



**SF Environment**

**Our home. Our city. Our planet.**

A Department of the City and County of San Francisco



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Mayor

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Director

## MEMORANDUM

To: Policy Committee, Environment Commission  
From: SFE Climate Team  
Subject: Status of SF Carbon Fund  
Date: October 23, 2012

### Summary

The San Francisco Carbon Fund was created in 2009 to support public and private initiatives in the Bay Area that reduce or offset greenhouse gas (GHG) emissions. The Fund is supported by a 13% surcharge that City departments pay for employee air travel. To date, the Fund has supported two projects: biodiesel and urban orchards. The Fund now has a balance of \$260,000, which is sufficient to support additional projects. Staff seeks guidance from the Commission on the next phase of the program. This memo outlines the history of the SF Carbon Fund, its current finances, issues to be resolved, and potential new project types.

### History of SF Carbon Fund

In July 2009, the Board of Supervisors passed, and Mayor Newsom signed, an ordinance establishing the San Francisco Carbon Mitigation Program (SF Carbon Fund). The ordinance requires City departments to pay Carbon Impact Payments—a 13% surcharge for each airline ticket purchased for their employees' travel. The ordinance then instructs the Director of SF Environment to authorize expenditures of Carbon Impact Payments for "public or private initiatives that...will reduce or offset [GHG] emissions in the San Francisco Bay Area." The ordinance also allows SF Environment to aggregate funding from other sources (e.g., private grants or gifts) to fund qualifying projects.

Thus far, the SF Carbon Fund has been narrowly applied. In the last three years, the fund supported two qualified projects: a commercial fuel station that sells waste grease biodiesel, DogPatch Biofuels; and an urban orchard planting program. Last month, the Environment Commission supported \$30,000 in additional funding for the Friends of the Urban Forest's Great January Fruit Tree Planting program.

Now we are proposing that the Fund be redirected to invest in community based carbon reduction projects and not limited to official carbon offsets. This will greatly expand uses of the fund and respond to community requests for support of neighborhood level carbon reduction projects.

### Financial Status

In FY 2011-12, the SF Carbon Fund received \$134,882 in Carbon Impact Payments. At July 1, 2012, the fund had a balance \$260,026. SF Environment has allocated \$80,000 for Carbon Fund expenditures in its FY 2012-13 budget.

## Issues to be Resolved

Here are three issues about which staff seek the Commission's guidance.

One important question is whether to broaden the focus of the program. To date, the program has only supported projects that have met the Department's stringent requirements for GHG accounting. Unfortunately, there are very few projects in San Francisco or the Bay Area that can provide such verifiable emission reductions. Therefore, staff believes it is prudent to expand the Fund to support projects that have a variety of environmental benefits. In short, the SF Carbon Fund would become a Carbon and Green Community fund that supports projects that reduce GHG emissions and produce other environmental benefits such as storm water mitigation, improved local air quality or increased urban habitat. These projects would reduce GHG emissions, but may not necessarily meet rigorous offset protocols required by state and international carbon offset programs.

In addition, the Department will need to decide on a process for seeking new projects. In particular, SF Environment must determine how prescriptive it should be when seeking new projects. When requesting project proposals, the Department could limit proposals to predetermined project types or it could be more open to accepting projects of any type. Regardless, staff recognizes that it is important to have a transparent process for selecting grant recipients.

Finally, SF Environment must determine whether to prioritize soliciting additional sources of revenue. SF Environment could market the Fund to travelers, businesses, or other parties seeking to mitigate carbon emissions locally. This would provide an additional revenue stream that could increase the size of the program's budget. However, successfully marketing the program would be a significant undertaking requiring staff resources.

## Existing Project

- **Sidewalk Trees:** San Francisco's urban forest consists of about 668,000 trees, which cover 12 percent of the city's surface area. Trees provide many benefits to San Francisco including filtering storm water, lessening air pollution and greenhouse gases, helping save energy in buildings, increasing property values, providing wildlife habitat, and supporting human health. The Carbon Fund could continue to support tree planting in San Francisco by partnering with Friends of the Urban Forest. FUF's tree planting programs typically cost \$300 to \$400 per tree. SF Environment staff estimate an appropriate Carbon Fund contribution would be \$100 to \$150 per tree with a reduction of 0.5 metric tons CO<sub>2</sub> over the lifetime of each tree.

## Potential New Projects

A refined SF Carbon and Green Community Fund would open the door to new project types, including:

- **Pavement to Parks:** San Francisco's streets and public rights-of-way make up 25% of the city's land area, more space than is found in all of the city's parks. Many of streets are excessively wide and contain large zones of wasted space, especially at intersections. San Francisco's "Pavement to Parks" projects seek to reclaim these unused swaths to quickly and inexpensively turn them into new public plazas and parks. These include the highly popular "parklets" that are springing up across the city. The environmental benefits of these projects range from storm water mitigation to localized air quality improvement and carbon sequestration from soils, grasses, and trees. The Carbon and Green Community Fund could support new Pavement to Parks projects across the city. Public plazas (such the plaza at 17<sup>th</sup> and Castro) cost about \$100,000, while a parklet typically costs between \$5,000 and \$20,000.

- **Solar Water Heating:** Natural gas use is the leading source of GHG emissions from buildings in San Francisco. Domestic water heating accounts for 38% of the city’s residential natural gas demand and 4% of the city’s overall GHG emissions.<sup>1</sup> Thus, solar water heating, which displaces the use of natural gas, is a useful strategy for reducing the city’s carbon footprint. There are various ways to utilize SF Carbon and Green Community Fund monies to support solar water heating. The Fund could support an incentive program similar to the existing GoSolarSF program for solar PV; a revolving loan fund that offers citizens low-interest financing; or solar water heating installations at properties with high water heating demand (e.g., fire houses, homeless shelters, hospitals). A typical residential solar water heating system costs about \$10,000 (\$5,000 after state incentives and federal tax credits).
- **Electric Charging Stations:** More than 40% of the greenhouse gases generated in San Francisco and the entire Bay Area come from transportation. While San Francisco’s top priority in addressing transportation emissions and congestion is Transit First—getting people out of cars and into alternate forms of transportation—meeting our GHG reduction goals will also require a major shift away from gasoline vehicles to clean alternative fuels, and especially electric transportation. The SF Carbon and Green Community Fund could support the installation of public EV chargers at high-profile locations. For instance, SF Environment’s Transportation Program is currently seeking additional funding to support a public EV charger—coupled with solar panels—at the San Francisco Zoo. It costs about \$10,000 to purchase and install an EV charger. For a much smaller cost, solar electric charging stations for electric bicycles (e-bicycles), mobile electronics including computers, cell phones and sound systems could also be funded.
- **Wetlands Restoration:** Wetlands represent a significant storage reservoir for carbon. Therefore, conserving and restoring wetlands is an important strategy in fighting climate change. SF Environment could partner with Nature in the City, Save the Bay, or San Francisco Baykeeper. More research on this topic is necessary to better understand the opportunities.

### **Recommendation**

If the Commission agrees with these recommendations to update the SF Carbon Fund’s scope of work, it could direct staff to work with the Mayor’s office to issue an updated Executive Order reflecting such changes.

Thank you for your consideration.

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<sup>1</sup> Houck, Jason (2008). “San Francisco Solar Water Heating Market Assessment,” SF Environment, San Francisco.