



DRAFT
REGIONAL GREENHOUSE GAS INVENTORY
FOR THE COACHELLA VALLEY

June 2011



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

**Greenhouse Gas (GHG) Inventories
for the Coachella Valley**

**Part I: Summary of the Inventory
Part II: Technical Document: Methodology,
Assumptions, Data Sources and Inventory**

**Prepared for the
Coachella Valley Association of Governments**

June 2011

DRAFT

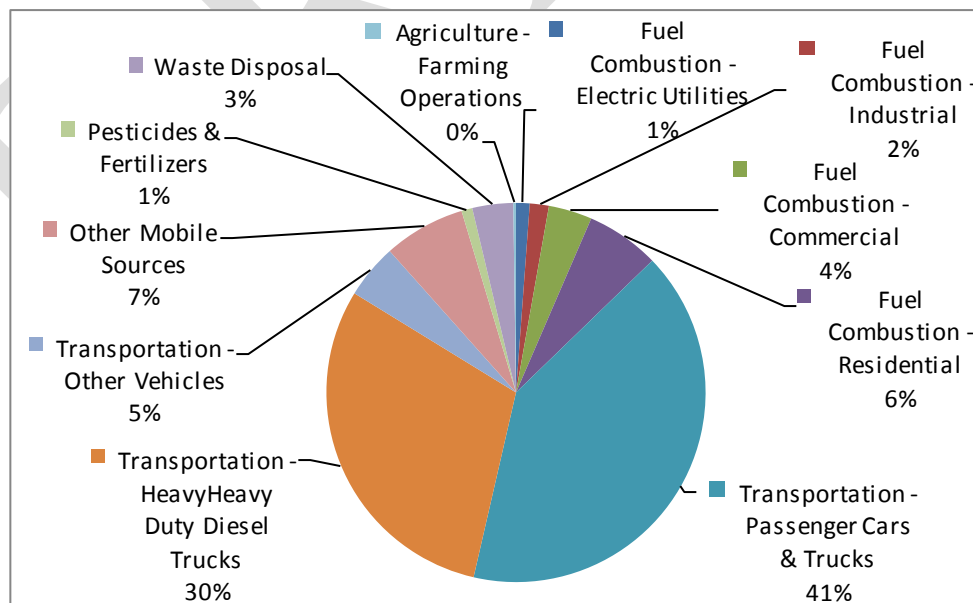
Part I: Summary

Regional Greenhouse Gas Inventory for the Coachella Valley

Executive Summary

To begin the process of understanding greenhouse gases in the Coachella Valley, CVAG partnered with the South Coast Air Quality Management District to prepare a regional greenhouse gas inventory. This inventory, presented here in draft form, identifies major sources of greenhouse gases including vehicles travelling on Coachella Valley roads and emissions from combustion of fuels to power our buildings. This regional baseline inventory is intended to complement current efforts in the Coachella Valley to preserve our air quality, reduce our dependence on foreign oil, increase our energy efficiency, and advance sustainability.

The inventory focuses on three major greenhouse gases: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). In general, carbon dioxide emissions result from fuel combustion, methane results from cows and landfills, and nitrous oxide from fuel combustion, fertilizers and agriculture. The inventory describes greenhouse gas emissions for the baseline year of 2005, the initial year for baseline greenhouse gas emissions data established under SB 375. It also projects future emissions for 2020. Greenhouse gas emissions are identified in major categories, including direct emissions from stationary sources, on-road mobile or transportation sources, and off-road mobile sources. Part I includes a summary of the AQMD inventory, which is presented in Part II. The major sources of greenhouse gas emissions are identified in the following pie-chart.



Coachella Valley - 2005 Greenhouse Gas Emissions from Major Sources

Introduction

The Coachella Valley has a long-standing commitment to environmental sustainability and responsible stewardship of our natural resources. Our air quality management program is a state-of-the-art example of regional collaboration to address the PM₁₀ dust problem. The Coachella Valley Multiple Species Habitat Conservation Plan provides a regional vision for long-term protection of natural open space and wildlife habitat balanced with responsible growth. For CVAG member agencies, addressing climate change and greenhouse gas reduction using a “big picture” regional perspective offers another opportunity for the region to act collectively to improve our air quality and reach greenhouse gas reduction targets.

The first step in understanding our contribution to greenhouse gas emissions and advancing greenhouse gas reduction efforts through climate action planning was to complete a comprehensive inventory of the greenhouse gases currently emitted into the environment in the Coachella Valley region. To accomplish this step, CVAG partnered with the South Coast Air Quality Management District (South Coast AQMD) to prepare this Coachella Valley Regional Baseline Greenhouse Gas Inventory. We are fortunate to have the significant expertise and data resources of the South Coast AQMD. This inventory of greenhouse gas (GHG) emissions:

- ✓ Serves as a baseline for the Coachella Valley to prepare strategies to reduce greenhouse gas emissions and to measure our success in that effort.
- ✓ Informs the process of evaluating options for implementation of legislative and regulatory actions, including SB 375 and AB 32
- ✓ Positions CVAG to address future climate change requirements
- ✓ Complements current efforts in the Coachella Valley to preserve our air quality, reduce our dependence on foreign oil, increase our energy efficiency, reduce water usage and advance sustainability
- ✓ Provides cost savings and economies of scale for member jurisdictions

The inventory describes greenhouse gas emissions for the baseline year of 2005 and then projects future emissions for 2020. The baseline year of 2005 was chosen because CVAG had already established it as the baseline year for a 10% electricity use reduction goal set in 2008. The year 2005 is also the initial year for baseline greenhouse gas emissions data established under SB 375.

This inventory report is presented in two parts. Part I, including an executive summary, provides an overview of the results of the inventory, including a summary of the highest emissions categories, general description of the methodology, and discussion of how the greenhouse gas inventory will integrate with existing CVAG and jurisdiction sustainability programs. Section I also includes basic information about greenhouse gases, what they are, where they come from, and why they are important to life on earth. Finally, it briefly addresses how this inventory will be used to identify potential emissions reduction strategies that could be adopted to curb greenhouse gas emissions in the Coachella Valley. CVAG anticipates developing a greenhouse gas reduction plan following this inventory.

Part II is the inventory and technical report prepared by the South Coast Air Quality Management District. This document outlines the methods and assumptions used; the sources of the data, the limitations of the estimates, and presents detailed tables of the

inventory data by major source categories. These data tables are presented for the entire Coachella Valley region combined, then individually for each city, and the unincorporated areas of Riverside County. The approach used by AQMD is similar to the inventory methodology used to develop the latest Air Quality Management Plan (2007 AQMP). Data provided by AQMD was supplemented with data from various sources gathered by CVAG.

Key Findings

- The Coachella Valley region produced 4.31 million metric tons of carbon dioxide equivalent (MMT CO₂E) greenhouse gases in 2005 from direct emissions.
- Emissions from transportation sources, including cars and light-duty trucks, and other mobile sources represent 76% of total greenhouse gas emissions in 2005 for the Coachella Valley as a whole.
- For the Coachella Valley as a whole, emissions from the on-road transportation sector (3.26 MMT CO₂E) and from stationary fuel combustion (0.75 MMT CO₂E) represent over 93% (4.01 MMT CO₂E) of total emissions.
- If no action is taken, by 2020, under a business-as-usual scenario, regional greenhouse gas emissions are expected to increase 23% or 1.27 MMT CO₂E over 2005 levels to 5.58 MMT CO₂E.

The following comparison breaks down the major sources of greenhouse gas emissions in terms of mobile on-road (light duty cars and trucks, heavy duty trucks), mobile off-road (aircraft, trains, equipment), and stationary sources for 2005 and 2020.

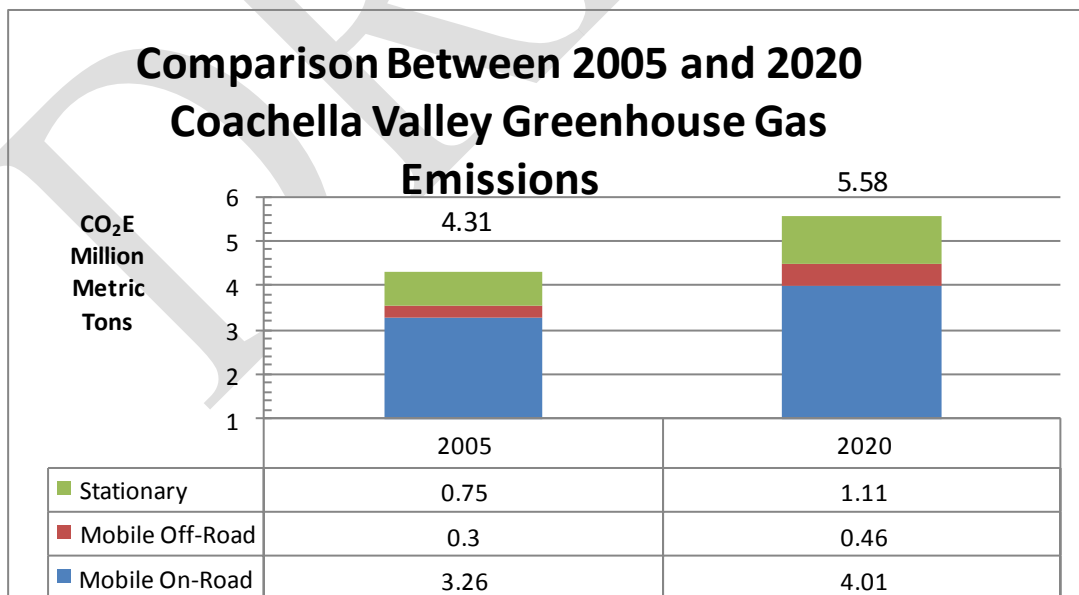


Figure 1. Greenhouse gas emissions in the Coachella Valley in 2005 and in the year 2020

Summary and Background

The Coachella Valley area is approximately 15 miles wide along most of its 45 miles in length, extending southeast from the San Bernardino Mountains and terminating on the south end at the Salton Sea. The valley is surrounded by the San Jacinto and Santa Rosa Mountains to the west and south, and the by the Little San Bernardino Mountains to the north and east. The valley is unique in that it is close in proximity to the larger communities of San Bernardino, Riverside and San Diego, but isolated by the nature of its geography.

The population of the Coachella Valley including nine cities and surrounding unincorporated areas is 419,062 according to the U.S Census Bureau (April 2010). Between 2000 and 2010 the population grew by 31.7%, with over 100,000 new residents added to Coachella Valley population. The Inland Empire, of which the Coachella Valley is a part, is the 14th largest metropolitan area in the United States. The population growth rate is expected to be more than 15% over the next 5 years, and by 2020 the population is expected to surpass 600,000 people.

The area covered by this inventory includes the Coachella Valley as a whole, including cities and unincorporated areas of eastern Riverside County. The CVAG member cities include Blythe, Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage. Riverside County, the Agua Caliente Band of Cahuilla Indians, and the Cabazon Band of Mission Indians, are also CVAG members. However, the City of Blythe is not included in this inventory because they are not in the South Coast Air Quality Management District; therefore the South Coast AQMD did not have data for this city. The inventory does include the unincorporated areas of Riverside County within the boundary of both CVAG and the Salton Sea Air Basin. Emissions from tribal lands are included to some extent in this inventory because both the on-road and off-road models derive data to calculate emissions that may include these areas. However, because stationary source emissions data is not collected by AQMD on tribal lands, not all emissions for the Indian Reservation lands were available.

For purpose of this inventory, three major greenhouse gases were included: carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). In general, carbon dioxide emissions result from fuel combustion, methane results from cows and landfills, and nitrous oxide from fuel combustion, fertilizers and agriculture. These emissions are typically reported in millions of metric tons (MMT) of carbon dioxide equivalents (CO_2E), which is the amount of CO_2 that would give the same global warming potential as a given amount of another greenhouse gas. For example, methane (CH_4) is a greenhouse gas which has a global warming potential 21 times that of CO_2 and N_2O has a global warming potential 310 times that of CO_2 . Additional information about these greenhouse gases is provided below.

In this inventory, greenhouse gas emissions are identified in major categories, including direct emissions from stationary sources, on-road mobile or transportation sources, and off-road mobile sources. Stationary source emissions are calculated for greenhouse gases arising from point sources. These point sources include fuel combustion associated with electricity generation at power plants and natural gas and other fuels used for heating and cooling buildings in the residential, commercial, and industrial sectors. Emissions resulting from waste management, agricultural processes, and

fertilizer from golf courses are also included as stationary sources. On-road mobile sources include vehicles – from passenger vehicles to large trucks – that travel our roads and highways. Off-road mobile sources include aircraft, trains, off-road vehicles, and off-road equipment such as construction equipment.

The majority of human produced greenhouse gases produced come from the burning of fossil fuels. The main fossil fuels used are coal, methane gas and petroleum. The emissions relating to fuel consumption are the biggest contributing factors to greenhouse gases produced in the Coachella Valley.

The greenhouse gas emissions associated with electricity consumption result primarily from the combustion of fuels used to generate that electricity. This electricity generation occurs in the Coachella Valley to a limited extent, but more significantly outside the Coachella Valley region. The inventory provides emissions resulting from electricity generation at Coachella Valley power plants. It does not include emissions resulting from electricity consumption in the Coachella Valley, which are indirect sources. Greenhouse gas emissions that are derived from stationary sources incorporate electricity use. Therefore, standalone electricity consumption data are excluded from the totals to avoid double-counting.

This greenhouse gas inventory reflects some of the unique land uses in this region. As the Coachella Valley is a world renowned resort destination, there are many golf courses in the area, which use fertilizer that results in greenhouse gas emissions of nitrous oxides (N₂O). To address this emissions source, data was gathered on fertilizer usage on valley golf courses and the resulting greenhouse gas emissions were calculated as described in Part II.

What is a Greenhouse Gas?

What is a greenhouse gas? Simply put, they are gases found in the atmosphere, both naturally occurring and as a result of human activity, which absorb and emit radiation. Greenhouse gases are important to life on earth and help make the planet livable. The most common greenhouse gases are, in order of abundance in the atmosphere, water vapor, carbon dioxide, methane, nitrous oxide, and fluorinated gases (SF₆, HFCs, PFCs). The following are brief descriptions of greenhouse gases addressed in this inventory – carbon dioxide, methane, and nitrous oxide – as well as other greenhouse gases not covered herein.

Carbon Dioxide – CO₂

Carbon dioxide (CO₂) is a naturally occurring colorless and odorless gas. It is the greenhouse gas that has caused concern among scientists and is the most prevalent greenhouse gas in the atmosphere. As of 2006, the U.S. Environmental Protection Agency estimated carbon dioxide to be 84.8% as a portion of all emissions in the U.S. Carbon dioxide is primarily emitted into the atmosphere during the process of burning fossil fuels (oil, natural gas, and coal), trees and wood products, solid waste, and through chemical processes such as cement and lime manufacture. Natural sources also contribute carbon dioxide, including plant and animal respiration, evaporation of oceans, and decomposition of organic matter.

Methane – CH₄

Methane (CH₄) is emitted from a variety of sources such as landfills, natural gas systems, livestock digestion (enteric fermentation), coal mining, and manure control (livestock). According to the U.S. EPA, landfills are the second-largest human-related source of methane in the U.S., accounting for 23 percent of all methane emissions in 2007. Methane produced in landfills is caused as waste decomposes under anaerobic conditions. Methane production varies by level of waste material, available moisture, and heat. The methane emissions from landfills are typically exhausted into the atmosphere, however recent regulations in the U.S. now require large landfills to recapture and recycle their methane emissions.

Nitrous Oxide – N₂O

Nitrous oxide (N₂O) results from both natural and human-related sources. Natural production of nitrous oxides occurs in soil and water as a result of microbial processes. Primary human-related sources of N₂O are nitrogen fertilizers on agricultural soils, animal manure management, wastewater treatment, vehicle emissions, fossil-fuel power plants and other stationary combustion of fossil fuels. Reduction in use of synthetic nitrogen fertilizers in crop production and catalytic converters on automobiles are two ways to control nitrous oxide emissions.

Other Greenhouse Gases

Halocarbons - Chlorofluorocarbons (CFCs) and Hydrofluorocarbons (HFCs), PFC

Halocarbons (HFC) are compounds containing carbon, and halogens such as chlorine and fluorine, and sometimes hydrogen. Chlorofluorocarbons are synthetic with no natural sources. They were widely used as refrigerants for air conditioning systems and as propellants in aerosol containers, such as hair spray and spray-paint. Other halocarbons, Hydrofluorocarbons and hydrochlorofluorocarbons (HCFCs), are man-made compounds used as common replacements for chlorofluorocarbons (CFCs) which have a mandated phase-out under terms of the Montreal Protocol. Perfluorocarbon (PFC) emissions are a byproduct of the aluminum and semiconductor manufacturing processes.

Sulfur Hexafluoride (SF₆)

Sulfur hexafluoride (SF₆) is a highly potent greenhouse gas used in the electrical power industry. Its use is primarily for insulation and current interruption in electrical transmission and distribution equipment. SF₆ has been used since the 1950s in circuit breakers, gas-insulated substations and other switchgear used in the transmission system to manage the high voltages carried between generating stations and customer load centers. The electrical industry uses 80% of all SF₆ produced worldwide. Leaks generally occur from aging equipment and gas loss during equipment service. While older circuit breakers can contain 2,000 lbs. of SF₆, newer circuit breakers typically contain less than 100 lbs. Due to its long-life span and high global warming potential (GWP), even a small amount of sulfur hexafluorides can have a significant impact on our climate.

According to Southern California Edison (SCE), approximately 586,000 pounds of SF₆ are incorporated within SCE's system which covers an area of 50,000 square miles. Since 1999 SCE has reduced its SF₆ leak-rate by over 60%, bringing leakage down from 10% to the current level of 3.8%. Although SCE's target of no more than 1% leakage is attainable, many of the several hundred individual pieces of equipment containing SF₆

will require replacement or overhaul. The grossest emissions of SF₆ released from within the system are from equipment not owned by SCE. On February 25, 2010, the California Air Resources Board (CARB) approved measures to reduce sulfur hexafluoride state wide.

How is the Carbon Dioxide Equivalent Computed – CO₂E?

What does CO₂E mean? Scientist use carbon dioxide as the gas to which the others are compared and describe other greenhouse gases in carbon dioxide equivalent units, abbreviated as CO₂E. This allows an “apples to apples” comparison of different greenhouse gases. For example, each pound of methane (CH₄) released into the atmosphere is equivalent in terms of harmful effects to releasing 21 pounds of carbon dioxide (CO₂) into the atmosphere. Each greenhouse gas has its own equivalency ratio:

Each GHG lb.	= CO ₂ E lbs.*
Methane	21
Nitrous Oxide	310
HFC-134a	1,300
PFC-CF ₄	6,500
SF ₆	23,900

*epa.gov clean energy calculator

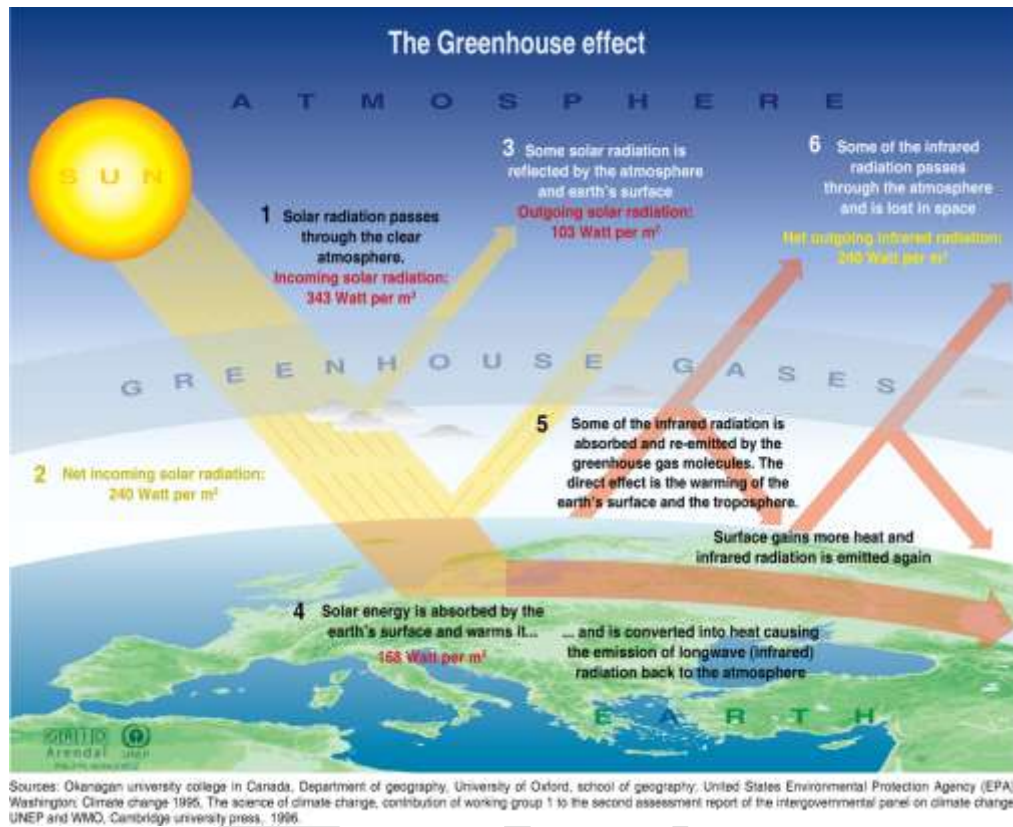
How is the CO₂E conversion calculated? Using the Global Warming Potential (GWP) of 21 for methane, the “carbon dioxide equivalent” of 310 tons of methane is 310 tons x 21 = 6,510 tons CO₂E. Emitting 310 tons of CH₄ would thus be considered to result in the same cumulative effects over the next 100 years as emitting 6,510 tons of CO₂.

How it works: The Greenhouse Effect and Climate Change

Without a certain amount of greenhouse gases, the planet would be a very cold place to live. As the name suggests, greenhouse gases work much like an actual greenhouse that you might find at a commercial nursery. Like a greenhouse, the sun warms the earth via solar rays travelling through space that penetrate the earth’s atmosphere and hit the surface. Certain amounts of this solar energy are absorbed by the surface, which raises the earth’s temperature. The excess solar energy not absorbed by the surface is reflected back into the atmosphere and trapped, keeping the planet warm. However, not all of the excess solar energy is trapped, some is able to penetrate the atmosphere and escape back into space.

The entire system works very efficiently, keeping the planet at an approximate mean temperature of 58°F (14.5°C). Problems for the planet begin when *additional* amounts of the excess solar energy, reflected from the earth’s surface, can no longer escape the atmosphere and head out to space. This energy is trapped by disproportionate greenhouse gases in the atmosphere. The trapped excess energy overheats the earth’s

climate system, creating a positive feedback system, which leads to climate change. The following diagram illustrates the greenhouse effect.



Summary of the Regional Inventory

The breakdown of emissions by category follows the statewide pattern with the most significant sources of greenhouse gases being transportation and fuel combustion, and electricity generation. Figure 2 illustrates the relative contribution of on-road transportation and fuel combustion, which together account for 94% of greenhouse gas emissions in the Coachella Valley. Other sources which account for 2% or less of the total for the Coachella Valley include trains travelling through the Coachella Valley and the fertilizers used on golf courses and other applications.

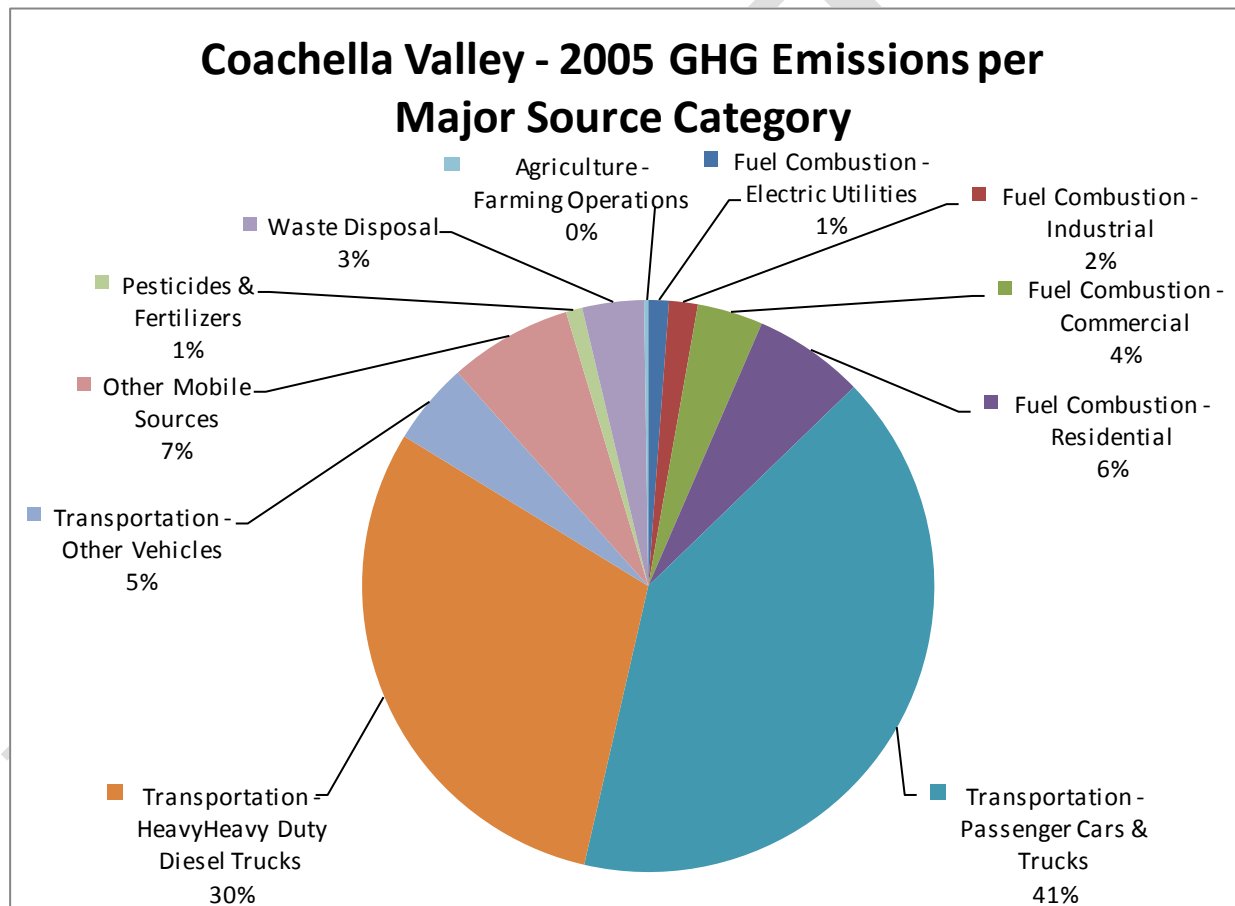


Figure 2: Greenhouse Gas Emissions in 2005 for the Coachella Valley region. Greenhouse gas emissions are shown by major source category

Vehicles travelling on roads and freeways are a major source of greenhouse gas emissions in the Coachella Valley, accounting for 76% of the regional total in 2005. Passenger vehicles, including light duty cars and trucks together produce 41% of the greenhouse gas emissions from vehicles. Another significant source of emissions is heavy duty diesel trucks, which account for 30% of GHG emissions, resulting from the truck travel along the I-10 Freeway and Highway 86 transportation corridors. CVAG will be assessing the impacts of proposed transportation projects and looking at ways to reduce the contribution from vehicle emissions.

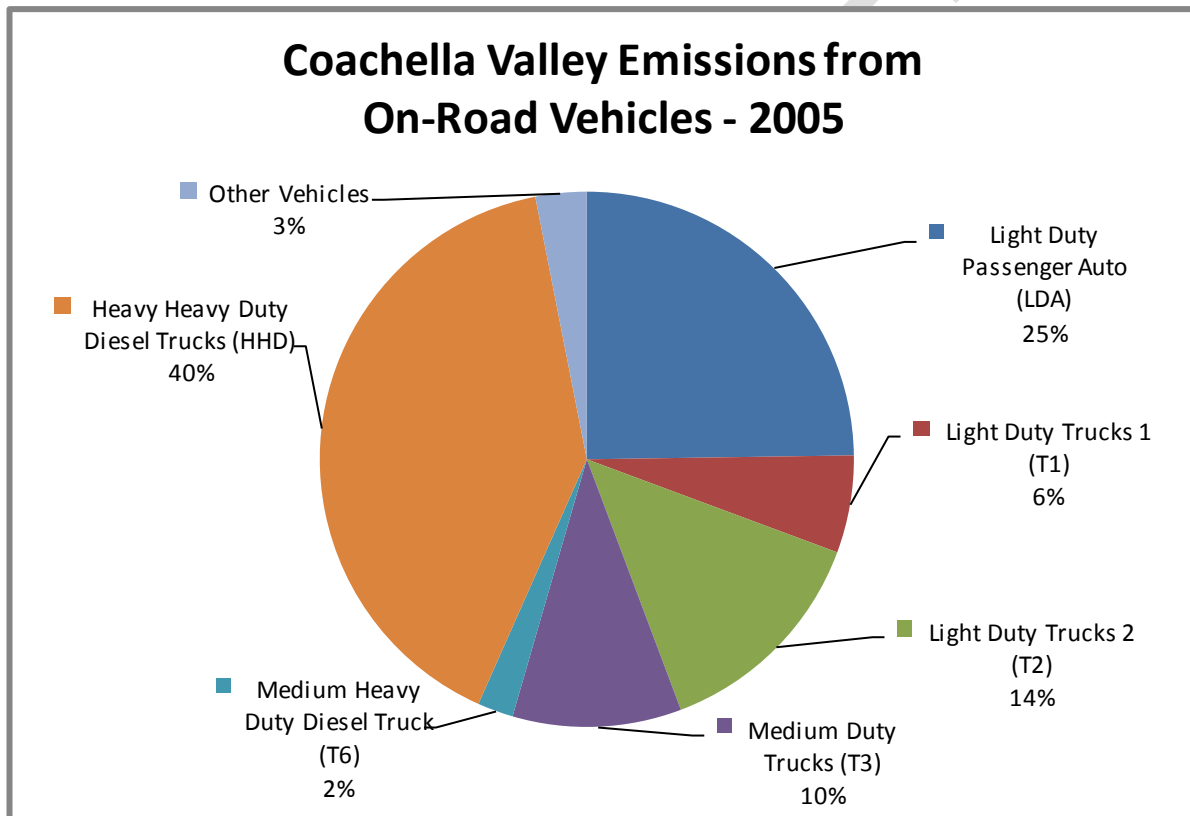


Figure 3 Greenhouse Gas Emissions from vehicles travelling on Coachella Valley roads in 2005. See Part II: Table B-1 for source data.

Another major source of emissions is the fuel combustion associated with various commercial and industrial activities. This includes direct emissions from the combustion of natural gas, coal, kerosene, distillate, motor gasoline and other fuels. Service and commercial sources, including hotels and other service businesses, account for 28% of the greenhouse gas emissions from stationary sources. In the resort and tourism based economy that is the Coachella Valley, the buildings that support hotel and retail services require electricity and natural gas to provide a cool, welcoming environment. Industry is limited in the Coachella Valley and the greenhouse gas emissions data reflect the relatively small contribution from this source.

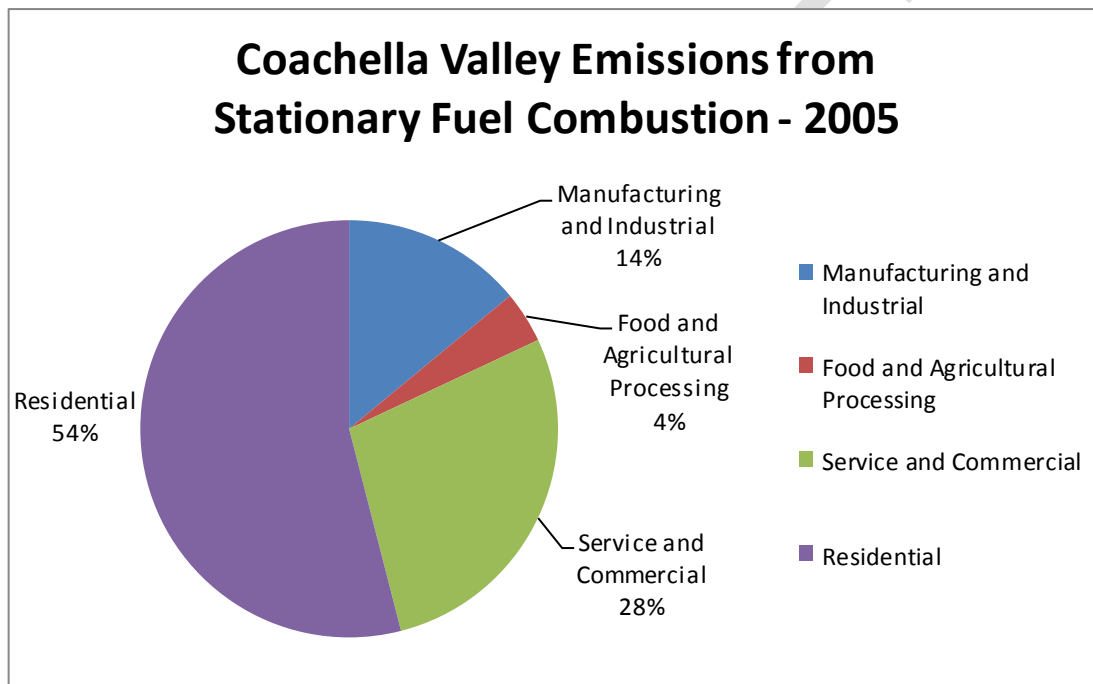


Figure 4 Greenhouse Gas Emissions from fuel combustion in the Commercial, Industrial, and Residential sectors in 2005. See Part II: Table B-1 for source data

In addition to detailing the major sources of greenhouse gas emissions in the Coachella Valley and our cities, this inventory provides a look into the future with a forecast of greenhouse gas emissions for the year 2020. This resulting from forecast clearly defines our challenge, as it predicts an increase overall of 23%, with a 34% increase in emissions from electricity consumption and a 38% increase in emissions from stationary sources. Of interest, the contribution to greenhouse gas emissions in the year 2020 from vehicles is predicted to increase by 19%.

**Coachella Valley Greenhouse Gas Emissions
on a Per Capita Basis – 2005 and 2020**

GHG Emissions	Total GHG (MMT CO ₂ E)	Population (x 100,000)	GHG per Capita (MT CO ₂ E)
Coachella Valley - 2005	4.31	4.13451	10.42
Coachella Valley - 2020	5.58	6.19900	9.00

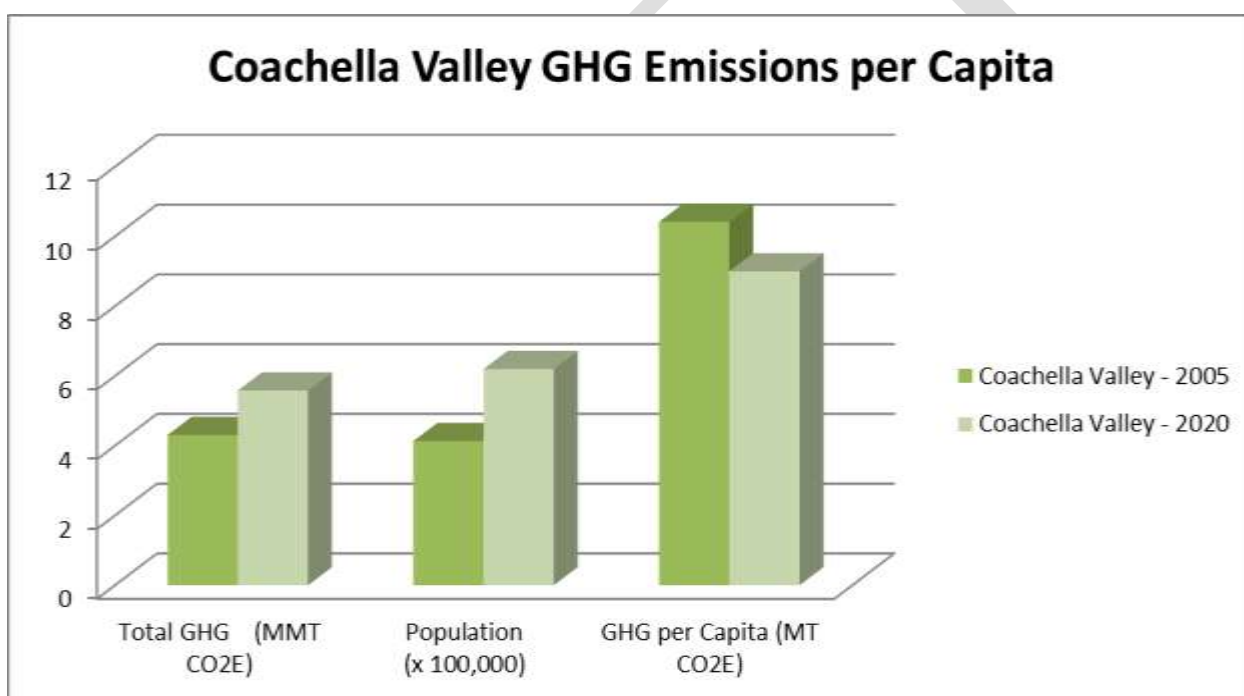


Figure 5 summarizes the total GHG inventory on a per capita basis for the Coachella Valley. The per capita calculations do not include indirect emissions, such as electricity usage.

The California Air Resources Board's estimate of statewide greenhouse gas emissions for the period from 2000 to 2008 showed a decline in per capita emissions of approximately 7%, despite an increase in population of 11.8% during the same period. There are many factors affecting year to year changes in greenhouse gas (GHG) emissions, including the state of the economy, changes in demography, improved efficiency, and changes in environmental conditions such as drought.

The greenhouse gas emissions for individual cities follows the same general pattern as the Coachella Valley as a whole, with transportation and fuel combustion as major sources. The AQMD inventory provides a summary of the greenhouse gas emissions for each individual city and the unincorporated areas within the Coachella Valley region. The emissions reported for individual jurisdictions do not represent an exhaustive inventory but rather provide a broad, “big picture” view of major sources of greenhouse gases. Several cities have recently completed a more detailed municipal greenhouse gas inventory using the International Council for Local Environmental Initiatives (ICLEI) software. Because this inventory is completed using a different methodology, comparisons should be made with caution. CVAG expects to work with many of our jurisdictions to complete similar inventories in the coming months. We also plan to develop a regional greenhouse gas reduction plan, or climate action plan, which will build on the results of this inventory.

It should be noted that this GHG Inventory represents an initial look at greenhouse gas emissions from a regional perspective using data generously provided by AQMD and other sources. Estimating greenhouse gas emissions relies on a variety of data sources and methodologies that are still evolving. As further described in Part II, as additional technical information and standardized protocols for regional GHG inventories become available over time, inventories such as this one can be further enhanced by including additional greenhouse gases, improved methodologies or better emission factors. While this inventory is not exhaustive, a good-faith effort has been made to identify major sources of greenhouse gases and establish a baseline that can be further refined as more detailed information becomes available.

This greenhouse gas inventory provides the baseline for tracking our contribution to climate change. And it provides a forecast to the year 2020 of how these emissions will continue to increase. Understanding the major sources of greenhouse gases in the CVAG region is the first step local governments and the communities they serve can take to reduce greenhouse gas emissions. The next step, taking action to reduce these emissions, will have other benefits in terms of improved air quality, reduced congestion, sustainable living, and very likely, a better quality of life. Armed with information from this inventory, the next step is to take action.

The South Coast Air Quality Management District (South Coast AQMD) is the agency responsible for attaining State and Federal clean air standards in the South Coast Air Basin, which includes the area of Coachella Valley. The Coachella Valley Association of Governments (CVAG) was formed in 1973 under California's Joint Powers Law to address issues of valley-wide significance. Today, CVAG works on a variety of projects important to the Coachella Valley, both as the lead agency and as part of larger teams. This regional inventory is an example of our collaborative approach. The Part I Summary was prepared by CVAG.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

**Greenhouse Gas (GHG) Inventories
for the Coachella Valley**

**Part II:
Technical Document: Methodology, Assumptions,
Data Sources and Inventory**

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PREFACE

This document summarizes the collaborative effort of staffs at the South Coast Air Quality Management District (SCAQMD) and the Coachella Valley Association of Governments (CVAG) to develop greenhouse gas (GHG) inventories for the Coachella Valley and its cities for the years 2005 and 2020. The purpose of this document is to outline the methods and assumptions used, the sources of data, the limitations of the estimates, and a summary of the inventories developed, by major source category. This approach largely relies on the same inventory methodology used to develop the latest Air Quality Management Plan (i.e., 2007 AQMP) and represents one approach for developing a GHG emissions inventory. There are other appropriate methodologies and protocols that can be used. This document may be useful to other areas that are developing GHG inventories.

BACKGROUND

Staff from the Coachella Valley Association of Governments (CVAG) requested that SCAQMD staff assist with its effort to develop a GHG emissions inventory for the years 2005 and 2020.

The Coachella Valley Association of Governments was formed in 1973 to address issues of valley-wide significance. CVAG works on a variety of projects important to the Coachella Valley, both as the lead agency and as part of the larger jurisdictional or regional teams. CVAG members include the cities of Blythe, Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage. Riverside County is a member of CVAG; the portion of eastern Riverside County within the CVAG boundary is included and data for these unincorporated areas of Riverside County is reported. The Agua Caliente Band of Cahuilla Indians and the Cabazon Band of Mission Indians are also CVAG members. Not all CVAG member jurisdictions are included in this inventory because they are not in the South Coast Air Basin, such as Blythe.

Emissions from tribal lands, including reservation lands for the Agua Caliente, Cabazon, and Torrez Martinez, are included to some extent in the inventory. On- and off-road models calculate emissions that include these areas. However, point source emissions data is not collected by SCAQMD on tribal lands, so emissions from stationary sources on tribal lands in the Coachella Valley are not included in this inventory.

Staff attempted to address specific areas for the GHG inventory that reflect some of the unique land uses in this region. For example, there are many golf courses in the Coachella Valley, which use fertilizer and water. The region is also a desert, with many resorts and swimming pools, which also use large amounts of

water. Information has been augmented in this document on fertilizer usage and the resulting GHG emissions, as well as information on electricity-related GHG emission from wells and waste water treatment.

EMISSION INVENTORY METHODOLOGY

Introduction

The methodology used for developing this GHG inventory is primarily consistent with the SCAQMD 2007 Air Quality Management Plan (AQMP) inventory method, which utilized 2002 data as the base year. CVAG staff also provided additional data to augment the AQMP inventory, such as fertilizer usage. The following sections describe the key elements of the GHG inventories. Inventories for each of the cities in Coachella Valley that are in the South Coast Air Basin can be found in the appendices.

Greenhouse Gases/Pollutants

For purpose of these GHG inventories, three major pollutants were included: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). These emissions are typically reported in millions of metric tons (MMT) of carbon dioxide equivalents (CO₂E), which is the amount of CO₂ that would give the same global warming potential as a given amount of another GHG. For example, methane (CH₄) is a GHG which has a higher global warming potential than CO₂. To convert a metric ton of methane to a metric ton of CO₂E, a factor of 21 is used and a factor of 310 is used for N₂O (consistent with ARB's GHG inventory development, based on the second assessment report (1996) of the International Panel on Climate Change (IPCC)).

Emissions are reported to two decimal places. In some cases, zero represents less than 0.005 TPY or less than 0.005 MMT/year. For example, some categories of mobile sources have CO₂ and N₂O reported in tons per year, but when converted to MMT CO₂E, the value in the table is zero, due to rounding.

Source Categories

As described below, the GHG inventory has the following major categories: stationary sources, on-road mobile sources, and off-road mobile sources.

Stationary Sources:

The stationary source emissions are grouped into two categories – point sources and area sources. Point source emissions are from facilities having one or more pieces of equipment registered and permitted with SCAQMD (e.g. power plants

and manufacturing facilities). SCAQMD is able to collect facility emission-related information from the larger of these facilities. Area source emissions are from numerous smaller facilities (e.g., gas stations and restaurants) or the source of emissions (e.g., consumer products and architectural coatings), for which locations may not be specifically identified. Emissions from point sources that do not report emissions and for area sources are calculated from estimated emission factors and corresponding activity levels by category.

The stationary point and area source inventory for the Coachella Valley was calculated using the 2007 AQMP base year inventory (2002 data) for stationary source emissions in the CVAG area. The carbon dioxide (CO₂), nitrous oxide (N₂O), and methane (CH₄) emissions from fuel combustion for stationary point and area sources were calculated using the fuel consumption by fuel type, CO₂, N₂O, CH₄ default Emission Factors (EFs) and High Heating Values (HHVs). The fuel consumption for point sources was actual values as reported by the facilities in their Annual Emission Reports (AER). For area sources, fuel consumption was estimated using the NO_x emission rates and default compliance EFs, where applicable. The CO₂, N₂O, and CH₄ default EFs were developed using Tables 3, 4, and 6 of the California Air Resources Board (CARB) Regulation for the Mandatory Reporting of GHG Emissions (AB 32), December 2007. The HHVs of the fuels were taken from AP 42, which is a compilation of emission factors published by the U.S. EPA. For non-combustion sources, the CH₄ emissions were taken from the 2007 AQMP annual average gridded inventory.

When developing emission inventories for the AQMP, EPA modeling guidance is used to overlay a grid pattern of 5 km by 5 km grid cells. The location of the point sources is known. Therefore, it is straightforward to assign these sources to a grid cell. For non-point sources, spatial allocation is accomplished by using surrogates, such as population, employment, number of households, land use data, etc., to distribute emissions to the grid cells.

Once the 2002 GHG stationary and area source emission inventory was developed, it was projected to future years (2005 and 2020) using socioeconomic forecast factors provided by Southern California Association of Governments (SCAG) for the 2007 AQMP.

To develop the stationary point and area sources inventory for each city in CVAG, staff used the following methods to estimate the CO₂, N₂O, and CH₄ emissions:

- For point sources, the entire Coachella Valley 2005 and 2020 GHG estimated emissions were used, along with facility location addresses to develop the GHG inventory at the city level.
- For area sources, the 2005 and 2020 GHG estimated for the area sources, as described above, for the entire Coachella Valley were scaled down to the city level using adjustment factors. The adjustment factors

were developed using the area source NOx emissions ratio of each city to the entire Coachella Valley. The area source NOx emissions at the city level and entire Coachella Valley were taken from the 2005 and 2020 planning gridded inventory. NOx is directly related to fuel combustion, so this ratio is expected to be representative of GHG emissions from fuel combustion.

For both point and area sources, the GHG emissions for the unincorporated portion of the Coachella Valley were calculated using the point and area source GHG emissions for the entire Coachella Valley minus the sum of emissions for all the cities.

Agriculture/Golf Courses

For fertilizer usage related GHG emissions in Coachella Valley golf courses, a list of golf courses with addresses in Coachella Valley was downloaded from <http://www.golfink.com>. In total, there are 99 18-hole and 38 9-hole golf courses (Table D-1). Since on average a 9-hole golf course is approximately half the length of an 18-hole, it is assumed that a 9-hole golf course uses 50% of fertilizers that an 18-hole course does. This results in a total of 118 18-hole equivalent golf courses in Coachella Valley.

N₂O emission factors including both direct and indirect emissions (5.86 tons of CO₂E per ton of synthetic fertilizers) were obtained from CARB's GHG Inventory data base (http://www.arb.ca.gov/cc/inventory/doc/doc_index.php). Fertilizer consumption data (64.17 tons per golf course per year) were provided by CVAG staff for a representative 18-hole golf course. From this fertilizer data, each 18-hole golf course was estimated to emit 376 MT CO₂E per golf course per year. Multiplying the per golf course GHG emissions by 118 courses results in total GHG emissions of 44,368 MT CO₂E per year from Coachella Valley golf courses. The same methodology was applied to determine golf course emissions within individual cities and unincorporated areas (Table D-1).

The 2002 GHG emissions from prescribed burning under the agricultural burning category with EIC 670 were calculated using the actual burning activities as reported in the 2002 emissions inventory and their associated EFs¹.

¹ EFs were developed using Andreae and Merlet report titled "Emission of Trace Gases and Aerosols from Biomass Burning, Global Biogeochemical Cycles", 2001, and CARB report on "Emission Factors for Open Burning of Agricultural Residues", August 2000

Landfills

The 2005 CO₂ and CH₄ emissions from Coachella Valley landfill sources under the waste disposal category were estimated using the total amount of refuse in place (provided by the Riverside County Waste Management Department) and SCAQMD default EFs, capture efficiency, and control efficiency. Staff excluded the landfills in Blythe and estimated emissions for two types of emissions sources; controlled and surface emissions. The Coachella Valley's landfills are located in the city of Coachella and in the unincorporated area of Coachella Valley. The landfills' CO₂ and CH₄ emissions for the city of Coachella and the unincorporated area of the Coachella Valley were estimated using the amount of refuse placed in these areas, and default EFs capture and control efficiencies.

The analysis included both closed and currently operating landfills. The landfills, and their current operating status, are listed below:

- Coachella – closed
- Desert Center – open
- Edom Hill – closed
- Mecca II – closed
- Oasis – open

The 2020 landfill emissions for the city of Coachella and the unincorporated areas were estimated using population growth factors. However, since Indio, La Quinta, and Indian Wells are near the city of Coachella, the population growth of the city of Coachella was estimated based on the average of population growth of these three cities.

On-Road Mobile Sources:

The 2005 and 2020 GHG emissions from on-road mobile sources were calculated for both the entire Coachella Valley and also for each city in Coachella Valley and the unincorporated portions of Riverside County within CVAG's boundary.

The Emission FACtors (EMFAC) model is used to calculate emission rates from all motor vehicles, such as passenger cars to heavy-duty trucks, operating on highways, freeways and local roads in California. EMFAC2007 is the most recent version of this model. The model calculates emission rates from all motor vehicles operating on highways, freeways and local roads in California. In the EMFAC model, the emission rates are multiplied with vehicle activity data (miles per vehicle or number of trips or total number of vehicles) provided by the regional transportation agencies to calculate the statewide or regional emission inventories. Key data used in the model includes the class of vehicle (ex. passenger car or bus), the fuel used (gasoline, diesel, electric), the fleet mix,

including model years and activity per class of vehicle. Vehicle population is determined through an analysis of data from the Department of Motor Vehicles (DMV). On-Road Mobile Vehicles includes several categories of trucks that are separated by fuel type and vehicle weight (T1 up to 3,750 lbs, T2 3,750-5,750lbs, T3 5,751-8,500lbs, T4 8,501-10,000 lbs, T5 10,001-14,000lbs, T6 14,001-33,000lbs, HHD >33,000lbs).

The following method was used to estimate the CO₂, N₂O, and CH₄ from on-road mobile emissions for the entire Coachella Valley, each city within Coachella Valley, and the Coachella Valley unincorporated areas:

For the entire Coachella Valley, the CO₂ and CH₄ emissions were calculated using the CARB EMFAC2007 V2.3 mobile source emissions model for the specified inventory years. Since the EMFAC2007 model output contains only CO₂ and CH₄ emissions, the N₂O emissions were calculated using a CARB methodology (i.e., vehicle miles traveled and CARB N₂O emission factors which are a function of vehicle type, model year, and fuel type).

For the cities in the Coachella Valley, the CO₂ and CH₄ emissions were taken from the 2005 and 2020 annual average gridded inventory. However, these CO₂ and CH₄ emissions at the city level were adjusted so that the sum of the emissions at the city level would be equal to the same values calculated for the entire CVAG area using the EMFAC2007 model. This was done because there are minor differences in the GHG emissions for the entire CVAG area when comparing the values from the planning gridded inventory with the EMFAC2007 model output values. The EMFAC2007 model has been updated since the 2007 AQMP. The adjustment factors were the CO₂ and CH₄ emissions ratios of the planning inventory to the EMFAC2007 model. The N₂O emissions for the entire Coachella Valley were distributed to the city level using the CH₄ emissions ratio of each city to the entire Coachella Valley. The emissions from the unincorporated areas were calculated as the differences between the Coachella Valley total and the sum of the cities.

Off-Road Mobile Sources:

Mobile sources not included in the on-road mobile source emissions inventory are considered as off-road mobile sources. The off-road emissions inventory is an estimate of the population, activity, and emissions estimate of the various types of off-road equipment. The major categories of engines and vehicles include agricultural, construction, lawn and garden and off-road recreation, and includes equipment from hedge trimmers to cranes. The OFFROAD Model estimates the relative contribution of gasoline, diesel, compressed natural gas, and liquefied petroleum gas powered vehicles to the overall emissions inventory of the state.

The CARB OFFROAD Model estimates emissions for more than one hundred off-road equipment types, including recreational vehicles, pleasure craft, and construction equipment. The emissions from ships, aircraft, locomotives and cargo handling equipment at marine ports or intermodal facilities are not included in the current OFFROAD Model. Therefore, the emissions from these categories need to be calculated using other category-specific models.

Aircraft and locomotive emissions were estimated using an alternative approach. Staff used the CARB's statewide 2005 and 2020 aircraft and locomotive GHG emissions along with carbon monoxide (CO) ratios. A different methodology might be considered as the GHG inventory is updated in the future if more information about these sources is available.

Aircraft GHG emissions for the Coachella Valley were determined using carbon monoxide (CO) emissions from the 2007 AQMP inventory. In 2005, aircraft emissions at four airports within Coachella Valley resulted in an average 3.1 tons per day of CO. The four airports include Palm Springs International, Jacqueline Cochran Regional, Desert Center, and Desert Air Sky Ranch. The total aircraft CO emissions in 2005 within California were 269 tons per day. Aircraft emissions from airports within Coachella Valley contribute to 1.15% of daily aircraft CO emissions within California. The aircraft GHG emissions within the Coachella Valley were determined by assuming 1.15% of the 2005 and estimated 1.91% of the 2020 statewide aircraft GHG emissions were from the four Coachella Valley airports (<http://www.arb.ca.gov/cc/inventory/inventory.htm>).

The locomotive CO₂, N₂O, and CH₄ emissions for the cities in Coachella Valley were estimated using the locomotive CO emissions for the entire Coachella Valley. Locomotive CO emissions within Coachella Valley are 2.25% of daily CO emissions from locomotives within California for 2005 and estimated to be 2.42% for 2020. The GHG emissions from locomotives were determined by assuming 2.25% of the 2005 and 2.42% of the 2020 statewide locomotive GHG emissions. Locomotive GHG emissions were separated into cities within the Coachella Valley by apportioning the emissions with the amount of railroad miles within each city.

The CO₂, N₂O, and CH₄ emissions from Cargo Handling Equipment (CHE) associated with the locomotives were assumed to be negligible. The emissions from ships and commercial boats, and associated with marine ports were not applicable to the Coachella Valley as these operations did not take place in this region.

Inventory Projection

The most recently prepared complete stationary source emissions inventory for the 2007 AQMP was the one for the year 2002. Therefore, the stationary source inventories for the years 2005 and 2020 were forecasted from the 2002 inventory using the same growth surrogates and SCAG growth factors as used in the 2007 AQMP, Appendix III, Tables 2-2 through 2-7. The selection of the surrogate by which emission growth is projected depends on the type of activity. Generally these surrogates include employment growth, industry output growth, etc. The on-road and off-road GHG inventories were developed for 2005 and 2020 using the CARB EMFAC2007 and 2007 OFFROAD models. These models contain emission reductions from all rules adopted by 2007.

SUMMARY OF COACHELLA VALLEY GHG INVENTORIES

GHG emissions inventories were developed for the years 2005 and 2020, as described in the following sections. Table 1 summarizes the applicable inventories by milestone year and major source category. This information is for the Coachella Valley as a whole.

Table 1
CO₂E Inventory for the Coachella Valley, MMT

	2005	2020
Stationary	0.75	1.11
Mobile On-Road	3.26	4.01
Mobile Off-Road	0.3	0.46
Total	4.31	5.58

Figures 1 and 2 show the relative contribution of each of these major categories to the Coachella Valley inventories for each of the key years selected. As shown in Figures 1 and 2, the mobile source category (on-road and off-road) contributes 83% and 80% of the total GHG emissions in 2005 and 2020, respectively. By comparison, mobile sources contribute 36% of the state's total GHG emissions, based on the 2008 California statewide inventory. GHG emissions in the Coachella Valley are dominated by mobile sources. The Coachella Valley does not have many industrial emissions or power generation which accounts for 21% and 24% of statewide emissions sources, respectively. The numbers for statewide and Coachella Valley are more comparable if the emissions from industrial sources and electricity generation (both in state and imported) are

removed. With this adjusted comparison, transportation accounts for 67% of the emissions statewide in 2008, compared to 83% in the Coachella Valley in 2005.

Tables B-1 and B-2 in Appendix B provide more detailed inventories by major source category for the years 2005 and 2020. The categorization is consistent with the AQMP inventory using Emission Inventory Control (EIC) codes. The GHG emissions are presented in terms of tons per year (TPY) and Million Metric Tons (MMT) of CO₂E.

The subcategories listed for on- and off-road mobile sources are self-explanatory. Below is further explanation of what some of the other categories include:

- Category 10 - Electric Utilities. All the GHG emissions are from power plants. The majority of the emissions are from the combustion of natural gas with an insignificant contribution from diesel fuel.
- Category 50 - Manufacturing and Industrial Combustion. Besides the point sources, such as asphalt paving and military operations, there are four area sources in this category. They are industrial natural gas internal combustion engines; other (unspecified) industrial natural gas combustion; industrial liquefied petroleum gas (LPG) combustion; and industrial distillate oil combustion. The majority of the emissions are from LPG combustion and other industrial natural gas combustion.
- Category 52 - Food and Agricultural Processing. The majority of the emissions are from the food products industry using natural gas. A minor source is from internal combustion engines used in agriculture for irrigation.
- Category 60 - Service and Commercial. The major sources in this category include commercial natural gas for space heating, commercial natural gas for water heating; commercial natural gas (other), and commercial LPG combustion.
- Category 99 - Other Fuel Consumption. All emissions in this category are from stationary diesel engines which primarily are composed of backup diesel generators and backup diesel pumps.
- Category 610 - Residential Fuel Combustion. There are six area sources in this category, including residential natural gas for space heating; residential natural gas for water heating; residential natural gas for cooking; residential natural gas (other); residential distillate oil for space heating and residential LPG combustion. The majority of the emissions are from natural gas usage for space and water heating.

- Category 660 -Miscellaneous Processes. This category includes planned fires, such as forest management. Wildfires are listed under Natural Sources, category 930.
- Category 810 - Aircraft. This category includes emissions from civil, commercial, agricultural and military aircraft. These emissions for aircraft include taxi, takeoff, landing and idling. The emissions estimates are counted up to the mixing height near 2,000 ft (SCAQMD ERG 2006)

Tables E-1 to E-40 show data at the city level for the following cities: Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, Rancho Mirage, and unincorporated areas of Riverside County. GHG emissions are provided by major category for the years 2005 and 2020. Table E-41 is a summary of total energy use and related GHG emissions for all cities.

On a per capita basis, Table 2 summarizes the total GHG inventory of Coachella Valley and individual cities. The per capita calculations do not include indirect emissions, such as electricity usage.

Table 2
GHG Inventory Per Capita (2005, 2020)

AREA/CITY	2005			2020		
	Total (MMT CO ₂ E)	Population	GHG per Capita (MT CO ₂ E)	Total GHG (MMT CO ₂ E)	Population	GHG per Capita (MT CO ₂ E)
Coachella Valley	4.31	413,451	10.42	5.58	619,900	9.00
Cathedral City	0.31	51,303	6.04	0.38	65,222	5.83
Coachella	0.23	33,268	6.91	0.27	75,540	3.57
Desert Hot Springs	0.06	20,874	2.87	0.09	55,894	1.61
Indian Wells	0.08	4,865	16.44	0.09	6,025	14.94
Indio	0.47	69,482	6.76	0.56	93,115	6.01
La Quinta	0.12	37,564	3.19	0.16	52,922	3.02
Palm Desert	0.31	49,843	6.22	0.39	64,860	6.01
Palm Springs	0.42	46,474	9.04	0.56	56,288	9.95
Rancho Mirage	0.13	16,685	7.79	0.17	26,764	6.35
Unincorporated Areas	2.20	83,093	26.48	2.9	123,270	23.52

Discussion

This inventory methodology is primarily based on the methodology used to develop the SCAQMD 2007 AQMP, and is consistent with the State Implementation Plan (SIP) approach, such that it can be easily integrated with the local SIP planning process. The methodology outlined in this document takes advantage of years of technical improvements for criteria pollutant inventories and the benefits of extensive public review and agency oversight. Enhancements were made to GHG inventories regarding indirect emissions (i.e., electricity consumption). As additional technical information and standardized GHG inventory protocols become available over time, the GHG inventories can be further enhanced by including additional greenhouse gases, improved methodology or better emission factors.

Figure 1

2005 Coachella Valley Inventory

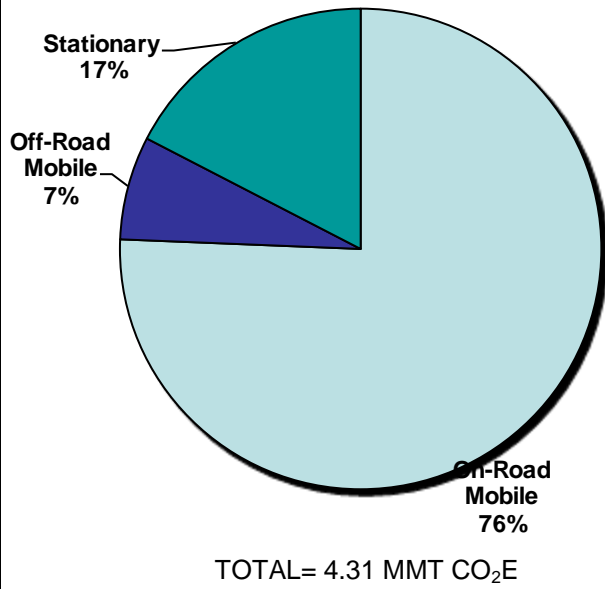
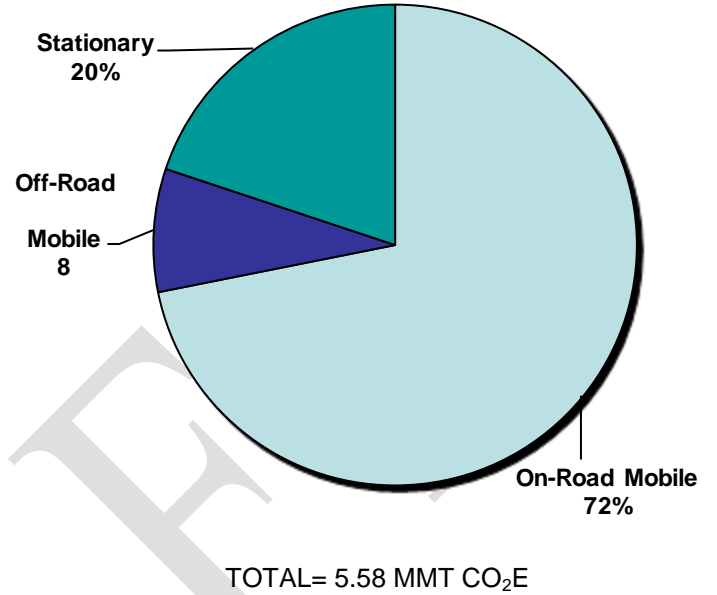


Figure 2

2020 Coachella Valley Inventory



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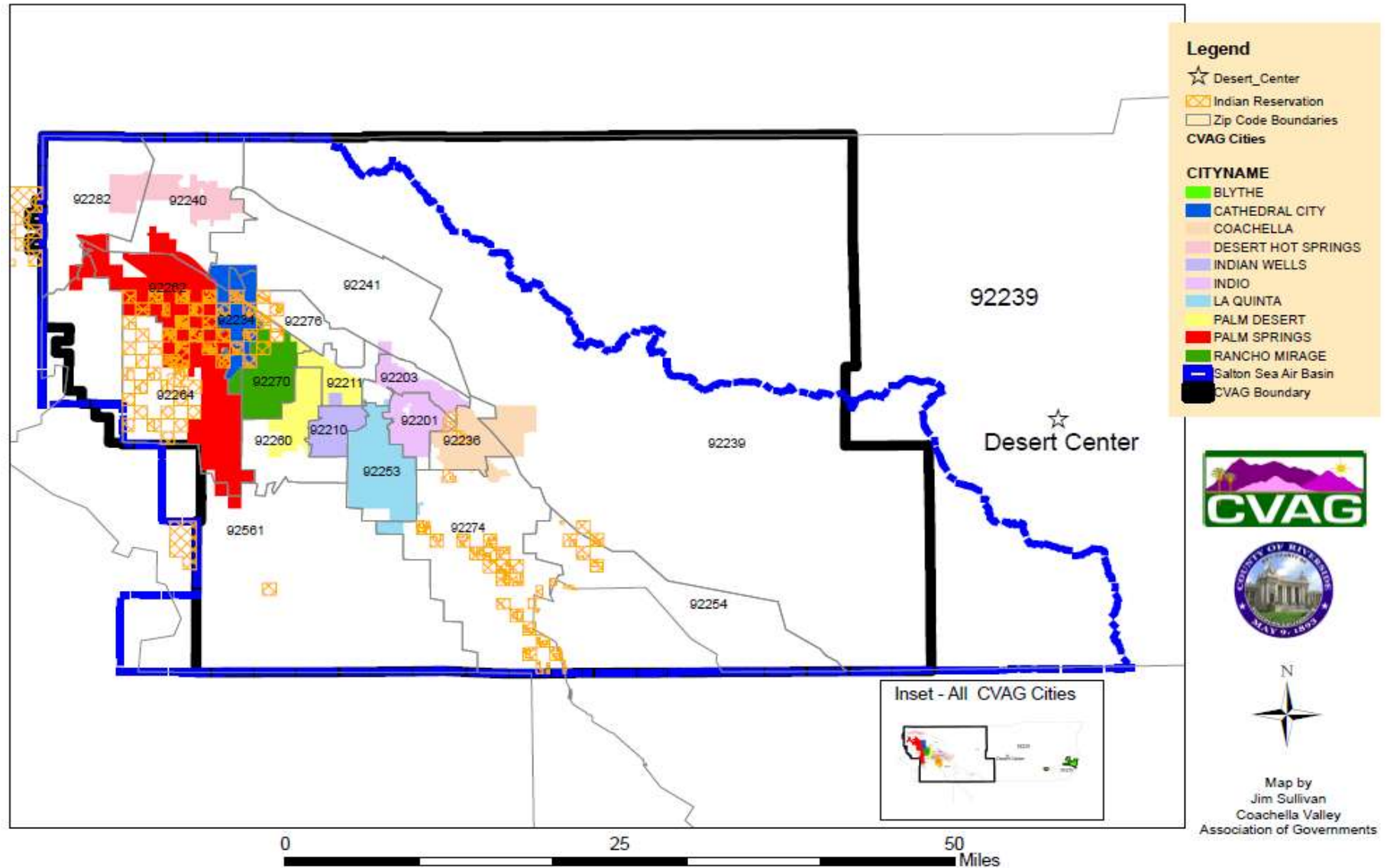
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APPENDIX A

Figure A-1
Map of Coachella Valley
(CVAG Cities, Indian Reservations and Zip Codes within the Salton Sea Air Basin)



Disclaimer: Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. CVAG and the County of Riverside make no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assume no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

APPENDIX B

Table B-1
2005 GHG Emissions per Major Source Category for Coachella Valley

EIC CODE	Source Category	TPY*		MMT*	
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0.84	49251.09	0.09	0.05
20	Cogeneration	0.10	0.00	0.00	0.00
30	Oil and Gas Production (combustion)	0.00	0.00	0.00	0.00
40	Petroleum Refining (Combustion)	0.00	0.00	0.00	0.00
50	Manufacturing and Industrial	1.19	70963.43	0.13	0.07
52	Food and Agricultural Processing	0.28	15849.38	0.03	0.02
60	Service and Commercial	2.40	141,184.88	.27	0.14
99	Other (Fuel Combustion)	0.13	3040.26	0.03	0.00
Total	Fuel Combustion	<u>4.93</u>	<u>280,289.03</u>	<u>.55</u>	<u>0.28</u>
110	Sewage Treatment	0.00	0.00	0.00	0.00
120	Landfills	2224.06	95735.40	0.00	0.14
130	Incineration	0.06	3453.04	0.01	0.00
199	Other (Waste Disposal)	0.00	0.00	0.00	0.00
Total	Waste Disposal	<u>2224.12</u>	<u>99188.44</u>	<u>0.01</u>	<u>0.15</u>
220	Degreasing	0.00	0.00	0.00	0.00
230	Coatings and Related Processes	0.30	0.00	0.00	0.00
240	Printing	0.00	0.00	0.00	0.00
250	Adhesives and Sealants	0.00	0.00	0.00	0.00
299	Other (Cleaning and Surface Coatings)	0.90	0.00	0.00	0.00
Total	Cleaning and Surface Coatings	<u>1.20</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
310	Oil and Gas Production	0.00	0.00	0.00	0.00
320	Petroleum Refining	0.00	0.00	0.00	0.00
330	Petroleum Marketing	12.60	0.00	0.00	0.00
399	Other (Petroleum Production and Marketing)	0.00	0.00	0.00	0.00
Total	Petroleum Production and Marketing	<u>12.60</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
410	Chemical	19.00	0.00	0.00	0.00
420	Food and Agriculture	0.00	0.00	0.00	0.00
430	Mineral Processes	0.00	0.00	0.00	0.00
440	Metal Processes	0.00	0.00	0.00	0.00
450	Wood and Paper	0.00	0.00	0.00	0.00
460	Glass and Related Products	0.00	0.00	0.00	0.00
470	Electronics	0.00	0.00	0.00	0.00
499	Other (Industrial Processes)	0.00	0.00	0.00	0.00
Total	Industrial Processes	<u>19.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>

510	Consumer Products	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers	0.00	0.00	143.12	0.04
540	Asphalt Paving/Roofing	0.50	0.00	0.00	0.00
Total	Solvent Evaporation	<u>0.50</u>	<u>0.00</u>	<u>143.12</u>	<u>0.04</u>
610	Residential Fuel Combustion	4.63	271847.26	0.52	0.27
620	Farming Operations	601.80	0.00	0.00	0.01
630	Construction and Demolition	0.00	0.00	0.00	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00
660	Fires	0.80	0.00	0.00	0.00
670	Waste Burning and Disposal	5.20	0.00	0.00	0.00
680	Utility Equipment	0.00	0.00	0.00	0.00
690	Cooking	1.20	0.00	0.00	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00
Total	Miscellaneous Processes	<u>613.63</u>	<u>271847.26</u>	<u>0.52</u>	<u>0.28</u>
710	Light Duty Passenger Auto (LDA)	80.3	773800	91.2	0.80
722	Light Duty Trucks 1 (T1)	18.3	178850	27.9	0.19
723	Light Duty Trucks 2 (T2)	40.2	416100	68.3	0.44
724	Medium Duty Trucks (T3)	25.6	313900	37.6	0.33
732	Light Heavy Duty Gas Trucks 1 (T4)	3.7	47450	5.3	0.04
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	10950	1.3	0.01
734	Medium Heavy Duty Gas Trucks (T6)	7.3	10950	1.2	0.01
736	Heavy Heavy Duty Gas Trucks (HHD)	3.7	3650	0.9	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	14600	0.0	0.01
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	7300	0.0	0.01
744	Medium Heavy Duty Diesel Truck (T6)	0.0	73000	0.2	0.07
746	Heavy Heavy Duty Diesel Trucks (HHD)	54.8	1295750	3.4	1.30
750	Motorcycles (MCY)	11.0	3650	2.3	0.00
760	Diesel Urban Buses (UB)	0.0	3650	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0	0.2	0.00
770	School Buses (SB)	0.0	7300	0.1	0.01
776	Other Bus (OB)	0.0	3650	0.2	0.00
780	Motor Homes (MH)	0.0	10950	0.8	0.01
Total	On-Road Motor Vehicles	<u>244.55</u>	<u>3175500</u>	<u>240.89</u>	<u>3.26</u>
810	Aircraft	3.3	39453.0	1.2	0.04
820	Trains	6.2	79412.7	2.0	0.08
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00
840	Recreational Boats	10.9	8704.9	2.1	0.01
850	Off-Road Recreational Vehicles	2.5	687.1	1.0	0.00
860	Off-Road Equipment	54.3	139380.4	9.0	0.14
870	Farm Equipment	4.7	22753.6	0.3	0.02
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>81.8</u>	<u>290391.7</u>	<u>15.6</u>	<u>0.30</u>

910	Biogenic Sources	0.0	0.0	0.0	0.00
920	Geogenic Sources	0.0	0.0	0.0	0.00
930	Wildfires	0.0	0.0	0.0	0.00
940	Windblown Dust	0.0	0.0	0.0	0.00
Total	Natural Sources	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.00</u>
Total	Stationary and Area Sources	2875.9	651324.7	144.2	0.75
Total	On-Road Vehicles	244.6	3175500.0	240.9	3.26
Total	Other Mobile	81.8	290391.7	15.6	0.30
Total	Anthropogenic	<u>3202.2</u>	<u>4117216.5</u>	<u>400.7</u>	<u>4.31</u>

*- Totals under each GHG column may not add up exactly due to rounding.

Table B-2
2020 GHG Emissions Per Major Source Category For Coachella Valley

		TPY			MMT
EIC CODE	Source Category	CH ₄	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion					
10	Electric Utilities	0.94	55454.95	0.11	0.06
20	Cogeneration	0.10	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	1.67	100095.72	0.18	0.10
52	Food and Agricultural Processing	0.38	21810.92	0.04	0.02
60	Service and Commercial	2.82	16602.33	0.31	0.17
99	Other (Fuel Combustion)	0.13	3045.90	0.03	0.00
Total	Fuel Combustion	6.04	346499.82	0.67	0.35
110	Sewage Treatment	0	0	0	0.00
120	Landfills	5310	208607	0	0.32
130	Incineration	0.10	6150.11	0.01	0.01
199	Other (Waste Disposal)	0.0	0.0	0.0	0.00
Total	Waste Disposal	5309.62	214757.49	0.01	0.33
210	Laundering	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0.3	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	1.6	0	0	0.00
Total	Cleaning and Surface Coatings	1.9	0	0	0.00
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	13.4	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	13.4	0	0	0.00
410	Chemical	38.2	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00
Total	Industrial Processes	38.2	0	0	0.00
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00

530	Pesticides/Fertilizers	0	0	143.1	0.04
540	Asphalt Paving/Roofing	1	0	0	0.00
Total	Solvent Evaporation	<u>1.0</u>	<u>0</u>	<u>143.1</u>	<u>0.04</u>
610	Residential Fuel Combustion	6.5	382175.0	0.7	0.38
620	Farming Operations	548.1	0	0	0.01
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.8	0	0	0.00
670	Waste Burning and Disposal	5.1	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	1.9	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>562.4</u>	<u>382175.0</u>	<u>0.7</u>	<u>0.39</u>
710	Light Duty Passenger Auto (LDA)	29.2	1043900.0	127.7	1.08
722	Light Duty Trucks 1 (>3750lbs)	7.3	240900.0	39.2	0.25
723	Light Duty Trucks 2 (T2)	21.9	580350.0	94.2	0.61
724	Medium Duty Trucks (T3)	14.6	423400.0	50.6	0.44
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	43800.0	5.2	0.05
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	10950.0	1.3	0.01
734	Medium Heavy Duty Gas Trucks (T6)	0.0	7300.0	1.1	0.01
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	7300.0	0.9	0.01
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	7300.0	0.0	0.01
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	7300.0	0.0	0.01
744	Medium Heavy Duty Diesel Truck (T6)	0.0	76650.0	0.2	0.08
746	Heavy Heavy Duty Diesel Trucks (HHD)	14.6	1412550.0	3.7	1.41
750	Motorcycles (MCY)	11.0	7300.0	3.3	0.01
760	Diesel Urban Buses (UB)	0.0	3650.0	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.2	0.00
770	School Buses (SB)	0.0	7300.0	0.1	0.01
776	Other Bus (OB)	0.0	7300.0	0.1	0.01
780	Motor Homes (MH)	0.0	14600.0	1.2	0.01
Total	On-Road Motor Vehicles	<u>98.6</u>	<u>3901850.0</u>	<u>329.0</u>	<u>4.01</u>
810	Aircraft	6.6	101064.0	3.0	0.10
820	Trains	8.2	104192.3	2.6	0.11
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00
840	Recreational Boats	6.7	13701.58	2.7	0.01
850	Off-Road Recreational Vehicles	3.2	913.64	1.5	0.00
860	Off-Road Equipment	35.7	210857.94	11.9	0.22
870	Farm Equipment	1.3	20906.39	0.1	0.02
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>61.64</u>	<u>451635.87</u>	<u>21.84</u>	<u>0.46</u>
910	Biogenic Sources	0	0	0	0.00

920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	

Total	Stationary and Area Sources	5933.0	943431.9	144.5	1.11
Total	On-Road Vehicles	98.6	3901850.0	329.0	4.01
Total	Other Mobile	61.6	451635.9	21.8	0.46
Total	Anthropogenic	<u>6092.8</u>	<u>5296918.2</u>	<u>495.4</u>	<u>5.58</u>

Table C
Historical Energy Consumption

Southern California Edison/CVWD*
Domestic Water Well Production & Wastewater Treatment

1990	CVWD Facilities	kWh	AF**	kWh/AF	MG***	kWh/MG
	Domestic Water Wells	34,219,863	52,631	650	17,147	1,996
	Wastewater Treatment	10,795,444	8,029	1,344	2,616	4,126
	Totals	45,015,307	60,660	742	19,763	2,278
1995	CVWD Facilities	kWh	AF	kWh/AF	MG	kWh/MG
	Domestic Water Wells	36,080,052	54,370	664	17,714	2,037
	Wastewater Treatment	15,456,570	10,620	1,455	3,460	4,468
	Totals	51,536,622	64,990	793	21,174	2,434
2000	CVWD Facilities	kWh	AF	kWh/AF	MG	kWh/MG
	Domestic Water Wells	61,313,490	76,966	797	25,076	2,445
	Wastewater Treatment	13,092,087	11,519	1,137	3,753	3,489
	Totals	74,405,577	88,485	841	28,829	2,581
2005	CVWD Facilities	kWh	AF	kWh/AF	MG	kWh/MG
	Domestic Water Wells	54,395,797	74,924	726	24,410	2,228
	Wastewater Treatment	16,729,386	12,781	1,309	4,164	4,018
	Totals	71,125,183	87,705	811	28,574	2,489
2008-2009	CVWD Facilities	kWh	AF	kWh/AF	MG	kWh/MG
	Domestic Water Wells	58,848,866	84,020	700	27,374	2,150
	Wastewater Treatment	16,034,481	11,912	1,346	3,881	4,131
	Totals	74,883,347	95,932	781	31,255	2,396

*CVWD – Coachella Valley Water District

**AF – Acre Feet

***MG - Million Gallons

APPENDIX D Fertilizer Data

**Table D-1
2005 N₂O Emissions from Fertilizer for Coachella Valley Golf Courses**

City	18 holes*	9 holes*	18 hole equivalent**	N₂O emissions (MT CO₂E/yr)***
Cathedral City	4	7	7.5	2,820
Coachella	0	1	0.5	188
Desert Hot Springs	2	4	4	1,504
Indian Wells	10	1	10.5	3,948
Indio	10	3	11.5	4,324
La Quinta	24	1	24.5	9,212
Palm Desert	28	10	33	12,408
Palm Springs	8	3	9.5	3,572
Rancho Mirage	12	3	13.5	5,076
Unincorporated	1	5	3.5	1,316
Total	99	38	118	44,368

* Data from www.golflink.com

** Assuming a 9 hole golf course consume 50% of the fertilizer that a regular 18 hole course would use.

*** N₂O emission factors including both direct and indirect emissions (5.86 tons of CO₂E per ton of synthetic fertilizers) were obtained from CARB's GHG inventory data base

(http://www.arb.ca.gov/cc/inventory/doc/doc_index.php). Fertilizer consumption data (64.17 ton per golf course per year) were provided by CVAG staff on representative 18-hole golf courses.

APPENDIX E **Coachella Valley Cities**

Table E-1
Cathedral City - 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.1	4882.3	0	0.00
52	Food and Agricultural Processing	0	0	0	0.00
60	Service and Commercial	0.2	12805.0	0	0.01
99	Other (Fuel Combustion)	0	249.4	0	0.00
Total	Fuel Combustion	<u>0.3</u>	<u>17936.7</u>	<u>0</u>	<u>0.02</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
210	Laundering	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	1.2	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>1.2</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	1.6	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00

499	Other (Industrial Processes)	0	0	0	0.00
Total	Industrial Processes	<u>1.6</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	9.1	0.00
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>9.1</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.5	26456.8	0.05	0.03
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.1	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.1	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.7</u>	<u>26456.8</u>	<u>0.05</u>	<u>0.03</u>
710	Light Duty Passenger Auto (LDA)	7.6	62717.7	8.6	0.07
722	Light Duty Trucks 1 (T1)	1.7	14495.8	2.6	0.02
723	Light Duty Trucks 2 (T2)	3.7	33725.2	6.3	0.04
724	Medium Duty Trucks (T3)	2.4	25442.1	3.6	0.03
732	Light Heavy Duty Gas Trucks 1 (T4)	0.3	3129.8	0.4	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0	722.3	0.1	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.6	722.3	0.1	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.2	240.8	0.1	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0	963.4	0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0	481.5	0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0	4815.2	0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	3.8	85469.3	0.2	0.09
750	Motorcycles (MCY)	1.0	295.8	0.2	0.00
760	Diesel Urban Buses (UB)	0	295.8	0	0.00
762	Gas Urban Buses (UB)	0	0	0	0.00
770	School Buses (SB)	0	591.9	0	0.00
776	Other Bus (OB)	0	295.7	0	0.00
780	Motor Homes (MH)	0	887.1	0.1	0.00
Total	On-Road Motor Vehicles	<u>21.3</u>	<u>235291.7</u>	<u>22.4</u>	<u>0.24</u>
810	Aircraft	0	0	0	0.00
820	Trains	0.2	3054.3	0.1	0.00
830	Ships and Commercial Boats	0	0	0	0.00
840	Recreational Boats	0.1	76.4	0	0.00
850	Off-Road Recreational Vehicles	0.1	16.4	0	0.00

860	Off-Road Equipment	5.2	13378.0	0.9	0.01
870	Farm Equipment	0	0	0	0.00
890	Fuel Storage and Handling	0	0	0	0.00
895	Truck Stops	0	0	0	0.00
Total	Other Mobile Sources	<u>5.6</u>	<u>16525.1</u>	<u>1.0</u>	<u>0.02</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	4.0	44393.4	9.2	0.05
Total	On-Road Vehicles	21.3	235291.7	22.4	0.24
Total	Other Mobile	5.6	16525.1	1.0	0.02
Total	Anthropogenic	<u>30.8</u>	<u>296210.2</u>	<u>32.6</u>	<u>0.31</u>

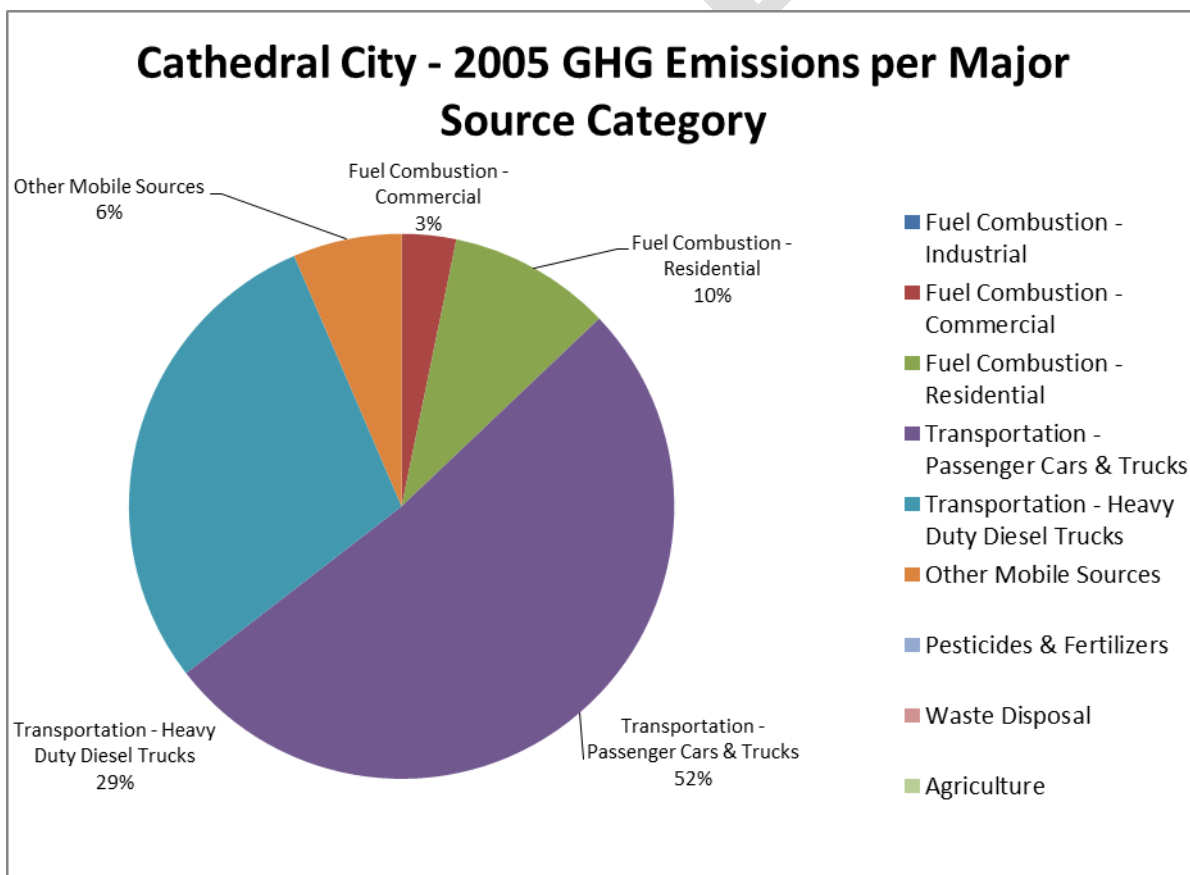


Table E-2
Cathedral City - 2020 GHG Emissions per Major Source Category

EIC CODE		TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion					
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.1	6909.2	0	0.01
52	Food and Agricultural Processing	0	0.0	0	0.00
60	Service and Commercial	0.2	13548.1	0	0.01
99	Other (Fuel Combustion)	0	248.0	0	0.00
Total	Fuel Combustion	<u>0.4</u>	<u>20705.3</u>	<u>0.0</u>	<u>0.02</u>
Waste Disposal					
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Cleaning and Surface Coatings					
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Petroleum Production and Marketing					
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	1.1	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>1.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Industrial Processes					
410	Chemical	3.1	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00
Total	Industrial Processes	<u>3.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>

510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	9.1	0.00
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>9.1</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.5	32006.3	0.1	0.03
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.1	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.2	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.8</u>	<u>32006.3</u>	<u>0.1</u>	<u>0.03</u>
710	Light Duty Passenger Auto (LDA)	2.8	85810.6	12.2	0.09
722	Light Duty Trucks 1 (T1)	0.7	19802.5	3.8	0.02
723	Light Duty Trucks 2 (T2)	2.1	47705.8	9.1	0.05
724	Medium Duty Trucks (T3)	1.4	34804.3	4.9	0.04
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	2858.7	0.4	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	714.3	0.0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.0	476.5	0.1	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	476.4	0.1	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	476.2	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	476.7	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	5002.5	0.0	0.01
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.9	92184.3	0.2	0.09
750	Motorcycles (MCY)	1.0	600.1	0.3	0.00
760	Diesel Urban Buses (UB)	0.0	300.0	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.0	0.00
770	School Buses (SB)	0.0	600.0	0.0	0.00
776	Other Bus (OB)	0.0	600.0	0.0	0.00
780	Motor Homes (MH)	0.0	1200.0	0.0	0.00
Total	On-Road Motor Vehicles	<u>9.0</u>	<u>294088.9</u>	<u>31.2</u>	<u>0.30</u>
810	Aircraft	0.0	0.0	0.0	0.00
820	Trains	0.3	4007.4	0.1	0.00
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00
840	Recreational Boats	0.1	187.7	0.0	0.00
850	Off-Road Recreational Vehicles	0.1	30.0	0.0	0.00
860	Off-Road Equipment	3.1	18222.3	1.0	0.02
870	Farm Equipment	0.0	0.0	0.0	0.00

890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>3.6</u>	<u>22447.3</u>	<u>1.2</u>	<u>0.02</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	0.00
Total	Stationary and Area Sources	5.6	52711.6	9.2	0.06
Total	On-Road Vehicles	9.0	294088.9	31.2	0.30
Total	Other Mobile	3.6	22447.3	1.2	0.02
Total	Anthropogenic	<u>18.2</u>	<u>369247.9</u>	<u>41.6</u>	<u>0.38</u>

Table E-3
Cathedral City – 2005 Fertilizer Usage

City	N ₂ O emissions (MT CO ₂ E/yr)***
Cathedral City	2,820

Table E-4
Coachella - 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0.1	4190.2	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.1	7992.6	0	0.01
52	Food and Agricultural Processing	0	43.6	0	0.00
60	Service and Commercial	0.1	5712.1	0	0.01
99	Other (Fuel Combustion)	0.0	174.2	0	0.00
Total	Fuel Combustion	<u>0.3</u>	<u>18112.7</u>	<u>0.0</u>	<u>0.02</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	256.2	28185.0	0	0.03
130	Incineration	0.1	3453.0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>256.3</u>	<u>31638.0</u>	<u>0.0</u>	<u>0.04</u>
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	0.7	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>0.7</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	1.1	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00

460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00
Total	Industrial Processes	<u>1.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>

510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	0.6	0.00
540	Asphalt Paving/Roofing	0	0	0	0.00
Total	Solvent Evaporation	<u>0</u>	<u>0</u>	<u>0.6</u>	<u>0.00</u>

610	Residential Fuel Combustion	0.2	14422.7	0	0.01
620	Farming Operations	403.8	0	0	0.01
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0.1	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0	0	0	0.00
699	Other (Miscellaneous Processes)	0	0	0	0.00
Total	Miscellaneous Processes	<u>404.1</u>	<u>14422.7</u>	<u>0.0</u>	<u>0.02</u>

710	Light Duty Passenger Auto (LDA)	3.7	30665.5	4.2	0.03
722	Light Duty Trucks 1 (T1)	0.8	7087.6	1.2	0.01
723	Light Duty Trucks 2 (T2)	1.9	16490.1	3.3	0.02
724	Medium Duty Trucks (T3)	1.2	12439.7	1.7	0.01
732	Light Heavy Duty Gas Trucks 1 (T4)	0.2	2056.1	0.2	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0	474.5	0.1	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.3	474.5	0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.2	158.2	0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0	632.6	0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0	316.2	0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0	3163.1	0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	2.3	56146.8	0.1	0.06
750	Motorcycles (MCY)	0.5	144.7	0.1	0.00
760	Diesel Urban Buses (UB)	0	144.8	0	0.00
762	Gas Urban Buses (UB)	0	0	0	0.00
770	School Buses (SB)	0	289.1	0	0.00
776	Other Bus (OB)	0	144.6	0	0.00
780	Motor Homes (MH)	0	433.9	0	0.00
Total	On-Road Motor Vehicles	<u>10.9</u>	<u>131261.8</u>	<u>11.0</u>	<u>0.13</u>

810	Aircraft	0	0	0	0.00
820	Trains	0.3	3668.5	0.1	0.00
830	Ships and Commercial Boats	0	0	0	0.00
840	Recreational Boats	0	0	0	0.00
850	Off-Road Recreational Vehicles	0.1	16.4	0	0.00
860	Off-Road Equipment	3.2	8089.0	0.5	0.01
870	Farm Equipment	0.4	1936.5	0	0.00
890	Fuel Storage and Handling	0	0	0	0.00
895	Truck Stops	0	0	0	0.00
Total	Other Mobile Sources	<u>3.9</u>	<u>13710.4</u>	<u>0.7</u>	<u>0.01</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	662.6	64173.5	0.7	0.08
Total	On-Road Vehicles	10.9	131261.8	11.0	0.13
Total	Other Mobile	3.9	13710.4	0.7	0.01
Total	Anthropogenic	<u>677.5</u>	<u>209145.7</u>	<u>12.4</u>	<u>0.23</u>

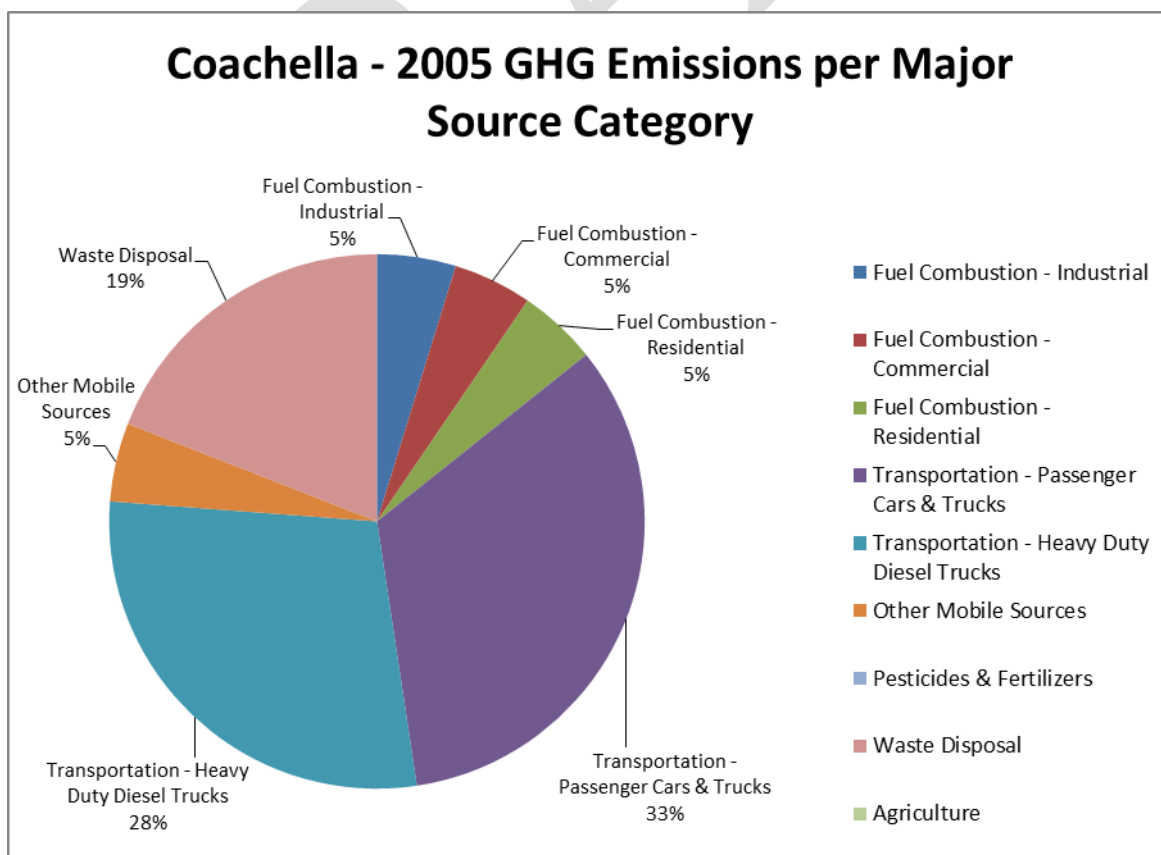


Table E-5
Coachella - 2020 GHG Emissions per Major Source Category

		TPY			MMT
EIC CODE	Source Category	CH ₄	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion					
10	Electric Utilities	0.1	4718.1	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.2	12728.0	0	0.01
52	Food and Agricultural Processing	0	37.6	0	0.00
60	Service and Commercial	0.1	7033.2	0	0.01
99	Other (Fuel Combustion)	0	164.0	0	0.00
Total	Fuel Combustion	<u>0.4</u>	<u>24680.9</u>	<u>0.0</u>	<u>0.02</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	348.2	38297.1	0	0.05
130	Incineration	0.10	6150.11	0.01	0.01
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>348.3</u>	<u>44447.2</u>	<u>0.01</u>	<u>0.05</u>
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	0.7	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>0.7</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	2.1	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00

499	Other (Industrial Processes)	0	0	0	0.00
Total	Industrial Processes	<u>2.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	0.6	0.00
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>0.6</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.3	19087.2	0	0.02
620	Farming Operations	367.8	0	0	0.01
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0.1	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.1	0	0	0.00
699	Other (Miscellaneous Processes)	0	0	0	0.00
Total	Miscellaneous Processes	<u>368.3</u>	<u>19087.2</u>	<u>0.0</u>	<u>0.03</u>
710	Light Duty Passenger Auto (LDA)	1.3	39318.0	5.6	0.04
722	Light Duty Trucks 1 (T1)	0.4	9073.6	1.9	0.01
723	Light Duty Trucks 2 (T2)	1.0	21858.5	4.1	0.02
724	Medium Duty Trucks (T3)	0.6	15947.2	2.1	0.02
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	1549.1	0.2	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	386.7	0.0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.0	258.2	0.0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	258.1	0.0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	258.4	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	257.7	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	2710.3	0.0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.4	49948.6	0.1	0.05
750	Motorcycles (MCY)	0.5	274.9	0.1	0.00
760	Diesel Urban Buses (UB)	0.0	137.5	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.0	0.00
770	School Buses (SB)	0.0	274.9	0.0	0.00
776	Other Bus (OB)	0.0	274.9	0.0	0.00
780	Motor Homes (MH)	0.0	548.7	0.0	0.00
Total	On-Road Motor Vehicles	<u>4.1</u>	<u>143335.3</u>	<u>14.2</u>	<u>0.15</u>
810	Aircraft	0.0	0.0	0.0	0.00
820	Trains	0.4	4813.2	0.1	0.00

830	Ships and Commercial Boats	0.0	0.0	0.0	0.00
840	Recreational Boats	0.0	0.0	0.0	0.00
850	Off-Road Recreational Vehicles	0.1	30.0	0.0	0.00
860	Off-Road Equipment	1.9	11063.5	0.6	0.01
870	Farm Equipment	0.1	1393.8	0.0	0.00
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>2.4</u>	<u>17300.5</u>	<u>0.8</u>	<u>0.02</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	0.00
Total	Stationary and Area Sources	720.0	88215.3	0.7	0.10
Total	On-Road Vehicles	4.1	143335.3	14.2	0.15
Total	Other Mobile	2.4	17300.5	0.8	0.02
Total	Anthropogenic	<u>726.5</u>	<u>248851.0</u>	<u>15.7</u>	<u>0.27</u>

Table E-6
Coachella – 2005 Fertilizer Usage

City	18 holes*	9 holes*	18 hole equivalent**	N₂O emissions (MT CO₂E/yr)***
Coachella	0	1	0.5	188

Table E-7
Desert Hot Springs – 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0	1111.1	0	0.00
52	Food and Agricultural Processing	0	0	0	0.00
60	Service and Commercial	0	2242.4	0	0.00
99	Other (Fuel Combustion)	0	56.9	0	0.00
Total	Fuel Combustion	<u>0.1</u>	<u>3410.5</u>	<u>0.0</u>	<u>0.00</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.00</u>
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	0.4	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>0.4</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	0.4	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>0.4</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	4.9	0.00
540	Asphalt Paving/Roofing	0	0	0	0.00
Total	Solvent Evaporation	<u>0</u>	<u>0</u>	<u>4.9</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.2	11182.4	0	0.01
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.2</u>	<u>11182.4</u>	<u>0.0</u>	<u>0.01</u>
710	Light Duty Passenger Auto (LDA)	1.4	11822.4	1.6	0.01
722	Light Duty Trucks 1 (T1)	0.4	2732.6	0.6	0.00
723	Light Duty Trucks 2 (T2)	0.8	6357.5	1.3	0.01
724	Medium Duty Trucks (T3)	0.5	4795.7	0.8	0.01
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	434.9	0.1	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0	100.3	0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0	100.4	0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0	33.4	0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0	133.6	0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0	66.6	0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0	669.3	0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.5	11875.6	0	0.01
750	Motorcycles (MCY)	0.2	55.8	0	0.00
760	Diesel Urban Buses (UB)	0	56.0	0	0.00
762	Gas Urban Buses (UB)	0	0	0	0.00
770	School Buses (SB)	0	111.5	0	0.00
776	Other Bus (OB)	0	55.6	0	0.00
780	Motor Homes (MH)	0	166.8	0	0.00
Total	On-Road Motor Vehicles	<u>3.9</u>	<u>39568.0</u>	<u>4.4</u>	<u>0.04</u>
810	Aircraft	0	0	0	0.00
820	Trains	0	0	0	0.00
830	Ships and Commercial Boats	0	0	0	0.00

840	Recreational Boats	0	0	0	0.00
850	Off-Road Recreational Vehicles	0.1	16.4	0	0.00
860	Off-Road Equipment	1.8	4666.8	0.3	0.00
870	Farm Equipment	0	0	0	0.00
890	Fuel Storage and Handling	0	0	0	0.00
895	Truck Stops	0	0	0	0.00
Total	Other Mobile Sources	<u>1.9</u>	<u>4683.1</u>	<u>0.3</u>	<u>0.00</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	1.0	14592.9	4.9	0.02
Total	On-Road Vehicles	3.9	39568.0	4.4	0.04
Total	Other Mobile	1.9	4683.1	0.3	0.00
Total	Anthropogenic	<u>6.8</u>	<u>58844.0</u>	<u>9.7</u>	<u>0.06</u>

Desert Hot Springs – 2005 GHG Emissions per Major Source Category

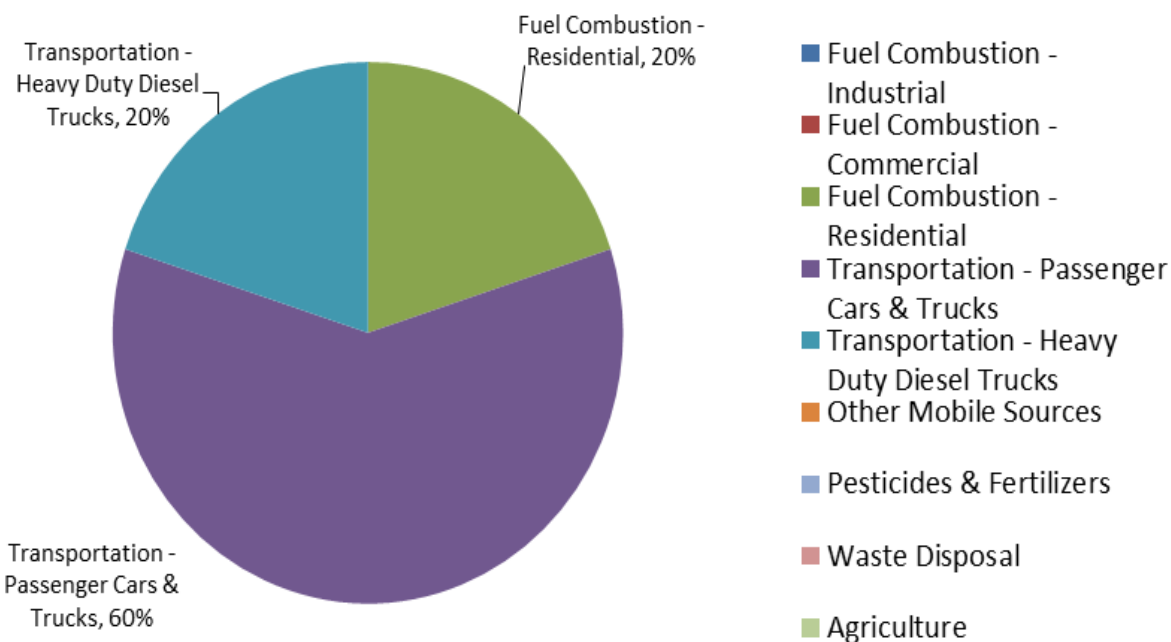


Table E-8
Desert Hot Springs - 2020 GHG Emissions per Major Source Category

EIC CODE		Source Category	TPY			MMT
			CH ₄	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion						
10	Electric Utilities	0	0	0	0.00	
20	Cogeneration	0	0	0	0.00	
30	Oil and Gas Production (combustion)	0	0	0	0.00	
40	Petroleum Refining (Combustion)	0	0	0	0.00	
50	Manufacturing and Industrial	0	1781.3	0	0.00	
52	Food and Agricultural Processing	0	0	0	0.00	
60	Service and Commercial	0	2575.2	0	0.00	
99	Other (Fuel Combustion)	0	63.9	0	0.00	
Total	Fuel Combustion	<u>0.1</u>	<u>4420.4</u>	<u>0.0</u>	<u>0.00</u>	
Waste Disposal						
110	Sewage Treatment	0	0	0	0.00	
120	Landfills	0	0	0	0.00	
130	Incineration	0	0	0	0.00	
199	Other (Waste Disposal)	0	0	0	0.00	
Total	Waste Disposal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>	
Cleaning and Surface Coatings						
210	Laundering	0	0	0	0.00	
220	Degreasing	0	0	0	0.00	
230	Coatings and Related Processes	0	0	0	0.00	
240	Printing	0	0	0	0.00	
250	Adhesives and Sealants	0	0	0	0.00	
299	Other (Cleaning and Surface Coatings)	0	0	0	0.00	
Total	Cleaning and Surface Coatings	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>	
Petroleum Production and Marketing						
310	Oil and Gas Production	0	0	0	0.00	
320	Petroleum Refining	0	0	0	0.00	
330	Petroleum Marketing	0.5	0	0	0.00	
399	Other (Petroleum Production and Marketing)	0	0	0	0.00	
Total	Petroleum Production and Marketing	<u>0.5</u>	<u>0</u>	<u>0</u>	<u>0.00</u>	
Other Industrial Processes						
410	Chemical	0.8	0	0	0.00	
420	Food and Agriculture	0	0	0	0.00	
430	Mineral Processes	0	0	0	0.00	
440	Metal Processes	0	0	0	0.00	
450	Wood and Paper	0	0	0	0.00	
460	Glass and Related Products	0	0	0	0.00	
470	Electronics	0	0	0	0.00	
499	Other (Industrial Processes)	0	0	0	0.00	

Total	Industrial Processes	<u>0.8</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	4.9	0.00
540	Asphalt Paving/Roofing	0	0	0	0.00
Total	Solvent Evaporation	<u>0</u>	<u>0</u>	<u>4.9</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.3	16237.0	0	0.02
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.1	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.4</u>	<u>16237.0</u>	<u>0.0</u>	<u>0.02</u>
710	Light Duty Passenger Auto (LDA)	0.6	20965.0	2.5	0.02
722	Light Duty Trucks 1 (T1)	0.1	4837.7	0.6	0.01
723	Light Duty Trucks 2 (T2)	0.4	11655.2	1.8	0.01
724	Medium Duty Trucks (T3)	0.3	8503.4	1.1	0.01
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	354.8	0.0	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	88.1	0.0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.0	59.2	0.0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	59.2	0.0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	59.1	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	59.4	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	620.6	0.0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.2	11440.6	0.0	0.01
750	Motorcycles (MCY)	0.2	146.6	0.1	0.00
760	Diesel Urban Buses (UB)	0.0	73.1	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.0	0.00
770	School Buses (SB)	0.0	146.7	0.0	0.00
776	Other Bus (OB)	0.0	146.5	0.0	0.00
780	Motor Homes (MH)	0.0	292.8	0.0	0.00
Total	On-Road Motor Vehicles	<u>1.8</u>	<u>59507.9</u>	<u>6.2</u>	<u>0.06</u>
810	Aircraft	0.0	0.0	0.0	0.00
820	Trains	0.0	0.0	0.0	0.00
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00

840	Recreational Boats	0.0	0.0	0.0	0.00
850	Off-Road Recreational Vehicles	0.1	15.0	0.0	0.00
860	Off-Road Equipment	1.4	8460.3	0.5	0.01
870	Farm Equipment	0.0	0.0	0.0	0.00
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>1.5</u>	<u>8475.3</u>	<u>0.5</u>	<u>0.01</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	0.00
Total	Stationary and Area Sources	1.8	20657.4	4.9	0.02
Total	On-Road Vehicles	1.8	59507.9	6.2	0.06
Total	Other Mobile	1.5	8475.3	0.5	0.01
Total	Anthropogenic	<u>5.1</u>	<u>88640.6</u>	<u>11.6</u>	<u>0.09</u>

Table E-9
Desert Hot Springs – 2005 Fertilizer Usage

City	18 holes*	9 holes*	18 hole equivalent**	N ₂ O emissions (MT CO ₂ E/yr)***
Desert Hot Springs	2	4	4	1,504

Table E-10
Indian Wells – 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0	2878.9	0	0.00
52	Food and Agricultural Processing	0	2.4	0	0.00
60	Service and Commercial	0.1	5930.7	0	0.01
99	Other (Fuel Combustion)	0	147.1	0	0.00
Total	Fuel Combustion	<u>0.1</u>	<u>8959.1</u>	<u>0</u>	<u>0.01</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.00</u>
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	0.5	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>0.5</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	0.9	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>0.9</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	12.7	0.00
540	Asphalt Paving/Roofing	0	0	0	0.00
Total	Solvent Evaporation	<u>0</u>	<u>0</u>	<u>12.7</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.2	9106.7	0.0	0.01
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.2</u>	<u>9106.7</u>	<u>0.0</u>	<u>0.01</u>
710	Light Duty Passenger Auto (LDA)	2.2	14382.3	2.5	0.02
722	Light Duty Trucks 1 (T1)	0.5	3324.2	0.8	0.00
723	Light Duty Trucks 2 (T2)	1.2	7734.0	2.0	0.01
724	Medium Duty Trucks (T3)	0.6	5834.1	0.9	0.01
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	501.5	0.1	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0	115.7	0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.1	115.7	0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.1	38.6	0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0	154.6	0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0	77.2	0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0	771.4	0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.6	13693.2	0	0.01
750	Motorcycles (MCY)	0.3	67.8	0.1	0.00
760	Diesel Urban Buses (UB)	0	67.9	0	0.00
762	Gas Urban Buses (UB)	0	0	0	0.00
770	School Buses (SB)	0	135.6	0	0.00
776	Other Bus (OB)	0	67.7	0	0.00
780	Motor Homes (MH)	0	203.4	0	0.00
Total	On-Road Motor Vehicles	<u>5.7</u>	<u>47285.0</u>	<u>6.5</u>	<u>0.05</u>
810	Aircraft	0	0	0	0.00
820	Trains	0	0	0	0.00
830	Ships and Commercial Boats	0	0	0	0.00

840	Recreational Boats	0	0	0	0.00
850	Off-Road Recreational Vehicles	0	0	0	0.00
860	Off-Road Equipment	1.9	4977.9	0.3	0.01
870	Farm Equipment	0	0	0	0.00
890	Fuel Storage and Handling	0	0	0	0.00
895	Truck Stops	0	0	0	0.00
Total	Other Mobile Sources	<u>1.9</u>	<u>4977.9</u>	<u>0.3</u>	<u>0.01</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	1.7	18065.9	12.8	0.02
Total	On-Road Vehicles	5.7	47285.0	6.5	0.05
Total	Other Mobile	1.9	4977.9	0.3	0.01
Total	Anthropogenic	<u>9.4</u>	<u>70328.7</u>	<u>19.5</u>	<u>0.08</u>

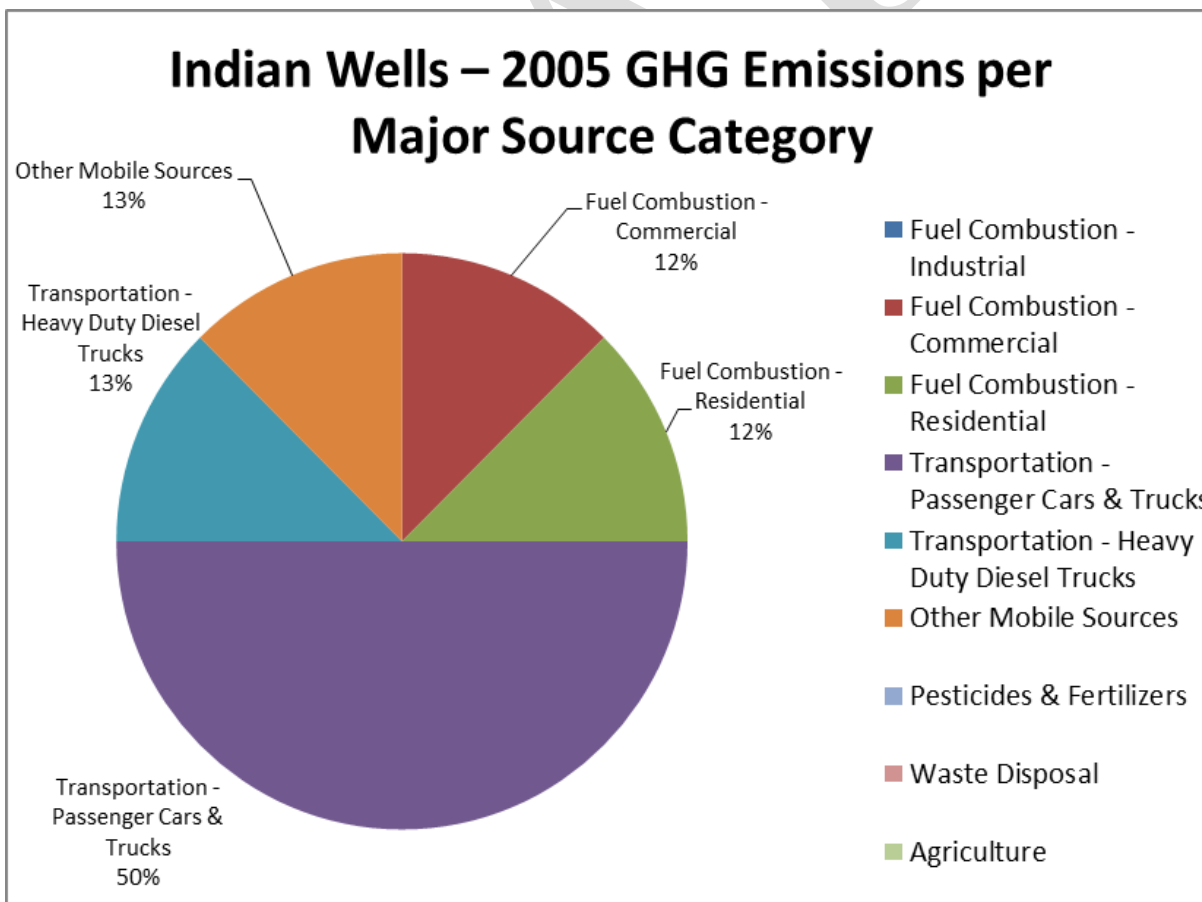


Table E-11
Indian Wells – 2020 GHG Emissions per Major Source Category

		Tons/year			MMT
EIC CODE	Source Category	CH ₄	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion					
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.1	4068.2	0	0.00
52	Food and Agricultural Processing	0	2.1	0	0.00
60	Service and Commercial	0.1	6997.7	0	0.01
99	Other (Fuel Combustion)	0	146.0	0	0.00
Total	Fuel Combustion	<u>0.2</u>	<u>11214.0</u>	<u>0</u>	<u>0.01</u>
Waste Disposal					
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Cleaning and Surface Coatings					
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Petroleum Production and Marketing					
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	0.5	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>0.5</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Industrial Processes					
410	Chemical	1.8	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>1.8</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	12.7	0.00
540	Asphalt Paving/Roofing	0	0	0	0.00
Total	Solvent Evaporation	<u>0</u>	<u>0</u>	<u>12.7</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.2	11559.5	0	0.01
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.1	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.3</u>	<u>11559.5</u>	<u>0.0</u>	<u>0.01</u>
710	Light Duty Passenger Auto (LDA)	0.8	20425.0	3.6	0.02
722	Light Duty Trucks 1 (T1)	0.2	4713.7	1.3	0.01
723	Light Duty Trucks 2 (T2)	0.6	11355.3	2.7	0.01
724	Medium Duty Trucks (T3)	0.4	8284.5	1.4	0.01
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	313.4	0.0	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	78.4	0.0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.0	52.2	0.0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	52.3	0.0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	52.1	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	52.6	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	548.6	0.0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.1	10119.7	0.0	0.01
750	Motorcycles (MCY)	0.3	142.9	0.1	0.00
760	Diesel Urban Buses (UB)	0.0	71.3	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.0	0.00
770	School Buses (SB)	0.0	142.7	0.0	0.00
776	Other Bus (OB)	0.0	142.8	0.0	0.00
780	Motor Homes (MH)	0.0	285.7	0.0	0.00
Total	On-Road Motor Vehicles	<u>2.5</u>	<u>56833.2</u>	<u>9.1</u>	<u>0.06</u>
810	Aircraft	0.0	0.0	0.0	0.00
820	Trains	0.0	0.0	0.0	0.00
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00

840	Recreational Boats	0.0	0.0	0.0	0.00
850	Off-Road Recreational Vehicles	0.1	15.0	0.0	0.00
860	Off-Road Equipment	1.2	7158.8	0.4	0.01
870	Farm Equipment	0.0	0.0	0.0	0.00
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>1.3</u>	<u>7173.7</u>	<u>0.4</u>	<u>0.01</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	0.00
Total	Stationary and Area Sources	2.9	22773.5	12.8	0.03
Total	On-Road Vehicles	2.5	56833.2	9.1	0.06
Total	Other Mobile	1.3	7173.7	0.4	0.01
Total	Anthropogenic	<u>6.7</u>	<u>86780.4</u>	<u>22.2</u>	<u>0.09</u>

Table E-12
Indian Wells – 2005 Fertilizer Usage

City	18 holes*	9 holes*	18 hole equivalent**	N ₂ O emissions (MT CO ₂ E/yr)***
Indian Wells	10	1	10.5	3,948

Table E-13
Indio – 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.2	12706.7	0	0.01
52	Food and Agricultural Processing	0.3	15337.8	0	0.02
60	Service and Commercial	0.3	14993.8	0	0.02
99	Other (Fuel Combustion)	0	318.5	0	0.00
Total	Fuel Combustion	<u>0.7</u>	<u>43356.9</u>	<u>0</u>	<u>0.04</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.00</u>
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0.1	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.2</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	1.5	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>1.5</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	2.0	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>2.0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	13.9	0.00
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>13.9</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.6	33337.7	0.1	0.03
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.1	0	0	0.00
670	Waste Burning and Disposal	0.1	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.1	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.9</u>	<u>33337.7</u>	<u>0.1</u>	<u>0.03</u>
710	Light Duty Passenger Auto (LDA)	10.7	87227.0	12.2	0.09
722	Light Duty Trucks 1 (T1)	2.4	20160.7	3.6	0.02
723	Light Duty Trucks 2 (T2)	5.4	46905.0	9.2	0.05
724	Medium Duty Trucks (T3)	3.5	35384.5	5.1	0.04
732	Light Heavy Duty Gas Trucks 1 (T4)	0.4	5006.9	0.6	0.01
733	Light Heavy Duty Gas Trucks 2 (T5)	0	1155.5	0.2	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.8	1155.4	0.1	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.4	385.1	0.1	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0	1540.4	0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0	770.6	0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0	7703.1	0	0.01
746	Heavy Heavy Duty Diesel Trucks (HHD)	6.0	136728.2	0.4	0.14
750	Motorcycles (MCY)	1.5	411.5	0.3	0.00
760	Diesel Urban Buses (UB)	0	411.5	0	0.00
762	Gas Urban Buses (UB)	0	0	0	0.00
770	School Buses (SB)	0	822.7	0	0.00
776	Other Bus (OB)	0	411.2	0.1	0.00
780	Motor Homes (MH)	0	1233.7	0.1	0.00
Total	On-Road Motor Vehicles	<u>31.1</u>	<u>347413.1</u>	<u>32.0</u>	<u>0.36</u>
810	Aircraft	0	0	0	0.00
820	Trains	0.5	6025.7	0.2	0.01
830	Ships and Commercial Boats	0	0	0	0.00

840	Recreational Boats	0	0	0	0.00
850	Off-Road Recreational Vehicles	0	0	0	0.00
860	Off-Road Equipment	6.7	17111.4	1.1	0.02
870	Farm Equipment	0.5	2420.6	0	0.00
890	Fuel Storage and Handling	0	0	0	0.00
895	Truck Stops	0	0	0	0.00
Total	Other Mobile Sources	<u>7.6</u>	<u>25557.7</u>	<u>1.3</u>	<u>0.03</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	5.4	76694.6	14.1	0.08
Total	On-Road Vehicles	31.1	347413.1	32.0	0.36
Total	Other Mobile	7.6	25557.7	1.3	0.03
Total	Anthropogenic	<u>44.1</u>	<u>449665.4</u>	<u>47.4</u>	<u>0.47</u>

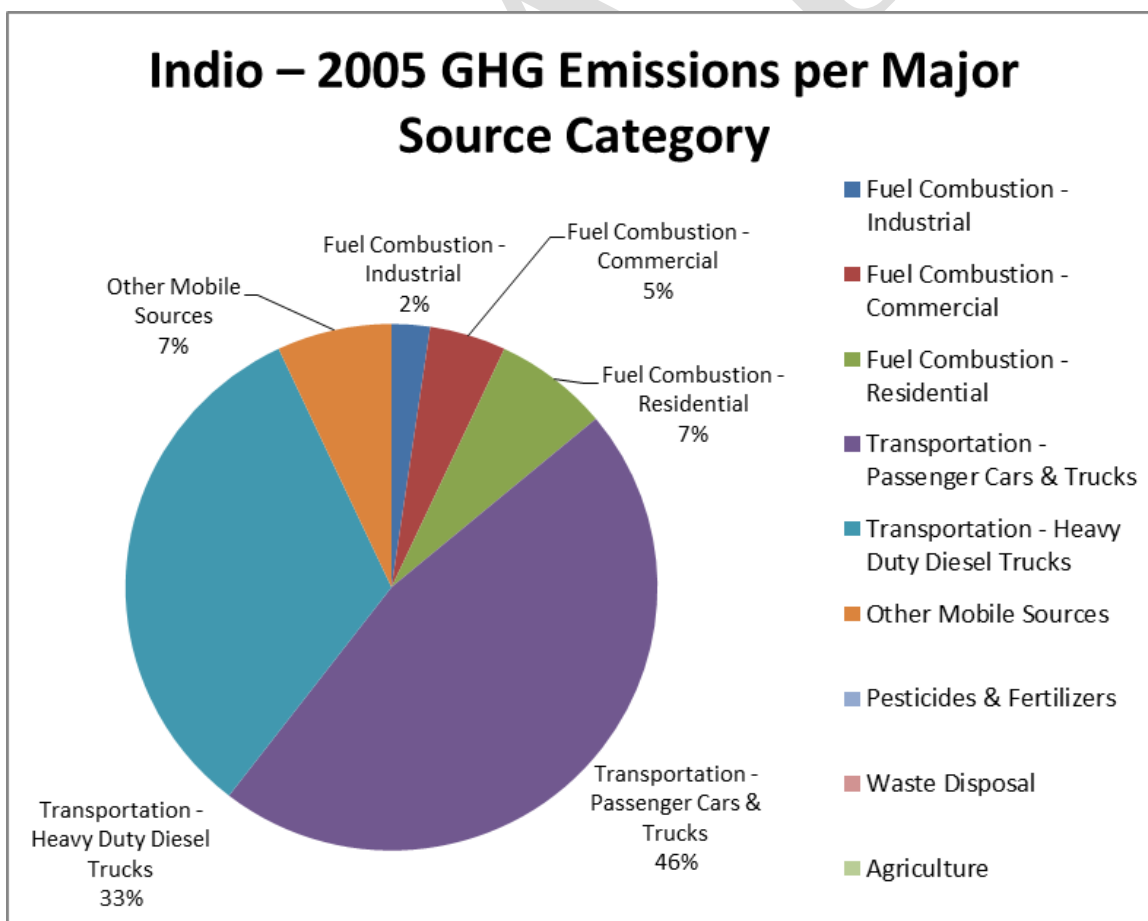


Table E-14
Indio - 2020 GHG Emissions per Major Source Category

		TPY			MMT
EIC CODE	Source Category	CH ₄	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion					
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.3	15203.3	0	0.02
52	Food and Agricultural Processing	0.4	21369.4	0	0.02
60	Service and Commercial	0.3	18549.2	0	0.02
99	Other (Fuel Combustion)	0	313.5	0	0.00
Total	Fuel Combustion	<u>0.9</u>	<u>55435.4</u>	<u>0.1</u>	<u>0.06</u>
Waste Disposal					
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Cleaning and Surface Coatings					
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0.1	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.2	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.3</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Petroleum Production and Marketing					
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	1.6	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>1.6</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Other Industrial Processes					
410	Chemical	3.9	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00

499	Other (Industrial Processes)	0	0	0	0.00
Total	Industrial Processes	<u>3.9</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	13.9	0.00
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>13.9</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.8	45430.4	0.1	0.05
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.1	0	0	0.00
670	Waste Burning and Disposal	0.1	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.2	0	0	0.00
699	Other (Miscellaneous Processes)	0	0	0	0.00
Total	Miscellaneous Processes	<u>1.2</u>	<u>45430.4</u>	<u>0.1</u>	<u>0.05</u>
710	Light Duty Passenger Auto (LDA)	3.6	108755.1	15.8	0.11
722	Light Duty Trucks 1 (T1)	0.9	25097.6	5.1	0.03
723	Light Duty Trucks 2 (T2)	2.6	60461.6	11.4	0.06
724	Medium Duty Trucks (T3)	1.8	44110.0	6.4	0.05
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	4418.4	0.6	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	1105.0	0.3	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.0	736.3	0.1	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	736.4	0.1	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	736.5	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	736.2	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	7732.2	0.0	0.01
746	Heavy Heavy Duty Diesel Trucks (HHD)	1.4	142494.3	0.4	0.14
750	Motorcycles (MCY)	1.4	760.5	0.4	0.00
760	Diesel Urban Buses (UB)	0.0	380.0	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.0	0.00
770	School Buses (SB)	0.0	760.5	0.0	0.00
776	Other Bus (OB)	0.0	760.5	0.0	0.00
780	Motor Homes (MH)	0.0	1521.6	0.0	0.00
Total	On-Road Motor Vehicles	<u>11.8</u>	<u>401302.7</u>	<u>40.4</u>	<u>0.41</u>
810	Aircraft	0.0	0.0	0.0	0.00
820	Trains	0.6	7905.9	0.2	0.01

830	Ships and Commercial Boats	0.0	0.0	0.0	0.00
840	Recreational Boats	0.1	187.7	0.0	0.00
850	Off-Road Recreational Vehicles	0.1	15.0	0.0	0.00
860	Off-Road Equipment	4.3	25381.0	1.4	0.03
870	Farm Equipment	0.2	2787.5	0.0	0.00
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>5.2</u>	<u>36277.1</u>	<u>1.7</u>	<u>0.04</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	0.00
Total	Stationary and Area Sources	8.0	100865.8	14.1	0.11
Total	On-Road Vehicles	11.8	401302.7	40.4	0.41
Total	Other Mobile	5.2	36277.1	1.7	0.04
Total	Anthropogenic	<u>25.1</u>	<u>538445.6</u>	<u>56.3</u>	<u>0.56</u>

Table E-15
Indio – 2005 Fertilizer Usage

City	18 holes*	9 holes*	18 hole equivalent**	N₂O emissions (MT CO₂E/yr)***
Indio	10	3	11.5	4,324

Table E-16
La Quinta – 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0	2735.8	0	0.00
52	Food and Agricultural Processing	0	48.8	0	0.00
60	Service and Commercial	0.1	5383.0	0	0.01
99	Other (Fuel Combustion)	0	139.9	0	0.00
Total	Fuel Combustion	<u>0.1</u>	<u>8307.5</u>	<u>0.0</u>	<u>0.01</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.00</u>
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	0.9	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>0.9</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	0.9	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>0.9</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	29.7	0.01
540	Asphalt Paving/Roofing	0	0	0	0.00
Total	Solvent Evaporation	<u>0</u>	<u>0</u>	<u>29.7</u>	<u>0.01</u>
610	Residential Fuel Combustion	0.4	25668.8	0	0.03
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0.1	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.5</u>	<u>25668.8</u>	<u>0.0</u>	<u>0.03</u>
710	Light Duty Passenger Auto (LDA)	3.4	20390.3	3.9	0.02
722	Light Duty Trucks 1 (T1)	0.8	4712.6	1.2	0.01
723	Light Duty Trucks 2 (T2)	1.7	10965.0	2.8	0.01
724	Medium Duty Trucks (T3)	1.0	8271.7	1.5	0.01
732	Light Heavy Duty Gas Trucks 1 (T4)	0	497.1	0.1	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0	114.7	0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.1	114.7	0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.1	38.3	0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0	153.0	0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0	76.7	0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0	764.8	0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.6	13576.2	0	0.01
750	Motorcycles (MCY)	0.5	96.2	0.1	0.00
760	Diesel Urban Buses (UB)	0	96.3	0	0.00
762	Gas Urban Buses (UB)	0	0	0	0.00
770	School Buses (SB)	0	192.5	0	0.00
776	Other Bus (OB)	0	96.5	0	0.00
780	Motor Homes (MH)	0	289.4	0	0.00
Total	On-Road Motor Vehicles	<u>8.3</u>	<u>60445.8</u>	<u>9.7</u>	<u>0.06</u>
810	Aircraft	0	0	0	0.00
820	Trains	0	0	0	0.00
830	Ships and Commercial Boats	0	0	0	0.00

840	Recreational Boats	0	0	0	0.00
850	Off-Road Recreational Vehicles	0	0	0	0.00
860	Off-Road Equipment	4.2	10889.1	0.7	0.01
870	Farm Equipment	0.3	1452.4	0	0.00
890	Fuel Storage and Handling	0	0	0	0.00
895	Truck Stops	0	0	0	0.00
Total	Other Mobile Sources	<u>4.5</u>	<u>12341.5</u>	<u>0.7</u>	<u>0.01</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	2.5	33976.3	29.8	0.04
Total	On-Road Vehicles	8.3	60445.8	9.7	0.06
Total	Other Mobile	4.5	12341.5	0.7	0.01
Total	Anthropogenic	<u>15.3</u>	<u>106763.6</u>	<u>40.2</u>	<u>0.12</u>

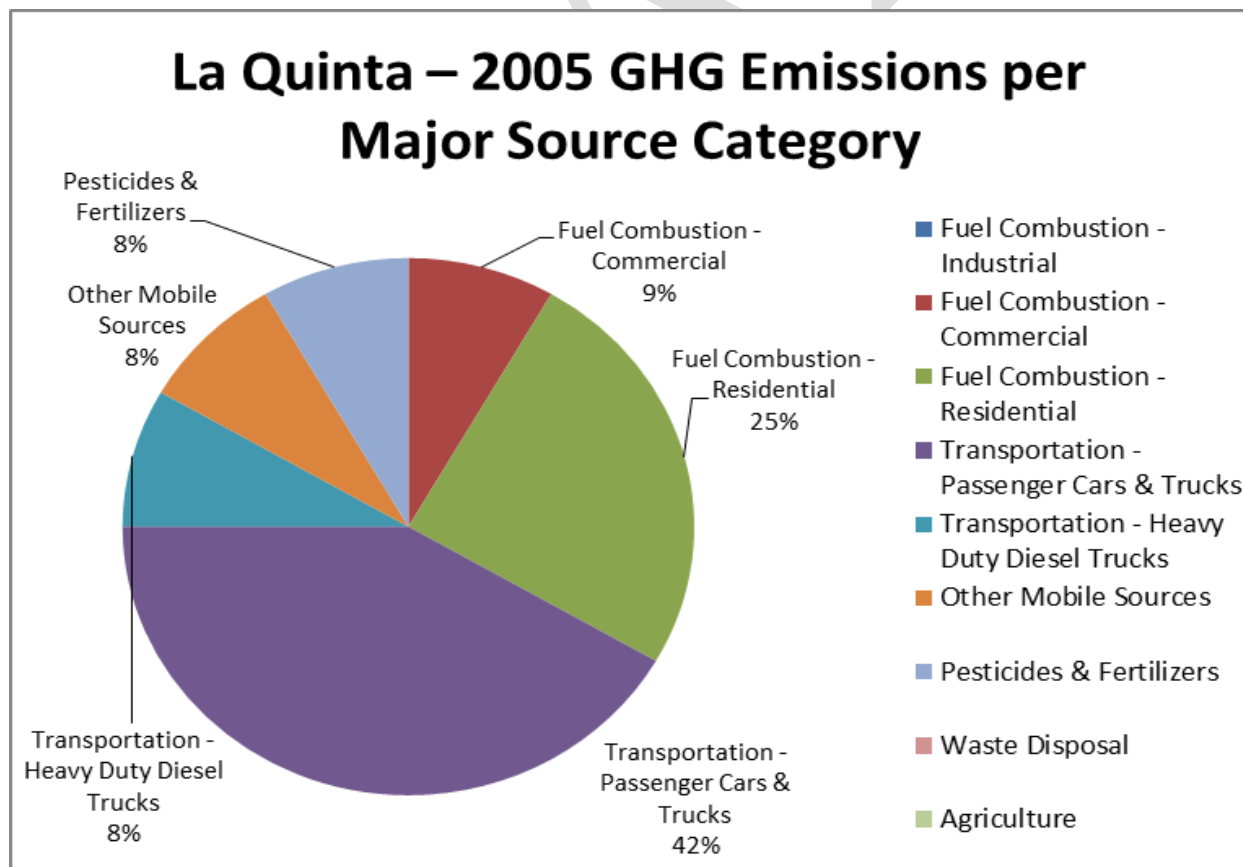


Table E-17
La Quinta - 2020 GHG Emissions per Major Source Category

		TPY			MMT
EIC CODE	Source Category	CH ₄	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion					
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.1	5238.0	0	0.01
52	Food and Agricultural Processing	0	42.1	0	0.00
60	Service and Commercial	0.1	8052.3	0	0.01
99	Other (Fuel Combustion)	0	188.1	0	0.00
Total	Fuel Combustion	<u>0.2</u>	<u>13520.5</u>	<u>0.0</u>	<u>0.01</u>
Waste Disposal					
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Cleaning and Surface Coatings					
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Petroleum Production and Marketing					
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	1	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Other Industrial Processes					
410	Chemical	2.4	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>2.4</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	29.7	0.01
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>29.7</u>	<u>0.01</u>
610	Residential Fuel Combustion	0.6	35088.8	0.1	0.04
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0.1	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.1	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.8</u>	<u>35088.8</u>	<u>0.1</u>	<u>0.04</u>
710	Light Duty Passenger Auto (LDA)	1.2	27936.2	5.1	0.03
722	Light Duty Trucks 1 (T1)	0.4	6446.8	1.9	0.01
723	Light Duty Trucks 2 (T2)	0.8	15530.7	3.6	0.02
724	Medium Duty Trucks (T3)	0.6	11330.6	2.1	0.01
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	356.4	0.0	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	89.5	0.0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.0	59.4	0.0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	59.5	0.0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	59.6	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	59.4	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	624.6	0.0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.2	11505.8	0.0	0.01
750	Motorcycles (MCY)	0.5	195.4	0.1	0.00
760	Diesel Urban Buses (UB)	0.0	97.5	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.0	0.00
770	School Buses (SB)	0.0	195.2	0.0	0.00
776	Other Bus (OB)	0.0	194.7	0.0	0.00
780	Motor Homes (MH)	0.0	391.3	0.0	0.00
Total	On-Road Motor Vehicles	<u>3.6</u>	<u>75132.7</u>	<u>12.9</u>	<u>0.08</u>
810	Aircraft	0.0	0.0	0.0	0.00
820	Trains	0.0	0.0	0.0	0.00
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00

840	Recreational Boats	0.0	0.0	0.0	0.00
850	Off-Road Recreational Vehicles	0.0	0.0	0.0	0.00
860	Off-Road Equipment	3.1	18222.3	1.0	0.02
870	Farm Equipment	0.1	1393.8	0.0	0.00
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>3.2</u>	<u>19616.1</u>	<u>1.0</u>	<u>0.02</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	0.00
Total	Stationary and Area Sources	4.6	48609.4	29.8	0.06
Total	On-Road Vehicles	3.6	75132.7	12.9	0.08
Total	Other Mobile	3.2	19616.1	1.0	0.02
Total	Anthropogenic	<u>11.4</u>	<u>143358.1</u>	<u>43.8</u>	<u>0.16</u>

Table E-18
La Quinta – 2005 Fertilizer Usage

City	18 holes*	9 holes*	18 hole equivalent**	N ₂ O emissions (MTCO ₂ E /yr)***
La Quinta	24	1	24.5	9,212

Table E-19
Palm Desert – 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.2	9316.2	0	0.01
52	Food and Agricultural Processing	0	1.7	0	0.00
60	Service and Commercial	0.5	32134.2	0.1	0.03
99	Other (Fuel Combustion)	0	475.6	0	0.00
Total	Fuel Combustion	<u>0.7</u>	<u>41927.7</u>	<u>0.1</u>	<u>0.04</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.00</u>
210	Laundering	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.2	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.2</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	1.6	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>1.6</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	3.0	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>3.0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	40.0	0.01
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>40.0</u>	<u>0.01</u>
610	Residential Fuel Combustion	0.4	24676.7	0	0.02
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.1	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.2	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.7</u>	<u>24676.7</u>	<u>0.0</u>	<u>0.02</u>
710	Light Duty Passenger Auto (LDA)	10.2	66233.5	11.6	0.07
722	Light Duty Trucks 1 (T1)	2.4	15308.4	3.6	0.02
723	Light Duty Trucks 2 (T2)	5.1	35616.4	8.8	0.04
724	Medium Duty Trucks (T3)	3.2	26868.1	4.7	0.03
732	Light Heavy Duty Gas Trucks 1 (T4)	0.1	1826.3	0.2	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0	421.4	0.1	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.3	421.4	0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.2	140.5	0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0	561.8	0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0	280.9	0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0	2809.9	0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	2.2	49870.9	0.1	0.05
750	Motorcycles (MCY)	1.4	312.4	0.3	0.00
760	Diesel Urban Buses (UB)	0	312.3	0	0.00
762	Gas Urban Buses (UB)	0	0	0	0.00
770	School Buses (SB)	0	624.7	0	0.00
776	Other Bus (OB)	0	312.3	0	0.00
780	Motor Homes (MH)	0	937.2	0.1	0.00
Total	On-Road Motor Vehicles	<u>25.1</u>	<u>202858.5</u>	<u>29.6</u>	<u>0.21</u>
810	Aircraft	0	0	0	0.00
820	Trains	0	0	0	0.00
830	Ships and Commercial Boats	0	0	0	0.00

840	Recreational Boats	0	0	0	0.00
850	Off-Road Recreational Vehicles	0.1	16.4	0	0.00
860	Off-Road Equipment	6.2	15867.0	1.0	0.02
870	Farm Equipment	0.1	484.1	0	0.00
890	Fuel Storage and Handling	0	0	0	0.00
895	Truck Stops	0	0	0	0.00
Total	Other Mobile Sources	<u>6.3</u>	<u>16367.4</u>	<u>1.1</u>	<u>0.02</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	6.3	66604.4	40.2	0.08
Total	On-Road Vehicles	25.1	202858.5	29.6	0.21
Total	Other Mobile	6.3	16367.4	1.1	0.02
Total	Anthropogenic	<u>37.8</u>	<u>285830.4</u>	<u>70.8</u>	<u>0.31</u>

Palm Desert – 2005 GHG Emissions per Major Source Category

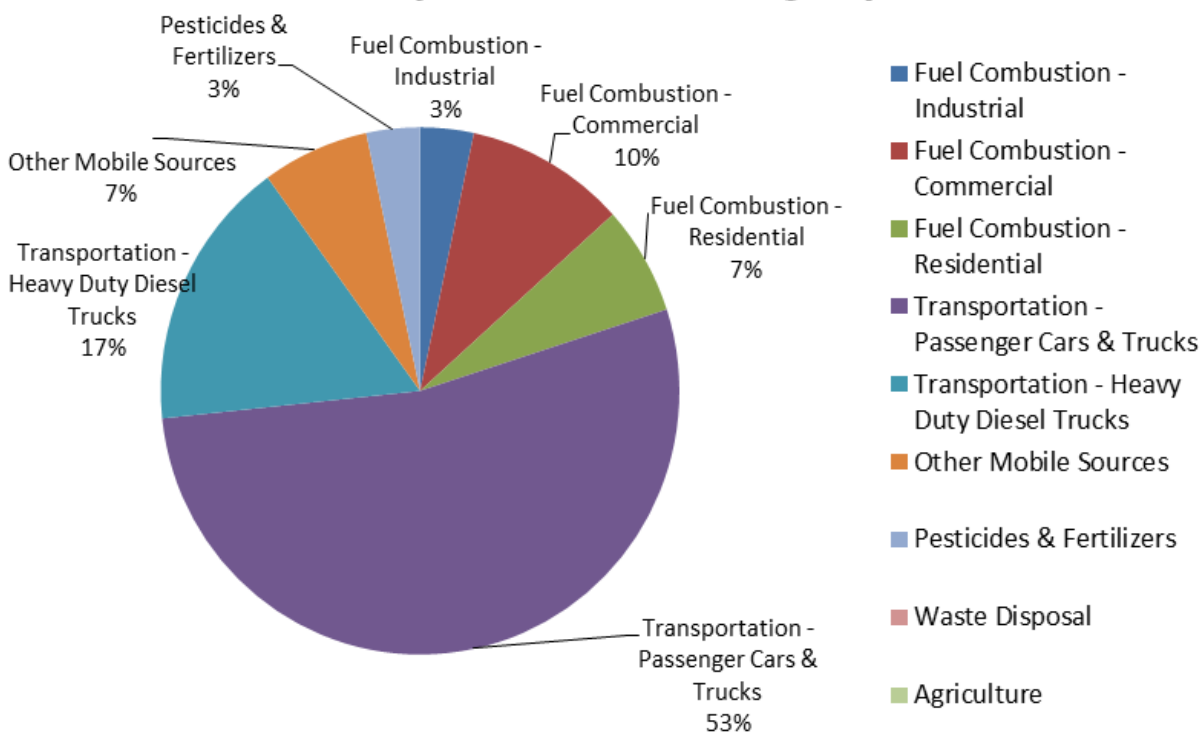


Table E-20
Palm Desert - 2020 GHG Emissions per Major Source Category

EIC		TPY			MMT
CODE	Source Category	CH4	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion					
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.2	11778.7	0	0.01
52	Food and Agricultural Processing	0	1.4	0	0.00
60	Service and Commercial	0.6	34989.5	0.1	0.04
99	Other (Fuel Combustion)	0	422.9	0	0.00
Total	Fuel Combustion	<u>0.8</u>	<u>47192.4</u>	<u>0.1</u>	<u>0.05</u>
Waste Disposal					
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Cleaning and Surface Coatings					
210	Laundering	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.2	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.2</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Petroleum Production and Marketing					
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	1.5	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>1.5</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Other Industrial Processes					
410	Chemical	5.3	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>5.3</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	40.0	0.01
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>40.0</u>	<u>0.01</u>
610	Residential Fuel Combustion	0.5	31207.5	0.1	0.03
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.1	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.3	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.9</u>	<u>31207.5</u>	<u>0.1</u>	<u>0.03</u>
710	Light Duty Passenger Auto (LDA)	3.7	96256.9	16.3	0.10
722	Light Duty Trucks 1 (T1)	0.9	22212.8	5.1	0.02
723	Light Duty Trucks 2 (T2)	2.9	53513.4	12.3	0.06
724	Medium Duty Trucks (T3)	1.9	39041.4	6.7	0.04
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	1424.0	0.2	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	356.4	0.0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.0	237.3	0.0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	237.3	0.0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	237.5	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	236.9	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	2491.5	0.0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.6	45917.4	0.2	0.05
750	Motorcycles (MCY)	1.4	673.1	0.4	0.00
760	Diesel Urban Buses (UB)	0.0	336.2	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.0	0.00
770	School Buses (SB)	0.0	673.0	0.0	0.00
776	Other Bus (OB)	0.0	673.1	0.0	0.00
780	Motor Homes (MH)	0.0	1346.1	0.0	0.00
Total	On-Road Motor Vehicles	<u>11.5</u>	<u>265864.5</u>	<u>41.2</u>	<u>0.28</u>
810	Aircraft	0.0	0.0	0.0	0.00
820	Trains	0	0	0	0.00
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00

840	Recreational Boats	0.0	0.0	0.0	0.00
850	Off-Road Recreational Vehicles	0.1	30.0	0.0	0.00
860	Off-Road Equipment	3.4	20174.7	1.1	0.02
870	Farm Equipment	0.0	0.0	0.0	0.00
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>3.5</u>	<u>20204.6</u>	<u>1.2</u>	<u>0.02</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	0.00
Total	Stationary and Area Sources	8.8	78399.9	40.2	0.09
Total	On-Road Vehicles	11.5	265864.5	41.2	0.28
Total	Other Mobile	3.5	20204.6	1.2	0.02
Total	Anthropogenic	<u>23.8</u>	<u>364469.0</u>	<u>82.5</u>	<u>0.39</u>

Table E-21
Palm Desert – 2005 Fertilizer Usage

City	18 holes*	9 holes*	18 hole equivalent**	N ₂ O emissions (MT CO ₂ E/yr)***
Palm Desert	28	10	33	12,408

Table E-22
Palm Springs – 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.2	13612.8	0	0.01
52	Food and Agricultural Processing	0	1.6	0	0.00
60	Service and Commercial	0.6	32586.1	0.1	0.03
99	Other (Fuel Combustion)	0	671.7	0	0.00
Total	Fuel Combustion	<u>0.8</u>	<u>46872.2</u>	<u>0.1</u>	<u>0.05</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.00</u>
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0.1	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.2	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.3</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	2.4	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>2.4</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	4.2	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>4.2</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	11.5	0.00
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>11.5</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.7	42882.0	0.08	0.04
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.1	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.3	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>1.1</u>	<u>42882.0</u>	<u>0.08</u>	<u>0.04</u>
710	Light Duty Passenger Auto (LDA)	8.8	73788.4	10.0	0.08
722	Light Duty Trucks 1 (T1)	2.0	17055.1	3.0	0.02
723	Light Duty Trucks 2 (T2)	4.4	39678.8	7.4	0.04
724	Medium Duty Trucks (T3)	2.8	29933.0	4.2	0.03
732	Light Heavy Duty Gas Trucks 1 (T4)	0.3	2985.4	0.4	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0	688.9	0.1	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.4	688.9	0.1	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.2	229.7	0.1	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0	918.4	0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0	459.1	0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0	4593.1	0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	3.6	81523.9	0.2	0.08
750	Motorcycles (MCY)	1.2	348.0	0.3	0.00
760	Diesel Urban Buses (UB)	0	348.1	0	0.00
762	Gas Urban Buses (UB)	0	0	0	0.00
770	School Buses (SB)	0	695.9	0	0.00
776	Other Bus (OB)	0	347.9	0	0.00
780	Motor Homes (MH)	0	1043.8	0.1	0.00
Total	On-Road Motor Vehicles	<u>23.7</u>	<u>255326.3</u>	<u>25.8</u>	<u>0.26</u>
810	Aircraft	2.19	26475	0.79	0.03
820	Trains	0.5	6938.7	0.2	0.01
830	Ships and Commercial Boats	0	0	0	0.00
840	Recreational Boats	0.9	687.2	0.2	0.00

850	Off-Road Recreational Vehicles	0.2	49.1	0.1	0.00
860	Off-Road Equipment	9.7	24889.4	1.6	0.03
870	Farm Equipment	0	0	0	0.00
890	Fuel Storage and Handling	0	0	0	0.00
895	Truck Stops	0	0	0	0.00
Total	Other Mobile Sources	<u>13.5</u>	<u>59039.3</u>	<u>2.8</u>	<u>0.06</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	8.9	89754.2	11.7	0.09
Total	On-Road Vehicles	23.7	255326.3	25.8	0.26
Total	Other Mobile	13.5	59039.3	2.8	0.06
Total	Anthropogenic	<u>46.1</u>	<u>404119.8</u>	<u>40.3</u>	<u>0.42</u>

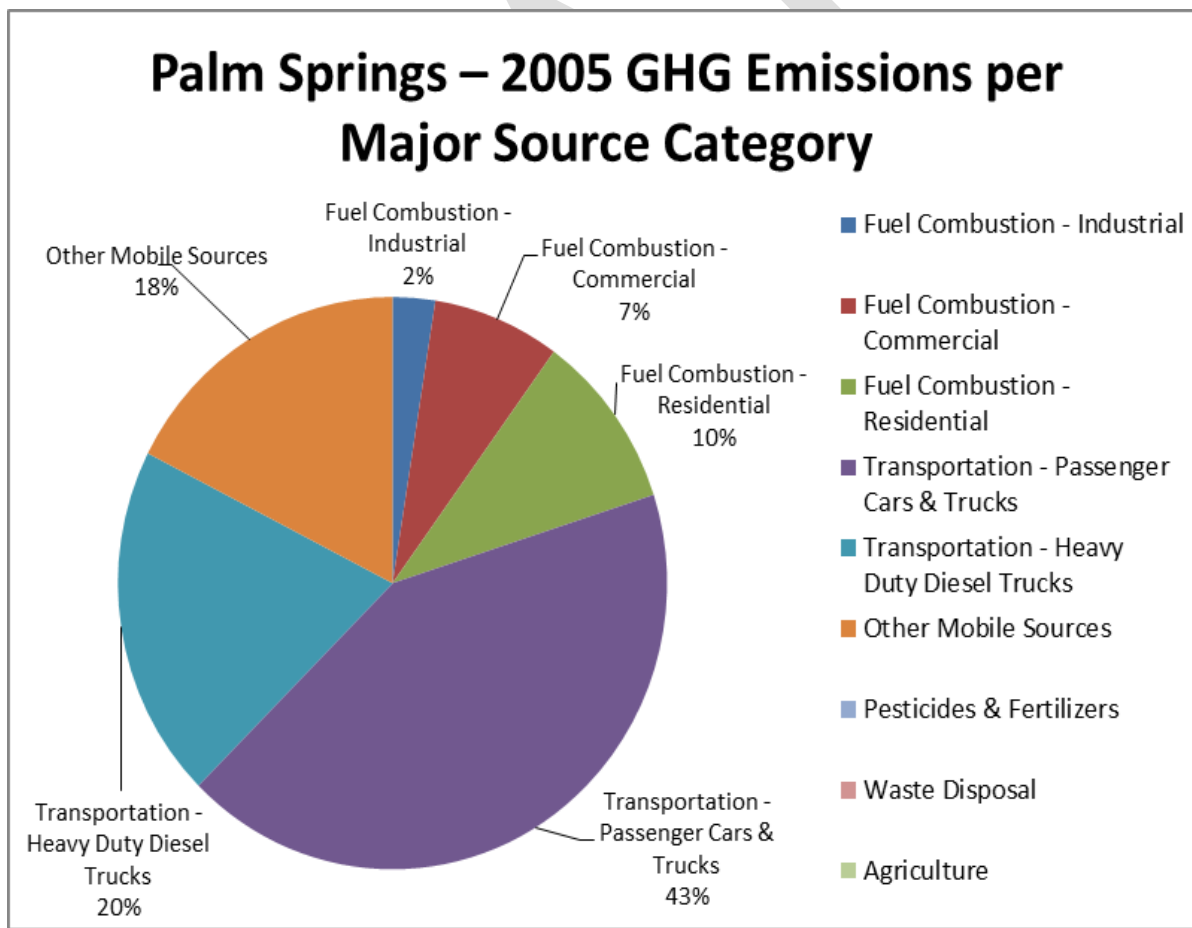


Table E-23
Palm Springs - 2020 GHG Emissions per Major Source Category

EIC		TPY			MMT
CODE	Source Category	CH ₄	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion					
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.3	18391.5	0	0.02
52	Food and Agricultural Processing	0.0	1.4	0	0.00
60	Service and Commercial	0.6	35078.3	0	0.04
99	Other (Fuel Combustion)	0.0	639.1	0	0.00
Total	Fuel Combustion	<u>0.9</u>	<u>54110.3</u>	<u>0</u>	<u>0.05</u>
Waste Disposal					
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Cleaning and Surface Coatings					
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0.1	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.3	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.4</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Petroleum Production and Marketing					
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	2.3	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>2.3</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Other Industrial Processes					
410	Chemical	7.9	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>7.9</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	11.5	0.00
540	Asphalt Paving/Roofing	0.2	0	0	0.00
Total	Solvent Evaporation	<u>0.2</u>	<u>0</u>	<u>11.5</u>	<u>0.00</u>
610	Residential Fuel Combustion	0.9	52764.0	0.1	0.05
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.1	0	0	0.00
670	Waste Burning and Disposal	0	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.5	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>1.5</u>	<u>52764.0</u>	<u>0.1</u>	<u>0.05</u>
710	Light Duty Passenger Auto (LDA)	3.0	97567.8	13.2	0.10
722	Light Duty Trucks 1 (T1)	0.7	22515.8	3.8	0.02
723	Light Duty Trucks 2 (T2)	2.2	54241.9	9.6	0.06
724	Medium Duty Trucks (T3)	1.5	39572.6	5.3	0.04
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	2626.6	0.4	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	656.5	0.0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.0	437.8	0.1	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	437.7	0.1	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	437.4	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	438.0	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	4595.7	0.0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.9	84697.8	0.2	0.08
750	Motorcycles (MCY)	1.1	682.3	0.3	0.00
760	Diesel Urban Buses (UB)	0.0	341.2	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.0	0.00
770	School Buses (SB)	0.0	682.2	0.0	0.00
776	Other Bus (OB)	0.0	682.2	0.0	0.00
780	Motor Homes (MH)	0.0	1363.6	0.0	0.00
Total	On-Road Motor Vehicles	<u>9.5</u>	<u>311977.0</u>	<u>33.0</u>	<u>0.32</u>
810	Aircraft	5.4	83621.0	2.5	0.08
820	Trains	0.7	9103.8	0.2	0.01
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00

840	Recreational Boats	0.5	1126.2	0.2	0.00
850	Off-Road Recreational Vehicles	0.3	74.9	0.1	0.00
860	Off-Road Equipment	5.5	32539.8	1.8	0.03
870	Farm Equipment	0.0	0.0	0.0	0.00
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>12.5</u>	<u>126465.6</u>	<u>4.9</u>	<u>0.13</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	0.00
Total	Stationary and Area Sources	13.2	106874.3	11.7	0.11
Total	On-Road Vehicles	9.5	311977.0	33.0	0.32
Total	Other Mobile	12.5	126465.6	4.9	0.13
Total	Anthropogenic	<u>35.2</u>	<u>545316.9</u>	<u>49.6</u>	<u>0.56</u>

Table E-24
Palm Springs – 2005 Fertilizer Usage

City	18 holes*	9 holes*	18 hole equivalent**	N₂O emissions (MT CO₂E/yr)***
Palm Springs	8	3	9.5	3,572

Table E-25
Rancho Mirage – 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.1	4556.4	0	0.00
52	Food and Agricultural Processing	0	15.9	0	0.00
60	Service and Commercial	0.3	15629.3	0	0.02
99	Other (Fuel Combustion)	0	232.6	0	0.00
Total	Fuel Combustion	<u>0.4</u>	<u>20434.3</u>	<u>0.0</u>	<u>0.02</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.00</u>
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	0.8	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>0.8</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	1.5	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>1.5</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	16.4	0.01
540	Asphalt Paving/Roofing	0	0	0	0.00
Total	Solvent Evaporation	<u>0</u>	<u>0</u>	<u>16.4</u>	<u>0.01</u>
610	Residential Fuel Combustion	0.2	13927.3	0.0	0.01
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0.2	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.1	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.5</u>	<u>13927.3</u>	<u>0.0</u>	<u>0.01</u>
710	Light Duty Passenger Auto (LDA)	3.3	26091.2	3.7	0.03
722	Light Duty Trucks 1 (T1)	0.8	6030.4	1.2	0.01
723	Light Duty Trucks 2 (T2)	1.7	14030.5	2.8	0.01
724	Medium Duty Trucks (T3)	1.0	10584.1	1.5	0.01
732	Light Heavy Duty Gas Trucks 1 (T4)	0	650.5	0.1	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0	150.2	0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.1	150.1	0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.1	50.0	0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0	200.4	0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0	100.3	0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0	1000.6	0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.8	17763.7	0	0.02
750	Motorcycles (MCY)	0.4	123.1	0.1	0.00
760	Diesel Urban Buses (UB)	0	123.1	0	0.00
762	Gas Urban Buses (UB)	0	0	0	0.00
770	School Buses (SB)	0	245.9	0	0.00
776	Other Bus (OB)	0	123.2	0	0.00
780	Motor Homes (MH)	0	369.2	0	0.00
Total	On-Road Motor Vehicles	<u>8.2</u>	<u>77786.5</u>	<u>9.5</u>	<u>0.08</u>
810	Aircraft	0	0	0	0.00
820	Trains	0	0	0	0.00
830	Ships and Commercial Boats	0	0	0	0.00
840	Recreational Boats	0	0	0	0.00

850	Off-Road Recreational Vehicles	0.1	16.4	0	0.00
860	Off-Road Equipment	3.2	8089.0	0.5	0.01
870	Farm Equipment	0.1	484.1	0	0.00
890	Fuel Storage and Handling	0	0	0	0.00
895	Truck Stops	0	0	0	0.00
Total	Other Mobile Sources	<u>3.3</u>	<u>8589.5</u>	<u>0.6</u>	<u>0.01</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	3.3	34361.6	16.4	0.04
Total	On-Road Vehicles	8.2	77786.5	9.5	0.08
Total	Other Mobile	3.3	8589.5	0.6	0.01
Total	Anthropogenic	<u>14.8</u>	<u>120737.6</u>	<u>26.5</u>	<u>0.13</u>

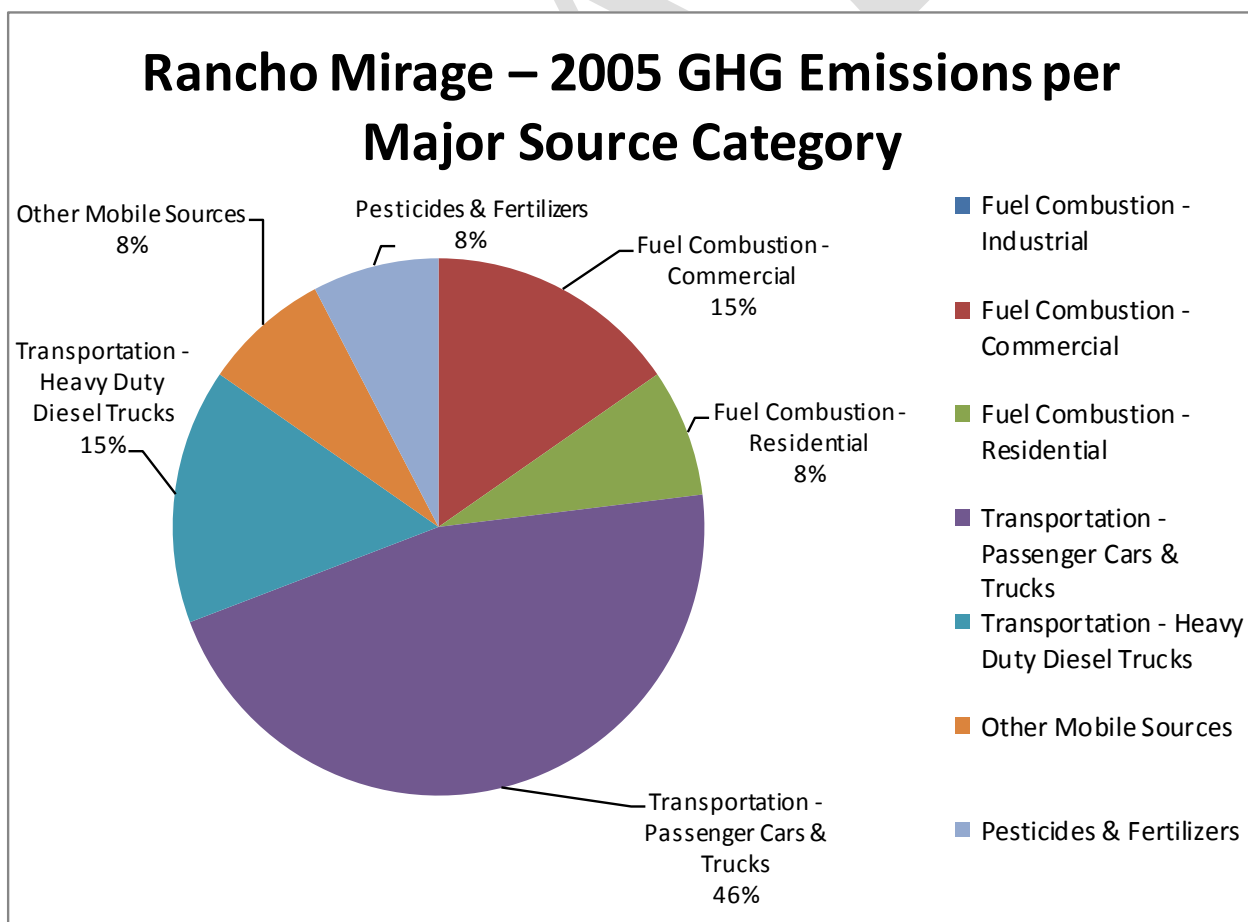


Table E-26
Rancho Mirage - 2020 GHG Emissions per Major Source Category

EIC CODE Source Category		TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
Fuel Combustion					
10	Electric Utilities	0	0	0	0.00
20	Cogeneration	0	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.1	6067.9	0	0.01
52	Food and Agricultural Processing	0	13.7	0	0.00
60	Service and Commercial	0.3	19640.3	0	0.02
99	Other (Fuel Combustion)	0	217.8	0	0.00
Total	Fuel Combustion	<u>0.5</u>	<u>25939.8</u>	<u>0.1</u>	<u>0.03</u>
110	Sewage Treatment	0	0	0	0.00
120	Landfills	0	0	0	0.00
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0	0	0.00
Total	Cleaning and Surface Coatings	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	0.8	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	<u>0.8</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	2.7	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>2.7</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	16.4	0.01
540	Asphalt Paving/Roofing	0.1	0	0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0</u>	<u>16.4</u>	<u>0.01</u>
610	Residential Fuel Combustion	0.3	18202.3	0	0.02
620	Farming Operations	0	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0	0	0	0.00
670	Waste Burning and Disposal	0.2	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.2	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>0.7</u>	<u>18202.3</u>	<u>0.0</u>	<u>0.02</u>
710	Light Duty Passenger Auto (LDA)	1.3	39747.3	5.6	0.04
722	Light Duty Trucks 1 (T1)	0.4	9172.4	1.9	0.01
723	Light Duty Trucks 2 (T2)	1.0	22097.0	4.1	0.02
724	Medium Duty Trucks (T3)	0.6	16121.1	2.1	0.02
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	558.6	0.0	0.00
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	139.0	0.0	0.00
734	Medium Heavy Duty Gas Trucks (T6)	0.0	93.1	0.0	0.00
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	93.1	0.0	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	93.4	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	93.1	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	978.1	0.0	0.00
746	Heavy Heavy Duty Diesel Trucks (HHD)	0.2	18015.8	0.1	0.02
750	Motorcycles (MCY)	0.5	278.0	0.1	0.00
760	Diesel Urban Buses (UB)	0.0	138.8	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.0	0.00
770	School Buses (SB)	0.0	277.8	0.0	0.00
776	Other Bus (OB)	0.0	278.5	0.0	0.00
780	Motor Homes (MH)	0.0	555.4	0.0	0.00
Total	On-Road Motor Vehicles	<u>3.9</u>	<u>108730.5</u>	<u>13.9</u>	<u>0.11</u>
810	Aircraft	0.0	0.0	0.0	0.00
820	Trains	0	0	0	0.00
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00
840	Recreational Boats	0.0	0.0	0.0	0.00

850	Off-Road Recreational Vehicles	0.1	30.0	0.0	0.00
860	Off-Road Equipment	1.9	11063.5	0.6	0.01
870	Farm Equipment	0.0	0.0	0.0	0.00
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>2.0</u>	<u>11093.5</u>	<u>0.7</u>	<u>0.01</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	0.00
Total	Stationary and Area Sources	4.9	44142.1	16.5	0.05
Total	On-Road Vehicles	3.9	108730.5	13.9	0.11
Total	Other Mobile	2.0	11093.5	0.7	0.01
Total	Anthropogenic	<u>10.7</u>	<u>163966.1</u>	<u>31.0</u>	<u>0.17</u>

Table E-27
Rancho Mirage – 2005 Fertilizer Usage

City	18 holes*	9 holes*	18 hole equivalent**	N₂O emissions (MT CO₂E/yr)***
Rancho Mirage	12	3	13.5	5,076

Table E-28
Unincorporated Areas – 2005 GHG Emissions per Major Source Category

EIC CODE	Source Category	TPY			MMT
		CH ₄	CO ₂	N ₂ O	CO ₂ E
	Fuel Combustion				
10	Electric Utilities	0.8	45060.8	0.1	0.05
20	Cogeneration	0.1	0.0	0.0	0.00
30	Oil and Gas Production (combustion)	0.0	0.0	0.0	0.00
40	Petroleum Refining (Combustion)	0.0	0.0	0.0	0.00
50	Manufacturing and Industrial	0.2	11170.6	0.0	0.01
52	Food and Agricultural Processing	0.0	397.6	0.0	0.00
60	Service and Commercial	0.2	13768.0	0.0	0.01
99	Other (Fuel Combustion)	0.0	574.4	0.0	0.00
Total	Fuel Combustion	<u>1.3</u>	<u>70971.4</u>	<u>0.1</u>	<u>0.07</u>
110	Sewage Treatment	0.0	0.0	0.0	0.00
120	Landfills	1967.8	67550.4	0.0	0.11
130	Incineration	0.0	0.0	0.0	0.00
199	Other (Waste Disposal)	0.0	0.0	0.0	0.00
Total	Waste Disposal	<u>1967.83</u>	<u>67550.44</u>	<u>0.00</u>	<u>0.11</u>
210	Laundering	0.0	0.0	0.0	0.00
220	Degreasing	0.0	0.0	0.0	0.00
230	Coatings and Related Processes	0.1	0.0	0.0	0.00
240	Printing	0.0	0.0	0.0	0.00
250	Adhesives and Sealants	0.0	0.0	0.0	0.00
299	Other (Cleaning and Surface Coatings)	0.1	0.0	0.0	0.00
Total	Cleaning and Surface Coatings	<u>0.2</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
310	Oil and Gas Production	0.0	0.0	0.0	0.00
320	Petroleum Refining	0.0	0.0	0.0	0.00
330	Petroleum Marketing	2.6	0.0	0.0	0.00
399	Other (Petroleum Production and Marketing)	0.0	0.0	0.0	0.00
Total	Petroleum Production and Marketing	<u>2.6</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
410	Chemical	3.4	0.0	0.0	0.00
420	Food and Agriculture	0.0	0.0	0.0	0.00
430	Mineral Processes	0.0	0.0	0.0	0.00
440	Metal Processes	0.0	0.0	0.0	0.00
450	Wood and Paper	0.0	0.0	0.0	0.00
460	Glass and Related Products	0.0	0.0	0.0	0.00
470	Electronics	0.0	0.0	0.0	0.00
499	Other (Industrial Processes)	0.0	0.0	0.0	0.00

Total	Industrial Processes	<u>3.4</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0.0	0.0	0.0	0.00
520	Architectural Coatings and Related Solvent	0.0	0.0	0.0	0.00
530	Pesticides/Fertilizers	0.0	0.0	4.2	0.00
540	Asphalt Paving/Roofing	0.1	0.0	0.0	0.00
Total	Solvent Evaporation	<u>0.1</u>	<u>0.0</u>	<u>4.2</u>	<u>0.00</u>
610	Residential Fuel Combustion	1.2	70186.2	0.1	0.07
620	Farming Operations	198.0	0.0	0.0	0.00
630	Construction and Demolition	0.0	0.0	0.0	0.00
640	Paved Road Dust	0.0	0.0	0.0	0.00
645	Unpaved Road Dust	0.0	0.0	0.0	0.00
650	Fugitive Windblown Dust	0.0	0.0	0.0	0.00
660	Fires	0.4	0.0	0.0	0.00
670	Waste Burning and Disposal	4.7	0.0	0.0	0.00
680	Utility Equipment	0.0	0.0	0.0	0.00
690	Cooking	0.4	0.0	0.0	0.00
699	Other (Miscellaneous Processes	0.0	0.0	0.0	0.00
Total	Miscellaneous Processes	<u>204.7</u>	<u>70186.2</u>	<u>0.1</u>	<u>0.07</u>
710	Light Duty Passenger Auto (LDA)	28.95	380481.58	32.86	0.39
722	Light Duty Trucks 1 (T1)	6.48	87942.52	9.92	0.09
723	Light Duty Trucks 2 (T2)	14.28	204597.73	24.29	0.21
724	Medium Duty Trucks (T3)	9.24	154347.03	13.62	0.16
732	Light Heavy Duty Gas Trucks 1 (T4)	2.28	30361.33	3.28	0.03
733	Light Heavy Duty Gas Trucks 2 (T5)	0.00	7006.47	0.80	0.01
734	Medium Heavy Duty Gas Trucks (T6)	4.49	7006.67	0.76	0.01
736	Heavy Heavy Duty Gas Trucks (HHD)	2.28	2335.49	0.54	0.00
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.00	9341.71	0.04	0.01
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.00	4670.96	0.02	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.00	46709.55	0.15	0.05
746	Heavy Heavy Duty Diesel Trucks (HHD)	34.39	829102.29	2.11	0.83
750	Motorcycles (MCY)	3.98	1794.76	0.84	0.00
760	Diesel Urban Buses (UB)	0.00	1794.25	0.01	0.00
762	Gas Urban Buses (UB)	0.00	0.00	0.08	0.00
770	School Buses (SB)	0.00	3590.18	0.05	0.00
776	Other Bus (OB)	0.00	1795.30	0.18	0.00
780	Motor Homes (MH)	0.00	5385.46	0.34	0.01
Total	On-Road Motor Vehicles	<u>106.38</u>	<u>1778263.3</u>	<u>89.88</u>	<u>1.81</u>
810	Aircraft	1.07	12978.00	0.38	0.01
820	Trains	4.68	59725.50	1.50	0.06
830	Ships and Commercial Boats	0.00	0.00	0.00	0.00
840	Recreational Boats	9.91	7941.34	1.96	0.01

850	Off-Road Recreational Vehicles	2.01	556.22	0.83	0.00
860	Off-Road Equipment	12.24	31422.82	2.03	0.03
870	Farm Equipment	3.29	15975.93	0.19	0.02
890	Fuel Storage and Handling	0.00	0.00	0.00	0.00
895	Truck Stops	0.00	0.00	0.00	0.00
Total	Other Mobile Sources	<u>33.21</u>	<u>128599.82</u>	<u>6.90</u>	<u>0.13</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
Total	Stationary and Area Sources	2180.0	208708.0	4.5	0.26
Total	On-Road Vehicles	106.4	1778263.3	89.9	1.81
Total	Other Mobile	33.2	128600.2	6.9	0.13
Total	Anthropogenic	<u>2319.65</u>	<u>2115571.5</u>	<u>101.30</u>	<u>2.20</u>

Unincorporated Areas of Riverside County

Unincorporated Areas – 2005 GHG Emissions per Major Source Category

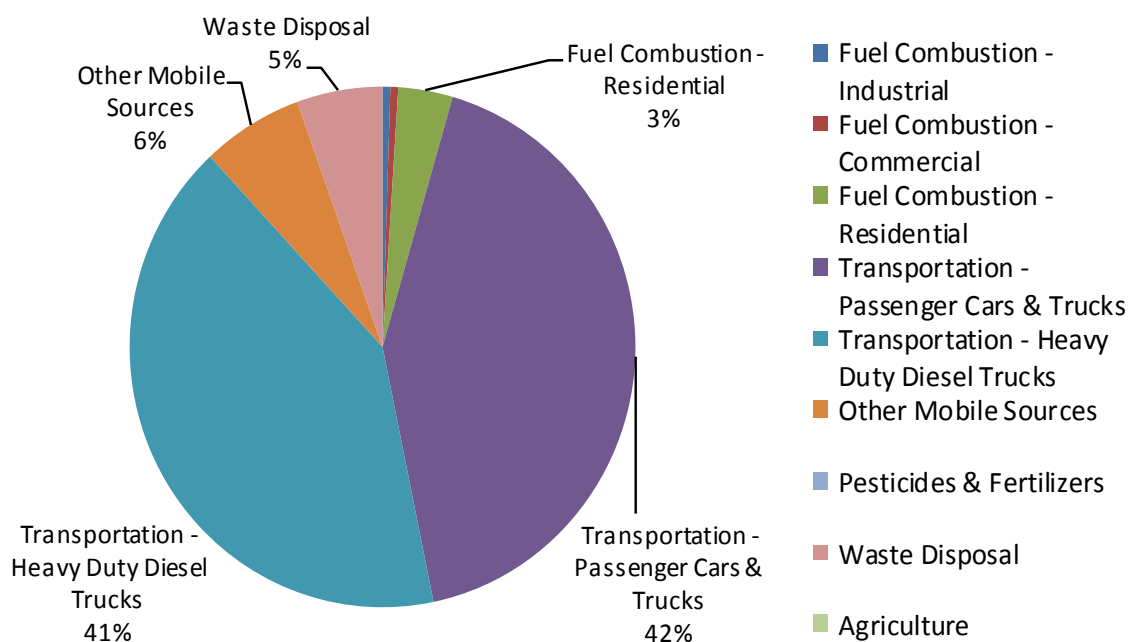


Table E-29
Unincorporated Areas - 2020 GHG Emissions per Major Source Category

		TPY			MMT
EIC CODE	Source Category	CH4	CO2	N2O	CO2E
Fuel Combustion					
10	Electric Utilities	0.9	50736.9	0.1	0.05
20	Cogeneration	0.1	0	0	0.00
30	Oil and Gas Production (combustion)	0	0	0	0.00
40	Petroleum Refining (Combustion)	0	0	0	0.00
50	Manufacturing and Industrial	0.3	17929.8	0	0.02
52	Food and Agricultural Processing	0	343.2	0	0.00
60	Service and Commercial	0.3	19628.4	0	0.02
99	Other (Fuel Combustion)	0	642.5	0	0.00
Total	Fuel Combustion	1.6	89280.7	0.2	0.09
Waste Disposal					
110	Sewage Treatment	0	0	0	0.00
120	Landfills	4961.4	170310.3	0	0.27
130	Incineration	0	0	0	0.00
199	Other (Waste Disposal)	0	0	0	0.00
Total	Waste Disposal	4961.36	170310.33	0	0.27
Cleaning and Surface Coatings					
210	Laundrying	0	0	0	0.00
220	Degreasing	0	0	0	0.00
230	Coatings and Related Processes	0.1	0	0	0.00
240	Printing	0	0	0	0.00
250	Adhesives and Sealants	0	0	0	0.00
299	Other (Cleaning and Surface Coatings)	0.4	0	0	0.00
Total	Cleaning and Surface Coatings	0.5	0	0	0.00
Petroleum Production and Marketing					
310	Oil and Gas Production	0	0	0	0.00
320	Petroleum Refining	0	0	0	0.00
330	Petroleum Marketing	3.4	0	0	0.00
399	Other (Petroleum Production and Marketing)	0	0	0	0.00
Total	Petroleum Production and Marketing	3.4	0	0	0.00
Other Industrial Processes					
410	Chemical	8.2	0	0	0.00
420	Food and Agriculture	0	0	0	0.00
430	Mineral Processes	0	0	0	0.00
440	Metal Processes	0	0	0	0.00
450	Wood and Paper	0	0	0	0.00
460	Glass and Related Products	0	0	0	0.00
470	Electronics	0	0	0	0.00
499	Other (Industrial Processes)	0	0	0	0.00

Total	Industrial Processes	<u>8.2</u>	<u>0</u>	<u>0</u>	<u>0.00</u>
510	Consumer Products	0	0	0	0.00
520	Architectural Coatings and Related Solvent	0	0	0	0.00
530	Pesticides/Fertilizers	0	0	4.2	0.00
540	Asphalt Paving/Roofing	0.2	0	0	0.00
Total	Solvent Evaporation	<u>0.2</u>	<u>0</u>	<u>4.2</u>	<u>0.00</u>
610	Residential Fuel Combustion	2.1	120592.1	0.2	0.12
620	Farming Operations	180.3	0	0	0.00
630	Construction and Demolition	0	0	0	0.00
640	Paved Road Dust	0	0	0	0.00
645	Unpaved Road Dust	0	0	0	0.00
650	Fugitive Windblown Dust	0	0	0	0.00
660	Fires	0.4	0	0	0.00
670	Waste Burning and Disposal	4.6	0	0	0.00
680	Utility Equipment	0	0	0	0.00
690	Cooking	0.1	0	0	0.00
699	Other (Miscellaneous Processes	0	0	0	0.00
Total	Miscellaneous Processes	<u>187.5</u>	<u>120592.1</u>	<u>0.2</u>	<u>0.12</u>
710	Light Duty Passenger Auto (LDA)	10.9	507118.2	47.8	0.52
722	Light Duty Trucks 1 (T1)	2.6	117027.0	13.9	0.12
723	Light Duty Trucks 2 (T2)	8.3	281930.5	35.5	0.29
724	Medium Duty Trucks (T3)	5.3	205684.8	18.4	0.21
732	Light Heavy Duty Gas Trucks 1 (T4)	0.0	29340.0	3.4	0.03
733	Light Heavy Duty Gas Trucks 2 (T5)	0.0	7336.1	1.0	0.01
734	Medium Heavy Duty Gas Trucks (T6)	0.0	4890.0	0.8	0.01
736	Heavy Heavy Duty Gas Trucks (HHD)	0.0	4890.0	0.6	0.01
742	Light Heavy Duty Diesel Trucks 1 (T4)	0.0	4889.8	0.0	0.00
743	Light Heavy Duty Diesel Trucks 2 (T5)	0.0	4890.0	0.0	0.00
744	Medium Heavy Duty Diesel Truck (T6)	0.0	51346.0	0.2	0.05
746	Heavy Heavy Duty Diesel Trucks (HHD)	9.6	946225.6	2.4	0.95
750	Motorcycles (MCY)	4.1	3546.2	1.2	0.00
760	Diesel Urban Buses (UB)	0.0	1774.5	0.0	0.00
762	Gas Urban Buses (UB)	0.0	0.0	0.1	0.00
770	School Buses (SB)	0.0	3546.9	0.1	0.00
776	Other Bus (OB)	0.0	3546.9	0.1	0.00
780	Motor Homes (MH)	0.0	7094.9	1.2	0.01
Total	On-Road Motor Vehicles	<u>40.9</u>	<u>2185077.5</u>	<u>126.8</u>	<u>2.23</u>
810	Aircraft	1.1	17443.0	0.5	0.02
820	Trains	6.1	78362.0	2.0	0.08
830	Ships and Commercial Boats	0.0	0.0	0.0	0.00

840	Recreational Boats	5.9	12200.0	2.4	0.01
850	Off-Road Recreational Vehicles	2.3	674.0	1.1	0.00
860	Off-Road Equipment	9.9	58571.7	3.3	0.06
870	Farm Equipment	1.0	15331.4	0.1	0.02
890	Fuel Storage and Handling	0.0	0.0	0.0	0.00
895	Truck Stops	0.0	0.0	0.0	0.00
Total	Other Mobile Sources	<u>26.5</u>	<u>182582.1</u>	<u>9.4</u>	<u>0.19</u>
910	Biogenic Sources	0	0	0	0.00
920	Geogenic Sources	0	0	0	0.00
930	Wildfires	0	0	0	0.00
940	Windblown Dust	0	0	0	0.00
Total	Natural Sources	0	0	0	<u>0.00</u>
Total	Stationary and Area Sources	5162.6	380183.1	4.6	0.49
Total	On-Road Vehicles	40.9	2185077.5	126.8	2.23
Total	Other Mobile	26.5	182581.8	9.4	0.19
Total	Anthropogenic	<u>5230.0</u>	<u>2747842.4</u>	<u>140.8</u>	<u>2.90</u>

Table E-30
Unincorporated Areas – 2005 Fertilizer Usage

City	18 holes*	9 holes*	18 hole equivalent**	N ₂ O emissions (MT CO ₂ E/yr)***
Unincorporated	1	5	3.5	1,316

Table E-31
GHG Emission Summary* by City

	MMTCO ₂ E	
	2005	2020
Cathedral City	0.31	0.38
Coachella	0.23	0.27
Desert Hot Springs	0.06	0.09
Indian Wells	0.08	0.09
Indio	0.47	0.56
La Quinta	0.12	0.16
Palm Desert	0.31	0.39
Palm Springs	0.42	0.56
Rancho Mirage	0.13	0.17
Unincorporated	2.20	2.90
TOTALS	4.31	5.58

*Totals may differ from the report due to rounding.

Acronym List

AER	Annual Emission Reports
AF	Acre Feet
AP 42	Compilation of Air Pollution Emission Factors
AQMP	Air Quality Management Plan
CCAR	California Climate Action Registry
CARB	California Air Resources Board
CH ₄	Methane
CHE	Cargo Handling Equipment
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ E	Carbon dioxide equivalent
CVAG	Coachella Valley Association of Governments
CVWD	Coachella Valley Water District
DMV	Department of Motor Vehicles
EFs	Emission Factors
EMFAC	Emission Factors Model
EIC	Emission Inventory Control
GHG	Greenhouse Gas
HHVs	High Heating Values
IPCC	International Panel on Climate Change
km	Kilometer
LPG	Liquefied Petroleum Gas
MG	Million Gallons
MMT	Million Metric Tons
MT	Metric Ton
MWh	Megawatt hours
N ₂ O	Nitrous oxide
NOx	Nitrogen dioxide
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SIC	Standard Industrial Classification Code
TPY	Tons Per Year
U.S. EPA	United States Environmental Protection Agency