



**DEPARTMENT OF BUILDING INSPECTION
CLIMATE ACTION PLAN
FISCAL YEAR 2010-2011
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1. Introduction

The Department of Building Inspection (DBI) is one of the City's 'special fund departments,' receives no public tax dollars from the City's General Fund, and generates all the revenues required to operate the Department through permits, inspections and other published fees paid by the public for its professional services. With a current total staff of 243, the Department is comprised of Building Inspectors, Plumbing Inspectors, Electrical Inspectors, Code Enforcement Inspectors, Housing Inspectors, Plan Review professionals, Permit Service professionals, Structural, Mechanical and other engineering professionals, and a wide range of technically-skilled clerical and administrative personnel who support critical day-to-day operations. These professionals fulfill Charter-mandated responsibilities by meeting daily on-site in neighborhoods throughout the City's designated Inspection Districts to ensure that building projects are built in compliance with legally enforceable building codes. They also visit active project job sites, where building and construction are under way, and conduct on-site inspections to verify that actual construction follows and implements the approved and issued Building Department plans.

By fulfilling such Charter-mandated responsibilities, the City's housing and commercial building stock is thus built to code-compliant standards, thereby giving all San Franciscans the structural safety standards determined by elected policy-makers as essential to the City's long-term well-being.

In addition, as one of the City's "First Responders" following a major natural disaster and/or emergency, DBI is the responsible City Agency for assessing the structural safety of nearly 200,000 buildings to ensure the safe reoccupation for housing and business, and thus a key player in the City's speedy recovery from any natural disaster or other emergency.

DBI has long been on the cutting leadership edge nationally on issues including seismic safety retrofitting, especially for multi-unit residential and apartment complexes housing thousands of people, and only recently completed new and important studies that assess the vulnerability of buildings in the wake of a major earthquake. These studies have resulted in recommendations currently being reviewed and implemented by the City's elected policy-makers.

The Department updates building and other important codes every three years – a new code cycle began in January 2011 – with San Francisco codes among the strictest in the nation. The enforcement of these codes – including scheduled inspections that assure code-compliance-- results in a housing and business buildings' stock that is among the most resilient, energy-efficient, and safest in the world.

The Department is among the nation's leaders in the advancement and implementation of increasingly efficient, climate-sensitive, Green Building practices; and its efforts to inspect and ensure excellent construction practices contributes invaluable to the ambitious goals of improved sustainability and to reducing the City's overall carbon footprint.

As the details contained in this FY 10-11 Climate Action Plan will make clear, the Department of Building Inspection is a critical player in San Francisco's leadership efforts to make a constructive and positive difference for future generations. By paying attention to the innumerable demands required to sustain a healthy, efficient and essential Climate Action Plan, the City is more capable of protecting the urban environment we love, cherish and are committed to preserve for future generations.

2. Departmental Profile

Purpose: To serve the City and County of San Francisco, and its general public, by ensuring that life and property within the City and County are protected; to provide a public forum that is open and transparent for community involvement in the building safety process and, specifically, its permit, plan review, inspection and code compliant processes; and to enforce other municipal codes.

Departmental Mission: Under the direction and management of the Director, and the seven-member Building Inspection Commission, to oversee the effective, efficient, fair and safe enforcement of the City and County of San Francisco's Building, Plumbing, Electrical, Mechanical and Housing Codes, as well as the Disability Access regulations.

Departmental Budget: The proposed budget for FY 12-13 is \$50.2 million, up from \$47.9 million in FY11-12 – an increase of roughly 4.6 percent. The budget was \$44.5 million in FY 09-10.

Number of Employees: 243 FTEs

Facilities: The Department of Building Inspection occupies a six-story office building at 1660 Mission Street (67,027 square feet; 230 employees), housing its operational offices and the overwhelming majority of staff. In addition, the Department rents two suites (306 and 313; 13 employees) at 1650 Mission Street, which houses its Information Services' division, servers and related equipment. Both buildings are managed by the Department of Real Estate (Contact: May Jaber, Tel. 415/554-9821); the Department of Real Estate is responsible for buying/managing the uses of "Green" janitorial products in its servicing of both these buildings.

Fleet Description: DBI's fleet is essential to enable Building Inspectors, Electrical Inspectors, Plumbing Inspectors, Code Enforcement Inspectors, Housing Inspectors and Supervisorial management to fulfill the Department's public safety/disaster response responsibilities, and to cover the City's designated Inspection Districts. With a total of 97 vehicles – a reduction of ten vehicles from FY 08-09 – the fleet includes 73 Alternative Fuel cars; 16 light-duty trucks (6 of which are CNG vehicles); and eight (8) traditional gasoline-burning cars. As can be seen from the attached Fleet Inventory, 75 percent of the fleet is composed of Prius and CNG vehicles. Given that 21 of the 97 vehicles are older than 2001, 22 percent of the total fleet, we have budgeted to replace 11 vehicles in the coming fiscal year (12-13). Nine of the 11 vehicles will be Toyota Prius Hybrids, while the other two replacements will be Chevrolet Colorado light-duty trucks. See the attached Vehicle Acquisition requests.

Departmental Contact Information:

William Strawn

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3. Departmental Carbon Footprint & Historical Analysis

The Department of Building Inspection's carbon footprint is calculated on the basis of its total fiscal year usage of electricity, natural gas and water; and it also includes an inventory of the building we occupy, as well as two suites in an adjacent office building, and the energy used in conducting our professional services within these facilities. As can be seen from data entered and verified in this year's Google Docs, DBI's carbon footprint is shrinking. Total electricity usage for FY10-11 decreased more than 19,000 Kilowatt hours from FY 09-10; natural gas usage also fell more than 1,800 therms in FY10-11 compared to FY 09-10; water usage declined more than 208,000 gallons, while Wastewater Discharge declined more than 206,000 gallons in FY 10-11 when compared to the previous fiscal year. CNG usage also fell 763 GGEs. The only increase DBI registered was in the total number of gallons of gasoline used, which increased 94 gallons in FY 10-11 compared to FY 09-10 – most likely due to an increasing number of inspections generated by the strengthening local economy. The use of our 21 older, less fuel-efficient, vehicles that remain in active service also may be a contributing factor. As noted, we have budgeted for the replacement of 11 of our oldest vehicles in the coming fiscal year – 22 percent of our 97-vehicle fleet is older than 2001 – and these replacement, and more fuel-efficient vehicles, may help reduce gasoline consumption in the coming fiscal year.

We have verified the facility list, as well as the vehicle list in Google Docs, per instructions for this Climate Action Plan.

3a. Facilities & Reduction Measures

In FY10-11, DBI's total CO₂e Emissions were 320.76 metric tons, a 5.5 per cent reduction from FY09-10 when these emissions totaled 339.64 metric tons. In FY 08-09, total CO₂e Emissions were 513.18 metric tons – meaning the FY10-11 total emissions represented a reduction of 37.5 percent from the baseline FY08-09 data. These reductions were due to improved building systems' efficiencies, such as better lighting systems, low-flo toilets and other conservation steps taken reduce electricity, water and natural gas usage.

See the attached data sheets from Google Docs.

Energy Efficiency & Conservation

We have reduced total emissions by source: Electricity usage in FY10-11 fell 1.3 percent from FY09-10, a reduction of more than 19,000 kilowatt hours, and an even more dramatic reduction of more than 440,000 kilowatt hours used in FY08-09. Natural Gas total usage in FY10-11 was 29,875 therms, down from 31,690 therms in FY09-10, a 6 percent reduction. The reduction from 62,176 therms in FY08-09 to 29,875 therms in FY10-11 was more than 32,000 therms – an overall reduction of 52 percent. DBI's water consumption also fell in FY 10-11, when compared to FY 09-10, by more than 208,000 gallons – nearly a 22 percent drop. This is a clear demonstration of consumption and conservation savings achieved through energy audits and building systems' improvements over the past three fiscal years. See the attached data sheets from Google Docs for additional details.

Departmental management reminds employees frequently to save energy (and water) when possible, such as turning off lights when there's plenty of natural light; turning off computers and other electrical devices when not in use; installing energy efficient lighting throughout the building; walking to

meetings in the Civic Center area rather than driving; and monitoring/reporting to Real Estate any water leaks/other observed problems. Real Estate continues to work to stabilize heating/air conditioning systems operating in 1660 Mission as our facility manager responds often to staff complaints when offices/work spaces becomes unusually cold or hot.

Green Building

While the Department played a key leadership role in helping the Mayor's Office draft and implement the nation's most aggressive Green Building legislation – our Green Building Codes are the model for California and the nation -- we also help advance the Green Building 'Agenda' by providing incentives to businesses and residences who take steps to incorporate Green Building methods and thus help reduce the City's overall carbon footprint. These incentives include priority permit reviews for those projects following Green Building requirements, as well as for those qualifying for and meeting LEED Silver and Gold standards. DBI has two staff members who are LEED-certified, and other staff planning to become certified in the coming fiscal year. We also took steps to implement Green Building improvements in consultation with the Department of the Environment when we completed substantial interior renovations of the Fifth and Fourth Floors, at 1660 Mission Street.

Renewable Generation

To my knowledge, this is not applicable to DBI facilities, though I would defer to the Real Estate Department for the most current information on this topic.

3a2. Water Efficiency & Conservation

DBI's water consumption fell in FY 10-11 when compared to FY 09-10 by more than 208,000 gallons – nearly a 22 percent drop – and a clear demonstration of consumption and conservation savings achieved through our energy audits and building systems improvements over the past three fiscal years. See the attached data sheets from Google Docs for additional details.

3b. Fleet & Fuel Reduction Measures

With reference to DBI's vehicle fleet, as noted above in Section Two and per the data entered on Google Docs, in FY 08-09 we had a total of 110 vehicles, and eliminated 11 to bring our total fleet to 99 vehicles in 09-10. In FY10-11 the total fleet remains at 99, with two vehicles serving as "pool" vehicles when cars or trucks are in Central Shops for repairs or servicing. In FY 11-12, the total fleet has been reduced to 97 vehicles, with two serving as "pool" cars. Overall, DBI has reduced its fleet by nearly 12 percent in the past four fiscal years – including the two vehicles eliminated this year. As noted above, the fleet includes 73 Alternative Fuel cars; 16 light-duty trucks (6 of which are CNG vehicles); and eight (8) traditional gasoline-burning cars. As can be seen from the attached Fleet Inventory, 75 percent of the fleet is composed of Prius Hybrids and CNG vehicles.

3b1. Fuel FY 10-11 Carbon Footprint from Mobile Combustion of Fuel – Vehicle gasoline consumption increased slightly in FY10-11 to 9,986 gallons over 9,892 gallons in FY 09-10, an increase of 94 gallons or less than one percent. One factor in this rise is the increase in construction activity currently under way in the City. CNG consumption fell in FY10-11 to 8544 GGEs from 9280 GGEs in FY 09-10, a reduction of 763 GGEs, or an 8 percent reduction. See attached data sheets from Google Docs.

3b2. Fleet – Healthy Air and Clean Transportation Plan for FY 2011-2012

**Healthy Air and Clean Transportation Ordinance
Departmental Plan for Vehicle Reduction and Transit-First Programs**

The City is committed to achieve its air pollution and greenhouse gas reduction goals by promoting the use of zero or ultra-low emissions vehicles, minimizing the use of single-occupancy vehicles, promoting the use of transit and other driving-alternatives in carrying out official duties, and reducing the total number of passenger cars and light-duty trucks, vans, and SUVs (under 10,000 lbs. GVW) in the municipal fleet. The Department of the Environment shall provide guidance and resources for City Departments working to develop and implement their Transit-First and vehicle reduction programs. This document is a template and guide for the Departments of the City and County of San Francisco to develop and report on their strategies as required by the Healthy Air and Clean Transportation Ordinance (Chapter 4 of the City's Environmental Code).

Department Climate Liaisons can be used as a resource for completing this form.
Please fill out this report electronically and email it to William Zeller at William.Zeller@sfgov.org.

Section 1: General Information

Fiscal Year of the plan: 2012-2013

Department: Department of Building Inspection

Name of Fleet Manager / Coordinator: John Blackshear

Email: John.blackshear@sfgov.org Phone: 415/575-6801

Total number of vehicles in your fleet (under 10,000 lbs GVW)*: 97

Total number of vehicles to be purchased in Fiscal Year (2012-2013): 11 replacement vehicles

Section 404 of the Healthy Air and Clean Transportation Ordinance requires departments, when purchasing new or replacement vehicles, to buy only alternative fuel vehicles or approved "green" vehicles. Please attach a separate paper(s) with the details of the alternative vehicles in your fleet.

See Attached Fleet Inventory/Google Docs

Total number of alternative fuel vehicles currently in service: 73 Prius and/or CNG. See attached Fleet Inventory.

Total number of alternative fuel vehicles to be purchased in the Fiscal Year of this plan: 9 Prius

*The total number of vehicles in your fleet subject to this ordinance should be indicated in your Department's fleet inventory, which has been made available to you through SF Environment's Departmental Google Docs System. To access this system, please contact your Departmental Climate Liaison, or contact Sachiko Tanikawa at (415) 355-3782 or at sachiko.tanikawa@sfgov.org.

Section 2: Vehicle Reductions

Section 403 of the Healthy Air and Clean Transportation Ordinance requires departments to reduce the Number of Passenger Vehicles and Light Duty Trucks in municipal fleets by 5% per year through 2015, as well as remove from service all vehicles that are 12+ years old by the year 2014. Below, please outline the number of vehicles that will be removed from service in this fiscal year.

In the table below (next page), please outline the number of vehicles that will be removed from service in Fiscal Year 2012-2013 year.

Total Number of Vehicles to be removed from service this Fiscal Year (2011-2012):

2/Car No. 415-232, 415-214

Vehicles to be removed from Service in Fiscal Year (2011-2012)

(Please add rows to the table as needed.)

City Vehicle #	Year	Make	Model	Type (passenger sedan, light-duty truck, van, SUV)
415-232	2005	Honda	Civic	Passenger – transmission failure
415-214	2000	Ford	Taurus	Passenger – body damaged

Section 3: Transit-First Plan

Under the Healthy Air Ordinance, City Departments must promote public transportation, ride sharing or other driving-alternatives to minimize single-occupancy vehicle transportation for official duties. Each City Department needs to write a Transit-First plan, which outlines how the department will use driving-alternative options to reduce vehicle usage.

In the box below, please outline how your department intends to use walking, biking, MUNI, BART, car share, or other driving-alternative programs to reduce vehicle usage. Please attach a separate sheet if more space is needed:

DBI is pro-active in encouraging all employees to participate in the City's commuter programs aimed at reducing greenhouse gases. Numerous employees participate in this use of mass transit programs, as well as ride bicycles, and walk to meetings whenever possible. The Director's Office sends quarterly emails to all employees to remind them of Transit-First Options, and to encourage participation in these programs. We also post access information to these programs on the department's Intranet web site.

Resources for assisting with the development of Departmental Transit-First plan and Vehicle Reduction plan:

Reporting & Procedures: William Zeller, Department of Environment, William.Zeller@sfgov.org, 415-355-3728

Motor Pool & Car Share: Tom Fung, Fleet Management - Central Shops, Tom.Fung@sfgov.org, 415-550-4600

Dan Coleman, Fleet Management - Central Shops, Dan.Coleman@sfgov.org, 415-550-4600

Transit, Bicycle, & other Driving Alternatives: Commuter Benefits, commuterbenefits@sfgov.org, 415-355-3775

Document Prepared by (Print Name):

William Strawn

Email: William.strawn@sfgov.org

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Signature of Document Preparer:

William Strawn

Date: 3/30/12

Signature of Department Head:

Paradeep Kaur for Vivian L. Ray

Date: 4/2/12

Note: Signed version of this plan also is attached.

Biodiesel Fuel – None of our vehicles is yet capable of using this type of fuel.

3c. Historical Analysis

As stated above, DBI has a very limited vehicle and light truck fleet to accommodate its 108-person budgeted field inspection professional staff positions (95 of these positions are currently filled, and we are recruiting now for an additional five inspectors). With the local building and construction economy rapidly strengthening – there are more than 50 major projects currently in the Planning and building permit review process, with an estimated valuation that exceeds \$3 billion – it is clear that in the coming fiscal year we are going to be utilizing the skill sets of every inspector, and very likely will need to hire additional professionals in this area. This reality-based economic trend supports the Department’s budgeted request for replacement vehicles, and particularly to acquire as quickly as possible more fuel-efficient and sustainable vehicles that will be available to facilitate Charter-mandated duties.

4. Other Sustainable Practices

DBI’s Recycling Coordinator, John Blackshear, has completed the Climate Plan’s Waste Assessment Questionnaire, which is attached to this Plan. Details on the Department’s recently completed Transportation Survey results – per this Plan’s instructions – also are on file with Monica Wong at the Department of the Environment and part of the Google Docs’ data sheets attached.

4a. Zero Waste

The Waste Assessment Questionnaires for both 1660 Mission and 1650 Mission are attached to this Report.

4b. Transportation Options

DBI is pro-active with all employees in encouraging participation in the City’s Commuter programs aimed at reducing Green House Gases – and numerous employees do participate in the Commuter Benefits Program; utilize the City’s Bicycle Fleet, etc. Many employees carry over their commitment to a healthier environment by living a “Transit-First” life both publicly and privately.

The Director's Office sent All-DBI e-mail reminders on a quarterly basis to all employees to promote the advantages available under the Commuter and Bike programs. In the coming year we plan to include quarterly notices about these programs in the Department's employee newsletter, and on our Intra-Net, in our efforts to strengthen and encourage low-impact conservation practices.

4c. Green Purchasing

The Department completed its "Buy Green Scorecard," and earned a score of 1.3 out of 2 possible points (a "Very Good" rating, per the Department of the Environment (see attachment at the end of this Plan). DBI's John Blackshear also has attended trainings per the Mandatory Recycling and Composting ordinance; and we have appropriately labeled bins in employee kitchen/break-room areas throughout 1660 Mission.

4d. Information Technology

With respect to DBI's Information Technology's energy-savings, all computers are labeled with a reminder to turn off when not in use; and all PCs are set automatically to go into hibernation/standby mode after 20 minutes of inactivity. A major server replacement/refresh also is under way in the current fiscal year, with funds already budgeted, promising even greater energy conservation by the Department in the coming new fiscal year.

4e. Carbon Sequestration/Urban Forest

Along with the actions we are taking to reduce our output of greenhouse gases, it also is important that we take actions wherever possible to actively remove existing emissions from the air – a process called "sequestration." Trees, wetlands and other complex ecosystems all actively sequester such emissions, and are often referred to as "carbon sinks." In addition to the climate benefits they provide, trees and ecosystems provide additional "services," such as storm water mitigation, shoreline protection, erosion prevention, and air filtration to name a few. As a municipality, San Francisco manages its urban infrastructure in order to provide security and a good quality of life to its citizens. It is therefore important to recognize that in addition to the global climate benefits they provide, our carbon sinks also actively provide real and immediate benefits to local populations. In short, stewardship of urban forests and other urban ecosystems is a vital component in the City's overall public health, safety and infrastructure management. See Department of Environment, and the Department of Public Work's additional details pertaining to the City's Urban Forest (numbers of City trees, reforestation programs, ongoing maintenance programs, healthiness of the Urban Forest, etc).

5. Community-Wide Impact

The Department of Building Inspection plays a leadership role in community-wide efforts to reduce emissions and to promote actions that provide positive results in mitigating climate change realities. These include:

- Implementation of San Francisco's innovative Green Building legislation
- Enforcement of the California Energy Code standards, the strictest in the U.S.
- Implementation of indoor air quality filtration standards for certain new construction
- Enforcement of construction and demolition debris waste programs
- Enforcement of requirements providing adequate space for composting and recycling provisions in new construction

- Extensive staff and public trainings to implement sustainability and green building standards
- Focus on policies to insure durability of materials and structures as a green building strategy
- Enforcement of regulations regarding sound transmission standards
- Supporting/providing on-going training and educational programs promoting staff and public understanding of ways to enhance sustainability, protect the environment and contribute meaningfully to the reduction of carbon emissions.

This completes the Department of Building Inspection's (DBI) Climate Action Plan for FY 10-11.

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