



# City of Sacramento City Council

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**Meeting Date:** 3/20/2012

**Report Type:** Staff/Discussion

**Title:** 2011 City of Sacramento Sustainability Accomplishments

**Report ID:** 2012-00082

**Location:** Citywide

**Recommendation:** Receive and file.

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**Department:** General Services Dept

**Division:** Office of the Director

**Dept ID:** 13001021

## **Attachments:**

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- 1-Description/Analysis
- 2-Attachment 1-2011 Significant Projects
- 3-Attachment 2-2011 Sustainability Accomplishments

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### **City Attorney Review**

Approved as to Form  
Lan Wang  
2/15/2012 2:52:19 PM

### **City Treasurer Review**

Reviewed for Impact on Cash and Debt  
Russell Fehr  
2/9/2012 3:42:21 PM

### **Approvals/Acknowledgements**

Department Director or Designee: Reina Schwartz - 2/15/2012 12:51:17 PM

## Description/Analysis

**Issue:** The City of Sacramento has been at the forefront of many sustainable initiatives, having started with its Sustainability Master Plan, adopted in 2007, which helped set the stage for ongoing efforts that foster the growth of sustainable projects. More recently, in 2011, the City Council approved the Climate Action Plan for its internal operations with a goal of reducing greenhouse gas (GHG) emissions by 15 percent by 2020 to continue the progress in sustainability.

2011 has proven to be a notably accomplished year for green and sustainable projects for the City. Topping off the City's green efforts are the following five projects of significance that have catapulted the City as a leader in the green movement both locally and nationally:

- 3.4 megawatt solar installation on six City sites.
- \$100 million Commercial Property Assessed Clean Energy (PACE) program
- Green Facilities Program which has retrofitted 10 city facilities.
- Complete Energy Solutions Pilot Program for Small Businesses. An energy efficiency rebate program administered by Sacramento Municipal Utility District on behalf of the City.
- Solar Permit streamlining which reduces time and costs to secure permits for residential and commercial solar projects.

Detailed information for each of the significant projects is provided in Attachment 1. Attachment 2 provides additional accomplishments identified across every department in each of the Sustainability Master Plan focus areas.

**Policy Considerations:** The City's sustainability accomplishments in 2011 are a culmination of continued and unwavering leadership and support from the City Council. The programs and projects are just the beginning of what the City can accomplish to improve the environment and boost the economy.

The SMP has been guiding the City's sustainability efforts over the past four years and has proven to do so quite successfully. As proof, the City's General Plan and Climate Action Plan (CAP) have included all the major goals of the SMP. To avoid redundancy, staff will consolidate tracking and reporting of sustainability goals into the annual report on the CAP and General Plan.

### Environmental Considerations:

**California Environmental Quality Act (CEQA):** None

**Sustainability:** The accomplishments mentioned in this report are all implementation measures identified in the 2011 Sustainability Implementation Plan.

**Commission/Committee Action:** Not applicable

**Rationale for Recommendation:** Not applicable

**Financial Considerations:** This report does not result in any financial impact to the City.

**Emerging Small Business Development (ESBD):** No goods or services are being purchased as a result of this report.

## 2011 Significant Projects

### **Solar Installation**

In March 2011, the City approved the first phase of a solar power purchase agreement with SolarCity for 1.9 megawatts at four City facilities. In December 2011, the City Council approved a second phase of the project with an additional 1.5 megawatts at two City facilities. In total, the project includes the installation of 14,000 solar panels, which translates into enough to power to provide electricity to 500 homes. This project alone will put 200 people to work for over a year and generate business for local electrical companies. This public-private partnership between the City, SolarCity, and the Sacramento Municipal Utilities District (SMUD) resulted in a win for each entity. Namely, the City wins by having guaranteed lower electricity bills over the next 20 years; SolarCity wins by completing a large solar installation in the Sacramento region; and SMUD wins by being able to count this project toward meeting the State required renewable portfolio standard.

### **Commercial Property Assessed Clean Energy Program**

Infusing new investment funds in the City, the City established a \$100 million PACE program, the first PACE program in the region and one of only two in the nation of its kind. The City's PACE program is a public-private partnership between the City and Ygrene Energy Fund. The program will provide commercial property owners 100 percent financing for renewable energy and energy efficiency retrofits. This state-of-the-art program will not only reduce the carbon footprint of commercial buildings but also reduce operating costs for property owners. Most importantly, however, it will create an economic boost for this area by creating 1,100 jobs and as much as \$250 million in local economic output. For a City with nearly a 14 percent unemployment rate, this proves to be a critical program for putting people back to work.

### **Green Facilities Program**

The City continues to lead by example, retrofitting all eight of its parking garages, the Central Library, and Samuel C. Pannell Meadowview Community Center. These projects have allowed the City to retain three employees and provide up to \$2.6 million in investment in the community through the purchase of equipment and installation services. In addition, the program has created 2,416 hours of work for the community through these purchases.

The retrofits at the Central Library and Samuel C. Pannell Meadowview Community Center will reduce energy usage by 36 percent and 41 percent, respectively. In addition, both projects will produce energy savings of about \$46,000 annually, or \$920,000 over the life of the projects.

The garage retrofits will replace 4,000 light fixtures, reduce energy usage by an astonishing 60 percent, and save the City \$3.3 million in energy cost over the next 11

years. This cutting edge technology uses bi-level light emitting diode (LED) technology, which decreases light output when there is no activity and increases light output when there is movement. Because of this unique feature, the savings potential is tremendous and as a result is garnering the attention of the California Lighting Technology Center and the California Energy Commission.

### **Complete Energy Solutions for Small Businesses**

The City, in partnership with SMUD, is offering this pilot program funded by Federal American Recovery and Reinvestment Act (ARRA) funding. The Complete Energy Solutions program offers small businesses rebates that cover up to 80 percent of the cost of the energy efficiency retrofits. In 2011, 92 small businesses chose to participate in the program. On average, these businesses will see a 20 percent reduction in their energy bill. Because of the success of this program, SMUD will expand it with an additional \$3 million.

### **Solar Permit Streamlining**

In October 2011, the City helped to incentivize solar energy and streamline the permitting process. Permit fees for commercial solar projects were reduced dramatically and fees for residential solar projects were reduced by making them a set flat fee. This new fee schedule, part of a program called “Sacramento Streamline”, now allows customers to save up to 77 percent in solar-related permit costs. In particular, all residential and commercial solar fees, which were previously based on the value of construction, are now based on a flat fee system. Under the new fee schedule, a permit for a 131 kW photovoltaic system, valued at \$1.2 million, would cost approximately \$4,480 (including other fees) – down from the previous \$19,000 using valuation methods. In addition to the fee changes, it’s anticipated that average review times for these projects will also decrease, which will translate into additional savings for customers.

## 2011 Sustainability Accomplishments

### Focus Area: Energy Independence

#### Permit Streamlining

Adjusted all building permit fees for residential and commercial solar projects to a flat fee based on cost recovery, rather than valuation, resulting in over 60 percent savings on average per project. Created a “Guide to Solar Energy Permitting” which highlights the general process and typical costs for solar projects that require a building permit in the City. Created an “Express Lane” for customers who have requests that take very little time, such as making a payment, dropping off/picking up plans or other documents, etc.

#### Leadership in Energy and Environmental Design (LEED) awards

The City was awarded the Green California Leadership Award for its LEED Silver and Gold projects. The City also received a LEED Silver Certification from the US Green Building Council for Fire Station 43.

#### Green Facilities Program

Retrofitted five City garages, the Central Library, and the Samuel C. Pannell Meadowview Community Center.

#### Convention Center LED Retrofit

The marquee was retrofit with LEDs, saving approximately 167,765 kilo watts per year. Also, re-lamped the entire third floor to energy efficient lamps and installed LED lamps in 179 fixtures, saving approximately 70,109 kilo watts per year.

#### Electric Vehicle (EV) Charges

Installed Level II EV chargers in coordination with the solar projects at City facilities.

#### Fleet Fuel Greenhouse Gas (GHG) Reduction

In 2011, the City fleet consumed less fuel, resulting in a reduction of 1,000 metric tons of GHG, or a five percent reduction in GHG from 2010.

### Focus Area: Climate Protection

#### Climate Action Plan

Completed Phase 2 of the plan. Key activities included technical analysis of GHG and adaptation measures, stakeholder outreach, adoption of specific/measurable greenhouse gas reduction targets, and reduction measures framework.

### Focus Area: Air Quality

#### Guide to Electric Vehicle Permits for Residential Customers

The Guide provides information about the general process and costs of getting a permit from the City for a typical EV home charging station, as well as SMUD requirements to qualify for discounted utility rates.

### “Drive Smart City of Sacramento” campaign

Launched the campaign, which included placing promotional posters listing green driving techniques and the benefits of green driving at various facilities and fueling stations throughout the City.

### New Liquid Natural Gas Refuse Trucks

City Council authorized the purchase of 53 new liquefied natural gas (LNG) refuse trucks.

Replacing these vehicles now provides the following benefits:

- Saves over \$3 million in potential ongoing maintenance and fuel costs by eliminating 53 older refuse trucks
- Saves \$425,000 in particulate trap retrofit costs that would be required if the 2002 model year refuse trucks are not replaced (17 vehicles @ \$25,000 cost per vehicle)
- Reduces carbon emissions by taking out of service old, inefficient diesel burning vehicles and replacing them with cleaner LNG units
- Reduces overtime costs associated with routes left uncollected due to repair downtime and unavailability of spares.

### Plug-In Hybrid Vehicles (PHEV)

The City received four new PHEV Dodge RAM 1500 pick-up trucks from SMUD to be used across various departments and services. These vehicles are being used as part of a demonstration project in partnership with the U.S. Department of Energy. The information collected by Chrysler from the demonstration will be used to evaluate city drive cycles, charging performance, fuel economy, and real-world performance.

### LNG Fuel Usage

Used 414,625 gallons of LNG fuel, representing 17 percent of the total used across all fuel types.

### Government Green Fleet Award

The City was ranked the seventh best Government Green Fleet in North America.

### Clean Air Champion Government Award

The City Fleet received the 2011 Clean Air Champion Government award, from Breathe California of Sacramento, for its efforts toward the design and implementation of cost-effective clean air programs, increased public support for clean air, and new public policies to improve air quality.

### Electric Bicycles

Two motorized bicycles, powered by BionX PL350HT RRM electric bike motors, were leased for free to the City for a 12 month period as a green alternative to commuting to meetings in the downtown area.

## **Focus Area: Material Resources**

### Integrated Pest Management (IPM)

Annual IPM classes for City applicators are being conducted. During 2011, IPM strategy development has focused on the Department of Parks and Recreation, Park Maintenance Services Division. General procedures and monitoring practices have been drafted, but significant staffing and budget cuts to the Department have resulted in the need to re-evaluate

the approach on the development of these IPM procedures. Stormwater Program staff, the Park Commissioner, the Park Manager, a Park Maintenance supervisor, and members from Pesticide-Free Sacramento have been meeting to discuss strategies for moving forward with the continued development of IPM procedures while considering the staffing and budget situations. The approach for IPM implementation has been to start small, selecting locations where IPM strategies are more likely to succeed, and then fine-tune the strategy for other locations.

#### Pesticide Use Data

The City has collected pesticide-use data from facilities participating in the City's IPM Services contract, Park Maintenance, Drainage, Golf, Streetscapes, and Urban Forest. Data from these sections is collected annually and entered into spreadsheets for future evaluation.

### **Focus Area: Public Health and Nutrition**

#### Urban Farming

The City amended its zoning code to allow the creation of community gardens on private property. This would support the development of small-scale urban farming.

#### New Community Gardens

Completed the Martin Luther King Jr. Community Garden, Valley Hi Park Community Garden, and Camellia Park Community Garden, increasing the total number of community gardens in the Department of Parks and Recreation to eleven.

#### Backyard Chicken Ordinance

The City now allows egg-laying hens on private property.

### **Focus Area: Urban Design, Land Use, Green Building and Transportation**

#### Regional Green Building Taskforce Report

In August 2011, staff presented an updated green building policy framework as part of the Climate Action Plan. City Council subsequently directed staff to delay further action on increasing minimum green building standards until 2014, due to concerns about financial impacts to development projects during the recession.

#### Green Zoning Code Amendments

City Council approved a multi-year program to begin the Green Development Code Update process.

#### Zip Car Program

In partnership with Zip Car, the City now offers ten zip cars to residents in mid-town. In 2011, the ten cars were used for over 145,000 miles.

#### New LEED-Certified Greyhound Station

Construction of the Project was consistent with the Sustainability Master Plan goals to reduce the use of fossil fuels and engage in clean air practices by reducing idling times that buses currently experience from traffic congestion and inefficient access at the Downtown terminal. Furthermore, the new facility meets LEED silver standards.

## **Focus Area: Water Resources and Flood Protection**

### Natomas Levee Improvement Program (NLIP)

The majority of the work for Phase 4A has been completed with the remaining work scheduled for completion in 2012.

### East Morrison Creek

The design is complete. The construction contract was awarded in 2011 by the Sacramento Area Flood Control Agency. The work is scheduled to be completed in 2012.

### Multi-Hazard Mitigation Plan

The Plan is complete and was approved by California Emergency Management Agency in November 2011. The plan is in the process of being approved by the Federal Emergency Management Agency (FEMA).

### Stormwater Discharge Permit

The program includes an extensive monitoring and target pollutant program, public education and outreach, and best management practices to address pollutants from construction and new development, commercial/industrial businesses, illicit discharges and connections, and municipal operations. The Annual Work Plans were submitted to the State on April 29, 2011. The Annual Report was submitted to the State on September 30, 2011.

### Voluntary Spill Notification Program

The City continues to lead the regional partnership for this program on the Lower American and Sacramento Rivers, as well as continuing to participate and coordinate with a companion program led by San Juan Water District for the American River water utilities, which includes the upper watershed. 2011 highlights of the City led partnership include updating and confirming notifications, incorporating the new Freeport intake into the program, and an annual table top exercise. Provided tools and information from the US Environmental Protection Agency; practice problem sets; and enhanced resources such as reservoir internet links, river system maps from the California Data Exchange Center (CDEC), maps and links from on-line hazardous material pipeline mapping tools, and updated travel time tools. An updated geographic information system (GIS) watershed map of the area near the City's intakes is near completion, as well as additional information summaries and tools to support problem solving and taking action when needed.

### Source Water Protection

Keep Our Waters Clean (KOWC) continues to increase awareness among local recreationalists about drinking water sources and the use of pumpouts and restrooms. KOWC is sponsored by local water providers, cities, and counties in the Sacramento region. Through partnerships with marinas, boat stores, and educational outlets along the Sacramento and American Rivers, KOWC educates boaters and recreationalists about clean and safe boating habits. The City continued to lead regional water agencies stakeholder efforts on rice pesticides, increased participation in the Irrigated Lands Regulatory Program, and provided technical tracking and evaluations on pesticides for the purpose of protecting the quality of the Sacramento River water supply for current and future generations.

### Sacramento Water Conservation Advisory Group (SWCAG)

Established a work plan which identified key water conservation policy recommendations. Specifically, throughout 2011, the group convened and provided recommendations on the City's implementation of Automated Meter Infrastructure implementation, outreach and education, and large landscape efficiency strategies. The SWCAG will reconvene in the first quarter of 2012 to continue implementation of its work plan.

#### Urban Water Management Plan

The Urban Water Management Plan (UWMP) was successfully updated and approved by City Council in 2011. The Water Conservation Interim Plan, which outlines the City's specific conservation efforts associated with compliance of the California Urban Water Conservation Council Best Management Practices, was included as an appendix to the UWMP.

#### Water Usage in Open Spaces

The City will receive funding awarded to the Regional Water Authority (RWA) for audits and incentives to install irrigation controllers and associated irrigation enhancements. This collaborative project, with four other water supply agencies in the Sacramento region, will enhance outdoor water use efficiency and save an estimated 470 acre-feet of water over the 10-year expected lifetime of the improvements. This grant project will continue through December 31, 2012.

#### Integrated Regional Water Management Plan Update

The City was successful in receiving grant funding, and will receive the final Agreement from RWA to bring to City Council in 2012. The Regional Indoor and Outdoor Water Efficiency Project consists of four components: 1) no-cost interior water efficiency retrofits (toilets, washers, etc.) targeted at disadvantaged communities (Interior Conservation Retrofits); 2) exterior residential water use surveys (audits); 3) water use survey (audit) and upgrades for large landscapes, including commercial, industrial, institutional (CII), and agricultural irrigation water use; and 4) preparation of water use budgets with dedicated landscape meters (Landscape Water Budgets).

#### Residential Assistance (Survey/ Audit) with Meter Install

The City will receive approximately \$124,000 from Reclamation to leverage the City's water meter retrofit program in order to accelerate residential water conservation. The "Follow the Meter" project will facilitate one-on-one contact with the 4,000 – 7,000 Utility customers receiving a water meter in FY2012-13. Water Conservation staff will knock on every door in the affected neighborhood and offer on-the-spot interior and exterior water use surveys, plumbing kits, and rebates for 566 high efficiency toilets and 227 clothes washers and implement 1,600 Water Wise House Calls. They will use the construction project to focus homeowner's attention on water conservation measures and coordinate with the installation of water meters.

#### Advanced Metering Infrastructure (AMI) Field Leak Investigation

Water Conservation staff implemented 1,000 AMI Field Investigations in 2010 and 2011 and followed up with Water Wise House Calls to promote water use efficiency and encourage the repair of leaky or substandard fixtures and estimate saving 236 million gallons of water.

#### Residential Assistance with Toilet and Washer Rebate Program

718 residential audits were provided, with 588 toilet rebates and 394 washing machine rebates.

#### Survey High Water Users

Provided 60 surveys to Heritage Park Home Owners Association (North Natomas); 2 surveys to Assisted Living Facilities (downtown); and 60 surveys to Witter Ranch Community Alliance (North Natomas).

#### Residential Assistance Ambassadors

Three ambassador trainings were held at the Water Conservation office in February, June, and August of 2011.

#### Water-Efficient Demonstration Landscape Design

The Department of Utilities (DOU) Water Wise Garden was completed in May, 2011. Staff held a brief ceremony and tours of the landscape. The new Water Wise Garden features native and drought tolerant plants and low volume irrigation and educational signage to provide tips on ways DOU customers can implement water efficient practices while maintaining a beautiful landscape. The City estimates that the water efficient landscape and improved irrigation will help the Water Conservation Office location save about 44 percent of the water it previously used to irrigate the property. The new Water Wise Garden is open to the public year-round.

### **Focus Area: Public Involvement and Personal Responsibility**

#### Climate Action Plan Outreach

Staff held meetings with various stakeholder groups to get input and feedback on the community-wide Climate Action Plan.