



SFDEM

**SAN FRANCISCO DEPARTMENT
OF EMERGENCY MANAGEMENT**

Climate Action Plan

January 30, 2009

VICKI HENNESSY, EXECUTIVE DIRECTOR

TABLE OF CONTENTS

I.	Departmental Profile	3
II.	Internal Operations	4
III.	Communitywide Emissions	12
IV.	Other Department Plans and Measuring Progress	13
V.	Appendices	14

I. DEPARTMENTAL PROFILE

a) Departmental Mission

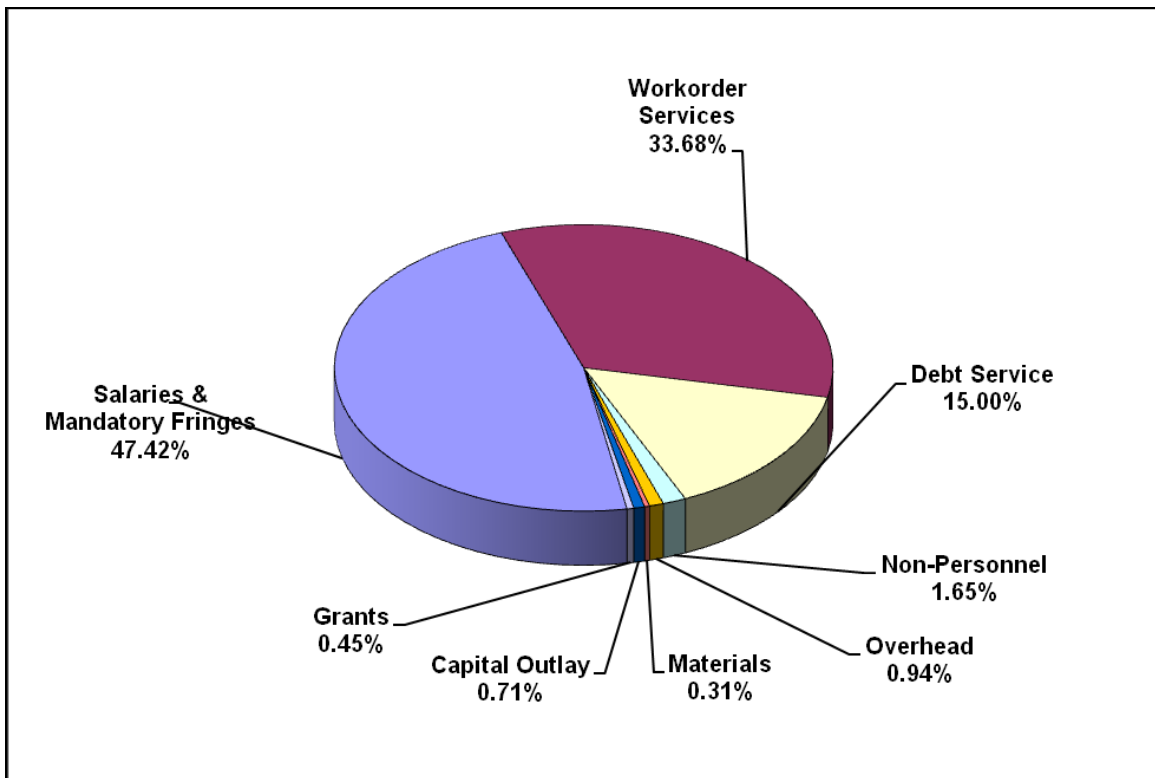
The Department of Emergency Management (DEM) provides vital, professional, emergency communication between the public and emergency responders and provides for the overall preparation for disasters through coordination between the Division of Emergency Communications and the Division of Emergency Services.

The staff at DEM serves as an immediate vital link between the public and its emergency services and plays an integral role in ensuring command and control during daily emergencies, through large scale Citywide events, and when the emergency involves natural and man made disasters.

To that end, the Department provides key coordination and leadership to City and County departments and all stakeholders in the areas of emergency planning, mitigation, communication, response, and recovery.

b) Departmental Budget

DEM's annual budget request is consistent with the primary goals of the department. A high-level view (refer to the allocation chart below) of the budget categories shows that total personnel costs represent roughly 47% of the total operating budget, which accounts primarily for the 24/7 minimum staffing requirement for the department. The remaining 53% accounts for daily activities associated with technology maintenance, debt service payments, equipment, etc.



c) Number of Employees

- DEM is comprised of approximately 258 full-time employees.

d) Departmental Facilities (location and approximate size)

The Department's facilities are comprised of the following business locations:

- Combined Emergency Communications Center
1011 Turk Street, San Francisco, CA
34,000 sq. ft.
- Division of Emergency Services
30 Van Ness Ave, Suite 3300, San Francisco, CA
11,563 sq. ft.
(Leasing an office through the SF Real Estate Division)
**See Attachment # 1- Climate Action Plan from the Real Estate Division)*
- Super Urban Area Security Initiative (SUASI) Management Team
10 Lombard Street, San Francisco, CA
5,000 sq. ft.
(Leasing an office through the Port of San Francisco. This program is fully funded through grant dollars.)

e) Existing Environmental Goals

- To provide outstanding emergency management services with minimal impact on the environment.
- To provide a healthy working environment for DEM employees, contractors, and visitors.

f) Departmental Climate Action Plan Contact

- DEM's point of contact is as follows:

Ms. Vivina Santos
Facility Manager
Phone: 415-558-3848
Email: vivina.santos@sfgov.org

II. INTERNAL OPERATIONS

The Combined Emergency Communications Center (CECC) serves as the Public Safety Answering Point for essential 9-1-1 services and the Emergency Operations Center for the City and County of San Francisco. As such, the department's operations is staffed 24 hours a day, 365 days each year. Along with the staffing requirements of the CECC, a number of technology systems, such as the Computer Aided Dispatch (CAD) system, enhance 9-1-1 telephone system, computer workstations and servers, and the 800MHz trunked communications system, also function on a 24/7 basis.

In addition to the daily operations of this facility, a renovation project for the 9-1-1 operations floor was initiated in December 2006. The project involves three phases of reconfiguration which is expected to be completed by December 2009. Because of this project, energy and water consumption have increased with the presence of additional people on site such as contractors, construction workers, Department of Public Works laborers, Department of Technology staff, telephone technicians and others.

a) Energy

(1) Energy Use and Emissions Information:

- The department's annual energy use (electricity and natural gas) and resulting greenhouse gas emissions is as follows:

(a) Electricity Use. (kWh/year)	<u>2,101,989 kWh (07-08)</u>
(b) Natural Gas Use (therms/year)	<u>43,618 therm (07-08)</u>
(c) Greenhouse gases (lbs CO ₂ /year)	<u>579,906.43 lbs. CO₂</u>

** See Attachment #2 – Baseline Energy Usage Report from SFPCU
See Attachment #3 – Carbon Footprinting Calculation

- DEM engaged the SFPUC and an audit was conducted on October 24, 2008.
**See Attachment # 4 - Email from Mr. Gary M. Oto.*
- DEM does not have any current renewable energy installations within its facilities. However, DEM's FY 2009-2010 budget submission includes a capital request for installation of solar panels at the Combined Emergency Communications Center.

(2) Greenhouse Gas Reduction Measures:

(a) Energy Conservation and Efficiency:

(i) Best Practices

- HVAC - DEM is using economizer operations of the Air Handling Units (AHU). There are three AHU in the facility. The AHUs work under principle of conditioning air supply air by either heating or cooling it and then distributing it to the various zones, where if needed, it is reheated again. Heating or cooling supply air is done in two ways either mechanically or through economizer control. Mechanical cooling is done through a chiller plant.

The other energy saving method is the use of economizer dampers. This method modulates the amount of outside air and returning air from the building to meet the set point temperature. The economizer is highly efficient in eliminating or greatly reducing the need for mechanical air conditioning.

DEM through facility assigned DPW Building Engineers, performs regular maintenance and inspection on HVAC units, changing filters every three months, cleaning burners and conditioner coils and checking ducts and pipe for damage. DPW also conducts regular inspections of all air registers to identify blocked units and take necessary actions.

DEM is in the process of installing a software upgrade of the existing HVAC system to attain a higher degree of efficiency in maintaining its HVAC system and capturing data to establish temperature settings to provide significant savings in the future.

- Building Automation System (BAS) – This system is incorporated into all main equipment within the facility. The BAS monitors, balances and controls the interactions between equipment and climate settings. This system dictates the sequence of operation and sets the parameters from which all equipment function. The BAS fine tunes temperature control to various zones in the building using logarithmic calculations that balance and maintain zone temperatures. With zone temperatures maintained, the system as a whole sees less energy demand spikes which can lead to great savings especially during peak demand hours.
- Lighting – DEM uses motion sensed control lighting in occupied zones. Sensors mounted on the ceiling detect movement from tenants and keep lights on, however if no motion is noticed after a set time, the lights automatically turn off. The basement-parking garage has been separated into multiple zones providing light only where needed, via sensor detection. This lowers the amount of energy the lighting fixtures use on a daily basis.

DEM's exterior lighting is being operated through time clocks and photo cell. Lights turn on at night time and turns off automatically at day time.

DEM is using 99% fluorescent lamps and 01% incandescent light bulbs. An audit and replacement of incandescent light bulbs is in progress and expected to attain a 100% use of fluorescent lamps.

DPW Custodians and Security staff are given verbal reminders to turn off lights when not in use.

(ii) Capital Improvements.

- As part of DEM's FY 2009-2010 budget submission, the department will be submitting a capital request for the installation of solar panels on the Combined Emergency Communications Center. The department submitted a similar request during the FY 2007-2008 budget, but did not receive approval for this type of project. DEM will also contact the SFPUC to request their support for this energy efficiency project.

** See Attachment #5 – Project Request Form for Photovoltaic System.*

(iii) Information Technology.

The DEM IT group is implementing the following actions:

- Notifying all employees to shut off personal computers, monitors, printers, copiers and other electrical equipment at the end of each workday unless there is a specific need for after-hours operation. Provide regular reminders to employees to shut off office equipment. Conduct regular (after-hours) inspections to identify if equipment is turned off.
- Verify that sleep mode is implemented on all department computers, copiers and other equipment if technically equipped and not required for 24/7 hour operation. Upon completion of verification, provide a report that all sleep mode capable computers have this feature activated.
- For those computers that must remain on 24/7, provide labeling that monitors shall be manually turned off when not in use.
- Purchasing: DEM purchases all personal computers, notebook computers and monitors through City-approved computer stores. The Department of Technology, under the purchasing policy adopted by the Committee on Information Technology (COIT), is responsible for renegotiating the computer store contracts to ensure vendor's compliance with the EPEAT Silver Standard. DEM will adhere to these standards as they are implemented.
- DEM is currently implementing an asset tracking system which will allow more comprehensive IT equipment life cycle management and allow the Department to reduce environmental impact by improving efficiency, reducing waste, and extending the useful life of personal computers and other IT equipment.

(b) Renewable Energy Generation:

Refer to the response under 2(a) (ii).

3. Costs & Benefits of Energy Efficiency measures:

- DEM will consult the SFPUC to estimate the amount of energy savings associated with the measures outlined in this section.

4. There are no apparent policies or operational barriers to the implementation of the energy savings measures identified above.

b) Fleet Vehicle

(1) Emissions:

- DEM has provided the following information in response to the study conducted by the City Fleet Manager.

(a) Departmental fleet inventory details as follows:

(i) Vehicle year, make, model, class

- (1) 1999 Ford Crown Victoria
- (2) 1996 Ford Taurus
- (3) 2000 Ford Minivan
- (4) 2000 Ford Contour
- (5) 2003 Ford Minivan
- (6) 2007 Toyota Prius

** See Attachment #6 - Fleet Vehicle Report from Dan Coleman, Central Shops.*

(ii) Mileage date from maintenance and/or fueling systems

** See Attachment #6*

(iii) Fuel usage data by fuel type (gasoline, diesel, compressed natural gas, etc.)

** See Attachment #6*

(iv) Maintenance record data

** See Attachment #6*

(b) Because of the public safety core services provided by DEM, it would be difficult to consolidate the vehicle fleet identified above with the Department of Administrative Services.

- On January 09, 2009, DEM sent an authorization to Rachel C. Buerkle, SF Environment to proceed with applying for the Clean Air Rebates for qualifying vehicles purchased by our department can be retained and utilized by SF Environment to leverage additional funds for City clean air programs.

**See Attachment #7 – Email response to Ms. Buerkle’s email regarding Clean Vehicle Rebates dated 12/18/08.*

(c) Intelligent route planning

- The nature of fleet use by DEM staff generally does not allow for pre-planning of routes, with one singular exception. By agreement with the Clerk of Court, and a Standing Order issued by the Presiding Superior Court Judge, DEM shall deliver produced requested records once a day. This delivery run predominantly is made to the Clerk of Court at the Hall of Justice, and occasionally to the Juvenile Court at Youth Guidance Center. Administrative staff has worked out an efficient schedule that not only utilizes the shortest route, but incorporates any extra staff transportation requirements in one single trip. This has alleviated two vehicles making separate trips, into a linked run which is more efficient.

(d) Regular vehicle maintenance

- Central Shops provides oversight to all fleet vehicles, and notifies the Department of scheduled preventative maintenance. This system has proven to be very effective, as very few breakdowns or vehicle failures occur. The presumption is made that fleet vehicles mechanically efficient are in turn, maximizing fuel efficiency.
- (e) Employee education to drive reasonably
- Through emails to staff, drivers are reminded about safety, parking, and other fleet related subjects. Future Department wide emails will include tips for maximizing fuel efficiency and safety.
- (f) Verification regarding use of right-size vehicles
- The Department has a very small fleet consisting of four sedans and two mini-vans. Future vehicle replacement plans call for a hybrid vehicle to be placed in service, and the acquisition of bicycles for staff use in the immediate vicinity of our facility. The Fleet Manager has indicated interest in exploring the acquisition of a passenger electric cart, now in common use by other city departments. This vehicle would be used in a shuttle between the Departments two main facilities and City Hall, and would be much more fuel efficient than a mini-van or sedan that serves this function.
- (2) Greenhouse Gas Reduction Measures:
- DEM is on a wait list and scheduled to receive three (3) bicycles from the Department of Environment within the next few months. Once this pilot project is underway, feedback from users will be compiled to gauge the efficacy of using bicycles for Department business.
**See Attachment #8 – Email from Adeline Canez confirming DEM is on the waitlist for 3 bicycles.*
 - An alternative mode of transportation may be an electric bike, similar to one marketed by ELV, Inc. This type of vehicle is an electric assisted bicycle that has more capacity for transporting documents/cargo, while providing a sturdier platform for staff use.

c) Employee Commute

- (1) Transportation survey used to commute to work by Departmental Employees.
- DEM Administrative/Finance Director, William Lee and Facility Manager, Vivina Santos met with Faiz Khan and Adeline Canez of the Department of Environment on October 20, 2008 to discuss Commuter Program Options for DEM Employees.
 - With the help of the Department of Environment, Employee Transportation Survey forms were distributed to all DEM staff via

email and hard-copy on December 15, 2008 through an Interoffice Memo. Out of 238 employees, 23% participated in the survey. Results were sent to Adeline Canez on 01/12/09.

**See Attachment #9 - Interoffice Memo dated 12/15/08 with attached Employee Transportation Survey.*

- An application for three bicycles was also submitted to the Department of Environment via email on November 14, 2008. An email response and update was received on November 25, 2008 from the Department of Environment informing DEM that it is on a wait list for three (3) bicycles.

**See Attachment #10 – Response to the Bicycle questionnaire sent to SF Environment on 11/17/08.*

(2) Greenhouse Gas Reduction Measures

(a) Promotion of Commuter Benefits

- The Department has requested from the Department of Environment (through Adeline Canez) information materials regarding the commuter programs. These information materials will be disseminated through:
 - DEM-Human Resources will include a packet regarding commuter programs to be given out during orientation of new hire employees.
 - The Department plans to invite a representative from the Department of Environment to give a short talk (about 15 minutes) during orientation.
 - DEM plans to conduct a brown bag lunch seminar within the facility sometime in February 2009. This is being coordinated with Adeline Canez, Department of Environment.
 - Information materials will be distributed through mail boxes and email.
 - Information materials will be posted to bulletin boards
**see Attachment #11 – Sample of information materials to be disseminated to all personnel.*

(b) Promotion of Emergency Ride Home program to employees

- This information will be provided through Department of Environment informational materials on commuter programs discussed under (2) (a)

(c) Promotion of Telecommuting Program:

- This information will be provided through Department of Environment informational materials on commuter programs discussed under (2) (a)

(d) Promotion of CCSF Bicycle Fleet Program

- DEM has responded to a questionnaire from the Department of Environment and has requested an allocation of three (3) bicycles for departmental personnel to use.

Refer to response under (b) 2. Par. 1

- (e) Promotion of Rideshare: Contact Clean Air to organize and promote Carpool or Vanpool in your department and report on this action
 - This information will be provided through Department of Environment informational materials on commuter programs discussed under (2) (a)
- (f) Other forms of commute transportation.
 - DEM is not aware of any additional programs, but will actively consider other options as they arise.

d. Waste Reduction/ Zero Waste

- (1) DEM's facility currently provides for on-site recycling efforts as identified below and is in the progress of incorporating composting to this facility.
 - Each work station or office is provided with small recycling containers. Large recycling containers are located in all copier rooms and kitchen areas. Recycling bin is being picked up once a week.
 - DEM recycles used batteries. There are 4 small containers in the facility: 2 located in the administrative side and 2 located in the operations unit. A big bucket for recycled batteries is located on the first floor. When containers and buckets are full we contact the Department of Public Health for pick up.
 - Used fluorescent bulbs are being recycled through the assistance of City College of San Francisco Hazmat Removal Program. The building engineer is maintaining the recycle container and contacting CCSF for pick up.
 - The department is working on revamping its recycling program for the last 3 months. Three (3) composting bins and four (4) additional recycle baskets have been requested from the Department of Environment.
 - The composting bins will be placed in 2 locations: two, in the big lunch room on the first floor and 1 in the small kitchen on the 2nd floor. Another composting bin will be requested as soon as the new break room in the operations floor is completed. Flyers and information materials are being prepared by Ms. Soko Made. Once available, they will be disseminated among staff members through their mail boxes, email, briefing notes and short trainings. Ms. Made will also arrange for the change of our pick up service for our recycle and compost materials.
- (2) Paper usage reduction measures:
 - DEM uses 100% recycled content paper.

- All staff members are reminded and encouraged via email and briefing notes to use double-sided printing and copying.

(3) Recycling coordinator for all major departmental facilities.

- Vivina H. Santos, Facility Manager

(4) Greenhouse Gas Reduction Measures

(a) Full recycling services

- Composting program that will take effect February 2009. Staff and custodians will be given training by Ms. Soko Made as soon as the composting bins have been set up. Ms. Made has ordered the bins on January 22, 2009.

**See Attachment #12 – Email from Ms. Made confirming order of composting bins*

(b) Expansion of paper usage reduction measures

- Continue with the purchase and use of 100% recycled paper.
- Continue with constantly reminding personnel regarding the use of double-sided printing by copiers and printers. Reminders will be in the form of email, briefing notes and bulletin boards.

(e) Other

- (1) Additional areas of internal operations improvements
 - DEM has improved and intensified its surplus disposal through the Virtual Warehouse Program. With the on-going renovation project for the 911 operations floor, the Department has accumulated and donated a great number of used furniture, electronics and other computer items to other departments such as the Bureau of Architecture, District Attorney's Office, Department of Public Works and non-profit organizations such as Goodwill and Community Computer Center in San Francisco.
 - With the renovation project expected to be completed by December 2009, DEM will reuse computers, other electronic items and some furniture back to the operations floor at the Combined Emergency Communications Center. Excess items will be posted into the Virtual Warehouse after inventory.

III. COMMUNITYWIDE EMISSIONS

- a) The role department *currently* plays in decreasing emissions outside of City government due to the department's sphere of influence in the community.
 - There is no applicable place that our Department could extend services or participate in decreasing emissions outside of City government.
- b) Identify actions that the department can take prospectively to decrease emissions in the community.
 - Not Applicable.
- c) Describe implementation plan for department to expand its role helping to decrease emissions in the greater community.
 - Not Applicable.

IV. OTHER DEPARTMENT PLANS AND MEASURING PROGRESS

- a) Performance Measurement
 - Work closely with BBR/DPW on facility maintenance regarding lighting controls and HVAC maintenance. Prepare maintenance schedule and log book. Log book will be inspected on a monthly basis.
 - Constantly remind personnel regarding energy, paper and water conservation by issuing inter office memos.
 - Conduct a regular inventory of office equipment, electronics and other purchases to determine how many items meet the Electronic Product Environmental Assessment Tool (EPEAT) standards and Energy Star rated models. Plan for gradual phase out of items that do not meet said standards.
 - Intensify recycling and composting programs by providing trainings, disseminating information materials to all personnel and posting information materials in areas affected.
 - Request and review annual audits for energy and water usage provided by the SFPUC.

VI. APPENDICES

a) Attachments:

- #1 Climate Action Plan from the SF Real Estate Division
- #2 Baseline Energy Usage Report from SFPUC
- #3 Carbon Footprinting Calculations
- #4 Email from Mr. Gary M. Oto.
- #5 Project Request Form for Photovoltaic System.
- #6 Fleet Vehicle Report from Dan Coleman, Central Shops.
- #7 Email response to Ms. Buerkle's email regarding Clean Vehicle Rebates
- #8 Email from Adeline Canez confirming DEM is on the waitlist for 3 bicycles.
- #9 Interoffice Memo dated 12/15/08 with attached Employee Transportation Survey
- #10 Response to the Bicycle questionnaire sent to SF Environment on 11/17/08.
- #11 Sample of information materials to be disseminated to all personnel
- #12 Email from Ms. Made confirming order of composting bins

b) Links to Climate Action Plan

- SF Real Estate Division for the DEM Division of Emergency Services (DES) office located at 30 Van Ness, San Francisco, CA
- Port of San Francisco for the SUASI Management Team located at 10 Lombard Street, San Francisco, CA