



Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: John Stufflebean

SUBJECT: SEE BELOW

DATE: 05-11-07

Approved

Date

5/11/07

SUBJECT: GREENHOUSE GAS REDUCTION GOALS DEVELOPMENT PROCESS

RECOMMENDATION

1. Accept this status report on the City of San José Climate Change Activities
2. Recommend that the City Council adopt the recommended greenhouse gas emission (GHG) reduction goal for municipal activities at the June 5, 2007, Council meeting
3. Initiate discussions with the various regional climate change organizations in the San Jose area to determine the best approach for development of a community greenhouse gas reduction goal and return to the Transportation and Environment Committee in September 2007 with the results and recommendations from the Community discussion; and
4. Return to the Transportation and Environment Committee in fall of 2007 with a status report on the Municipal Climate Action Plan, and a final report in the spring of 2008.

BACKGROUND

At the March 20, 2007, meeting Council adopted the U.S. Conference of Mayor's Climate Change Agreement (Agreement) and gave direction that staff identify the workload assessment needed to accomplish that Agreement. That report was presented to the Rules Committee on April 25th. The Committee then directed staff to return to the Transportation and Environment Committee with a greenhouse gas reduction goal for the City of San José as a municipality, provide clarity on the policy framework for climate change activities, and identify opportunities for leadership and coordination within the community and region.

ANALYSIS

Policy Framework

With adoption of U.S. Conference of Mayors' Climate Protection Agreement, the City Council recognized that climate disruption is a reality and that human activities are largely responsible for increasing concentrations of global warming pollution.

The overarching policy framework that supports this and other environmental policies and programs is the Sustainable City Major Strategy within the General Plan. As one of the guiding principles of the vision for San Jose, the Sustainable City Strategy is a statement of San Jose's desire to become an environmentally and economically sustainable city. A "sustainable city" is a city designed, constructed, and operated to minimize waste, efficiently use its natural resources and manage and conserve them for the use of present and future generations. This strategy also acknowledges that the City exists within both a regional and global environment. Decisions regarding natural resources will have impacts outside the City's jurisdiction, and the decisions of others in the region and beyond will impact the City's ability to meet its future needs.

Various policies and programs throughout the City support and implement the Sustainable City Policy. They include, but are not limited to policies and programs such as Smart Growth, Green Building, Energy, Greenprints, Transportation, and Environmentally Preferable Procurement.

The City also participates in local, regional, national and international initiatives through various agreements and benchmarks, which further support and guide the City in reporting on the implementation of the city's adopted policies. The U.S. Conference of Mayor's Climate Protection Agreement, Urban Environmental Accords, Sustainable Silicon Valley, pilot Environmental Management System, and the U.S. Green Building Council LEED™ check lists assist in identifying key urban environmental issues and assist as reporting and measurement frameworks. These also support in the City's reporting of performance measures within the various City Service Areas.

Municipal Climate Action Plan—Baseline Inventory

The April 18, 2007 report to the Rules Committee provided the workload assessment needed to accomplish the Agreement. The initial work plan would focus on the first three milestones associated with the Agreement:

- Establishment of an emissions inventory;
- Establishment of a greenhouse gas reduction goal, and;
- Development of a work plan for preparing a Climate Action Plan.

The baseline emissions inventory from which to measure the proposed reductions, along with an inventory of greenhouse gases, is in the process of being developed. Municipal data from 1990 is being gathered that will provide:

- Electricity and other fossil fuel energy use;
- Transportation data such as fuel consumed;
- Quantities of waste generated and landfilled; and
- Other data related to sources of greenhouse gas emission.

Many communities and organizations are using 1990 as the baseline year since this is the reference year for commitments made under the Kyoto Protocol. The State of California and other regional and local entities are also using this baseline year. Therefore, to the extent that data is available, 1990 will be the proposed baseline year.

Municipal Climate Action Plan—Existing Program Reductions

Staff also conducted an initial assessment of the programs and policies already in place that contribute to emissions reductions. These include, but are not limited to:

- The City's Smart Growth Policy;
- A municipally run, publicly available CNG fueling facility at the airport;
- 3-5% biodiesel in all diesel-fueled trucks;
- Certified electric vehicle inspectors on staff in General Services Department;
- Extensive energy efficiency achievements throughout city facilities, including new City Hall, which is consuming 25% less electricity on a square footage basis than old city hall; and
- Extensive efficiency and renewable energy projects at the San Jose/Santa Clara Water Pollution Control Plant.

Attachment 1 provides an initial list of City policies and programs contributing to these reduction efforts. These lay a solid foundation for achieving a municipal GHG reduction goal. The City Service Area and Performance Measures frameworks lay the groundwork for regular emissions reporting in all municipal activities.

While various city reports have provided details on the greenhouse gas emission reductions associated with various city projects such as energy efficiency, traffic light conversions and the use of alternative vehicles, there has never been an overall inventory of greenhouse gases

produced as a result of city activities, nor a summary of reductions achieved as a result of city policies and programs. Completing the baseline inventory and initial assessment of current programs will identify where existing programs are achieving the most emissions reduction and assist in focusing on new or enhanced strategies.

Municipal Climate Action Plan—Reduction Goal

A GHG emissions reduction target represents a significant goal. This target provides an objective toward which to strive and against which to measure progress. The initial goal within the U.S. Conference of Mayor’s Climate Protection Agreement is to strive to meet or exceed the Kyoto protocol—7% reduction of GHG emissions level from 1990 levels by 2012 through actions ranging from anti-sprawl land use policies to urban forest restoration projects to public information campaigns.

Some communities have adopted goals at the onset—through executive orders or adoption by the governing body. Others conduct their emissions inventory, forecasts and evaluate existing and potential measures before officially adopting their target goal.

In order to recommend a municipal goal for San Jose, research was conducted that examined goals of the State of California, other cities and counties in the US, and various research documents related to the establishment of GHG goals and climate action plans.

SELECTED GHG EMISSION REDUCTION GOALS

Kyoto Protocol	California AB32	San Francisco	Oakland	Berkeley	San Diego	Boston	New York
7% reduction of GHG emissions level from 1990 levels by 2012	By 2010: Reduce to 2000 emission levels By 2020: Reduce to 1990 emission levels By 2050: Reduce to 80% below 1990 levels	20% below 1990 levels by 2012	15% below 1990 levels by 2010.	15% below 1990 levels by 2010.	15% below 1990 levels by 2010. 50 MW of energy by 2013 with PV generation. 15% annual reduction in fuel consumption by city vehicles.	7% or more below 1990 levels by 2012. 80% below 1990 levels by 2050. City facilities: minimum 15% power from renewables by 2012.	20% below 1995 levels by 2010. 25% below 1995 levels by 2015 30% below 1995 levels by 2020

Given the above analysis, the City’s interdepartmental Climate Action Team (currently comprised of ESD, DOT, General Services, Airport, Public Works and OED) recommends a

municipal goal that is both practical and aggressive and would establish the City of San José as a regional and national leader in municipal climate change mitigation. The recommended goal includes multiple milestone years to enable detailed tracking of the City's progress. It meets and/or exceeds the obligations of California AB-32, the Urban Environmental Accords, and Conference of Mayor's Climate Protection Agreement.

2012: GHG emissions 25% below 1990 levels

2015: GHG emissions 30% below 1990 levels

2020: GHG emissions 35% below 1990 levels

2030: GHG emissions 50% below 1990 levels

2045: GHG emissions 80% below 1990 levels

At this stage, assessing the contributions of existing programs along with identification of additional GHG reduction strategies to coincide with the above milestone goals is in process. The City's Interdepartmental Climate Action Team is proposing to prepare a municipal Climate Action Plan for the City. Staff would return to the Transportation and Environment Committee with a status report in the fall of 2007 and a final report by early spring 2008. The report would provide information on:

- Baseline inventory (1990)
- Inventory of current emissions from the City as a municipality
- Assessment of current city activities and their emission reduction contributions
- Future activities

In addition, within the proposed report, an analysis would be conducted to validate the recommended target reductions and/or introduce any adjustments that could be made.

Regional Opportunities on Climate Change

Climate change—the impacts and opportunities for change—has been seen and heard of in numerous venues throughout San Jose, California, and on a national and global level. Highlights include the Governor's commitment to the environment, and the adoption by the State legislature of AB32—the Global Warming Solutions Act of 2006.

Within San Jose, there are various groups and organizations addressing climate change (Attachment 2). These organizations are currently working with a variety of stakeholders. The City is represented on many of these organizations. However, there is no one organization or entity that is coordinating the various actions toward a community-wide goal within San Jose.

Staff is proposing to discuss the concept of a regional climate action plan with these various organizations to determine the interest in development of a climate action plan for San Jose as a region. These discussions would also assess the most appropriate process for development of this community plan.

Development of a community or regional climate action plan, in tandem with the development of the municipal climate action plan is a strategy that has been pursued by many cities throughout the United States.

COORDINATION

This report and recommendation was coordinated with the City Attorney's Office, Office of Economic Development, Redevelopment Agency, and the Departments of Public Works; General Services; Airport; Transportation; Finance; Housing; Planning, Building and Code Enforcement; Parks, Recreation and Neighborhood Services; Library; Emergency Services; Fire; and Police.



JOHN STUFFLEBEAN
Director, Environmental Services

For questions please contact Mary Tucker, Supervising Environmental Services Specialist, at 408-975-2581.

ATTACHMENT 1 INITIAL SUMMARY OF CITY OF SAN JOSE- ACTIVITIES THAT MITIGATE IMPACTS TO GLOBAL WARMING

City Department / Division	Policy / Activity
Airport	<ul style="list-style-type: none"> • CNG Fueling Station (publicly available) • 50% of shuttle fleet run on CNG; converting the second half in 2008 • Preparing to implement a grant fund program to assist ground transportation operators to convert to CNG vehicles • Incentive implemented in 2005 requiring 25% of taxi trips at airport be alternatively fueled vehicles • Encouraging use of electric ground support equipment by airlines rather than diesel, thus providing infrastructure necessary for future electric charging stations
General Services	<ul style="list-style-type: none"> • Energy Management System upgrades at libraries, community centers and other Civic buildings • Installation of variable frequency drives at all pump stations and large mechanical equipment sites • Retrofit of appliances to Energy Star-rated appliances • LED exit signs and compact fluorescent lights at several city facilities secured through a PG&E installation program
Finance	<ul style="list-style-type: none"> • Environmentally Preferable Procurement Policy
Department of Transportation	<ul style="list-style-type: none"> • LEDs in all traffic lights • City Hall employee garage “solar ready” • Installed solar powered warning lights at over 20 pedestrian sites throughout the city, reducing construction costs by \$800,000 to \$1.3M • Partnership with VTA, BART Extension project • Continued expansion of bicycle and pedestrian networks throughout the City
ESD – Water Pollution Control Plant	<ul style="list-style-type: none"> • Since 2004, Plant staff have worked with PG&E to design and install fine bubble diffusers at the Plant, saving annual energy expenditures. Installation of this equipment has resulted in the Plant receiving \$287,426 in rebates from PG&E • Planning installation of a 1000 kW fuel cell using digester gas which could qualify for a rebate of up to \$4,500 per kW as a renewable resource under the Self Generation Incentive Program administered by the PG&E. In addition to producing electricity, the project would produce hot water as a byproduct
ESD – Policy and Planning	<ul style="list-style-type: none"> • Green Building Program • Sustainable Energy Policy and Action Plan
Convention Center	<ul style="list-style-type: none"> • Cogeneration improvements projected to save \$450,000 to \$600,000 annually
Public Works	<ul style="list-style-type: none"> • Installation of Cool Roofs on city facilities
Office of Economic Development	<ul style="list-style-type: none"> • Attracting and Retaining solar and alternative energy companies, including Nanosolar and Sunpower/Powerlight
Planning	<ul style="list-style-type: none"> • City of San José General Plan <ul style="list-style-type: none"> ○ Sustainable City Major Strategy ○ Smart Growth ○ Transportation Demand Management
PRNS	<ul style="list-style-type: none"> • Greenprint 2000
Redevelopment Agency	<ul style="list-style-type: none"> • Alum Rock Youth Center—Solar PV installation
City Wide Activities and Collaborations	<ul style="list-style-type: none"> • Collaboration with Sustainable Silicon Valley • Collaboration with Joint Policy Committee Climate Change Program • Tech Museum—Possible Solar Installation • EcoPasses for City employees

ATTACHMENT 2

SELECTED ORGANIZATIONS WORKING ON CLIMATE CHANGE IN THE SAN JOSE AREA

Organization	Goal/Climate Change Activity	Stakeholders
Sustainable Silicon Valley (SSV)	Goal of reducing regional carbon dioxide (CO2) emissions 20% below 1990 levels by 2010. The SSV approach to reaching this goal is to facilitate strategies to reduce CO2 emissions through increased energy and fuel efficiency and through the use of renewable sources of energy.	A collaboration of businesses, governments, and non-governmental organizations that are identifying and addressing environmental and resource pressures in the Valley
Joint Venture Silicon Valley	Initiating the establishment of a Silicon Valley Climate Protection Task Force that would provide a forum for learning, sharing and possibly developing strategic regional initiatives.	Local governments within Silicon Valley
Silicon Valley Leadership Group	Clean and Green Energy Plan Cool Commutes: A Competition to Reduce Greenhouse Gasses	Encouraging employers to increase alternative commuting among their employees.
Joint Policy Committee	Bay Area Strategy on Climate Change—elements for a regional climate-change strategy (in process)	Coordination of the regional planning efforts of the Association of Bay Area Governments (ABAG), the Bay Area Air Quality Management District (BAAQMD), the Bay Conservation and Development Commission and the Metropolitan Transportation Commission (MTC)
Bay Area Council	Business-sponsored, public-policy advocacy organization for the nine-county Bay Area.	Established the Business Council on Climate Change (BC3) - businesses commit to principles and report on progress
Green Challenge 0709	Northern California's Green Challenge 07-09 is a robust program of volunteering that will improve the environment, help reverse global warming and help keep the Bay Area's air, water and vegetation healthy.	Volunteers who come from corporations, churches, schools, service organizations, youth groups, non-profits and more
Sierra Club Cool Cities Campaign	<ul style="list-style-type: none"> – Educate the public on the causes and solutions to global warming – Engage members & the public to press for action on global warming by local government leaders – Engage members & the public to take personal actions to reduce their contribution to global warming emissions 	General Public
Several local churches in San Jose	Several of the local churches in San Jose are working with People Acting in Community Together (PACT) in reviewing the opportunities to adopt a stewardship role for the churches to address climate change	Church members and the community
The Climate Project	Several individuals throughout the community have been trained by the Climate Project as Climate Change Messengers who will present the information delivered by Al Gore in the documentary, An Inconvenient Truth.	General Public