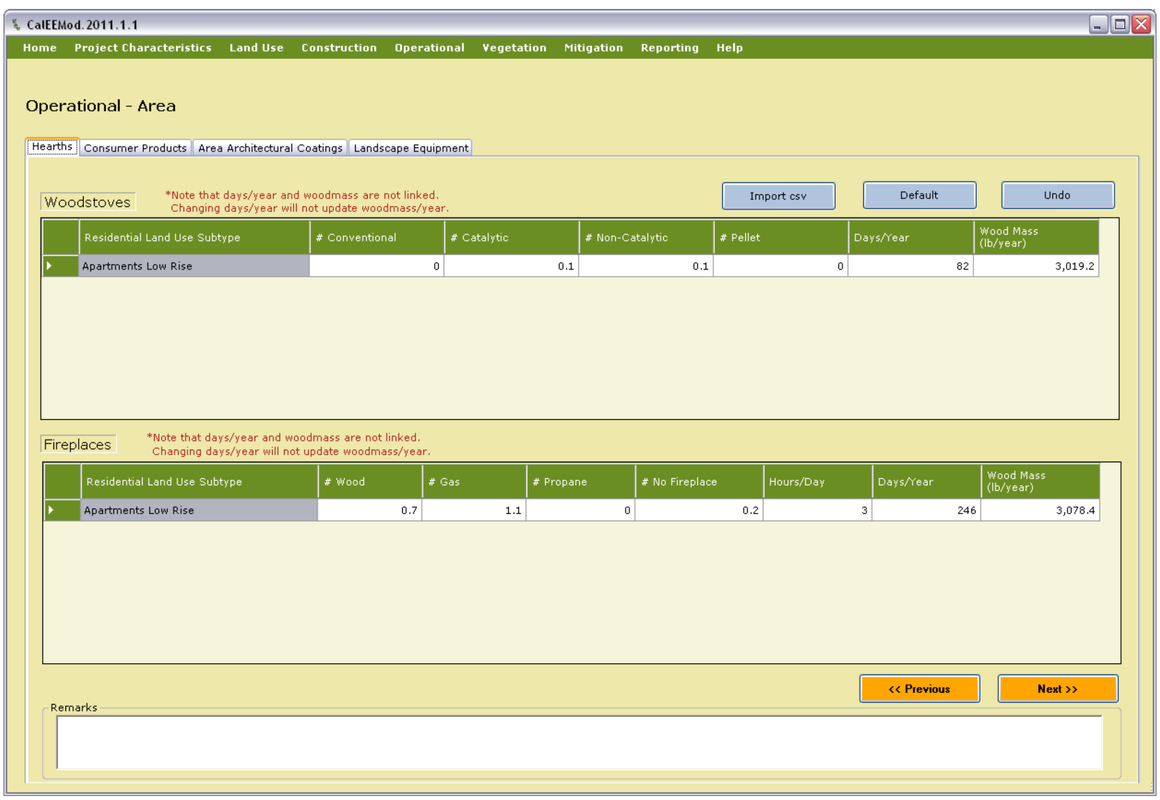
<< Previous | Next >>

Remarks

CalEEMod Input

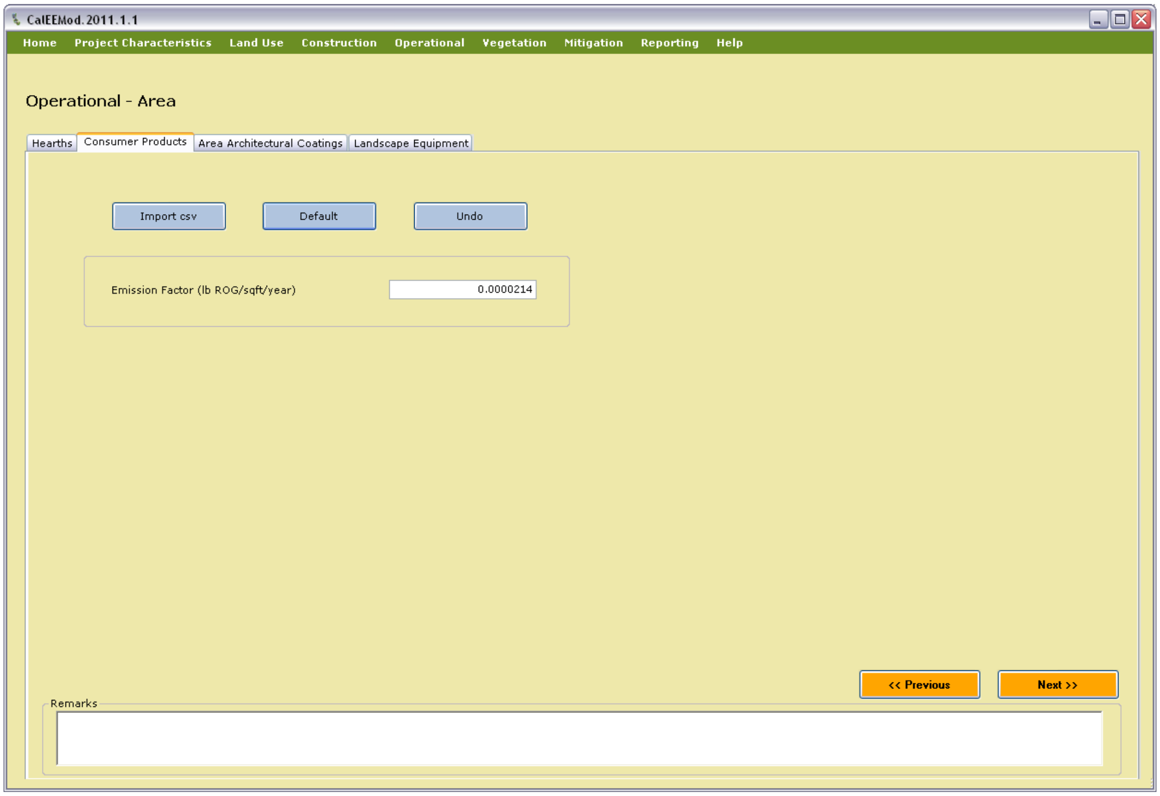
2011 Existing Use

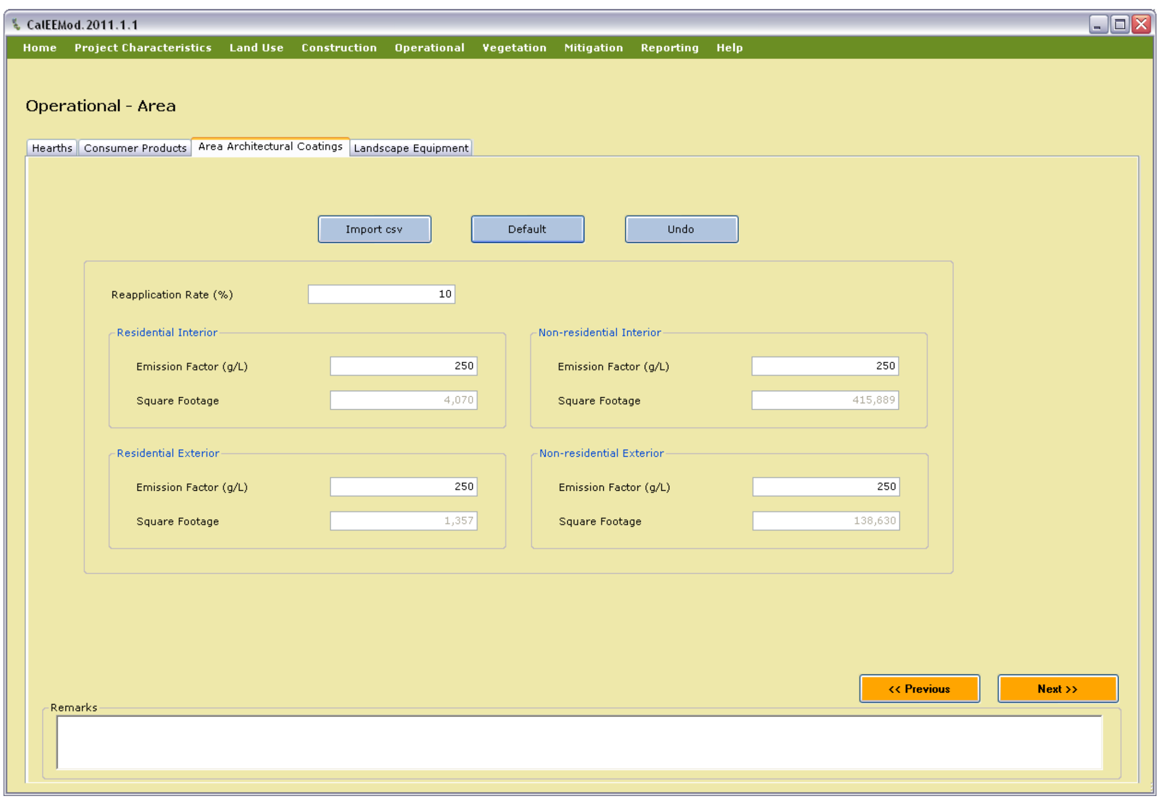




CalEEMod Input

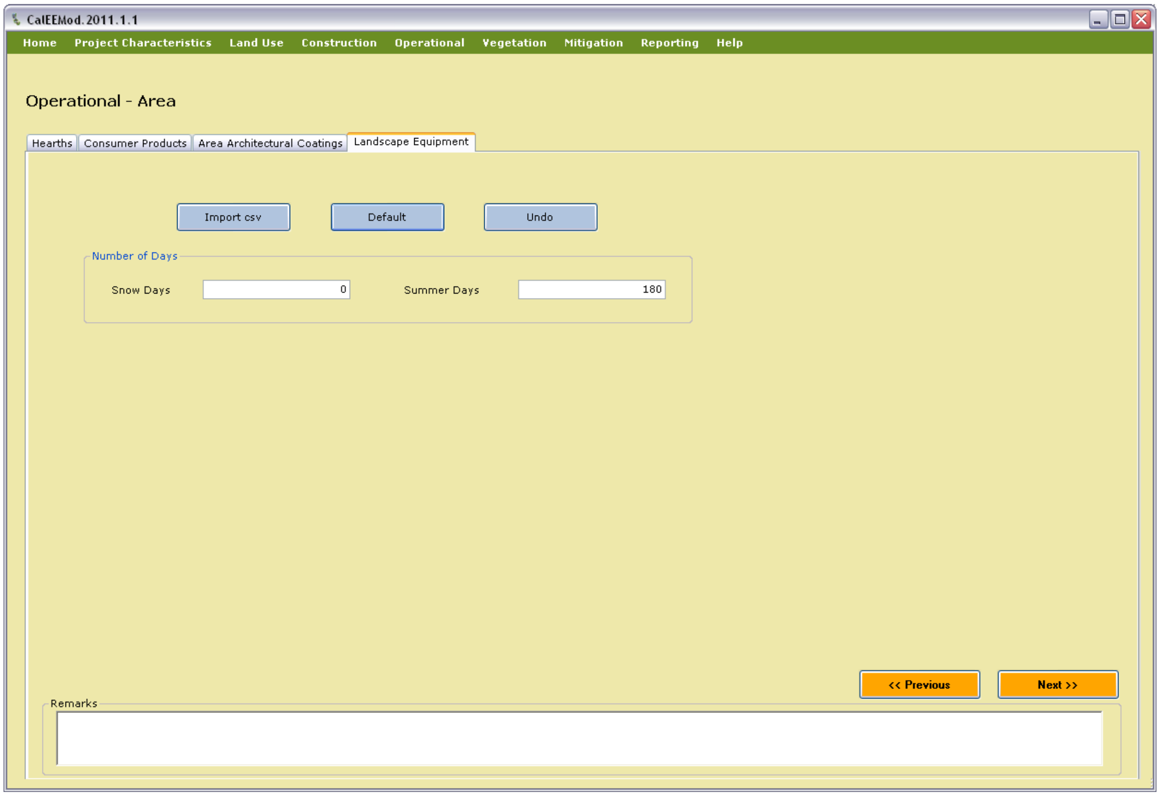
2011 Existing Use

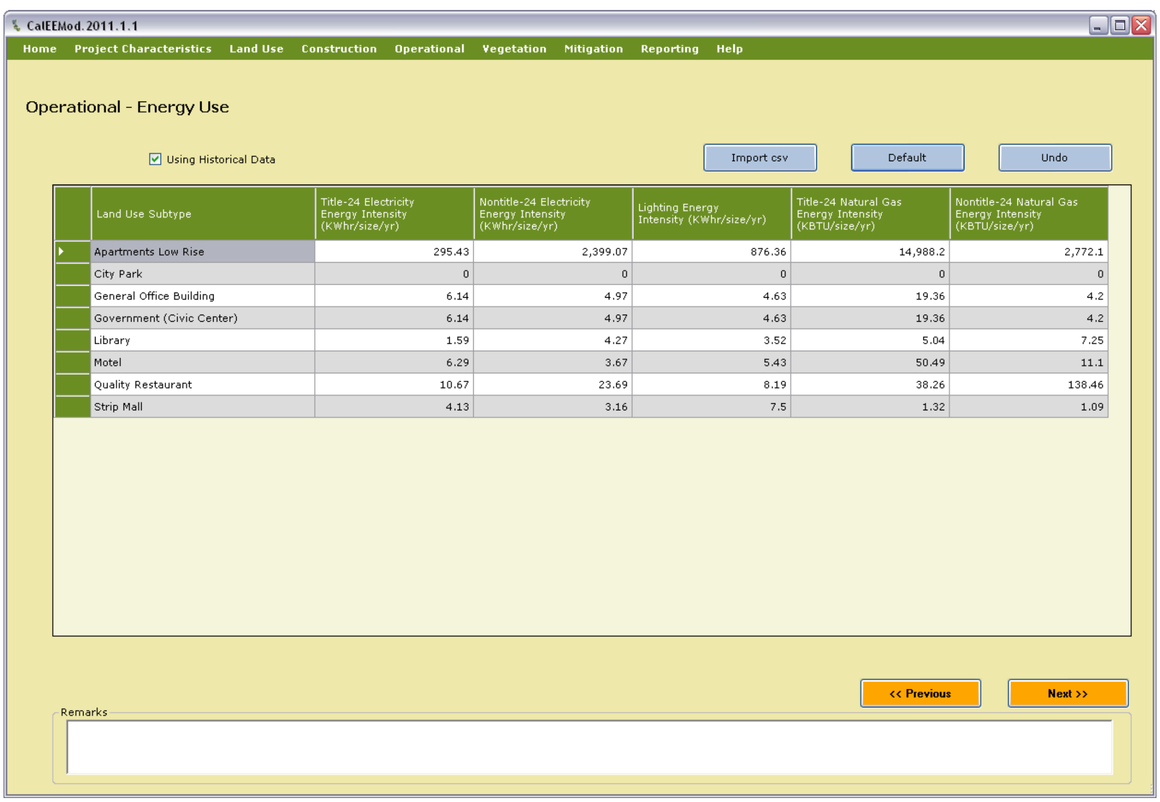




CalEEMod Input

2011 Existing Use





Land Use Subtype	Title-24 Electricity Energy Intensity (KWhr/size/yr)	Nontitle-24 Electricity Energy Intensity (KWhr/size/yr)	Lighting Energy Intensity (KWhr/size/yr)	Title-24 Natural Gas Energy Intensity (KBTU/size/yr)	Nontitle-24 Natural Gas Energy Intensity (KBTU/size/yr)
Apartments Low Rise	295.43	2,399.07	876.36	14,988.2	2,772.1
City Park	0	0	0	0	0
General Office Building	6.14	4.97	4.63	19.36	4.2
Government (Civic Center)	6.14	4.97	4.63	19.36	4.2
Library	1.59	4.27	3.52	5.04	7.25
Motel	6.29	3.67	5.43	50.49	11.1
Quality Restaurant	10.67	23.69	8.19	38.26	138.46
Strip Mall	4.13	3.16	7.5	1.32	1.09

CalEEMod Input

2011 Existing Use

CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Operational - Water and Wastewater

Import csv | Default | Undo

Land Use Subtype	Size Metric	Indoor Water Use (gals/year)	Outdoor Water Use (gals/year)	Electricity Intensity Factor To Supply (kWhr /Mgal)	Electricity Intensity Factor To Treat (kWhr /Mgal)	Electricity Intensity Factor To Distribute (kWhr /Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWhr /Mgal)	Septic Tank (%)	Aerobic (%)	Anaerobic and Facultative Lagoons (%)	Anaerobic Digester with Combustion of Digester Gas (%)	Anaerobic Digestion with Cogeneration from Combustion of Digester Gas (%)
Apartments Low Rise	Dwelling Unit	130,308.05	82,150.73	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
City Park	Acre	0	59,574.07	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
General Office Building	1000sqft	30,152,53...	18,480,58...	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
Government (Civic Center)	1000sqft	4,686,381...	2,872,298...	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
Library	1000sqft	152,376.98	238,333.23	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
Motel	Room	431,235.09	47,915.01	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
Quality Restaurant	1000sqft	9,831,456...	627,539.81	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
Strip Mall	1000sqft	3,096,972...	1,898,144.2	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0

<< Previous | Next >>

Remarks

CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Operational - Solid Waste

Import csv | Default | Undo

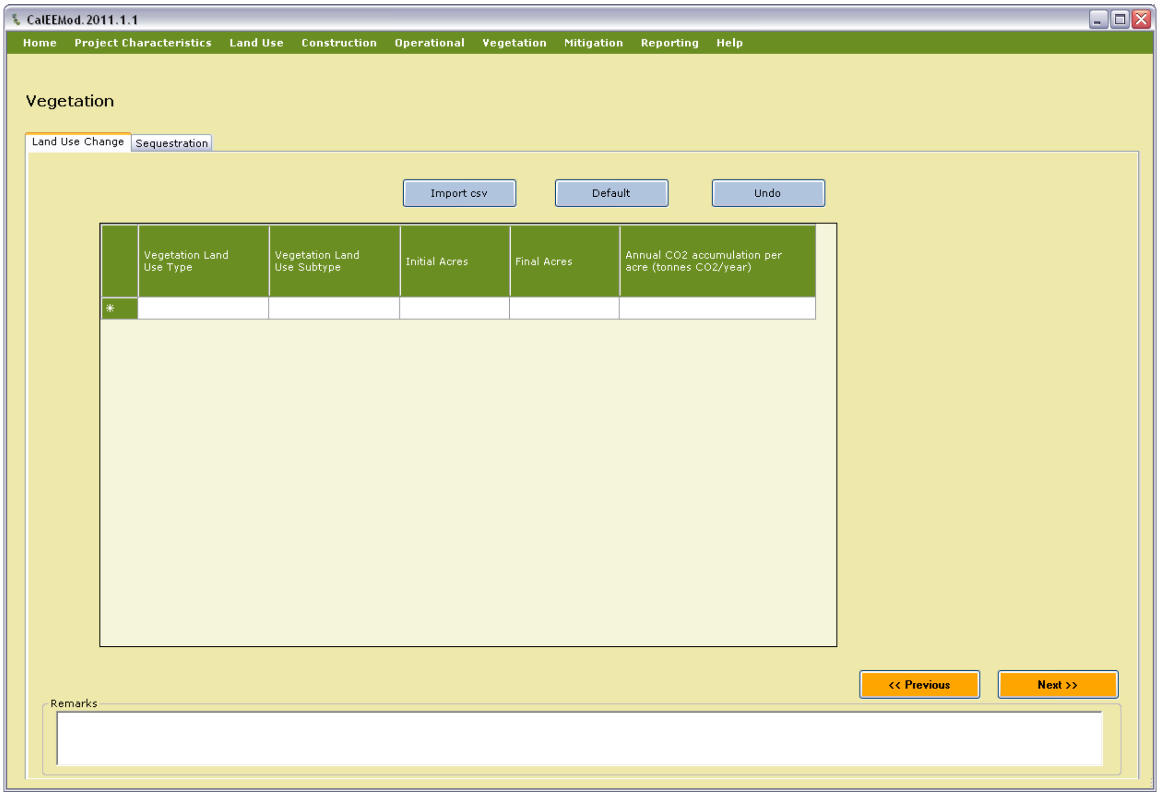
Land Use Subtype	Size Metric	Solid Waste Generation Rate (tons/year)	Landfill No Gas Capture (%)	Landfill Capture Gas Flare (%)	Landfill Capture Gas Energy Recovery (%)
Apartments Low Rise	Dwelling Unit	0.92	6	94	0
City Park	Acre	0	6	94	0
General Office Building	1000sqft	157.77	6	94	0
Government (Civic Center)	1000sqft	134.46	6	94	0
Library	1000sqft	4.48	6	94	0
Motel	Room	9.31	6	94	0
Quality Restaurant	1000sqft	29.56	6	94	0
Strip Mall	1000sqft	43.9	6	94	0

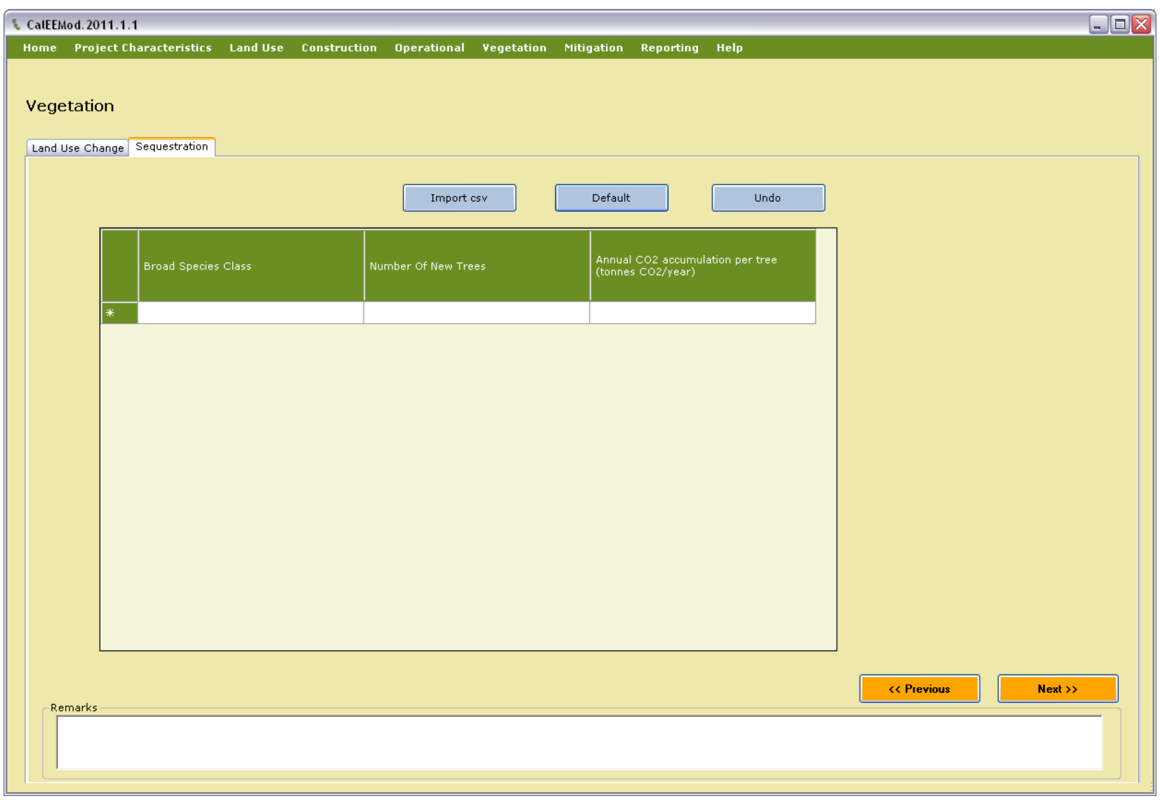
<< Previous | Next >>

Remarks

CalEEMod Input

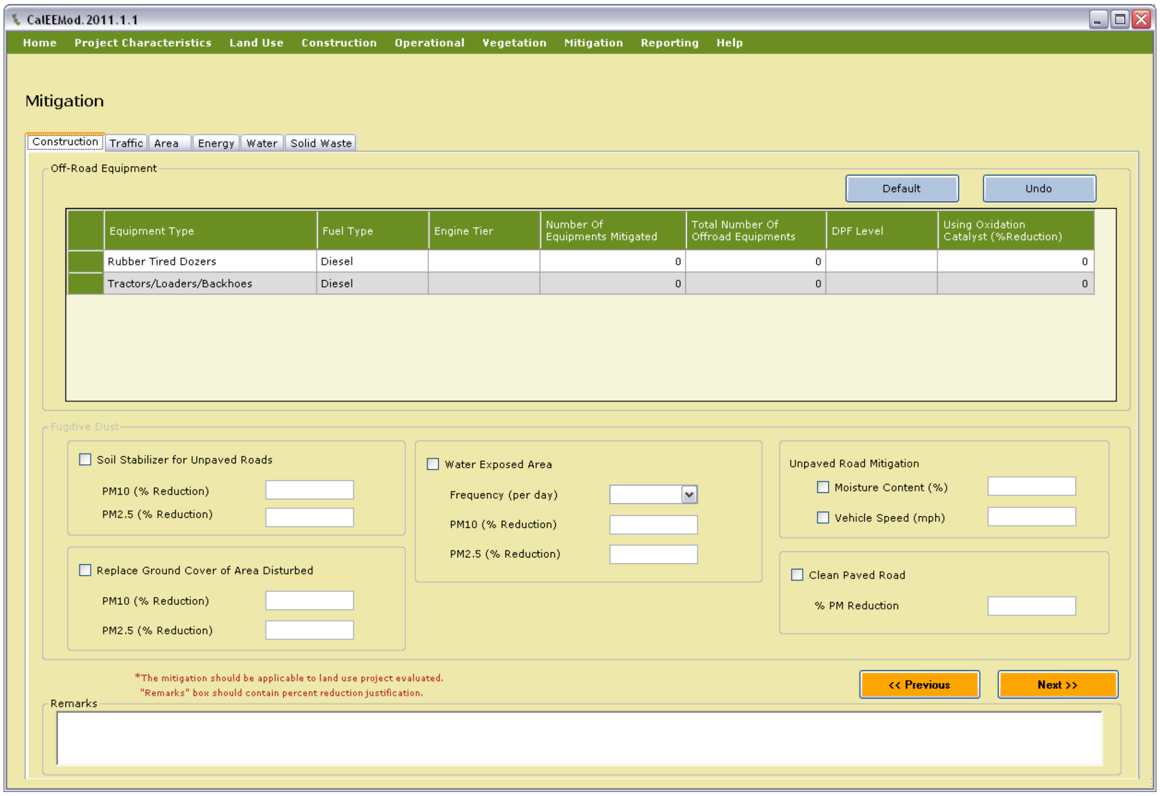
2011 Existing Use

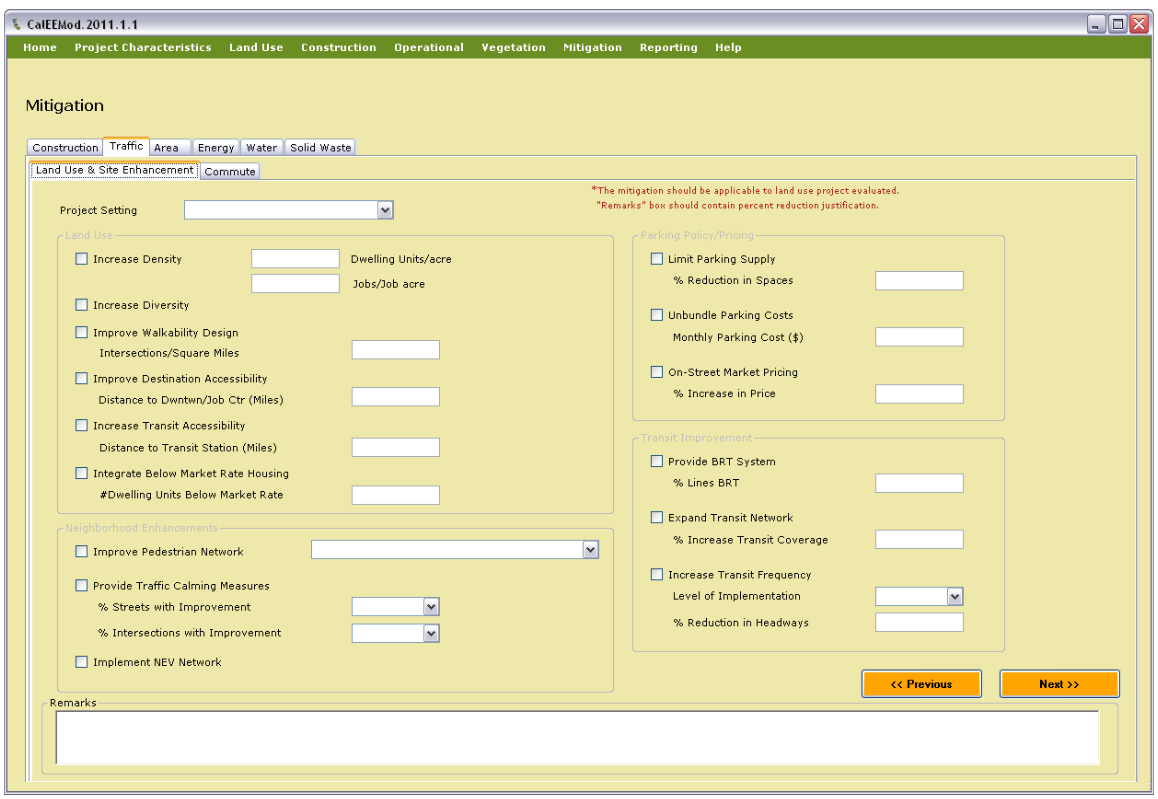




CalEEMod Input

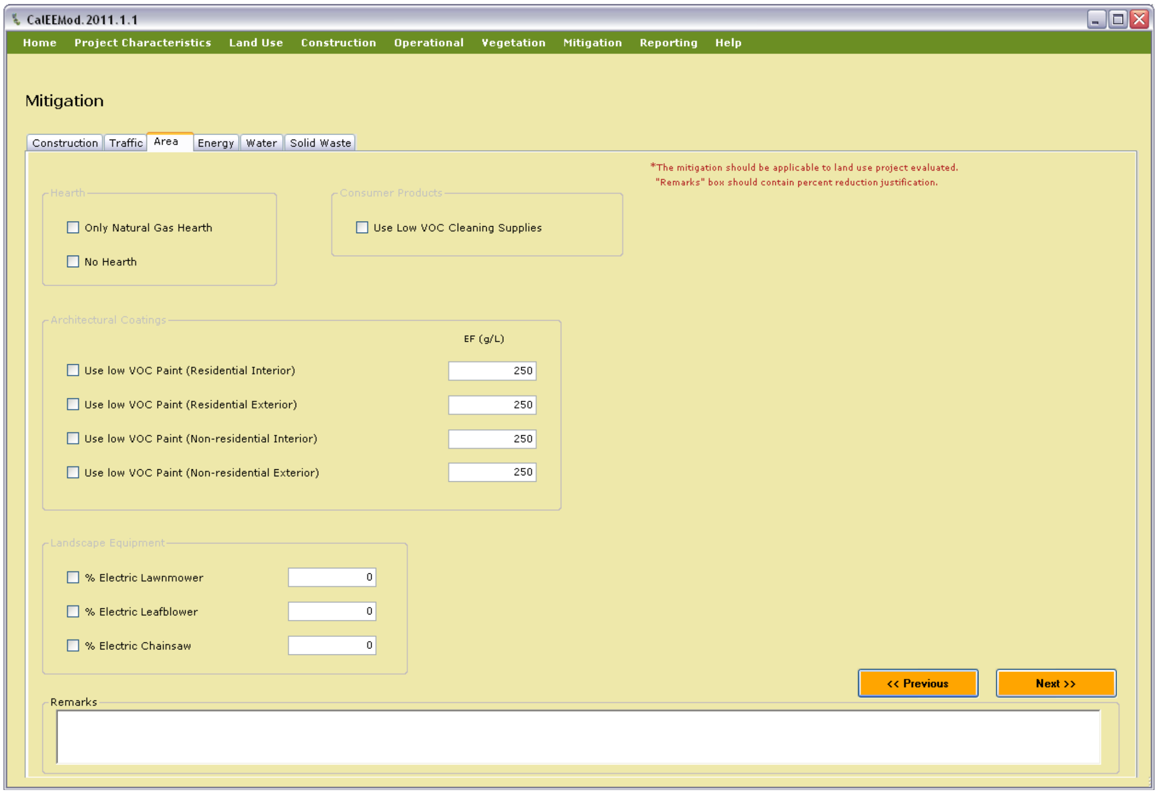
2011 Existing Use

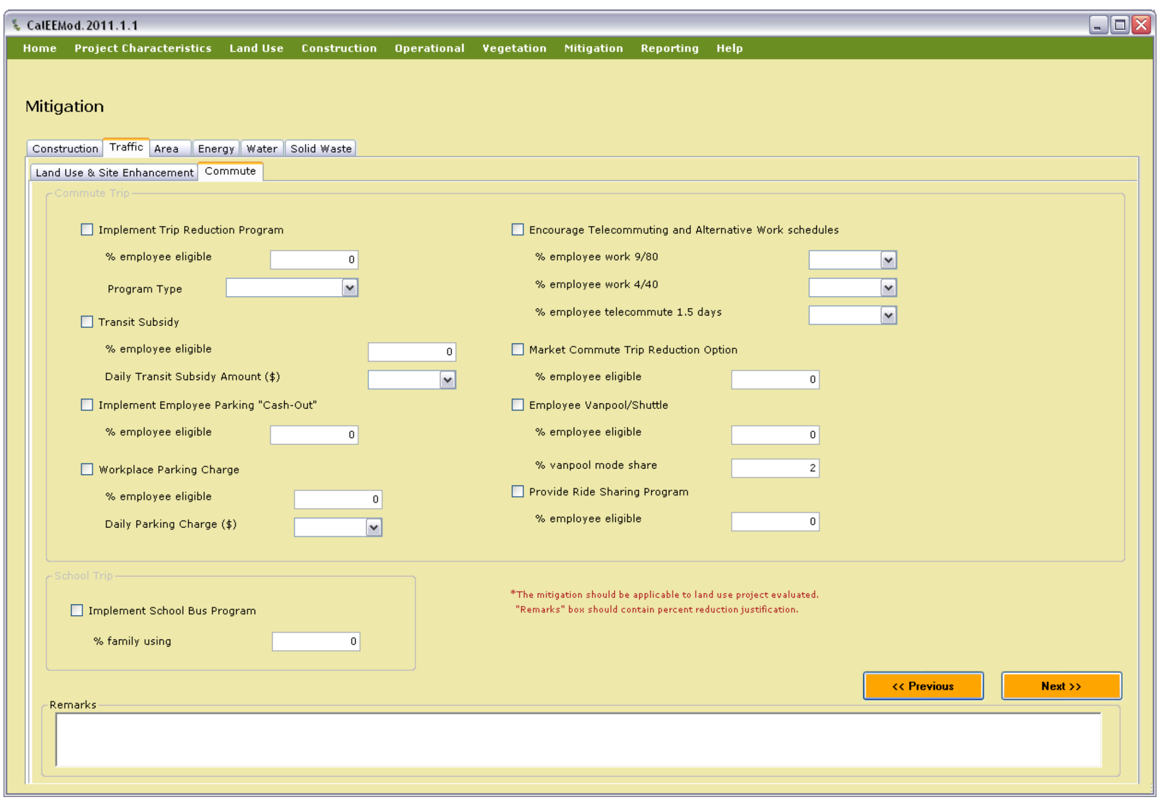




CalEEMod Input

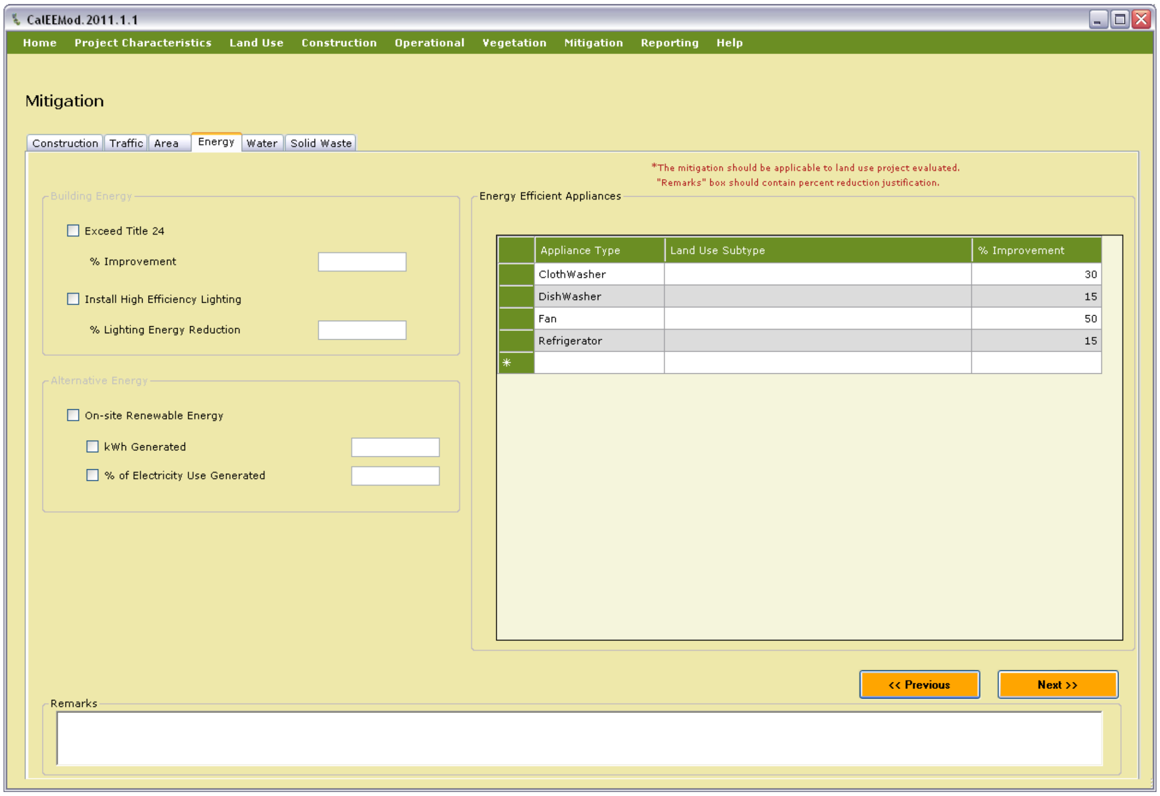
2011 Existing Use

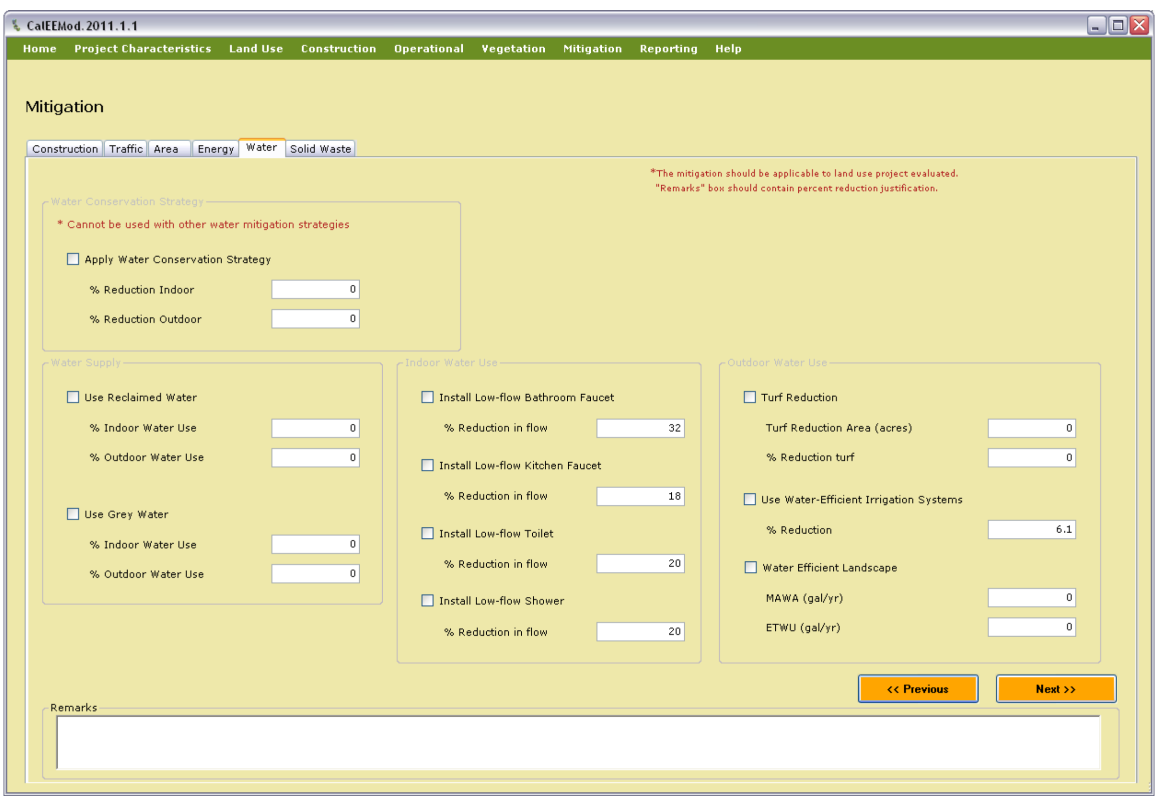




CalEEMod Input

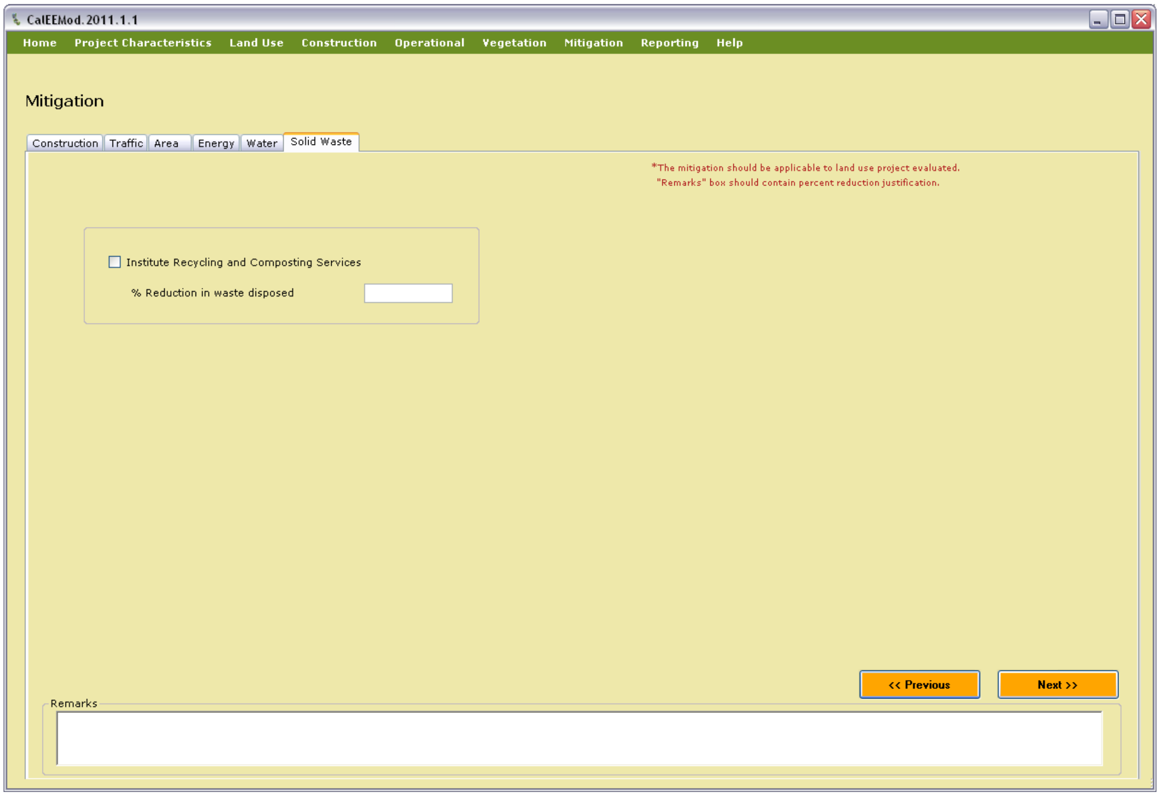
2011 Existing Use





CalEEMod Input

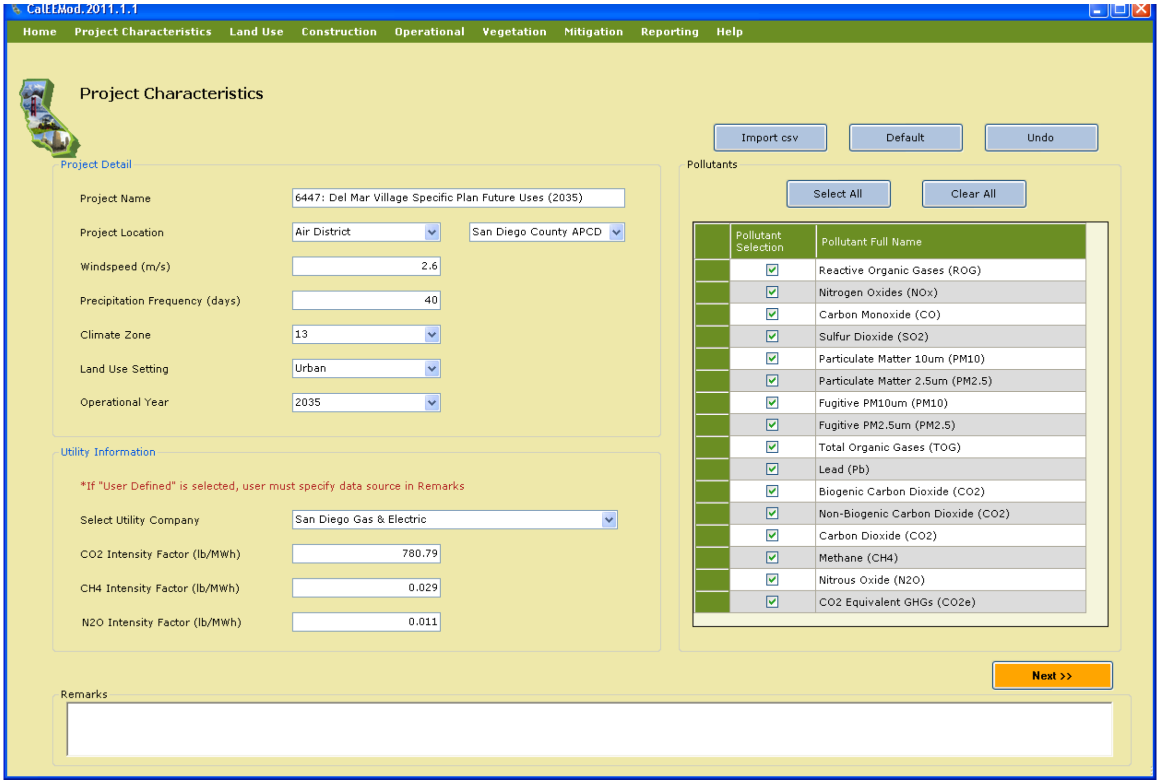
2011 Existing Use



CalEEMod Input
2035 Proposed Plan Uses

CalEEMod Input

2035 Proposed Plan Uses



CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Project Characteristics

Import csv | Default | Undo

Project Detail

Project Name	6447: Del Mar Village Specific Plan Future Uses (2035)
Project Location	Air District / San Diego County APCD
Windspeed (m/s)	2.6
Precipitation Frequency (days)	40
Climate Zone	13
Land Use Setting	Urban
Operational Year	2035

Utility Information

*If "User Defined" is selected, user must specify data source in Remarks

Select Utility Company	San Diego Gas & Electric
CO2 Intensity Factor (lb/MWh)	780.79
CH4 Intensity Factor (lb/MWh)	0.029
N2O Intensity Factor (lb/MWh)	0.011

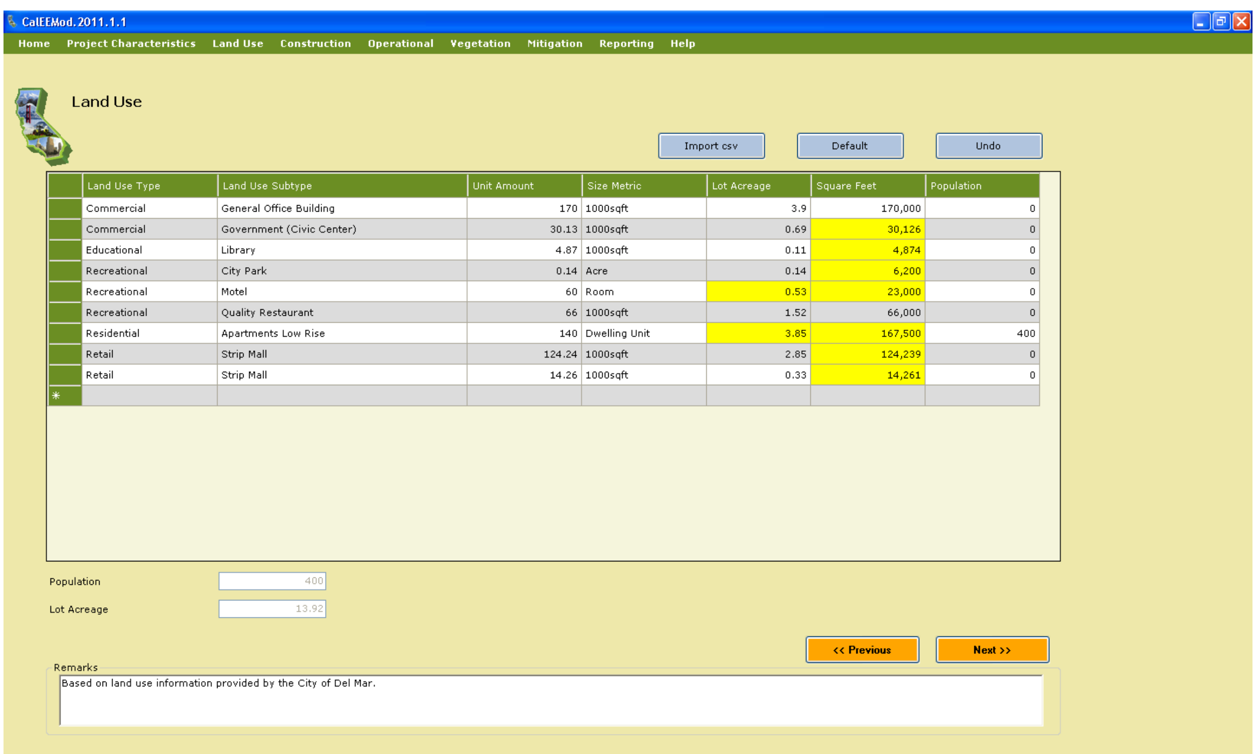
Pollutants

Select All | Clear All

Pollutant Selection	Pollutant Full Name
☑	Reactive Organic Gases (ROG)
☑	Nitrogen Oxides (NOx)
☑	Carbon Monoxide (CO)
☑	Sulfur Dioxide (SO2)
☑	Particulate Matter 10um (PM10)
☑	Particulate Matter 2.5um (PM2.5)
☑	Fugitive PM10um (PM10)
☑	Fugitive PM2.5um (PM2.5)
☑	Total Organic Gases (TOG)
☑	Lead (Pb)
☑	Biogenic Carbon Dioxide (CO2)
☑	Non-Biogenic Carbon Dioxide (CO2)
☑	Carbon Dioxide (CO2)
☑	Methane (CH4)
☑	Nitrous Oxide (N2O)
☑	CO2 Equivalent GHGs (CO2e)

Next >>

Remarks



CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Land Use

Import csv | Default | Undo

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet	Population
Commercial	General Office Building	170	1000sqft	3.9	170,000	0
Commercial	Government (Civic Center)	30.13	1000sqft	0.69	30,126	0
Educational	Library	4.87	1000sqft	0.11	4,874	0
Recreational	City Park	0.14	Acre	0.14	6,200	0
Recreational	Motel	60	Room	0.53	23,000	0
Recreational	Quality Restaurant	66	1000sqft	1.52	66,000	0
Residential	Apartments Low Rise	140	Dwelling Unit	3.85	167,500	400
Retail	Strip Mall	124.24	1000sqft	2.85	124,239	0
Retail	Strip Mall	14.26	1000sqft	0.33	14,261	0

Population 400

Lot Acreage 13.92

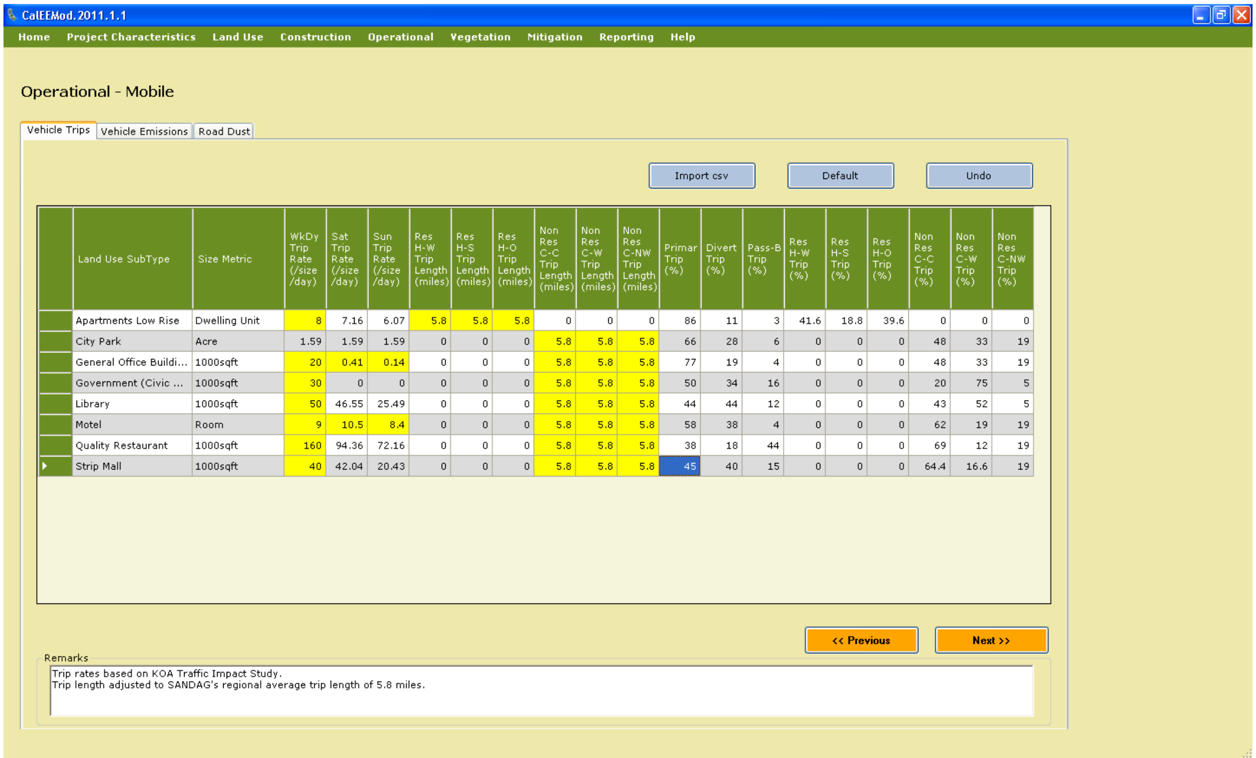
<< Previous | Next >>

Remarks

Based on land use information provided by the City of Del Mar.

CalEEMod Input

2035 Proposed Plan Uses



Land Use SubType	Size Metric	WkDy Trip Rate (/size /day)	Sat Trip Rate (/size /day)	Sun Trip Rate (/size /day)	Res H-W Trip Length (miles)	Res H-S Trip Length (miles)	Res H-O Trip Length (miles)	Non Res C-C Trip Length (miles)	Non Res C-W Trip Length (miles)	Non Res C-NW Trip Length (miles)	Primar Trip (%)	Divert Trip (%)	Pass-B Trip (%)	Res H-W Trip (%)	Res H-S Trip (%)	Res H-O Trip (%)	Non Res C-C Trip (%)	Non Res C-W Trip (%)	Non Res C-NW Trip (%)
Apartments Low Rise	Dwelling Unit	8	7.16	6.07	5.8	5.8	5.8	0	0	0	86	11	3	41.6	18.8	39.6	0	0	0
City Park	Acre	1.59	1.59	1.59	0	0	0	5.8	5.8	5.8	66	28	6	0	0	0	48	33	19
General Office Buildi...	1000sqft	20	0.41	0.14	0	0	0	5.8	5.8	5.8	77	19	4	0	0	0	48	33	19
Government (Civic ...	1000sqft	30	0	0	0	0	0	5.8	5.8	5.8	50	34	16	0	0	0	20	75	5
Library	1000sqft	50	46.55	25.49	0	0	0	5.8	5.8	5.8	44	44	12	0	0	0	43	52	5
Motel	Room	9	10.5	8.4	0	0	0	5.8	5.8	5.8	58	38	4	0	0	0	62	19	19
Quality Restaurant	1000sqft	160	94.36	72.16	0	0	0	5.8	5.8	5.8	38	18	44	0	0	0	69	12	19
Strip Mall	1000sqft	40	42.04	20.43	0	0	0	5.8	5.8	5.8	45	40	15	0	0	0	64.4	16.6	19

CalEEMod Input

2035 Proposed Plan Uses

CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Operational - Mobile

Vehicle Trips | Vehicle Emissions | Road Dust

Annual | Summer | Winter

Import csv | Default | Undo

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
FleetMix	0.501394	0.089452	0.240196	0.097	0.01977	0.005657	0.013438	0.015959	0.001211	0.001357	0.009112	0.001093	0.004361
CH4_IDLEX	0	0	0	0	0.0014	0.0012	0.0009	0.1	0.0009	0	0	0.02	0
CH4_RUNEX	0.0092	0.0073	0.01	0.01	0.01	0.0077	0.0059	0.01	0.0064	0.02	0.21	0.01	0.0083
CH4_STREX	0.0078	0.0029	0.0061	0.0084	0.0091	0.0064	0.0062	0.01	0.01	0.06	0.12	0.0085	0.01
CO_IDLEX	0	0	0	0	0.19	0.18	0.13	11.61	0.14	0	0	4.87	0
CO_RUNEX	0.78	0.57	0.94	1.27	0.47	0.52	1.24	1.93	1.3	2.76	24.54	3.49	0.26
CO_STREX	1.73	1	1.78	2.5	2.12	1.65	1.67	6.74	2.99	9.38	10.37	2.55	4.12
CO2_IDLEX	0	0	0	0	7.29	7.722	11.412	1,666.863	11.205	0	0	496.764	0
CO2_RUNEX	229.005	293.823	337.671	462.438	794.115	700.083	1,223.136	1,636.362	1,218.771	1,672.551	160.443	1,284.354	684.45
CO2_STREX	42.786	54.936	62.991	86.202	36.81	31.428	9.684	5.247	11.07	44.811	36.297	11.772	29.637
NOX_IDLEX	0	0	0	0	0.01	0.04	0.18	34.54	0.17	0	0	8.94	0
NOX_RUNEX	0.08	0.04	0.07	0.09	0.31	0.45	0.95	4.59	0.91	7.21	1.1	5.1	0.28
NOX_STREX	0.07	0.05	0.11	0.14	1.18	0.9	0.24	0.79	0.47	2.02	0.3	0.27	0.57
PM10_IDLEX	0	0	0	0	0.0002	0.0005	0.002	0.1	0.0018	0	0	0.09	0
PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0093	0.004	0.01	0.01
PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.02	0.1	0.23	0.1	0.14	0.02	0.32	0.0093
PM10_STREX	0.0069	0.0078	0.01	0.01	0.0021	0.0017	0.0011	0.0007	0.0013	0.0043	0.0085	0.0008	0.0008
PM25_IDLEX	0	0	0	0	0.0002	0.0005	0.0018	0.09	0.0017	0	0	0.08	0
PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0023	0.001	0.003	0.003
PM25_RUNEX	0.01	0.01	0.03	0.03	0.01	0.01	0.1	0.21	0.09	0.13	0.01	0.3	0.0086
PM25_STREX	0.0064	0.0073	0.01	0.01	0.0019	0.0015	0.001	0.0007	0.0012	0.004	0.0066	0.0007	0.0007
ROG_DIURN	0.03	0.02	0.06	0.07	0.001	0.0007	0.0002	0.0002	0.0003	0.0032	0.83	0.0015	0.35
ROG_HTSK	0.07	0.08	0.12	0.13	0.03	0.02	0.0054	0.0059	0.0098	0.06	0.31	0.01	0.02
ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.15	0.02	0	0	0.65	0
ROG_RESTL	0.03	0.03	0.08	0.09	0.0007	0.0005	0.0001	0.0001	0.0002	0.0029	0.51	0.0009	0.26
ROG_RUNEX	0.03	0.0094	0.01	0.02	0.03	0.04	0.09	0.36	0.09	0.45	2.82	0.35	0.01
ROG_RUNLS	0.036222	0.054454	0.079469	0.078056	0.225567	0.119116	0.041902	0.00241	0.06982	0.016408	0.242409	0.008464	0.002472
ROG_STREX	0.13	0.05	0.1	0.14	0.16	0.11	0.1	0.28	0.18	1.11	2.03	0.15	0.23
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
SO2_RUNEX	0.0036	0.0046	0.0047	0.0064	0.0085	0.0075	0.01	0.01	0.01	0.01	0.0022	0.01	0.0073
SO2_STREX	0.0007	0.0009	0.0009	0.0012	0.0004	0.0004	0.0001	0.0002	0.0002	0.0007	0.0006	0.0002	0.0004
TOG_DIURN	0.03	0.02	0.06	0.07	0.001	0.0007	0.0002	0.0002	0.0003	0.0032	0.83	0.0015	0.35
TOG_HTSK	0.07	0.08	0.12	0.13	0.03	0.02	0.0054	0.0059	0.0098	0.06	0.31	0.01	0.02
TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.45	0.02	0	0	0.72	0
TOG_RESTL	0.03	0.03	0.08	0.09	0.0007	0.0005	0.0001	0.0001	0.0002	0.0029	0.51	0.0009	0.26
TOG_RUNEX	0.04	0.01	0.03	0.04	0.04	0.06	0.1	0.41	0.11	0.52	3.08	0.4	0.02
TOG_RUNLS	0.036222	0.054454	0.079469	0.078056	0.225567	0.119116	0.041902	0.00241	0.06982	0.016408	0.242409	0.008464	0.002472
TOG_STREX	0.14	0.05	0.11	0.16	0.17	0.12	0.11	0.3	0.19	1.19	2.18	0.16	0.25

CalEEMod Input

2035 Proposed Plan Uses

CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Operational - Mobile

Vehicle Trips | Vehicle Emissions | Road Dust

Annual | Summer | Winter

Import csv | Default | Undo

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
FleetMix	0.501394	0.089452	0.240196	0.097	0.01977	0.005657	0.013438	0.015959	0.001211	0.001357	0.009112	0.001093	0.004361
CH4_IDLEX	0	0	0	0	0.0014	0.0012	0.0009	0.09	0.0009	0	0	0.02	0
CH4_RUNEX	0.0097	0.0079	0.01	0.01	0.01	0.0078	0.006	0.01	0.0065	0.02	0.21	0.01	0.0085
CH4_STREX	0.0065	0.0024	0.0051	0.007	0.008	0.0056	0.0055	0.01	0.0092	0.05	0.1	0.0078	0.01
CO_IDLEX	0	0	0	0	0.19	0.18	0.13	8.44	0.14	0	0	4.87	0
CO_RUNEX	0.87	0.64	1.06	1.42	0.48	0.52	1.24	1.94	1.31	2.8	23.71	3.51	0.26
CO_STREX	1.31	0.75	1.35	1.9	1.67	1.31	1.35	5.44	2.41	7.94	8.96	2.18	3.33
CO2_IDLEX	0	0	0	0	7.29	7.722	11.412	1,761.858	11.205	0	0	496.764	0
CO2_RUNEX	244.827	313.434	360.234	493.254	794.115	700.083	1,223.136	1,636.362	1,218.771	1,672.551	160.443	1,284.354	684.45
CO2_STREX	42.786	54.936	62.991	86.202	36.81	31.428	9.684	5.247	11.07	44.811	36.297	11.772	29.637
NOX_IDLEX	0	0	0	0	0.01	0.04	0.18	35.76	0.17	0	0	8.94	0
NOX_RUNEX	0.08	0.04	0.07	0.09	0.32	0.46	0.98	4.75	0.94	7.46	1.12	5.27	0.29
NOX_STREX	0.07	0.04	0.1	0.13	1.14	0.86	0.23	0.75	0.45	1.93	0.29	0.26	0.55
PM10_IDLEX	0	0	0	0	0.0002	0.0005	0.002	0.08	0.0018	0	0	0.09	0
PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0093	0.004	0.01	0.01

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.02	0.1	0.23	0.1	0.14	0.02	0.32	0.0093
PM10_STREX	0.0069	0.0078	0.01	0.01	0.0021	0.0017	0.0011	0.0007	0.0013	0.0043	0.0085	0.0008	0.0008
PM25_IDLEX	0	0	0	0	0.0002	0.0005	0.0018	0.07	0.0017	0	0	0.08	0
PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0023	0.001	0.003	0.003
PM25_RUNEX	0.01	0.01	0.03	0.03	0.01	0.01	0.1	0.21	0.09	0.13	0.01	0.3	0.0086
PM25_STREX	0.0064	0.0073	0.01	0.01	0.0019	0.0015	0.001	0.0007	0.0012	0.004	0.0066	0.0007	0.0007
ROG_DIURN	0.04	0.04	0.1	0.1	0.0015	0.0011	0.0003	0.0003	0.0005	0.0048	1.41	0.0023	0.55
ROG_HTSK	0.08	0.09	0.13	0.13	0.03	0.02	0.0055	0.006	0.01	0.06	0.38	0.01	0.02
ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.02	0.02	0	0	0.65	0
ROG_RESTL	0.04	0.05	0.12	0.14	0.0011	0.0008	0.0002	0.0002	0.0003	0.0047	1.07	0.0015	0.41
ROG_RUNEX	0.03	0.01	0.01	0.02	0.03	0.04	0.09	0.36	0.09	0.46	2.76	0.36	0.01
ROG_RUNLS	0.033682	0.050511	0.073761	0.072537	0.21634	0.11408	0.040724	0.002382	0.068021	0.014609	0.21992	0.007453	0.002391
ROG_STREX	0.11	0.04	0.08	0.12	0.14	0.09	0.09	0.25	0.16	1.01	1.79	0.13	0.2
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
SO2_RUNEX	0.0039	0.0049	0.005	0.0068	0.0085	0.0075	0.01	0.01	0.01	0.01	0.0022	0.01	0.0073

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
ROG_HTSK	0.08	0.09	0.13	0.13	0.03	0.02	0.0055	0.006	0.01	0.06	0.38	0.01	0.02
ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.02	0.02	0	0	0.65	0
ROG_RESTL	0.04	0.05	0.12	0.14	0.0011	0.0008	0.0002	0.0002	0.0003	0.0047	1.07	0.0015	0.41
ROG_RUNEX	0.03	0.01	0.01	0.02	0.03	0.04	0.09	0.36	0.09	0.46	2.76	0.36	0.01
ROG_RUNLS	0.033682	0.050511	0.073761	0.072537	0.21634	0.11408	0.040724	0.002382	0.068021	0.014609	0.21992	0.007453	0.002391
ROG_STREX	0.11	0.04	0.08	0.12	0.14	0.09	0.09	0.25	0.16	1.01	1.79	0.13	0.2
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
SO2_RUNEX	0.0039	0.0049	0.005	0.0068	0.0085	0.0075	0.01	0.01	0.01	0.01	0.0022	0.01	0.0073
SO2_STREX	0.0007	0.0009	0.0009	0.0012	0.0004	0.0004	0.0001	0.0001	0.0002	0.0006	0.0006	0.0002	0.0004
TOG_DIURN	0.04	0.04	0.1	0.1	0.0015	0.0011	0.0003	0.0003	0.0005	0.0048	1.41	0.0023	0.55
TOG_HTSK	0.08	0.09	0.13	0.13	0.03	0.02	0.0055	0.006	0.01	0.06	0.38	0.01	0.02
TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.3	0.02	0	0	0.72	0
TOG_RESTL	0.04	0.05	0.12	0.14	0.0011	0.0008	0.0002	0.0002	0.0003	0.0047	1.07	0.0015	0.41
TOG_RUNEX	0.04	0.01	0.03	0.04	0.05	0.06	0.1	0.41	0.11	0.52	3.02	0.41	0.02
TOG_RUNLS	0.033682	0.050511	0.073761	0.072537	0.21634	0.11408	0.040724	0.002382	0.068021	0.014609	0.21992	0.007453	0.002391
TOG_STREX	0.12	0.04	0.09	0.13	0.15	0.1	0.1	0.27	0.17	1.08	1.91	0.14	0.22

CalEEMod Input

2035 Proposed Plan Uses

CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Operational - Mobile

Vehicle Trips | Vehicle Emissions | Road Dust

Annual | Summer | Winter

Import csv | Default | Undo

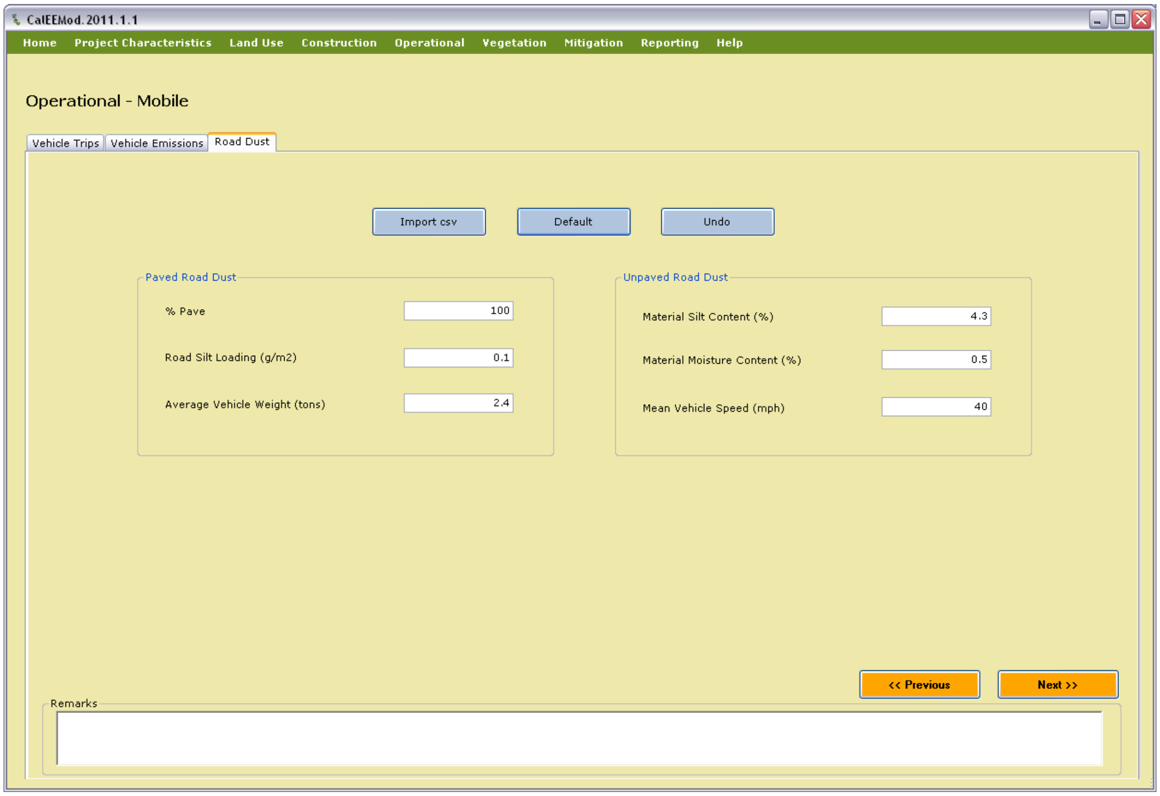
Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
FleetMix	0.501394	0.089452	0.240196	0.097	0.01977	0.005657	0.013438	0.015959	0.001211	0.001357	0.009112	0.001093	0.004361
CH4_IDLEX	0	0	0	0	0.0014	0.0012	0.0009	0.1	0.0009	0	0	0.02	0
CH4_RUNEX	0.0091	0.0072	0.01	0.01	0.01	0.0077	0.0059	0.01	0.0064	0.02	0.21	0.01	0.0083
CH4_STREX	0.0079	0.0029	0.0061	0.0085	0.0092	0.0064	0.0061	0.01	0.01	0.06	0.12	0.0088	0.01
CO_IDLEX	0	0	0	0	0.19	0.18	0.13	16.05	0.14	0	0	4.87	0
CO_RUNEX	0.76	0.55	0.92	1.24	0.47	0.52	1.24	1.93	1.3	2.76	24.67	3.49	0.25
CO_STREX	1.75	1.01	1.8	2.53	2.14	1.67	1.66	6.67	2.96	9.4	10.39	2.68	4.08
CO2_IDLEX	0	0	0	0	7.29	7.722	11.412	1,533.879	11.205	0	0	496.764	0
CO2_RUNEX	224.748	288.567	331.623	454.176	794.115	700.083	1,223.136	1,636.362	1,218.771	1,672.551	160.443	1,284.354	684.45
CO2_STREX	42.786	54.936	62.991	86.202	36.81	31.428	9.684	5.247	11.07	44.811	36.297	11.772	29.637
NOX_IDLEX	0	0	0	0	0.01	0.04	0.18	32.83	0.17	0	0	8.94	0
NOX_RUNEX	0.09	0.04	0.08	0.1	0.33	0.48	1.02	4.92	0.98	7.76	1.25	5.46	0.31
NOX_STREX	0.07	0.05	0.11	0.14	1.18	0.89	0.24	0.78	0.47	2.02	0.3	0.28	0.57
PM10_IDLEX	0	0	0	0	0.0002	0.0005	0.002	0.12	0.0018	0	0	0.09	0
PM10_PMBW	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.0063	0.01	0.01
PM10_PMTW	0.008	0.008	0.008	0.008	0.01	0.01	0.01	0.03	0.01	0.0093	0.004	0.01	0.01
PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.02	0.1	0.23	0.1	0.14	0.02	0.32	0.0093

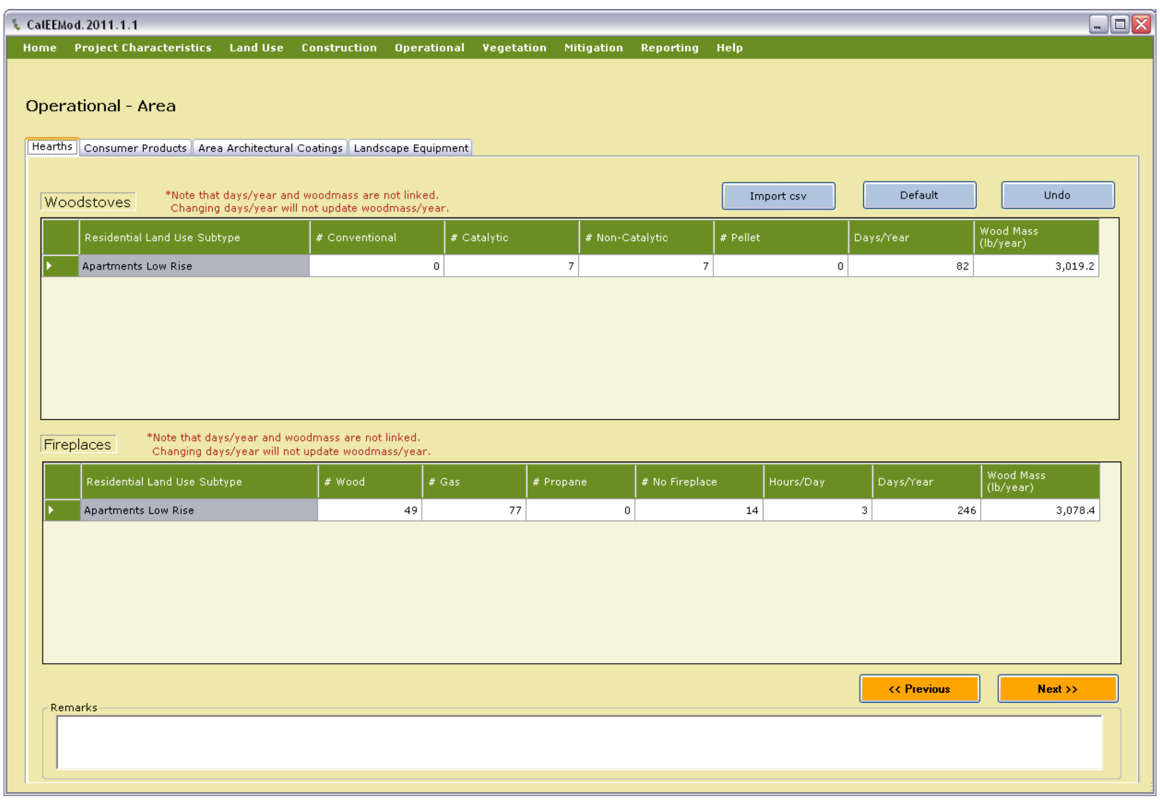
Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
PM10_RUNEX	0.01	0.01	0.03	0.03	0.02	0.02	0.1	0.23	0.1	0.14	0.02	0.32	0.0093
PM10_STREX	0.0069	0.0078	0.01	0.01	0.0021	0.0017	0.0011	0.0007	0.0013	0.0043	0.0085	0.0008	0.0008
PM25_IDLEX	0	0	0	0	0.0002	0.0005	0.0018	0.11	0.0017	0	0	0.08	0
PM25_PMBW	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.0054	0.01	0.0054	0.0054	0.0027	0.0054	0.0054
PM25_PMTW	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.0089	0.003	0.0023	0.001	0.003	0.003
PM25_RUNEX	0.01	0.01	0.03	0.03	0.01	0.01	0.1	0.21	0.09	0.13	0.01	0.3	0.0086
PM25_STREX	0.0064	0.0073	0.01	0.01	0.0019	0.0015	0.001	0.0007	0.0012	0.004	0.0066	0.0007	0.0007
ROG_DIURN	0.02	0.02	0.05	0.05	0.001	0.0007	0.0002	0.0002	0.0003	0.0031	0.91	0.0015	0.34
ROG_HTSK	0.09	0.09	0.14	0.14	0.03	0.02	0.0058	0.0062	0.01	0.07	0.5	0.01	0.02
ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.33	0.02	0	0	0.65	0
ROG_RESTL	0.03	0.04	0.08	0.09	0.0007	0.0005	0.0002	0.0001	0.0002	0.0033	0.61	0.001	0.28
ROG_RUNEX	0.03	0.0092	0.01	0.02	0.03	0.04	0.09	0.36	0.09	0.45	2.82	0.35	0.01
ROG_RUNLS	0.043238	0.065515	0.095459	0.093525	0.254435	0.134284	0.045814	0.002617	0.076033	0.02128	0.305313	0.010737	0.00271
ROG_STREX	0.13	0.05	0.1	0.15	0.16	0.11	0.1	0.28	0.18	1.11	2.04	0.15	0.23
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
SO2_RUNEX	0.0036	0.0045	0.0046	0.0063	0.0085	0.0075	0.01	0.01	0.01	0.01	0.0022	0.01	0.0073
SO2_STREX	0.0007	0.0009	0.0009	0.0012	0.0004	0.0004	0.0001	0.0002	0.0002	0.0007	0.0006	0.0002	0.0004

Fleet Mix / Emission Type	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
ROG_HTSK	0.09	0.09	0.14	0.14	0.03	0.02	0.0058	0.0062	0.01	0.07	0.5	0.01	0.02
ROG_IDLEX	0	0	0	0	0.03	0.02	0.01	2.33	0.02	0	0	0.65	0
ROG_RESTL	0.03	0.04	0.08	0.09	0.0007	0.0005	0.0002	0.0001	0.0002	0.0033	0.61	0.001	0.28
ROG_RUNEX	0.03	0.0092	0.01	0.02	0.03	0.04	0.09	0.36	0.09	0.45	2.82	0.35	0.01
ROG_RUNLS	0.043238	0.065515	0.095459	0.093525	0.254435	0.134284	0.045814	0.002617	0.076033	0.02128	0.305313	0.010737	0.00271
ROG_STREX	0.13	0.05	0.1	0.15	0.16	0.11	0.1	0.28	0.18	1.11	2.04	0.15	0.23
SO2_IDLEX	0	0	0	0	0.0001	0.0001	0.0001	0.01	0.0001	0	0	0.0053	0
SO2_RUNEX	0.0036	0.0045	0.0046	0.0063	0.0085	0.0075	0.01	0.01	0.01	0.01	0.0022	0.01	0.0073
SO2_STREX	0.0007	0.0009	0.0009	0.0012	0.0004	0.0004	0.0001	0.0002	0.0002	0.0007	0.0006	0.0002	0.0004
TOG_DIURN	0.02	0.02	0.05	0.05	0.001	0.0007	0.0002	0.0002	0.0003	0.0031	0.91	0.0015	0.34
TOG_HTSK	0.09	0.09	0.14	0.14	0.03	0.02	0.0058	0.0062	0.01	0.07	0.5	0.01	0.02
TOG_IDLEX	0	0	0	0	0.03	0.03	0.02	2.65	0.02	0	0	0.72	0
TOG_RESTL	0.03	0.04	0.08	0.09	0.0007	0.0005	0.0002	0.0001	0.0002	0.0033	0.61	0.001	0.28
TOG_RUNEX	0.04	0.01	0.03	0.03	0.04	0.06	0.1	0.41	0.11	0.52	3.09	0.4	0.02
TOG_RUNLS	0.043238	0.065515	0.095459	0.093525	0.254435	0.134284	0.045814	0.002617	0.076033	0.02128	0.305313	0.010737	0.00271
TOG_STREX	0.14	0.05	0.11	0.16	0.17	0.12	0.11	0.3	0.19	1.19	2.19	0.16	0.25

CalEEMod Input

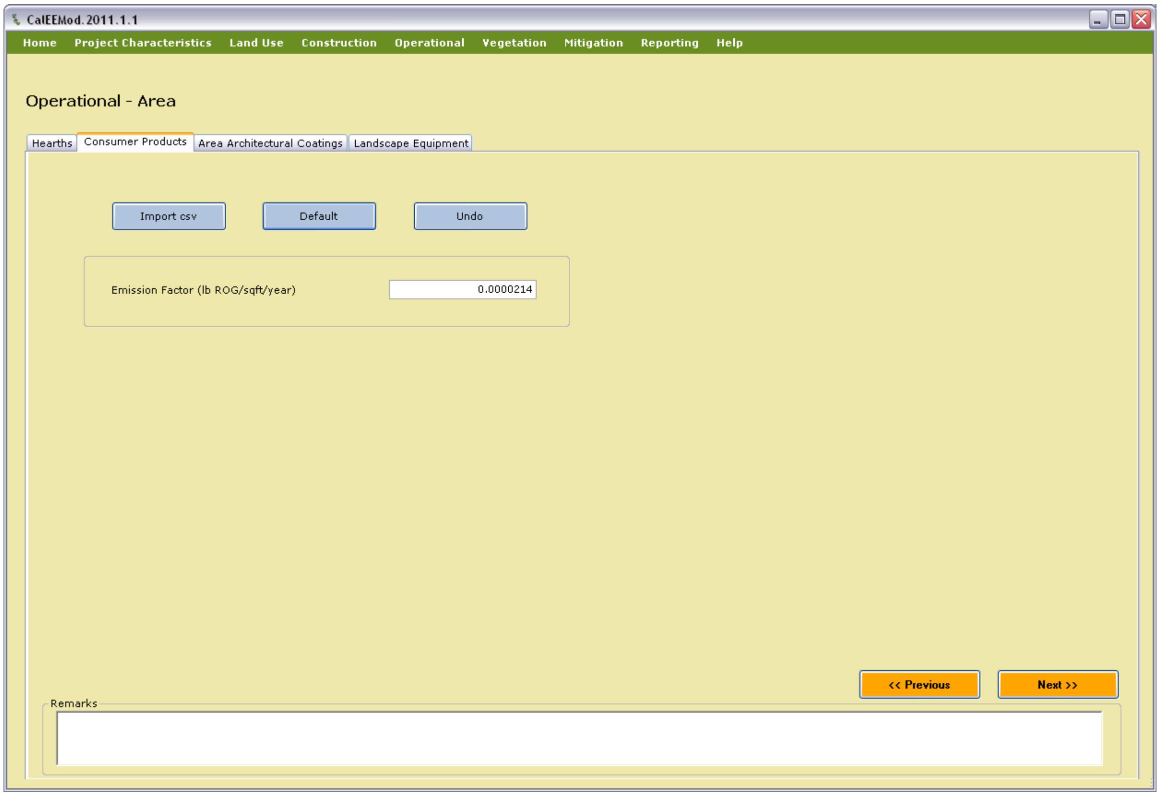
2035 Proposed Plan Uses

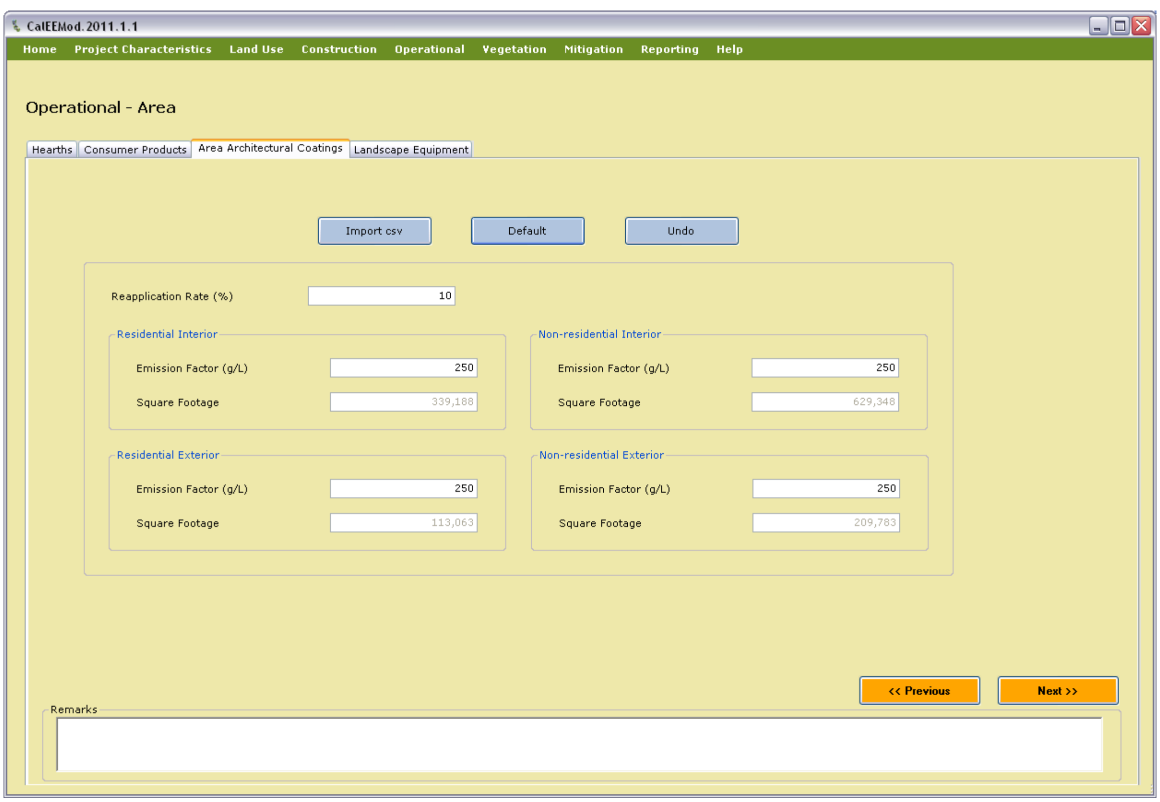




CalEEMod Input

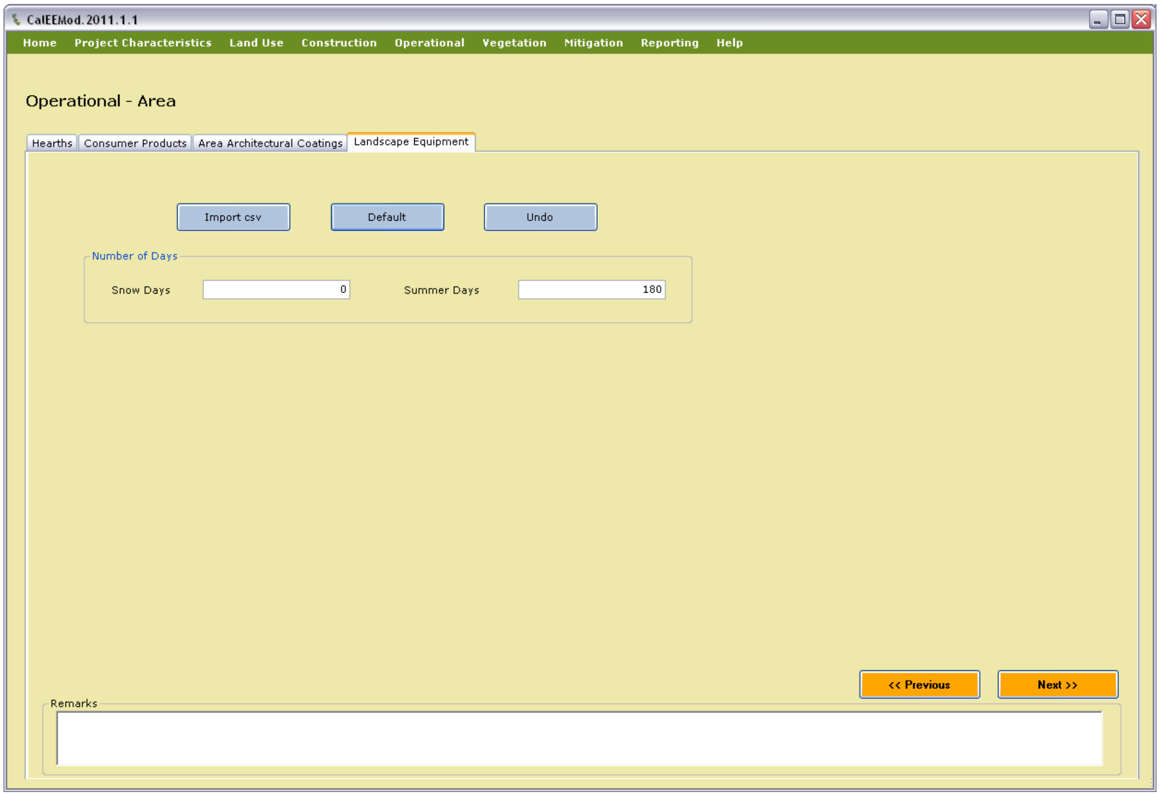
2035 Proposed Plan Uses

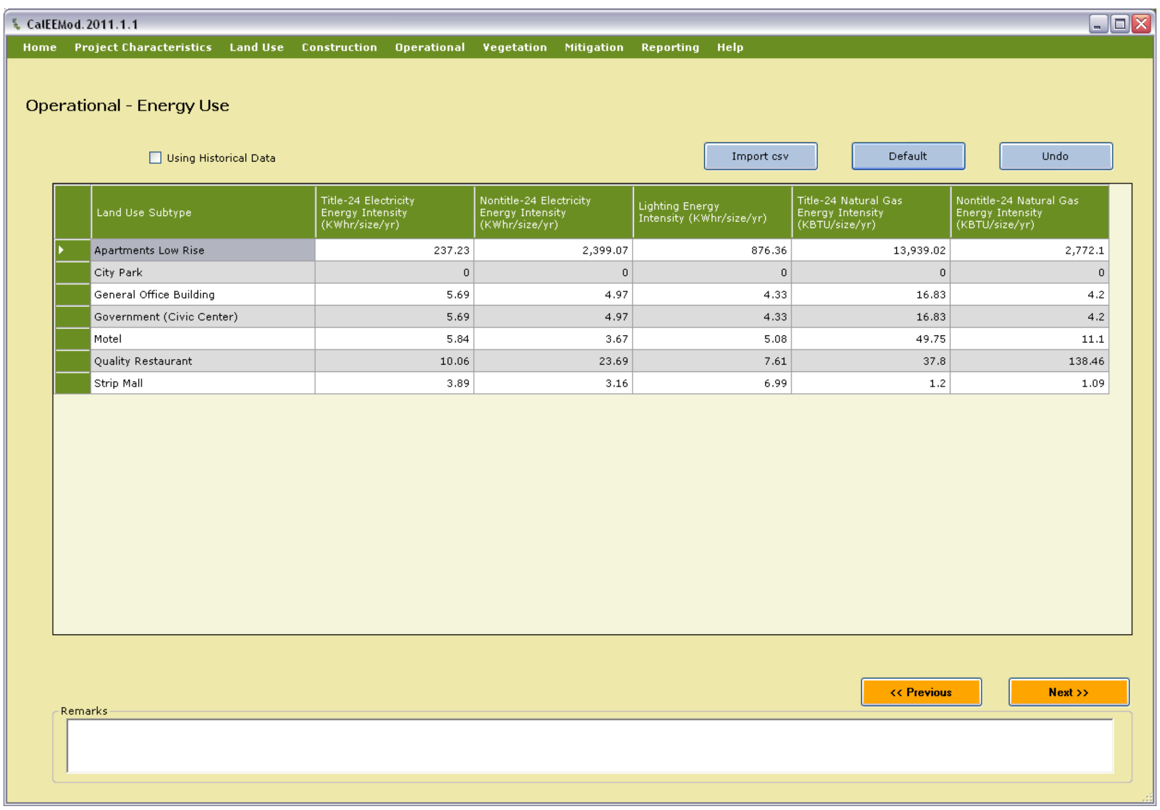




CalEEMod Input

2035 Proposed Plan Uses

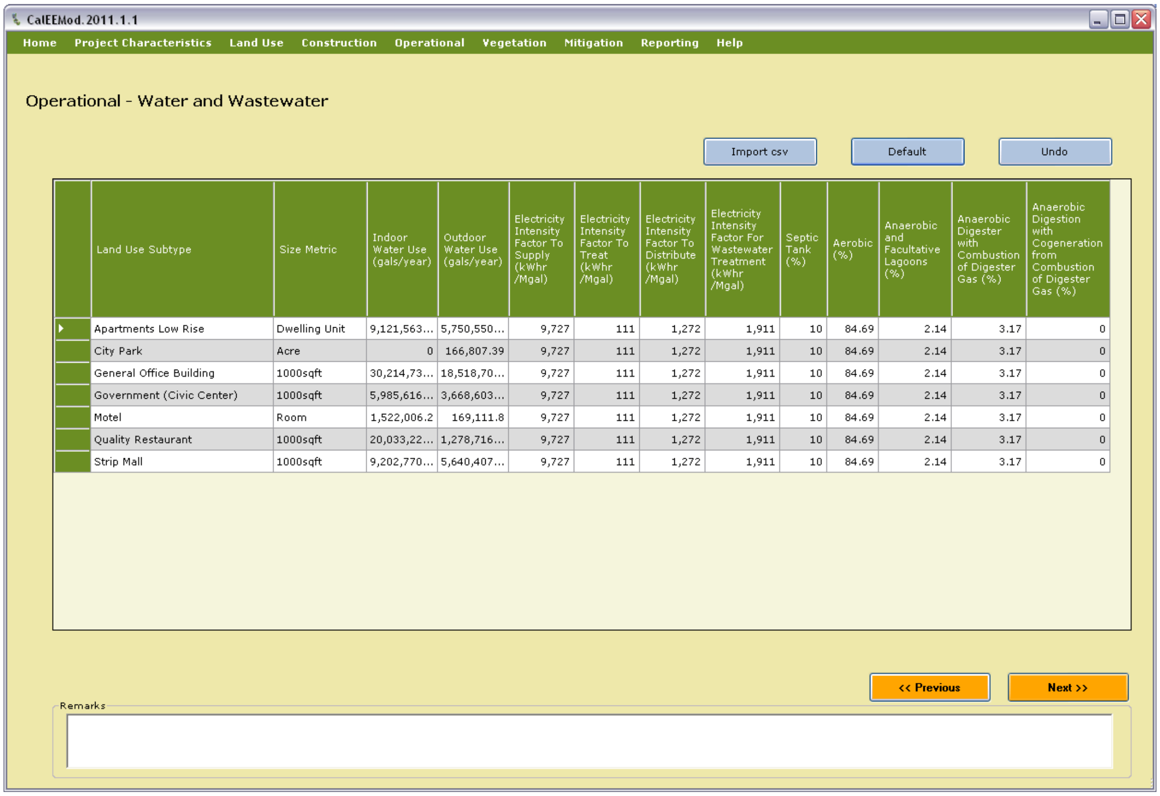




Land Use Subtype	Title-24 Electricity Energy Intensity (KWhr/size/yr)	Nontitle-24 Electricity Energy Intensity (KWhr/size/yr)	Lighting Energy Intensity (KWhr/size/yr)	Title-24 Natural Gas Energy Intensity (KBTU/size/yr)	Nontitle-24 Natural Gas Energy Intensity (KBTU/size/yr)
Apartments Low Rise	237.23	2,399.07	876.36	13,939.02	2,772.1
City Park	0	0	0	0	0
General Office Building	5.69	4.97	4.33	16.83	4.2
Government (Civic Center)	5.69	4.97	4.33	16.83	4.2
Motel	5.84	3.67	5.08	49.75	11.1
Quality Restaurant	10.06	23.69	7.61	37.8	138.46
Strip Mall	3.89	3.16	6.99	1.2	1.09

CalEEMod Input

2035 Proposed Plan Uses



CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

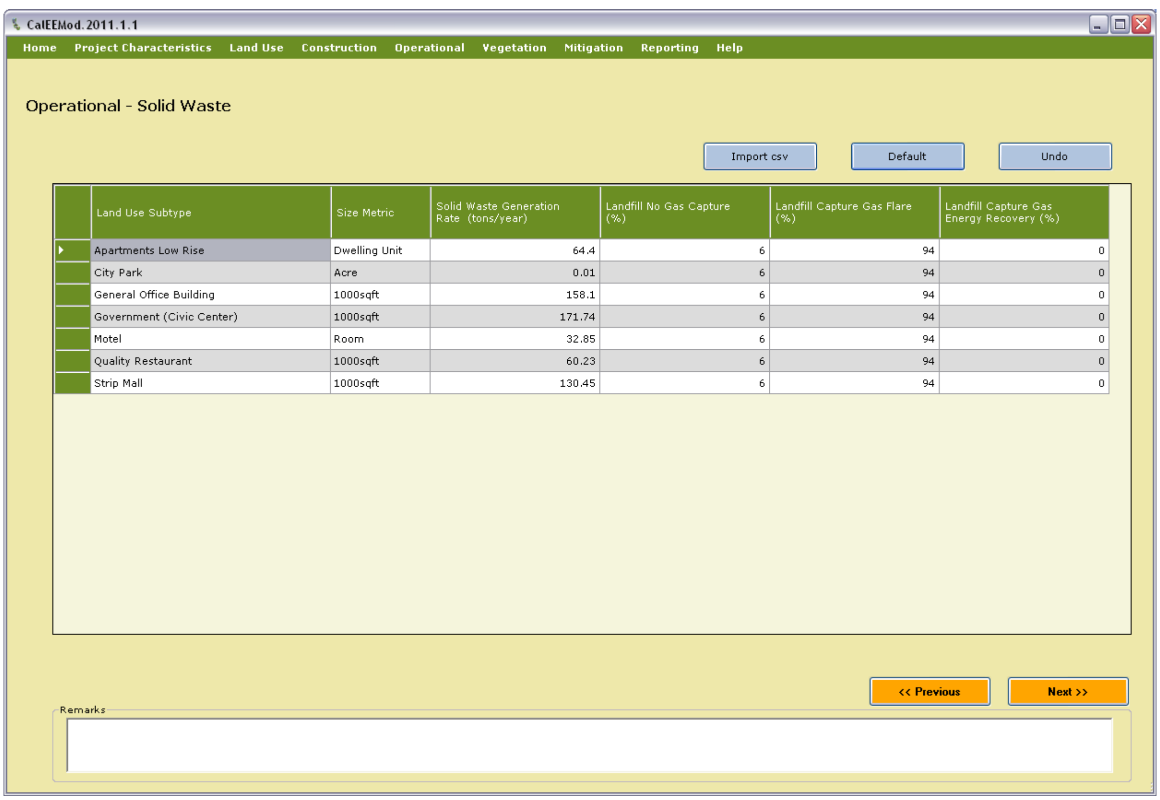
Operational - Water and Wastewater

Import csv | Default | Undo

Land Use Subtype	Size Metric	Indoor Water Use (gals/year)	Outdoor Water Use (gals/year)	Electricity Intensity Factor To Supply (kWhr /Mgal)	Electricity Intensity Factor To Treat (kWhr /Mgal)	Electricity Intensity Factor To Distribute (kWhr /Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWhr /Mgal)	Septic Tank (%)	Aerobic (%)	Anaerobic and Facultative Lagoons (%)	Anaerobic Digester with Combustion of Digester Gas (%)	Anaerobic Digestion with Cogeneration from Combustion of Digester Gas (%)
Apartments Low Rise	Dwelling Unit	9,121,563...	5,750,550...	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
City Park	Acre	0	166,807.39	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
General Office Building	1000sqft	30,214,73...	18,518,70...	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
Government (Civic Center)	1000sqft	5,985,616...	3,668,603...	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
Motel	Room	1,522,006.2	169,111.8	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
Quality Restaurant	1000sqft	20,033,22...	1,278,716...	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0
Strip Mall	1000sqft	9,202,770...	5,640,407...	9,727	111	1,272	1,911	10	84.69	2.14	3.17	0

<< Previous | Next >>

Remarks



CalEEMod.2011.1.1

Home | Project Characteristics | Land Use | Construction | Operational | Vegetation | Mitigation | Reporting | Help

Operational - Solid Waste

Import csv | Default | Undo

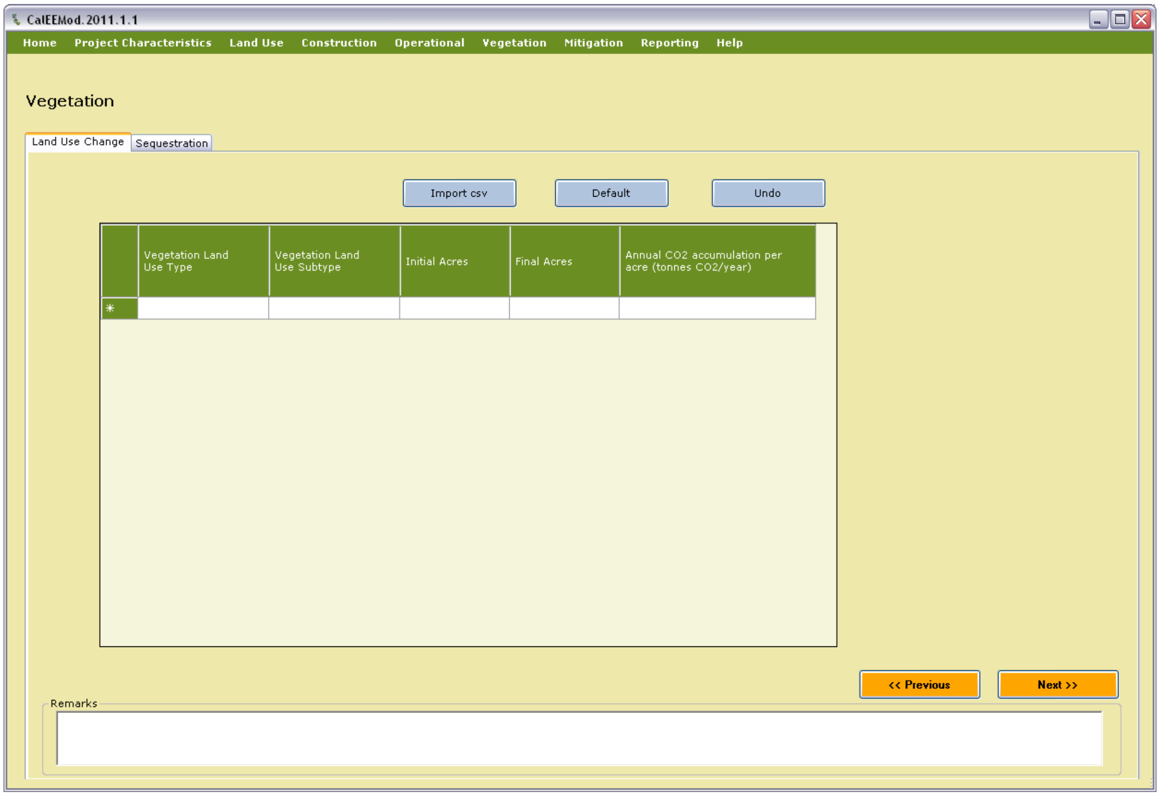
Land Use Subtype	Size Metric	Solid Waste Generation Rate (tons/year)	Landfill No Gas Capture (%)	Landfill Capture Gas Flare (%)	Landfill Capture Gas Energy Recovery (%)
Apartments Low Rise	Dwelling Unit	64.4	6	94	0
City Park	Acre	0.01	6	94	0
General Office Building	1000sqft	158.1	6	94	0
Government (Civic Center)	1000sqft	171.74	6	94	0
Motel	Room	32.85	6	94	0
Quality Restaurant	1000sqft	60.23	6	94	0
Strip Mall	1000sqft	130.45	6	94	0

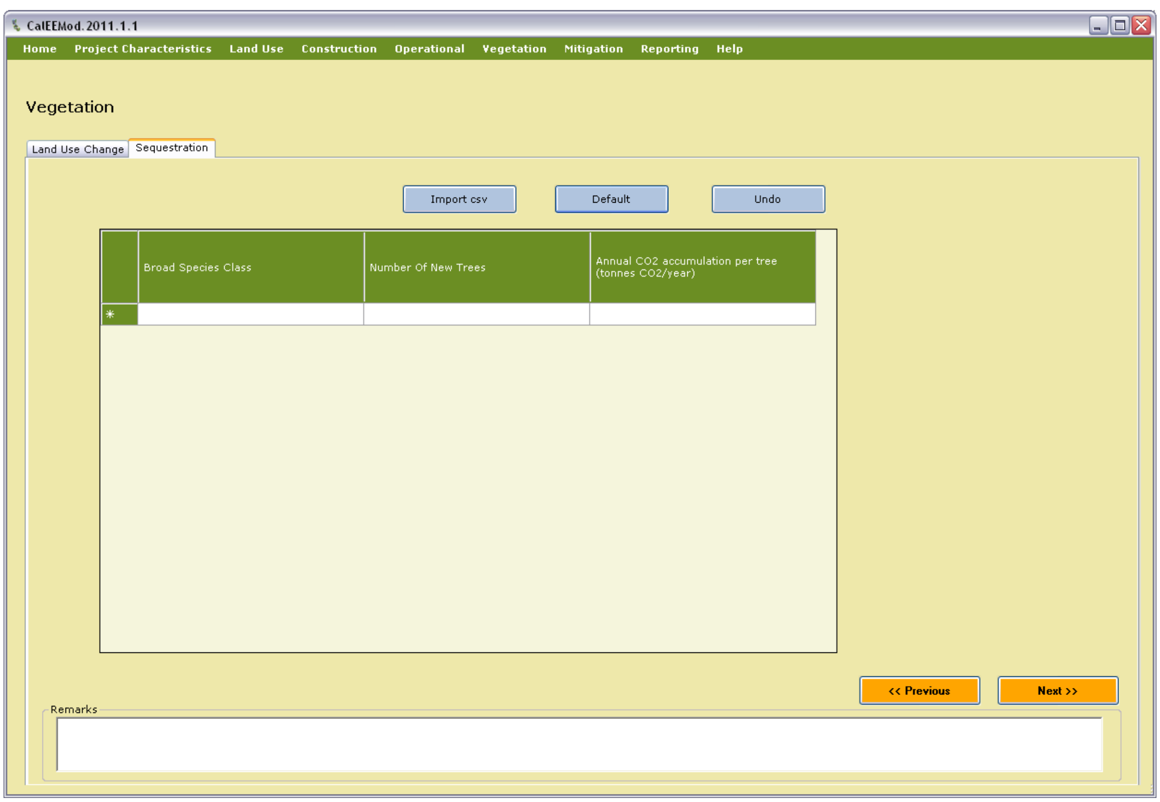
<< Previous | Next >>

Remarks

CalEEMod Input

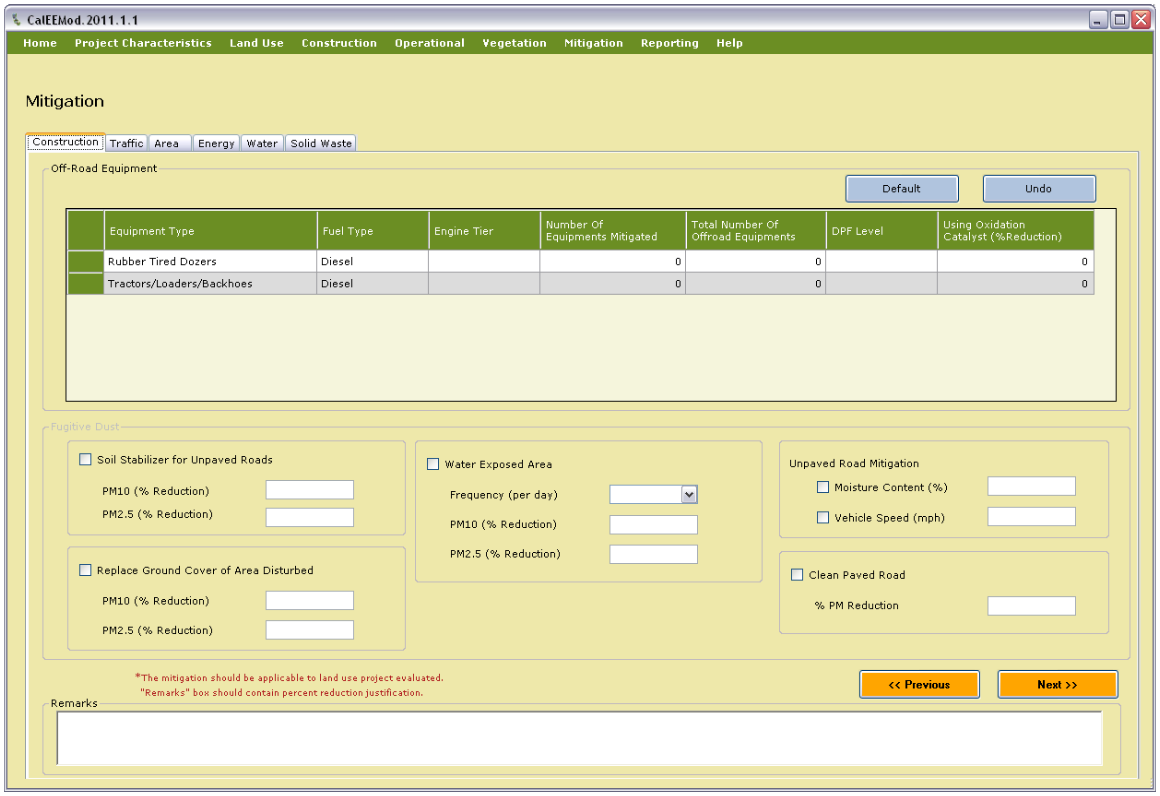
2035 Proposed Plan Uses

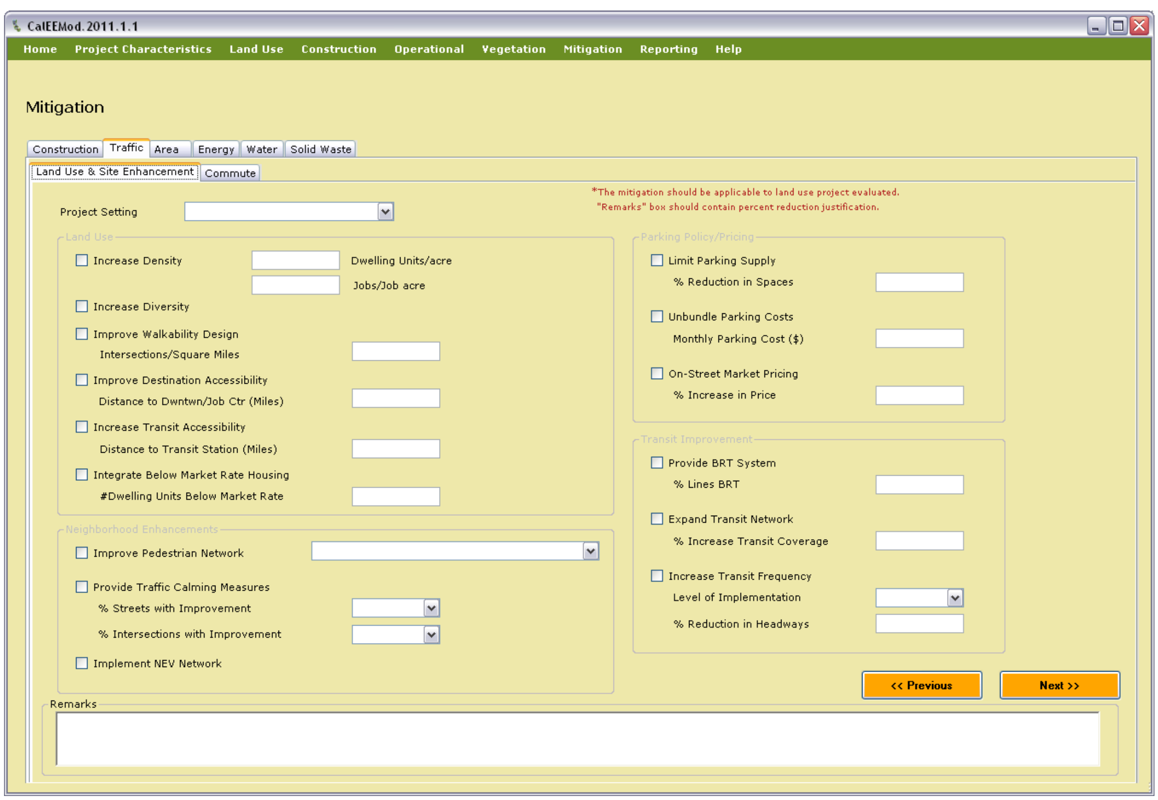




CalEEMod Input

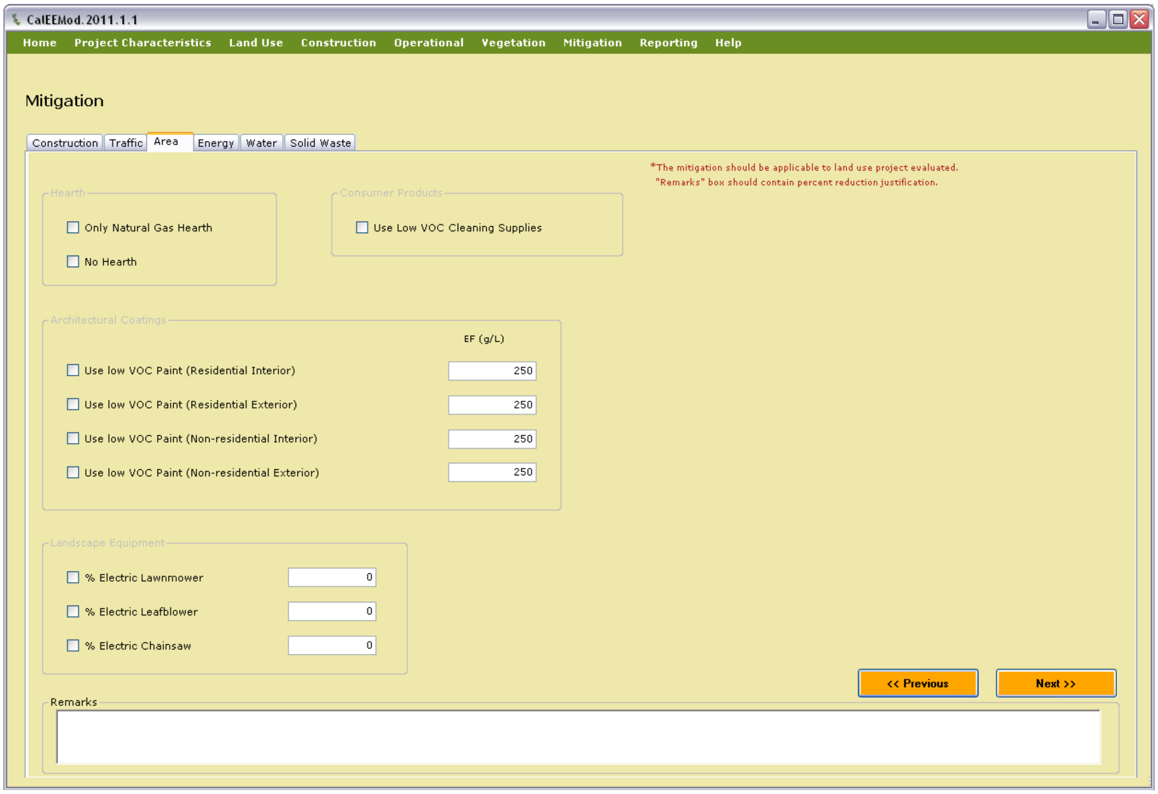
2035 Proposed Plan Uses

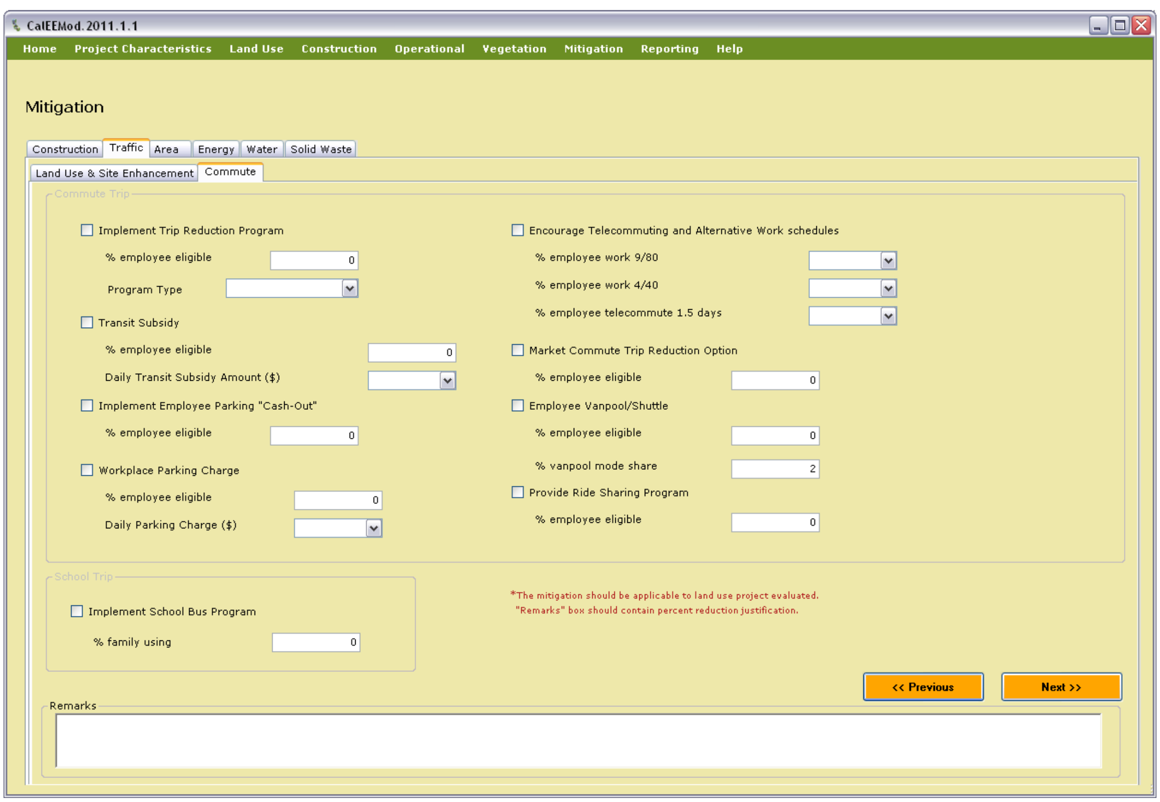




CalEEMod Input

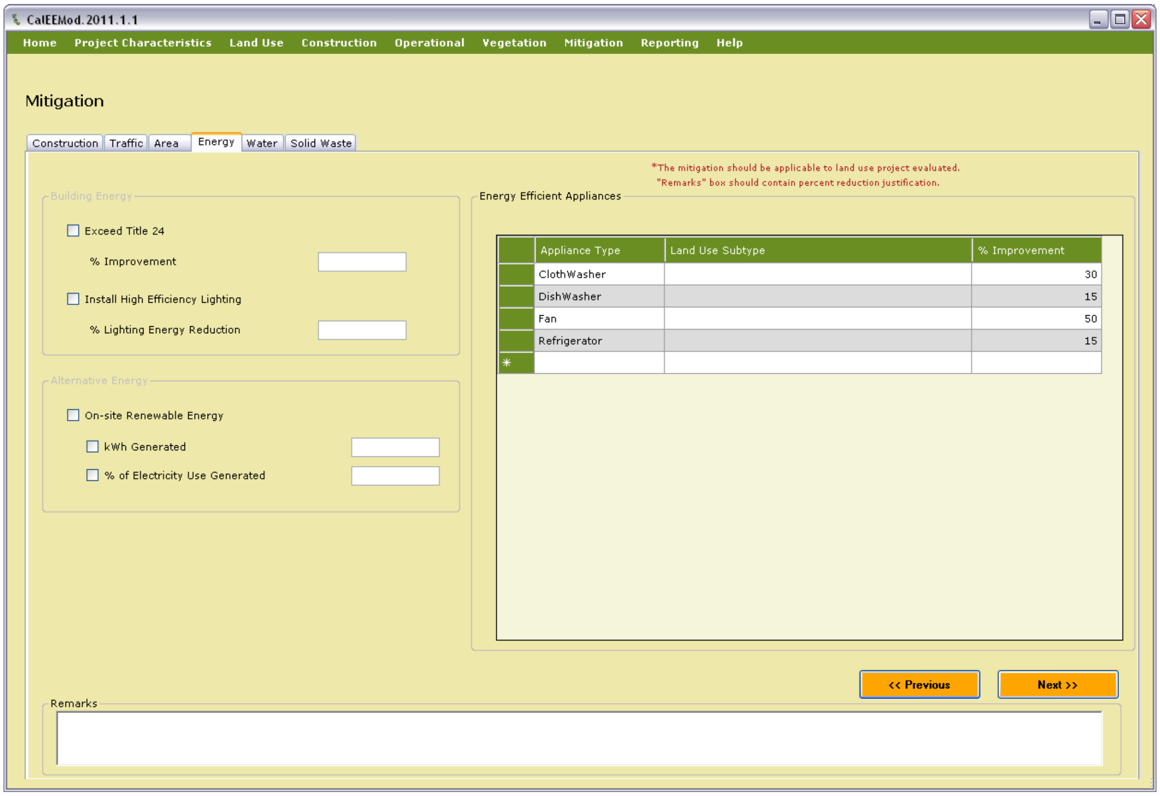
2035 Proposed Plan Uses

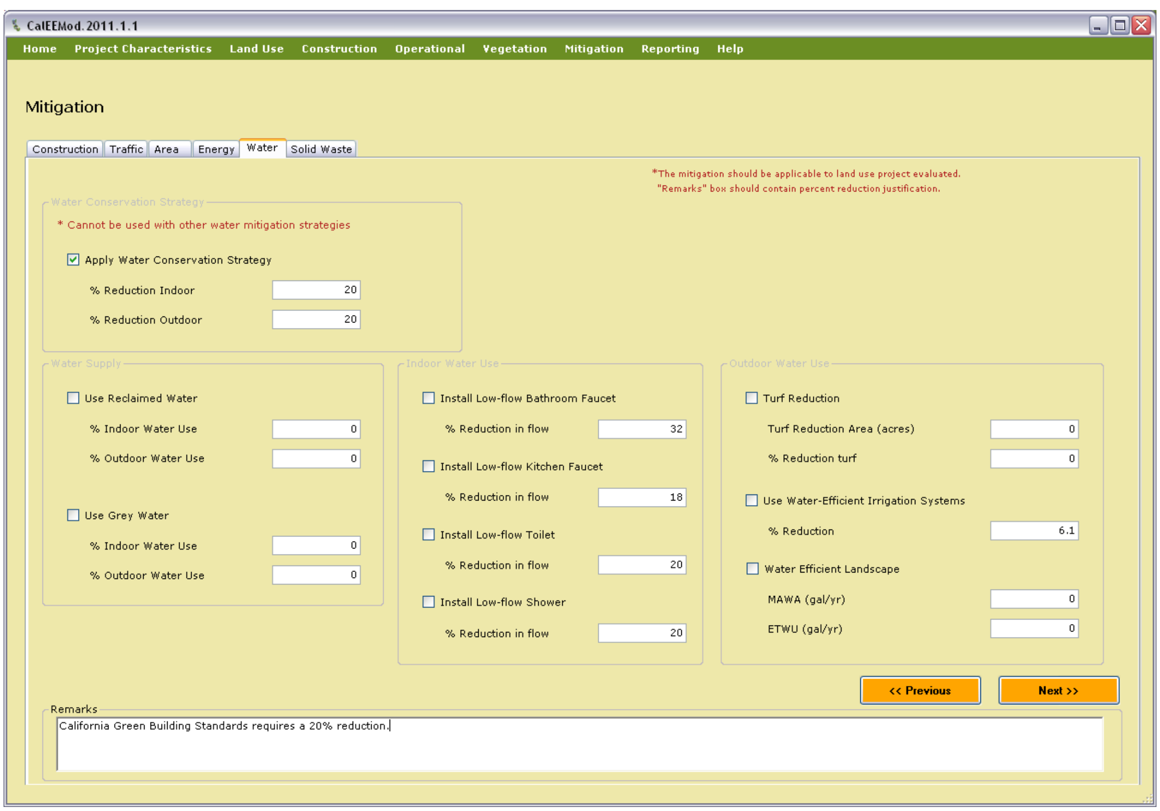




CalEEMod Input

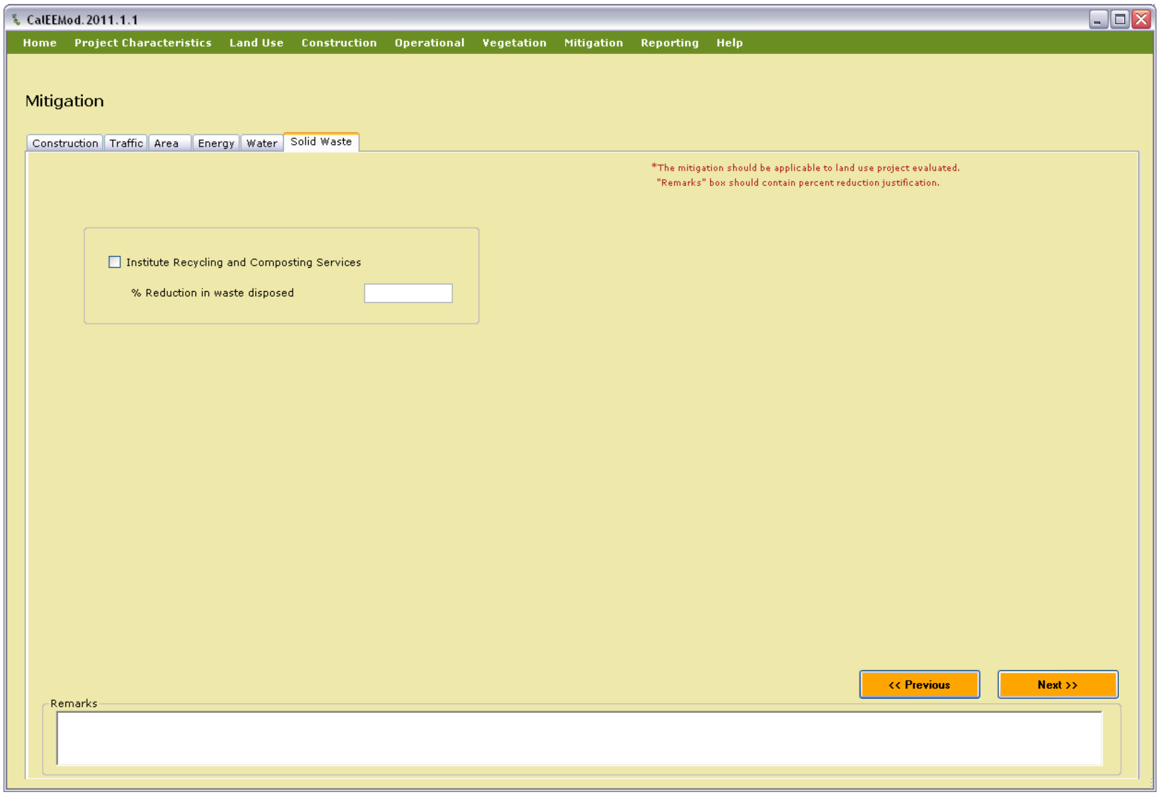
2035 Proposed Plan Uses





CalEEMod Input

2035 Proposed Plan Uses



CalEEMod Output
2011 Existing Use

6447: Del Mar Village Specific Plan Existing Uses (2011)

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Motel	17	Room
Government (Civic Center)	23.59	1000sqft
Library	4.87	1000sqft
Apartments Low Rise	2	Dwelling Unit
General Office Building	169.65	1000sqft
Quality Restaurant	32.39	1000sqft
Strip Mall	41.81	1000sqft
City Park	0.05	Acre

1.2 Other Project Characteristics

Urbanization Urban

Climate Zone 13

Wind Speed (m/s) 2.6

Precipitation Freq (Days) 40

Utility Company San Diego Gas & Electric

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on land use information provided by the City of Del Mar.

Construction Phase - No construction ocurring.

Off-road Equipment - No construction ocurring.

Vehicle Trips - Trip rates based on KOA Traffic Impact Study
Area Coating -

Energy Use -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.54	0.00	0.17	0.00		0.00	0.02		0.00	0.02	2.07	2.62	4.69	0.00	0.00	4.79
Energy	0.06	0.53	0.44	0.00		0.00	0.04		0.00	0.04	0.00	2,405.16	2,405.16	0.08	0.04	2,418.08
Mobile	6.94	12.64	65.95	0.06	5.91	0.42	6.33	0.09	0.37	0.47	0.00	5,858.98	5,858.98	0.40	0.00	5,867.48
Waste						0.00	0.00		0.00	0.00	77.22	0.00	77.22	4.56	0.00	173.05
Water						0.00	0.00		0.00	0.00	0.00	319.76	319.76	1.49	0.04	363.85
Total	**8.54**	**13.17**	**66.56**	**0.06**	**5.91**	**0.42**	**6.39**	**0.09**	**0.37**	**0.53**	**79.29**	**8,586.52**	**8,665.81**	**6.53**	**0.08**	**8,827.25**

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	1.54	0.00	0.17	0.00		0.00	0.02		0.00	0.02	2.07	2.62	4.69	0.00	0.00	4.79
Energy	0.06	0.53	0.44	0.00		0.00	0.04		0.00	0.04	0.00	2,405.16	2,405.16	0.08	0.04	2,418.08
Mobile	6.94	12.64	65.95	0.06	5.91	0.42	6.33	0.09	0.37	0.47	0.00	5,858.98	5,858.98	0.40	0.00	5,867.48
Waste						0.00	0.00		0.00	0.00	77.22	0.00	77.22	4.56	0.00	173.05
Water						0.00	0.00		0.00	0.00	0.00	319.76	319.76	1.49	0.04	363.85
Total	**8.54**	**13.17**	**66.56**	**0.06**	**5.91**	**0.42**	**6.39**	**0.09**	**0.37**	**0.53**	**79.29**	**8,586.52**	**8,665.81**	**6.53**	**0.08**	**8,827.25**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

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	6.94	12.64	65.95	0.06	5.91	0.42	6.33	0.09	0.37	0.47	0.00	5,858.98	5,858.98	0.40	0.00	5,867.48
Unmitigated	6.94	12.64	65.95	0.06	5.91	0.42	6.33	0.09	0.37	0.47	0.00	5,858.98	5,858.98	0.40	0.00	5,867.48
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	16.00	14.32	12.14	28,513	28,513
City Park	0.08	0.08	0.08	123	123
General Office Building	3,393.00	69.56	23.75	4,209,410	4,209,410
Government (Civic Center)	707.70	0.00	0.00	627,263	627,263
Library	243.50	226.70	124.14	242,475	242,475
Motel	153.00	178.50	142.80	221,375	221,375
Quality Restaurant	5,182.40	3,056.32	2337.26	4,084,377	4,084,377
Strip Mall	1,672.40	1,757.69	854.18	1,828,905	1,828,905
Total	11,368.08	5,303.17	3,494.35	11,242,440	11,242,440

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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	5.80	5.80	5.80	41.60	18.80	39.60
City Park	5.80	5.80	5.80	33.00	48.00	19.00
General Office Building	5.80	5.80	5.80	33.00	48.00	19.00
Government (Civic Center)	5.80	5.80	5.80	75.00	20.00	5.00
Library	5.00	5.80	5.80	52.00	43.00	5.00
Motel	5.80	5.80	5.80	19.00	62.00	19.00
Quality Restaurant	5.80	5.80	5.80	12.00	69.00	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00

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	1,830.02	1,830.02	0.07	0.03	1,839.44
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	1,830.02	1,830.02	0.07	0.03	1,839.44
NaturalGas Mitigated	0.06	0.53	0.44	0.00		0.00	0.04		0.00	0.04	0.00	575.14	575.14	0.01	0.01	578.64
NaturalGas Unmitigated	0.06	0.53	0.44	0.00		0.00	0.04		0.00	0.04	0.00	575.14	575.14	0.01	0.01	578.64
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	35520.6	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.90	1.90	0.00	0.00	1.91
City Park	0	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
General Office Building	3.99686e+006	0.02	0.20	0.16	0.00		0.00	0.01		0.00	0.01	0.00	213.29	213.29	0.00	0.00	214.59
Government (Civic Center)	555828	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	29.66	29.66	0.00	0.00	29.84
Library	59901.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.20	3.20	0.00	0.00	3.22
Motel	304255	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	16.24	16.24	0.00	0.00	16.33
Quality Restaurant	5.72467e+006	0.03	0.28	0.24	0.00		0.00	0.02		0.00	0.02	0.00	305.49	305.49	0.01	0.01	307.35
Strip Mall	100765	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	5.38	5.38	0.00	0.00	5.41
Total		**0.05**	**0.52**	**0.43**	**0.00**		**0.00**	**0.03**		**0.00**	**0.03**	**0.00**	**575.16**	**575.16**	**0.01**	**0.01**	**578.65**

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	35520.6	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.90	1.90	0.00	0.00	1.91
City Park	0	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
General Office Building	3.99686e+006	0.02	0.20	0.16	0.00		0.00	0.01		0.00	0.01	0.00	213.29	213.29	0.00	0.00	214.59
Government (Civic Center)	555828	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	29.66	29.66	0.00	0.00	29.84
Library	59901.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.20	3.20	0.00	0.00	3.22
Motel	304255	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	16.24	16.24	0.00	0.00	16.33
Quality Restaurant	5.72467e+006	0.03	0.28	0.24	0.00		0.00	0.02		0.00	0.02	0.00	305.49	305.49	0.01	0.01	307.35
Strip Mall	100765	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	5.38	5.38	0.00	0.00	5.41
Total		**0.05**	**0.52**	**0.43**	**0.00**		**0.00**	**0.03**		**0.00**	**0.03**	**0.00**	**575.16**	**575.16**	**0.01**	**0.01**	**578.65**

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	7141.72					2.53	0.00	0.00	2.54
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.67023e+006					945.69	0.04	0.01	950.56
Government (Civic Center)	371338					131.51	0.00	0.00	132.19
Library	45718.1					16.19	0.00	0.00	16.27
Motel	76026.6					26.93	0.00	0.00	27.06
Quality Restaurant	1.37836e+006					488.16	0.02	0.01	490.67
Strip Mall	618385					219.01	0.01	0.00	220.13
Total						**1,830.02**	**0.07**	**0.02**	**1,839.42**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	7141.72					2.53	0.00	0.00	2.54
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.67023e+006					945.69	0.04	0.01	950.56
Government (Civic Center)	371338					131.51	0.00	0.00	132.19
Library	45718.1					16.19	0.00	0.00	16.27
Motel	76026.6					26.93	0.00	0.00	27.06
Quality Restaurant	1.37836e+006					488.16	0.02	0.01	490.67
Strip Mall	618385					219.01	0.01	0.00	220.13
Total						**1,830.02**	**0.07**	**0.02**	**1,839.42**

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	tons/yr										MT/yr					
Mitigated	1.54	0.00	0.17	0.00		0.00	0.02		0.00	0.02	2.07	2.62	4.69	0.00	0.00	4.79
Unmitigated	1.54	0.00	0.17	0.00		0.00	0.02		0.00	0.02	2.07	2.62	4.69	0.00	0.00	4.79
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.32					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.09					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.13	0.00	0.15	0.00		0.00	0.02		0.00	0.02	2.07	2.60	4.67	0.00	0.00	4.77
Landscaping	0.00	0.00	0.02	0.00		0.00	0.00		0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.03
Total	**1.54**	**0.00**	**0.17**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**2.07**	**2.62**	**4.69**	**0.00**	**0.00**	**4.80**

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	0.32					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.09					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.13	0.00	0.15	0.00		0.00	0.02		0.00	0.02	2.07	2.60	4.67	0.00	0.00	4.77
Landscaping	0.00	0.00	0.02	0.00		0.00	0.00		0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.03
Total	**1.54**	**0.00**	**0.17**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**2.07**	**2.62**	**4.69**	**0.00**	**0.00**	**4.80**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					319.76	1.49	0.04	363.85
Unmitigated					319.76	1.49	0.04	363.85
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.130308 / 0.0821507					0.93	0.00	0.00	1.04
City Park	0 / 0.0595741					0.23	0.00	0.00	0.24
General Office Building	30.1525 / 18.4806					212.10	0.93	0.03	239.60
Government (Civic Center)	4.68638 / 2.8723					32.97	0.14	0.00	37.24
Library	0.152377 / 0.238333					1.64	0.00	0.00	1.78
Motel	0.431235 / 0.047915					2.18	0.01	0.00	2.57
Quality Restaurant	9.83146 / 0.62754					47.92	0.30	0.01	56.77
Strip Mall	3.09697 / 1.89814					21.79	0.10	0.00	24.61
Total						**319.76**	**1.48**	**0.04**	**363.85**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	0.130308 / 0.0821507					0.93	0.00	0.00	1.04
City Park	0 / 0.0595741					0.23	0.00	0.00	0.24
General Office Building	30.1525 / 18.4806					212.10	0.93	0.03	239.60
Government (Civic Center)	4.68638 / 2.8723					32.97	0.14	0.00	37.24
Library	0.152377 / 0.238333					1.64	0.00	0.00	1.78
Motel	0.431235 / 0.047915					2.18	0.01	0.00	2.57
Quality Restaurant	9.83146 / 0.62754					47.92	0.30	0.01	56.77
Strip Mall	3.09697 / 1.89814					21.79	0.10	0.00	24.61
Total						**319.76**	**1.48**	**0.04**	**363.85**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					77.22	4.56	0.00	173.05
Unmitigated					77.22	4.56	0.00	173.05
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.92					0.19	0.01	0.00	0.42
City Park	0					0.00	0.00	0.00	0.00
General Office Building	157.77					32.03	1.89	0.00	71.77
Government (Civic Center)	134.46					27.29	1.61	0.00	61.17
Library	4.48					0.91	0.05	0.00	2.04
Motel	9.31					1.89	0.11	0.00	4.24
Quality Restaurant	29.56					6.00	0.35	0.00	13.45
Strip Mall	43.9					8.91	0.53	0.00	19.97
Total						**77.22**	**4.55**	**0.00**	**173.06**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	0.92					0.19	0.01	0.00	0.42
City Park	0					0.00	0.00	0.00	0.00
General Office Building	157.77					32.03	1.89	0.00	71.77
Government (Civic Center)	134.46					27.29	1.61	0.00	61.17
Library	4.48					0.91	0.05	0.00	2.04
Motel	9.31					1.89	0.11	0.00	4.24
Quality Restaurant	29.56					6.00	0.35	0.00	13.45
Strip Mall	43.9					8.91	0.53	0.00	19.97
Total						**77.22**	**4.55**	**0.00**	**173.06**

9.0 Vegetation

CalEEMod Output
2035 Proposed Plan Uses

RECON

6447: Del Mar Village Specific Plan Future Uses (2035)

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	170	1000sqft
Government (Civic Center)	30.13	1000sqft
City Park	0.14	Acre
Motel	60	Room
Quality Restaurant	66	1000sqft
Apartments Low Rise	140	Dwelling Unit
Strip Mall	124.24	1000sqft
Library	4.87	1000sqft
Strip Mall	14.26	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Climate Zone 13

Wind Speed (m/s) 2.6

Precipitation Freq (Days) 40

Utility Company San Diego Gas & Electric

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on land use information provided by the City of Del Mar.

Architectural Coating - California Green Build Standards VOC Content Limit is 150 g/L

Vehicle Trips - Trip rates based on KOA Traffic Impact Study.
Trip length adjusted to SANDAG's regional average trip length of 5.8 miles.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use -

Water Mitigation - California Green Building Standards requires a 20% reduction.

2.0 Emissions Summary

2.1 Overall Construction

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.58	0.49	1.08	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.19	0.19	0.38	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.77**	**0.68**	**1.46**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.24	0.49	0.73	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.01	0.19	0.20	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.25**	**0.68**	**0.93**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	4,091.35	4,091.35	0.13	0.06	4,113.40
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	499.24	499.24	2.38	0.07	569.49
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**12,921.73**	**13,195.70**	**10.61**	**0.14**	**13,462.31**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	4,091.35	4,091.35	0.13	0.06	4,113.40
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	399.40	399.40	1.90	0.05	455.59
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**12,821.89**	**13,095.86**	**10.13**	**0.12**	**13,348.41**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.4 Grading - 2011

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.07	0.06	0.13	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.29	0.01	0.30	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.36**	**0.07**	**0.43**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.01	0.06	0.06	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.02**	**0.07**	**0.08**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.04	0.03	0.06	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.14	0.01	0.15	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.18**	**0.04**	**0.21**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.00	0.03	0.03	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.01**	**0.04**	**0.04**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

4.0 Mobile Detail

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	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Unmitigated	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,120.00	1,002.40	849.80	1,995,893	1,995,893
City Park	0.22	0.22	0.22	344	344
General Office Building	3,400.00	69.70	23.80	4,218,095	4,218,095
Government (Civic Center)	903.90	0.00	0.00	801,163	801,163
Motel	540.00	630.00	504.00	781,323	781,323
Quality Restaurant	10,560.00	6,227.76	4762.56	8,322,595	8,322,595
Strip Mall	4,969.60	5,223.05	2538.22	5,434,661	5,434,661
Strip Mall	570.40	599.49	291.33	623,779	623,779
Library	243.50	226.70	124.14	261,134	261,134
Total	22,307.62	13,979.32	9,094.07	22,438,987	22,438,987

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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	5.80	5.80	5.80	41.60	18.80	39.60
City Park	5.80	5.80	5.80	33.00	48.00	19.00
General Office Building	5.80	5.80	5.80	33.00	48.00	19.00
Government (Civic Center)	5.80	5.80	5.80	75.00	20.00	5.00
Motel	5.80	5.80	5.80	19.00	62.00	19.00
Quality Restaurant	5.80	5.80	5.80	12.00	69.00	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00
Library	5.80	5.80	5.80	52.00	43.00	5.00

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	3,026.44	3,026.44	0.11	0.04	3,042.02
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	3,026.44	3,026.44	0.11	0.04	3,042.02
NaturalGas Mitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
NaturalGas Unmitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	491772					174.17	0.01	0.00	175.06
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.5483e+006					902.51	0.03	0.01	907.15
Government (Civic Center)	451589					159.93	0.01	0.00	160.76
Library	43866					15.54	0.00	0.00	15.62
Motel	335570					118.85	0.00	0.00	119.46
Quality Restaurant	2.72976e+006					966.77	0.04	0.01	971.75
Strip Mall	1.74432e+006					617.77	0.02	0.01	620.95
Strip Mall	200224					70.91	0.00	0.00	71.28
Total						**3,026.45**	**0.11**	**0.03**	**3,042.03**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	491772					174.17	0.01	0.00	175.06
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.5483e+006					902.51	0.03	0.01	907.15
Government (Civic Center)	451589					159.93	0.01	0.00	160.76
Library	43866					15.54	0.00	0.00	15.62
Motel	335570					118.85	0.00	0.00	119.46
Quality Restaurant	2.72976e+006					966.77	0.04	0.01	971.75
Strip Mall	1.74432e+006					617.77	0.02	0.01	620.95
Strip Mall	200224					70.91	0.00	0.00	71.28
Total						**3,026.45**	**0.11**	**0.03**	**3,042.03**

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	tons/yr										MT/yr					
Mitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Unmitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					399.40	1.90	0.05	455.59
Unmitigated					499.24	2.38	0.07	569.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	9.12156 / 5.75055					64.79	0.28	0.01	73.11
City Park	0 / 0.166807					0.66	0.00	0.00	0.66
General Office Building	30.2147 / 18.5187					212.54	0.93	0.03	240.09
Government (Civic Center)	5.98562 / 3.6686					42.10	0.18	0.01	47.56
Library	0.152377 / 0.238333					1.64	0.00	0.00	1.78
Motel	1.52201 / 0.169112					7.70	0.05	0.00	9.07
Quality Restaurant	20.0332 / 1.27872					97.64	0.62	0.02	115.68
Strip Mall	10.259 / 6.2878					72.17	0.32	0.01	81.52
Total						**499.24**	**2.38**	**0.08**	**569.47**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	7.29725 / 4.60044					51.83	0.22	0.01	58.49
City Park	0 / 0.133446					0.53	0.00	0.00	0.53
General Office Building	24.1718 / 14.815					170.03	0.74	0.02	192.07
Government (Civic Center)	4.78849 / 2.93488					33.68	0.15	0.00	38.05
Library	0.121902 / 0.190667					1.31	0.00	0.00	1.43
Motel	1.2176 / 0.135289					6.16	0.04	0.00	7.26
Quality Restaurant	16.0266 / 1.02297					78.11	0.49	0.01	92.55
Strip Mall	8.20724 / 5.03024					57.73	0.25	0.01	65.22
Total						**399.38**	**1.89**	**0.05**	**455.60**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					129.35	7.64	0.00	289.89
Unmitigated					129.35	7.64	0.00	289.89
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

9.0 Vegetation

Proposed Plan GHG Reductions

A. 60 Percent Renewable Energy

6447: Del Mar Village Specific Plan Future Uses (2035)

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	170	1000sqft
Government (Civic Center)	30.13	1000sqft
Library	4.87	1000sqft
City Park	0.14	Acre
Motel	60	Room
Quality Restaurant	66	1000sqft
Apartments Low Rise	140	Dwelling Unit
Strip Mall	124.24	1000sqft
Strip Mall	14.26	1000sqft

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.6 **Utility Company** San Diego Gas & Electric

Climate Zone 13 **Precipitation Freq (Days)** 40

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on land use information provided by the City of Del Mar.

Architectural Coating - California Green Build Standards VOC Content Limit is 150 g/L

Vehicle Trips - Trip rates based on KOA Traffic Impact Study.
Trip length adjusted to SANDAG's regional average trip length of 5.8 miles.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use -

Water Mitigation - California Green Building Standards requires a 20% reduction.

Energy Mitigation - Del Mar Solar Energy Ordinance requires solar to provide HVAC at minimum 60%.

2.0 Emissions Summary

2.1 Overall Construction

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.58	0.49	1.08	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.19	0.19	0.38	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.77**	**0.68**	**1.46**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.24	0.49	0.73	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.01	0.19	0.20	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.25**	**0.68**	**0.93**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	4,091.35	4,091.35	0.13	0.06	4,113.40
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	499.24	499.24	2.38	0.07	569.49
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**12,921.73**	**13,195.70**	**10.61**	**0.14**	**13,462.31**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	2,275.48	2,275.48	0.07	0.04	2,288.19
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	399.40	399.40	1.90	0.05	455.59
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**11,006.02**	**11,279.99**	**10.07**	**0.10**	**11,523.20**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.07	0.06	0.13	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.29	0.01	0.30	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.36**	**0.07**	**0.43**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.01	0.06	0.06	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.02**	**0.07**	**0.08**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.04	0.03	0.06	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.14	0.01	0.15	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.18**	**0.04**	**0.21**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.00	0.03	0.03	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.01**	**0.04**	**0.04**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

4.0 Mobile Detail

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	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Unmitigated	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,120.00	1,002.40	849.80	1,995,893	1,995,893
City Park	0.22	0.22	0.22	344	344
General Office Building	3,400.00	69.70	23.80	4,218,095	4,218,095
Government (Civic Center)	903.90	0.00	0.00	801,163	801,163
Library	243.50	226.70	124.14	261,134	261,134
Motel	540.00	630.00	504.00	781,323	781,323
Quality Restaurant	10,560.00	6,227.76	4762.56	8,322,595	8,322,595
Strip Mall	4,969.60	5,223.05	2538.22	5,434,661	5,434,661
Strip Mall	570.40	599.49	291.33	623,779	623,779
Total	22,307.62	13,979.32	9,094.07	22,438,987	22,438,987

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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	5.80	5.80	5.80	41.60	18.80	39.60
City Park	5.80	5.80	5.80	33.00	48.00	19.00
General Office Building	5.80	5.80	5.80	33.00	48.00	19.00
Government (Civic Center)	5.80	5.80	5.80	75.00	20.00	5.00
Library	5.80	5.80	5.80	52.00	43.00	5.00
Motel	5.80	5.80	5.80	19.00	62.00	19.00
Quality Restaurant	5.80	5.80	5.80	12.00	69.00	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	1,210.58	1,210.58	0.04	0.02	1,216.81
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	3,026.44	3,026.44	0.11	0.04	3,042.02
NaturalGas Mitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
NaturalGas Unmitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	491772					174.17	0.01	0.00	175.06
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.5483e+006					902.51	0.03	0.01	907.15
Government (Civic Center)	451589					159.93	0.01	0.00	160.76
Library	43866					15.54	0.00	0.00	15.62
Motel	335570					118.85	0.00	0.00	119.46
Quality Restaurant	2.72976e+006					966.77	0.04	0.01	971.75
Strip Mall	1.74432e+006					617.77	0.02	0.01	620.95
Strip Mall	200224					70.91	0.00	0.00	71.28
Total						**3,026.45**	**0.11**	**0.03**	**3,042.03**

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	196709					69.67	0.00	0.00	70.03
City Park	0					0.00	0.00	0.00	0.00
General Office Building	1.01932e+006					361.00	0.01	0.01	362.86
Government (Civic Center)	180635					63.97	0.00	0.00	64.30
Library	17546.4					6.21	0.00	0.00	6.25
Motel	134228					47.54	0.00	0.00	47.78
Quality Restaurant	1.0919e+006					386.71	0.01	0.01	388.70
Strip Mall	697726					247.11	0.01	0.00	248.38
Strip Mall	80089.8					28.36	0.00	0.00	28.51
Total						**1,210.57**	**0.03**	**0.02**	**1,216.81**

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	tons/yr										MT/yr					
Mitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Unmitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					399.40	1.90	0.05	455.59
Unmitigated					499.24	2.38	0.07	569.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	9.12156 / 5.75055					64.79	0.28	0.01	73.11
City Park	0 / 0.166807					0.66	0.00	0.00	0.66
General Office Building	30.2147 / 18.5187					212.54	0.93	0.03	240.09
Government (Civic Center)	5.98562 / 3.6686					42.10	0.18	0.01	47.56
Library	0.152377 / 0.238333					1.64	0.00	0.00	1.78
Motel	1.52201 / 0.169112					7.70	0.05	0.00	9.07
Quality Restaurant	20.0332 / 1.27872					97.64	0.62	0.02	115.68
Strip Mall	10.259 / 6.2878					72.17	0.32	0.01	81.52
Total						**499.24**	**2.38**	**0.08**	**569.47**

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	7.29725 / 4.60044					51.83	0.22	0.01	58.49
City Park	0 / 0.133446					0.53	0.00	0.00	0.53
General Office Building	24.1718 / 14.815					170.03	0.74	0.02	192.07
Government (Civic Center)	4.78849 / 2.93488					33.68	0.15	0.00	38.05
Library	0.121902 / 0.190667					1.31	0.00	0.00	1.43
Motel	1.2176 / 0.135289					6.16	0.04	0.00	7.26
Quality Restaurant	16.0266 / 1.02297					78.11	0.49	0.01	92.55
Strip Mall	8.20724 / 5.03024					57.73	0.25	0.01	65.22
Total						**399.38**	**1.89**	**0.05**	**455.60**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					129.35	7.64	0.00	289.89
Unmitigated					129.35	7.64	0.00	289.89
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

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	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

9.0 Vegetation

B. 50 Percent Renewable Energy

6447: Del Mar Village Specific Plan Future Uses (2035)

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	170	1000sqft
Government (Civic Center)	30.13	1000sqft
Library	4.87	1000sqft
City Park	0.14	Acre
Motel	60	Room
Quality Restaurant	66	1000sqft
Apartments Low Rise	140	Dwelling Unit
Strip Mall	124.24	1000sqft
Strip Mall	14.26	1000sqft

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.6 **Utility Company** San Diego Gas & Electric

Climate Zone 13 **Precipitation Freq (Days)** 40

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on land use information provided by the City of Del Mar.

Architectural Coating - California Green Build Standards VOC Content Limit is 150 g/L

Vehicle Trips - Trip rates based on KOA Traffic Impact Study.
Trip length adjusted to SANDAG's regional average trip length of 5.8 miles.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use -

Water Mitigation - California Green Building Standards requires a 20% reduction.

Energy Mitigation - Plan policy for 50% renewable.

2.0 Emissions Summary

2.1 Overall Construction

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.58	0.49	1.08	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.19	0.19	0.38	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.77**	**0.68**	**1.46**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.24	0.49	0.73	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.01	0.19	0.20	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.25**	**0.68**	**0.93**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	4,091.35	4,091.35	0.13	0.06	4,113.40
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	499.24	499.24	2.38	0.07	569.49
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**12,921.73**	**13,195.70**	**10.61**	**0.14**	**13,462.31**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	2,578.12	2,578.12	0.08	0.04	2,592.39
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	399.40	399.40	1.90	0.05	455.59
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**11,308.66**	**11,582.63**	**10.08**	**0.10**	**11,827.40**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.07	0.06	0.13	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.29	0.01	0.30	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.36**	**0.07**	**0.43**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.01	0.06	0.06	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.02**	**0.07**	**0.08**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.04	0.03	0.06	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.14	0.01	0.15	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.18**	**0.04**	**0.21**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.00	0.03	0.03	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.01**	**0.04**	**0.04**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

4.0 Mobile Detail

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	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Unmitigated	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,120.00	1,002.40	849.80	1,995,893	1,995,893
City Park	0.22	0.22	0.22	344	344
General Office Building	3,400.00	69.70	23.80	4,218,095	4,218,095
Government (Civic Center)	903.90	0.00	0.00	801,163	801,163
Library	243.50	226.70	124.14	261,134	261,134
Motel	540.00	630.00	504.00	781,323	781,323
Quality Restaurant	10,560.00	6,227.76	4762.56	8,322,595	8,322,595
Strip Mall	4,969.60	5,223.05	2538.22	5,434,661	5,434,661
Strip Mall	570.40	599.49	291.33	623,779	623,779
Total	22,307.62	13,979.32	9,094.07	22,438,987	22,438,987

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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	5.80	5.80	5.80	41.60	18.80	39.60
City Park	5.80	5.80	5.80	33.00	48.00	19.00
General Office Building	5.80	5.80	5.80	33.00	48.00	19.00
Government (Civic Center)	5.80	5.80	5.80	75.00	20.00	5.00
Library	5.80	5.80	5.80	52.00	43.00	5.00
Motel	5.80	5.80	5.80	19.00	62.00	19.00
Quality Restaurant	5.80	5.80	5.80	12.00	69.00	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	1,513.22	1,513.22	0.06	0.02	1,521.01
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	3,026.44	3,026.44	0.11	0.04	3,042.02
NaturalGas Mitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
NaturalGas Unmitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	491772					174.17	0.01	0.00	175.06
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.5483e+006					902.51	0.03	0.01	907.15
Government (Civic Center)	451589					159.93	0.01	0.00	160.76
Library	43866					15.54	0.00	0.00	15.62
Motel	335570					118.85	0.00	0.00	119.46
Quality Restaurant	2.72976e+006					966.77	0.04	0.01	971.75
Strip Mall	1.74432e+006					617.77	0.02	0.01	620.95
Strip Mall	200224					70.91	0.00	0.00	71.28
Total						**3,026.45**	**0.11**	**0.03**	**3,042.03**

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	245886					87.08	0.00	0.00	87.53
City Park	0					0.00	0.00	0.00	0.00
General Office Building	1.27415e+006					451.25	0.02	0.01	453.58
Government (Civic Center)	225794					79.97	0.00	0.00	80.38
Library	21933					7.77	0.00	0.00	7.81
Motel	167785					59.42	0.00	0.00	59.73
Quality Restaurant	1.36488e+006					483.39	0.02	0.01	485.87
Strip Mall	100112					35.46	0.00	0.00	35.64
Strip Mall	872158					308.88	0.01	0.00	310.47
Total						**1,513.22**	**0.05**	**0.02**	**1,521.01**

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	tons/yr										MT/yr					
Mitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Unmitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					399.40	1.90	0.05	455.59
Unmitigated					499.24	2.38	0.07	569.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	9.12156 / 5.75055					64.79	0.28	0.01	73.11
City Park	0 / 0.166807					0.66	0.00	0.00	0.66
General Office Building	30.2147 / 18.5187					212.54	0.93	0.03	240.09
Government (Civic Center)	5.98562 / 3.6686					42.10	0.18	0.01	47.56
Library	0.152377 / 0.238333					1.64	0.00	0.00	1.78
Motel	1.52201 / 0.169112					7.70	0.05	0.00	9.07
Quality Restaurant	20.0332 / 1.27872					97.64	0.62	0.02	115.68
Strip Mall	10.259 / 6.2878					72.17	0.32	0.01	81.52
Total						**499.24**	**2.38**	**0.08**	**569.47**

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	7.29725 / 4.60044					51.83	0.22	0.01	58.49
City Park	0 / 0.133446					0.53	0.00	0.00	0.53
General Office Building	24.1718 / 14.815					170.03	0.74	0.02	192.07
Government (Civic Center)	4.78849 / 2.93488					33.68	0.15	0.00	38.05
Library	0.121902 / 0.190667					1.31	0.00	0.00	1.43
Motel	1.2176 / 0.135289					6.16	0.04	0.00	7.26
Quality Restaurant	16.0266 / 1.02297					78.11	0.49	0.01	92.55
Strip Mall	8.20724 / 5.03024					57.73	0.25	0.01	65.22
Total						**399.38**	**1.89**	**0.05**	**455.60**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					129.35	7.64	0.00	289.89
Unmitigated					129.35	7.64	0.00	289.89
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

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	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

9.0 Vegetation

C. 40 Percent Renewable Energy

6447: Del Mar Village Specific Plan Future Uses (2035)

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	170	1000sqft
Government (Civic Center)	30.13	1000sqft
Library	4.87	1000sqft
City Park	0.14	Acre
Motel	60	Room
Quality Restaurant	66	1000sqft
Apartments Low Rise	140	Dwelling Unit
Strip Mall	124.24	1000sqft
Strip Mall	14.26	1000sqft

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.6 **Utility Company** San Diego Gas & Electric

Climate Zone 13 **Precipitation Freq (Days)** 40

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on land use information provided by the City of Del Mar.

Architectural Coating - California Green Build Standards VOC Content Limit is 150 g/L

Vehicle Trips - Trip rates based on KOA Traffic Impact Study.
Trip length adjusted to SANDAG's regional average trip length of 5.8 miles.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use -

Water Mitigation - California Green Building Standards requires a 20% reduction.

Energy Mitigation - Plan policy for 40% renewable.

2.0 Emissions Summary

2.1 Overall Construction

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.58	0.49	1.08	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.19	0.19	0.38	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.77**	**0.68**	**1.46**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.24	0.49	0.73	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.01	0.19	0.20	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.25**	**0.68**	**0.93**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	4,091.35	4,091.35	0.13	0.06	4,113.40
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	499.24	499.24	2.38	0.07	569.49
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**12,921.73**	**13,195.70**	**10.61**	**0.14**	**13,462.31**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	2,880.77	2,880.77	0.09	0.05	2,896.60
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	399.40	399.40	1.90	0.05	455.59
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**11,611.31**	**11,885.28**	**10.09**	**0.11**	**12,131.61**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.07	0.06	0.13	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.29	0.01	0.30	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.36**	**0.07**	**0.43**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.01	0.06	0.06	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.02**	**0.07**	**0.08**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.04	0.03	0.06	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.14	0.01	0.15	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.18**	**0.04**	**0.21**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.00	0.03	0.03	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.01**	**0.04**	**0.04**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

4.0 Mobile Detail

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	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Unmitigated	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,120.00	1,002.40	849.80	1,995,893	1,995,893
City Park	0.22	0.22	0.22	344	344
General Office Building	3,400.00	69.70	23.80	4,218,095	4,218,095
Government (Civic Center)	903.90	0.00	0.00	801,163	801,163
Library	243.50	226.70	124.14	261,134	261,134
Motel	540.00	630.00	504.00	781,323	781,323
Quality Restaurant	10,560.00	6,227.76	4762.56	8,322,595	8,322,595
Strip Mall	4,969.60	5,223.05	2538.22	5,434,661	5,434,661
Strip Mall	570.40	599.49	291.33	623,779	623,779
Total	22,307.62	13,979.32	9,094.07	22,438,987	22,438,987

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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	5.80	5.80	5.80	41.60	18.80	39.60
City Park	5.80	5.80	5.80	33.00	48.00	19.00
General Office Building	5.80	5.80	5.80	33.00	48.00	19.00
Government (Civic Center)	5.80	5.80	5.80	75.00	20.00	5.00
Library	5.80	5.80	5.80	52.00	43.00	5.00
Motel	5.80	5.80	5.80	19.00	62.00	19.00
Quality Restaurant	5.80	5.80	5.80	12.00	69.00	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	1,815.86	1,815.86	0.07	0.03	1,825.21
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	3,026.44	3,026.44	0.11	0.04	3,042.02
NaturalGas Mitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
NaturalGas Unmitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	491772					174.17	0.01	0.00	175.06
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.5483e+006					902.51	0.03	0.01	907.15
Government (Civic Center)	451589					159.93	0.01	0.00	160.76
Library	43866					15.54	0.00	0.00	15.62
Motel	335570					118.85	0.00	0.00	119.46
Quality Restaurant	2.72976e+006					966.77	0.04	0.01	971.75
Strip Mall	1.74432e+006					617.77	0.02	0.01	620.95
Strip Mall	200224					70.91	0.00	0.00	71.28
Total						**3,026.45**	**0.11**	**0.03**	**3,042.03**

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	295063					104.50	0.00	0.00	105.04
City Park	0					0.00	0.00	0.00	0.00
General Office Building	1.52898e+006					541.50	0.02	0.01	544.29
Government (Civic Center)	270953					95.96	0.00	0.00	96.45
Library	26319.6					9.32	0.00	0.00	9.37
Motel	201342					71.31	0.00	0.00	71.67
Quality Restaurant	1.63786e+006					580.06	0.02	0.01	583.05
Strip Mall	1.04659e+006					370.66	0.01	0.01	372.57
Strip Mall	120135					42.55	0.00	0.00	42.77
Total						**1,815.86**	**0.05**	**0.03**	**1,825.21**

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	tons/yr										MT/yr					
Mitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Unmitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					399.40	1.90	0.05	455.59
Unmitigated					499.24	2.38	0.07	569.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	9.12156 / 5.75055					64.79	0.28	0.01	73.11
City Park	0 / 0.166807					0.66	0.00	0.00	0.66
General Office Building	30.2147 / 18.5187					212.54	0.93	0.03	240.09
Government (Civic Center)	5.98562 / 3.6686					42.10	0.18	0.01	47.56
Library	0.152377 / 0.238333					1.64	0.00	0.00	1.78
Motel	1.52201 / 0.169112					7.70	0.05	0.00	9.07
Quality Restaurant	20.0332 / 1.27872					97.64	0.62	0.02	115.68
Strip Mall	10.259 / 6.2878					72.17	0.32	0.01	81.52
Total						**499.24**	**2.38**	**0.08**	**569.47**

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	7.29725 / 4.60044					51.83	0.22	0.01	58.49
City Park	0 / 0.133446					0.53	0.00	0.00	0.53
General Office Building	24.1718 / 14.815					170.03	0.74	0.02	192.07
Government (Civic Center)	4.78849 / 2.93488					33.68	0.15	0.00	38.05
Library	0.121902 / 0.190667					1.31	0.00	0.00	1.43
Motel	1.2176 / 0.135289					6.16	0.04	0.00	7.26
Quality Restaurant	16.0266 / 1.02297					78.11	0.49	0.01	92.55
Strip Mall	8.20724 / 5.03024					57.73	0.25	0.01	65.22
Total						**399.38**	**1.89**	**0.05**	**455.60**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					129.35	7.64	0.00	289.89
Unmitigated					129.35	7.64	0.00	289.89
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

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	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

9.0 Vegetation

D. Green Building Menu 1

6447: Del Mar Village Specific Plan Future Uses (2035)

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	170	1000sqft
Government (Civic Center)	30.13	1000sqft
Library	4.87	1000sqft
City Park	0.14	Acre
Motel	60	Room
Quality Restaurant	66	1000sqft
Apartments Low Rise	140	Dwelling Unit
Strip Mall	124.24	1000sqft
Strip Mall	14.26	1000sqft

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.6 **Utility Company** San Diego Gas & Electric

Climate Zone 13 **Precipitation Freq (Days)** 40

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on land use information provided by the City of Del Mar.

Architectural Coating - California Green Build Standards VOC Content Limit is 150 g/L

Vehicle Trips - Trip rates based on KOA Traffic Impact Study.
Trip length adjusted to SANDAG's regional average trip length of 5.8 miles.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use -

Water Mitigation - California Green Building Standards requires a 20% reduction. Plan policy requires total 35% reduction.

Energy Mitigation - Plan policy for 30% exceedeence of Title 24 ans high-efficiency lighting. 40% improvement per CAPCOA Mitigation Measure BE-4.
Energy Star for both residential and lodging.

Area Mitigation - Plan policy prohibiting hearths and gasoline-powered lawn equipment.

Waste Mitigation - Plan policy requiring WMP for operational 50% waste diversion.

2.0 Emissions Summary

2.1 Overall Construction

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.58	0.49	1.08	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.19	0.19	0.38	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.77**	**0.68**	**1.46**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.24	0.49	0.73	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.01	0.19	0.20	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.25**	**0.68**	**0.93**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	4,091.35	4,091.35	0.13	0.06	4,113.40
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	499.24	499.24	2.38	0.07	569.49
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**12,921.73**	**13,195.70**	**10.61**	**0.14**	**13,462.31**

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	3.15	0.01	0.80	0.00		0.00	0.00		0.00	0.00	0.00	1.21	1.21	0.00	0.00	1.23
Energy	0.09	0.84	0.67	0.01		0.00	0.06		0.00	0.06	0.00	3,394.36	3,394.36	0.11	0.05	3,412.70
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	64.68	0.00	64.68	3.82	0.00	144.95
Water						0.00	0.00		0.00	0.00	0.00	324.51	324.51	1.55	0.04	370.17
Total	**8.80**	**10.95**	**44.74**	**0.13**	**11.79**	**0.63**	**12.48**	**0.19**	**0.61**	**0.85**	**64.68**	**11,867.56**	**11,932.24**	**5.80**	**0.09**	**12,083.20**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.07	0.06	0.13	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.29	0.01	0.30	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.36**	**0.07**	**0.43**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.01	0.06	0.06	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.02**	**0.07**	**0.08**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.04	0.03	0.06	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.14	0.01	0.15	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.18**	**0.04**	**0.21**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.00	0.03	0.03	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.01**	**0.04**	**0.04**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

4.0 Mobile Detail

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	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Unmitigated	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,120.00	1,002.40	849.80	1,995,893	1,995,893
City Park	0.22	0.22	0.22	344	344
General Office Building	3,400.00	69.70	23.80	4,218,095	4,218,095
Government (Civic Center)	903.90	0.00	0.00	801,163	801,163
Library	243.50	226.70	124.14	261,134	261,134
Motel	540.00	630.00	504.00	781,323	781,323
Quality Restaurant	10,560.00	6,227.76	4762.56	8,322,595	8,322,595
Strip Mall	4,969.60	5,223.05	2538.22	5,434,661	5,434,661
Strip Mall	570.40	599.49	291.33	623,779	623,779
Total	22,307.62	13,979.32	9,094.07	22,438,987	22,438,987

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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	5.80	5.80	5.80	41.60	18.80	39.60
City Park	5.80	5.80	5.80	33.00	48.00	19.00
General Office Building	5.80	5.80	5.80	33.00	48.00	19.00
Government (Civic Center)	5.80	5.80	5.80	75.00	20.00	5.00
Library	5.80	5.80	5.80	52.00	43.00	5.00
Motel	5.80	5.80	5.80	19.00	62.00	19.00
Quality Restaurant	5.80	5.80	5.80	12.00	69.00	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	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	2,475.90	2,475.90	0.09	0.03	2,488.64
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	3,026.44	3,026.44	0.11	0.04	3,042.02
NaturalGas Mitigated	0.09	0.84	0.67	0.01		0.00	0.06		0.00	0.06	0.00	918.47	918.47	0.02	0.02	924.06
NaturalGas Unmitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	1.75412e+006	0.01	0.08	0.03	0.00		0.00	0.01		0.00	0.01	0.00	93.61	93.61	0.00	0.00	94.18
City Park	0	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
General Office Building	2.71677e+006	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	144.98	144.98	0.00	0.00	145.86
Government (Civic Center)	481444	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	25.69	25.69	0.00	0.00	25.85
Library	50826.1	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	2.71	2.71	0.00	0.00	2.73
Motel	1.05628e+006	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00	0.00	56.37	56.37	0.00	0.00	56.71
Quality Restaurant	1.08847e+007	0.06	0.53	0.45	0.00		0.00	0.04		0.00	0.04	0.00	580.85	580.85	0.01	0.01	584.39
Strip Mall	239781	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	12.80	12.80	0.00	0.00	12.87
Strip Mall	27523.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.48
Total		**0.09**	**0.82**	**0.66**	**0.00**		**0.00**	**0.06**		**0.00**	**0.06**	**0.00**	**918.48**	**918.48**	**0.01**	**0.01**	**924.07**

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	491772					174.17	0.01	0.00	175.06
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.5483e+006					902.51	0.03	0.01	907.15
Government (Civic Center)	451589					159.93	0.01	0.00	160.76
Library	43866					15.54	0.00	0.00	15.62
Motel	335570					118.85	0.00	0.00	119.46
Quality Restaurant	2.72976e+006					966.77	0.04	0.01	971.75
Strip Mall	1.74432e+006					617.77	0.02	0.01	620.95
Strip Mall	200224					70.91	0.00	0.00	71.28
Total						**3,026.45**	**0.11**	**0.03**	**3,042.03**

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	426590					151.08	0.01	0.00	151.86
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.03728e+006					721.52	0.03	0.01	725.24
Government (Civic Center)	361030					127.86	0.00	0.00	128.52
Library	36949.8					13.09	0.00	0.00	13.15
Motel	256669					90.90	0.00	0.00	91.37
Quality Restaurant	2.37989e+006					842.86	0.03	0.01	847.20
Strip Mall	1.3388e+006					474.15	0.02	0.01	476.59
Strip Mall	153677					54.43	0.00	0.00	54.71
Total						**2,475.89**	**0.09**	**0.03**	**2,488.64**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

	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	3.15	0.01	0.80	0.00		0.00	0.00		0.00	0.00	0.00	1.21	1.21	0.00	0.00	1.23
Unmitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	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
Landscaping	0.02	0.01	0.80	0.00		0.00	0.00		0.00	0.00	0.00	1.21	1.21	0.00	0.00	1.23
Total	**3.16**	**0.01**	**0.80**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.21**	**1.21**	**0.00**	**0.00**	**1.23**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					324.51	1.55	0.04	370.17
Unmitigated					499.24	2.38	0.07	569.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	9.12156 / 5.75055					64.79	0.28	0.01	73.11
City Park	0 / 0.166807					0.66	0.00	0.00	0.66
General Office Building	30.2147 / 18.5187					212.54	0.93	0.03	240.09
Government (Civic Center)	5.98562 / 3.6686					42.10	0.18	0.01	47.56
Library	0.152377 / 0.238333					1.64	0.00	0.00	1.78
Motel	1.52201 / 0.169112					7.70	0.05	0.00	9.07
Quality Restaurant	20.0332 / 1.27872					97.64	0.62	0.02	115.68
Strip Mall	10.259 / 6.2878					72.17	0.32	0.01	81.52
Total						**499.24**	**2.38**	**0.08**	**569.47**

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	5.92902 / 3.73786					42.12	0.18	0.01	47.52
City Park	0 / 0.108425					0.43	0.00	0.00	0.43
General Office Building	19.6396 / 12.0372					138.15	0.60	0.02	156.06
Government (Civic Center)	3.89065 / 2.38459					27.37	0.12	0.00	30.92
Library	0.099045 / 0.154917					1.07	0.00	0.00	1.16
Motel	0.989304 / 0.109923					5.01	0.03	0.00	5.90
Quality Restaurant	13.0216 / 0.831166					63.47	0.40	0.01	75.19
Strip Mall	6.66838 / 4.08707					46.91	0.21	0.01	52.99
Total						**324.53**	**1.54**	**0.05**	**370.17**

8.0 Waste Detail

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					64.68	3.82	0.00	144.95
Unmitigated					129.35	7.64	0.00	289.89
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

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	32.2					6.54	0.39	0.00	14.65
City Park	0.005					0.00	0.00	0.00	0.00
General Office Building	79.05					16.05	0.95	0.00	35.96
Government (Civic Center)	85.87					17.43	1.03	0.00	39.06
Library	2.24					0.45	0.03	0.00	1.02
Motel	16.425					3.33	0.20	0.00	7.47
Quality Restaurant	30.115					6.11	0.36	0.00	13.70
Strip Mall	72.715					14.76	0.87	0.00	33.08
Total						**64.67**	**3.83**	**0.00**	**144.94**

9.0 Vegetation

E. Green Building Menu 2

RECON

6447: Del Mar Village Specific Plan Future Uses (2035)

San Diego County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	170	1000sqft
Government (Civic Center)	30.13	1000sqft
Library	4.87	1000sqft
City Park	0.14	Acre
Motel	60	Room
Quality Restaurant	66	1000sqft
Apartments Low Rise	140	Dwelling Unit
Strip Mall	124.24	1000sqft
Strip Mall	14.26	1000sqft

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.6 **Utility Company** San Diego Gas & Electric

Climate Zone 13 **Precipitation Freq (Days)** 40

1.3 User Entered Comments

Project Characteristics -

Land Use - Based on land use information provided by the City of Del Mar.

Architectural Coating - California Green Build Standards VOC Content Limit is 150 g/L

Vehicle Trips - Trip rates based on KOA Traffic Impact Study.
Trip length adjusted to SANDAG's regional average trip length of 5.8 miles.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use -

Water Mitigation - California Green Building Standards requires a 20% reduction.

Energy Mitigation - Plan policy for 30% exceedeence of Title 24. 40% improvement per CAPCOA Mitigation Measure BE-4.

Area Mitigation - Plan policy prohibiting hearths and gasoline-powered lawn equipment.

Waste Mitigation - Plan policy requiring WMP for operational 50% waste diversion.

2.0 Emissions Summary

2.1 Overall Construction

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.58	0.49	1.08	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.19	0.19	0.38	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.77**	**0.68**	**1.46**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	tons/yr										MT/yr					
2011	1.29	8.81	7.05	0.01	0.24	0.49	0.73	0.11	0.49	0.60	0.00	1,070.92	1,070.92	0.10	0.00	1,073.07
2012	5.12	3.13	2.86	0.00	0.01	0.19	0.20	0.00	0.19	0.19	0.00	439.52	439.52	0.04	0.00	440.35
Total	**6.41**	**11.94**	**9.91**	**0.01**	**0.25**	**0.68**	**0.93**	**0.11**	**0.68**	**0.79**	**0.00**	**1,510.44**	**1,510.44**	**0.14**	**0.00**	**1,513.42**

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	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Energy	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	4,091.35	4,091.35	0.13	0.06	4,113.40
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	129.35	0.00	129.35	7.64	0.00	289.89
Water						0.00	0.00		0.00	0.00	0.00	499.24	499.24	2.38	0.07	569.49
Total	**17.64**	**11.20**	**55.91**	**0.13**	**11.79**	**0.63**	**14.02**	**0.19**	**0.61**	**2.39**	**273.96**	**12,921.73**	**13,195.70**	**10.61**	**0.14**	**13,462.31**

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	3.15	0.01	0.80	0.00		0.00	0.00		0.00	0.00	0.00	1.21	1.21	0.00	0.00	1.23
Energy	0.09	0.84	0.67	0.01		0.00	0.06		0.00	0.06	0.00	3,671.05	3,671.05	0.12	0.06	3,690.81
Mobile	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Waste						0.00	0.00		0.00	0.00	64.68	0.00	64.68	3.82	0.00	144.95
Water						0.00	0.00		0.00	0.00	0.00	324.51	324.51	1.55	0.04	370.17
Total	**8.80**	**10.95**	**44.74**	**0.13**	**11.79**	**0.63**	**12.48**	**0.19**	**0.61**	**0.85**	**64.68**	**12,144.25**	**12,208.93**	**5.81**	**0.10**	**12,361.31**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.2 Demolition - 2011

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	tons/yr										MT/yr					
Off-Road	0.10	0.80	0.46	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.29
Total	**0.10**	**0.80**	**0.46**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.29**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	0.00	0.00	1.40
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.40**	**1.40**	**0.00**	**0.00**	**1.40**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.3 Site Preparation - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.45	0.25	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.36
Total	**0.05**	**0.45**	**0.25**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.36**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.84
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.84**	**0.84**	**0.00**	**0.00**	**0.84**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.4 Grading - 2011

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	tons/yr										MT/yr					
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.66	0.87	0.00		0.08	0.08		0.08	0.08	0.00	147.69	147.69	0.02	0.00	148.03
Total	**0.20**	**1.66**	**0.87**	**0.00**	**0.13**	**0.08**	**0.21**	**0.05**	**0.08**	**0.13**	**0.00**	**147.69**	**147.69**	**0.02**	**0.00**	**148.03**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79	2.79	0.00	0.00	2.80
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**2.79**	**0.00**	**0.00**	**2.80**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.07	0.06	0.13	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.29	0.01	0.30	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.36**	**0.07**	**0.43**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2011

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	tons/yr										MT/yr					
Off-Road	0.61	4.02	2.40	0.00		0.28	0.28		0.28	0.28	0.00	366.46	366.46	0.05	0.00	367.50
Total	**0.61**	**4.02**	**2.40**	**0.00**		**0.28**	**0.28**		**0.28**	**0.28**	**0.00**	**366.46**	**366.46**	**0.05**	**0.00**	**367.50**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.15	1.68	1.08	0.00	0.01	0.06	0.06	0.00	0.05	0.06	0.00	213.72	213.72	0.01	0.00	213.87
Worker	0.17	0.20	1.95	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	233.63	233.63	0.02	0.00	233.99
Total	**0.32**	**1.88**	**3.03**	**0.00**	**0.02**	**0.07**	**0.08**	**0.00**	**0.06**	**0.07**	**0.00**	**447.35**	**447.35**	**0.03**	**0.00**	**447.86**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.04	0.03	0.06	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.14	0.01	0.15	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.18**	**0.04**	**0.21**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.5 Building Construction - 2012

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	tons/yr										MT/yr					
Off-Road	0.28	1.87	1.19	0.00		0.13	0.13		0.13	0.13	0.00	183.23	183.23	0.02	0.00	183.71
Total	**0.28**	**1.87**	**1.19**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**183.23**	**183.23**	**0.02**	**0.00**	**183.71**

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	tons/yr										MT/yr					
Hauling	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
Vendor	0.07	0.78	0.50	0.00	0.00	0.03	0.03	0.00	0.02	0.03	0.00	107.05	107.05	0.00	0.00	107.11
Worker	0.08	0.09	0.90	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	114.31	114.31	0.01	0.00	114.48
Total	**0.15**	**0.87**	**1.40**	**0.00**	**0.01**	**0.04**	**0.04**	**0.00**	**0.03**	**0.04**	**0.00**	**221.36**	**221.36**	**0.01**	**0.00**	**221.59**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.6 Paving - 2012

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	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.56
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.06**	**0.36**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37	0.00	0.00	1.37
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.37**	**1.37**	**0.00**	**0.00**	**1.37**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

3.7 Architectural Coating - 2012

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	tons/yr										MT/yr					
Archit. Coating	4.62					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**4.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

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	tons/yr										MT/yr					
Hauling	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
Vendor	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
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	4.55	0.00	0.00	4.56
Total	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**4.55**	**0.00**	**0.00**	**4.56**

4.0 Mobile Detail

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	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Unmitigated	5.56	10.10	43.27	0.12	11.79	0.63	12.42	0.19	0.61	0.79	0.00	8,147.48	8,147.48	0.32	0.00	8,154.15
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,120.00	1,002.40	849.80	1,995,893	1,995,893
City Park	0.22	0.22	0.22	344	344
General Office Building	3,400.00	69.70	23.80	4,218,095	4,218,095
Government (Civic Center)	903.90	0.00	0.00	801,163	801,163
Library	243.50	226.70	124.14	261,134	261,134
Motel	540.00	630.00	504.00	781,323	781,323
Quality Restaurant	10,560.00	6,227.76	4762.56	8,322,595	8,322,595
Strip Mall	4,969.60	5,223.05	2538.22	5,434,661	5,434,661
Strip Mall	570.40	599.49	291.33	623,779	623,779
Total	22,307.62	13,979.32	9,094.07	22,438,987	22,438,987

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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	5.80	5.80	5.80	41.60	18.80	39.60
City Park	5.80	5.80	5.80	33.00	48.00	19.00
General Office Building	5.80	5.80	5.80	33.00	48.00	19.00
Government (Civic Center)	5.80	5.80	5.80	75.00	20.00	5.00
Library	5.80	5.80	5.80	52.00	43.00	5.00
Motel	5.80	5.80	5.80	19.00	62.00	19.00
Quality Restaurant	5.80	5.80	5.80	12.00	69.00	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	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	2,752.58	2,752.58	0.10	0.04	2,766.75
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	3,026.44	3,026.44	0.11	0.04	3,042.02
NaturalGas Mitigated	0.09	0.84	0.67	0.01		0.00	0.06		0.00	0.06	0.00	918.47	918.47	0.02	0.02	924.06
NaturalGas Unmitigated	0.11	0.97	0.77	0.01		0.00	0.07		0.00	0.07	0.00	1,064.90	1,064.90	0.02	0.02	1,071.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	2.33956e+006	0.01	0.11	0.05	0.00		0.00	0.01		0.00	0.01	0.00	124.85	124.85	0.00	0.00	125.61
City Park	0	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
General Office Building	3.5751e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	190.78	190.78	0.00	0.00	191.94
Government (Civic Center)	633550	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	33.81	33.81	0.00	0.00	34.01
Library	57464.5	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.07	3.07	0.00	0.00	3.09
Motel	1.39955e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	74.69	74.69	0.00	0.00	75.14
Quality Restaurant	1.16332e+007	0.06	0.57	0.48	0.00		0.00	0.04		0.00	0.04	0.00	620.79	620.79	0.01	0.01	624.57
Strip Mall	284507	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	15.18	15.18	0.00	0.00	15.27
Strip Mall	32657.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.74	1.74	0.00	0.00	1.75
Total		**0.10**	**0.97**	**0.78**	**0.00**		**0.00**	**0.07**		**0.00**	**0.07**	**0.00**	**1,064.91**	**1,064.91**	**0.01**	**0.01**	**1,071.38**

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	1.75412e+006	0.01	0.08	0.03	0.00		0.00	0.01		0.00	0.01	0.00	93.61	93.61	0.00	0.00	94.18
City Park	0	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
General Office Building	2.71677e+006	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01	0.00	144.98	144.98	0.00	0.00	145.86
Government (Civic Center)	481444	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	25.69	25.69	0.00	0.00	25.85
Library	50826.1	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	2.71	2.71	0.00	0.00	2.73
Motel	1.05628e+006	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00	0.00	56.37	56.37	0.00	0.00	56.71
Quality Restaurant	1.08847e+007	0.06	0.53	0.45	0.00		0.00	0.04		0.00	0.04	0.00	580.85	580.85	0.01	0.01	584.39
Strip Mall	239781	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	12.80	12.80	0.00	0.00	12.87
Strip Mall	27523.7	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.48
Total		**0.09**	**0.82**	**0.66**	**0.00**		**0.00**	**0.06**		**0.00**	**0.06**	**0.00**	**918.48**	**918.48**	**0.01**	**0.01**	**924.07**

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	491772					174.17	0.01	0.00	175.06
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.5483e+006					902.51	0.03	0.01	907.15
Government (Civic Center)	451589					159.93	0.01	0.00	160.76
Library	43866					15.54	0.00	0.00	15.62
Motel	335570					118.85	0.00	0.00	119.46
Quality Restaurant	2.72976e+006					966.77	0.04	0.01	971.75
Strip Mall	1.74432e+006					617.77	0.02	0.01	620.95
Strip Mall	200224					70.91	0.00	0.00	71.28
Total						**3,026.45**	**0.11**	**0.03**	**3,042.03**

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	463397					164.12	0.01	0.00	164.96
City Park	0					0.00	0.00	0.00	0.00
General Office Building	2.25811e+006					799.73	0.03	0.01	803.85
Government (Civic Center)	400164					141.72	0.01	0.00	142.45
Library	41701.9					14.77	0.00	0.00	14.85
Motel	295274					104.57	0.00	0.00	105.11
Quality Restaurant	2.53057e+006					896.23	0.03	0.01	900.84
Strip Mall	1.59933e+006					566.42	0.02	0.01	569.33
Strip Mall	183582					65.02	0.00	0.00	65.35
Total						**2,752.58**	**0.10**	**0.03**	**2,766.74**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

	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	3.15	0.01	0.80	0.00		0.00	0.00		0.00	0.00	0.00	1.21	1.21	0.00	0.00	1.23
Unmitigated	11.97	0.13	11.87	0.00		0.00	1.53		0.00	1.53	144.61	183.66	328.28	0.14	0.01	335.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	8.80	0.12	10.82	0.00		0.00	1.53		0.00	1.53	144.61	181.95	326.56	0.14	0.01	333.63
Landscaping	0.03	0.01	1.05	0.00		0.00	0.01		0.00	0.01	0.00	1.72	1.72	0.00	0.00	1.75
Total	**11.97**	**0.13**	**11.87**	**0.00**		**0.00**	**1.54**		**0.00**	**1.54**	**144.61**	**183.67**	**328.28**	**0.14**	**0.01**	**335.38**

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	0.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	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
Landscaping	0.02	0.01	0.80	0.00		0.00	0.00		0.00	0.00	0.00	1.21	1.21	0.00	0.00	1.23
Total	**3.16**	**0.01**	**0.80**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.21**	**1.21**	**0.00**	**0.00**	**1.23**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					324.51	1.55	0.04	370.17
Unmitigated					499.24	2.38	0.07	569.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	9.12156 / 5.75055					64.79	0.28	0.01	73.11
City Park	0 / 0.166807					0.66	0.00	0.00	0.66
General Office Building	30.2147 / 18.5187					212.54	0.93	0.03	240.09
Government (Civic Center)	5.98562 / 3.6686					42.10	0.18	0.01	47.56
Library	0.152377 / 0.238333					1.64	0.00	0.00	1.78
Motel	1.52201 / 0.169112					7.70	0.05	0.00	9.07
Quality Restaurant	20.0332 / 1.27872					97.64	0.62	0.02	115.68
Strip Mall	10.259 / 6.2878					72.17	0.32	0.01	81.52
Total						**499.24**	**2.38**	**0.08**	**569.47**

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	5.92902 / 3.73786					42.12	0.18	0.01	47.52
City Park	0 / 0.108425					0.43	0.00	0.00	0.43
General Office Building	19.6396 / 12.0372					138.15	0.60	0.02	156.06
Government (Civic Center)	3.89065 / 2.38459					27.37	0.12	0.00	30.92
Library	0.099045 / 0.154917					1.07	0.00	0.00	1.16
Motel	0.989304 / 0.109923					5.01	0.03	0.00	5.90
Quality Restaurant	13.0216 / 0.831166					63.47	0.40	0.01	75.19
Strip Mall	6.66838 / 4.08707					46.91	0.21	0.01	52.99
Total						**324.53**	**1.54**	**0.05**	**370.17**

8.0 Waste Detail

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					64.68	3.82	0.00	144.95
Unmitigated					129.35	7.64	0.00	289.89
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	64.4					13.07	0.77	0.00	29.30
City Park	0.01					0.00	0.00	0.00	0.00
General Office Building	158.1					32.09	1.90	0.00	71.92
Government (Civic Center)	171.74					34.86	2.06	0.00	78.13
Library	4.48					0.91	0.05	0.00	2.04
Motel	32.85					6.67	0.39	0.00	14.94
Quality Restaurant	60.23					12.23	0.72	0.00	27.40
Strip Mall	145.43					29.52	1.74	0.00	66.16
Total						**129.35**	**7.63**	**0.00**	**289.89**

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	32.2					6.54	0.39	0.00	14.65
City Park	0.005					0.00	0.00	0.00	0.00
General Office Building	79.05					16.05	0.95	0.00	35.96
Government (Civic Center)	85.87					17.43	1.03	0.00	39.06
Library	2.24					0.45	0.03	0.00	1.02
Motel	16.425					3.33	0.20	0.00	7.47
Quality Restaurant	30.115					6.11	0.36	0.00	13.70
Strip Mall	72.715					14.76	0.87	0.00	33.08
Total						**64.67**	**3.83**	**0.00**	**144.94**

9.0 Vegetation