



Climate Action Plan

March 2012

Title: Police Department Climate Action Plan
Data Year: Fiscal Year 2010-2011
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Contents

1. Introduction	2
2. Departmental Profile	3
3. Departmental Carbon Footprint & Historical Analysis	4
4. Other Sustainable Practices	7
5. Community Wide Impact	8
Appendices	8

1. Introduction

It is the intent of the Climate Action Plan to provide details and steps the San Francisco Police Department is taking to reduce its carbon footprint and ultimately protect the environment. The Mayor's Office of Climate Protection Initiatives implemented the Climate Action Plan. In response to the Mayor's Energy Conservation and Efficiency campaign, all city departments are required to submit a Climate Action Plan to the Mayor's office.

The Police Department is one of the City's largest departments comprised of 24 facilities and a vast fleet of vehicles. The majority of these vehicles are marked units which officers utilize to carry out daily patrol functions. The buildings occupied or controlled by the Department are mainly police stations and are open 24 hours a day, 365 days a year. Energy consumption is attributed to the use of electricity and natural gas. For fiscal year 2009-2010, the Department produced 1,843.99 metric tons of CO₂e emissions from natural gas and 200.91 metric tons of CO₂e from electricity. Natural gas and fuel for our vehicles are the highest contributors to our carbon footprint.

The Police Department has participated in the recycling movement long before it was fashionable. The results can be seen when one examines the Annual Departmental Consumptions of Electricity, Natural Gas, Water, and Gasoline. A noticeable difference is in the electricity that the department consumed in FY0910 when compared with FY1011 shows a difference of 405,283.48. In addition, the consumption difference translates into a financial savings for the city.

The Police Department has an overall goal of reducing electrical consumption and increasing the percentage of waste we recycle at our facilities. By identifying the facilities, fleet vehicles, and other activities which may produce higher levels of greenhouse gases, these actions would result in the lowering of our carbon footprint. We can then continue to lessen the impact on our climate.

2. Departmental Profile

It is the intent of the San Francisco Police Department's Climate Action Plan to outline the steps the San Francisco Police Department is taking to reduce its carbon footprint and ultimately protect the environment. The Climate Action Plan was implemented by the Mayor's Office of Climate Protection Initiatives.

In response to the Mayor's Energy Conservation and Efficiency campaign, all city departments are required to submit a Climate Action Plan to the Mayor's office.

The Police Department has an overall goal of reducing electrical consumption and increasing the percentage of waste we recycle at our facilities. By identifying the facilities, fleet vehicles, and other activities which may produce higher levels of greenhouse gases, would result in the lowering of our carbon footprint. We can then continue to lessen the impact on our climate.

Departmental Budget

Fiscal Year 2011-2012
:
\$461,807,061

Number of Employees

Total:	2,483
Sworn Officers:	2,127
Civilian Members:	336

-Facilities

The Police Department is comprised of ten district stations, one of which is located within Police Headquarters at the Hall of Justice, as well as a Crime Lab, Tactical Division, Stables, Range, Marine Unit, and Academy. In addition to storage facilities, we also maintain other specialized training facilities.

-Vehicles

The Police Department fleet consists of marked vehicles, trucks, motorcycles, vans, and boats, as well as unmarked vehicles. The vehicles are utilized by personnel to conduct the many facets of police functions.

Departmental Contact Information

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Officer Rich Lee
Title: Fleet Manager
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SFPD Climate Action Liaison
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3. Departmental Carbon Footprint & Historical Analysis

The Police Department is a 24-hour, 365-days-a-year operation. Reflected in this level of operation is the quantity of energy used. Building infrastructures, fleet, and personnel are in constant use and require a commensurate level of energy.

3a. Facilities & Reduction Measures

Greenhouse Gas Reduction Measures:

In April 2008, the San Francisco Police Department issued a written directive to its members regarding the reduction of discretionary spending. In accordance with then-Mayor Gavin Newsom's Executive Energy Conservation Campaign, the Department has taken the following steps toward reducing its energy usage by 10 percent.

Lighting, Hall of Justice:

In an effort to use the most energy-efficient lighting fixtures at the Hall of Justice, the San Francisco Police Department has enlisted the services of the San Francisco Public Utilities Commission (PUC). Members of the PUC's Power Enterprise Energy Services Unit (EES) conducted a lighting energy audit of the police facilities within the Hall of Justice.

EES has since replaced all T-12 fixtures with energy efficient T-8 lamps at the Hall of Justice and district stations. The project was completed in the spring of 2010. In addition to lamp replacements wall-switch occupancy sensors were installed.

EES estimates these measures will reduce the Department's electricity usage by **132,000 kWh** per year.

Lighting, Department Facilities:

In addition to the Hall of Justice Lighting Project, the San Francisco Public Utilities Commission's Power Enterprise Group has replaced incandescent light bulbs at all satellite facilities. Members of the Department's Facilities Unit, in cooperation with members of the PUC and EMCOR Energy Services, counted, catalogued, and replaced incandescent lights with fluorescent bulbs, and in areas where required, replaced fixtures. This project estimates an annual decrease in electricity usage of **52,822 kWh**.

Heating Ventilation, Ventilation, Air Conditioning (HVAC):

The PUC has provided funding support to update obsolete HVAC monitoring systems at Police district stations. The installation of newer more efficient HVAC systems will result in optimizing natural gas usage at our facilities. Furthermore, the updated systems will decrease troubleshooting time thus reducing the cost associated with Stationary Engineer service calls.

There are additional plans to upgrade control boxes and communication panels for future HVAC technology interfacing.

Note: Energy use for Police Headquarters at the Hall of Justice will be calculated as a percentage of occupancy by the Department of Real Estate.

3a1. Energy

Fiscal Year 2010-2011 Carbon Footprint from Consumption of Electricity, Natural Gas and Steam

ANNUAL DEPARTMENTAL CO2e EMISSIONS (mt)			
Emission Source Detail:	FY0809 CO2e (mt)	FY0910 CO2e (mt)	FY1011 CO2e (mt)
Electricity	111.65	171.93	133.77
Natural Gas	1,782.57	1,854.56	1,823.35
Steam	0.00	0.00	0.00
Total CO2e from facility energy (mt)¹	1,894.22	2,026.49	1,957.12

Energy Efficiency & Conservation

Additional efforts toward conservation are in the form of basic savings. Our Facility Coordinators are reminded to instruct personnel to turn off lighting in those areas that will not be in use. The Facility Coordinators at our District Stations are the front line at our stations and have a strong knowledge of what is working or not. We discuss ideas at quarterly meetings with the district station Facility Coordinators. At every meeting, energy conservation and recycling are points of discussion.

Green Building

While the Police Department buildings are twelve-plus years or older, efforts continue to identify and upgrade to a LEED standard wherever possible.

A new Police Headquarters project was approved by the voters of San Francisco for the construction of a Public Safety Building at Mission Bay which broke ground on September 8, 2011. This building will be home to a new city-wide Police Administration Headquarters, Southern Police Station, and Mission Bay Fire Station.

Renewable Generation

Currently the Police Department does not have any buildings that contribute to renewable generation of energy.

3a2. Water

Fiscal Year 2010-2011 Water Consumption

In Fiscal Year 2010-2011, the Police Department consumed 15,760,221.05 gallons of water. The table below shows comparative consumption amounts for Fiscal Year 2009-2010.

Please note the reduction in water usage from FY0910 to FY1011.

ANNUAL DEPARTMENTAL CONSUMPTION			
Emission Source Detail (Units):	FY0809 Consumption	FY0910 Consumption	FY1011 Consumption
Electricity (kWh)	9,290,512.58	9,465,488.68	9,060,205.20
Natural Gas (th)	335,094.99	348,626.90	342,760.58
Steam (lbs)	0.00	0.00	0.00
Water (gal)		18,828,069.16	15,760,221.05
Wastewater Discharge (gal)		16,836,862.34	10,959,965.02
Gasoline (gal)	661,965.51	663,876.26	616,485.62
CNG (GGE)	17,997.75	14,824.06	10,399.49
LPG (gal)	101.20	113.10	46.20
B5 (gal)	1,248.90	1,121.90	1,501.50
B20 (gal)	0.00	0.00	168.60

Water Efficiency & Conservation

In 2008, Mayoral Directive 08-05 was issued outlining the need to reduce water consumption by 10 percent. At that time, a Police Department bulletin was issued to remind all members of water conservation efforts. The San Francisco Police Department Facilities Unit Manager instructed all Department Facilities Coordinators to reduce sprinkler usage and to promptly report any water leaks. Broken shower heads were replaced with low-flow fixtures. In addition, throughout police department facilities any time an aerator, flushometer, or toilet needs replacing, the Department of Public Works replaces broken fixtures with low-flow more efficient units. As a result flushometer flow rates are now 1.5 GPM as opposed to 3.0 GPM, and toilet rates are 1.25 GPM rather than 2.5 GPM. These minor changes translate into a substantial savings.

In 2008, the Department partnered with the San Francisco Public Utilities Commission and conducted an audit of police facilities to identify cost saving practices.

The Mission Bay Public Safety Building Project is underway and will be constructed with LEED BDC Gold as a goal.

3b. Fleet & Fuel Reduction Measures

The San Francisco Police Department has a fleet of 946 vehicles consisting of marked police cars, unmarked cars, boats, trucks, SUVs, and motorcycles. The listed vehicles and liquid fuel consumption amounts that are being used by San Francisco Environment to calculate the FY10-11 departmental carbon footprint are verified through the Central Shops.

3b1. Fuel

Fiscal Year 2010-2011 Carbon Footprint from Mobile Combustion of Fuel

The amount of fuel consumed by the Department is 616,485.62 gallons in Fiscal Year 2010-2011, and the associated GHG emissions 5,429.76 (metric tons of CO₂) when compared with Fiscal Year 2009-2010 it demonstrates a reduction of 414.4 metric tons of CO₂e emissions.

3b2. Fleet

Healthy Air and Clean Transportation Plan for Fiscal Year 2011-2012

In order to comply with Chapter 4, Ordinance 278-10 which states “Beginning no later than July 1, 2015, and each year thereafter, the city Administrator and Department head or other City official with jurisdiction over passenger vehicles and light-duty trucks used for City business shall remove from service all passenger and light-duty trucks in the municipal fleet that are 12 years old or older...”

Biodiesel Fuel

Former City Mayor Gavin Newsom’s Executive Directive 06-02, “Biodiesel for Municipal Fleets,” mandates that all diesel-using departments shall begin using a B20 biodiesel blend as soon as practicable in all diesel vehicles and other diesel equipment, with the following incremental goals in each department’s use of B20:

- Twenty-five percent by March 31, 2007; and
- One-hundred percent by December 31, 2007
-

All diesel-using departments shall then pursue further increases in the use of biodiesel through the use of greater-than 20% blends and/or neat biodiesel (B100).”

As part of the Department’s fleet, there are now 38 alternative-fuel type vehicles which consist of hybrids and compressed natural gas. This number is expected to grow as fleet inventory changes.

The Department has installed two (2) voltage-appropriate charging stations in March 2011 for electrically powered vehicles.

In addition, the Department has purchased and currently is testing the use of T-3 electric vehicles to be used in conjunction with foot beat patrols.

The Police Department has purchased 10 Segway vehicles used at our Airport Bureau.

3c. Historical Analysis

The San Francisco Police Department has been quietly involved in recycling for over 10 years. Members in our Property Control Division realized the negative effects of disposing items that would sit in landfills. They began to group items such as metals, plastics, and electronic equipment that would normally be disposed of in waste bins; placing them in separate containers or boxes. Over the years as the recycling effort became more well known and segregation of items was easier, separate pick-ups for cardboard, metal, plastics, and batteries became commonplace. The Police Department like many other organizational entities has participated in the recycling movement long before it was fashionable. The results are evident when one examines the Annual Departmental Consumptions of Electricity, Natural Gas, Water, and Gasoline. The most marked difference is in electrical consumption which for FY0910 was 9,465,488.68(kWh) and for FY1011 is 9,060,205.20(kWh).

4. Other Sustainable Practices

The Police Department has now on record 60 employees who are enrolled in the Commuter Benefits Pre-Tax Program with FBMC. This is a marked increase from FY 2009-2010 when there were 51. This is a considerable difference since our staffing dropped by 172. We currently have a row of bike racks in place at the Hall of Justice for those commuters who ride their bicycles to work. At the various district stations, there are locations where bicycles can be secured for those employees who commute to work on their bicycles.

4a. Zero Waste

The Department continues to strive toward our goal of zero waste. We practice composting at our facilities and with the help of the Department of Environment we continue to enhance our efforts toward recycling and composting thus minimizing what we send to landfill.

4b. Transportation Options

In 2010, and 2011 the Police Department posted commuter information at the elevator lobbies. The Department's goal for last year was to get the word out in order to more aggressively promote the commuter programs available to employees, such as the Commuter Benefits Program, the City Bicycle Fleet, Ridesharing Matching Assistance, and the Emergency Ride Home Program. Our Climate Action Liaison used an email broadcast to further get the word out. SFPD participation has consistently risen in the past three years. We currently have 60 people who participate in commuter benefits. In comparison we had 51 people participate in 2009.

4c. Green Purchasing

The Department's Purchasing Division headed by Mr. Victor Rothenberg is held high as an example of thrift and efficiency. Mr. Rothenberg and his staff rigorously review requests prior to processing to ensure that overages in stock on hand are not created. Mr. Rothenberg ensures that all purchases of paper products are 100 percent "Green."

4d. Information Technology

The Technology Division of the San Francisco Police Department currently uses Dell desktop computers which meet the Energy Star guidelines for energy efficiency. Computer and monitor purchase standards are set to the EPEAT Gold Standard. The desktops are set to log off after 20 minutes of inactivity and to default to a screen-saver mode. A Department informational bulletin has been issued to encourage members to turn off their computers and monitors at the end of their workday and during anticipated absences.

4e. Carbon Sequestration / Urban Forest

Although the Police Department is not directly responsible for the planting or care of trees, the Department of Urban Forestry frequently responds to perform tree maintenance at our facilities. Figures for carbon calculations at police facilities may be available through SFE.

5. Community Wide Impact

In an effort to promote sustainable practices in our community, San Francisco Environment has assisted the Police Department in conducting waste reduction and recycling audits. With the help of Ms. Rusunungoko Made, and Ms. Julie Bryant the Department has been able to substantially reduce refuse-related costs. Since the implementation of SFE recommendations, costs have lowered by \$40,219 in the first year. SFE continues to help us by providing us with containers, signs, and guidance applicable to our operations. This year, SFE is providing new composting containers at police buildings to facilitate composting efforts.

Our Facilities Unit conducts quarterly meetings with the district station Facility Coordinators. At every meeting, two of the top agenda items are energy conservation and recycling. We explore, discuss, and welcome new ideas in which to optimize energy conservation efforts at our facilities. We include guest speakers from San Francisco Environment, the Department of Public Works, and the Department of Public Health to foster direct interagency communications.

The San Francisco Police Department as part of the Climate Action Team realizes small actions can effect large changes in our environment. It is the Department's plan to continue the effort of reducing our carbon footprint and to minimize the deleterious effects on our planet.

Appendices

Graphs displaying the following information:

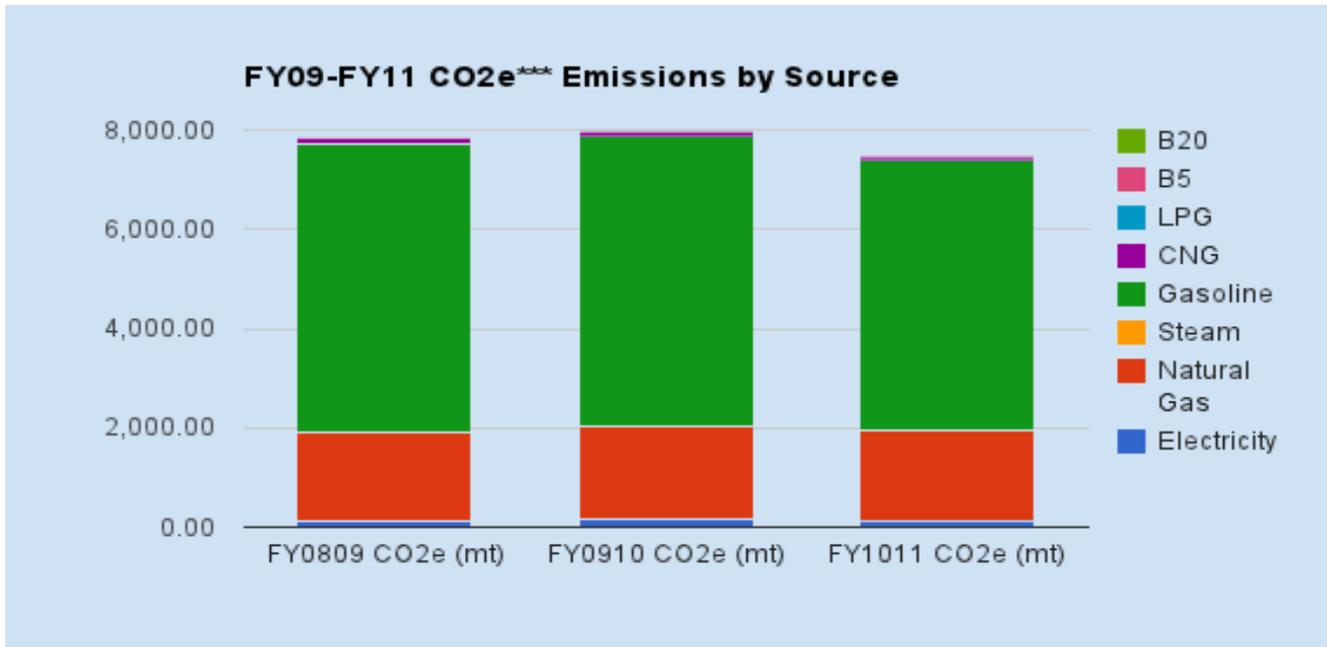
Annual Departmental CO₂e Emissions (metric tons)
Annual Departmental Consumption
Fiscal Year 2009-2011 CO₂e Emissions by Source
Fiscal Year 2009-2011 Consumption

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Emission Source Detail:	FY0809 CO2e (mt)	FY0910 CO2e (mt)	FY1011 CO2e (mt)
Electricity	111.65	171.93	133.77
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Steam	0.00	0.00	0.00
Total CO2e from facility energy (mt) ^	1,894.22	2,026.49	1,957.12
Gasoline	5,830.33	5,847.16	5,429.76
CNG	109.87	90.50	63.49
LPG	0.59	0.65	0.27
B5	12.04	10.81	14.47
B20	0.00	0.00	1.37
Total Mobile Fuel CO2 (mt) ^^	5,952.83	5,949.13	5,509.36
Total CO2e (mt) ^^^	7,847.05	7,975.61	7,466.48

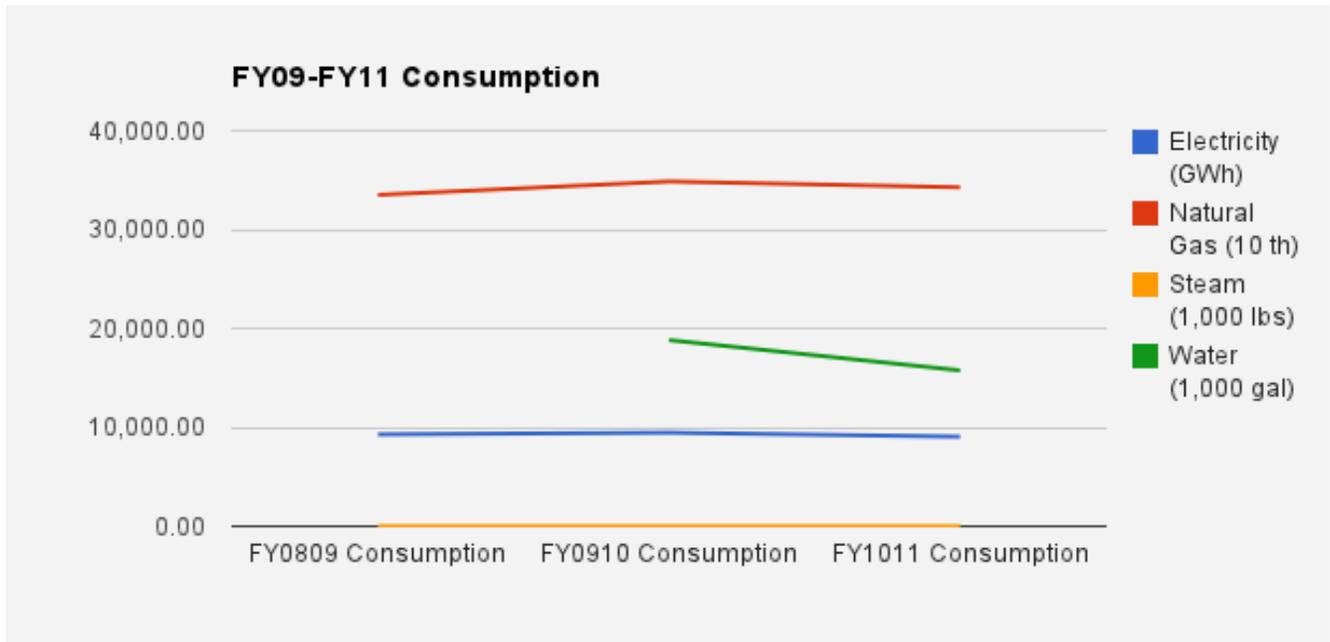
Annual Departmental CO2e Emissions (metric tons)

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Annual Departmental Consumption



Fiscal Year 2009-2011 CO₂e Emissions by Source



Fiscal Year 2009-2011 Consumption