

Creating A Sustainable City

A Master Plan to Move the City of Sacramento Towards Sustainability



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SECTION 1: Introduction — The Issue.

From concerns over climate change, to drought-related water shortages, to air quality, society faces serious environmental issues locally, regionally, nationally and globally. These issues will affect the quality of life today and for generations to come.

There is a growing body of evidence that a major shift in human behavior is necessary to overcome destructive tides of over-consumption and environmental degradation; and work for a better future for ourselves, our children and the numerous species that share our planet. Our existing economic systems, agricultural systems and automobile-oriented infrastructure are inherently unsustainable.

DEPENDENCE ON NON-RENEWABLE RESOURCES

Our economy and lifestyle is dependent on vast supplies of non-renewable resources, primarily derived from fossil fuels. As these resources are consumed, they will become increasingly scarce and more expensive. We must prepare for this eventuality to prevent a crisis in supply vs. demand. In addition, reducing our dependence on non-renewable fossil fuels reduces climate changing greenhouse gases and gives us greater energy independence.

OVER & EXCESSIVE USE OF NATURAL RESOURCES

We are using some renewable resources faster than nature can replenish them. Examples of this are consumption of water, lumber, wood and paper products, over fishing and soil depletion. Over-consumption of some renewable resources will cause damage and collapse of many ecosystems.

POLLUTION

Un-intended by-products of manufacturing, consumption, and combustion of resources end up in our air, water, soil, and food. Many of these by-products are toxic. Material from consumption is left over as “waste” and buried in landfills. This leads to numerous negative impacts, including consumption of valuable land for landfills, pollution of that land and associated lands and waters with potentially toxic materials, and removal of resources (such as carbon and nitrogen) from natural cycles.

Our existing economic systems, built environments and cultures are inherently unsustainable. Achieving sustainability in contemporary times will require a major paradigm shift, essentially reversing long-standing trends of consumption and traditional development, and changing our philosophies and behaviors.

SECTION 2: What is Sustainability?

Sustainability is a broad term that generally means that a person or society lives within the means of what the Earth can provide over a long term. When a process is sustainable, it can be carried out over and over without negative effects on the environment or high costs. The definition of Sustainability for the purposes of this Master Plan is:

“Sustainability meets the needs of the present without compromising the ability of future generations to meet their own needs.”

— United Nations World Commission on Environment and Development.

A sustainable society does not rely extensively on non-renewable resources as a basis for its economy. A sustainable society reduces consumption of renewable resources to levels that can be replenished by nature.

The “Triple Bottom Line” is a common theme for decision-making in a sustainable society. The Triple Bottom Line refers to the consideration of economic stability, environmental sustainability and social equity aspects of a particular decision.

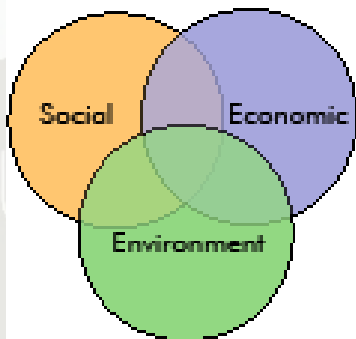
A sustainable society uses non-toxic and/ or biodegradable materials and products and develops “cradle-to-cradle” processes to replace “cradle-to-grave” conventional processes of post-industrial society.

In a “cradle-to-grave” process, materials are moved in a linear fashion rather than through one of nature’s endless cycling and recycling processes. The linear process moves materials that support life from their sources through human consumption that ultimately pollute the sinks (atmosphere, rivers, lakes, ocean, and landscape). Eventually, this one-way process also depletes and destroys the natural landscape on which it depends.

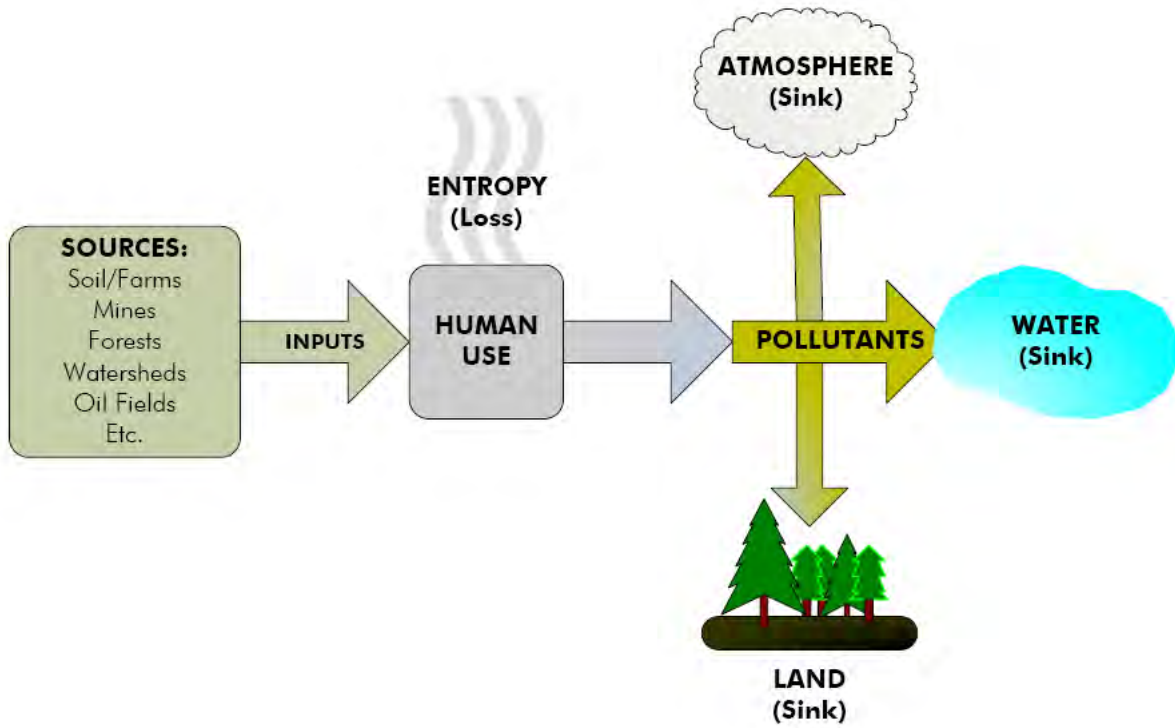
A sustainable or “cradle-to-cradle” process is one that is continually self-renewing. Linear one-way processes must be replaced by cyclic flows, continually regenerating materials that support life.

The two diagrams on the next page graphically represent the “cradle-to-grave” and the “cradle-to-cradle” concepts.

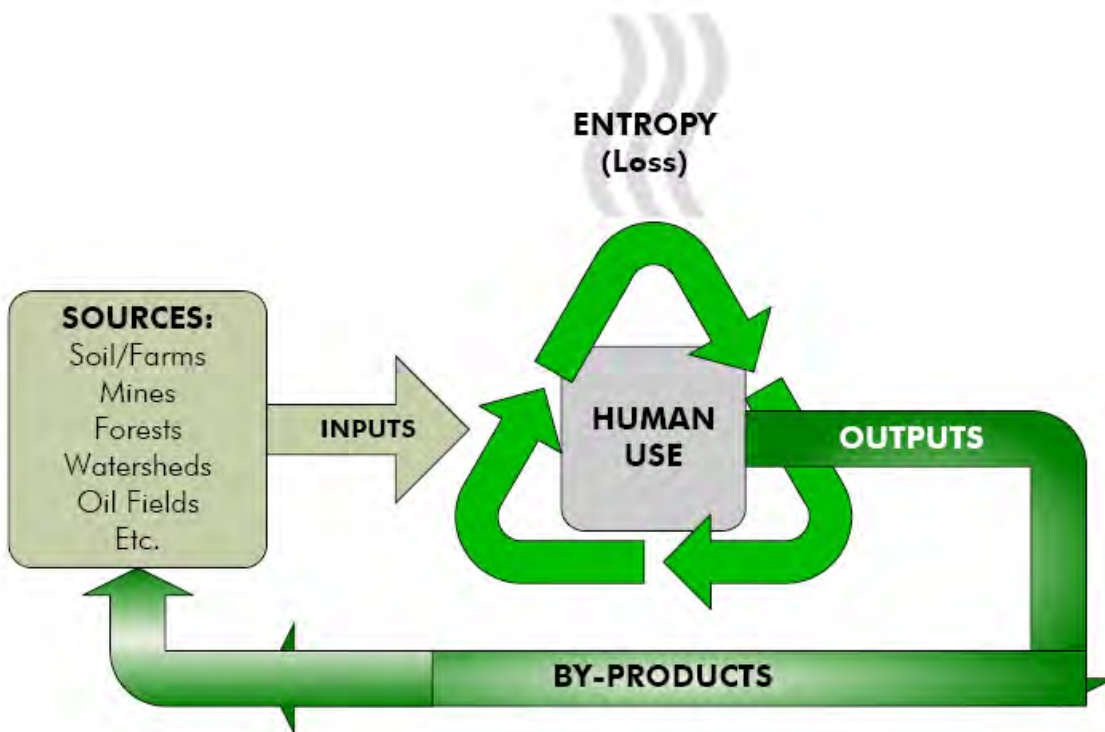
A Sustainable Balance



"CRADLE-TO-GRAVE"



"CRADLE-TO-CRADLE"



SECTION 3: Creating a Sustainable City

Why a Sustainability Master Plan?

As a major landowner, employer, building manager, fleet operator, utility owner and operator, consumer of goods and services, and service provider, the City of Sacramento has both the opportunity and the capacity to bring about significant improvements in environmental quality in and around the region.

By integrating environmentally sustainable practices into City policies, procedures, operations, and fostering collaboration across City government, the City's Sustainability Master Plan- Creating a Sustainable City, will work to protect and enhance the quality of life for present and future generations in the City of Sacramento. Leading by example, the Sustainability Master Plan promotes responsible management and effective stewardship of the City's built and natural environments; transforming the City of Sacramento into a model government agency that is clean, healthy, resource-efficient, and environmentally conscientious.

What are some things the City can do?

- Practice "Restorative Redevelopment"
- Increase the resource efficiency of City facilities.
- Reduce pollution from City vehicles.
- Build and Buy Green.
- Work towards reducing Greenhouse Gas Emissions.
- Reduce the City's use of pesticides.
- Protect and restore the City's Urban Creeks.
- Promote Environmental Stewardship.
- Encourage City employees to drive less.
- Improve and optimize Transportation Infrastructure.
- Improve and expand the City's Green Infrastructure.

Moving towards sustainability will require a new consciousness and commitment to do things differently than we have been. It will require the City to: (1) develop new programs and/ or change existing programs, (2) establish new priorities, (3) commit resources to sustainable causes, and (4) collaborate with other jurisdictions within the region to achieve sustainability.

The strategy for moving the City of Sacramento toward sustainability focuses first on changes the City has control over. The city has the most control over its internal operations. In addition, the City has jurisdiction over changes to the built environment (land use, infrastructure, and building permits) within its boundaries.

The Sustainability Master Plan is intended to be a means for Creating a Sustainable City, not an end. The plan is a tool to guide future operational and policy decisions. To proceed in a sensible way to change long-standing environmental practices, it is necessary to develop focus areas, goals, and targets to be achieved.

This Master Plan (Plan) provides the policy framework for how the City will be operated sustainability over the next generation. Although it is anticipated that some of the Targets identified will require additional resources, this Plan also has the potential to:

- Increase local and regional job production, thus keeping money in the Sacramento regional economy;
- Reduce and stabilize long term energy costs for local residents and businesses, and
- Create public/ private partnerships. The City's Goals and Targets are common to many within the State, thus having a clearly stated intent the City will be able to create these partnerships to implement this plan.

The foundation for the Sustainability Master Plan is the United Nations Urban Environmental Accords. The Accords are a set of 21 actions that the United Nations has asked City Governments to adopt and implement over a seven-year period. The Accords, signed by Mayor Fargo in April 2006, are incorporated into this plan.

Concurrent with this process, the City is updating the General Plan. The pertinent Goals, Policies and Targets identified in this Plan will be consistent with the City's General Plan.

SECTION 4: How to Read this Document

The Sustainability Master Plan is meant to serve as a policy framework for the City of Sacramento to ensure that sustainability concerns are incorporated into the City's decision making processes.

The Focus Areas, Goals, and Targets are based on the following Operating Principles:

1. The City will include fiscal responsibility, social equity, and an environmental sustainability in its decision-making processes.
2. The City of Sacramento intends to conduct its business in a way that increases the sustainability of this and future generations.
3. The City will use its jurisdiction over the built environment (land use, infrastructure, and building permits) to improve the sustainability of the City.
4. The City will adopt a General Plan that contains key sustainability policies and practices, and recognizes direction provided by this Plan.
5. The City will be a leader and advocate for sustainability efforts at the regional, state, and federal level.

Sustainability for the City of Sacramento has been separated into nine Focus Areas. The final nine pages of this Plan are comprised of one-page summaries of each Focus Area. Each summary page includes:

Background: Why the City should be concerned about the Focus Category.

Goals: A concise description of the City's objectives that reflects the City's values regarding sustainability.

Targets: Measureable and achievable Target will ultimately be developed to correspond to each Goal. Clear intent and measureable quantities of how the City will address each Focus Category.

1. Energy Independence

Background: The United States is dependent on foreign oil; the country imports 60% of its supply and that percentage increases each year. World demand for oil continues to increase each year. Oil supplies are finite and at some point will decline. These facts could eventually translate into a world wide shortage of gasoline and diesel fuels, negatively affecting the federal trade deficit, harming local job creation, and increasing national security concerns. In addition, the use of carbon based fossil fuels creates greenhouse gas emissions.

It is estimated that it will take many years to transition from a fossil fuel economy to a renewable fuels economy. This time lag between the demands and supply of fuel technology and availability could create challenging market conditions. A gradual transition towards renewable energy is prudent.

The City must continue to support more sustainable land use patterns such as transit-oriented development (TOD), green building design, energy efficiency, alternative transportation options and the use of renewable energy sources for both public and private developments and support local and regional job creation through development of renewable energy production facilities.

Goals:

1. Significantly reduce the use of fossil fuels.
2. Improve the availability of locally and regionally produced renewable energy.
3. Improve energy efficiency.
4. Reduce peak electrical demand.
5. Provide long term affordable and reliable energy that has no price volatility.
6. Replace or renovate obsolete energy or resource inefficient infrastructure (buildings, facilities, systems, etc.).
7. Encourage and recruit green technology companies to locate in the City.

Targets:

1. Work to maximize local and regional renewable energy production with the goal that fifty percent of the energy (electricity, natural gas, motor fuels) consumed within the SACOG region be produced within the SACOG region.
2. By 2020, city operations will be substantially fossil free (electricity, motor fuels).
3. By 2030, energy consumption (electricity, natural gas, motor fuels) of City facilities on a unit basis will be 25% less than the baseline year of 2005.
4. By 2030, energy consumption (electricity, natural gas, motor fuels) per capita for the Sacramento community will be reduced by 25% relative to 2005.
5. By 2030, peak electrical demand of City facilities as measured by annual load factor (energy consumed divided by peak summer electrical demand) will be 75%.
6. By 2015, provide leadership in the SACOG region to complete an energy surety plan.
7. By 2015, the SACOG region will have added 20,000 new jobs to the renewable/ clean energy sector.

2. Climate Protection

Background: Human activities are altering Earth's climate by emitting greenhouse gases such as carbon dioxide into the earth's atmosphere. It is estimated over the next 95 years that the earth's average temperature will increase between 2° F and 10° F. Predicted local impacts include, but are not limited to the following:

- Heat waves will be more intense, will occur more frequently, and will be sustained for longer periods.
- Sierra snow pack will be reduced by up to 90%.
- Since more precipitation will fall as rain rather than snow, the risk of winter flooding may increase.
- Since much of our water storage in California depends on snow pack, water shortages in the summer will increase.
- Rising sea levels will cause increased salt water intrusion into the Sacramento-San Joaquin Delta, potentially putting two-thirds of California's water supply in jeopardy.
- In Sacramento, the number of days per year over 95° F will increase from an average of 18 days/year to as much as 110 days/year.

We are already committed to addressing climate change, however, the sooner we act, and the more we do, the better the outcome. The City has greatest control over its own operations, however, there is potential for the greatest emissions reductions through the City's jurisdiction over the built environment. Furthermore, by providing a positive example of what can be accomplished, the City may influence other jurisdictions to achieve their own climate protection goals.

Goals:

1. Meet the intent of the Global Warming Solutions Act (AB32) (or subsequent laws) for:
 - a. City operations.
 - b. The community of Sacramento.
 - c. The SACOG region by working with community partners
2. Develop a climate adaptation plan for the region by working with community partners.

Targets:

1. By 2050, City operations will have reduced carbon dioxide emissions to 11,000 metric tons which is an 80% reduction relative to 1990 level emissions (or as amended per subsequent state law).
2. By 2030, City operations will have reduced carbon dioxide emissions to 40,000 metric tons (25% reduction from 1990 levels).
3. By 2020, City operations will have reduced carbon dioxide emissions to 54,000 metric tons (equal to 1990 levels).
4. By 2050, the SACOG planning region will have reduced carbon dioxide emissions by 80% relative to 1990 level emissions (or per subsequent state law).
5. By 2020, the SACOG planning region will have reduced carbon dioxide emissions to 1990 levels.
6. By 2015, the SACOG region will have a climate adaptation plan in place.

3. Air Quality

Background: Air quality is a major environmental health issue for Sacramento, particularly in the summer when an inversion layer traps pollutants close to the ground. Vehicles and other mobile sources powered by combustion (such as lawnmowers) cause 70% of our air pollution. The Sacramento region has been designated as a severe ozone non-attainment area by the U.S. Environmental Protection Agency (US EPA). In the summer, the Sacramento area fails to meet both state and federal standards for ozone. Although ozone in the upper atmosphere protects us from harmful ultraviolet rays, at the ground level it is an irritant that causes the eyes to burn, and it can damage lung tissue. Other problematic air pollutants include carbon monoxide, hydrocarbons, sulfur dioxide, and oxides of nitrogen (NOx).

The air quality in the Sacramento region has actually improved in the last decade due to cleaner cars, smog check requirements, reformulated gasoline, vapor recovery systems on gasoline dispensers, and state and federal regulations for solvents in paints and other consumer products. However, in the future the combined impact of more people, more cars, and more hot days due to global warming will make meeting air quality standards a greater challenge.

SACOG has estimated that there will be 1.7 million more people in the Sacramento Region in 2050 than there were in 2000, which will bring the number of residents to over 3.6 million. If present trends are continued, residents will drive many more miles annually and spend more time in their cars, which will have a negative effect on air quality. In addition, the increase in energy demand accompanying projected population increases will create the demand for additional power plants; this will further threaten our air quality.

Goals:

1. Continue to partner with Sacramento Metropolitan Air Quality Management District to provide assistance in meeting and maintaining air quality standards.
2. Encourage City Employees to drive less and engage in clean air practices.

Targets:

1. Work with community partners to reduce the number of “unhealthy”, or “hazardous”, air quality days by 10% based on an established baseline year.
2. Work with community partners to reduce sulfur levels in diesel and gasoline fuels, concurrent with using advanced emission controls on all buses, taxis, and fleets to reduce particulate matter and smog-forming emissions from those fleets by 50% based on an established baseline year.
3. Reduce vehicle idle times by optimizing traffic signals throughout the City.
4. Work to implement a regional policy to reduce the percentage of commute trips by single occupancy vehicles by 10%, relative to an established baseline year.
5. Work with community partners to reduce per household vehicle miles traveled by 25%, relative to an established baseline year.
6. Work with community partners to establish citywide air quality policies and to implement clean air measures for new developments.

4. Material Resources

Background: Landfills have historically been the lowest cost alternative for eliminating waste, however many factors are causing this traditional method to become less attractive:

- Global warming: decomposing organic waste emits carbon dioxide and methane from landfills, both negatively affect global warming
- Diminishing resources; many useable, valuable resources are now buried in existing landfills
- Overuse of non-renewable resources: improved recycling can reduce stress on renewable resources and increase the life of existing landfills
- Land values: Landfills consume valuable land and diminish surrounding land values
- Transportation costs: Increased regulation and land values combine to cause many cities to ship their waste to landfills hundreds of miles away
- Energy production: The energy content from a typical residential waste stream could possibly provide 25 to 50% of a home's energy needs
- Water quality: Rain and landfills combine to create leachates, which can cause local groundwater contamination concerns

In addition, the use of toxic materials to meet the needs of citizens and businesses frequently causes unintended consequences; e.g. mercury in fish and DDT causing a decline in bird birth rates. Recycling and composting are more sustainable alternatives to landfills. Both reuse materials that would otherwise be wasted. Recycling is economical, saves energy, metals and forests.

Goals:

1. Reduce consumption.
2. Encourage the reuse and local recycling of materials.
3. Reduce the use of pesticides and other toxic materials.

Targets:

1. Implement an Environmentally Preferred Purchasing (EPP) policy which may include bid preferences to suppliers that meet minimum sustainability criteria as defined by the City of Sacramento.
2. Reduce the use of pesticides in City parks and facilities relative to an established baseline year.
3. Work to reduce the use of disposable, toxic, or non-renewable product categories within the City limits.
4. Develop, implement, and enforce a construction and demolition waste ordinance.
5. Work with stakeholders to maximize landfill diversion given reasonable cost effectiveness of constraints.

5. Public Health and Nutrition

Background: The City currently has wellness programs, school food programs, community gardens, trails and exercise facilities. By improving public health, health care costs can be reduced, thus assisting to improve City livability.

Recent research has connected public health and smart growth. A report for the US Green Building Council concludes that such smart development factors such as density, mix of uses, access to recreation facilities and even population and income diversity can be directly related to improved health and fitness of the population.

Goals:

1. Improve the health of residents through access to a diverse mix of wellness activities and locally produced food.
2. Promote “greening” and “gardening” within the City.
3. Create “Healthy Urban Environments” through Restorative Redevelopment.

Targets:

1. Annually, identify one product, chemical or compound that is used within the City that represents the greatest risk to human health and adopt a policy and provide incentives to reduce or eliminate its use by City Operations.
2. Adopt City policies and work to preserve local prime agricultural land and support the viability of local farms
3. Work to maximize the quantity of roads in the City that are “Complete Streets,” efficient and safe for all modes of travel.
4. Employ new products or approaches to soften the edges between the natural and built environments.
5. Redevelop or rehabilitate areas within the City or aged city facilities based on old, wasteful and/or dysfunctional designs to achieve better results for people and the environment.
6. Work with community partners to define a list of many products that should be produced locally or regionally and encourage business development for those products.
7. Work with community partners to ensure each neighborhood in the City has safe and efficient access to quality food sources and vendors.
8. Work with community partners to identify the most basic food products and promote business growth to ensure that products are grown locally or regionally.
9. Work to maximize the number of amenities (e.g. Park, Restaurant, Grocery, Shops, Theatre) that are located within ½ mile of all residents. Ultimately all Citizens should have walkable access to six or more amenities.
10. Promote and support community gardening.
11. Cleanup, redevelop, and reuse areas that are brownfields.

6. Urban Design, Land Use, Green Building and Transportation

Background: In shaping the places in which we live, we shape the patterns of our own behavior. We have built sprawling cities that require long commutes, streets that discourage pedestrians and bicycles, and building methods that waste resources and contribute to pollution and climate change. From the human scale to the regional scale, we need to take a different approach to designing the built environment.

The SACOG Blueprint demonstrated how future population growth can be accommodated in a way that will reduce the consumption of open space, reduce auto dependency and greenhouse gas emissions, improve air quality and provide a greater variety of choices for people to live and work, when compared to build-out according to existing development trends. The City is now translating the SACOG Blueprint into the City's General Plan, which will guide the City's future growth and development. The City can implement more sustainable development types mostly through jurisdiction over land use, issuance of building permits, and provision of transportation infrastructure.

Goals:

1. Establish and continuously improve "green" building standards for both residential and commercial development--new and remodeled.
2. Reduce dependence on the private automobile by working with community partners to provide efficient and accessible public transit and transit supportive land uses.
3. Reduce long commutes by providing a wide array of transportation and housing choices near jobs for a balanced, healthy City.

Targets:

1. Implement a policy requiring LEED (Leadership in Energy and Environmental Design) Silver certification or an equivalent certification for all new City owned buildings.
2. Work with community partners and adopt a LEED/BIG (Build It Green) type rating program for, new and retrofit, commercial and residential single family, multi-family and neighborhood development.
3. Work with community partners to aggressively implement the SACOG Blueprint through the City General Plan and associated documents.
4. Work with community partners to develop and implement a policy that expands affordable public transportation coverage to within one-quarter mile of all city residents.
5. Work with community partners to achieve 80% LEED-type certification of new construction within the City.
6. Implement Bikeway Master Plan and Pedestrian Master Plan facilities to achieve an annual expansion of 5% of the existing system.

7. Parks, Open Space and Habitat Conservation

Background: A City's quality of life is greatly enhanced by extensive parks and open space areas. From small urban parks, to regional parks, to trails and parkways, to agricultural lands, to golf courses, the presence of Nature, open space and habitat areas are essential. The preservation of open space and our rivers and creeks is essential to the health of our community. These areas provide opportunities for recreation, provide habitat for wildlife, and support alternative modes of travel. Parks and natural areas directly mitigate climate change by moderating temperatures from the urban heat island effect.

The urban forest is a key contributor to sustainability in a place named the City of Trees. Trees provide environmental and ecological benefits through improved air quality by storing carbon dioxide that would otherwise contribute to global warming, improving water quality by naturally filtering overland runoff, reducing flood risk through bank stabilization and increased water storage, and providing bird nesting habitat. The urban forest contributes economic benefits by increasing property values and lowering building energy use by providing incidental shade. Trees improve public health and well-being by reducing UV radiation exposure and converting CO₂ to oxygen.

Goals:

1. Expand the number of City parks.
2. Improve public access to open space, particularly along the Sacramento and American Rivers.
3. Maintain and expand the urban forest.
4. Preserve prime farmland and critical habitat resources.
5. Protect and restore the City's urban creek system.
6. Expand "green" park and golf course design and sustainable maintenance practices.

Targets:

1. Work with regional partners to adopt and implement guidelines that will protect and preserve open space, prime farmland and key habitat, including wildlife and riparian corridors.
2. Implement the Parks and Recreation Master Plan, Urban Forest Best Management Plan and Urban Forest Enhancement Plan.
3. Acquire land for additional public green space in underserved neighborhoods and infill development target areas.
4. Develop an inventory and restoration and management plans for the City's natural open spaces.
5. Work with community partners to achieve an urban tree canopy goal of 35% per the region's Greenprint Plan.
6. Develop an implementation plan to incorporate sustainable principles and practices into golf course and park design and maintenance, including public education.

8. Water Resources and Flood Protection

Background: Climate models indicate that California may experience an increased risk of water shortages in the future. On the other end of the spectrum, significant portions of the City are at risk from catastrophic flooding. Flood protection in California is an intergovernmental challenge involving federal, state, local and special district governments, and private property owners. Existing City policy is to achieve 200 year flood protection. The Sacramento Area Flood Control Agency (SAFCA), sponsored in part by the City, has developed and has begun to implement a long term plan to achieve 200 year flood protection for the greater Sacramento area. The City will continue to support SAFCA's efforts in this area.

Goals:

1. Conserve the use and protect the sources of water.
2. Work to provide exceptional flood protection.

Targets:

1. Continuously protect the ecological integrity of the City's primary drinking water source.
2. Work with SAFCA and other community partners to develop and implement a plan to achieve 200 year flood protection.
3. Implement the Statewide Urban Water Conservation Council's water conservation best management practices.
4. Continue to reduce sanitary sewer overflows.

9. Public Involvement & Personal Responsibility

Background: Ultimately, sustainability affects every level and scale of organization, from the entire planet to local neighborhoods and individuals. In addressing the global and regional issues facing Sacramento, public involvement and personal responsibility is vital to effectively planning actions and implementing solutions. A central goal of this focus area is to facilitate communication, public outreach and civic engagement on sustainability. Although the City has an important role in addressing climate change, residents and business must be inspired to take actions to reduce greenhouse gas emissions as well. The City should take the opportunity to work with citizens, businesses and community groups to implement personal and business oriented (e.g. County's BERC (Business Environmental Resource Center) Sustainable Business Program) sustainability initiatives.

Through a wide variety of programs and a broad-based network of partner organizations, — in schools, in parks, in community centers, and in neighborhoods — the City can promote an ethic of conservation and stewardship, and encourage and empower people to take actions that improve environmental quality and quality of life in and around their neighborhoods.

Goals:

1. Adopt an action plan to support a regional vision that fosters a collaboration of citizens, businesses and green-initiative groups to become engaged and contribute to a sustainable future.
2. Promote innovative programs to educate the public about climate change.
3. Commit to leading by example to foster behavioral change throughout the City.
4. Promote an ethic of conservation and stewardship.

Targets:

1. Develop and maintain a City sustainability website to provide as a resource to the community.
2. Work with BERC and other community partners to maximize the number of businesses within the City which incorporate sustainability into their daily operations.
3. Work with SMUD and other community partners to develop a LEED type, or carbon foot-printing type, of rating system for residents and their dwellings.
4. Develop a network of green-initiative groups to share resources, foster partnerships and unify education and outreach efforts.
5. Provide permanent and on-going educational opportunities for staff and citizens including a myriad of public information material tailored for diverse audiences and applicable to website development, media campaigns and educational initiatives.
6. Launch a "Green Neighborhood" program.
7. Develop a Sustainability "report card" be published annually.
8. Optimize opportunities to showcase Sacramento's environmental leadership through hosting conferences, workshops and events.
9. Encourage residential participation to expand usage of Community gardens.
10. Develop a Green Award program highlighting "green" achievements that include residents, businesses, commercial and non-profit organizations.

Creating a Sustainable City: 2010 Implementation Plan

City of Sacramento



City of Sacramento
GENERAL SERVICES
"WOW!" the Customer



Mayor

Kevin Johnson, Mayor

City Council

Raymond L. Tretheway III
Sandy Sheedy
Steve Cohn
Robert King Fong
Lauren Hammond
Kevin McCarty
Robbie Waters
Bonnie Pannell

District One
District Two
District Three
District Four
District Five
District Six
District Seven
District Eight

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Executive Summary

In December 2007, the Mayor and City Council adopted the City's first Sustainability Master Plan (SMP). The SMP is the City's road map to creating a sustainable City. It sets forth goals and long term targets that will guide the City and community toward reducing greenhouse gas emissions and promoting a greener path of doing business and living.

The 2010 Implementation Plan is the City's action plan for the next 12 months to move us toward our long term sustainability targets. Also contained in this document are 2009 successes and longer term actions for 2012 and 2030. And because many of the City's 2030 General Plan implementation measures address core sustainability issues, they are included in this Plan and identified with a number, e.g., GPIP 4-10-8. Including these measures in this Plan helps focus staff efforts, and consolidates them in a format which highlights the City's progress toward meeting our overall sustainability goals. As the Climate Action Plan is developed, staff will coordinate all sustainability efforts.

2010 Implementation Plan Highlights

California FIRST Program: The City will use \$740,000 of the US Department of Energy's Energy Efficiency and Conservation Block Grant (EECBG) for program staffing, education and marketing of the AB 811 program, California FIRST. The program is a voluntary special financing district which provides loans to residents to install energy efficiency and solar improvements in their homes. The program allows residents to pay for the improvements via an assessment on their property taxes.

Energy Efficiency Revolving Loan Program for City Facilities (formerly Performance Contracting): In 2008-2009, the City worked with a performance contracting consultant to review our facilities and make preliminary assessments for 20 energy conservation measures. Using about \$1.8 million of EECBG funds, the City will hire staff and move forward with refining and implementing these energy conservation measures within the next three years.

Solar for City Buildings: The City plans to enter into a solar power purchase agreement (PPA) with a third party to install up to 5 megawatts of solar on City facilities.

Climate Action Plan: Using the communitywide greenhouse gas inventory completed last year as a baseline, staff is partnering with the county, other cities, and SMUD to complete a communitywide Climate Action Plan (CAP). Phase I of the CAP for internal City operations will be presented to Council in February 2010 and the comprehensive communitywide CAP will be completed in June 2011. The CAP identifies measures to be used by the City and others to



reduce greenhouse gas emissions 15 percent below 2005 levels by 2020.

Sustainable Purchasing Policy: Through a cooperative, cross-department effort, staff developed a Sustainable Purchasing Policy in 2009. This policy sets guidelines and requirements for purchasing sustainable products for city operations. Staff will receive training on the new policy and recognition will be given to departments that make purchasing decisions consistent with it.

Fleet Telemetrics: The City contracted with Zonar Systems for fleet telematics equipment and services. Telematics can help the City achieve reduced fuel consumption and vehicle emissions as well as operational efficiencies. Telemetric equipment has been installed on about 150 vehicles to date. About 275 additional vehicles will have the equipment installed in 2010.

Countywide Green Building Program: Staff will coordinate with Sacramento County to establish a joint City/County task force to guide phase two of the Green Building Program.

Green Partnership Program: This program is proposed to align the corporate community's interest in environmental stewardship with the City's sustainability initiatives. New revenue could be used to accelerate action and strengthen economic development to position the City as the emerging green/clean tech center.

Funding the Sustainability Actions

The 2010 Sustainability Implementation Plan action steps will be funded using the following funding sources: existing operating department budgets, federal and state grant funding, and potential new revenue sources, e.g., the City's proposed Green Partnering Program. Due to budget challenges, the initiatives are generally limited to what the City can do with existing resources. As additional budget reductions are made in 2010, there will likely be an evaluation of the Plan for any necessary adjustments. In some cases the funding source is identified in the action step.

How to Read This Document

The 2010 Sustainability Implementation Plan is a compilation of the key actions the City will take in 2010. Like the Sustainability Master Plan, the Implementation Plan is separated into nine focus areas. Within each focus area, goals, 2009 accomplishments, 2010 actions, and longer term targets for 2012 and 2030 are stated. The key initiatives identified in the Implementation Plan for each focus area are linked to the Sustainability Master Plan targets, meaning everything planned for 2010 moves us toward the long term targets identified in the Master Plan. In addition, some initiatives refer to a General Plan implementation program (e.g., GPIP 4-6-20).



1. Energy Independence

Goals: To significantly reduce the use of fossil fuels, to improve the availability of locally and regionally produced renewable energy, to replace or renovate obsolete energy or resource inefficient infrastructure (buildings, facilities, systems, etc.) and to encourage and recruit green technology companies to locate in the City.

2009 Accomplishments

- **Energy Efficiency and Conservation Block Grant:** The City was awarded a \$4.7 million grant by the U.S. Department of Energy. City Council approved a spending plan for the grant funds to: (1) manage and install energy efficiency retrofits on City facilities (\$1.8M), (2) develop a regional assessment financing program (\$740K), (3) partner with SMUD on the Sacramento Regional Energy Alliance to reduce energy use and create sustainable jobs, (\$908K), (4) develop a Small Business Energy Efficiency Pilot Program (\$500K), (5) develop the City's Climate Action Plan, and (6) retrofit street lights with LED fixtures.
- **RFQ Issued for Solar Power Purchase Agreement (PPA):** The City distributed a request for qualifications (RFQ) for a solar power purchase agreement (PPA) to install solar on City facilities.
- **Energy Efficiency Revolving Loan Program for Facilities (formerly known as Performance Contracting):** In 2008 and 2009, the City worked with a performance contracting consultant to review our facilities and make preliminary assessments for 20 energy conservation measures. Using about \$1.8 million of EECBG funds, the City will complete the energy conservation measures within the next three years.
- **LEED Certification:** The following new facilities were awarded LEED certification: Oak Park Multipurpose Facility, Sim Community Center, Valley Hi Library, and North Natomas Library. Also, a retro-commissioning, SMUD-funded study of the Public Safety administration building was completed.
- **Business Environment Resource Center (BERC) Certification:** The South Natomas Community Center received BERC certification in 2009.
- **Lighting Projects:** Completed the lighting reduction project at the North Area Corporation Yard (NACY), the LED (light-emitting diode) pilot project in the Downtown Plaza Parking Garage, and lighting reduction projects at the Convention Center to reduce energy use at those City facilities.
- **"Green IT" Projects:** Completed the following IT data center projects to improve energy efficiency: adjusted data center room temperature four degrees, raised the floor venting, decommissioned the main frame, and installed new HVAC equipment.

2010 Implementation Plan

Long-Term Target: *Work to maximize local and regional renewable energy production with the goal that fifty percent of the energy (electricity, natural gas, motor fuels) consumed within the SACOG region be produced within the SACOG region.*

2010 Actions:

- **Solar PPA for City Buildings:** The City is entering into a power purchase agreement (PPA) with a third party to install solar photovoltaic (PV) power systems on City facilities. The City hopes to install up to five megawatts of solar.
- **Solar PV for Utilities Administration Building:** The City is installing solar photovoltaics (PV) on the City's Utilities Administration Building.
- **Solar Farm at 28th Street Landfill:** The City is seeking a third party to finance a small scale solar farm in partnership with the City at the 28th Street Landfill. The request for proposals (RFP) will be circulated by summer 2010. SMUD will be assisting with the RFP and will contract with the successful bidder for power. Hopefully five to ten megawatts per year will be generated on-site.

2010 Implementation Plan (cont.)

- **Waste-to-Energy Program:** Explore the feasibility of a waste-to-energy program, such as an anaerobic digester, biomass facility, or plasma arc gasification process, consider a “demonstration energy park”, and identify future opportunities for a waste-to-energy program on a regional, cooperative basis with SMUD, Sacramento County, and others. (GPIP 4-7-18)
- **Permit Streamlining:** Using the Solar America Cities grant, streamline the permitting process for solar photovoltaic and thermal systems, including fees.

Long-Term Target: : By 2030, energy consumption (electricity, natural gas, motor fuels) of City facilities on a unit basis will be 25 percent less than the baseline year of 2005.

2010 Actions:

- **Energy Efficiency Revolving Loan Program for City Facilities (formerly known as Performance Contracting):** The City proposes to use \$1.8 million in EECBG funding to hire staff and move forward with refining and implementing identified energy conservation measures within the next three years.
- **Business Environment Resource Center (BERC) Certification:** Staff will continue to pursue BERC Certification for the Convention Center and Pannell Community Center.
- **LEED Certification:** Staff is working on LEED NC (New Construction) certification for the Robbie Waters Pocket Greenhaven Library and LEED EB (Existing Building) certification for the City Hall building.
- **LED Street Lighting Program:** Using \$100,000 from the EECBG funds, the City will retrofit ornamental and mast-arm street lights in the Central Business District and Midtown areas with energy efficient, LED lamps to reduce energy consumption.
- **Convention Center J Street Marquis:** Replace the J Street Marquis on the Convention Center with an energy efficient sign.
- **“Green IT” Projects:** Improve energy efficiency of the City’s technology system by completing the following projects: server virtualization, remote power management, and purchasing Energy Star rated computers and other equipment.
- **Joint Use of County North Area Recovery Station:** Pursue joint use of the County North Area Recovery Station to reduce refuse truck vehicle miles traveled (VMT) and increase fuel efficiency.

Long-Term Target: By 2030, energy consumption (electricity, natural gas, motor fuels) per capita for the Sacramento community will be reduced by 25 percent relative to 2005.

2010 Actions:

- **Regional Assessment Financing District:** Using \$740,000 of EECBG funds, the City will develop an outreach, education and marketing program to support implementation of the California FIRST program which will provide financing for solar installation and energy efficiency improvements for property owners. California FIRST is a voluntary special financing district which would provide loans to residents to install energy efficiency and solar improvements in their homes.
- **Sacramento Regional Energy Alliance:** Using \$908,000 of EECBG funds, the City will partner with SMUD to provide funding for focused and enhanced incentives to City residents for residential and commercial energy efficiency retrofits. SMUD has developed the Sacramento Regional Energy Alliance, a regional energy efficiency partnership between local jurisdictions, educational institutions, other agencies, and SMUD.
- **Small Business Energy Efficiency Pilot Program:** Using \$500,000 of the City’s EECBG funding, SMUD will develop a pilot program to target small businesses in the City for comprehensive and cost-effective energy efficiency upgrades, including lighting retrofits, refrigeration and HVAC improvements, and other measures.

Long-Term Target: By 2015, provide leadership in the SACOG region to complete an energy surety plan.



Implementation Plan for 2012

- Increase the purchase of renewable energy to meet 10 percent of the City's operations annual electricity energy usage, above and beyond SMUD's Renewable Portfolio Standard goals.
- Increase the purchase of renewable energy to meet 10 percent of the City's operations annual fleet fuel requirements.
- Reduce energy consumption (electricity, natural gas) of City facilities on a unit basis to be 10 percent less than the baseline year of 2005.
- Reduce per capita fleet fuel consumption by 15 percent relative to baseline year of 2003.
- Reduce City Operations peak electric load to 25 MW (based on 2004 peak load of 28 MW) through energy efficiency, shifting the timing of energy demands and conservation measures.

Implementation Plan for 2030

- Per the California Energy Commission regulation, all new construction within City limits will be carbon neutral.
- Achieve carbon neutral fossil fuel energy use within City limits (electricity, natural gas, motor fuels).

2. Climate Protection

Goals: To meet the intent of the Global Warming Solutions Act (AB32) (or subsequent laws) for City operations, the community of Sacramento, and the SACOG region by working with community partners. Also, to develop a climate adaptation plan for the region by working with community partners.

2009 Accomplishments

- **Community Wide Greenhouse Gas Inventory:** In concert with Sacramento County and other jurisdictions, the City completed the community wide greenhouse gas inventory. The inventory will provide critical information for developing the City's Climate Action Plan.
- **Internal Operations Greenhouse Gas Inventory 2007:** The City's 2007 greenhouse gas emissions inventory has been completed but not certified by California Climate Action Registry (CCAR) due to lack of funds. The City has three certified years of inventories, 2004 to 2006, and has one additional year completed, but not certified, 2007.

2010 Implementation Plan

Long-Term Target: *By 2020, City operations will have reduced carbon dioxide emissions to 54,000 metric tons (equal to 1990 levels).* Note – we are evaluating the need to change this target due to pending regulatory clarifications and will return to Council to amend as needed.

2010 Actions:

- **Internal Operations Greenhouse Gas Inventory 2008:** Work on the 2008 GHG inventory will continue in 2010 as staff and other resources allow.
- **Climate Action Plan:** Per the 2030 General Plan, staff will complete a Climate Action Plan (CAP) for the City by June 2011. \$250,000 of the City's EECBG funding will be used to develop the CAP. Two planning phases are anticipated - 1) internal operations, and 2) community-wide. The draft Internal Operations CAP is scheduled for Council in February 2010. The community-wide CAP will be started in 2010 in partnership with Sacramento County, other cities, SMUD, and the community.
- **Energy Efficiency Revolving Loan Program for City Facilities (formerly known as Performance Contracting):** The City proposes to use \$1.8 million in EECBG funding to hire staff and move forward with refining and implementing identified energy conservation measures within the next three years.
- **Solar for City Buildings:** The City is entering into a power purchase agreement (PPA) with a third party to install solar photovoltaic power systems on City facilities. The City hopes to install up to five megawatts of solar.

Long-Term Target: *By 2020, the SACOG planning region will have reduced carbon dioxide emissions to 1990 levels.*

2010 Actions:

- **AB32 Scoping Plan:** Staff will continue to monitor and comment on State regulations related to the implementation of AB 32 in the SACOG region.
- **Climate Action Plan:** Per the 2030 General Plan, staff will complete a Climate Action Plan (CAP) for the City by June 2011. \$250,000 of the City's EECBG funding will be used to develop the CAP. Two planning phases are anticipated - 1) internal operations, and 2) community-wide. The draft Internal Operations CAP is scheduled for Council in February 2010. The community-wide CAP will be started in 2010 in partnership with Sacramento County, other cities, SMUD, and the community.



Implementation Plan for 2012

- Carbon neutral services will be available to all water and solid waste customers.
- City operations will have reduced carbon dioxide emissions to less than 66,000 metric tons (equal to 2000 levels) through improved energy efficiency and purchase of renewable energy.
- Efforts will continue to meet 2020 reduction targets for internal operations and community.

Implementation Plan for 2030

- Efforts will continue to meet 2050 reduction targets for internal operations and community.

3. Air Quality

Goals: Continue to partner with Sacramento Metropolitan Air Quality Management District (SMAQMD) to provide assistance in meeting and maintaining air quality standards and to encourage City employees to drive less and engage in clean air practices.

2009 Accomplishments

- **Air Quality Policies in 2030 General Plan:** Established new citywide policies related to air quality and reducing greenhouse gas emissions in the 2030 General Plan, adopted in March 2009.
- **Solid Waste Trucks:** Implemented a 4/10 work schedule for Solid Waste refuse truck drivers to decrease VMT and improve overall efficiencies of solid waste collection.
- **Fleet Telemetrics:** The City contracted with Zonar Systems for fleet telemetrics equipment and related services. Telemetrics can help the City achieve reduced fuel consumption and vehicle emissions as well as operational efficiencies. About 150 vehicles have the telemetric equipment installed to date.

2010 Implementation Plan

Long Term Target: Work with community partners to reduce the number of “unhealthy,” or “hazardous,” air quality days by 10 percent based on an established baseline year.

2010 Actions:

- **CEQA Mitigation Measures:** Recommend and develop new processes to improve monitoring and enforcement of all CEQA mitigation measures, including air quality measures.
- **Vehicle Idling:** Explore ways to efficiently enforce the existing City ordinance that limits idling of vehicles and off-road equipment (City Code 8.116.040)
- **Alternative Modes of Transportation:** Develop a public information program to encourage use of alternative modes of transportation (e.g. public transit, carpool, walking, biking) to get to work. Outreach to the public through DOT’s web site. Promote SACOG’s new and improved “Commuter Club”.
- **Employee Commute Survey:** Complete a City Employee Commute Survey and use the results in the Climate Action Plan to benchmark staff commute VMT and GHG emissions.
- **SMAQMD Programs:** Continue to participate in and partner with Sacramento Metropolitan Air Quality Management District on programs such as Sacramento Emergency Clean Air & Transportation (SECAT) Program, Spare the Air Program and the implementation of the 2030 General Plan.
- **Fleet Telemetrics:** Install fleet telemetric equipment and service on about 275 City vehicles in 2010.

Implementation Plan for 2012

- Continue to implement the citywide air quality policies of the 2030 General Plan.
- Continue to regulate development and build transportation infrastructure consistent with the 2030 General Plan.

Implementation Plan for 2030

- Through implementation of the 2030 General Plan, achieve commute trip reductions and the reduction in household vehicle miles traveled commensurate with those modeled in the Blueprint preferred scenario.
- Continue to implement the General Plan through 2030 for multiple environmental and public benefits including improved air quality, reduced energy requirements, and greenhouse gas emissions per capita.

4. Material Resources

Goals: To reduce consumption of materials, to encourage the reuse and local recycling of materials, and to reduce the use of pesticides and other toxic materials.

2009 Accomplishments

- **Construction and Demolition Waste Ordinance:** Council adopted the ordinance in March 2009.
- **Containerized Green Waste Program:** 30,000 customers were added to the voluntary containerized green waste program, bringing total customers up to 85,000 citywide.
- **Route Smart:** Implemented Route Smart software for solid waste trucks to decrease VMT and increase fuel efficiency.
- **Pesticide-Free Park Maintenance:** Department of Parks and Recreation implemented the City's first pesticide-free park maintenance pilot project in Fremont Park.
- **Sustainable Purchasing Policy:** General Services Department – Procurement Division coordinated across departments to complete a Sustainable Purchasing Policy. The City Manager's Office approved the policy and it will be implemented in 2010.

2010 Implementation Plan

Long-Term Target: *Implement an Environmentally Preferred Purchasing (EPP) policy which may include bid preferences to suppliers that meet minimum sustainability criteria as defined by the City of Sacramento.*

2010 Action:

- **Sustainable Purchasing Policy:** Implement the newly approved SPP, train employees on its use, and recognize departments that make purchasing decisions consistent with the new policy.

Long-Term Target: *Reduce the use of pesticides in City parks and facilities relative to an established baseline year.*

2010 Actions:

- **Integrated Pest Management (IPM):** Continue development and implementation of the City's Integrated Pest Management (IPM) program as described in the City's Pesticide Plan, provide at least one IPM training class for City applicators, develop IPM strategies for City's landscape maintenance contract services, and develop pest fact sheets describing general IPM strategies for pests commonly managed by the City.
- **Pesticide Use Data:** Document quantities of pesticides used from Use Reports, begin collecting pesticide use data from facilities that have begun implementing a facility specific IPM program, and continue collecting pesticide use data from Parks, Drainage, and Golf.
- **Pesticide-Free Park Maintenance Program:** Expand the pilot program to other City parks.

Long-Term Target: *Develop, implement and enforce a construction and demolition waste ordinance.*

2010 Action:

- **Construction and Demolition Ordinance:** Train City plan check staff to implement the ordinance adopted by Council in March 2009. (GPIP 4-7-18, 4-7-19)

2010 Implementation Plan (Cont.)

Long-Term Target: Work with stakeholders to maximize landfill diversion given reasonable cost effectiveness constraints.

2010 Actions:

- **Food Waste Pilot Program:** Work with the Green Restaurant Association Sacramento (GRAS) to develop a pilot program to compost food waste.
- **Vermicomposting Program:** Expand vermicomposting to additional City facilities.
- **Recycle Bank:** Put a contract in place in January for a pilot program, provide incentives, test the pilot, and consider taking the program city-wide.
- **Waste Stream Diversion:** Maintain the Franchise Hauler diversion from waste stream at 20 percent for 2010 (as of July 2009, 20.1% is diverted).

Long-Term Target: Increase efficiency of solid waste collection effort.

2010 Actions:

- **Alternative Landfill Disposal Site:** Continue to investigate an alternative landfill disposal site.
- **Take Back Partnerships:** Begin implementation of take back partnerships for universal waste. Formalize needle take back requirement at Council by April 2010. (GPIP 4-7-18)
- **Containerized Green Waste Program:** Continue to expand the Containerized Green Waste Program city-wide to reduce VMT, increase fuel efficiency and improve solid waste collection efficiency.

Implementation Plan for 2012

- Continue implementation of the Environmental Purchasing Policy.
- 60 percent-65 percent total diversion from waste stream.

Implementation Plan for 2030

- 70 percent total diversion from waste stream.

5. Public Health and Nutrition

Goals: To improve the health of residents through access to a diverse mix of wellness activities and locally produced food, to promote “greening” and gardening within the City, and to create “healthy urban environments” through Restorative Redevelopment.

2009 Accomplishments

- **Park Site Acquisition:** The City acquired four park sites in the Midtown, Fruitridge Manor, Oak Park, and River Garden neighborhoods that will be developed as small public places as funding allows.
- **School Lunches:** The City (through a County program) provides daily lunches to school children; some of the food provided is organic.
- **Farmer’s Markets:** Farmer’s Markets are operated on a daily basis throughout Sacramento for approximately seven months each year.

2010 Implementation Plan

Long-Term Target: Promoting Community Gardening and the Localization of Food.

2010 Actions:

- **Demonstration Landscapes:** Develop master plans for two pilot project Demonstration Landscapes (one ornamental, one food production) as tools to educate the public on how to garden and grow their own food. Robla Park and Burberry Park ornamental landscape projects will be completed in 2010.
- **Community Gardens:** Three new community gardens will open in 2010: Zapata, Martin Luther King, Jr., and Bill Bean, Jr. Free gardening classes are offered periodically.
- **Locally Produced Food:** Work with community partners to encourage the purchase of locally produced food. The City and Organic Sacramento periodically hold public education events related to gardening and locally produced food.
- **Backyard Chicken Ordinance:** Consider revising the City Code to allow egg-laying chickens in residential backyards.

Long-Term Target: Cleanup, Redevelop, and Reuse of Brownfield Sites.

2010 Action:

- **Key Contaminated Sites:** The City will continue to evaluate purchase possibilities of key contaminated sites for reuse and redevelopment. Staff will focus its efforts on clean-up of contaminated sites, most of which are paid for through State and Federal grants. Remediation of blighted and underutilized sites is critical to attracting new development and protecting public health.

Long-Term Target: Acquire land for additional public green space in underserved neighborhoods and infill development target areas.

2010 Actions:

- Finalize City land acquisition strategy, including financing, for adoption.

Implementation Plan for 2012

- Identify funding for and implement a regional demonstration garden and training center for public education.

Implementation Plan for 2030

- Achieve accessible park or recreational open space within 1/2 mile of all residences.

6. Urban Design, Land Use, Green Building and Transportation

Goals: To establish and continuously improve “green” building standards for both residential and commercial development – new and remodeled, to reduce dependence on the private automobile by working with community partners to provide efficient and accessible public transit and transit supportive land uses, and to reduce long commutes by providing a wide array of transportation and housing choices near jobs for a balanced, healthy City.

2009 Accomplishments

- **2030 General Plan Policies:** Established new policies related to urban design, land use, green building, and transportation in the 2030 General Plan, adopted in March 2009.
- **Support for Infill:** Phase 1 of the Zoning Code amendments to support infill development was adopted by Council on July 28, 2009.
- **Livability Index:** The draft Livability Index was presented to Council as part of the 2030 General Plan Annual Report on November 10, 2009.
- **Housing Element:** Adopted the Housing Element of the 2030 General Plan which includes a goal to develop and rehabilitate housing and neighborhoods to be environmentally sustainable.
- **Infill Strategy:** The Infill Strategy Annual Report was presented to Council, however no comprehensive update of the strategy will be started in 2010 due to lack of funding.

2010 Implementation Plan

Long-Term Target: *Work with community partners and adopt a LEED/BIG (Build It Green) type rating program for, new and retrofit, commercial and residential single family, multi-family and neighborhood development.*

2010 Actions:

- **Regional Green Building Task Force:** Using \$100,000 from EECBG funding, the City will coordinate with Sacramento County to establish a joint City/County task force to guide phase two of the Green Building Program. Complete a green building task force report including but not limited to recommendations on: (i) Thresholds for minimum mandatory (versus voluntary) green building standards for new buildings and remodels, including procedures for implementation; (ii) The feasibility of developing and implementing an energy and water retrofit ordinance for existing development, (iii) Specific considerations for improving energy efficiency of residential rentals, in conjunction with the residential inspection program, (iv) Energy efficiency upgrades for all existing housing units to be required at point of sale, and (v) Incentives for private residential and commercial development to become either LEED or GreenPoint Rated projects. The task force will convene in early 2010.
- **Zoning Code Amendments:** Develop zoning code amendments to establish additional standards for sustainable building and site design, e.g., building and site design to minimize heat gain. Conceptual changes will be presented to the green building task force in early 2010.
- **Green Neighborhood Design Checklist:** Develop and implement a green neighborhood design checklist to evaluate the sustainability of large-scale residential development in new growth areas. Concepts for the checklist will be presented to the green building task force in early 2010.

Long-Term Target: *Work with community partners to aggressively implement the City’s General Plan, which is consistent with the SACOG Blueprint.*

2010 Implementation Plan (Cont.)

2010 Actions:

- **Regular Coordination of Sustainability Efforts:** Develop and implement a program to promote sustainable development through regular regional coordination meetings that include local government representatives and other applicable agencies.
- **Infill Designations:** Amend zoning code to create designations to support urban infill.
- **Livability Index:** Include the Livability Index in the 2030 General Plan Annual Report. Many of the Livability indicators are common indicators used for sustainability (e.g. energy, waste, greenhouse gas emissions, VMT, mode split, infill development, equity, etc.).
- **Multi-Family Principles:** Adopt new Multi-Family Principles that encourage SHRA funded, new construction multi-family projects to exceed Title 24 standards.
- **LOS Standards:** Update City's Traffic Impact Analysis guidelines to reflect the Level of Service (LOS) standards in the 2030 General Plan. (GPIP 4-6-2)
- **Major Barriers to Connectivity Study:** Using the Transportation Programming Guide as a guideline, Department of Transportation (DOT) will develop a brief report identifying major barriers to connectivity throughout the city. Additional work is underway related to river crossings. (GPIP 4-6-5)
- **Update TSM Program:** The City shall update and enhance its Transportation Systems Management Program consistent with the policies of the General Plan. The program update is underway and is expected to be completed in spring 2010. It will be connected with the bicycle support facilities action below. (GPIP 4-6-7)
- **Bicycle Support Facilities Ordinance:** Develop and adopt an ordinance in spring 2010 for bicycle support facilities (e.g., bicycle racks, personal lockers, showers, and other support facilities). (GPIP 4-6-20)
- **Incentives for Private Transportation:** Conduct a study to identify economic incentives for private transportation partners seeking to enhance mobility in the Central City, centers, corridors, employment centers, and other high-intensity districts in the city. (GPIP 4-6-8)
- **NEV Study:** Conduct a study to identify appropriate routes and roadway markings/signage for Neighborhood Electric Vehicles (NEVs) within the Central City and between urban centers and corridors. (GPIP 4-6-9)
- **Pedestrian Promotional Package:** Work with walking advocates, such as WalkSacramento, to develop a comprehensive educational and promotional package for pedestrians. (GPIP 4-6-12)
- **Bikeway Master Plan:** Review and update the Bikeway Master Plan in 2010. (GPIP 4-6-14)
- **Transit Service Gap Study:** Conduct a study to identify gaps in transit service provided in the city and strategies to fill them. (GPIP 4-6-16)
- **Complete Street Study:** Conduct a study of the existing street network to identify streets that can be more complete based upon adopted design standards and the policies in the 2030 General Plan. (GPIP 4-6-18)
- **Parking Study:** Conduct a study of current parking requirements in the Central City and urban centers to evaluate options for dedicated parking spaces for car-sharing and incentives. (GPIP 4-6-21)
- **Impact Fee Program:** Prepare and adopt a citywide transportation development impact fee program to support the development of all travel modes needed for new development. (GPIP 4-6-24)

Long-Term Target: Implement Bikeway Master Plan and Pedestrian Master Plan facilities to achieve an annual expansion of 5 percent of the existing system.

2010 Actions:

- **Bike Parking Devices:** Install an additional 150 converted parking meter poles into bike parking devices.
- **Bike Parking in the ROW:** Institute new public bike parking program for the public right-of-way.
- **Two Way Street Conversions:** Continue to convert selected streets to two-way operation to make them more bicycle and pedestrian friendly.
- **Sidewalk Grinding:** Institute a sidewalk grinding option for sidewalk maintenance, if feasible.



Implementation Plan for 2012

- Continue to implement the land use, transportation, and green building measures of the 2030 General Plan, including annual implementation reviews and five-year updates. Monitor energy usage and CO2 emissions reductions and adaptively manage development and transportation patterns to meet targets of the Climate Action Plan.
- Update 2030 General Plan every 5 years (beginning 2013) to keep the plan current and relevant.
- Achieve 30 percent LEED-type certification of new construction within the City.
- Monitor and adaptively manage transportation development impact fee program and progress in filling transit gaps.
- Implement Bikeway Master Plan and Pedestrian Master Plan facilities to achieve an annual expansion of 1 percent of the existing system.
- Implement the policy requiring LEED (Leadership in Energy and Environmental Design) Silver certification for all new City owned buildings.
- Support the development of the South Line Phase II extension of the Sacramento Regional Transit System.
- Prepare and adopt multi-modal design standards that include all modes and vary the standards by facility type to imply a preference for selected modes based on the context. (GPIP 4-6-1)
- Identify options for informing transit riders of the availability and timing (e.g., headways) of public transit. (GPIP 4-6-4)
- Review and update the Bikeway Master Plan every 3 years. (GPIP 4-6-14)
- Conduct a study to analyze bike and pedestrian facilities on existing bridges to identify deficiencies and feasible improvements. (GPIP 4-6-17)
- Conduct a study to identify underused rights-of-way, such as street lanes, drainage canals, and railroad corridors to convert to bikeways and/or pedestrianways. (GPIP 4-6-19)

Implementation Plan for 2030

- Continue to implement the General Plan through 2030 for multiple environmental and public benefits including improved air quality, reduced energy requirements, and greenhouse gas emissions per capita.
- Achieve 80 percent LEED-type certification of new construction within the City.
- Support the development of the Downtown Natomas Airport extension of the Light Rail Transit system.
- Create a comprehensive bicycle and pedestrian network as outlined in the Bikeway Master Plan and Pedestrian Master Plan.
- Review and update the Bikeway Master Plan every 3 years. (GPIP 4-6-14)
- Review and update the Pedestrian Master Plan every 10 years. (GPIP 4-6-10)

7. Parks, Open Space, and Habitat Conservation

Goals: To increase the amount of publicly accessible and protected green space and riparian corridors, to expand the urban forest, to preserve farmland and habitat resources, and to expand “green” design and maintenance practices in the City’s system of parks, open space and golf courses.

2009 Accomplishments

- **2030 General Plan Policies:** Policies and implementation mechanisms that support parks, open space and habitat conservation were included in the 2030 General Plan, adopted in March 2009.
- **Pesticide-Free Park Maintenance:** Department of Parks and Recreation implemented the City’s first pesticide-free park maintenance pilot project in Fremont Park.
- **Audubon Certification:** Haggin Oaks, Maloney, and Cavanaugh golf courses have been fully certified as Audubon Cooperative Sanctuaries by Audubon International.
- **Park Acreage Inventory:** Completed a Citywide park acreage inventory and deficiency analysis by community planning area.
- **Parks Master Plan Update:** Completed the update of the 2005-2010 Parks and Recreation Master Plan to support the City’s Sustainability agenda.
- **Tree Planting:** Planted 728 new street trees in 2009.

2010 Implementation Plan

Long-Term Target: *Adopt and implement guidelines to protect and preserve open space, prime farmland and key habitat, including wildlife and riparian corridors.*

2010 Actions:

- **2030 General Plan Goals:** Implement 2030 General Plan Goals (LU 9: Open Space, Parks and Recreation and ERC 2: Parks and Recreation) and Policies (LU 9.1.1, LU 9.1.2, ERC 2.1.1, ERC 2.4.2) primarily through the development process, as funds allow.
- **Parks and Recreation Sustainability Plan:** Complete Implementation Work Program for 2008-2015 Parks and Recreation Sustainability Master Plan in early 2010.

Long-Term Target: *Acquire land for additional public green space in underserved neighborhoods and infill development target areas.*

2010 Action:

- **Public Green Space Acquisition Strategy:** Using the park deficiency analysis completed in 2009, finalize City land acquisition strategy, including financing, for adoption. Complete Central City park/open space land acquisition strategy for replication where needs are greatest. The City will consider adoption of the proposed River District Specific Plan which includes additional public park land in the Central City.

Long-Term Target: *Develop restoration and management plans for natural open space areas in City parks system.*

2010 Implementation Plan (Cont.)

2010 Actions:

- **4 Pilot Project Sites:** Develop plans for up to four pilot project sites. Incorporate “lessons learned” into City Parks and Recreation Facility Design and Development Standards. In 2010, pilot project sites include Burberry and Robla Parks, and in 2011, pilot project sites include Chorley and Dogwood Parks.
- **Map of Natural Areas:** Complete detailed mapping of all natural areas in the City park system, including those with formal protection status, by June 2010.

Long-Term Target: Develop an implementation plan to incorporate sustainable principles and practices into golf course and park design and maintenance, including public education and funding sources.

2010 Actions:

- **Demonstration Landscapes:** Develop master plans for two pilot project Demonstration Landscapes (one ornamental, one food production) as tools to educate the public on how to garden and grow their own food. Robla Park and Burberry Park ornamental landscape projects will be completed in 2010.
- **Audubon Certification:** Complete full certification of William Land Golf Course as Audubon Cooperative Sanctuaries by Audubon International.

Long-Term Target: Continue Implementation of Urban Forest Services Best Management Practices and ensure it is aligned with the Sacramento Tree Foundation Greenprint Initiative.

2010 Actions:

- **New Trees:** Continue tree planting and replacement programs with a goal of adding 1,000 new trees annually
- **Tree Inventory:** Complete the tree inventory in 2010.

Implementation Plan for 2012

Identify funding for and implement:

- Restoration and management plans for natural open space areas, and demonstration landscapes, at additional sites, including public education elements.
- Additional park acres across the spectrum of park types (pocket parks/urban plazas, neighborhood parks, community parks, regional parks, open space, parkways, trails/bikeways) for underserved neighborhoods and infill development target areas.
- Regional demonstration garden and training center for public education.
- Sustainable park design and maintenance citywide to achieve efficiencies, including water and energy use reductions.
- A street tree master plan for the central city area.

Implementation Plan for 2030

- Achieve accessible public park or recreational open space within 1/2 mile of all residences.
- Achieve restoration of and public access along all waterways and riparian corridors (Sacramento and American Rivers, urban creeks).
- Preserve all prime farmland and critical habitat resources.
- Achieve double the current canopy cover to meet the Greenprint goal of an average of 35 percent canopy cover.

8. Water Resources and Flood Protection

Goals: To conserve the use and protect the sources of drinking water and to work to provide exceptional flood protection.

2009 Accomplishments

- **Creek Work:** Finished work on Elder Creek, Union House Creek and Florin Creek between Morrison Creek and Franklin Blvd in 2009
- **Folsom Dam:** Flood control improvements at Folsom Dam continued in 2009 per schedule.
- **Natomas Levee Improvements:** Phase 2 construction began in 2009.
- **Floodplain LOMR:** Submitted a Letter of Map Revision (LOMR) to the Federal Emergency Management Administration (FEMA) removing approximately 1,500 houses from the Special Hazard Floodplain.
- **Water Ordinance:** On June 12, 2009, Council adopted a revised Water Ordinance on mandatory restrictions, penalties, and violations.
- **Water Meters:** Installed about 2,000 water meters in 2009.
- **Erosion Control:** Erosion control work was accomplished on the Natomas Sacramento River Levee..
- **Education and Inspection Program:** The City initiated a water conservation education and inspection program.
- **American River Watershed Sanitary Survey:** In partnership with several water utilities, the City completed the first year implementation of the American River watershed sanitary survey.
- **Residential Customers:** 2,793 water waste calls completed, 274 water audits completed, 200 Hi-low meter reads conducted, and 3,523 new resident packets sent.
- **Commercial, Institutional Customers:** 125 water audits completed.
- **Residential and Commercial Toilet Rebate Program:** 497 ultra-low flush and high efficiency toilets have been retrofitted and 1,554 rebates processed.

2010 Implementation Plan

Long-Term Target: *Continuously protect the ecological integrity of The City of Sacramento's primary drinking water source.*

2010 Actions:

- **Stormwater Discharge Permit:** Continue implementation of the City's NPDES Stormwater Discharge Permit. (GPIP 4-7-17)
- **Update Sacramento River Watershed Sanitary Survey:** Initiate Sacramento River Watershed Sanitary Survey 2010 Update and make significant progress toward finalizing and submitting the plan to California Department of Public Health by December 2010.
- **Voluntary Spill Notification Program:** Provide ongoing support for the voluntary spill notification program for the City's water treatment plants, including participation and leadership in water utility partnerships.
- **Water Source Protection:** Continue Sacramento and American River ongoing source water protection efforts, based on follow-up to watershed sanitary survey recommendations. (GPIP 4-7-17)

2010 Implementation Plan (Cont.)

Long-Term Target: Achieve 200 year flood protection.

2010 Actions:

- **Natomas Levee Improvement Program (NLIP):** Bid and construct Phase 3A and 3B and bid Phase 4A.
- **Union House Creek:** Work on value engineering and complete the Local Re-evaluation Report (LRR) for Union House Creek between Franklin and Center.
- **East Morrison Creek:** Complete design and start construction on East Morrison Creek Levee between Union Pacific rail line and Union House Creek.

Long-Term Target: Flood Risk Reduction

2010 Actions:

- **Comprehensive Flood Management Plan:** Present the CFMP to Council in May 2010 and begin to implement the plan.
- **CRS Level 4:** Achieve Community Rating System (CRS) Level 4 designation by December 2010.
- **Multi-Hazard Mitigation Plan:** Complete the County-wide Multi-Hazard Mitigation Plan.

Long-Term Target: Implement The City's Water Conservation Program.

2010 Actions:

- **Urban Water Management Plan:** Revise Urban Water Management Plan per State requirements.
- **Water Conservation and Protection:** Install 21,000 water meters in 2010.
- **Water Usage in Open Spaces:** Utilities and Parks and Recreation departments will continue to work on grant opportunities to save water usage in open spaces. Approximately \$400,000 is to be invested in 2010. Additional grant opportunities will be pursued.
- **Integrated Regional Water Management Plan Update:** Convene a planning forum to get ideas for planning and projects to include in the Integrated Regional Water Management Plan. Apply for Proposition 84 and other grant funding for both planning and implementation. (GPIP 4-7-9, 4-7-10)
- **Residential Assistance (Survey/ Audit) with Meter Install:** Provide 420 water wise house calls with meter installation.
- **Information Packet with Meter Install:** Provide information packet with each water meter installation.
- **Residential Assistance with Toilet and Washer Rebate Program:** Provide residential assistance (survey/ audit) with toilet and washer rebate program (250 surveys).
- **Survey High Water Users:** Provide 150 surveys to homeowners' associations (HOAs) and elder care facilities with high water use.
- **Residential Assistance Ambassadors:** Train Ambassadors (volunteers) to provide door-to-door residential assistance (survey) to targeted areas (older neighborhoods with large numbers of remodels and high water waste complaints (100 surveys).
- **Park Water Use:** Perform 120 Park water use analyses.
- **Top Water User Surveys:** Target top 25 water users for indoor survey (audit) excluding production facilities.
- **Water-Efficient Demonstration Landscape Design:** Develop water-efficient demonstration garden/ landscape design to exemplify practices of water conservation and river friendly landscape guidelines.

Long-Term Target: Continue to reduce Sanitary Sewer Overflows.

2010 Actions:

- **SSOs:** Reduce sanitary sewer overflows (SSOs) from current level of 13.5/100 miles of pipe per year.
- **Class 1 Spills:** Allow zero Class 1 spills.

Implementation Plan for 2012

- Continue to implement the City's NPDES Stormwater Discharge Permit.
- Continue regional approach for American and Sacramento River Watershed Sanitary Survey Updates.
- Continue Sacramento and American River ongoing source water protection efforts, based on follow-up to watershed sanitary survey recommendations, including support of watershed protection efforts such as Keep Our Waters Clean.
- Work with SAFCA to complete the North Natomas and South Sacramento Streams Group levee projects.
- Continue water meter retrofit program.
- Continue implementation of City's water conservation program.
- Continue to reduce SSOs by 3 percent annually measured from 2003 baseline.



Implementation Plan for 2030

- Continue to implement the City's NPDES Stormwater Discharge Permit.
- Continue regional approach for American and Sacramento River Watershed Sanitary Survey Updates.
- Continue Sacramento and American River ongoing source water protection efforts, based on follow-up to watershed sanitary survey recommendations, including support of watershed protection efforts such as Keep Our Waters Clean.
- Work with SAFCA to achieve 200 yr protection for all levees protecting the City of Sacramento.
- Work with SAFCA to achieve continuous levee improvements.
- Continue to reduce SSOs by 3 percent annually measured from 2003 baseline.
- Finish meter retrofit project.

9. Public Involvement and Personal Responsibility

Goals: Adopt an action plan to support a regional vision that fosters a collaboration of citizens, businesses and green-initiative groups to become engaged and contribute to a sustainable future, to promote innovative programs to educate and capture the public's imagination of global change, to commit to leading by example and foster behavioral change throughout the City, and to promote an ethic of conservation and stewardship.

2009 Accomplishments

- **Clean Tech Showcase:** Partnered with SARTA to host the Clean Tech Showcase at Sacramento State University on October 16, 2009. Over 800 people attended the day-long event.
- **Clean Tech Zone Summit:** The City hosted the Clean Tech Zone Summit at Sacramento State University Alumni Center to feature the new clean tech businesses in the Power Inn Alliance area. Senator Pro Tem Darrell Steinberg presented the vision for the Clean Tech Zone and US Congresswoman Doris Matsui sent a videotaped presentation supporting the effort.
- **2009 Green California Summit and Expo:** City staff from various departments attended the 2009 Green California Summit and Exposition.
- **Earth Week:** City staff orchestrated and participated in the Earth Week celebration in April 2009.
- **Sustainability Website:** City staff made major improvements to the City's Sustainability Website in 2009.

2010 Implementation Plan

Long-Term Target: *Develop and maintain a City Sustainability Web site to provide a resource to the community.*

2010 Actions:

- **Community Website:** Continue improving the City's Sustainability Web site to promote community engagement in City sustainability resources and programs.
- **Sustainability Website:** Encourage City departments to address sustainability on their Web sites and to link to the City's main one.

Long-Term Target: *Work with community partners to incorporate sustainability in their daily operations.*

2010 Action:

- **Energy Efficiency Partnerships:** Continue building on the City's existing partnerships, such as with Sacramento County's Business Environmental Resource Center (BERC) and Sacramento Municipal Utility District (SMUD), to promote energy efficiency for the business community and for individuals.

Long-Term Target: *Develop a network of green-initiative groups to share resources, foster partnerships and unify education and outreach efforts.*

2010 Actions:

- **Sustainability Civic Engagement:** Identify and work with existing groups, such as schools, neighborhood associations, and non profits, to identify issues and opportunities for engaging them in sustainability efforts. Work with community partners to ensure that all possible segments of the community are included in the City's sustainability efforts and outreach.

2010 Implementation Plan (Cont.)

- **EECBG Public Outreach and Education:** Using \$100,000 EECBG funds, the City will educate the public about the opportunities for SMUD incentives created by the Sacramento Regional Energy Alliance, federal tax credits for solar and energy efficiency, as well as identifying the programs the city is funding with stimulus funds.
- **SAC Public Outreach and Education:** Using a portion of the Solar America Cities grant, the City will provide public outreach and education about solar energy, including through school programming.

Long-Term Target: Develop myriad public information materials tailored for diverse audiences and applicable to Web site development, media campaigns, and educational initiatives.

2010 Action:

- **Sustainability Website:** Continue improving and promoting the City's Sustainability Web site.

Long-Term Target: Launch a "green neighborhood" program.

2010 Action:

- **Sustainability Promotion:** Promote existing programs and the City's efforts, including the carbon footprint rating system, which will be selected and promoted. Collaborate with partners to prioritize potential sustainability actions based on potential impact and feasibility. Develop outreach materials promoting the most important ones.

Long-Term Target: Organize opportunities to showcase Sacramento's environmental leadership through hosting conferences, workshops and events.

2010 Actions:

- **Green California Summit:** Participate in the 2009 Green California Summit and Exposition by encouraging targeted City employees to attend and some to be speakers. Attending employees will identify ways to share and use this experience to benefit the City.
- **Earth Week:** Participate in Earth Week celebrations by promoting the City's sustainability efforts and by recruiting groups and individuals, including City employees, to join.
- **Clean Tech Assessment and Market Study:** Using a portion of the Solar America Cities grant, the Economic Development Department will complete a Clean Tech Assessment and Market Study to identify business opportunities, infrastructure needs, and incentives to promote the clean tech industry in Sacramento.

Long-Term Target: Continue to pursue funding to expand the number of sites for public community gardens.

2010 Actions:

- **Demonstration Gardens:** Continue seeking funding and other resources for demonstration gardens in each Council District.
- **Locally Produced Food:** Work with existing groups to promote gardens, including front-yard ones, to provide affordable, fresh, locally-grown, and culturally appropriate food that nourishes families and their communities.



Implementation Plan for 2012

Conduct Education and Outreach

- Partner with Sacramento's diverse communities to engage citizens in specific issues and actions.
- Continue to convene sustainability forums.
- Refine public outreach strategies and expand the concept of the City as a steward of public resources.
- Build on programs to foster individual movement off the "grid."

Develop and Implement an Environmental Justice statement

- Collaborate with city agencies, nonprofit organizations, neighborhoods groups and community organizations to promote the issues of air quality, food availability, renewable energy systems, sustainable land use and the reduction of greenhouse gases.

Develop Partnerships

- Build on existing interest in sustainability issues to maximize resources that engage citizens to take action.

Implementation Plan for 2030

Conduct Education and Outreach

- Introduce a Personal Responsibility component to City School District's curriculum.
- Have all education and outreach materials translated into the six most used languages to meet current and future population needs.

Develop and Implement Campaign to Make Green Routine

- Achieve "green" practices in residential households.

Develop Partnerships

- Expand existing partnerships with City agencies, educational institutions, neighborhood groups, businesses and community organizations to continue efforts to maintain the City's status as an environmental "green" leader.