

DATE ISSUED: October 9, 2002

REPORT NO. 02-233

ATTENTION: Rules, Finance and Intergovernmental Relations Committee
Agenda of October 16, 2002

SUBJECT: San Diego Sustainable Community Program

SUMMARY

Issues -

1. Should the City Manager accept the program update prepared by Environmental Services Department regarding the San Diego Sustainable Community Program?
2. Should the City of San Diego become a charter member of the California Climate Action Registry?
3. Should the City Manager direct Environmental Services Department to prepare and present guidance materials specifically focused on policies and procedures supporting more sustainable practices to all City department program level managers and above?
4. Should Environmental Services Department be directed to provide status updates twice yearly regarding progress toward meeting the 15% reduction target of City generated greenhouse gas emissions?

Manager's Recommendations –

1. Accept the update for the San Diego Sustainable Community Program.
2. Resolve to become a charter member of the California Climate Action Registry, with Environmental Services Department coordinating the effort to report greenhouse gas emission reductions for the City organization.
3. Direct the City Manager to proceed with an employee outreach program that is specifically focused on policies and procedures supporting more sustainable practices throughout the City organization, and which is presented to all City department program level managers and above by Environmental Services Department.
4. Direct the City Manager to present a report to Council in March 2003 with the

recommendations provided by the Ad Hoc Advisory Committee commissioned to broaden the scope of San Diego's Cities for Climate Protection Action Plan, and twice yearly thereafter on the progress of the San Diego Sustainable Community Program.

Other Recommendations – None

Fiscal Impact – It is anticipated that policies and programs implemented by the City of San Diego which support Mayor Murphy's Ten Goals and the objectives of the *San Diego Sustainable Community Program* will result in significant cost avoidance, and also environmental and social benefits through energy and fuel savings, and actions to reduce greenhouse gas emissions.

BACKGROUND

On January 29, 2002, Mayor Dick Murphy and the San Diego City Council unanimously approved the San Diego Sustainable Community Program. The Program's elements include:

1. Renewal of the Partnership Agreement between the City of San Diego (City) and the United States Department of Energy (DOE);
2. Approval of the Sustainable Community Indicators designed to measure two sets of information - those items that apply to Mayor Murphy's Ten Goals, and those items that are broader in scope and include measurements attributable to civic engagement and the collective impact on the region of personal consumption decisions;
3. Approval of the City's Greenhouse Gas (GHG) Emission Reduction Program which sets a reduction target of 15% by 2010, using 1990 as a baseline; and
4. Establishment of a scientific Ad Hoc Advisory Committee to expand the GHG Emission Reduction Action Plan for the City organization and for the community.

RECOMMENDATIONS

1. *Accept the update for the San Diego Sustainable Community Program.*

- a. Update on Partnership Agreement between the City and the United States Department of Energy:

The Department of Energy has facilitated the advancement of many City projects that increase energy efficiency, renewable energy and use of alternative fuel. Continuing DOE programs are Rebuild America, Clean Cities, US Green Building Program, and the DOE-EPA Energy Star-Climate Wise Program.

The DOE/San Diego partnership was formalized in 2000, and then renewed in 2002. This has launched a new series of projects that reflect the shared belief that community prosperity and sustainability are linked with a clean, reliable, and affordable energy supply. The City offers an ideal pilot for demonstrating how DOE's technologies, policies, and resources can be integrated to meet community challenges,

and may serve as a model for other communities.

DOE has provided the tools, resources, expertise and methodologies using world class leaders in Energy Efficiency/Renewable Energy (EE/RE) technology through its National Laboratories. Within the past two years, DOE has completed an economic feasibility study evaluating alternative energy technology at City landfills, and has facilitated a number of consultations with experts about fuel cells and advanced alternative energy technology. EE/RE staff have offered advice on the means and methods for applying this information through:

1. Technical assistance (example is 3rd party reviewers and direct assistance)
2. Financial assessments
3. Peer exchanges and expanded networks
4. Publicity and recognition of San Diego accomplishments

Future Requests of DOE

1. Facilitate more interaction with the Department of Defense (Navy and Marine Corps) to execute joint efforts that will increase energy conservation and use of renewable energy in the San Diego area. Military installations in San Diego are the largest power users in the region.
2. Assist with expanding the use of fuel cell technology for both small-and large-scale applications.

b. Update on Sustainable Community Indicators:

Attachment A lists the data collected thus far as part of the indicators project. This and additional information will be compiled no later than December 30, 2002 for a preliminary report. The report will compare the difference between baseline data and the current status for each indicator, and will establish targets to be considered by all interested parties.

The City of San Diego is fully participating as a core team member with the San Diego Regional Energy Office in The International Competition for Sustainable Urban System Design (IC-SUSD). This effort applies the expertise of the San Diego Sustainable Community Program, and integrates it into the larger context of our binational region. The competing nations in the IC-SUSD and their selected cities include:

<i>Argentina/Buenos Aires</i>	<i>Germany/Berlin</i>
<i>India/Goa</i>	<i>Japan/Tokyo</i>
<i>MishimaRussia/Vologda</i>	<i>China/Changshu</i>
<i>Canada/Vancouver</i>	<i>U.S./SanDiego</i>

An outcome of the IC-SUSD is a vision of what the region could be like in 100 years. A number of scenarios will be offered which address varying levels of sustainable practices, and are particularly focused on biodiversity, water, energy, shelter, and health and welfare. The

greatest benefit to City of San Diego staff participation in this process is well beyond the actual international competition. As a core team member, the City is able to influence selection of advisors and the areas of emphasis for the report. The resulting outcome is twofold: 1) a 100-year regional vision; and 2) a coalition of agencies and organizations working on issues of regional sustainability. This may serve as a cornerstone for action throughout the region that is synergistic with efforts of the San Diego Sustainable Community Program and the City's Strategic Framework.

c. Update on San Diego Cities for Climate Protection Program:

The City of San Diego has agreed to complete an Action Plan for the Cities for Climate Protection Program, as part of our partnership with the International Council of Local Environmental Initiatives (ICLEI). A report has been compiled listing those actions occurring within the City organization that results in a reduction of GHG emissions. This report was sent to all City departments for review in August 2002. Comments and additional projects were included in the September revision. *Attachment B* provides current and comprehensive information available thus far on greenhouse gas reductions within the City organization.

All City departments are working toward Mayor Dick Murphy's goal of energy independence. Accomplishments thus far include 21 million kilowatts of energy saved since 2000, and more than 24 megawatts of renewable energy generated at City facilities. The projects implemented between 1994 and 2001 have collectively saved more than 150 million kilowatt-hours, translating to more than 360 million tons of greenhouse gas reduced per year.

Water conservation also has a dramatic effect on energy use. For each hundred cubic foot (HCF) of water not used, a pump's operation time is reduced. For each minute that the pump is not in service, there are energy and GHG savings. As shown in *Attachment B*, this has resulted in more than 3,000,000 kWh and nearly 2,000 tons of CO₂ reduced.

Methane gas created at municipal landfills is commonly a large source of a city's GHG emissions. Therefore, the City's efforts to increase diversion of waste material away from the landfill and toward recycling and reuse is of significant importance. It is estimated that San Diego's diversion efforts have resulted in nearly 1.1 million tons of CO₂ reduction over the past six years, with an associated cost savings of \$345,000.

In San Diego and most of southern California, transportation is the largest single source of GHG emissions. It is also one of the most difficult to address because it is the collective result of individual actions. In April 2002, the City Manager's office directed all departments to use the most fuel efficient vehicle available from General Services Department Equipment Division. Beyond that, the departments were asked to evaluate the possibility of using alternative fuels. As an example, the City refuse packers have been converted to liquefied natural gas, and now emit virtually no particulates (unlike their diesel predecessors) and reduce GHG emissions.

- d. Update on establishing a San Diego Cities for Climate Protection Ad Hoc Advisory Committee to increase GHG reduction:

The purpose of the of the Ad Hoc Advisory Committee is to review the ESD staff report for completeness, and to broaden the San Diego Cities for Climate Protection Action Plan so that it includes recommendations for the City organization and for the community. This report may include measures for which the Mayor and City Council have no formal authority to control, but which may be possible because of their influence in the community.

The Ad Hoc Advisory Committee will be comprised of City staff and members of the scientific community to review and further develop the City's Action Plan. The invitation to participate will be sent from the City Manager's office, and the effort is to be coordinated by the Environmental Services Department. The participants to be invited are as follows:

Dr. Walter Oechel, San Diego State University	Mr. Bill Drumheller International Council for Local Environmental Initiatives
Mr. Mike Lewis Regional Transportation Center	Greg Newhouse Miramar Community College
Mr. Fred Speech Public Works Center, United States Navy	Mr. Alan Hurt United States Navy
Dr. Dan Cayan Scripps Institute of Oceanography	Dr. Mark Thiemens University of California, San Diego
Scott Anders San Diego Regional Energy Office	John Ruggieri ProjectDesign Consultants

City staff would be invited to discuss options, and would primarily be representatives from the Planning Department, General Services Department's Equipment and Purchasing Divisions, Engineering and Capital Improvement Department, and the Environmental Services Department. Coordination would be through the Sustainable Community Program.

2. *Resolve to become a charter member of the California Climate Action Registry, with the Environmental Services Department coordinating the effort to report greenhouse gas emission reductions for the City organization.*

By becoming a Charter Member, the City will demonstrate its leadership and commitment to more sustainable practices and will be among a handful of municipalities willing to step forward and be accountable for serious reduction of GHG emissions. Other charter members include Los Angeles and smaller cities in northern California. Within San Diego, both Qualcomm and the University of California, San Diego have also agreed to be charter members. *Attachment C* is a draft letter of intent.

The California Climate Action Registry (the Registry) was established by California statute as a non-profit voluntary registry for GHG emissions. The purpose of the Registry is to help companies and organizations with operations in the state to establish GHG emissions baselines against which any future GHG emission reduction requirements may be applied. More information may be found at <http://climateregistry.org>.

The Registry encourages voluntary actions to increase energy efficiency and decrease GHG emissions. Using any year from 1990 forward as a base year, participants can record their GHG emissions inventory. The State of California, in turn, will offer its best efforts to ensure that participants receive appropriate consideration for early actions in the event of any future state, federal or international GHG regulatory requirements. Registry participants include businesses, non-profit organizations, municipalities, state agencies, and other entities.

The Registry will provide a General Protocol and additional industry-specific protocols which will give guidance on how to inventory GHG emissions for participation in the Registry: what to measure, how to measure, the back-up data required, and certification requirements. When organizations become participants, they agree to register their GHG emissions for all operations in California, and are encouraged to report nationwide. Both gross emissions and efficiency metrics will be recorded. The Registry requires the inclusion of all direct GHG emissions, along with indirect GHG emissions from electricity use.

3. *Direct the City Manager to proceed with an employee outreach program that is specifically focused on policies and procedures supporting more sustainable practices throughout the City organization, and which is presented to all City department program level managers and above by Environmental Services Department.*

Clear and measurable expectations regarding environmental and economic benefits must be conveyed to upper management in order to enhance the success of implementing more sustainable practices. The City's multiple roles as a consumer, developer, resource steward, and infrastructure manager provide tremendous opportunity and responsibility to apply a set of principles and guidelines that will lead to better ways of doing business.

Environmental Services Department staff, in concert with representatives from other Departments, are compiling the following educational outreach material:

- “San Diego Sustainable Community” website which will feature outstanding projects (updated quarterly), provide necessary guidance documents, and offer

- links to other cities that have made strides in advancing more sustainable practices.
- Guidance documents will include administrative tools designed to serve as a convenient reference guide.
 - A synopsis of existing City policies that are linked to more sustainable practices
 - Checklists for building projects and Council decisions

The documents will be introduced to City department managers by ESD staff beginning in January 2003, and will proceed until all department managers have been presented with the information as part of a 20-minute training session. The indicators (previously mentioned) and other measurement tools will track the success of a cohesive strategy to implement more sustainable practices.

4. *Direct the City Manager to present a report to Council in March 2003 with the recommendations provided by the Ad Hoc Advisory Committee commissioned to broaden the scope of San Diego's Cities for Climate Protection Action Plan, and twice yearly thereafter on the progress of the San Diego Sustainable Community Program.*

The recommendations of the Ad Hoc Committee will be presented to the Mayor and City Council in March 2003, and the San Diego Sustainable Community Program will present an update on the progress of City actions toward more sustainable practices no less than twice yearly.

CONCLUSION

The *San Diego Sustainable Community Program* is one of many collaborative efforts that demonstrate a strong resolve to leave the legacy of a city worthy of affection for many generations to come. The recommendations listed above will provide the infrastructure to measure progress and strengthen commitment.

Respectfully submitted,

Richard L. Hays
Environmental Services Director

George I. Loveland
Senior Deputy City Manager

HAYS/LGP

Note: Attachments 2 and 3 are appended to this report.

- Attachments: [1. Attachment A- Sustainable Community Indicators](#)
2. Attachment B- San Diego City for Climate Protection Action Plan (Executive Summary)
 3. Attachment C- DRAFT Letter of Intent for CA Climate Registry

ATTACHMENT B

CITY OF SAN DIEGO
CITIES FOR CLIMATE PROTECTION
ACTION PLAN

Executive Summary

October 2002



PREFACE

On January 29, 2002, the San Diego City Council unanimously approved the San Diego Sustainable Community Program. Included in that program are:

- 1) The City's Greenhouse Gas (GHG) Emission Reduction Program, which sets a reduction target of 15% by 2010, using 1990 as a baseline.
- 2) The establishment of a scientific *ad hoc* Advisory Committee to expand the GHG Emission Reduction Action Plan for the City organization and broaden the scope to community actions.

The purpose of this report is to lay the groundwork for the Action Plan, and to provide a starting point for the *ad hoc* Advisory Committee. It sets out a four-part process for Action Plan formulation and contains 1990 baseline/projected 2010 GHG emissions data. Also included is a list of completed and planned GHG reduction measures undertaken by the City organization.

It is the expectation that the *ad hoc* Advisory Committee will study the major sources and sinks of GHGs in the San Diego region in greater depth. Based upon that study and the specific needs of the San Diego community, the Advisory Committee recommends the best measures to reduce GHG emissions. They will then compile their findings into an action plan that will be presented to the Mayor and City Council for consideration.

EXECUTIVE SUMMARY

It is anticipated that there are a number of collateral benefits for policies and programs implemented by the City of San Diego aimed at greenhouse gas (GHG) emission reduction. Using the model provided through the Cities for Climate Protection Program, the first phase of an Action Plan has been developed. San Diego's average temperature has continued to climb over the past 100 years, drought conditions have plagued the region, increased incidents of asthma and other respiratory problems have been noted, and the cost and uncertain availability of water, energy and fuel have been headline issues.

As one of the world's leading cities, San Diego has stepped up to a number of challenges. It can take a leadership role to mitigate global climate change by formulating an Action Plan to reduce GHG emissions. For the City organization, actions that reduce GHG emissions also result in cost avoidance through energy and fuel savings; increased energy independence (Mayor's Goal 10), reduced traffic congestion (Goal 2), and more neighborhoods of which we can be proud (Goal 3).

This report is designed to provide background to GHG emissions and the broader issue of climate change. Secondly, it identifies the key sectors in San Diego that are the most significant contributors to GHG emission. Third, the actions already undertaken by the city are identified. Lastly, the role of the ad hoc Advisory Committee is defined. Essentially, the Ad Hoc Advisory Committee is to review the ESD staff report for completeness, and to broaden the San Diego Cities for Climate Protection Action Plan so that it includes recommendations for the City organization and for the community. This report may include measures beyond the formal authority of the Mayor and City Council, but which they may be able to advance through their influence in the community.

ATTACHMENT C

October 7, 2002

Ms. Diane Wittenberg
California Climate Action Registry
515 S. Flower Street, suite 1305
Los Angeles, CA 90071

Dear Ms. Wittenburg,

I appreciate the invitation to become a Charter Member in the California Climate Action Registry. After careful consideration, I am prepared to make this commitment for the following reasons. First, the Registry advocates a reduction in greenhouse gas (GHG) emissions, and this is consistent with the viewpoint of the City Council. Secondly, the City organization has programs in place that aim to measure GHG reduction. An example is the "Cites for Climate Protection" effort, which has identified a 15% carbon dioxide target reduction for 2010, using 1990 as a baseline. We will be improving the current Action Plan with the help of a recently commissioned ad hoc advisory committee comprised of local experts on global climate change, transportation, alternative technologies, and planning issues.

As part of the statement of intent, we will report on CO2 emissions beginning in 2002, using guidance provided by the Registry. During the next three years, we may also choose to report on other greenhouse gases, as data is available. We understand we have the option to register emissions of GHG for any year from 1990 forward.

My personal goal is to leave a legacy of a city worthy of affection for many generations to come. Your program provides a means to track our progress in one important aspect of sustainability, that of GHG emission which affects our local and global climate.

If you have further questions or comments, please contact Linda Giannelli Pratt, San Diego Sustainable Community Program Manager, at 858-492-5088, or LPratt@sanidiego.gov.

Respectfully,

Dick Murphy, Mayor
City of San Diego