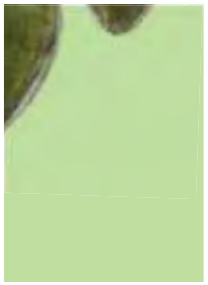
Sustainability Initiatives Report 2007

City Manager's Office









CITY OF ROSEVILLE CALIFORNIA

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Introduction

The City of Roseville has an amazing legacy of leadership when faced with challenges. By researching, seeking public input, developing options, and acting decisively, city leaders have continuously demonstrated a vision for the future and an ability to improve residents quality of life while being fiscally and environmentally responsible.

Climate Change Science

Addressing the issues of climate change and global warming will require leadership and execution at every level of government, including the City of Roseville. The international community, through the World Meteorological Organization and the United Nations Environment Program, created the Intergovernmental Panel on Climate Change (IPCC) to assess peer-reviewed scientific and technical studies to present "comprehensive, objective, open and transparent" information on climate change. The panel was awarded the 2007 Nobel Peace Prize with former Vice President Al Gore in 2007 in recognition of "their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change."[1]

climate change · change in long-term weather patterns

global warming · an average increase in the Earth's surface temperature

The IPCC working group is projecting global surface temperatures will warm, ecosystem resilience will be exceeded this century[2], and that net carbon uptake by the Earth's ecosystems will actually decline by the middle of the 21st century, amplifying climate change. [3]

According to the California Environmental Protection Agency, climate change impacts in California this century will raise temperatures slightly, decrease spring run-off and result in a sea level rise of several inches.[4] This will directly affect Roseville in several ways. As the source of Roseville's water supply, a decline in the Sierra snow pack would impact

the City's standard of living. An increase in temperature will hamper air quality attainment efforts and increase electricity demand. Potential public health impacts include increases in weather related deaths and infectious disease.

Legislative Mandates

While the projected environmental impacts of climate change are motivation to adopt strategies to reduce the City's carbon emissions, so are the legislative mandates approved by the state Legislature and signed into law by the governor in 2006. There are two pieces of legislation in particular that are prompting action by the City of Roseville.

The Global Warming Solutions Act of 2006 or AB 32, acknowledges the threat to California's economy, public health, and environment and the potential impacts on air quality, water supply, sea level and industries. The law mandates that Greenhouse Gas Emissions (GHG) be reduced to 1990 levels by 2020. The State Air Resources Board has determined that the 1990 level was 427 million metric tons of carbon dioxide emissions. The state is preparing a GHG Emissions Reduction Plan and mandating reporting by 800 facilities including cement plants, oil refineries, cogeneration facilities, and electric generating facilities in the first phase of implementation.

There are no regulatory requirements as of yet for local governments as part of the adopted legislation. The State Air Resources Board is developing a local government reporting protocol for emissions and some early action measures (for example, regulations on methane capture from municipal landfills) that may affect the City of Roseville. The City also has stationary sources such as the Roseville Energy Park, the former municipal landfill, the Union Pacific Railyard and NEC Electronics that may be subject to further emissions reporting and mitigation.

The state of California has a Renewables Portfolio Standard that states 20 percent of all energy will come from renewable sources by 2017. SB 1078 established the Renewables Portfolio Standard, requiring Investor Owned Utilities to increase their renewable purchases by one percent per year until the total reaches 20 percent of purchases by 2017. The Roseville City Council approved a similar commitment by Roseville Electric, the municipal electric utility, in 2003.

1 www.nobelpeaceprize.org; 2 IPCC Working Group I & II ; Climate change 2007; 3 Impacts, Adaptation, and Vulnerability Summary for Policy Makers, April 2007; 4 California Climate Action Team Report, 2006

Regional Efforts – Green Capital Alliance

The Partnership for Prosperity is a regional economic development effort to create a business plan for the Sacramento Region. Clean energy was identified as one of the five focus areas in the plan and a Clean Energy Action Team (now formally branded as the Green Capital Alliance) has been meeting since April 2006 to attract and retain clean energy technology businesses, develop a regional market for renewable energy, produce the skilled workforce to meet the growth in the clean energy technology area, brand the region as a hotspot for clean technology, and support new business and entrepreneur development.

The City has participated as a champion on the Clean Energy Action Team since its inception. City staff drafted the Clean Tech Resolution adopted by the Sacramento Area Council of Governments (SACOG) Board of Directors in December 2006 and the Roseville City Council was the first to adopt a slightly modified version in January 2007. Numerous other cities have adopted a version of the resolution that states clean technology is a priority in the region and a growth industry, and that local governments will work to be proactive in complying with the state legislation that has been adopted. Staff hosted the Clean Energy Action Team on numerous occasions, participated in a series of CEO roundtables, and traveled to New York City with Sacramento Area Commerce and Trade Organization's (SACTO's) delegation to market the region as a "hotspot" for clean energy. The City also worked to support Sierra College in its pursuit of a grant to train solar installers including an in-kind match to build a regional training facility at the City's Corporation Yard for students as well as building inspectors and firefighters.

The care of the earth is our most ancient and most worthy, and after all our most pleasing responsibility. To cherish what remains of it and to foster its renewal is our only hope.

—Wendell Berry

Roseville Green Team

The Green Team began meeting informally in the summer of 2006 to begin outlining the sustainable efforts by several individual city departments. The Roseville City Council formally approved the Roseville Green Team as a citywide effort at its Jan. 17, 2007 meeting. The purpose of the Green Team is to:

Inventory City Initiatives

Create a repository of Roseville's current sustainable initiatives accessible to city staff and the community.

Research Best Practices

Research new projects, programs and services that will save money, protect the environment and continue Roseville's tradition of being a progressive leader. The Green Team will make policy recommendations for city management and the City Council to consider based on this research. Grant eligibility for green programs will also be pursued whenever possible.

Study Emissions

Oversee a citywide emissions inventory to establish the City's baseline emissions, identify the sources of the emissions and recommend ways to reduce Roseville's carbon footprint.

Marketing City Efforts

Tell Roseville's story to attract clean technology businesses, educate our community and bring social, environmental and economic benefits to our City.

Report Format

The remainder of the report provides a very brief summary of the work of the Green Team. Each team has provided a background section, a list of city accomplishments to date in each area, and a list of goals and targets for future city action.

The 35-member Roseville Green Team met regularly in 2007 and divided into seven work groups to develop the initial inventory, goals, and targets contained in this Council report. An eighth team was added at the end of 2007 to address purchasing-related issues.

Roseville Green Team Work Groups:

Energy and Emissions

Green Building

Land Use Management and Urban Design

Marketing and Research

Recycling and Waste Reduction

Transportation

Water and the Environment

Purchasing

Members of Roseville's Green Team

Citywide Emissions Inventory

Background

AB 32 is the first statewide effort in the United States to limit emissions from every major source of global warming pollution. State and local governments throughout the United States, however, are adopting emission-reduction targets and programs even without a legislative mandate.

The City of Roseville is following Roseville Electric's lead in joining the California Climate Registry and preparing an emissions inventory for City of Roseville operations. The City has contracted with KEMA, an environmental consulting firm, to measure and inventory city GHG emissions for 2006 and 2007 in accordance with the California Climate Action Registry Reporting Protocol. Based on this study and completed facility efficiency audits, solar feasibility studies and City of Roseville Green Team research, KEMA will also quantify the costs and benefits of potential emissions reduction projects to assist the City Council in reducing Roseville's carbon footprint.

Accomplishments

Preliminary results of the emissions inventory are expected for the Jan. 30, 2008 City Council workshop with a final report including recommendations expected in March 2008.

Goals

- Join the California Climate Registry and actively participate in programs and services offered to local government.
- Measure the emissions associated with city operations including energy use, fleet operations, treatment plant operations, landfill operations and fire stations.
- Prepare a list of short- and long-term recommendations for reducing the City's emissions.
- Proactively prepare for state rulemaking from the Air Resources Board and the California Energy Commission as well as any Executive Orders from the Governor's Office that may require emissions reductions by cities in the future.

Targets

- Complete the emissions inventory by March 2008.
- Adopt short-term emissions reduction programs and continue ongoing programs as part of the fiscal year 2009 budget.
- Seek grant funding for additional programs to offset GHG emissions.
- Share the emissions inventory results with staff to encourage changes in everyday business practices while tracking the environmental and economic benefits of reducing Roseville's carbon footprint.

Water and the Environment

Background

Withdrawals for drinking water from public water sources are approximately 45 billion gallons per day—up from 15 billion gallons per day in the 1950s. More than 85 percent of the U.S. population gets drinking water from public suppliers. With such an increased demand on such a limited supply, we need to incorporate water use efficiency into our daily lives to sustain this resource for future generations. It is more cost effective to find ways to save water than it is to build more dams and treatment facilities.

Note: An acre-foot of water equates to the water usage of a four-person household per year or 325,851 gallons.

Accomplishments

- Conducted 5,251 water audits, saving 921 acre-feet of water.
- Issued 734 low-flush toilet rebates and 1,847 high-efficiency washing machine rebates, amounting to a 132-acre-foot water savings.
- Participated in the U.S. Environmental Protection Agency (EPA) Water Use Study to help the new federal Water Sense Program collect data for better program implementation.
- Established 350 water budgets for dedicated irrigation accounts.
- Saved an estimated 4,610 acre-feet of water due to meter retrofit program.
- Saved 7,248 gallons of potable water by using recycled water for nonpotable irrigation uses.
- Distributed 7,891 plumbing retrofit kits to the Roseville community saving 134 acre-feet of water.
- Developed an aquifer storage and recovery pilot program to bank potable water for future use.
- Dedicated 4,500 hours to water-waste patrols and customer notification of water waste.
- Received the 2006 U.S. Bureau of Reclamation's Regional Directors Award to recognize the outstanding water conservation efforts of the City of Roseville.
- Developed a Stormwater Pollution Prevention Program that mitigates all forms of stormwater runoff.
- Hired an Urban Forester to plan, develop, implement and manage a citywide urban forestry and streambed maintenance program.

Goals

- To ensure a safe and reliable water supply for city customers and regional partners and to protect the quality of our surface and ground water resources for beneficial uses.

Performance Measures

- Develop a unified city message on sustainable water practices.
- Work to enhance understanding throughout the City of Roseville organization of sustainable water practices.
- Develop a citywide water-efficiency policy that will incorporate parks, maintenance, planning and green building practices.
- Reduce city facility water consumption by 10 percent by the end of 2008 through irrigation monitoring and overall facility reduction.
- Improve water quality in local waterways by implementing the best management practices specified in Phase 1 of the National Pollutant Discharge Elimination System (NPDES) permit and by enforcing Storm Water Pollution Prevention Plans (SWPPP) requirements.
- Develop an open space management plan.

Purchasing

Background

City purchasing of goods and services amounts to thousands of transactions each day. As a large consumer, the City has a responsibility to purchase goods with a minimal adverse effect on the environment. The City also has an opportunity to lead by example and influence both the products sold by vendors and the way that businesses make their purchasing decisions.

Many of the Green Team subcommittees have identified the need for a purchasing policy that meets the following goals:

- Requires departments to comply.
- Identifies sources for green product information.
- Outlines a citywide education program for green products.
- Does not restrict purchasing flexibility.
- Explains the benefits of purchasing green products.
- Requires contract vendors to operate in an sustainable manner.

Accomplishments

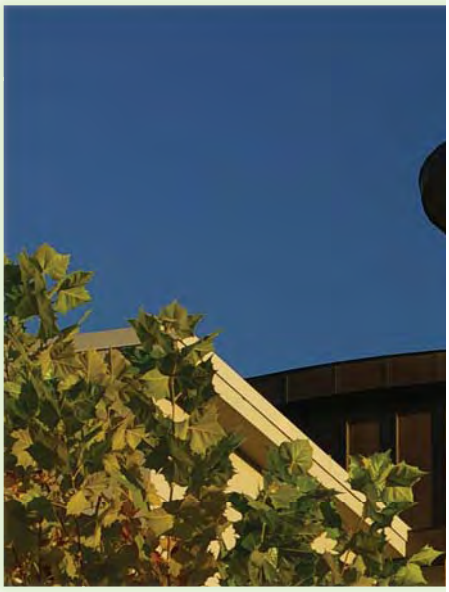
- Created draft policies that require consideration of complete product lifecycle when making purchases.
- Established guidelines for the formation of a green purchasing review committee that is responsible for:
  - annual reporting of environmental benefit
  - developing a citywide training program for green purchasing
  - identifying environmentally preferable purchasing opportunities
  - tracking the development of environmental standards and specifications, including those developed by independent, well-respected organizations such as Environmental Choice, Green Seal, Forrest Stewardship Council, or Energy Star
- Modified purchasing guidelines to accommodate the implementation of a green purchasing policy.

Goals

- Reduce the adverse environmental impact of our purchasing decisions by buying goods and services from manufacturers and vendors who share our commitment to the environment.
- Promote practices that improve public health and safety, reduce pollution, conserve natural resources, and reward manufacturers and vendors that reduce the adverse environmental impact of their own production and distribution.

Targets

- Calculate and compare total costs over the life of each item, which include the initial cost, maintenance, operation, insurance, disposal, replacement and potential liability costs.
- Establish an awards program to recognize the efforts of individuals and departments that are most successful at implementing the goals of the purchasing policy.
- Prepare an annual report documenting efforts to buy more environmentally preferable goods and services.
- Meet or exceed all standards set by U.S. Environmental Protection Agency (EPA), the federal Energy Star program, Environmental Choice and Green Seal.



Energy and Emissions

Background

The City of Roseville is fortunate to own and operate a municipal electric utility, Roseville Electric. Established in 1912 with the purchase of a distribution system from PG&E, Roseville Electric has encouraged smart energy usage for many years through the installation of photovoltaic systems, the Green Roseville program (allowing customers to purchase renewable energy), the Blue-print for Efficiency and Solar Technology (BEST) Homes program and participation in the California Climate Registry. Roseville Electric staff include a number of in-house experts on energy usage, emissions measurement standards, and programs that can effectively reduce emissions from city operations. Roseville also maintains a fleet of 900 vehicles, operates Roseville Transit and has made a concerted effort through the Public Works Department to reduce energy usage by planning and building an extremely efficient roadway network.

Accomplishments

- The City has retrofitted 32 solid waste collection trucks and Roseville Transit buses with Diesel Emissions Control Systems, reducing diesel particulate material by 85 percent and nitrogen oxide output by 25 percent for each vehicle.
- More than 2,500 traffic signal heads, 900 pedestrian signal heads and a dozen internally-illuminated street name signs now use energy efficient Light Emitting Diodes (LED), resulting in an annual reduction in energy consumption of more than 3.6 million kilowatt hours.
- The Roseville Electric Renewable Portfolio Standard requires 20% renewable power resources in Roseville Electric's power portfolio. Currently, Roseville Electric provides hydro-electric power and energy produced via geothermal and land-fill gas which equals approximately forty-five percent of Roseville's electrical needs. These purchases eliminated the production of 266 million pounds of carbon dioxide.
- Three electric vehicle charging stations are maintained to encourage and support the use of electric vehicles .
- The City, as an organization, qualifies as an EPA Green Power Partner by purchasing Green Roseville renewable energy credits equaling five percent of our city building energy use, far surpassing the requirement of three percent. Five solar power generators produce enough energy to power 80 homes for one year.
- The Tree Mitigation Plan and the Roseville Shade Tree program have planted 20,000 in Roseville with plans for 8,100 for 2008.
- Roseville has a strong commitment to energy reductions and renewable energy resources, with an allocation of five percent of total Electric revenues toward demand side programs and resources including

incentive programs for Solar Electric (PV), energy efficient appliances and equipment for residential and commercial customers and energy audits.

- All development agreements include above standard energy efficiency requirements.

Goals

- Develop a GHG reduction goal for the City to conform to established legislation.
- Ensure reduced emissions and a clean, efficient, safe and reliable energy supply for the City of Roseville.
- Enable sound, sustainable energy consumption practices through the development and implementation of city energy efficiency policy, public education, efficiency programs, best management practices, planning, and by leveraging existing best technology and funding sources.

Targets

- Add a "Sustainability" section to the Council Communication template.
- Designate Roseville as a beta site for new and emerging renewable energy/energy efficient/clean energy technologies.
- Complete an audit of all non-utility plant city facilities, where feasible, to include electricity, water, natural gas and recycling.
- Install solar electric generators on city buildings when feasible.
- Reduce total Roseville energy requirements by five percent by 2012 through demand-side programs such as energy efficiency and renewable energy sources like solar energy facilities.
- Construct Roseville's new homes over the next 10-25 years to meet Preferred Homes requirements with 20 percent as BEST Homes.
- Develop a Roseville building code for residential and commercial construction requiring energy and peak demand reductions.
- Develop a "Green Fleet" policy that establishes goals for fleet fuel efficiency and vehicle emissions including the purchasing of hybrid cars only for staff.
- Subscribe all non-utility plant, city-owned facilities to Green Roseville.
- Through the Green Roseville program, increase Roseville green power consumption to two percent of total energy usage, designating Roseville as the second city in the state and twelfth in the nation as an EPA Green Power Community.
- Increase Green Roseville participation to ten percent of the city population by December 2012 from the December 2007 estimate of four percent.

Green Building

Background

Buildings have a huge impact on the environment, taxing its resources and generating pollutants that increase global warming. According to a 2007 United States Green Building Council (USGBC) study, buildings are responsible for 38 percent of carbon dioxide emissions, 71 percent of electricity consumption, 39 percent of total energy use, 12 percent of water consumption and 40 percent of non-industrial waste in the United States.

The USGBC defines a "green building" as one designed to achieve benchmarks in five key areas of human and environmental health: (1) sustainable site development, (2) water savings, (3) energy efficiency, (4) materials selection and (5) indoor air quality. These benchmarks are best typified by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™, a nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED® encourages and accelerates adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria. LEED® certification is also possible for parks facilities by following the established criteria.

Accomplishments

- The Martha Riley Community Library/Utility Exploration Center is the first city-owned LEED®-certified building and only the second in the city (Williams + Paddon was the first).
- A team member in the development of Cal State Sacramento's Green Building Operator Certification program. This program will be extended throughout the Cal State system upon successful implementation.
- A team member on the Sacramento Region's Public Agency Council, hosted by Build It Green. The goal of this group is to organize all local government agencies and develop consistent policies within the region.

Goals

- Own and operate a collection of facilities and parks that are efficient, healthy and promote a responsible, prosperous environment.
- All buildings constructed with City funds are to be designed, constructed, operated, and maintained according to the principles outlined in the U.S. Green Building Council's LEED® standards, and according to recognized best management practices for sustainability.
- Adopt a Green Building Ordinance for all existing and future city-owned buildings and parks.

Targets

- Construct all new city-owned facilities, major renovations and parks to be LEED® certified and achieve Energy Star® status.
- Incorporate all appropriate LEED®-EB (Existing Buildings) principles into facility operation and maintenance programs at all existing and future City-owned and operated facilities .
- All projects that are not eligible for LEED® certification shall implement recognized best management practices for sustainability.
- All facilities, in which the city is a partial owner or tenant, shall be constructed and managed to the equivalence of LEED® certification.
- Provide LEED® certification training for all relevant staff members.

Land Use Management & Urban Design

Background

Land use patterns and design influence biologic resources, air quality, transportation patterns, and energy use and associated GHG emissions. Land use planning can contribute toward achieving a sustainable community by addressing opportunities for pedestrian and alternative transportation design, mixed land uses and higher density development. The Land Use Management and Urban Design group will draft land use planning and design policies to encourage sustainable development and promote the organizational goals of the City.

Accomplishments

- In June 2005 the City Council adopted "Smart Choices for Roseville's Future: Implementation Strategies to Achieve Blueprint Project Objectives." Roseville was the first city in the SACOG region to adopt Blueprint Implementation Strategies. Of the 132 strategies the City adopted that follow the SACOG Preferred Blueprint Scenario, 68 were implemented by January 2007.
- In March 2006 the City Council adopted the Riverside Gateway Specific Plan that encourages pedestrian-friendly improvements and allows for increased density with a mix of commercial and residential uses near the City's downtown core.
- The City's Tree Preservation Ordinance protects the City's tree resources. Mature native oak tree removal requires mitigation via replacement trees or mitigation fees to be applied towards the replanting of trees elsewhere in the City. In 2006, the City Council adopted a resolution supporting the "Sacramento Regional Greenprint: Guiding Principles for Cities and Counties."
- Staff is updating the General Plan to reflect existing city policies that promote sustainability. Staff is also currently briefing city commissions regarding the General Plan update and will bring it to City Council for approval in February 2008.
- The City is addressing GHG emissions in CEQA documents for both public and private documents processed by the Planning Department.
- The City Council has charged the Community Design Visioning Committee (CDVC) with reviewing and recommending improvements to the City's existing Community Design Guidelines. The CDVC is developing several sustainable guidelines that can be applied to compact residential, multi-family and commercial developments. The suggested guidelines would encourage pedestrian-friendly design, the use of permeable paving, treatment of stormwater on-site, green building design and the use of native drought-tolerant landscaping. The CDVC's recommendations are anticipated to be presented to City Council in March 2008.

• The Planning and Redevelopment Department is reducing paper use by making all planning documents available online including zoning regulations, staff reports, fee schedules and application submittal requirements.

Goals

• Incorporate sustainable land use and urban design concepts in the Sustainability Plan that:

- promote compact, mixed-use developments that are pedestrian-bicycle- and transit-friendly
- encourage sustainable design standards for residential, office, commercial, retail and industrial land uses
- preserve open spaces and natural resources
- reduce dependence on single-occupancy vehicles
- encourage design standards for transit-oriented development

• Create an urban forest management plan that will include

- a full inventory of the City's tree resources, as this is the best foundation for an active and productive forestry program
- a review of current and past management methods and actions such as municipal tree care practices, existing ordinances, planning regulations and guidelines, and other city activities that impact trees
- identification of needs including biological, management and community
- goals, such as establishing and maintaining maximum tree coverage and species diversity, promoting conservation of tree resources and fostering community support for the local urban forestry program
- the development of a management strategy and selection of management tools including public education programs, assistance and incentives programs, voluntary planting programs, and planning regulations and guidelines

Targets

- Encourage transit-oriented development rather than development-oriented transit by zoning concentrated high-density activity centers within a half mile of transit stops, major intersections and arterial roadways.
- Meet 15 dwelling units per acre in greenfield development.
- Develop sustainable subdivision, street and parking design standards.
- Outreach to the business and development community, including sustainable land use education resources.

Recycling and Waste Reduction

Background

In the 1960s, the amount of waste generated by each American was 2.7 pounds per day. In 2006, that amount was 4.6 pounds per day—a 70 percent increase.[5] As a society, we have become more wasteful at a signifcant cost to our environment and natural resources.

The City of Roseville and the community it serves hold a tremendous amount of buying power. Millions of products are purchased, used and discarded by government, businesses and consumers every year. The waste they generate has an adverse impact on our environment, from the fuel it takes to transport and process this waste, to the valuable land used to landfill the waste and the emissions those landfills generate as they grow. Additionally, many of the products we buy are manufactured in ways that are harmful to the environment.

The City of Roseville is poised to meet this challenge by reducing waste in its daily operations, utilizing the City's buying power to encourage market development of environmentally- preferable products, encouraging reuse and recycling and giving our residents and businesses the tools to become good environmental stewards.

Accomplishments

- The Green Waste Collection Program collected nearly 15,000 tons of green waste (including prunings, leaves and grass clippings) from the residential waste stream in 2007.
- The Materials Recovery Facility, where recyclable materials are sorted out from the trash by machine and hand, was able to divert 64 percent of materials from the landfill through reuse and recycling. The state standard is 50 percent.
- City libraries now utilize online databases, reducing the need for reference books and magazines. Customers also take electronic surveys instead of paper surveys and are encouraged to receive library notices via e-mail instead of mail.
- Sixteen recycling sites dot the City, allowing residents to recycle newspaper, cardboard, plastic, glass and aluminum.
- More than 8,000 free reusable shopping bags have been distributed to Roseville residents in 2007.

5 Environmental Protection Agency

- Roseville was the first city in the region to
  - offer a house hazardous waste and e-waste door-to-door collection program,
  - implement a household-battery tube collection program (more than 20 collection tubes are located in stores throughout Roseville) and
  - to implement a packaging foam recycling program. (This program received national attention in print and television media.)
- Environmental Utilities developed partnerships with electronics recyclers to refurbish personal computers to be donated to less fortunate students in Roseville. The first giveaway is planned for mid-2008.
- Various city departments participated in the development of exhibits and programming and helped finance the construction and ongoing operations budget for the Roseville Utility Exploration Center (UEC). The UEC is designed, among other things, to teach children and adults about the importance of recycling and waste reduction in their daily lives. The UEC opened on Jan. 27, 2008.

Goals

- Reduce waste, recycle as part of our daily operations and support the use of recycled-content products through proactive city policies, programs and education.
- Provide residents and businesses programs and tools to reduce waste and incorporate recycling practices.

Targets

Recycling and Waste Reduction: Establish baseline performance to date for solid waste diversion through reuse, recycling and source reduction; develop prospective measurement goals and milestones; conduct measurement based on tons of materials diverted from the landfill on a regular basis through recycling, waste reduction and reuse policies and practices adopted in day-to-day city operations.

Purchasing Practices: Determine baseline purchasing practices, implement environmentally preferred purchasing practices, evaluate purchasing practices after the policy has been implemented and quantify change to the extent possible.

Transportation

Background

A recent Forbes Magazine article noted that Sacramento gas prices were the fourth highest in the country. Vehicle transportation modes are a major factor in GHG emissions, air quality, public safety and consumer costs. A solution to improving all of these issues lies in efficiency of consumption and planning. By reducing congestion, expanding roadways, and building an integrated transit system, the net effect will be reduced GHG, improved air quality, improved public safety, and reduced consumer costs—all achievable through Roseville's current master plan projects.

Accomplishments

- Roseville has a Capital Improvement Projects (CIP) Plan, an Intelligent Transportation System (ITS) Master Plan, a Bikeway Master Plan, both a short- and long-range Transit Plans, and is currently developing a Pedestrian Master Plan.
- Roseville is one of the only agencies in the area that operates its own transit system (Roseville Transit), which serves 400,000 passengers annually via fixed route, commuter, and Dial-A-Ride services.
- Partial implementation of the ITS Master Plan. Currently, 63 of the City's 154 traffic signals are fully ITS compliant. An additional 24 intersections are funded for conversion and should be converted by summer 2008. The Public Works Engineering division is seeking grant funding for the remaining 67 signals not currently scheduled for conversion.
- Dual left turn lanes were placed in all four directions at the intersection of Sunrise Avenue and Cirby Way, representing an annual savings of nearly 140,000 gallons of fuel or more than 1,200 tons of GHG.
- Speed limits have been reduced to below 55 miles per hour to help vehicles operate within the peak vehicle-efficiency range for fuel consumption and reduced vehicle emissions.
- More than 50 percent of the City's traffic lights are coordinated which increases fuel economy and helps deter emissions normally created by vehicles through reduced idling, acceleration and deceleration.
- More than 120 miles of bike trails allow residents an alternative to automotive transportation.
- The City public transportation system serves more than • Through city ordinance, Roseville requires businesses to organize and create awareness for alternative commute solutions. Public Works – Alternative Transportation provides support and education for carpool programs, commuter transit and bike parking facilities at business locations. By encouraging those who commute to work in Roseville to use alternative transportation, the City of Roseville improves air quality and traffic circulation.

- Twenty three traffic signals have loop detectors for bicycles and there are plans to convert another 24 signals by summer 2008.

Goals

- Meet the city's level of service (LOS) standards, a grading system for congestion levels at varying points in the day, through a balanced transportation system that reduces auto emissions by providing alternatives to the automobile and avoiding excessive vehicle congestion through roadway improvements and ITS.
- Use projected emissions reductions as a supplement to the City's LOS policy for determining CIP priorities. By adding emissions reductions to the evaluation of CIP projects, the City would look at overall congestion levels over the entire day and project the annual gasoline and GHG savings for a project. This could then be used to compare overall improvement benefits, not just an LOS level. Cost/benefit ratios could be calculated for the GHG reductions and aid City Council in setting CIP priorities.
- Enable the City to designate a pedestrian district over a geographic area for the purpose of implementing measures that promote pedestrian walkability and reduce vehicle miles traveled.

Targets

- Complete the implementation of the ITS Master Plan.
- Continue implementation of the Bicycle Master Plan.
- Create, implement and market the Pedestrian Master Plan.
- Expand Roseville Transit commuter bus service to include the Highway 50 corridor.
- Seek grant funding wherever possible to implement all transportation-related master plans.
- Evaluate transit services to make them a more viable option to residents and area commuters.

Marketing and Education

Background

Roseville continues to be a regional and national leader in implementing and promoting environmentally friendly practices and programs as an organization and for its residents and businesses. Raising awareness of Roseville's proactive approach to protecting the environment among target audiences will help ensure the Green Team's collective goals are achieved and that Roseville continues to be viewed as being at the forefront of civic awareness of environmental issues.

Accomplishments

- California State Assembly Speaker Fabian Núñez featured the City in a video to be distributed throughout the state on what cities can do to reduce carbon emissions.
- Roseville Mayor Jim Gray was the only government representative on a clean technology panel presentation at the annual "Cap to Cap" trip to Washington D.C. attended by 400 of the region's top business and government leaders.
- City staff have been guest speakers at the California Green Summit and the California Waste Management Integration Board.
- Four city staff members attended CNBC Europe's taping of "The Cost of Carbon," a series of specials on the environment that is aired throughout Europe and available on the Internet.
- The City's first-in-region foam packaging recycling effort was featured in the Sacramento Bee and picked up on the Associated Press wire, resulting in coverage throughout the country and in key trade publications.
- A city representative was invited by SACTO to meet with top-tier national media in New York, resulting in the likelihood of national media attention on Roseville's efforts.

Goals

- Ensure that communications efforts help increase the momentum of the Green Team's success in attaining environmental, economic development and grant-funding goals.
- Position the City as the premier place for companies to locate, particularly those in the burgeoning clean technology sector who want to provide their employees with a complementary high quality of life.

Targets:

- Produce and update a Green Team Web site that offers tips, best practices, progress in achieving goals and the City's Sustainability Report.
- Produce a daily "Green Blog" on the city Web site with tips, updates and relevant notices.
- Integrate Green Team messages into ongoing media relations, speeches, community outreach, COR-TV, newsletters and city presentations.
- Create a Green Team "look" to brand the City's efforts in all marketing and communications materials, including advertisements in economic development and general interest marketing materials.
- Develop an online Green Team media kit to aid the media in story development and the City's efforts.

Conclusion

The accomplishments and initiatives compiled in this document represent the extraordinary vision for a sustainable city by past and present Roseville City Councils. They also demonstrates a level of technical expertise, commitment to innovation, and foresight not found in many local governments.

As this document illustrates, the City of Roseville has built an outstanding foundation for future projects, programs and services that will save ratepayer and taxpayer dollars, give the City a headstart on compliance with future mandates, and give meaning to the definition of sustainability - to use what is needed today and preserve what is not needed for tomorrow. This is consistent with the City's mission statement and in particular the key phrase to "…create and maintain a vibrant community environment and enhance the quality of life…"

The Roseville Green Team looks forward to continued work that will foster a vibrant, sustainable community by continuing the programs already in place, and with Council direction, adopting new goals and targets to guide future work. For more information on Roseville's sustainable initiatives, visit www.roseville.ca.us/rightthingtodo

In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we have been taught.

—Bab Dioum