

**Council Meeting: July 28, 2009****SUBJECT: Update on Environmental Sustainability Project – Information Only****BACKGROUND**

In 2006, California passed Assembly Bill (AB) 32 which set a greenhouse gas (GHG) emissions reduction goal for California that would apply to local jurisdictions. In 2007, the City contracted with KEMA, an environmental consulting firm to complete a climate action plan for City operations, including facilities, fleet, streetlights, and traffic lights. In September 2007, staff presented RTC 07-301 *Carbon Dioxide Emissions Reduction Plan for City Operations* which cited the KEMA findings and recommendations.

Resulting Council actions were to:

- adopt the goal of 20% CO₂ emissions reduction from 1990 levels by 2010;
- endorse the U.S. Mayors' Climate Protection Agreement;
- continue Sustainable Silicon Valley membership; and
- join the California Climate Action Registry as a reporting member.

Subsequently, in June 2008 Council approved a budget supplement funding a half-time Environmental Sustainability Coordinator. The FY 2008/09 activities included:

1. Conduct best practices research; coordinate sustainability activities Citywide
2. Review City policies undergoing updates for appropriate language addressing environmental issues
3. Access grant funding opportunities
4. Participate in regional planning efforts
5. Identify and implement appropriate energy use metrics and targets to measure impact of City activities on the environment
6. Monitor legislative activities and advocate for legislation that both addresses environmental issues and meets City objectives
7. Conduct outreach and leverage community resources to support community-wide sustainability efforts
8. Develop a formal City program and operating budget structure for ongoing Citywide environmental sustainability.

The city manager assigned approximately 900 hours from Department of Public Works vacancies to the Office of the City Manager in addition to the \$55,000 grant from the Bay Area Air Quality Management District (BAAQMD) to fund the full-time environmental sustainability position. Work plan activities included energy use and greenhouse gas emissions tracking, education and outreach for staff and the community, and best practices and policy review.

EXISTING POLICY

In 2007, the Council adopted a Community Vision for Sustainability as a result of the 2006 Community Visioning Workshop. The adopted community vision is for Sunnyvale to be: *A regional leader in environmental sustainability advocating to reduce dependence on non-renewable resources by providing greater transportation options, reducing waste, protecting our natural resources, and promoting alternative energy usage and research. We take environmental preservation and protection seriously and consider how each action will affect Sunnyvale for future generations.*

Environmental Sustainability is shaped through General Plan goals, Council Policies, Legislative Advocacy Positions and procurement policies. The major policies shaping sustainability are located in the Council Policy Manual and include Air Quality, Community Design, Energy Reduction, Land Use, Transportation, Waste Reduction, and Water Resource Management.

DISCUSSION

Following exploration of possible partnerships with other cities to fund a shared staff member focused on environmental sustainability, in November 2008 Sunnyvale hired its first Environmental Sustainability Coordinator. For FY 2008/09, the City received partial funding from the Bay Area Air Quality Management District to focus on green house gas emissions reduction. The remaining half-time is focused on the Council-approved activities as noted above.

The following accomplishments, listed in the order of the Council-approved activities noted above, have been realized to date:

1. Conduct best practices research; coordinate sustainability activities City-wide

Best Practices -- Since June 2008, staff have reviewed a variety of best practices as follows:

- Preliminary review of community GHG emissions inventory protocol
- Use of metrics in reporting energy usage and GHG reporting
- Costs and benefits associated with GHG emissions offset programs

- Preliminary review of community best practices for developing climate action plans
- Green building and zoning
- Zero waste policies

Citywide Green Team – To aid citywide coordination and communication on this project, in January 2009, the City formally established its first Green Team. The team is lead by the environmental sustainability coordinator and is made up of representatives from the six departments that significantly affect the environment either directly through operations, or indirectly through policies, communications, etc. Those departments are Public Works, Community Services, Community Development, Public Safety, Finance, and the Office of the City Manager. Team goals are to ensure citywide coordination of environmental sustainability efforts by:

- Sharing current and developing departmental policies and practices
- Identifying departmental needs for support of initiatives
- Advising on City’s operational path forward regarding sustainability
- Identifying departments’ environmental sustainability challenges
- Identifying and communicating successes and savings
- Identifying and sharing funding opportunities
- Providing department perspectives on proposed activities.

2. Review City policies undergoing updates for appropriate language addressing environmental issues

The following new policies have been reviewed and implemented since July 1, 2008:

- Policy 3.2.4, Zero Waste
- Policy 7.3.25, Expenditure of Public Funds for Bottled Water
- Ordinance No. 2894-09, Green Building Standards.

3. Access grant funding opportunities

The City continues to explore funding sources for financing environmental sustainability activities. Potential funding sources include a second phase of funding from the BAAQMD, as well as, funding from the federal stimulus package. In addition to grant funding, savings opportunities are also being explored, including financing for alternative energy sources that may result in energy cost savings, low interest loans for alternative energy projects, and ensuring that rebates for Energy Star or environmentally preferable products are considered in all city operations. Federal stimulus funding options, including Energy Efficiency and Conservation Block Grants, are being managed by the Assistant City Manager.

The City applied for \$1.292 million in an Energy Efficiency Block Grant under the American Recovery and Reinvestment Act (ARRA) to fund the following:

- \$49,500 to fund household energy audits through Acterra’s Green at Home project;
- \$100,000 to create a Climate Action Plan which includes a community-wide “carbon footprint”;
- \$1,142,000 to replace standard street-lights with Light Emitting Diodes (LED’s) to significantly reduce energy consumption and green-house gas production.

Responsibility to seek external funding for specific projects, such as new construction, installation of solar panels on existing buildings, or educating the community about green building codes and options, remains with the appropriate departments.

4. Participate in regional planning efforts

The coordinator maintains close liaison with two organizations that provide support to municipalities on a regional level: Silicon Valley Joint Venture Task Force on Climate Change; and the International Council for Local Environmental Initiatives (ICLEI), an internationally recognized professional organization that supports municipalities in addressing climate change. Among other services, ICLEI provides software and technical support to cities in measuring operational and community-wide greenhouse gas emissions.

Additionally, in compliance with Council direction and as noted below, Sunnyvale is a “CO₂ Pledging Partner” to Sustainable Silicon Valley, and a reporting member of the California Climate Action registry.

5. Identify and implement appropriate energy use metrics and targets to measure impact of City activities on the environment

Staff developed tracking metrics to measure and report on the City’s energy use and green house gas emissions for City operations. For scoping purposes during the development of the Climate Action Plan for City Operations, city staff decided to inventory CO₂ emissions related to three main areas of City Operations: 15 building facilities (City Hall, Annex, South Annex, Public Safety, Library, Corp Yard, Community Center, Senior Center, Fire Stations 1- 6), fleet vehicles, and traffic/street lighting. The Water Pollution Control Plant facility was not included since the facility is being evaluated under the Strategic Infrastructure Plan (SIP) currently in process. With information provided by Pacific, Gas & Electric (PG&E), staff reported on the City’s 2008 emissions from facilities, traffic/street lighting, and fleet to Sustainable Silicon Valley (SSV) using their CO₂ Emissions Reduction Reporting tool. The tool tracks annually

reported energy usage for 15 Sunnyvale facilities and provides a CO₂ emission equivalent. SSV is a collaboration of businesses, governments, and non-governmental organizations that are identifying and addressing environmental and resource pressures in the Silicon Valley. In 2008, the City's reported energy consumption, from the sources cited above, saw an 8% reduction in GHG emissions as compared to the base year (1990). While overall this is a very good performance, the City will need to continue to implement energy-saving projects and activities if it is to achieve Council's current target of a 20% reduction below 1990 levels by 2010.

Per Council direction, Sunnyvale is also a reporting member of the California Climate Action Registry. In future years, to conserve resources, streamline reporting, and ensure that reporting complies with AB 32, all GHG reporting will likely be done through the Climate Action Registry.

6. Monitor legislative activities and advocate for legislation that both addresses environmental issues and meets City objectives

Staff recommended and Council approved identifying environmental sustainability as one of the City's 2009 priority advocacy issues.

7. Conduct outreach and leverage community resources to support community-wide sustainability efforts

Green.InSunnyvale.com – The City has updated its *Green.InSunnyvale.com* web page to include: relevant City policies, Council reports, special events and updates, links to the city's environmental services, and links to organizations with which the City is affiliated or that provide useful services or resources.

"Green at Home" Energy Audits – Since July 2008, the City has been collaborating with Acterra, a nonprofit organization to provide free home energy audits and energy conservation education for Sunnyvale residents. Acterra trains volunteers to conduct home energy audits, including installing simple energy saving products, and incorporating energy-saving practices. A volunteer training program was held at the Sunnyvale Community Center in December resulting in 19 Sunnyvale residents being trained as volunteers. There are 83 Sunnyvale homes that have completed or are in the process of completing a home audit. To date, there has been no cost to the City (or to residents) for this service. In the past, the training and energy audits were made possible by Acterra and a grant to Acterra from the BAAQMD. Sunnyvale has included funding for Acterra in the EECBG application in the amount requested by Acterra of \$49,500.

Earth Day Community Conversation -- Among other City events at this year's Earth Day week (April 19-25), there was a Community Conversation on Climate

Change. Sunnyvale hosted a panel of local business leaders to discuss new and emerging green technologies, and how they may impact our community and the lives of residents. The panel was facilitated by Craig Horne, CEO/Co-founder of EnerVault, a start-up energy storage company located in Sunnyvale and was well attended.

This free event was held at City Hall and was taped for playback on KSUN and also posted to the City's sustainability webpage, Green.InSunnyvale.com. The event was part of ICLEI's National Conversation on Climate Change. Funding was provided by the City's BAAMQD grant on capacity building for greenhouse gas reduction.

Community Groups -- In January 2009, the sustainability coordinator met with both the Mayor's Green Ribbon Task Force, and with representatives of Sunnyvale Cool Cities, an informal local group affiliated with the Sierra Club, as well as with neighborhood association representatives during their quarterly meeting.

8. Develop a formal City program and operating budget structure for ongoing citywide environmental sustainability

To increase the scope of responsibility for the City's sustainability coordinator, and give the position wider latitude to guide the City's green efforts, the environmental sustainability project was moved to the City's Department of Public Works, putting it closer to the staff that most directly implements positive impacts that support sustainability.

The sustainability coordinator responsibilities continue to focus on environmental and sustainability issues. These range from recycling, to water conservation, to air quality and energy conservation issues. Because a major focus of the coordinator has – and will remain – inter-departmental coordination of environmental activities, the over-arching position within the Office of the City Manager provided the boost needed to launch the sustainability program. Given the importance of the coordinator's efforts, the City Manager budgeted the position as a full-time staff position in the FY 2009/10 budget. Unless Council directs otherwise, these efforts will remain a priority for the City, and the City Manager will monitor the program's success.

Other Activities

Staff Outreach

Four workshops to encourage staff toward energy conservation practices were held in FY 2008/09. The first workshop, held in December 2008, familiarized staff with the City's practices and progress toward environmental

sustainability, highlighting City efforts to reduce greenhouse gas emissions from City operations. Additional workshops were as follows:

Commute Solutions (March 2009)

Water Conservation (April 2009)

Practical guidelines for implementing the City's Environmental Purchasing Policy targeting staff and safety "tailgate" meetings.

Community Footprint

Funding to prepare a Community "Carbon Footprint" is being pursued through the Energy Efficiency and Conservation Block Grant. This will serve the Community Development's need for development of a Climate Action Plan that is now required to be included in the General Plan update.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, in the Council Chambers lobby, in the Office of the City Clerk, at the Library, Senior Center, Community Center, and Department of Public Safety; posting the agenda and report on the City's Web site; and making the report available at the Library and the Office of the City Clerk.

SUMMARY

The Environmental Sustainability Project is making solid progress in the areas approved by Council and identified in the BAAQMD work plan. During its first eight months of staffed operations, accomplishments include the development of metrics and tracking tools for measuring the City's energy use and costs, and for measuring green house gas emissions. The City is also tracking progress on capital projects approved in part to address energy savings (subsequent to project completion, actual energy savings will also be tracked). Regular reporting through established protocols has been standardized. Education and outreach to both staff and the community about the environment, and particularly about the importance of energy conservation, has increased. Policy development addressing environmental issues has been an ongoing Council priority.

Finally, Sunnyvale has re-positioned the environmental sustainability project within the Department of Public Works. This repositioning will enable the coordinator to continue to progress in addressing broad, citywide issues as resources are available, and will also focus efforts to leverage internal resources, enabling close collaboration with operations that most directly affect the environment.

RECOMMENDATION

This is an information only report with no action needed.

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