



CITY OF SAN JOSE  
**Green Vision**  
**2012**  
**Annual Report**

Including Tips For  
A Greener Community



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## **Executive Summary**

After a decade of severe City budget shortfalls, San José is starting to experience some relief and the City's fiscal condition is starting to stabilize. Although there may be some opportunities for funding implementation efforts in the future, staff will continue to seek out external funding opportunities and partnerships, as they have been doing for the past five years, to advance the Green Vision goals. Through the Green Vision, San José continues to lead by example and advance environmentally sustainable practices through strategic partnerships and community engagement. By advocating for regional, state and federal policies and exploring new financing mechanisms, San José's Green Vision is enabling innovative clean technologies to grow in the Silicon Valley and create more clean tech jobs.

As the economy rebounds from the recent recession, staff will continue to look for opportunities to supplement the City resources necessary to advance Green Vision goals. To date, San José has received over \$102 million in grant funding related to Green Vision projects. Although, substantive federal and state grants have been available in recent years, including federal stimulus dollars, most of these grants are nearing completion and staff is looking at other funding opportunities to advance Green Vision goals. At this five year milestone in the fifteen year Green Vision strategy, it is important to evaluate the successes to date as well as identify challenges and opportunities over the next five years, and determine the best path forward in achieving the Green Vision goals.

## **2012 Key Achievements**

The Green Vision Annual Report provides information on the accomplishments and progress for each of the Green Vision goals. Examples of some key accomplishments on the Green Vision include:

- **3,176** new Clean Tech jobs in 2012, **10,176** total clean tech jobs; nearly **\$8.1 billion** in total **venture capital invested** in Clean Tech companies in Silicon Valley, with **\$1.08 billion** invested in 2012 alone
- 11 energy audits and 40 efficiency projects were completed in 2012 and are anticipated to generate an ongoing savings of **\$230,000** per fiscal year. In total, 64 audits and 70 energy efficiency projects are expected to be complete through EECBG funding, and anticipated to generate an ongoing savings of over **\$450,000** per fiscal year
- Silicon Valley Energy Watch (SVEW) served 1,545 homes and small businesses saving nearly \$3 million in utility bills. The Better Buildings Program achieved **260 energy upgrades**, saving homes an average of nearly ten percent or approximately \$150 per year
- To date, **3,514 solar photovoltaic (PV)** systems with a total capacity of **47.8 MW** have been installed in San José making it California's top solar city and a national leader
- Over **6.7 million** square feet of certified green buildings completed to date, including **19 municipal** buildings totaling to over **2 million** square feet
- Continuing to have some of the highest diversion rates in the nation including a **73%** overall diversion rate, **77%** multi-family, **87%** City facilities; the commercial recycling

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rate has already increased from approximately 25% to a current estimate of **70%** due to new commercial solid waste system roll out in July 2012

- Constructing two of the nation's largest and **most advanced solid waste processing facilities** in San José: Republic's facility at Newby Island Landfill and the Zero Waste Energy Development (ZWED) plant on San José/Santa Clara Water Pollution Control Plant lands. These projects represent over **\$80 million** in infrastructure investment
- Over **694 customers** served by **130 miles** of recycled water pipelines and the average daily use of **10.6 million gallons** of recycled water per day. Facility improvements underway including construction of the **Silicon Valley Advanced Water Purification Center** in partnership with the Santa Clara Valley Water District (SCVWD)
- The City adopted amendments to **Title 20 (the Zoning Code)** to further Envision General Plan goals, policies and actions, including economic streamlining, increased maximum heights, increased allowable residential densities, reduced parking requirements and promotion of certified farmer's markets
- In collaboration with CommUniverCity and the County of Santa Clara, San José was awarded a **\$635,594** grant to develop an Urban Village Master Plan for the East Santa Clara Street corridor between City Hall and Coyote Creek
- Despite fleet reductions, San José has maintained **40%** of City fleet to run on alternative fuel; fleet **GHG emissions** reduced by **41%** compared to 2003 baseline
- In partnership with Our City Forest (OCF), planted **2,031 new trees** in 2012, celebrated the opening of OCF's community tree nursery, and **completed over 60%** of the street tree inventory with the help of grants and AmeriCorps volunteers
- To date, **0.8 million kWh** of electricity has been saved as a result of installing **2,497** smart Light Emitting Diode (LED) streetlights in San José
- A total of **54.7 miles** of trails and **216 miles** of on-street bikeways. 2012 **Trail Count** survey indicated a **12% increase** in trail usage across 6 count stations. Over **\$10 million** in grant funding in 2012 for **trails** and on-street **bikeways** and pedestrian improvements

## **Awards & Accolades**

In 2012, the City's Green Vision garnered numerous awards and accolades including:

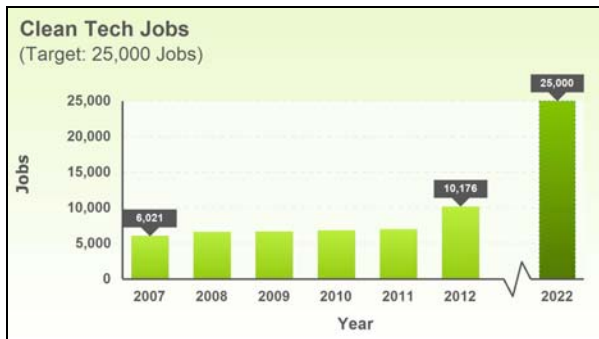
- San José **Ranked #1 in U.S. Metro Clean Tech Index**: Clean Edge, a national research consultancy released its first annual U.S. Metro Clean Tech Index that provides a comprehensive analysis of how the 50 largest U.S. metro regions compare across the clean-tech spectrum.
- The City of San José received two **Awards of Merit** at the 2012 Trails and Greenways Conference, the first in recognition of the City's Guadalupe River Trail Reach 6 and the second for the Coyote Creek Trail Master Plan. Additionally the California Parks and Recreation Society (CPRS) awarded San José two 2012 CPRS Awards of Excellence for those same projects.

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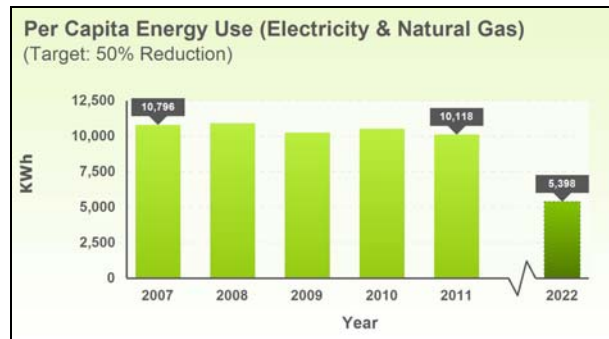
- Waste & Recycling News awarded the “**2012 Green City Award**” to the City of San José for having the most effective and successful residential recycling program for a large city in the United States.
- San José was awarded **USA Today’s Magazine Make a Difference Day** award for efforts to involve residents in East San José and Overfelt High School students in an education and action campaign to remove graffiti, pick up litter and offer energy upgrade measures through the Better Buildings Program.

Please see the Green Vision website Awards and Accolades page for a comprehensive list:  
<http://greenvision.sanjoseca.gov>

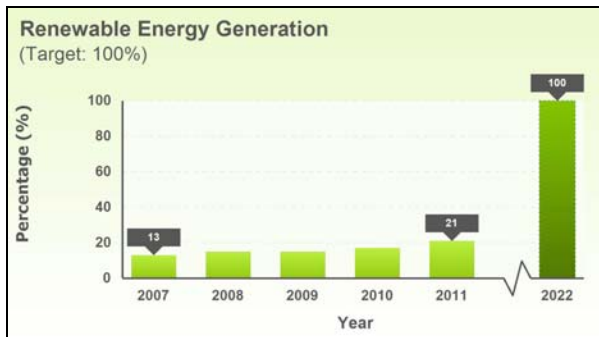
## 2012 Key Performance Metrics



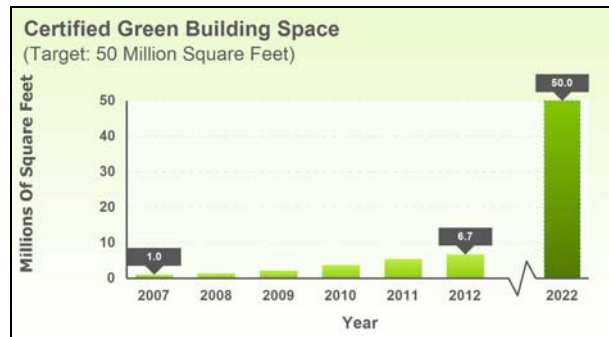
**2012: 10,176 jobs**  
2011: 7,000 jobs



**2011: 10,118 kWh**  
2010: 10,524 kWh  
*Per capita baseline figures have been adjusted to reflect service population numbers instead of only number of residents. This better aligns with Census Bureau data. 2012 electricity usage data is not available from PG&E until July 2013 and will be updated as those figures are available.*

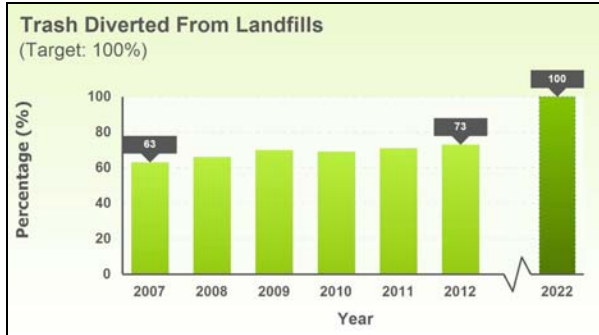


**2011: 21%**  
2010: 17%  
2012 data is not available from PG&E until July 2013.

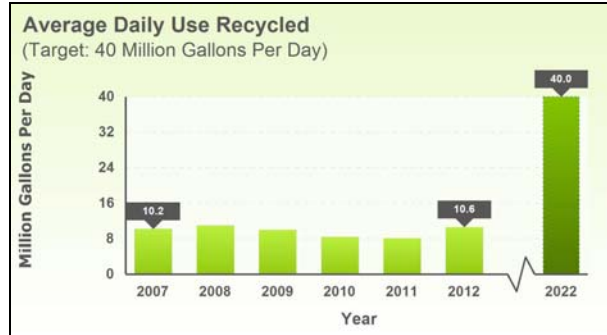


**2012: 6.7 million square feet**  
2011: 5.4 million square feet

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**2012: 73%** (still pending approval)  
2011: 71%



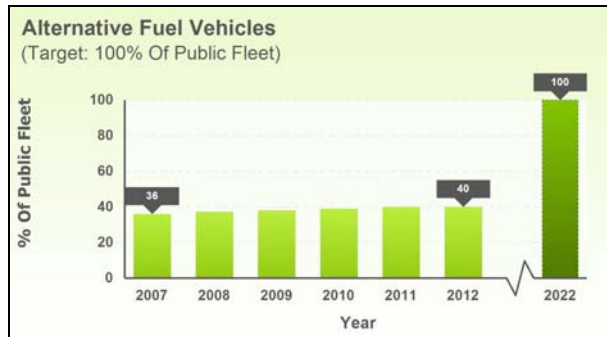
**2012: 10.6 million gallons per day**  
2011: 8.1 million gallons per day



Figures based on U.S. Census Bureau, American Community Survey. 2012 data is not available until late 2013.

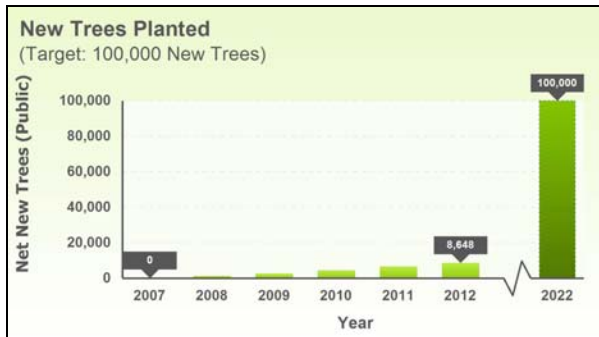
The year 2022 target is based on the General Plan Goal TR-1 of 60% mode shift by the year 2040.

Alternative modes of transportation include carpooling, public transit, walking, and other strategies such as telecommuting, versus driving alone.

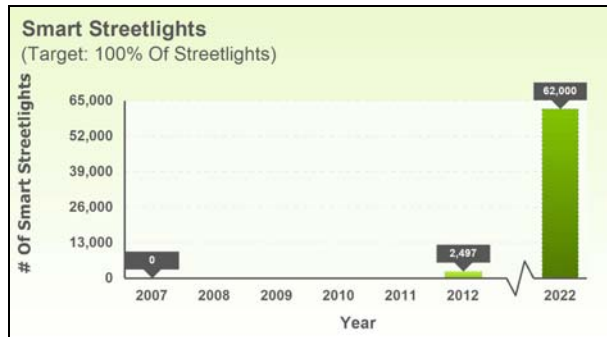


**2012: 40% of the fleet ran on alternative fuels**  
2011: 40%

Figures were updated to reflect more accurate fleet calculations.

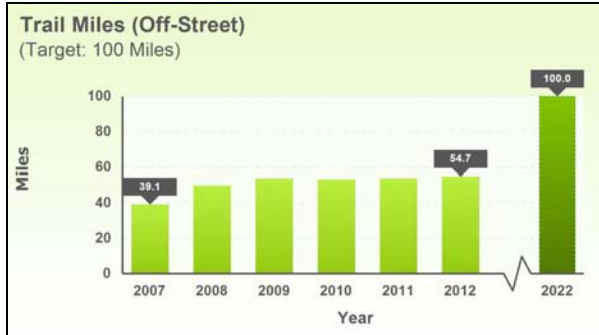


**2012: 8,648 trees**  
2011: 6,617 trees



**2012: 2,497 smart streetlights**  
2011: 297 smart streetlights

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**2012: 54.7 miles**

2011: 53.7 miles

2012 mileage does not reflect a temporary closure due to paving of 4.4 miles of interim trail along Lower Guadalupe River.

## **2013 Work Plan and Priorities**

This report outlines a detailed 2013 Work Plan for all goals. Per prior Council direction, staff uses the following criteria to develop annual and long term work plans:

- Cost savings
- Private investment generated
- Measurable advancement towards goals

A comprehensive work plan summary is included at the end of this report. Key work plan priorities are highlighted below:

### **Leading by Example**

In 2013, staff will continue to focus on projects and programs that will help advance the Green Vision priorities, while reducing City operating costs.

### **2013 Work Plan Highlights:**

- Bring Prospect Silicon Valley on-line to provide infrastructure and affordable space for emerging clean technology companies, including a Request for Qualification (RFQ) for Demonstration Projects focused on building technologies and battery storage
- Complete remaining five Energy Efficiency and the Conservation Block Grant projects and five Energy Fund projects
- Begin audits and implementation of energy conservation measures on City facilities related to the Energy Service Company (ESCO) Agreement
- Complete solar installations on eight City facilities (total energy generation estimated from these installations totals to 915 kW)
- Finalize direction for LEED-EB certification of existing municipal facilities based on organizational capacity and funding availability
- Increase waste diversion from businesses, residents, construction, and City operations by continuing to work with our residential haulers, construction and demolition waste recyclers, Republic and ZWED, for maximum recovery of materials
- Utilize results of Recycle Plus pilot programs to develop options for future program enhancements

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- Complete Environmental Innovation Center (EIC) construction and prepare for Household Hazardous Waste facility opening
- Continue master planning of the South Bay Water Recycling (SBWR) system, in partnership with SCVWD; begin operation of the Silicon Valley Advanced Water Purification Center
- Propose Council Implementation Policy for the Greenhouse Gas Reduction Strategy; complete the first set of Urban Village Plans, and revise the Zoning Ordinance to facilitate sustainable urban development in identified focused Growth Areas
- Explore opportunities with flex fuel and CNG vehicles, including cost of infrastructure upgrades, compatibility of vehicles to service delivery requirements, and availability of fuel
- Consider expanding Car Share Parking Pilot program and install six total additional electric vehicle chargers in downtown parking garages and the EIC
- Install 570 lights funded by Community Development Block Grant
- Commence construction of Guadalupe River Tasman Under-Crossing (500'), Lower Silver Creek (0.5 mile) and Coyote Creek (0.8 mile) trails
- Install 20 miles of on-street bikeways including bikeways enhanced with color and separation

### **Advocacy**

San José will need to remain active on the legislative advocacy front in both Sacramento and Washington D.C. and to continue to compete for resources to support Green Vision implementation and clean tech job growth in the region.

#### **2013 Work Plan Highlights:**

- Support State and Federal policies and programs that promote clean energy demonstration and deployment, as well as continued advocacy for the Enterprise Zone
- Work with the Bay Area Regional Energy Network (BayREN) and the CPUC to develop regional and local programs related to energy efficiency and renewable energy
- Collaborate with Pacific Gas and Electric (PG&E) on evaluation of LED streetlight tariff pilot. Begin discussion of potential longer-term billing solutions, such as development of a permanent tariff for adaptable streetlights
- Continue to track related Federal and State legislation on issues critical to the advancement of the Green Vision goals

### **Financing Mechanisms**

As American Recovery and Reinvestment Act grants near completion, staff continues to explore financing opportunities such as Power Purchase Agreements (PPA) and other federal, state, and regional grants, incentives and rebates to advance the Green Vision. In 2012, grant applications totaling over \$138 million were submitted, over \$17 million in grants were received, and over \$13 million in applications are pending.

#### **2013 Work Plan Highlights:**

- Develop financing and seek rebates for municipal energy efficiency projects and streetlights related to ESCO Agreement



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- Continue to finance solar installations on City facilities using PPAs
- Work with BayREN to leverage funding opportunities
- Pending Council direction on whether to pursue Energy Disclosure Policies, PACE or other energy related programs, pursue clean energy financing tools for the community
- Continue to work with United States Bureau of Reclamation (USBR) to maximize funding opportunities and seek reimbursement for Phase 1B construction
- Continue to complete street tree inventory and target completion by 2014 in order to evaluate possible funding mechanisms for tree planting and maintenance

### **Strategic Partnerships**

Partnerships will continue to be a strong focus of the Green Vision in 2013. Through the Demonstration Partnership Policy and programs and key initiatives under the Green Vision, San José is continuing to support entrepreneurs and emerging technologies that become the driving industries of the future. Our partnerships with other entities such as schools, universities, non-profits, private companies, and regional agencies will help us reach our common goals in the community as well as our Green Vision goals.

### **2013 Work Plan Highlights:**

- Coordinate with Silicon Valley Manufacturing Roundtable and partner with workforce training providers to develop clean tech training opportunities
- Work with BayREN to identify additional energy efficiency opportunities throughout the community
- Continue to work with ZWED to complete permitting process for AD facility operations and complete milestones for construction of dry fermentation AD system
- Complete feasibility study and CEQA analysis for potential demonstration gasification unit to be built in partnership with Harvest Power through a grant from the California Energy Commission
- Continue collaborative efforts with the SCVWD to seamlessly connect the Silicon Valley Advanced Water Purification Center to the SBWR system
- Continue to participate in MTC, ABAG, BAAQMD regional planning initiatives (e.g., Sustainable Communities Strategy)
- Consider expanding Car Share Parking Pilot program and install six total additional electric vehicle chargers in downtown parking garages and the EIC
- Continue to build upon and enhance OCF partnership through collaborative initiatives that seek to increase the size and health of the City's community forest, including promoting the OCF Community Nursery
- Investigate partnership with health care organization to promote usage of trail network for health and fitness and conduct Trail Count with community partners

### **Communications and Engagement**

Although the budget situation has improved slightly, the need to restore service delivery in many areas is great and thus, resources available for marketing and communication are still limited. In order for most of the Green Vision goals to be realized, community engagement and participation is critical. Staff has been leveraging grant funds and other external partners to

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engage City employees as well as the larger community. Examples of engagement initiatives that will continue into 2013 include:

- *The San José Green Vision Resource Team* – joint collaboration with the Bay Area Air Quality Management District to promote the Green Vision
- *City Green Team* – to raise awareness of the Green Vision throughout the organization and targets behavior change that will help save energy and water and reduce waste while reducing City operating costs
- *Green Vision Website* – continue to develop and improve online tools integrated into the Green Vision website to increase community engagement and interest. To learn more, please visit: <http://greenvision.sanjoseca.gov/>.

**2013 Work Plan Highlights:**

- Continue county-wide energy efficiency work through the SVEW program
- Continue outreach for school participation in Green Star Schools program, focusing on waste, water, energy and transportation pathways
- Continue to engage the community in Envision General Plan Implementation elements, such as Zoning Ordinance amendments and Urban Village Plans through community meetings, website information, and other modes; engage Planning Commission in creation of Urban Village zoning districts; and engage developers to catalyze new development in focus areas
- Continue to update Green Vision website and increase awareness of the Green Vision strategy

## **Conclusion**

As the economy recovers from the most recent recession, San José still anticipates challenging fiscal situations over the next several years that will continue to affect nearly every department of the City. With very limited funding available for Green Vision implementation, San José continues to seek grants and partnerships and other ways to leverage non-City resources. Significant progress has been made within the first five years of the fifteen year Green Vision strategy. Through the San José Green Vision and other sustainability programs and policies, the City continues ahead with investments and policies that result in money saved, potentially through operational and maintenance cost savings, while also improving the overall quality of the life in San José.

## Introduction

In October 2007, Council adopted the Green Vision, a 15 year plan with ten ambitious goals for economic growth, environmental sustainability and an enhanced quality of life for San José's residents and businesses. Through the Green Vision, San José is modeling the way for others by charting goals to foster clean tech jobs, energy use reduction, renewable energy, green building, waste reduction, water reuse, sustainable development, clean fleet, trees, zero emission streetlights and interconnected trails.



San José City Hall

### **GREEN VISION GOALS**

- Goal 1:** Create 25,000 Clean Tech jobs as the World Center of Clean Tech Innovation
- Goal 2:** Reduce per capita energy use by 50 percent
- Goal 3:** Receive 100 percent of our electrical power from clean renewable sources
- Goal 4:** Build or retrofit 50 million square feet of green buildings
- Goal 5:** Divert 100 percent of the waste from our landfill and convert waste to energy
- Goal 6:** Recycle or beneficially reuse 100 percent of our wastewater (100 million gallons per day)
- Goal 7:** Adopt a General Plan with measurable standards for sustainable development
- Goal 8:** Ensure that 100 percent of public fleet vehicles run on alternative fuels
- Goal 9:** Plant 100,000 new trees and replace 100 percent of our streetlights with smart, zero-emission lighting
- Goal 10:** Create 100 miles of interconnected trails

Achieving the ten Green Vision goals will require capitalizing on the innovation of Silicon Valley and fostering the development of emerging markets to develop the technologies necessary to address the challenges within the ten Green Vision goals. Through the Demonstration Partnership Policy, the City and their partners are committed to supporting entrepreneurs to develop emerging technologies that become the driving industries of the future.

This report provides information on key 2012 Green Vision accomplishments along with the diverse challenges and strategic direction needed for realizing the long-term vision. The report also includes a proposed 2013 Work Plan.

## Strategic Framework

The 2012 Comprehensive Work Plan outlines focus areas for each goal within a strategic framework. As directed by Council in March 2009, the Green Vision Work Plan continues to use three major screening criteria:

1. Does the initiative result in cost savings or additional revenue generation, especially in the General Fund?
2. Will the initiative generate investment from the private sector or from the Federal or State government?
3. Will the initiative make measurable progress on one or more of the 10 Green Vision goals?



San José City Hall, 1887

The strategic framework helps connect the goals, implementation strategies, and project-level day to day actions to the broader intended outcomes of driving economic opportunity and growth, eliminating the structural budget deficit, demonstrating environmental leadership, and improving the quality of life throughout the community.

The strategic framework is developed around the following five areas:

- **Leading by example** – Policies and practices that the City can modify or establish to advance the Green Vision priorities
- **Advocating policies at the regional, state and federal levels** – Advocating legislative action and positioning the City to partner with other agencies on policy changes and development
- **Financing mechanisms** – Exploring financing mechanisms such as grants, new market tax credits, modified fee structures, and improvement districts to supplement City dollars
- **Forming strategic partnerships** – Partnering with other entities, such as schools, universities, non-profits, and private corporations to work towards common goals
- **Communications and engagement** – Communicating with key audiences to bring about awareness, acceptance, and action on all of the goals

## Citywide Implementation

A Green Vision Steering Committee of senior and executive staff members convenes on a regular basis to provide direction on key issues and ensure alignment with City priorities. Dedicated goal leads drive the implementation efforts and advance the individual goals, with the City Manager's Office overseeing overall implementation and facilitating interdepartmental coordination. The Council is kept apprised of progress on the Green Vision through the Annual Report and the Green Vision website <http://greenvision.sanjoseca.gov/> which provides updates and highlight key strategic opportunities and challenges.

# Climate Change and Greenhouse Gas Emissions

## Greenhouse Gas Reduction Strategy

The City of San José has adopted a Greenhouse Gas Reduction Strategy (GHGRS, or Strategy) as a component of the recently adopted *Envision San José 2040 General Plan* (Appendix K-8). The GHGRS is consistent with the implementation of the year 2020 reduction requirements of Assembly Bill (AB) 32– the Global Warming Solutions Act of 2006 and with the Sustainable Communities and Climate Protection Act, State Senate Bill (SB) 375. AB 32 requires the State of California as a whole to reduce greenhouse gas (GHG) emissions to 1990 levels by the year 2020.



San José, California

SB 375 requires that local jurisdictions use their regulatory authority to implement land use and transportation planning with the goal of reducing GHG emissions consistent with AB 32. Many cities are doing this by adopting Climate Action Plans or a comparable GHG reduction strategy. These documents also facilitate the CEQA review of individual projects by demonstrating that the local jurisdiction, with implementation of projects that are consistent with the adopted strategy, will comply with AB 32. San José has followed State and Regional parameters for Climate Action Plans and incorporated climate considerations, including resiliency and adaption, directly into the General Plan and the City’s GHGRS. The *Envision San José 2040 General Plan* was developed with the specific purpose of reducing GHG emissions through the implementation of environmentally beneficial policies and the development of land uses and a transportation network that minimize the need for automobile travel. The GHGRS demonstrates how the General Plan achieves the AB 32 GHG emissions reduction target for the year 2020 by:

1. Providing a comprehensive list of the City’s actions to reduce GHG emissions, including implementation of: the City’s Green Vision; environmentally beneficial General Plan policies; and the General Plan Land Use/Transportation Diagram.
2. Quantifying the GHG reductions that should result from policy actions and land use changes supported by the Envision General Plan Land Use / Transportation diagram.
3. Creating a framework for the ongoing monitoring and revision of the GHG Reduction Strategy to be consistent with AB32 and other requirements.

The GHGRS also supports environmental clearance for future development activities (through the year 2020) occurring within the City of San José by addressing the potential impacts of GHG emissions. The GHGRS was prepared in accordance with the Bay Area Air Quality Management District (BAAQMD) California Environmental Quality Act (CEQA) Guidelines, and in conformance with CEQA Guidelines Section 15183.5, which specifically addresses GHG Reduction Plans.

While the GHGRS demonstrates the City's achievement of the AB 32 requirement for the year 2020, the Envision General Plan incorporates the Green Vision (which continues to 2022) and extends the City's measurement of its environmental sustainability through the year 2040. The GHGRS identifies multiple strategies (e.g., Built Environment and Energy, and Recycling and Waste Reduction strategies) which overlap with the Green Vision. Monitoring of GHG emission reductions achieved through implementation of the Green Vision can continue as part of the Green Vision Annual Report in the interim, and then presumably would be transferred solely to the General Plan Annual Review process.

The GHGRS identifies three quantified Land Use and Transportation strategies which contribute toward the City's GHG emission reductions in fulfillment of AB 32. These three strategies (Increase Density of Development, Increase Location Efficiency, and Mixed-Use Developments) will be implemented through a variety of General Plan policies, including those that directly implement the Form Based Plan, Focused Growth, and Urban Village Major Strategies. The identified metric or "Progress Indicator" for all three strategies is measurement of "Percentage of total new development in Growth Areas."

## **Greenhouse Gas Reporting**

The annual reporting of the Green Vision, the General Plan Annual Review and the General Plan Major Review (conducted every four years) establishes a framework for the GHG monitoring and reporting program. The City is committed to reporting on the General Plan's progress toward achievement of the 2020 greenhouse gas reduction target and maintaining or modifying the General Plan to improve achievement of its Major Strategies, including GHG reductions consistent with the long-term AB 32 goals. The Green Vision Annual Report provides a detailed snapshot of yearly activities to meet the City's Green Vision Goals. The annual reporting will be extended to express Green Vision activities in terms of the amount of GHG emissions reduced or avoided through implementation of the Green Vision. Goal #7 (Adopt a General Plan with Measurable Standards for Sustainable Development) in the Annual Report will be used to report the "Progress Indicators" for the GHGRS Land Use and Transportation strategies along with other indicators of the General Plan's performance.

The General Plan Major Reviews will be used to update the City's GHG inventory and provide an opportunity for input from members of the General Plan Task Force and other stakeholders to re-focus the Strategy, and to improve its efficacy and consistency with the San José General Plan and California goals. The Major Reviews will also be the time increment during which citywide emissions measurement will occur. Given the difficulty in direct measurement of GHG emissions, this every four year assessment will likely be based on a combination of modeled traffic patterns and real-world data.

Additionally, mandatory and voluntary measures to reduce GHG emissions may be added to the Strategy as a part of the Major Review process in order to meet the Strategy's GHG reduction targets.

## Create 25,000 Clean Tech Jobs as the World Center of Clean Tech Innovation

*Clean Tech entrepreneurs, companies, and universities are developing technologies that will change the world and create economic opportunities for generations to come. The City's Clean Tech Strategy provides leadership for the long-term economic success of this emerging industry sector and is an integral component of the Green Vision.*



Prospect Silicon Valley

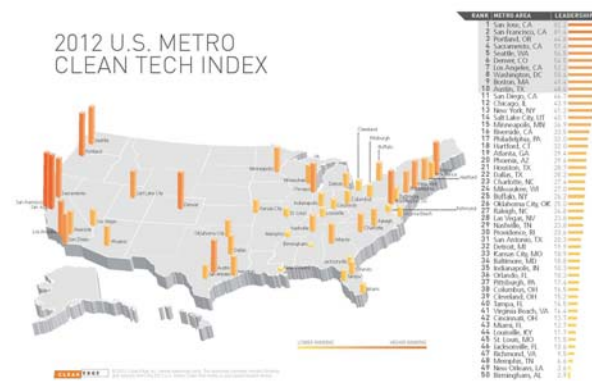
### Achievements & Successes

The clean tech sector in Silicon Valley includes a range of renewable energy, energy efficiency, smart grid, storage and clean transportation companies focused on bringing more efficient and lower carbon solutions to the marketplace. As the clean tech sector continues to be a focus of the national lens, this region will continue to attract new innovative companies while supporting well-established companies to also continue expanding into the clean tech marketplace. In order to meet the growing needs for energy, water, and waste disposal, clean technologies must be developed further. Jobs within the clean tech sector continue to expand, but more importantly, clean tech jobs begin to blend in with existing sectors and become a part of every industry.

**Clean Tech Jobs:** As the definition of clean tech jobs continues to be refined, methodologies to track the growth in the core green economy are also evolving. As of 2012, there are 10,176 jobs in the core green economy in San José – over a 30% increase from the 2012 report. These figures are continuously and dynamically updated based on the known-universe of establishments and exclude university employment, contract manufacturers (that assemble products and have substantial presence in San José), and companies that have sub-segments focused on the green economy<sup>1</sup>. The figures are therefore conservative, yet still represent a State-wide hot-spot for clean tech. Importantly, we are seeing an increase in activity in clean tech by companies that are not captured under the core green economy (these could be business segments of established high tech companies), but nonetheless are innovating and hiring in clean tech. An example is Cisco, which recently expanded their smart grid and energy business unit and is widely viewed as a key player in the smart grid marketplace. These figures are not included in the overall clean tech jobs figure and therefore create an increasing gap in the available data.

<sup>1</sup> The data is drawn from National Establishments Time Series (NETS) database based on Dun & Bradstreet business unit data, and New Energy Finance and the Cleantech Group™, LLC for purposes of identification and classification of green businesses. The approach provides the best indicator of the emerging clean tech sector – and provides an accepted methodology for measuring growth in this dynamic sector.

Clean Edge<sup>2</sup>, a national research consultancy released its first annual U.S. Metro Clean Tech Index that provides a comprehensive analysis of how the 50 largest U.S. metro regions compare across the clean-tech spectrum. The Index is based on nearly two dozen metrics such as hybrid electric vehicles, certified green buildings and clean-tech venture capital investments. All quantitative metrics are weighted to account for population size. The San José metropolitan statistical area (MSA) was ranked first among the 50 Metro regions included in the index buoyed largely by the region’s role as an innovation hub. Also San José MSA ranked first in concentration of venture capital, and performed well in patent activity, university technology development and electric vehicle deployment.



Additionally, a recently released Milken Institute Annual Index<sup>3</sup> ranked San José the Best-Performing metro area out of the nation's 200 largest and 179 smaller metropolitan areas. The Best-Performing Cities index includes measures of jobs, wage, and technology performance and weighs most heavily employment growth as its most critical component to community vitality. Wage and salary growth are measured to determine the quality of jobs created and sustained in the region.

**Finance:** Venture Capital (VC) investment in clean technology in Silicon Valley has totaled nearly \$8.1 billion since 2007 (through 2012); however there are changing VC investment trends to report. Deal volume has shown an overall decrease and deal size has shown an increase over nearly 25% year over year, with investments trending toward later-stage opportunities. San José companies are actively engaged with the Angel and VC networks to secure financing, with the award-winning Environmental Business Cluster and other accelerators and business plan competitions in the region routinely convening investors to facilitate interaction between emerging green companies and potential financiers. Corporate strategic investment and alliances remain an important piece of the finance ecosystem in Silicon Valley. Crowd-sourced funding of early stage companies is also a new finance tool for early stage companies.

Grants remain an important source to support companies seeking new technology innovations, as well as “market accelerator” partners working to encourage demand and ensure consistency among standards and permitting practices to support deployment at scale. Small Business Innovation Research (SBIR) and Small Business Technology Transfer grants into Silicon Valley outpaced all other regions in the United States with over 250 grant awards nearing a total of \$100 M. The Department of Energy (DOE) has awarded grants into the region in 2012 including a \$197 M loan guarantee to Solopower (the company has already raised over \$200 M in venture funding), Additionally, the DOE Sunshot Incubator awards were announced in November of 2012 with two of the ten awards coming to San José companies. Enki Technologies won an award of \$1.5 M to improve PV module efficiencies and reduce the levelized cost of energy

<sup>2</sup> U.S. Metro Clean tech Index: [www.cleantech.com/research/metro-index](http://www.cleantech.com/research/metro-index)

<sup>3</sup> Milken Institute: <http://www.milkeninstitute.org/publications/>



(LCOE) through the development of low cost anti-reflective and anti-soiling coatings. Stion won an award of \$2 M for development of a disruptive technology based on a tandem copper indium gallium diselenide (CIGS) module that uses a revolutionary thin-film design to enable more effective harvesting of natural light. Wrightspeed was also the recipient of a \$5.8 M for Advanced Vehicle Technology Manufacturing from the California Energy Commission (CEC). The grant funds will accelerate manufacturing of Wrightspeed's Route™, a retrofit powertrain for the medium duty commercial fleet market.

**Clean Tech Companies:** San José's list of Clean Tech companies (and business units) at all stages of maturity continues to grow as Phillips Lumileds, Sunpower, Cypress Envirosystems, Echelon, Solexant, SolarJunction, SoloPower, Stion, SunWize, Wrightspeed, Quantumscape, Chromasun, Switch, Xicato are joined by household names like Cisco and IBM and Fairchild Semiconductor who are also investing and innovating in the clean tech arena. A support network of world-class incubators, proximity to top-flight research institutions and National Laboratories, a concentration of existing high-tech companies seeking new ventures, a strong finance network, and a range of manufacturing assets in San José creates fertile ground for innovation in clean tech. Among the new names to join the clean tech economy in San José are:

- Quantumscape, disruptive lithium –ion battery storage company in North San José, funded by Khosla and Kleiner Perkins has grown to 25 employees (listed by WIRED magazine as a top battery start-up to watch in 2013)
- Auxin Solar set up headquarters in South San José
- Enki Technology Inc. set up headquarters in North San José and recently hired 10 employees
- OptoElectronix set up headquarters in downtown San José and recently hired 25 new employees
- Topanga Technologies set up headquarters in North San José and recently expanded from 8,000 to 16,000 SF and has hired 15 new employees
- Bentek has 70,000 sq. ft. in two facilities in San José and currently has 120 employees and is hiring. They serve the PV marketplace providing products for commercial and utility scale installations in North America

**Clean Tech Open:** The Cleantech Open (CTO) is a non-profit organization that runs the world's largest business competition for cleantech entrepreneurs. Of the nearly 600 companies the CTO has worked with, 80% remain viable today and have gone on to raise external capital exceeding \$660 million. In 2012, San José hosted the CTO 2012 Global Forum at the Hayes Mansion with over 900 attendees and 21 countries represented. The 2012 competition had over 360 Applicants with 52 from the Bay Area, and 15 from San José and the surrounding area. The National Competition Launch, the National Conference and Academy and the Global Forum were all hosted in San José in 2012. The Global Forum also included Investor Connect (with over 60 investors participating) and an Expo with over 75 teams showcased. San José supports these emerging green companies ranging from site selection, permitting assistance, grant support, exploration of field trials, and networking in Silicon Valley – a critically important piece for start-ups.



*Kim Welsh, Director of Economic Development & Chief Strategist of the City of San José speaking at the CTO Global Forum.*

**Foreign Investment:** City staff routinely hosts clean tech companies and delegations from around the world, including global forum winners of the CTO. Notable efforts to connect San José's efforts with international companies as well as support Silicon Valley companies' interest to access new markets include:

- **Opportunities for California Green Companies in Brazil** – City staff hosted the U.S. Department of Commerce, the San José Silicon Valley Chamber of Commerce, and the US-Brazil Business Council in Washington, D.C. half-day business seminar on February 13, 2012.
- **U.S. Japan Clean Tech Roundtable** – City staff in collaboration with U.S. Commercial Service and the Silicon Valley Leadership Group hosted a discussion with U.S. Ambassador to Japan John Roos, JETRO, and over 50 Silicon Valley clean technology companies. There was a companion seminar hosted in Japan that had 120 companies clean tech companies participate to explore opportunities to enter Silicon Valley.

**Prospect Silicon Valley:** The San José Environmental Innovation Center (EIC) will house the Prospect SV, which will occupy 22,500 square feet (SF) and include:

- 17,000 SF of high bay, configurable space suitable for technology demonstrations prototype development and testing
- Hydraulic lift and other measurement and analytics technology equipment available on site
- 3,000 SF of shared open office space
- 2,500 SF training and conference facility

Prospect SV will feature onsite facilities for: 1) demonstration, 2) display, 3) prototyping, 4) testing, and 5) workforce training. Featured Clean Tech sectors include: A) clean transportation, B) energy efficiency, C) Smart grid, D) Solar, and E) storage.

In addition to establishing Prospect Silicon Valley as a 501(c)(3) organization with a Board and Strategic Advisory Board staff has been working to form high-value partnerships with clean technology commercialization partners. The list includes Lawrence Berkeley National Lab (LBNL) Energy and Environment Technology Division, Stanford University Office of Technology Licensing, Clean Tech Open, Greenstart, Department of Commerce. Prospect Silicon Valley also has confirmed sponsors in Applied Materials, BMW, and Cooley. Staff will be hiring a Business Development Manager for the Center and bringing on a Founding Executive Director the first quarter of 2013 in anticipation of the facility coming on-line.

**City Programs:** In 2011-2012, San José leveraged nearly \$1.2 million in American Recovery and Reinvestment Act (ARRA) Clean Tech Careers funds to support clean tech companies either existing in or those relocating to San José. In total, four grant agreements totaling \$1.09 million





STANFORD  
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GREENSTART



were executed with the following companies: Intermolecular, SoloPower, Brocade Communication, and Green Earth Management. The purpose of the Clean Tech Career fund is to provide opportunities to individuals most impacted by the recession due to job loss and provide investment capital necessary to increase economic and energy efficiency by creating or implementing new and emerging technology which results in long-term economic benefit to the company. Of the combined 37 jobs anticipated to be created through this program, 31 positions have been filled by low-to-moderate income San José residents. The resources for this program have been expended and hiring criteria has been met.

	<p><b>Switch</b>, a company that finds its origins in the Cleantech Open continues to expand in North San José. After its 2012 expansion into the adjacent building, Switch now boasts a workforce of over 100 employees. The innovative LED bulb company was the November 2012 recipient of Popular Science's "Best of What's New" Award for its 75 Watt equivalent LED Bulb the SWITCH75. In November of 2012 San José-based SWITCH announced that their award winning bulbs will be available in over 350 participating Batteries Plus Stores nationwide.</p>
	

*Enterprise Zone* –San José has the only Enterprise Zone in Silicon Valley, a tool used to help reduce operating costs of companies that reside within the zone. Eligible tax savings include sales and use tax, hiring tax credits, business expense deductions, net operating loss carryover and net interest deduction for lenders. Last fiscal year, 31 clean technology businesses (11% of all firms participating in FY 11-12) utilized the Enterprise Zone Program. The City issued 251 Hiring Tax credit vouchers to participating firms which helped reduce the operating cost of business in San José.

**Work2future Workforce Training:** This past year the Green Cadre program, which was developed in San José by work2future, continues into its fourth year of preparing low-income young men and women ages 18-21 for entry into the workforce or into postsecondary education. In the last year, Green Cadre has provided training for 74 young adults that resulted in their earning industry-recognized career technical certifications, completion of internships at various sites—including at a local recycling company that has hired several past Green Cadre interns. The Green Cadre participants provide hundreds of hours of community service work at nonprofits and within the City of San José as part of their commitment to civic engagement. The Green Cadre structure is premised on enhancing the employability of youth through technical skills combined with practical knowledge of the concepts of clean and green—at the same time connecting those youth to the workforce and to caring adults through internships and civic engagement.



*Green Cadre participants spreading mulch at Guadalupe Gardens Park*

## **Legislation**

Legislative advocacy at the State and Federal level, coupled with coordinated pursuit of resources on behalf of supportive of the emerging clean tech sector in San José, remains critical. 2012 advocacy efforts included, but were not limited to: testimony on clean tech job creation that went before Senate Environment and Public Works Committee, comment on state grant programs, and support for industry-led clean tech grant opportunities at the State and Federal level. In 2013, staff will work with industry groups and other stakeholders to support State and Federal legislative priorities that advance the clean energy economy including implementation bills and efforts related to Assembly Bill (AB) 32, voter approved Proposition 39, as well as continued advocacy for the Enterprise Zone.

## **Strategic Direction**

Strategic direction and a targeted approach to key issues to catalyze the emerging green economy for the upcoming year are vital given limited City resources. Proposed focus areas for 2013 include: City support for legislation that supports clean energy advancements, development of demonstration partnership projects at the EIC, and working with regional consortiums to create and support regional deployment models. Staff will also be providing continued support for emerging clean tech companies by providing business assistance including, but not limited to: Enterprise Zone (sales and use tax credits, hiring tax credits, business expense deductions, net operating loss carryover and net interest deduction for lenders), expedited permitting assistance (special tenant improvements and industrial tool installation program), workforce assistance (Employment Training Panel funds and stimulus funds for On-the-Job Training), and Clean Tech funding and partnership with industries to identify existing and future workforce demands.

## **Work Plan**

<b>Strategic Focus</b>	<b>Proposed Strategy</b>	<b>2012 Work Plan</b>	<b>2013 Work Plan</b>
<b>Lead by Example</b>			
Identify space for local clean tech companies to locate in San José.	Work with key property owners and brokers to support site selection efforts for clean tech companies.	Continue to develop and use data and analysis to identify industry clusters, target policy, and track performance.  <b>Status:</b> Continuing ongoing efforts to support location and expansion efforts of clean tech companies in San José.	Bring Prospect Silicon Valley on-line to provide infrastructure and affordable space for emerging clean technology companies.  Continued work through Business Attraction, Retention and Expansion Program.
Demonstrate clean transportation, renewable energy, smart grid and energy efficiency technologies.	Pursue increased flexibility in implementing demonstration policy to allow for more clean technologies deployed in San José facilities.	Attract resources to support demonstration projects at the San José Environmental Innovation Center.  <b>Status:</b> Amended Demonstration Policy approved by Council to allow more flexibility for	Issue a Request for Qualifications (RFQ) for Demonstration Projects for Prospect Silicon Valley and the City of San José focused on building technologies and battery storage.

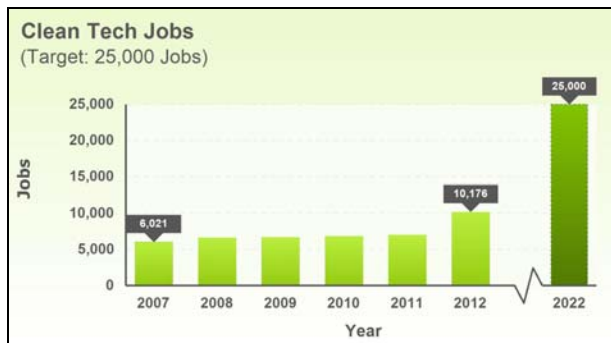
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		companies to partner with City on Demonstration Projects. Launched PROSPECT SV.	
Greening of small businesses through BusinessOwners Space.com.	Launch resources to support greening of small businesses.	Complete BusinessOwnerSpace.com (BOS) enhancements and implement outreach strategy.  <b>Status:</b> Continuing to promote BOS Green Resource pages through email outreach and linking to websites such as ShopSanJosé and Green Energy Match.	<i>Not applicable.</i>
<b>Advocating Policies</b>			
Develop and implement policies to encourage expansion of existing, and development of new clean tech companies, and production and markets for clean tech products.	Expand Fed/State incentives to promote manufacturing and consumer adoption of California products.	Partner with clean tech industry, and regional advocacy groups to develop 2012-2013 Clean Tech Legislative Agenda for Silicon Valley.  <b>Status:</b> No 2012-2013 Clean Tech Legislative Agenda published. Staff modified the Enterprise Zone to capture tax benefits for clean tech companies. Submitted comments to CEC advocating for support of emerging clean tech. Brought forward guiding principles for pending Cap and Trade legislation. Testified on Senate Select Committee on Green Jobs. Supported clean tech company grant applications to DOE and CEC.	Support State and Federal policies and programs that promote clean energy demonstration and deployment.
<b>Financing Mechanisms</b>			
Support for incubators and commercialization of clean tech products, and innovation clusters.	Compete for federal and state funding opportunities to support clean tech sector.	Continued efforts to access resources to support clean tech industry.  <b>Status:</b> Staff is pursuing strategic sponsorships that tie to PROSPECT SV, San José's clean tech	Collaborate on grant applications that tie to Silicon Valley clean tech interests.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		demonstration center scheduled to open in Spring of 2013. Staff has supported grant applications at the State and Federal level for clean tech companies.	
<b>Strategic Partnerships</b>			
<p>Coordinate workforce development.</p> <p>Green initiatives for workforce development.</p>	<p>Develop regional strategy to coordinate clean tech career training programs.</p> <p>Well-trained, skilled workforce to support the clean tech sector.</p>	<p>Continue to partner with workforce training providers to develop clean tech training opportunities.</p> <p><b>Status:</b> Grid Alternatives led SolarThon installation effort of free solar systems on low income family homes furthering efforts to add solar to San José rooftops. Additionally solar installation training was provided furthering our work force development goals.</p> <p>Staff also serves on the Board of San José-based SolarTech which was successful in securing Department of Energy grants to launch Solar 3.0 a national platform to reduce balance of systems costs associated with solar adoption at scale.</p>	<p>Coordinate with Silicon Valley Manufacturing Roundtable.</p> <p>Partner with workforce training providers to develop clean tech training opportunities.</p>
<p>Formation of Strategic Partnerships focused on clean technology deployment strategies.</p>	<p>Connect Green Vision platform to nationally significant research teams and R&amp;D resources, and commercialization support.</p>	<p>Advance partnership efforts with LBNL, academic institutions, manufacturers and incubators, accelerators and business plan competitions.</p> <p><b>Status:</b> Partnership agreements completed with LBNL, Cleantech Open, Greenstart, Stanford Office of technology Licensing and others. Hosted three national CTO events in San José.</p>	<p>Develop additional partnerships that support Prospect Silicon Valley business model and support advancement of the Green Vision.</p>

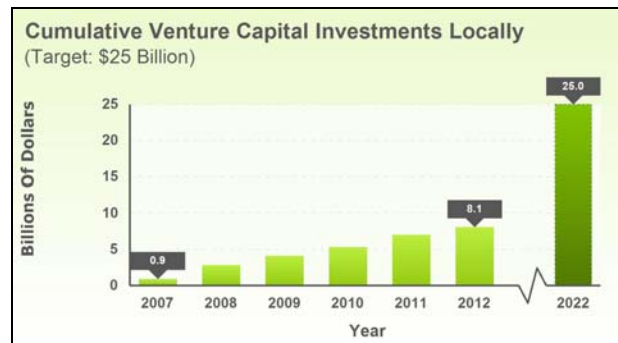
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Communications and Engagement</b>			
*Attract and retain clean tech companies to locate in San José.	Providing information to small businesses and emerging clean technology companies, as well as large established companies.	<i>Did not have a 2012 work plan item.</i>	Engage with 50 clean tech companies throughout the region.

\* Work plan item added during Council Special Session – March 18, 2013

## Performance Metrics



**2012: 10,176 clean tech jobs**  
2011: 7,000 clean tech jobs



**2012: \$8.1 Billion**  
2011: \$7.0 Billion  
2012 figure is only through November 2012



**2012: 769 participants**  
2011: 671 participants



**2012: 112 companies**  
2011: 100 companies

## Reduce Per Capita Energy Use by 50%

*Energy powers our lives. We depend on it to run our homes and businesses. To reach its energy reduction goals, San José needs the participation and support of everyone in the community.*



Surge Protector

### Achievements & Successes

The Strategic Energy Action Plan was adopted by Council in June of 2010. The initial set of goals focused on the built environment and identified strategies and tactics for achieving the energy and renewable goals of the City's adopted Green Vision: Goal 2 – reducing energy use by 50% per capita and Goal 3 – receiving 100% of electricity from renewable sources. The Strategic Energy Action Plan activities also support other Green Vision Goals, including Clean Tech Jobs (Goal 1), Green Buildings (Goal 4), Zero Waste to the landfill (Goal 5), and Zero-Emission Streetlights (Goal 9).

To achieve the Green Vision goals, energy use will need to be reduced by an average of about five-percent community-wide per year until 2022. A detailed update on the Strategic Energy Plan is currently provided semi-annually, once to the City Council through the Green Vision Annual Report and then to the City Council's Transportation & Energy Committee each Fall. Some associated achievements are highlighted below.

**Municipal Energy Efficiency:** In July 2012, the Municipal Energy and Green Building programs moved from the Environmental Service Department (ESD) to the Department of Public Works (PW). This new alignment will allow for more streamlined communication and coordination on activities related to energy efficiency projects and green building efforts on City facilities. Semi-annual energy updates will continue to be jointly coordinated through ESD and PW.

There are currently two primary sources of funding for energy efficiency projects at City facilities: the City of San José Energy Fund and American Recovery and Reinvestment Act (ARRA) funds via the Energy Efficiency and the Conservation Block Grant (EECBG) from the Department of Energy (DOE). The EECBG grant was scheduled to end on December 31, 2012, but in late November, the City was notified by DOE that the EECBG would receive a time-only extension until June 2013. This extension will allow the City to complete several projects underway.

*Energy Fund* – The City Energy Fund receives monies from the first five years of savings, along with any associated rebates, from completed energy efficiency

#### **Easy Actions You Can Take Now**

1. Replace incandescent bulbs with compact fluorescent (CFL) or Light Emitting Diode (LED) lights.
2. Install low cost weather stripping along windows and doors. Check the San José energy site for more tips at: <http://energy.sanjoseca.gov/>
3. Unplug appliances, TVs, and stereo equipment when not in use.
4. Replace old appliances with Energy Star appliances. Check for PG&E rebates at: [www.pge.com/rebates](http://www.pge.com/rebates).
5. Caulk around windows, doors, and plugs.
6. Make sure that your home or business is fully insulated.



projects, thus leveraging the savings by reinvesting them to additional energy projects and support.

*EECBG* – The EECBG provided the City with \$8.8 million (M) in funds. Staff continues to implement the following program activities under the EECBG program:

- \$4.7M for City facility energy efficiency projects – Eleven energy audits and forty efficiency projects were completed in 2012 and are anticipated to generate an ongoing savings of \$230,000 per fiscal year. All other identified projects are currently on track to be completed by the end of the grant (June 2013). In total, sixty-four audits and seventy projects are expected to be complete through EECBG funding, and anticipated to generate on ongoing savings of over \$450,000 per fiscal year.
- \$2.1M for the development of solar projects on City facilities – SolarCity is currently installing solar on the following City facilities: Alum Rock Library, Pearl Library, Tully Ballfield, Tully Library, and Willow Glen Community Center. More details are provided in the Goal 3 chapter.
- \$2M for Light Emitting Diode (LED) streetlights – Over 1,400 LED lights with smart controls were installed along 19 major roadways across the City in all Council Districts with EECBG funds. More details about additional streetlights installed in 2012 are provided in the Goal 9 chapter.



*Energy Efficiency Provider* – With the EECBG funding ending in June 2013, staff has been working to identify opportunities to continue energy efficiency work beyond the term of the grant. To assist in this effort, the City issued a Request for Proposals (RFP) in July 2012 to solicit proposals for an Energy Efficiency Provider (also known as an Energy Services Company or ESCO) which could identify and implement additional energy efficiency projects on City facilities for very little, if any, up-front/capital cost to the City. Energy efficiency contracting brings the focused expertise of companies with the capability to provide full analysis, construction, and even financing options. The goals as described in the RFP are to:

- 1) Develop and implement new energy efficiency conservation measures on City facilities
- 2) Use savings from the energy efficiency measures to convert additional streetlights to "smart" LEDs.

Proposals were evaluated and on February 12, 2013, City Council approved a recommendation to award to Chevron Energy Solutions. Additionally, Council approved the program direction for project financing and implementation of projects identified through the approved Program Development Agreement. An interdepartmental team has begun to work with Chevron and preliminary analysis of which facilities or assets have potential for energy conservation measures. Staff envisions assembling the first package of energy conservation measures for implementation through an Energy Service Contract in the fall of 2013.

**Community Energy Efficiency:** In 2012, San José continued to focus on regional coordination in achieving energy reductions at the community level including ongoing collaboration with Santa Clara County and Pacific Gas and Electric (PG&E). The following are funded through utility funding and grants to implement community energy efficiency programs:

*Silicon Valley Energy Watch* – The City administers the Silicon Valley Energy Watch program (SVEW), a partnership with PG&E to deliver energy efficiency services, outreach, and policy coordination to multiple customer sectors across Santa Clara County. The 2010-2012 three year funding cycle ended December 31, 2012. The California Public Utilities Commission (CPUC) issued its final decision on a new two year program cycle for 2013-2014 in November 2012. Staff worked with PG&E to extend the current partnership until March 2013 in order to negotiate the new two year agreement. Staff anticipates bringing forward the new agreement for Council consideration in spring 2013. This new round of funding will be used to continue many of the programs conducted in 2010-2012, including the residential Moderate Income Direct Install Program (MIDI), Municipal Energy Benchmarking Program, and the small business/ nonprofit Direct Installation Program. SVEW also anticipates adding new or expanded program elements that have been developed in response to demonstrated needs within the community, as well as new opportunities to achieve deeper energy efficiency savings. These elements include an audit and installation program for home-based businesses – the first such program in California – as well as an enhanced community grant program and improved assistance for municipal facilities. In 2012 alone, SVEW served 1,545 homes and small businesses county-wide, saving nearly \$3 million in utility bills.

*SVEW In-home Business Program* – In an effort to target new areas of energy savings, PG&E and SVEW launched an In-home Business pilot program in November. Dubbed HomeBiz, this new effort is serving licensed businesses operating out of primary residences within the County. No utility energy efficiency program in the State has ever been able to serve this customer segment. San José alone is estimated to have well over ten thousand such businesses. SVEW is working with its existing partners to collect data and develop the program. A "soft launch" began in November 2012, with a full program launch anticipated in the first quarter of 2013. Program partner Ecology Action will be directly administering the program in close coordination with SVEW. Participating home-based business will receive fully-rebated detailed energy audits and individualized education, as well as fully- and partially-rebated energy efficiency measures and upgrades. Those completing comprehensive home upgrades through the program can receive up to \$4,000 in rebates.

*Community Energy Champions Grants* – In 2011, the City and PG&E, through SVEW, awarded \$335,000 in \$10,000 - \$35,000 grants to 18 recipients from non-profit organizations and local municipalities. The grant funds, along with extensive technical assistance from SVEW staff, supported education and outreach programs designed to increase energy efficiency awareness and promote lasting behavior change within targeted, hard-to-reach communities. The programs lasted approximately a year and a half. On



Representatives from Catholic Charities, a Community Energy Champions Grantee, showcase their campaign.

November 9, 2012, the City hosted a state-wide conference to share successes and lessons learned from the awardees. Close to 100 non-profit, utility and local government officials attended the day-long event, and heard lessons learned and best practices first-hand from the award recipients. Case studies of all programs are being compiled in the Community Energy Champions Handbook, and will be published in 2013. SVEW intends to build on the success and lessons learned from the Community Energy Champions Grant in the 2013-2014 program cycle by issuing a second round of awards, with larger award amounts, yet fewer grant recipients and deeper evaluations of grantees' program impacts. Staff is working with experts at PG&E and the Lawrence Berkeley National Labs to formulate evaluation protocols for the second round of grants.



*Green Energy Match* – In early 2012, the City implemented an innovative Demonstration Partnership with a local clean energy company, WattzOn, to pioneer an approach that directly links residential energy savings to local economic development. Dubbed Green Energy Match, (GEM) the pilot began operating in Willow Glen, Evergreen, and Hillview/TOCKNA in close coordination with multiple City and community initiatives. Participating residents track their energy use through WattzOn's unique software using Smart Meter data, and receive tailored information on how they can reduce their energy consumption. Savings are rewarded each month with coupons to local merchants. Due to the initial success and the need for a larger data set in order to better quantify results, the GEM pilot was expanded city-wide July 1, 2012 and runs through June 2013. More than 600 participants are currently enrolled in the GEM program. Early results show energy savings ranging from 15 to 20 percent or \$42 per month on their PG&E bill. Over 2,000 coupons for deep discounts to local San José merchants were distributed to households as rewards for savings energy. ESD and Office of Economic Development (OED) have begun to evaluate options for the future of the program.



*Overfelt High School Green Academy - first recipient of a Green Energy Match community grant*

*Better Buildings Program* – The Better Buildings Program (BBP), a partnership with the City's Environmental Services and Housing Departments, was designed to enhance marketing and outreach efforts to promote available Residential Rehab and Loan programs. Participants have been able to rehab their homes with energy efficient and environmentally friendly products in addition to making other needed repairs. By the closure of the two-year pilot program, December 31, 2012, the BBP achieved 260 energy upgrades, from all partners within the Hillview – Tully Ocala Capitol King Neighborhood Association (TOCKNA) community, with 40 of these home upgrades meeting thereby meeting our grant requirements. The average energy savings per home participating in the BBP was nearly ten percent, saving approximately \$150 per year.

## **Legislation**

The City continues to actively monitor and, where appropriate, comment on legislation and regulation related to energy efficiency and renewable energy. Staff continues to review legislative bills of environmental significance and continues to track bills of importance.

*AB 32 – Global Warming Solutions Act of 2006* – In 2006, the State enacted Assembly Bill (AB) 32, which set the State’s 2020 greenhouse gas (GHG) emissions reduction goals into law. This legislation established a comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of GHG emissions. It makes the California Air Resources Board (CARB) responsible for monitoring and reducing GHG emissions and directed CARB to begin developing discrete early actions to reduce greenhouse gases while also preparing a scoping plan to identify how best to reach the 2020 goals. CARB’s Scoping Plan identifies a Cap-and-Trade program for pollution credits as one of the strategies to be used to reduce GHG emissions. The development of the Cap-and-Trade program included a multi-year stakeholder process and consideration of potential impacts on disproportionately impacted communities. Under Cap-and-Trade, an overall limit on GHG emissions from "capped" sectors has been established, and polluters that are subject to the cap are able to trade permits (allowances) to emit GHG emissions. During the 2011-2012 Legislative Session, several bills were introduced to establish the allocation of Cap-and-Trade revenues for the State General Fund and also create a process for developing an expenditure plan and the allocation of non-General Fund revenues until next year for inclusion in the Fiscal Year (FY) 2013-2014 State budget. The two primary State Cap-and-Trade bills in the 2012 Legislature were: AB 1532 (Perez) and Senate Bill (SB) 1572 (Pavley). AB 1532 was passed by the Legislature and was signed into law by Governor Brown. AB 1532 created the Greenhouse Gas Reduction Fund Investment Plan and Communities Revitalization Act to set up procedures for the investment of revenues derived from the sale of allowances through the cap and trade program. Any future bill positions that would be recommended by staff would be taken to the Rules and Open Government Committee.

The State of California held its first Cap and Trade Auction on November 14, 2012, with additional auctions scheduled for February and May 2013. Prior to the November auction, the State estimated that 2012-2013 Cap and Trade auction proceeds could potentially generate up to \$3 billion. ARB sold more than 23.1 million emissions allowances - worth more than \$252 million in sum - via the auction. Since the auction, the State has revised estimates of future auction proceeds to be lower than initially anticipated. The Governor’s recently submitted Budget addresses the expenditure of auction proceeds of \$200 million in 2012-2013 and \$400 million in 2014, and identifies investment priorities including but not limited to transit, sustainable communities, and energy efficiency. In February 2013, the CARB held three public workshops around the State to receive input on the development of an investment plan for the auction proceeds, with the public comment period concluding on March 8. Staff has been and will continue to be engaged in this process in order to help shape an investment plan that will facilitate San José’s sustainability and land use goals. It is anticipated that the details of the investment plan will be incorporated as part of the Governor's Revised Budget (available mid-May 2013).

*AB 1103 – Commercial Building Energy Use Disclosure Program* – In 2007, AB 1103 was passed, requiring the disclosure of energy performance data to potential buyers or tenants. All Non-Residential buildings 50,000 square feet or larger and solely owner occupied buildings of any size in the State of California are subject to this requirement. Energy performance data will be rated using the Environmental Protection Agency's (EPA) Energy Star Portfolio Manager which rates a building on a scale from 1 to 100 to similar buildings within its class. The rating system adjusts for geography and climate but not for age of the building. Buildings that receive a

score of 75 or greater are eligible to apply as an Energy Star Building. Although this process requires further review, buildings that exceed this threshold receive an Energy Star Certified label. An academic research study from University of California Berkeley found that office buildings with energy efficiency certification have rental rates that are two percent higher per square foot than other buildings nearby.<sup>1</sup> When adjusting for higher occupancy levels, rental rates go above six percent. As a result, various cities including Austin, District of Columbia, New York, San Francisco, Philadelphia and Seattle are raising thresholds for energy disclosure. As discussed in the Strategic Direction section below, San José may want to explore a more robust energy disclosure program. Originally AB 1103 required initial compliance to begin on January 1, 2013, but recent regulations will postpone the initial compliance date to July 1, 2013. On December 12, 2012 the California Energy Commission (CEC) adopted revised regulations for the Nonresidential Building Energy Use Disclosure Program, pursuant to AB 1103 (Saldana, 2007) and AB 531 (Saldana, 2009). The revised regulations require the owner of a non-residential building to benchmark the building's energy use in the Portfolio Manager database before a building is sold, leased, or financed. The revised regulations also require utilities or energy service providers to release the most recent 12 months of energy usage data to the Portfolio Manager.

*Proposition 39 – The California Clean Energy Jobs Act* – In November, 2012, California voters approved Proposition 39, which made changes to corporate income taxes and, provides for the transfer of \$550 M annually from the General Fund to the Clean Energy Job Creation Fund for 5 fiscal years beginning with the 2013-2014 fiscal year. The Clean Energy Job Creation Fund is available for purposes of funding eligible projects that create jobs in California improving energy efficiency and expanding clean energy generation in schools. With the passage of Proposition 39, several related bills have been introduced for the 2013-2014 session, including: AB 29, AB 39, AB 114, SB 39, and SB 64. More information on each bill can be found here: <http://www.leginfo.ca.gov/>

AB 29 (Williams) – This bill would create three energy efficiency revolving loan funds California colleges.

AB 39 (Skinner) – This bill would administer grants, no-interest loans, or other financial assistance to K-12 schools, for the purpose of projects that reduce energy demand and consumption at schools throughout the state.

AB 114 (Salas) – This bill would administer grants and no-interest loans, to create green energy jobs in California.

SB 39 (De León) – This bill would establish a school district assistance program to distribute grants, on a competitive basis, for energy efficiency upgrade projects.

SB 64 (Corbett) – This bill would install clean energy at public schools, universities, and colleges, and at other public buildings in California.

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<sup>1</sup> Eichholtz, Piet; Kok, Nils; & Quigley, John M.(2009). Doing Well By Doing Good? Green Office Buildings. UC Berkeley: Center for the Study of Energy Markets. Retrieved from: <http://escholarship.org/uc/item/4bf4j0gw>

With the Governor's proposed 2013-2014 budget, all Proposition 39 funding would be focused on going towards schools. The City has not yet taken an official position on these bills; however, staff will continue to monitor these bills in the interim.

## Strategic Direction

More than 80% of the City's overall energy program activities are funded by federal and utility grants and agreements. With all federal energy grants ending June 2013, the City will have very few resources to continue energy efficiency work on municipal facilities. Staff will continue to monitor potential funding sources such as Prop 39 and Cap & Trade revenues, however, this funding source may not be realized until 2014, if at all, based on the Governor's recent budget proposals. Pending approval by Council, funding from PG&E for energy efficiency work in the community through SVEW will continue until the end of 2014.

To broaden energy efficiency work in the community, the City may want to evaluate a series of energy efficiency strategies that other leading cities across the nation have adopted including: Energy Disclosure Policies, Community Choice Aggregation, or a Property Assessed Clean Energy (PACE) program. Evaluation of these will require significant staff work and appropriate funding sources will need to be identified in order to cover this investment. Other opportunities for work in the community include possible support from Regional Energy Networks (RENs) approved by the CPUC at the end of 2012.

Local governments have utilized ARRA, Public Goods Charge, and funds from local resources to implement cutting-edge and community-scale energy and climate action plans. Local governments have also spearheaded the formation of regional and statewide partnerships such as Energy Upgrade California (EUC), that bring together individual cities and counties, Councils of Government, regional government associations, State agencies, investor-owned utilities, municipal utilities, non-profit organizations, and others. The RENs were created to leverage these existing programs and provide a broader framework for supporting the current, local government program infrastructure. Resources from the CPUC, CEC, DOE, Strategic Growth Council, and other sources, can be effectively leveraged through these regional energy networks and can assure the most widespread benefit to all local governments. This can be accomplished through a direction of funds by the State to these RENs.

### Bay Area Regional Energy Network:

The BayREN is led by the Association of Bay Area Governments (ABAG) and is comprised of public agencies representing the nine-county Bay Area region. This coalition of governments previously aligned under the launch of Energy Upgrade California (funded through ARRA) to pilot and refine whole-home upgrade and other programs (e.g., multi-family, financing, PACE, and incentive mechanisms) that are the subject of the CPUC objectives under the Energy Efficiency 2013–2014 Program Cycle. The BayREN will design and implement effective energy savings programs, and draws on the expertise, experience, and proven track record of Bay Area local governments to develop and administer successful regional and local climate, resource, and sustainability programs. The BayREN will deliver four pilot subprograms under a structure that encourages leveraging of elements across subprograms to increase the uptake of upgrades.

1. Single Family Subprogram
2. Multi-Family Subprogram
3. Codes and Standards Subprogram
4. Financing Portfolio Subprogram

The CPUC approved \$26 million in funding for the BayREN and ABAG is currently developing a RFP to assist with implementation. For more information visit: <http://abag.ca.gov/bayren/>

## Climate Change

San José is focusing on reducing energy use through conservation efforts as well as supply-side strategies that lower greenhouse gas (GHG) emissions associated with electricity generation overall. Energy efficiency will be California’s most effective tool for achieving GHG reductions in key industries as well as local governments like San José, which have also made strong commitments to renewable energy. Since energy data used to calculate energy goals comes from PG&E and verified 2012 data is not available until mid 2013; 2012 will be calculated and reported in next year’s 2013 report. Approximately 2,355,830 metric tons (MT) of Carbon Dioxide (CO<sub>2</sub>) equivalents were emitted based on citywide electricity and natural gas use in 2011. Compared to previous year emissions (2,463,456 metric tons (MT) of CO<sub>2</sub> equivalents were emitted in 2010), this results in 107,626 (MT) of CO<sub>2</sub> equivalents avoided, which is equivalent to annual greenhouse gas emissions from 22,422 passenger vehicles. Per Capita Service Population Energy Use was 2.11 MT of CO<sub>2</sub> equivalents.

## Work Plan

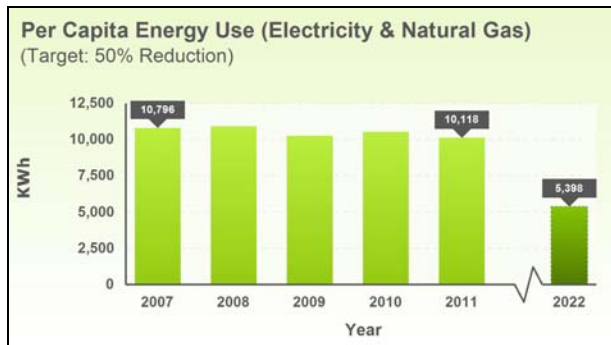
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Lead by Example</b>			
Implement energy efficiency projects in City facilities.	Partner with PG&E to conduct audits; identify additional sources of funds for energy efficiency projects.  Use federal and other financing sources for energy efficiency installations.	Complete 45 remaining EECBG energy-efficiency projects.  Reduce municipal energy use by 5% from previous year.  <b>Status:</b> Completed 40 of 45 projects (EECBG extended to June 2013).  Achieved 3% reduction from previous year.	Complete remaining five EECBG projects and five Energy Fund projects.  Reduce municipal energy use by 5% from previous year.  Begin audits and implementation of energy conservation measures on City facilities related to the ESCO Agreement.
<b>Advocating Policies</b>			
Identify & remove barriers to creating energy improvement areas and smart grids.	Work with PG&E, CEC and CPUC to advance use of energy areas or smart grids.  Implement AB811 or PACE financing districts that will encompass both solar and energy efficiency installation, to be rolled out in conjunction with community education efforts.	Support and coordinate with statewide partners to develop a Commercial PACE program.  <b>Status:</b> Working with County on this effort.	Pending Council direction on Energy Disclosure Policies, PACE or other energy related programs, bring forward recommendations as part of the FY 13-14 budget process.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Financing Mechanisms</b>			
Support energy efficiency programs and retrofits.	<p>Facilitate collaboration between various community providers to develop new and existing funding mechanisms for energy efficiency improvements.</p> <p>Market existing rebate and incentive programs to increase their uptake rates, particularly among hard-to-reach communities and those facing barriers to clean energy implementation.</p>	<p>Continue and complete two Innovator Pilot programs.</p> <p>Evaluate different funding models to support energy efficiency projects beyond pilot programs.</p> <p><b>Status:</b> Innovator Pilot programs in progress. Housing pilot was significantly delayed due to staffing reductions.</p>	<p>Develop financing and seek rebates for municipal energy efficiency projects related to ESCO Agreement.</p> <p>Actively engage in Prop 39 and Cap &amp; Trade revenue proceedings.</p>
<b>Strategic Partnerships</b>			
Expand knowledge and awareness of energy efficiency program resources.	<p>Work in partnership with businesses, energy resource providers, Bay Area Air Quality Management District, Santa Clara County and cities, and community organizations to implement coordinated programs that minimize gaps and redundancies in program delivery.</p> <p>Coordinate with local workforce development and training providers to ensure a robust clean energy workforce that links to utility- and government-funded energy programs.</p>	<p>Continue to refer residents to EUC Santa Clara County program.</p> <p>Better Buildings Program implementation will continue through September 2012. Will seek extension options with DOE through September 2013 to leverage energy efficiency upgrades in additional neighborhoods.</p> <p><b>Status:</b> Continue to refer residents to EUC Santa Clara County program.</p> <p>BBP ended December 2012.</p>	Work with BayREN to identify additional energy efficiency opportunities throughout the community.



Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Communications and Engagement</b>			
Implement community-wide energy efficiency programs.	<p>Implement the Strategic Energy Plan.</p> <p>Increase demand for energy efficiency and clean energy education and resources.</p> <p>Increase the number of local residents, agencies, and businesses who, by leading by example, become energy efficiency and clean energy “ambassadors.”</p>	<p>Will seek extension options with DOE through September 2013 to leverage energy efficiency upgrades in additional neighborhoods.</p> <p>Complete major update to Silicon Valley Energy Map.</p> <p><b>Status:</b> DOE extend grant until December 2012. Program ended December 2012.</p> <p>Silicon Valley Energy Map update completed April 2012.</p>	<p>Continue county-wide energy efficiency outreach through the SVEW programs.</p> <p>If directed by Council to pursue Energy Disclosure policies and PACE programs, conduct stakeholder outreach to develop the appropriate policies and programs.</p>

## Performance Metrics

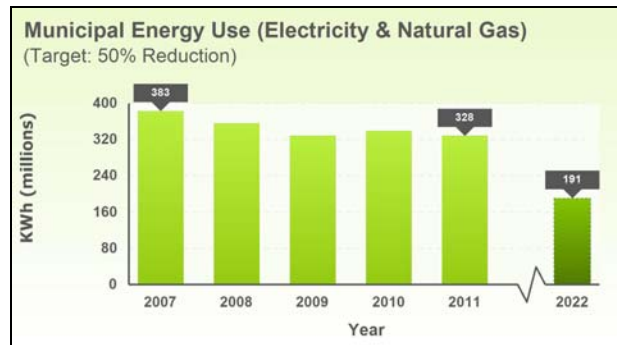


2011: 10,118 kWh

2010: 10,524 kWh

Per capita baseline figures have been adjusted to reflect service population numbers instead of only number of residents. This better aligns with Census Bureau data.

2012 electricity usage data is not available from PG&E until July 2013 and will be updated as those figures are available.



2011: 328 kWh (millions)

2010: 339 kWh (millions)

2012 electricity usage data is not available from PG&E until July 2013 and will be updated as those figures are available.

## Receive 100% of Our Electrical Power from Clean, Renewable Sources

*Renewable energy comes from naturally replenishable resources and emits little or no greenhouse gases. Innovation and investment are key to providing affordable, renewable energy to the community; and in achieving this goal the City will improve the environment, create local jobs, strengthen energy security and boost the economy.*



454kW Solar Installation at Happy Hollow Park and Zoo

### Achievements & Successes:

By the end of 2012, 3,514 solar photovoltaic (PV) systems with a total capacity of approximately 47.8 megawatts (MW) had been installed in San José. Continuing its leadership throughout California and the nation in solar installations, San José is using multiple strategies to increase our renewable energy generation so that by the year 2022, 100% of our electrical power comes from clean, renewable sources.

Based on direction from the Mayor and Council in March 2012, staff has amended the reporting methodology for Green Vision Goal 3 to include the total amount of renewable energy produced from all sources; the total energy use projected for 2022 assumes achievement of Green Vision Goal 2 – 50% reduction per capita energy use.

### Solar on City Facilities:

*Solar on City Facilities and Lands* – In 2012, the City continued working with its selected vendor, SolarCity, to install solar on various municipal sites using power purchase agreements (PPAs). SolarCity has completed four solar PV installations totaling 700 kilowatts (kW) (Phase 1), including Kelley Park – Senter Road Lot, Municipal Water Office, PAL Sports Center, and South Service Yard. Notices to proceed (NTP) with design are subject to the following limitations: 1) must be cash flow positive in years 5 and 20, 2) meet private activity analysis clearance, 3) receive financing and landlord consent, and 4) meet parkland and California Environmental Quality Act (CEQA) clearance. Staff also issued NTPs with construction on five sites (Phase 2): Alum Rock Library, Pearl Library, Tully Ballfield, Tully Library, and Willow Glen Community Center. The third phase of solar projects (Phase 3) includes three additional sites that are currently in the design phase: Almaden Library/Community Center, Lake Cunningham Park – Service Yard, and the Mabury Service Yard. Together, Phase 2 and Phase 3 sites could result in an estimated 915 kW of renewable energy and approximately \$1.2 million (M) in energy cost

#### **Easy Actions You Can Take Now**

1. Complete an energy audit and take advantage of all the cost-effective ways to save energy and money in your home or business. For more information visit: <http://energy.sanjoseca.gov>.
2. Educate yourself on solar opportunities available for your home or business—a good starting point is the State of California's website: [www.gosolarcalifornia.org](http://www.gosolarcalifornia.org).

savings over the 20 year term of the PPA, if the systems under review are installed to initial design capacity. Staff will continue to work to install solar at additional municipal sites through its agreement with Solar City which runs until June 2013. Currently, staff time is funded by the Energy Efficiency and Conservation Block Grant (EECBG), which was extended through June 2013. Staff is looking at other funding sources to extend the Solar City agreement so additional solar can be installed on municipal facilities.

<b>Project Phase</b>	<b>kW installed</b>	<b>Estimated Savings</b>
Phase 1	700	\$1.4 M
Phase 2	391	\$605,000
Phase 3	524	\$633,000
<b>Total</b>	<b>1,615</b>	<b>\$2.6 M</b>

*San José Environmental Innovation Center* – As mentioned in previous reports, the City of San José secured a \$2.35 M grant from the Economic Development Administration (EDA) of the U.S. Department of Commerce for the procurement and installation of solar PV panels, micro-inverters, and a solar tracking system for the Environmental Innovation Center (EIC). Upon completion of Phase II construction, a PV system will be installed on the rooftops of the EIC’s warehouse and Household Hazardous Waste building, and on newly constructed car shelters throughout the western parking lot. The PV system will generate a minimum of 591,000 Kilowatt Hours (kWh) of electricity per year. The size of the PV system is anticipated to make the EIC a net-zero electrical facility (i.e. the annual amount of electrical energy produced on-site will equal the annual amount of electricity used by the building when in operation). Installation of the proposed PV system could result in achieving Leadership in Energy and Environmental Design (LEED) Platinum Certification. Phase II construction is anticipated to achieve LEED Silver Certification, at minimum. It is anticipated that construction will begin in 2013 following a Request for Bid procurement process. More details about the EIC are described in the Goal 5 chapter.

**Renewable Energy at the Plant:** The San José/Santa Clara Water Pollution Control Plant (WPCP) typically receives about two-thirds of its power from methane generated from the treatment processes and the adjacent landfill. In early 2012, the WPCP completed installation of a 1.4 MW fuel cell which provides approximately 20% of base load energy needs. The City has also entered into an agreement to lease 40-acres of the WPCP Lands to the Zero Waste Energy Development (ZWED) Company to site a privately run dry anaerobic digestion (AD) facility to eventually create methane gas, which can be converted into electric power or vehicle fuel. The AD facility is currently fully permitted and under construction. It is expected to start receiving materials in late-2013.



*WPCP Fuel Cell*

**Solar America Cities Grant:** In late March, the Department of Energy (DOE) notified the City that it was extending the initial term of the grant, January 2010 through December 2011, by six months to end June 30, 2012. This would allow the City to spend down the approximately \$288,000 in remaining funds. DOE directed the City to develop a solar permit incentive program

to help accelerate widespread adoption of solar technology. The solar incentive program was very successful. Between January 1 and June 30, 2012, a total of 626 solar permits were issued throughout San José. During the last month of the incentive period alone (May – June), 229 solar permits were issued.

**Property Assessed Clean Energy (PACE):** A PACE program would allow property owners to finance energy efficiency or solar energy projects through their property tax bill. The City has been working with the County of Santa Clara on the development of a regional approach to PACE. Although developing a PACE program at the regional level would require significantly less work on the part of City staff and would address a broader approach to investments in energy efficiency and solar projects, in order to expedite the availability of clean energy financing tools, staff may also explore San Jose specific PACE programs. The California Public Utilities Commission (CPUC) issued its Final Decision on the 2013-2014 state-wide energy efficiency programs in November 2012 and there are some funding scenarios that could have a positive impact on PACE development. Additionally, with the passage of Proposition 39, there appear to be funding opportunities for local governments for PACE programming. Proposition 39 closes certain tax loopholes for out of state businesses. It is estimated that \$2.5 billion (B) in tax revenue will be generated over the next five years. The new law sets aside approximately \$1.25 B for schools and local government public/private partnerships over five years. The Governor’s most recently proposed budget for 2013 calls for all funding to go to schools. As specific implementation details get worked out in the legislature, staff is continuing to work with the County and monitoring the Prop 39 developments to link in opportunities for PACE programming.

## Legislation

On the State level, the City continues to actively monitor and, where appropriate, comment on legislation and regulation related to energy and renewables.

*AB 976 (Hall) – Public Contracts Consulting Community Choice* – Prohibits a person, firm, or subsidiary thereof, which has been awarded a consulting services contract for advising a public entity on the feasibility of creating a community choice aggregator from submitting a bid, or being awarded a contract for any work including the procurement of electric supply and renewable energy credits, or any other related action which is required, suggested, or otherwise deemed appropriate in the end product of the consulting services contract. The City took



**Better Buildings SolarThon**

On July 19, 2012, Better Buildings Program staff hosted a SolarThon with Grid Alternatives, a non-profit organization and licensed contractor whose mission is to empower communities in need by providing renewable energy. Volunteers from corporations including AnswerLab, Aruba Networks, Burnham Energy, Center for Employment Training, Enphase Energy, Google, ProVOLTz, Real Goods Solar, Salesforce.com, Sungevity, Sunpower, Verengo Solar, Wells Fargo, and Yingli Solar, as well as the community, came together for a day long work party to install residential solar systems on 13 homes in the Hillview-TOCKNA area of East San José. Over their 30 year life span, the 13 solar systems will save over \$450,000 for these low-income families while preventing over 1,500 metric tons of carbon dioxide emissions. This is the equivalent of taking over 300 cars off the road for one year.

an oppose position on this bill. The Governor vetoed this bill in September 2012.

*SB 843 (Wolk) – Renewable Energy: Self-Generation Program* – Enacts the Community-based Renewable Energy Self-Generation Program. The bill would authorize a retail customer of an electrical corporation to acquire an interest in a community renewable energy facility for the purpose of receiving a bill credit to offset all or a portion of the customer’s electricity usage. It also required that corporations or persons engaging in certain community facility activities are not classified as public utilities. It also repeals certain provisions relating to the City of Davis’ Solar Facility receiving a bill credit. The City took a support position on this bill, however, the bill died in the Assembly Utilities and Commerce Committee in August 2012.

### **Strategic Direction**

The City continues to partner with Pacific Gas and Electric (PG&E) to develop renewable energy generation and energy efficiency projects on City facilities, businesses, and residential homes throughout San José. The City remains a national leader in solar roof installations and leads Northern California with programs such as the Silicon Valley Energy Map, while partnering with companies such as SolarCity and ZWED to increase renewable energy generation on City facilities and at the WPCP. As the City looks to possibly extend its PPAs with Solar City beyond June 2013, the City will need to identify funding to cover Public Works staff time to review design specifications and manage project construction. Various funding scenarios will be evaluated and included in the 2013-2014 Fiscal Year Budget proposals. As mentioned in Goal 2, staff will continue to work with Regional Energy Networks (RENs) across the state to assist local governments with funding and implementing local energy programs.



*South Service Yard 95 kW Solar System*

### **Climate Change**

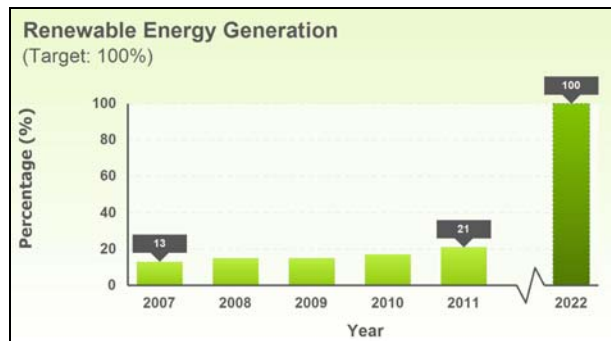
Currently the State requires energy providers to increase the mix of renewable energy included in their energy portfolios to 33% by the year 2020. San José’s currently receives the bulk of its electricity from PG&E. 2012 verified PG&E data is not available until mid 2013, as a result 2012 GHG emissions will be calculated and reported next year. San José’s total electricity use in 2011 was 4,864,231,952 kWh, and resulted in 1,195,470 metric tons (MT) of Carbon Dioxide (CO<sub>2</sub>) equivalents. Compared to 2010 data (5,281,690,474 kWh resulting in 1,322,561 MT of CO<sub>2</sub> equivalents), San José has avoided 127,091 MT of CO<sub>2</sub> equivalents, which is equivalent to annual greenhouse gas emissions from 26,477 passenger vehicles.

### **Work Plan**

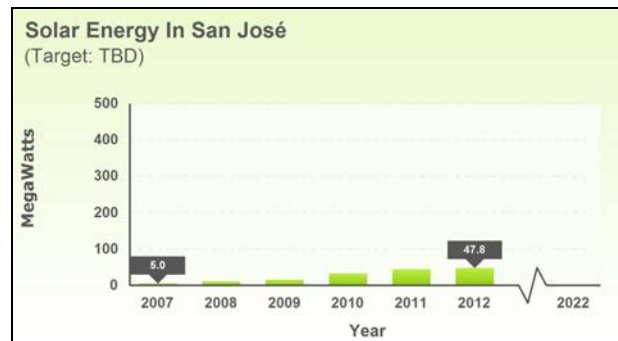
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Lead by Example</b>			
Install solar on City facilities.	Power Purchase Agreement RFP finalized and available for all City facility	Install solar on a minimum of 4 City facilities.  <b>Status:</b> 4 systems have	Complete solar installations on 8 City facilities.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
	solar projects; remove barriers to solar installation for all City facilities.	been installed to date. 5 more installations in progress and 3 in preliminary design review.	
<b>Advocating Policies</b>			
Remove regulatory barriers to widespread adoption of solar.	Work with CPUC, utilities and others to establish fair, appropriate and reasonable tariffs to encourage expansion of solar.	Participate on the Local Government Sustainability Commission and the City will continue to monitor and provide input on CPUC rulings and draft legislation.  <b>Status:</b> Successfully advocated for the development of RENs.	Work with the Bay Area REN and CPUC to develop regional and local programs related to energy efficiency and renewable energy.
<b>Financing Mechanisms</b>			
Support solar programs for rental markets; and other innovative financing mechanisms.	Work with city departments, CPUC, PG&E, and CEC to implement solar programs for multi-family and low income residents; Develop integrated financing offerings for the community.	Continue to work with other City departments, external stakeholders, and PG&E on financing mechanisms for solar.  <b>Status:</b> Working with County on developing a PACE program.	Work with the Bay Area REN to leverage funding opportunities.  Actively engage in Proposition 39 and Cap & Trade revenue proceedings.
Pursue implementation of clean energy municipal financing for the community.	Participate in regional efforts and examine development of City-wide clean energy financing.	Will continue discussions with community groups on what, if any, role the City should play.  <b>Status:</b> Working with County on developing a PACE program.	Pending Council direction on whether to pursue Energy Disclosure Policies, PACE or other energy related programs, pursue implementation of clean energy financing for the community.

## Performance Metrics



**2011: 21%**  
2010: 17%  
2012 data is not available from PG&E until July 2013.



**2012: 47.8 MW**  
2011: 44.4 MW  
2022 target to be determined.

## Build or Retrofit 50 Million Square Feet of Green Buildings

*An estimated 70 percent of a community's total energy use and 16 percent of its water use is associated with buildings. Green Buildings reduce energy and water use, incorporate sustainable construction materials, and result in significant greenhouse gas reductions.*



*Martin Luther King, Jr. Library - LEED-EB Silver*

### Achievements & Successes

Currently San José has over 6.7 million square feet of certified public and private green building space with another 9.5 million square feet of green space in design or construction. This includes 4.7 million square feet of private sector development and over 2 million square feet of City facilities that have achieved green building certification since 2007.

In November 2012, the United States Green Building Council (USGBC) held its international GreenBuild Conference in San Francisco and over 35,000 attendees from around the world came to learn about the latest in green building advancements. As a part of the conference, building tours were set up at over 200 Leadership in Energy and Environmental Design (LEED) certified buildings around the Bay Area. San José City Hall, Roosevelt Community Center, Mayfair Community Center, Seven Trees Library & Community Center and the IDEAs office building were selected to represent Silicon Valley.

### City Facilities:

Originally adopted in 2001 and updated in 2007, the Municipal Green Building Program City Council Policy 8-13 requires the City to provide leadership and guidance to planning, design, construction, management, renovation, and operation and demolition projects by achieving LEED Silver certification for all City projects larger than 10,000 square feet and to identify opportunities to certify existing municipal buildings. LEED certification involves documentation of the project's energy and water efficiencies and other environmental attributes. The documentation is submitted with appropriate fees to the USGBC for certification.

To date, eighteen City facilities have achieved LEED certification and contributed approximately 2 million square feet towards achieving Green Vision Goal 4. In January 2012, the Dr. Martin Luther King, Jr. Main

#### **Easy Actions You Can Take Now**

1. Insulate your attic. For rebate information visit: <http://www.pge.com>.
2. Get your house Green Point Rated. For more information visit: <http://www.builditgreen.org>.
3. Increase energy efficiency through green home improvements funded through the FHA PowerSaver program. For more information visit: <http://fhapowersaver.org>.
4. Use only Green Seal Certified products and services to clean and maintain your home. For more information visit: [www.greenseal.org](http://www.greenseal.org).

Library, jointly owned/operated with San José State University, achieved LEED Silver for Existing Buildings. An additional six new buildings totaling more than 340,000 square feet are currently in process to achieve LEED certification for New Construction, with half expected to be awarded by 2013 and the rest by 2015, depending largely on the City's ability to complete and/or staff buildings given current and future budget constraints.

Two City facilities totaling 544,164 square feet, achieved LEED certification in 2012:

- Dr. Martin Luther King, Jr. Library (Silver)
- Bascom Library and Community Center (Gold)



*Bascom Library and Community Center  
Certified LEED GOLD*

This brings the total municipal Green Building square footage to 2,015,754 square feet. With the construction of new municipal facilities drawing to a close after more than ten years of replacing older structures with new libraries, community centers, fire and police stations, as well as a new airport terminal and City

Hall, the City of San José began to participate in the LEED Volume Program for Operation & Maintenance ("Volume Program") in June 2011, which focuses on certifying existing structures. Staff has been working with the USGBC to finalize a protocol for data gathering and plans to finalize the certification process for five branch libraries designed and constructed to LEED standards but never formally certified. The City is evaluating the resources needed and the benefit of full participation in this program, which would certify up to 25 existing buildings. Staff anticipates completing the analysis in time for the 2013-2014 Fiscal Year budget discussions.

**Table 1: Initial Libraries Targeted for Volume Program Certification Library**

Libraries	Square Feet
Alum Rock Branch Library	26,000
Berryessa Branch Library	26,000
Cambrian Branch Library	28,000
Edenvale Branch Library	22,000
Vineland Branch Library	24,000
<b>Total Square Feet</b>	<b>126,000</b>

**Private Sector:**

In 2012, sixteen projects totaling to nearly 500 housing units and approximately 175,000 square feet of non-residential space paid a "green building" deposit, amounting to nearly \$300,000. Per the 2009 green building ordinance, commercial/office projects over 25,000 square feet and residential projects over 10 units must achieve minimum certification levels. Otherwise they forfeit their green building deposit of 30 cents per square foot (\$30,000 maximum or 10,000 SF). The deposit is refundable when formal certification from USGBC or Build It Green is received for the project. In 2012, the City has refunded approximately \$10,000 in green building deposits.



As of 2012, a total of 4.7 million square feet of private sector buildings have achieved green building certification since 2007. As development and the overall economy continue to rebound from the recent downturn, the number of deposits and refunds will increase, particularly since most projects reflected in the latest building permit activity had submitted entitlement applications prior to the effective date of the green building ordinance (and, thus, are not subject to its provisions).

*Additional City Green Building Requirements for Retrofits* – During the outreach for the City’s private sector green building policy and ordinance in 2009, staff discussed with stakeholders the possibility of San José establishing its own green building requirements for residential remodels and non-residential tenant improvements. Additional outreach would be needed when the City has a specific proposal to share with stakeholders. In March 2012 the Transportation & Environment Committee and subsequently, the City Council, accepted staff’s recommendation to hold off on any updates to the private sector green building policy at that time. This recommendation was based on multiple factors including limited staff resources and the need to allow staff adequate time to monitor the implementation of the existing private sector policy and to evaluate the CalGreen state codes. Staff could then bring forward policy recommendations in the future, based on their findings from the existing policy implementation as well as on the code requirements stipulated in the CalGreen building code.

## **Legislation**

As mentioned in the Goal 2 – Reduced Energy Use chapter, State Assembly Bill (AB) 1103 requires the disclosure of energy performance data to potential buyers or tenants during certain transactions. If directed by Council, staff will evaluate policy options to build upon this legislation.

## **Strategic Direction**

In 2012, City Council approved a recommendation that San José not pursue any updates to the private sector green building policy to address existing building and retrofit requirements at this time. As stated earlier, this was so as to allow staff adequate time to monitor the implementation of the existing private sector policy as well as evaluate the requirements of the State’s CalGreen building code. It is important to note however, that even



*Photo Credit: Bernard Andre  
Photography*

### **Fourth Street Family**

**Apartments**, was awarded Platinum, the highest level of LEED for Homes certification from the USGBC. Developed by First Community Housing in partnership with the City of San José’s Housing Department, the building provides 100 affordable homes for households earning \$21,100 to \$63,300. Thirty-five units also house occupants with developmental disabilities or with chronic mental illness. The building’s sustainable features include a vegetated living roof and photovoltaic system; water-conserving technologies; energy-efficient windows; energy-efficient appliances and lighting; and low- and no-VOC finishes to preserve healthy indoor air quality. Ninety-five percent of construction waste also was diverted from landfills. To promote healthy living and reduce auto dependence, the apartments are close to light rail and integrate secure bicycle parking and staff showers. The property also will continue to operate sustainably through maintenance staff training and tenant education. Fourth Street is an excellent example of both green building technologies and affordable living for lower-income residents of San José.

with the State’s leadership of incorporating energy and water efficiency and other environmental elements into the building code, for San José to reach the goal of 50 million square feet of green buildings, San José will need to define “green building” for the existing building stock and to develop policies that address existing buildings and retrofits. To date, San José has focused its priorities on encouraging businesses to move into existing, vacant buildings and to welcome continued investment in home remodels. Since energy is a major element of green buildings, increasing awareness of energy performance and setting up tools to enable energy efficiency improvements and renewable energy installations will also positively impact and lay the foundation for any future green building policies. Additionally, staff will continue to monitor State activities and the implementation of the existing private sector policy in the context of the City’s green building goals and bring forward future recommendations to the T&E Committee and Council.

### **Climate Change**

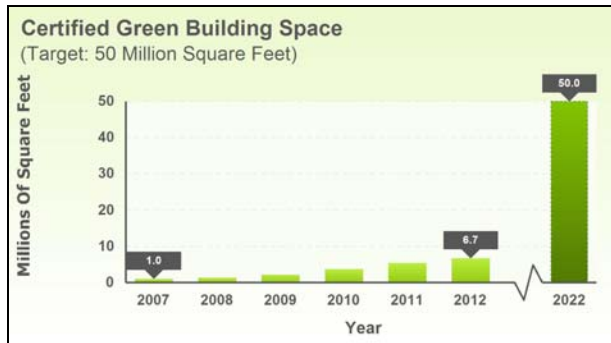
The City of San José’s Building Code requires new buildings to achieve certification using either the Build It Green or USGBC’s rating systems which strive to optimize the energy performance of buildings. While retrofitting existing municipal buildings will reduce some greenhouse gas emissions, more emissions may be avoided by planning new green building sites that focus on improving the surrounding area to encourage less vehicle trips and contribute to reducing other emission that impact public health such as carbon monoxide, nitrogen oxides, organic gases, sulfur oxides, and particulate matter. As a result, the positive impact Green Buildings have on Climate Change is closely tied to Green Vision Goal 7 – Adopt a General Plan with Measurable Standards for Sustainable Development.

### **Work Plan**

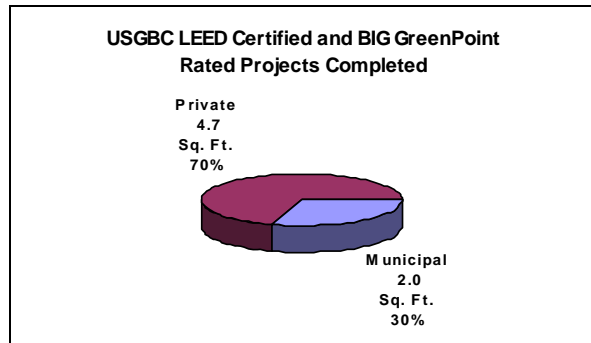
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Lead by Example</b>			
Implement Private Sector Policy for New Construction.	Evaluate effectiveness of Policy by monitoring number of projects obtaining Green Building Certification.  Policy modifications or Deposit increase may be necessary to increase levels of Green Building.	Track State AB 1103 and specific requirements for energy benchmarking and disclosure to facilitate energy upgrades to existing commercial buildings.  <b>Status:</b> Discussion of AB 1103 now being tracked under Goal 2.	Continue to evaluate the implementation of the private sector green building policy.
Certify existing City facilities using LEED-EB Rating System.	Participate in USGBC Portfolio Program (now known as the Volume Program).	Complete protocol precertification.  Identify and pursue new funding sources that are aligned with program objectives.  <b>Status:</b> Protocol	Finalize direction for LEED-EB certification of existing municipal facilities based on organizational capacity and funding availability.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		development in progress.  <i>Will be aligning funding sources based on move to PW.</i>	
<b>Communications and Engagement</b>			
Promote green building for private sector new construction through staff interactions with the public.	Develop outreach materials to support Private Sector Green Building Policy for New Construction and showcase municipal facilities.	Conduct additional outreach and education for staff and development community.  <b>Status:</b> Continue to provide staff training and outreach to development community.	Continue outreach and education for staff and development community.

## Performance Metrics



**2012: 6.7 million square feet**  
2011: 5.4 million square feet



**2012: Private Sector accounted for 70% of square footage**  
2011: Private Sector accounted for 74% of square footage

## Divert 100% of Waste from Landfill and Convert Waste to Energy

*Zero Waste helps keep our air, land, and water clean while generating more local jobs. Reusing products helps to reduce waste and eliminates the need to extract additional resources. Zero Waste provides a path to greater health and economic welfare.*



Rendering of the Anaerobic Digestion Facility

### Achievements & Successes:

**Waste to Energy:** San José has prioritized the following strategies as a phased implementation plan to convert waste to energy:

*Develop Anaerobic Digestion Technology* – The City of San José selected Zero Waste Energy Development (ZWED) for a 15 year contract to process all of the City's commercial organics under a new city-wide, collection system. Led by local companies GreenWaste Recovery, Zanker Resource Recovery, and Zero Waste Energy, ZWED is developing a dry fermentation anaerobic digestion (AD) and in-vessel composting (IVC) facility utilizing KompoFerm technology. The project has three 90,000-ton phases which will be constructed based on ZWED contracting for tonnage. Once complete, the facility will process over 270,000 tons per year of organic waste from around the region that would otherwise be disposed in a landfill. In addition to producing renewable biogas that can be sold to the local utility power grid to fuel other facilities, this innovative process will also produce high quality compost that will be used to enrich soils. This increase in landfill diversion and production of renewable energy will help San José meet various Green Vision goals and showcase cutting edge AD technology. Site preparation has begun and facility construction will continue through 2013 with operations beginning late-2013.

*Feasibility Study for Biomass-to-Fuel Technology Nears Completion* – The City signed agreements with the California Energy Commission (CEC) and Harvest Power to conduct a Gasification Feasibility Study that is part of a \$1.9 million grant to the City from the CEC. Final stakeholder review of the draft for technical, economic, and permitting feasibility analysis of a new technology to convert clean wood waste and biosolids into transportation-grade biomethane is currently underway. If deemed feasible, a demonstration of such technology may be constructed at the San José/Santa Clara Water Pollution Control Plant and would showcase San

#### **Easy Actions You Can Take Now**

1. Bring reusable shopping bags with you when you shop to reduce the number of single use bags that end up in the landfill.
2. Attend one of the City's residential home composting workshops and begin composting at home. This will reduce waste going to landfill, and your yard and plants will flourish. For more information on classes visit: [www.sanjoseca.gov/gardening-composting](http://www.sanjoseca.gov/gardening-composting).
3. Minimize purchasing single-use plastic containers; for example, avoid individual plastic water bottles and use a refillable and reusable sports bottle instead.

José's leadership in driving emerging technologies that create energy from waste. Key stakeholders include Agnion (the technology provider), CalRecycle, the Bay Area Biosolids to Energy Coalition, California Biomass Collaborative, University of California Davis, and other municipalities including Palo Alto and San Francisco. After an extensive analysis period, the City anticipates finalizing the feasibility report in Spring 2013.

### Commercial Solid Waste System Redesign:

On July 1, 2012, Republic Services began roll-out of a new, innovative commercial solid waste collection program to approximately 8,000 San José businesses. The system unifies waste service under a single hauler, Republic, and introduces an easy, two-sort system for businesses to separate wet material (organics) and dry material (recyclables and dry garbage). Additionally, helping to reduce the carbon footprint of waste hauling and processing and providing green jobs, the new service is anticipated to triple the commercial solid waste diversion rate from 25% to 80% through the combination of recycling and organics processing.



Republic Services collection vehicle

Republic and the contracted organics processor, ZWED, have worked to ensure a smooth transition to the new services. In an effort to capture more organic and recyclable material for recovery, Republic has altered routes, provided containers for problem contaminants, and changed collection days for some customers. Republic has also made significant equipment upgrades and adjustments to the processes at the Newby Island Resource Recovery Park facility to ensure organic material is properly separated. With a facility of this scale and complexity (the largest recycling facility in the world), processing adjustments are expected and encouraged to increase waste diversion. Already, San José's commercial waste diversion rate has more than doubled from pre-transition levels, which was a major contributor to San José's overall waste diversion increase in 2012.

### City Facilities, Events and Venues Recycling:

*Events Waste Diversion* – During 2012, the Zero Waste Event Program served approximately 90 events, with many events receiving expanded assistance and others participating for the first time, including some new events to San José. The program was able to reach 30 more events this year, due to expansion of program promotion efforts, coordination with the Citywide Special Events Team, and streamlining procedures, including launching an online application and all-inclusive database. Events that participated in the Green Event Grant Program diverted 92% of waste from our landfills. Events that participated in other areas of the Zero Waste Event Program, such as borrowing equipment from the Environmental Services Department (ESD), utilizing recycling services, receiving technical assistance, and/or the Green Event Certification Program diverted an impressive 81%. These events used alternatives to expanded polystyrene (EPS) food service ware and marketed their green programs via social media. Staff collaborated with the California Resource Recovery Association, a statewide recycling



The 2012 Zero Waste Event Program

association that focuses on increasing the awareness of State and local waste diversion and recycling requirements, to provide tools and education to the event organizers. To learn more, please visit: [www.sanjoseca.gov/events-venues](http://www.sanjoseca.gov/events-venues)

*City Facilities* – The City Facilities Garbage and Recycling program that serves over 150 City facilities including parks, libraries, and community centers; the Mineta San José International Airport; the Convention Center; and City Hall achieved an 87% recycling rate in 2012, which continued to be the highest rate of any municipal recycling program in the nation. On June 28, 2012, City Administrative Policy 5.1.13, Prohibition of City Funding for Purchase of EPS was adopted to prohibit the use of City funds to purchase EPS foam food service ware. In 2013, the City will continue exploring creative ways to improve recycling collections at large facilities such as the Police Administration Building and increasing opportunities to repurpose and reuse items more effectively to reduce waste while also reducing costs for new supplies.

**Construction & Demolition Recycling Diversion:** More than 30% of landfill waste is construction and demolition (C&D) debris. In 2012, San José’s Construction & Demolition Diversion (CDD) Program met its goal for facilities to recover and divert at least 65% of C&D debris from landfills. To reach this goal, program procedures were refined to where compliance with the CDD program is now required in order to receive either a Certificate of Final Occupancy or a refund, if a deposit was submitted. The City’s C&D debris diversion goal will increase to 75% in 2013 -- well above the State mandate of 50% diversion. San José is also conducting a pilot program with GreenHalo Systems in order to determine the feasibility of paperless, online submissions in order to streamline the compliance process. The City will also explore opportunities for regional certification of C&D processing facilities.

### Residential Program Highlights:

*Recycle Plus Pilots:* In September 2009, the City Council approved funding for single-family residential Recycle Plus pilots in selected neighborhoods throughout the City to determine the best methods for capturing food waste, yard trimmings, and other organics, as well as to evaluate the effectiveness of yard trimmings cart collection in reducing storm water pollution. Findings of the pilots were presented in greater detail to the Transportation and Environment Committee in April 2012. Based upon data from the Food Scraps Pilot, Citywide implementation of a food scraps collection program would not significantly increase overall waste diversion due to anticipated low resident participation. Assuming San José achieves 40% participation under a best-case scenario, at that participation level residential diversion would only increase moderately by 5%, which would not be enough to achieve our Zero Waste goal. A preliminary estimate is that the program would cost at least \$7,000,000 a year just to achieve the same results experienced during the pilot.



*Kitchen pail used in the Food Scraps Recycling pilot project*

Meanwhile, results of the Municipal Solid Waste Processing pilot show that backend sorting of garbage is a highly effective method in capturing recyclable and compostable material from the garbage stream. Through this particular pilot program, a diversion rate of 74% was achieved, with 2,500 tons of recyclable and compostable materials diverted from landfill. If implemented

Citywide, the municipal solid waste processing option could substantially increase diversion in the residential sector. This option would be the most effective method to achieve the City's Zero Waste Goal of diverting 100% waste from our landfills, but at \$12,000,000 a year, this option is the costliest of the piloted options to increase diversion. Capturing and diverting residential organic waste will be a key component to achieving zero waste. Material collected could be used as feedstock for the new dry fermentation AD and IVC facility. The pilot program was an important tool to understand and compare the cost effectiveness of participant-dependent programs and back-end processes. As a result of the pilot findings, the City will use the data to evaluate citywide implementation of the pilots or different variations of these program changes to move cost effectively towards zero waste.

*Neighborhood Clean-Up – Recycle Plus* program enhancements also extend to the Neighborhood Clean-Up (NCU) program which is one of the most popular and well-received programs provided by the City. The integration of the NCU event schedule with the online Collection Day Look-up tool is anticipated to complete in Spring 2013. Once completed, residents will be able to view their neighborhood's scheduled NCU event online, along with their garbage, recycling, and yard trimmings collection day, street sweeping schedule, and service provider contact information. The online schedule, coupled with the reminder postcard mailed prior to the event, will help increase resident participation in the NCU events and will in-turn increase diversion from the landfills. Visit the online Collection Day Look-up at <http://www.sanjoseca.gov/lookup>.

*MFD Recycling Bags Pilot Program* – In 2012, Cascadia Consulting Group issued a case study on Multifamily Recycling stating that for the City of San José, “overall multifamily diversion (including organics) is at 77%, the highest diversion rate reported for the multifamily sector in the U.S.” To help increase this percentage even further, the City is exploring a partnership with Recycle Plus service provider, GreenTeam of San José, to provide an enhanced recycling pilot program for select multi-family dwellings (MFD) in the city. The pilot would provide residents living in apartments and condominiums with in-home reusable recycling bags and education materials to increase recycling participation and to minimize recycling contamination. The plan is to complete bag and outreach distribution to 13,000 individual MFD living units, within 347 complexes, by Spring 2013, with the pilot period lasting a total of 18 months. The overall goal of the pilot program is to achieve a 10% increase in recycling diversion within the pilot collection route, which includes a total of 1,526 recycling bins.

*Recycle Plus Billing and Customer Service* - On January 15, 2013, Council approved a staff report on service delivery evaluation options for Recycle Plus Billing and Customer Service and staff's recommendation to discontinue the in-house service delivery model and continue evaluating these two alternative service delivery options: (1) Place Recycle Plus billing for single family households on the Santa Clara County (County) Secured Property Tax Bill and contract with municipal solid waste haulers for customer service and billing of premium services (such as subscriptions to larger cart sizes) and MFD households solid waste pick-up services or; (2) Shift Recycle Plus billing and customer service for all residential household solid waste pick-up to the municipal solid waste haulers. The City could exercise an option in the existing haulers' contracts to provide billing and customer service on a fee-for-service basis. Both alternative service delivery options will provide cost efficiencies that will generate an estimated \$333,000 to

\$3 million in annual cost avoidance for ratepayers. In addition, placing Recycle Plus billing on the property tax bill will eliminate the need to send over one million Recycle Plus bills to residents every year. Cost savings may be used for Recycle Plus program changes to help achieve the City's Zero Waste goals.

**Bring Your Own Bag Ordinance:** On January 1, 2012, the City's Bring Your Own Bag (BYOB) Ordinance became effective. The ordinance had an observable effect on the reduction of plastic bags in the environment. Various litter surveys conducted demonstrated a reduction in bag litter of approximately 89% in the storm drain system, 60% in the creeks and rivers, and 59% in City streets and neighborhoods, when compared to data collected from 2010 and/or 2011 (pre-ordinance) to data from 2012 (post-ordinance). Visual observations were made at a variety of store types and showed that reusable bag use increased greatly following the implementation of the ordinance, from almost 4% of bags observed to approximately 62% of bags observed. Fewer plastic bags also are going to landfill according to one Recycle Plus hauler, who handles recycling from most single-family homes in San José. They reported a 24% reduction in retail plastic bags coming through its operations. The City will continue to monitor trends in single-use bag bans and may recommend modifications to the City's Bring Your Own Bag Ordinance in late 2013.

**EPS Foam Food Ware:** Similar to the BYOB Ordinance, a phasing out of EPS foam food ware may have significant benefits for wildlife, water quality, and trash reduction in streets and creeks; and with other cities pursuing similar phase outs, greater regional environmental benefit is likely. Based on the findings of the studies that have been conducted to date, the City could regulate EPS foam food service ware in a way that would minimize the impact to San José restaurants, address some of the issues raised by the stakeholders, and ease the transition for small businesses. Staff has engaged a broad spectrum of stakeholders including restaurant owners and operators, as well as local business organizations, to gain their perspectives regarding the phase out of EPS foam food ware. This stakeholder engagement effort will guide the refinement of the EPS phase out outreach and implementation plan. Staff will return to Council in Spring 2013 with a draft ordinance to phase out EPS that incorporates stakeholder feedback for consideration and report out with further detail on implementation, including clearer definitions for phase-ins, exemptions, and timeline. Following the Council meeting, staff will complete environmental review according to the California Environmental Quality Act (CEQA) for the proposed phase out ordinance. Based on the conclusions of the initial study prepared by other jurisdictions that have passed ordinances banning EPS foam food service ware, staff anticipates that a Negative Declaration will be the likely CEQA determination.

**San José Environmental Innovation Center:** The San José Environmental Innovation Center (EIC) is located at 1608 Las Plumas Avenue on a 4.2 acre property. The City completed an initial phase of improvements (Phase I) in June 2010 that included the installation of several sustainable technologies but was limited to exterior site improvements. The second phase of the project (Phase II) includes the renovation of an existing approximately 46,000 square foot warehouse built in 1958 and addition of an approximately 10,000 square foot building. The EIC will house the following after completion of Phase II:

- Habitat for Humanity ReStore – a store that sells new or nearly new building materials at discounted prices and supports the City's waste diversion efforts. These items are typically



donated by home improvement stores and developers that would otherwise likely dispose of them in a landfill.

- Household Hazardous Waste (HHW) Facility – a permanent drop-off facility operated by the County of Santa Clara where residents can safely and legally dispose of common toxic products (e.g., paint, batteries, pool and lawn chemicals) that cannot by regulation be placed in garbage or recycling containers or poured down a drain or gutter.
- Prospect Silicon Valley (Prospect SV) Clean Tech Demonstration Center – flexible space for innovators to demonstrate, develop, and deploy emerging clean technologies in renewable energy, energy efficiency, green building, and transportation.
- Conference Rooms and Offices – state-of-the-art space to host workshops and job training programs for emerging new technologies and workstations for members of Prospect SV.

Phase II construction is currently underway. The general contractor, Applegate Johnston, Inc., has completed mechanical, electrical, and plumbing layouts and is working on the warehouse's structural reinforcement, roof, and basement. In addition, the new HHW building is almost complete. The pre-fabricated metal building has been erected, interior masonry walls have been built, and some of the concrete around the new building has been poured. Phase II construction is anticipated to be completed in Fall 2013.

**Go Green Schools:** The Go Green Schools program continued its mini-grants program, which provided grants of \$500 to \$5,000 to fund 13 projects in 2012. Go Green Schools (GGS) also continued to work with Resource Area for Teaching (RAFT) to provide more than 2,000 containers to 49 Kindergarten through 12<sup>th</sup> grade schools in 2012 for classroom recycling collection.

GGS hosted the sixth annual Bay Area Schools Environmental Conference in San José on February 4, 2012, with over 300 people from 34 Bay Area cities. While this event has grown over the years, the City is currently re-evaluating all the GGS programs, looking for opportunities to better align its funding, and offer enhanced services to more schools. There is no conference planned for 2013.



Students at the 2012 Bay Area Schools Environmental Conference

Finally, as part of a regional effort and funded by the Metropolitan Transportation Commission, the City of San José, Alameda County's StopWaste.org and San Mateo County's RecycleWorks have continued to develop the Green Star Schools certification program. This partnership has developed interactive documents for teachers, parents and students to use on projects related to four environmental topics or "pathways," including: waste, water, energy, and transportation (e.g. Safe Routes to Schools). To learn more, please visit: [www.sanjoseca.gov/esd/schools](http://www.sanjoseca.gov/esd/schools).

## Legislation

The City continues to actively monitor and, where appropriate, comment on and participate in key legislative and policy actions related to waste disposal, recycling programs, and waste to energy conversion. Passed in 2011, Assembly Bill (AB) 341 became effective July 1, 2012 and requires 75% diversion through mandatory commercial recycling. The City is looking to develop a

strategic approach in implementing the bill and will be reporting the plan to CalRecycle in the 2012 Electronic Annual Report due in August 2013. In 2012, the City took a support position on AB 549 which requires, as a condition of electronic waste recovery payments made by CalRecycle, that the covered electronic waste be generated by a person in this state. A support position was taken on Senate Bill (SB) 1219 which extends the "At-Store Recycling Program" for plastic bags to January 1, 2020 and repeals the preemption that prohibits local governments from implementing separate plastic bag recycling programs, additional auditing or reporting requirements, or from imposing a fee on plastic bags. Additionally, San José also supported two pharmaceutical waste related bills, AB 1442 and SB 1329. San José has supported extended producer responsibility (EPR) as a legislative priority, and is benefitting from AB 2389, EPR for carpets, which is diverting carpets from our landfills, as well as AB 1343, EPR for architectural paint; both bills have provisions for the manufacturers to set up collection systems to recycle their used products. The City is looking to new EPR legislation in 2013 that will set up a system for collecting and recycling used mattresses, which will aid in the cost for collecting the over 3,000 illegally dumped mattresses in San José each year.

### **Strategic Direction**

As the City continues to implement integral programs to divert waste from the landfill, such as the redesigned commercial solid waste collection program, BYOB Ordinance, special events recycling, the GGS program, and NCUs, it is also investing in long range planning efforts and infrastructure in order to save money and eventually help to achieve our Zero Waste goals. In 2013, the City along with our partners will complete construction of the AD and IVC facility, continue to pursue strategies to develop conversion technology infrastructure in San José, maximize the recovery of materials in the redesigned commercial garbage and recycling program, and increase recycling at MFD households. Staff will continue to evaluate City operations and development projects for the potential to increase waste diversion, develop a strategic approach to implement AB 341 (mandatory commercial recycling), explore a phase out of EPS foam food service ware, make significant progress in the transition of Recycle Plus collection vehicles to compressed natural gas and other alternative fuels, and complete major construction of the San José EIC and HHW drop-off facility.

### **Climate Change**

San José is a national leader in diverting waste from landfills and avoiding increasing greenhouse gas (GHG) emissions. A majority of GHG emissions related to waste disposal comes from methane produced as byproducts of organic decay at landfills and the transport of waste to landfills. California has implemented methane capture rules and has developed a mandatory commercial recycling program regulation. San José's redesigned commercial system will offer recycling to all commercial facilities, thereby diverting more waste from the landfill. Haulers are transitioning to cleaner burning fuels, reducing transportation emissions. In 2012, 494,000 tons of waste was trucked to a managed landfill resulting in approximately 65,260 metric tons (MT) of Carbon Dioxide (CO<sub>2</sub>) equivalents using the California Air Resource's Control Board's Landfill Emission Tool. Compared to last year's figure (92,000 MT of CO<sub>2</sub> equivalents), San José has reduced emissions by 26,740 MT of CO<sub>2</sub> equivalents, which is equivalent to annual greenhouse gas emissions from 5,571 passenger vehicles. In previous years the City used ICLEI's Clean Air Climate Protection Software, but this tool provides more accurate estimates of the cumulative emissions in metric tons of CO<sub>2</sub> from 2012-2020 as the waste decomposes.

## Work Plan

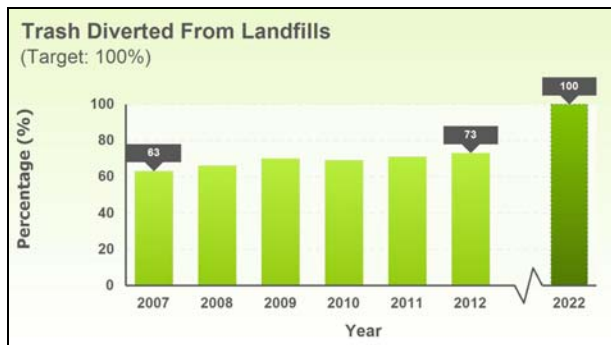
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Lead by Example</b>			
Advance Commercial Redesign.	Implement contracts with Allied Waste and Zero Waste Energy Development that offer a range of services to SJ businesses while complying with state mandated diversion and furthering Green Vision and other City policies.	<p>Complete transition process to Allied Waste and ZWED to go live on July 1, 2012.</p> <p>As information becomes more available through transition and start of service, work with Allied and ZWED to ensure maximum recovery of materials.</p> <p><b>Status:</b> Successfully transitioned to a new “wet/dry” collection system on July 1, 2012. Work has begun with Republic Services and ZWED to ensure maximum recovery of materials.</p>	<p>Continue to work with Republic and ZWED for maximum recovery of materials in order to meet 2013 goal of 75% diversion.</p> <p>As more information on the success and challenges becomes available through various measureable avenues, the City will provide input and approval to Republic’s business outreach plan.</p>
Streamline Construction Demolition Diversion (CDD) program.	Develop new program/reporting requirements for C&D facilities.	<p>Develop outreach material to communicate waste diversion requirements for new construction projects.</p> <p><b>Status:</b> Collaboration with the service facilities is underway to develop parameters for reporting requirements.</p>	<p>Develop policies and procedures for in-house certification of C&amp;D facilities. Explore opportunities for regional certification of C&amp;D processing facilities. Revise outreach materials and website to reflect new CalGreen requirements. Facilitate implementation of online system and explore potential integration into AMANDA database.</p>
Maximize diversion and safe disposal opportunities for residents.	Test and evaluate strategies to enable residents to divert additional materials safely and conveniently.	<p>Finalize evaluation of results of Recycle Plus pilot programs and develop options for future program enhancements to achieve Zero Waste.</p> <p>Implement Recycle Plus recycling rewards pilot program to multifamily residents as a way to incentivize recycling, increase diversion, and decrease contamination of</p>	<p>Utilize results of Recycle Plus pilot programs to develop options for future program enhancements to achieve Zero Waste.</p> <p>Implement recycling bag pilot program to MFD residents as a way to increase diversion and decrease contamination of recyclable material.</p> <p>Complete EIC construction</p>

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		<p>recyclable material.</p> <p>Complete EIC construction by December 2012. Prepare for opening of HHW facility in Spring 2013.</p> <p><b>Status:</b> Results of the pilot programs were presented to Council in April 2012. Assessment of potential program enhancements will take place as part of evaluating Recycle Plus customer service and billing service delivery. Coordination with the multifamily hauler is underway to develop a pilot program to promote recycling at multifamily complexes. Completion of the EIC construction is expected to be Spring/Summer 2013.</p>	<p>and prepare for HHW facility opening in Fall 2013.</p> <p>Integrate the NCU event schedule with the online Collection Day Look-up tool.</p> <p>Continue evaluating the two alternative service delivery options for Recycle Plus Billing and Customer Service and present to Council for final approval.</p> <p>Begin replacing aging citywide public litter containers to improve maintenance efficiency, worker safety, and increase diversion.</p>
Eliminate litter to achieve Zero Waste.	Reduce use of disposable, single use items that contribute to litter, including single-use carryout bags, water bottles, and polystyrene takeout food packaging.	<p>Evaluate options for expansion of the street sweeping program.</p> <p>Implement Council direction to halt the purchase and use of EPS food service ware at City facilities and City funded events.</p> <p>Continue to research impacts of a City-wide EPS policy and evaluate other alternatives for eliminating EPS litter.</p> <p><b>Status:</b> DOT is evaluating street sweeping needs in parking-impacted areas. City's EP3 was amended to halt the purchase and use of EPS at City facilities and events. Completed regional study on EPS product replacements, and started disintegration</p>	<p>Continue to monitor trends in single-use bag bans and return to Council in fall 2013 with recommended modifications to the City's BYOB Ordinance.</p> <p>Prepare a draft ordinance, by Spring 2013, to phase out EPS which incorporates stakeholder feedback for consideration and report out with further detail on implementation, including clearer definitions for phase-ins, exemptions, and timeline. If directed by Council to proceed with EPS phase out, prepare a CEQA initial study for the proposed phase out ordinance on EPS.</p>

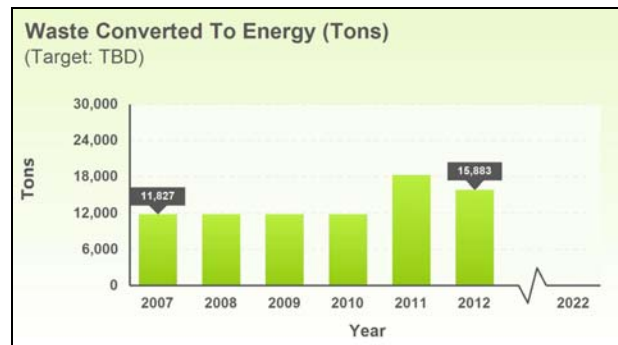
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		testing for compostable plastics using matching funds from local compost producers.	
Drive large San José events toward Zero Waste.	Provide education and assistance to event organizers and food vendors to increase waste diversion.	Expand Green Event Certification and Grant programs to cover additional events. Coordinate Green Event Grant process and timeline with OCA grant program and co-promote to events.  <b>Status:</b> Grant program is in progress to add additional events.  Green Event Certification program is ongoing.	Improve Green Event Certification and Grant Programs through focus groups to increase participation, improve sustainability of event landfill diversion efforts, and create efficiencies.  Coordinate Program with other City departments and County Health to streamline service provision to the event community.
<b>Strategic Partnerships</b>			
Develop waste to energy technology infrastructure at the City's WPCP.	Collaborate with regional and state public partners as well as private planners and investors will provide the most efficient solution for waste diversion and energy production.	Complete Landfill post-closure site preparation.  Complete Permitting Process for AD facility construction. Begin feedstock testing for AD system.  Complete feasibility study for gasification pilot recommendations.  Meet contract milestones for construction of dry fermentation AD system.  Design and construct pilot FOG receiving station at the Plant.  <b>Status:</b> Grading permits complete. Site Grading underway at Nine Par. Construction milestones being met by ZWED. Organic feedstock being collected and characterized as part of new commercial agreements. Gasification Feasibility study report	Finalize Gasification Feasibility Study and conduct stakeholder outreach if project deemed feasible.  Complete permitting process for AD facility operations. Begin feedstock testing for AD system.  Meet contract milestones for construction of dry fermentation AD system.  Evaluate opportunities for fats, oil, and grease (FOG) collection and processing with private sector partners.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		being prepared for January 2013 stakeholder input process. FOG project with plant staff at this point – no update.	
<b>Communications and Engagement</b>			
Increase awareness about green initiatives at San José schools.	Provide educational opportunities for and assistance to schools about recycling and waste reduction, energy and water use reduction, healthy buildings, and transportation alternatives including the Safe Routes to Schools program.	Conduct outreach to encourage participation in Green Star School certification program.  <b>Status:</b> Grant recipients from FY 2011-2012 have completed Green Star Certification process. Additional schools are anticipated to complete certification in 2012-2013.	Continue outreach for school participation in Green Star Schools program, focusing on waste, water, energy and transportation pathways.

## Performance Metrics



2012: 73% (still pending approval)  
2011: 71%



2012: 15,883 Tons (still pending approval)  
2011: 18,205 Tons  
2022 target to be determined.



2012: 27.8 kWh (Millions)  
2011: 31.9 kWh (Millions)  
2022 target to be determined.

## Recycle or Beneficially Reuse 100% of our Wastewater

*The demand for water is expected to further increase as an improving global economy brings more jobs to Silicon Valley. Combining this with a projected scarcity in our region's existing water supply makes the creation of new water sources increasingly critical.*

### Achievements & Successes

Currently, the South Bay Water Recycling (SBWR) network consists of over 130 miles of distribution pipelines and 9 million gallons of water storage, serving 694 customers in the cities of Milpitas, Santa Clara and San José. There were 62 additional customers using recycled water in 2012, which increased recycled water delivery by approximately 0.3 million gallons per day (MGD) or approximately 5% over 2011. Currently, SBWR provides an average of 10.6 MGD of non-potable recycled water annually. Overall recycled water delivery has rebounded appreciably between calendar years 2011 and 2012. The growth in 2012 recycled water delivery is attributed to warmer temperatures and below average rainfall, substantial local economic recovery, and subsequent increases in energy use. San José staff continues to work collaboratively with the Santa Clara Valley Water District (SCVWD) to increase recycled water use toward the goal of 40 MGD annually.



*Landscaping Irrigated With Recycled Water*

**Silicon Valley Advanced Water Purification Center:** Partially funded by grants from the United States Bureau of Reclamation (USBR), the American Reinvestment and Recovery Act (ARRA), and the California Department of Water Resources, the Silicon Valley Advanced Water Purification Center (SVAWPC) is a joint-effort by the City of San José and SCVWD to produce highly purified water. In 2012, all of the SVAWPC major treatment facilities were completed, including: (1) influent pump station, (2) process building, (3) chemical system facilities, (4) electrical switchgears and transformers, (5) two million gallon product water storage tank, and (6) all underground pipelines connecting the SVAWPC with the Water Pollution Control Plant (WPCP). Start-up, testing and commissioning activities began in December 2012 and are expected to be completed by April 2013, with the facility being fully operational by Spring 2013. An operations and maintenance agreement between the City and SCVWD was approved by City Council and SCVWD Board of Directors in October 2012. The

#### **Easy Actions You Can Take Now**

1. Educate yourself and your family about the benefits of recycled water. For more information, please visit: [www.sanjoseca.gov/sbwr](http://www.sanjoseca.gov/sbwr).
2. Learn about ways to conserve water including checking faucets and pipes for leaks, waiting for full loads of laundry or dishes, and watering the lawn before 5 AM instead of midday. For more information, please visit: <http://www.sanjoseca.gov/esd/water-conservation>
3. Learn more about rebates and water saving devices and information, please visit: <http://www.valleywater.org>

SCVWD received authorization from the San Francisco Regional Water Quality Control Board (Water Board) in December 2012 that permits the SVAWPC under Water Board's General Water Reuse Order 96-011.

### Strategic and Master Planning:

Collaborating with members from the San José/Santa Clara Water Pollution Control Plant Tributary Agencies and the SCVWD, the SBWR Master Plan will provide recommendations and options for distribution improvements and potential future system expansion. The planning process will ensure that SBWR continues to meet current and future recycled water demands and will enhance system reliability and maintain or improve water quality. In August 2011, the USBR awarded the City \$1.2 million to conduct a feasibility study for improvements and expansions to the SBWR system which will fund up to 50% of this effort. In June 2012, the City and SCVWD executed a cost-sharing agreement to share the cost of developing a master plan for the SBWR Program, with each party contributing up to \$1.2 million, as well as share in any reimbursements from the USBR for costs associated with developing the plan. The master planning effort is expected to be completed by September 2014.



Artist Rendering of the Silicon Valley  
Advanced Water Purification Center

**System Pipeline Expansions:** SBWR's interim strategy is to suspend all ratepayer funded system expansion projects until the master planning process has been completed. Developer and recycled water retailer expansion efforts, such as distribution alignments being constructed by the San José Water Company, could still move forward as long as construction is fully funded by the developer or retailer. Once SBWR's planning efforts have been completed, staff will be better able to inform Council on expansion policy options and strategies for further consideration.

In 2012, SBWR staff applied for a \$2.4 million grant from the USBR under the WaterSMART 2012 program to receive reimbursement for work previously completed under SBWR's Phase 1B construction project. Subsequently, SBWR staff executed an agreement with the USBR under the WaterSMART 2012 to receive a \$2.4 million grant for work previously completed. SBWR staff also applied for a \$4 million grant from the USBR under the WaterSMART 2013 grant program to receive reimbursement on work previously completed under the Phase 1B construction project. In addition, staff completed the implementation of the SBWR Phase 1C construction project receiving ARRA grant funding.

### Strategic Direction

In 2013, SBWR will continue system reliability and enhancement efforts through the master planning process, as well as a partnership with the SCVWD to complete construction of the SVAWPC that will significantly improve recycled water



Recycled Water Pipes  
Photo Credit: Robert Dawson



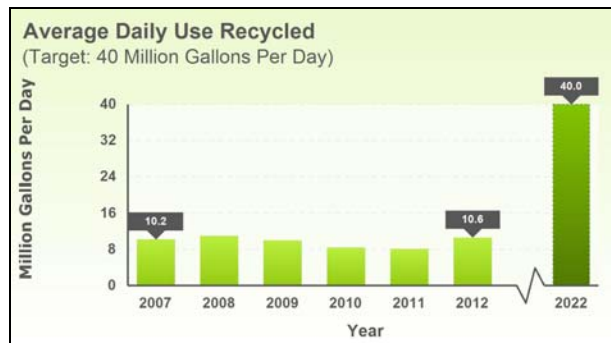
quality to facilitate greater water use. SBWR staff will focus on completing its master planning process, which will define SBWR’s short-term and long-term future as well as lay the foundation for further water recycling collaborative efforts with the SCVWD.

### **Work Plan**

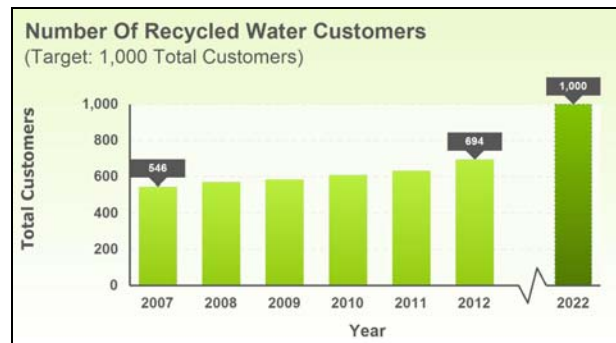
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Lead by Example</b>			
Determine the most effective and efficient options to expand uses of Recycled Water.	Identify options as part of the Strategic Planning process.	Commence Strategic Planning effort.  <b>Status:</b> Executed agreement with SCVWD to cost share up to 50% of SBWR Master Planning expenditures. Initiated master planning process.	Continue master planning in collaboration with the SCVWD.
<b>Financing Mechanisms</b>			
Determine funding options for recycled water infrastructure, operations and maintenance, and expansion.	Identify options as part of the Strategic Planning process.	Continue to work with USBR to maximize funding opportunities in support of increasing SBWR return on investment and system reliability.  <b>Status:</b> Staff working to maximize grant funding opportunities for future capital expenditures. In 2012, SBWR received over \$3.9 million in grants.	Continue to work with USBR to maximize funding opportunities and seek reimbursement for Phase 1B construction.
<b>Strategic Partnerships</b>			
Develop the SCVWD and other agency partnerships to further the objectives of SBWR.	Take advantage of strategic partnering opportunities to leverage SBWR resources effectively.	Approval of regulatory permits and O&M agreement between the City and SCVWD.  Engage Tributary agencies, the SCVWD, and other potential partners in the Strategic Planning effort.  <b>Status:</b> City and SCVWD received their respective regulatory permits and executed an O&M agreement and engaged Tributary agencies and on the master planning effort.	Continue collaborative efforts with the SCVWD to seamlessly connect the SVAWPC to the SBWR system.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
Support the State's goals for additional use of recycled water which leverage state and regional resources to meeting SBWR objectives.	Participate in regional and State recycled water efforts and forums which further SBWR objectives.	Continue to support and develop efficient and consistent regulated uses of recycled water in the region and State, engage in regulatory efforts restricting recycled water use to protect groundwater.  <b>Status:</b> SBWR staff participating in State and regional efforts to support water recycling.	Continue to support efficient and consistent regulated uses of recycled water in the region and State, engage in regulatory efforts to protect groundwater.
<b>Communications and Engagement</b>			
Effectively engage potential customers and other stakeholders on the benefits of recycled water.	Increase Recycled Water customers and partners.	Continue to effectively collaborate with non-profit, academic, and private sector partners to increase the use of recycled water for customers along existing SBWR pipelines.  <b>Status:</b> Suspended until master planning has been completed.	Current status shows this effort is suspended until master planning has been completed which is September 2014.

## Performance Metrics



**2012: 10.6 million gallons per day**  
2011: 8.1 million gallons per day

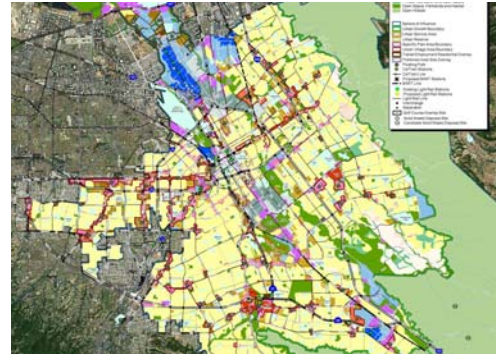


**2012: 694 customers**  
2011: 632 customers (figure revised to reflect updates in 2011)

*In previous Green Vision Annual Reports, SCVWD would provide the City of San José with potable water usage data. Due to limitations on tracking data, this performance metric will no longer be provided in this report.*

## Adopt a General Plan with Measurable Standards for Sustainable Development

*The General Plan is the City's primary policy document to guide San José's future growth and development and the day to day provision of services to its residents.*



*General Plan Envision 2040*

### Achievements & Successes

The *Envision 2040 San José General Plan* (Envision General Plan), adopted in November 2011, established the City's long-term vision, goals, and policies for land uses, the development of transportation and other infrastructure, and the delivery of municipal services.

Adoption of the Envision General Plan signifies a significant step in San José's evolution from a relatively small community of farms and orchards, to one of the fastest growing cities in the nation and most recently to an increasingly prominent urban center within the Silicon Valley. Over the next 30 years, as San José's population continues to grow, the City's urban form must further evolve to accomplish key City goals supporting growth that is increasingly sustainable from economic, environmental and fiscal standpoints. The General Plan establishes 12 Major Strategies for the City, including Major Strategy #7 Measurable Sustainability / Environmental Stewardship. Consistent with this Major Strategy and in fulfillment of Green Vision Goal #7, the General Plan identifies a wide range of measurable indicators to track the City's achievement of land use, environmental and other goals. The Green Vision Annual Report, as well as the General Plan Annual Review, will be used to discuss methodology and outcomes for these indicators.

In 2012, the City Council approved several ordinance changes intended to further the implementation of the General Plan, including amendments to Title 20 (the Zoning Code) which help streamline economic development, facilitate more mixed-use and higher density development, allow increased height in key growth areas, and to promote the development of farmer's markets throughout the City. Additional ordinance changes are underway for 2013, including amendments to further promote economic development and to allow reductions in parking requirements to drive transportation mode shift toward walking, bicycling, and public transit.

A key strategy of the Envision 2040 General Plan is to focus new housing and job development into key growth areas such as Downtown, North San José, and new Urban Villages (e.g., General Plan Focused Growth, Urban Village, and Innovation/Regional Employment Center Major Strategies). The Growth Areas identified in the General Plan, including the Urban Villages, are generally located along corridors with existing and planned transit including Caltrain, Bay Area Rapid Transit (BART), Light Rail and Bus Rapid Transit (BRT). Key next steps toward implementing the Urban Village Strategy are to develop an Urban Village Zoning District and to

complete Urban Village plans that facilitate the development of new employment, housing, parks, and other infrastructure within a given Urban Village.

**Urban Village Zoning:** In 2013, staff will initiate the development of an Urban Village zoning code designation that could be utilized to implement Urban Villages citywide. The development of an Urban Village zoning district will be informed by the Urban Village Planning process underway for the West San Carlos, South Bascom, Stevens Creek Boulevard, Winchester Boulevard and Santana Row/Valley Fair Urban Villages, and The Alameda, as well as the Diridon Station planning effort and the recently adopted Alum Rock Main Street Zoning Districts.

**Urban Village Planning:** As noted above, the City has begun the Urban Village Planning process for several strategically selected Urban Village Areas. Beginning in 2012 the City worked with property owners, local neighborhood association and community leaders, and other stakeholders to launch the preparation of several Urban Village Plans. San José has successfully received grant funding to prepare Village Plans and/or rezonings for the following Urban Villages:

- The Alameda – Urban Village Plan and zoning framework
- Alum Rock Avenue – Rezoning framework (US 101 and King Road) and Alum Rock Main Street Zoning District rezonings (King Road to Interstate 680)
- Diridon Station Area Plan – Urban Village Plan
- East Santa Clara Street – Urban Village Plan and zoning framework
- Five Wounds Strong Neighborhoods Initiative (SNI) Area – Four Urban Village Plans
- South Bascom Avenue (Interstate 280 to Southwest Expressway) – Urban Village Plan
- West San Carlos Street – Urban Village Plan

In addition, the following Urban Village Plans are also underway, supported by the City’s General Fund, to facilitate development in places where the private sector has expressed interest in investing in San José:

- Stevens Creek Boulevard (Winchester Boulevard to the City of Cupertino)
- Valley Fair/Santana Row and Vicinity
- Winchester Boulevard (Interstate 280 to City of Campbell)



*West San Carlos Urban Village Planning  
Participant Discussions*

In 2012, the City was awarded a \$635,594 grant to develop an Urban Village Master Plan for the East Santa Clara Street corridor between City Hall and Coyote Creek. This grant was awarded to a collaboration between the City, CommUniverCity and the County of Santa Clara. \$381,927 in grant funds was budgeted to the City, with the remainder budgeted to CommUniverCity. This process would build on a prior community engagement to plan for the former Downtown Hospital property with the County. This grant will fund the development of a zoning framework with the East Santa Clara Urban Village Planning area, as well as with the portion of East Santa Clara and Alum Rock Avenue with the Five Wounds Urban Village area (Coyote Creek to King

Road) since the Five Wound Urban Village plans currently being drafted do not address zoning. This planning process will be initiated in July 2013, with potential completion in 2014.



Photo Credit: Daniel Garcia for SPUR

**SPUR San José Launches:** On March 8, fans of urbanism filled the recently opened San Pedro Square Market to celebrate the launch of SPUR's new office in San José. The 500 guests received a thundering welcome from San José Taiko, an award-winning traditional drumming group based in San José's Japantown. The energy in the room continued to build as Leah Toeniskoetter, director of SPUR San José, asked the crowd what they love about their city. SPUR's mission is to bring people together to build a more sustainable, prosperous and livable city. Learn more about their programs and upcoming events at <http://www.spur.org/sanjose>

**Transportation Innovations:** During the February 2012 Priority Setting Session, the City Council added innovative strategies which support high density developments to the list of ordinance and policy priorities. Transportation innovations are intended to include Zoning Code modifications to facilitate reductions in vehicle miles travelled (VMT), consistent with the Envision San José 2040 General Plan. Specific measures include parking reductions, car share expansions, transit pass requirements, and other mechanisms to be included in private developments to encourage bicycle, pedestrian, transit, and car share use. Increased use of these other modes of travel will reduce VMT. San José worked with SPUR, the development community, and other stakeholders in the development of an ordinance change, adopted by the City Council in February 2013, which will promote these alternative modes of travel.

## Legislation

As mentioned in Goal 2, the State enacted Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, which set the State's 2020 greenhouse gas (GHG) emissions reduction goals into law. In 2008, the State enacted Senate Bill 375, the Sustainable Communities and Climate Protection Act, as a tool with which to achieve the AB32 goals. SB375 requires that Metropolitan Planning Organizations integrate transportation, land use, and housing planning at the regional level in order to reduce GHGs consistent with AB 32. Since forty percent of all GHGs in California are generated by automobiles, it is anticipated that a more integrated approach through the required Sustainable Communities Strategy will reduce auto-dependency and therefore GHG emissions. The Bay region's Sustainable Communities Strategy, housing allocation, and Regional Transportation Plan are expected to be adopted by the regional agencies in 2013. San José's General Plan has served as a model to the region for integrating land use and transportation, and directing growth to places with infrastructure support.

## Strategic Direction

Land use and transportation are inextricably linked, as land use patterns create specific travel needs. Compact,



Urban Village Concept Drawing

mixed-use development reduces travel distances, encourages transit ridership and active transportation modes that contribute to a healthy community and reduce GHG emissions. The adjacency of most identified Growth Areas and transit facilities also exhibits the close ties between land use and transportation. Unlike the San José 2020 General Plan, which provided considerable flexibility for residential development throughout the City, a key strategy of the Envision San José 2040 General Plan is to focus almost all residential growth to identified growth areas and preclude large scale residential development from occurring on other sites that have not been allocated new growth capacity (General Plan Focused Growth Major Strategy). As a result, San José's future growth will be focused in Urban Villages and other urban centers around public transportation centers to leverage the benefit of past infrastructure investment, and to accommodate most new development in multi-story urban forms utilizing green building construction techniques with opportunities for alternative energy solutions.

## Climate Change

The GHG Reduction Strategy, which supports and is incorporated within the General Plan, demonstrates how San José plans to reduce GHG emissions, through a more compact urban form and greater use of walking, mass transit or bicycling as a means of travel between home, work, school, shopping and other services along with the implementation of other environmentally beneficial policies. The latter includes policy measures consistent with other Green Vision goals, such as policies that promote lower energy use, green building practices, and reduction in waste. As described in the California Air Pollution Controls Officers Association (CAPCOA) resource document, *Quantifying Greenhouse Gas Mitigation Measures*, a city's general plan with efficient location of urban land uses relative to transit is its single greatest tool to reduce GHG emission levels related climate change.



San José, California

While GHG emission levels can be very difficult to measure directly, at least in the short term, achievement of many Green Vision goals and related Envision General Plan policies are expected to have a positive effect in decreasing emission levels over time due to modified travel and energy use patterns. Specific measures will help the City monitor its performance on the implementation of the Envision San José 2040 General Plan, such as the amount of new green building construction, transit ridership, miles of new trails and bike lanes, Urban Village Plans prepared, and proportion of new homes and businesses approved and constructed within the identified Growth Areas and their proximity to public transit.

## Work Plan

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Lead by Example</b>			
General Plan Update.	Complete Envision San José 2040 General Plan (adopted 11/01/11).	Develop a Council Implementation Policy for the Greenhouse Gas Reduction Strategy; complete the first set of Urban Village Plans, and revise the Zoning Ordinance to facilitate sustainable urban development in identified focused Growth Areas.  <b>Status:</b> Developing implementation policy, several Village Plans are underway.	Propose Council Implementation policy for the Greenhouse Gas Reduction Strategy; complete the first set of Urban Village Plans, and revise the Zoning Ordinance to facilitate sustainable urban development in identified focused growth areas.
<b>Advocating Policies</b>			
Monitor and advocate for legislation that enables the implementation of the General Plan.	Review proposed legislation and implementation of existing laws related to sustainable land use planning.	On-going review and analysis as needed.  <b>Status:</b> Inter-departmental team has been formed to review the proposed Cap and Trade program.	Continue to monitor, review, and participate as needed in the Cap and Trade program.
<b>Financing Mechanisms</b>			
Leverage grants.	Seek outside funding sources for sustainability planning activity and implementation of the General Plan.	Continue to apply for planning grants in order to support development of Urban Village Plans and other General Plan implementation actions.  <b>Status:</b> Awarded a grant to develop an Urban Village Master Plan for the East Santa Clara Street corridor between City Hall and Coyote Creek.	Continue to apply for planning grants in order to support development of Urban Village Plans and other General Plan implementation actions.
<b>Strategic Partnerships</b>			
Strengthen advocacy; broaden partnerships.	Increase role as an advocate in State / Regional planning and grow partnerships with non-profits.	Continue to participate in MTC, ABAG, BAAQMD regional planning initiatives (e.g., Sustainable Communities Strategy).  <b>Status:</b> Ongoing.	Continue to participate in MTC, ABAG, BAAQMD regional planning initiatives (e.g., Sustainable Communities Strategy).

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Communications and Engagement</b>			
Publicize Envision San José 2040 General Plan policies.	Focused civic engagement with identified stakeholders and community organizations, First Horizon village area residents.	Engage the community in Envision General Plan Implementation elements, such as Zoning Ordinance amendments and Urban Village Plans through community meetings, website information, and other modes; engage Planning Commission in creation of Urban Village zoning districts; and engage developers to catalyze new development in focus areas.  <b>Status:</b> Three out of ten Urban Village workshops held in Fall 2012; and community outreach occurred for the Zoning Code changes considered by Council in 2012.	Continue to engage the community in Envision General Plan Implementation elements, such as Zoning Ordinance amendments and Urban Village Plans through community meetings, website information, and other modes; engage Planning Commission in creation of Urban Village zoning districts; and engage developers to catalyze new development in focus areas.

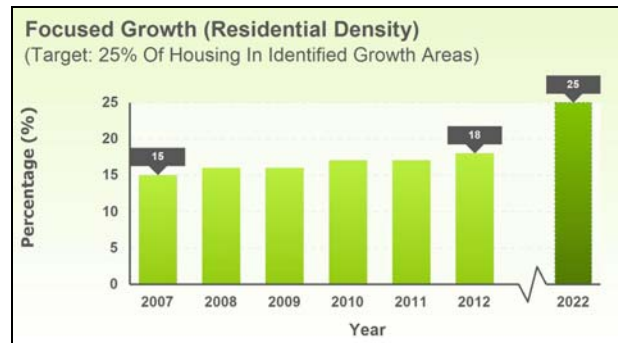
## Performance Metrics



Figures based on U.S. Census Bureau, American Community Survey. 2012 data is not available until late 2013.

The year 2022 target is based on the General Plan Goal TR-1 of 60% mode shift by the year 2040.

Alternative modes of transportation include carpooling, public transit, walking, and other strategies such as telecommuting, versus driving alone.



This measure indicates the degree to which the City has achieved the 2022 target for increasing residential density by focusing growth within identified areas to achieve quantified reductions of GHG emissions. Although the baseline for the General Plan is 2008, figures shown here are aligned with Green Vision 2007 baseline.

The Envision San José 2040 General Plan fulfills the Green Vision goal for a measurable General Plan by establishing performance measures for a wide range of sustainability indicators. To measure the achievement of environmental goals, the General Plan incorporates the City's Green Vision measures, extending them through the General Plan's 2040 timeframe, and identifies annual review of the Greenhouse Gas Reduction Strategy as an important indicator.



The General Plan Greenhouse Gas Reduction Strategy quantifies the anticipated amount of per capita GHG emissions reductions that would be achieved through implementation of the General Plan. While a significant portion of the quantified reductions would result from implementation of the Green Vision, build-out of the General Plan Land Use / Transportation Diagram, consistent with the Focused Growth Major Strategy and other General Plan policies that promote higher density, mixed-use development, will also make a significant quantified contribution to the City's reduction of GHG as emissions. Reductions resulting from land use are primarily determined based upon projected impacts upon per capita VMT, a measure of how much San José's residents drive on a daily basis. The Greenhouse Gas Reduction Strategy specifically identifies a 13% reduction in per capita VMT to be achieved through increases in average density and through improved access to various services resulting from mixed-use development patterns.

While the City does not have ability to measure per capita VMT for San José on an annual basis, transportation mode data is readily available on an annual basis from the American Community Survey. It can also be monitored as a useful indicator of overall reduction in VMT. Also Transportation Mode Shift data directly relates to one of the General Plan transportation goals (Goal TR-1 Balanced Transportation System). Additionally, density and mixed-use development reduce VMT through multiple means, including reduction in travel distances and through promotion of alternative modes of travel (e.g. transit use, bicycling, and walking). As a result, these metrics are the best indicators to measure the degree to which new development activity is consistent with the General Plan environmental sustainability goals (quantified within the Greenhouse Gas Reduction Strategy) for density and mixed-use development. As land use changes take several years to bear effects, the initial data for this latter indicator will most closely reflect existing conditions rather than the effects of the new General Plan.

Periodic modeling to assess the effects of land use changes and development over a four year timeframe of the Major Review of the General Plan could provide benchmarks in the reduction of GHG emissions. The first Annual Review of the new General Plan is scheduled for 2013. Over the next year appropriate key standards will be developed to determine the City's progress in implementing the General Plan and its sustainability goals.

## Ensure 100% of Public Fleet Vehicles Run on Alternative Fuel

*In Santa Clara County, more than 40 percent of our greenhouse gas emissions come from cars, trucks, buses, and trains. Converting 100 percent of the City's fleet to alternate fuels will not only allow us to reduce greenhouse gas emissions and improve air quality, but to do so in a way that models the way for others.*



*Public Safety Fleet*

### **Achievements & Successes:**

**Optimize Fleet Size:** Currently 917 of the City's vehicle fleet, or 40%, run on some form of alternative fuel: compressed natural gas (CNG), B20 biodiesel blend, electric, hybrid gas/electric, liquid propane gas (LPG), and bi-fuel (unleaded gas and CNG). Additionally, several emergency and general fleet vehicles are also Flex-Fuel, which allows the vehicle to run on 85% ethanol fuel (E85) as well as gasoline. E85 is a somewhat controversial alternative fuel, as the total environmental costs of producing and utilizing the fuel in vehicles exceeds that of gasoline. Currently flex fuel City vehicles are powered solely with gasoline. Exploring the feasibility, benefits, and costs associated with using E85 is part of the Goal 8 work plan. In addition to ethanol, CNG is an area that has gained momentum as domestic production has increased in recent years. The current challenges with CNG include the availability of vehicles on the market and the volatile costs associated with CNG. The City of San José has two CNG filling stations establishing capacity for this type of vehicle. As the marketplace stabilizes, staff will explore more applications of CNG. The fluctuating fleet size also affects the percentage of vehicles utilizing alternative fuels. Since 2007, the fleet size has reduced by over 250 units. In some cases the reductions include alternate fuel vehicles, such as at the airport where the CNG shuttle bus fleet was downsized by 14 units due to the Airport expansion and the relocation of the new airport parking garages adjacent to the terminal.

*Vehicle Acquisitions* – In compliance with the Green Fleet Policy, when new vehicles are purchased, more fuel efficient vehicles including those powered by alternative fuels are considered as replacements for existing inventory as long as the replacement can function within the department's program service delivery requirements. Over recent years, vehicle replacement funds for the non-emergency fleet in the general fund have been non-existent or dramatically reduced; as a result vehicle acquisitions were limited to special fund, emergency, and only a few general fund vehicles.

Currently there are over 300 General Fund general (non-specialized) fleet vehicles powered by non-alternative fuels where potential viable alternate fuel vehicles exist on the market. The cost to replace these vehicles with alternative fueled vehicles is estimated at approximately \$11

million. That amounts to approximately \$1.2 million over the next nine years to achieve measurable results towards this Green Vision goal. The average age for a vehicle in this segment of the City fleet is over 12 years so replacement within the next nine years is probable should funding levels allow. Considerations should also be given to decreasing the overall age of the fleet, regardless of fuel type as newer vehicles are significantly more efficient than older vehicles. Although not meeting the direct measure associated with this Green Vision goal, increased fuel efficiency directly reduces greenhouse gas (GHG) emissions.

In the public safety fleet, the Public Works and Police Departments have been working together towards determining the next generation of patrol vehicles for use in San José as the long time standard Crown Victoria has been discontinued by Ford. Police vehicles make up a large part of the fleet, equating to 19% of the total vehicle count, making fuel efficiency in this area critical to overall performance metrics. In February 2013, an initial order of twenty Chevrolet Caprice patrol vehicles will arrive. The new units are more fuel efficient than the current Crown Victoria models and are also flex fuel compatible. Another interesting development has been the Ford all-wheel drive utility vehicle that is now available for patrol applications. The California Highway Patrol has placed a considerable order for the utility vehicle, providing a credibility boost to this vehicle as a patrol option. This vehicle is also more fuel efficient than the Crown Victoria and is also flex fuel compatible. A similar order of these vehicles will be placed to round out a trial of potential new Police patrol vehicles. The development of greener E85 solutions is important to the future of a viable alternate fuel Police patrol vehicle and ultimately the achievement of this Green Vision goal. In addition to alternative fueled vehicle costs, a continued investment in infrastructure to support these technologies such as additional plug-in stations, ethanol, biodiesel and CNG storage and dispensing infrastructure need to be considered.

### Grants and Strategic Partnerships:

*Electric Vehicles and Infrastructure* – San José has participated in several grants that have focused on electric vehicles and especially developing infrastructure around those vehicles both locally and regionally. There are currently 43 stations online utilizing the ChargePoint system. This system allows for public use of the stations. Currently there is a \$1 per hour charge for the use of the stations to cover the cost of electricity, operation and maintenance. It is expected that an additional six charging stations will come online in the next year. The focus on charging station installations has been at downtown parking garages. This meets the needs of customers who work or shop downtown as well as downtown residents.

In addition to charging stations, one grant has made electric vehicles available with a credit that will bring the cost down to align with non-electric vehicles of the same type. This grant is expected to complete within the next year and will provide the opportunity for the City to acquire all-electric vehicles. Currently San José has committed to acquire three vehicles through this grant. Staff continues to stay aligned with other organizations in the Bay Area and staff participates in regional meetings to further discussions on programs and partnerships that are available in this area.



Plug-In Electric Vehicle

*Car Share Parking Pilot Program* – In April 2012, Zipcar located 12 car share vehicles in the City, principally downtown. Eight months later, the global car share company more than doubled the size of its San José program, adding another 15 vehicles through the City’s Car Share Pilot Program.



*Zip Car*

For several years, the City had been investigating means of enticing one or more car share operators to San José to expand the transportation options available to those who live in or visit San José. Although car sharing has been available elsewhere in the region for more than a decade, except for a brief attempt in 2003, car share had not been available in San José till now. In 2011, the City issued a Request for Proposals (RFP) offering incentives to support the establishment of a car share program in San José. The RFP prompted interest from a number of car share operators. Staff was prepared to recommend an award of contract to one of the respondents when Zipcar announced its intention to expand to San José without receiving any City subsidy or financial assistance. The City terminated its RFP without making an award as incentives were clearly no longer necessary to encourage a car share operator to come to San José. Staff believed providing free public parking for a limited period could help ensure its long term success. A number of cities, including Los Angeles and Austin, have used free parking to help support the establishment of their now-successful car share programs. In September 2012, the City Council approved a Car Share Parking Pilot authorizing the City to make up to 40 parking spaces available to car share operators at no cost for 18 months. Twenty spaces were made available initially. Depending upon utilization, another 20 may be made available six months into the pilot. To qualify for the program, car share operators had to secure at least one private parking space for every two public spaces requested from the City. Zipcar’s participation in the pilot enabled the company to bring another 15 vehicles to San José in 2012, including one electric vehicle.

**Diesel Particulate Filters:** California Air Resources Board (CARB) regulations mandate public agencies and utility vehicle owners reduce diesel particulate matter (PM) emissions through the application of Best Available Control Technology (BACT) on (non-public safety) heavy duty on-road diesel vehicles. Emission reductions are achieved with the installation of a Diesel Particulate Filter (DPF) in the exhaust system and in some cases the retirement of older non-compliant units. In 2012 this project completed 100% of the City’s heavy duty pre 2007 on-road diesel trucks (non-emergency) with DPF retrofits which reduce diesel PM emissions by 85%. In addition to the retrofits all 2007 and newer heavy duty diesel trucks purchased are equipped with this new clean technology. Since 2007 the City has procured 72 new trucks which contain this new clean diesel technology and the City has also retired from the fleet approximately 150 older and far less clean diesel trucks.

### **Legislation**

Through state legislation, Assembly Bill (AB) 32 - California Global Warming Solutions Act and AB 1493 - Vehicular Emissions, GHG emissions were required to be 25 % below 2003 levels by 2012. The annual vehicle emissions in the San José Fleet have been reduced by 41%

since the 2003 baseline (23,263 CO<sub>2</sub> tons), ensuring the City fleet is not just in alignment with these GHG reduction targets, but far surpassing them.

### Off-Road Diesel Engine Emission Standards:

The City's off-road diesel complement is in compliance with the currently active elements of the CARB "off-road rule." In 2014, gradual requirements for fleets to clean up their fleet will begin by phasing out older engines, using newer engines, and installing exhaust retrofits. The overall purpose of the regulation is to reduce emissions of oxides of nitrogen (NO<sub>x</sub>) and PM from off-road diesel vehicles. The City has been proactive when opportunities arise by replacing equipment under this regulation with newer, cleaner technology. Since 2007 the City has procured 34 new off road diesel vehicles and retired 41 units. In some of these cases units were retired as fleet reductions.

### Strategic Direction

In 2012, the City's vehicle fleet was reduced by 5% (to 917 vehicles). Even with these reductions, 40% of the City fleet still runs on alternative fuels. Although the City may continue to reduce its fleet, where City replacement funds are available alternative fuel vehicles will continue to be the preferred choice. There continue to be several areas where alternative fuel vehicles are not yet an available option, for example in police patrol vehicles where there are no commercially acceptable alternative fuel vehicles on the market. Where budget and technology constraints limit the City's progress toward replacing all City fleet vehicles with alternative fuel vehicles, staff are exploring vehicle options that at least achieve a better fuel economy. By increasing fuel efficiency, the City can also reduce fuel usage and costs, and ultimately GHG emissions. As a result of demonstrating these alternative fuel vehicle technologies within the City fleet, San José continues to lead by example with its Green Fleet Policy. The City is also focusing on other efforts outside of procuring alternative fuel vehicles. For example, by expanding the car share program, seeking grants, and collaborating with regional partners and private companies to upgrade infrastructure, San José continues to be engaged as more alternative fuel vehicles come to market.



*Republic Services collection vehicle*

### Transition of Commercial Solid Waste and Recycle Plus Collection Vehicles to CNG and Alternative Fuels:

On July 1, 2012, Republic Services rolled out a new commercial solid waste collection program that utilizes a fleet of 50 Compressed Natural Gas (CNG) collection vehicles. The new fleet has already reduced greenhouse gas emissions by 550 metric tons and is projected to reduce greenhouse gas emissions by 19,000 metric tons (equivalent to the annual emissions from 4,000 passenger vehicles) over the life of the franchise. In 2012, progress was made in replacing and converting the Recycle Plus residential collection vehicles of GreenTeam of San José and Garden City Sanitation to CNG power. The first two CNG powered collection vehicles will go into service beginning March 2013. Gradually, GreenTeam and Garden City Sanitation's fleet will be fully replaced or converted to CNG powered vehicles by June 30, 2015. Work also began on the permitting and planning process to construct a CNG fueling station at the GreenTeam of San José corporation yard, scheduled to be completed by mid-2013. California Waste Solutions' fleet will transition to the use of ULS-B20 biodiesel by the end of 2014. GreenWaste Recovery's fleet currently uses ULS-B20 biodiesel and will eventually be replaced with CNG powered vehicles at the end of their useful life. Additionally, all Recycle Plus haulers will gradually replace their light duty vehicles with hybrid-drive technology.

## Climate Change

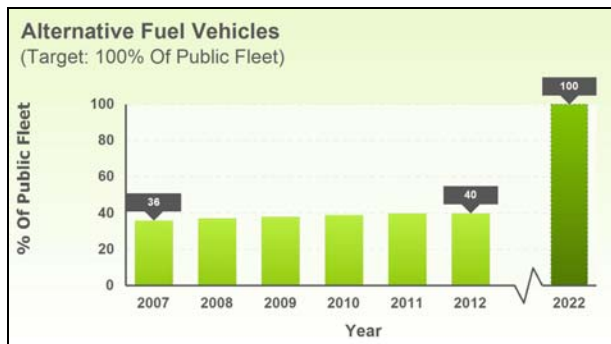
San José continues to successfully right-size the fleet by eliminating older vehicles and down-sizing the size or type along with choosing the alternative fuel version whenever possible and practicable. This approach achieves the maximum GHG emission reductions without impairing City services. Since 2003, GHG emissions have been reduced by approximately 41% or by 9,430 metric tons (MT) of Carbon Dioxide (CO<sub>2</sub>) equivalents, which are approximately equivalent to annual greenhouse gas emissions from 1,965 passenger vehicles.

## Work Plan

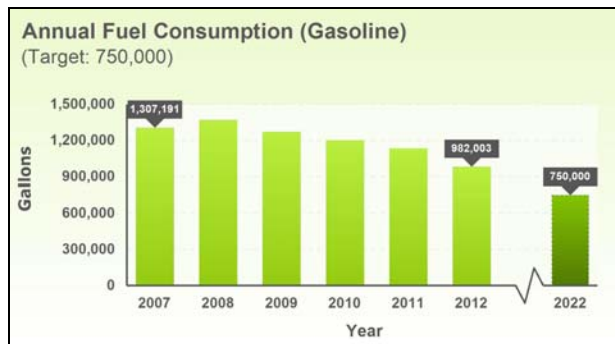
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Lead by Example</b>			
Reduce fuel consumption and GHG emissions.	Use higher fuel efficiency vehicles in public safety fleet.	Complete one cycle of procurement of new patrol vehicles during calendar year 2012.  <b>Status:</b> Currently 20 units on order. Expected delivery is Spring 2013.	Explore opportunities with flex fuel and CNG vehicles, including cost of infrastructure upgrades, compatibility of vehicles to service delivery requirements, and availability of fuel.
<b>Financing Mechanisms</b>			
Reduce green house gas emissions from fleet.	Utilize annual fleet replacement funding to replace fleet in accordance with the Green Fleet Policy; Identify additional funding needed for diesel emission retrofits; Pursue grant funding.	Complete on-road diesel retrofit and retire non-compliant vehicles. Continue to seek opportunities for Off-road diesel equipment retirements and replacements including grant funding if available.  <b>Status:</b> On Road diesel retrofits complete.	Continue to pursue grant opportunities. Work with departments with vehicle needs that are supported by special or fee supported programs in replacing vehicles with alternative fueled vehicles.
<b>Strategic Partnerships</b>			
Expand alternative fuel infrastructure.	Collaborate with other jurisdictions for regional compatibility.	Move forward with the development of up to two battery switch stations and 49 EV charging stations.  Launch car share program in late Spring-early Summer. <b>Status:</b> The EV Taxi Battery Swap Partnership Agreement was approved. City and Airport staff continued to work with Better Place to identify a site for the first battery swap station. However, in early 2013 Better Place	Consider expanding Car Share Parking Pilot program to up to 40 vehicles if usage warrants.  Work with private firms to evaluate the potential of installing a fast charger in one of the downtown parking garages.  Install the remaining five CEC-funded chargers at the Environmental Innovation Center, when construction of that building is completed.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		<p>announced it was closing down its US operation. As a result this initiative is being terminated.</p> <p>43 EV chargers have been installed in downtown public garages.</p> <p>Car share program was launched in Summer 2012. Parking Pilot program was instituted in December 2012.</p>	

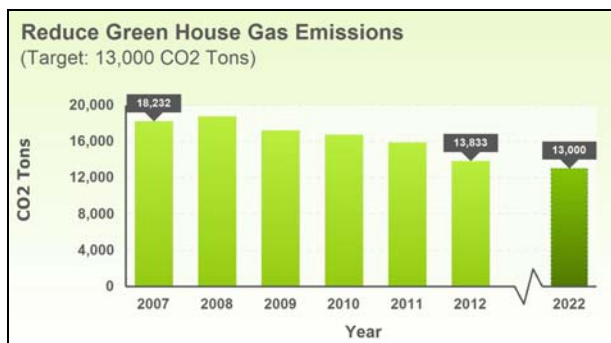
## Performance Metrics



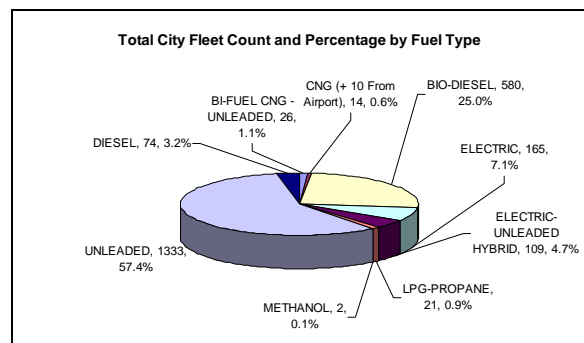
**2012: 40% of the fleet ran on alternative fuels**  
2011: 40%  
Figures were updated to reflect more accurate fleet calculations.



**2012: 982,003 gallons**  
2011: 1,134,279 gallons



**2012: 13,833 CO<sub>2</sub> Tons**  
2011: 15,900 CO<sub>2</sub> Tons  
This 2012 calculation represents a 41% reduction when compared to 2003 baseline (23,263 CO<sub>2</sub> Tons).



In 2012, the City's vehicle fleet was reduced by 5%. 917 vehicles or 40% of the fleet run on alternative fuels.

## Plant 100,000 New Trees & Replace 100% of Streetlights with Smart, Energy-Efficient Lighting

*Trees and improved streetlights will bring significant environmental and social benefits to the City of San José. Trees provide shade, reduce air conditioning bills, filter air pollutants, and boost property values while smart, energy-efficient streetlights will improve the quality of light on the City's streets and reduce energy consumption.*



*Trees Planted Downtown by Our City Forest in 1997*

### Achievements & Successes

#### Community Forest Program:

The City of San José is engaged in a strategic partnership with Our City Forest (OCF), San José's award-winning community forestry non-profit, to advance its Green Vision street tree goals. OCF has long been instrumental in leveraging non-City funds to enable San José residents to enjoy a range of services including free and low-cost trees for public and private spaces, tree pruning, technical support, volunteer opportunities and educational workshops. In 2012, OCF obtained nearly \$1 million in non-City grants to support these services. OCF's program strategies and fund development efforts are significant factors towards meeting the Green Vision goals. Together we have been able to achieve the following progress concerning our community forest, including the net increase of 2,031 trees planted in San José in 2012.

*Our City Forest Community Nursery & Training Center* – With its new cultivation operation on City land, OCF is now able to provide agencies and residents fruit trees, native shrubs and grasses, in addition to shade trees. These plant additions allow OCF to further reduce heat island impacts by greening entire parking strips. The nursery is open to the public for tree pick-up, selection, technical assistance and training classes. Trainings include planting instruction, basic tree care, proper staking, mulching, berm adjustments, and watering techniques. The nursery offers exciting new volunteer opportunities to the community and, in 2012, OCF hosted 98 volunteer events attended by 1,378 volunteers, all eager to play a part in growing a healthy urban forest in San José.

*Plantings & Community Engagement* – Since 1994, OCF has been a resource to neighborhoods, parks, schools and other agencies for trees and related services. In 2012, OCF sustained a significant planting effort with the help of its well-trained AmeriCorps team. OCF recruited and managed 5,240 community volunteers to assist with planting 1,557 trees and 258 shrubs at 15 City of San José parks, 24

#### **Easy Actions You Can Take Now**

1. Plant a street or garden tree to save energy, sequester carbon, reduce runoff and increase neighborhood property values.
2. Continue proper tree care and maintenance including deep-root watering, pruning, and removal of dead/dying branches and monitoring for insect and disease problems. For more information see <http://www.ourcityforest.org/>.



local schools and over 100 neighborhood streets throughout the City. Another 11,243 trees received basic tree care, pruning, watering, stake removal and/or other follow-up, contributing to OCF's high tree survival rate of 91%. Only healthy mature trees can provide the level of environmental benefits – including reduction of per capita energy use – sought through the Green Vision goals. Education is the key to increasing awareness of this, and OCF's education program reached 19,825 residents at outreach events during 2012.



Volunteers at the OCF Community  
Nursery & Training Center

*Green Jobs Training* – OCF's AmeriCorps team of 35 full-time members contributed 53,895 hours of urban forestry services to San José residents in 2012. Team members implement planting, tree care, and cultivation. Team members also lead outreach and public education programs, for example, members develop and distribute literature, teach classes, recruit and train community volunteers, process tree requests, and assist seniors. In 2012, OCF staff provided 11,900 hours of green job training to this team. Fourteen of OCF's 35 service members returned to OCF for a second full year of service.

*Street Tree Inventory* – Having a complete inventory of the street trees in a city helps determine the location and size of future street tree plantings. In 2012, the City Council allocated funding to complete the tree inventory by 2014. To date, using staff from the City, OCF, and contractors, approximately 60% of the street trees in San José have been inventoried. In San José, individual property owners are responsible for the maintenance of the street trees adjacent to their property. Often people do not know how to properly maintain trees and individual tree maintenance can be very expensive. Once complete, staff will explore possible funding mechanisms for tree planting and maintenance and bring forward for Council consideration as appropriate. The foundation of the tree inventory will enable the City to design a program with property owners to prune the street trees on a regular cycle, address tree emergencies at no additional cost, and establish new trees in vacant planting locations

### **Streetlight Conversion Program:**

San José's Green Vision Goal 9 aims to convert all of the City's 62,000 streetlights to "smart," energy-efficient, adaptable streetlights. Currently, San José's annual energy cost for its streetlights is approximately \$4,000,000. While other cities around the nation have been testing and deploying "basic" Light Emitting Diode (LED) streetlights, San José has been pursuing the development of "smart" adaptable streetlights – streetlights equipped with a remote monitoring and adaptive control system. The control system enables the City to modulate lighting levels in relation to activity on its streets. It also provides the City with real-time information on streetlight outages, wire theft alerts, and its energy consumption. By converting to "smart" adaptive LED lights, the City will improve the lighting quality on its streets, eliminate hazardous materials present in its current lights, extend the maintenance cycle for bulb replacement from 3 to 10-plus years, reduce its energy consumption by 40% to 60%, and protect Lick Observatory's ability to conduct astronomical research. Linking energy-efficient LED lights to adaptive control systems is considered by energy experts to be the next major efficiency leap in outdoor lighting.

*Current Streetlight Conversions* – In 2012, the City installed approximately 2,200 smart LED streetlights, funded with \$3,125,000 in federal stimulus dollars. The lights were installed along 27 major roadways throughout the City, targeting the highest wattage lights for which replacement LED lights were available. Conversion locations were also selected based on grant funding requirements, geographical equity, and the desire to enhance safety and visibility in active pedestrian areas and retail districts. Utilizing Community Development Block Grant (CDBG) funds, the City will start installation of the 570 LED lights in early summer 2013, and approximately 1,100 will be installed through a variety of planned public and private development projects. In total, about 4,300 LED lights are planned for installation within the next few years, representing the conversion of approximately 6% of the City’s streetlights.

*Tariff Pilot for Networked Dimmable Streetlights* – In 2012, the City and Pacific Gas and Electric (PG&E) launched the first tariff pilot in the nation for “network controlled dimmable streetlights.” San José and Oakland collaborated with the California City-County Street Light Association (CAL-SLA) and PG&E to create the three-year pilot, which was approved by the California Public Utility Commission (CPUC) in September 2011. Although other cities had expressed interest, San José is the only city to have signed up by the December 2012 deadline. The pilot includes the 2,200 smart LED streetlights the City recently installed.



**Capital Avenue LED Streetlight Conversion:**

Capital Avenue was one of 27 roadway corridors in which San José converted to “smart” LED streetlights in 2012 with federal stimulus dollars. In total, the City installed 2,200 LED streetlights outfitted with a remote monitoring and adaptive control system. The new lights will improve the quality of lighting on the City’s streets, help the City protect Lick Observatory’s ability to conduct astronomical research, enable the City to respond to streetlight outages more quickly, and be charged for the actual energy the City consumes, rather than an estimate calculated by PG&E. Another federal grant will allow the City to install an additional 570 “smart” LED lights in two residential areas in 2013.

Currently, the vast majority of public streetlights in the United States are billed on a non-metered rate. Municipalities are charged based on an estimate of their energy consumption calculated on the basis of the type and wattage of individual lights installed and the number of hours in an evening, on average, the lights are anticipated to be in use. The pilot is allowing PG&E to bill San José for its actual energy consumption based on data generated by the City’s streetlight adaptive control system. This will enable the City to capture the full value of its streetlight energy efficiency measures, including dimming. The City estimates the energy savings from the 2,200 smart LED streetlights that were installed to be approximately 40%. Should the pilot be successful, PG&E has committed to discussing potential longer-term billing solutions, including a permanent dimmable streetlight rate, with San José, other interested cities, and CAL-SLA.

*Energy Efficiency Provider* – As noted in the Goal 2 chapter, the Mayor and Council directed staff to issue an RFP to solicit proposals for an Energy Efficiency Provider (also known as an Energy Services Company or ESCO) with the specific goal of implementing energy savings projects and utilizing the savings to: 1) Develop and implement new energy efficiency conservation measures on City facilities; and 2) Use savings from the energy efficiency measures to convert additional streetlights to “smart” LEDs. The City will generate savings by switching to

“smart” LEDs. But the savings are modest due to the relative efficiency of the City’s existing streetlights. This, combined with the high cost of LEDs and controls, makes it difficult to finance a large scale conversion of the City’s lights. Based on then-current costs, staff estimated in an April 2012 Transportation and Environment (T&E) Committee report, it would take the City approximately 16 years to pay off the cost of converting streetlights on major streets and 22 years to recoup the cost of replacing local/neighborhood streetlights. Those estimates far exceed what the City considers a reasonable pay back period. They also far exceed a conservative estimate of a ten-year lifetime for LED fixtures. Even if LED fixture lifetimes are closer to 20 years, as many industry experts believe, it would be difficult for the City to finance streetlight conversions until the cost of the technology comes down. In the interim, the City is looking at the possibility of using an energy service contract to bundle a variety of City energy efficiency projects including “smart” streetlights, into a package with an acceptable payback term. In February 2013, City Council approved the selection of Chevron Energy Solutions. Staff has begun working with the selected Energy Service Company and expects to bring forward the first package of energy conservation measures for approval in the fall of 2013.

### **Strategic Direction**

Budget challenges continue to make it extremely difficult to make substantial progress on the Green Vision goal to plant 100,000 new trees and replace 100% of all 62,000 City streetlights with smart, energy-efficient lighting. In 2013, staff will continue work on the street tree inventory, continue the Downtown Property-Based Improvement District tree maintenance partnership, support the OCF community nursery by encouraging City purchase of trees, shrubs, and plants wherever possible, and collaborate with OCF on fundraising and other tree planting efforts. In 2013, the first building audits will be completed under the new energy service contract, which will determine if efficiency upgrades might support streetlight conversions and, if so, how many. Staff will continue to pursue other avenues to accelerate the pace of streetlight conversions. By the end of 2013, PG&E plans to audit San José’s control system and evaluate the pilot, to determine next steps in the development of a permanent dimmable streetlight tariff.

### **Climate Change**

Trees provide multiple benefits with regards to greenhouse gas (GHG) emissions. Trees remove carbon dioxide from the air and provide shade that helps mitigate heat and reduces energy needed to cool the air. In 2012, 2,031 net trees were planted in San José which then sequestered approximately 79 metric tons (MT) of carbon dioxide (CO<sub>2</sub>) equivalents, using the Environmental Protection Agency’s formula for trees and assuming these trees survive for 10 years. In total 8,648 trees have been planted since 2007, sequestering approximately 337 MT of CO<sub>2</sub> equivalents, which are equivalent to annual greenhouse gas emissions from 70 passenger vehicles.

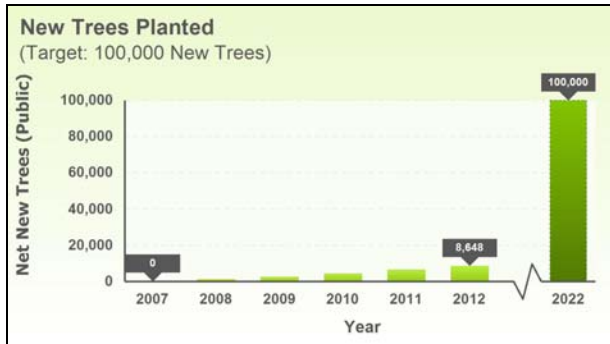
In 2012, total annual energy used by the 2,200 smart LED streetlights that are dimmed 50% for 5 hours each night is 930,000 kWh with a GHG emission of 656 MT of CO<sub>2</sub> equivalents. Energy consumption saved by using these 2,200 smart LED streetlights as compared to traditional streetlights is 820,000 kWh per year; resulting to 579 MT of CO<sub>2</sub> equivalents avoided which is equivalent to annual greenhouse gas emissions from 121 passenger vehicles.

## Work Plan

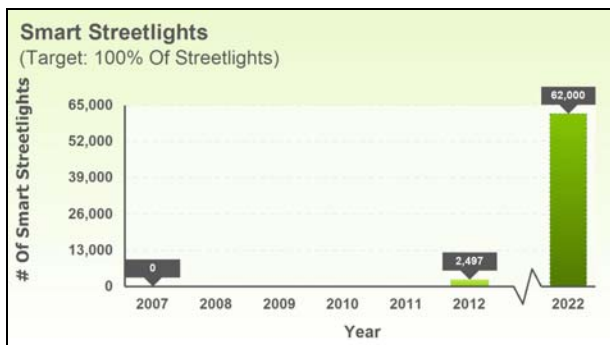
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Lead by Example</b>			
Reduce Citywide streetlight energy consumption.	<p>Develop streetlight design guide that will guide the City when it replaces existing lights, installs new LED lights, and dims lights during off-peak hours.</p> <p>Use federal grant funds to convert LPS streetlights to LED with adaptive controls.</p>	<p>Install approximately 2,200 network-controlled dimmable LED streetlights.</p> <p>Staff intends to proceed with a comprehensive update to the Policy on Outdoor Lighting on Private Development (City Council Policy #4-3).</p> <p><b>Status:</b> Lights installed by December 2013. Start installation of an additional 570 lights funded by CDBG in early Summer 2013.</p>	Install 570 lights funded by CDBG.
<b>Advocating Policies</b>			
Change State regulation to allow cost effective metering of individual lights.	Advocate CPUC regulatory changes.	<p>Launch first year of PG&amp;E dimmable streetlight tariff pilot.</p> <p><b>Status:</b> Staff is working with PG&amp;E to set up pilot. Working out some database issues. Very close to resolution. Next step is crediting process.</p>	Collaborate with PG&E on evaluation of LED streetlight tariff pilot. Begin discussion of potential longer-term billing solutions, such as development of a permanent tariff for adaptable streetlights.
<b>Financing Mechanisms</b>			
Increase the care of the community forest and meet the Green Vision planting goal.	Prepare long range plans for an alternative funding mechanism for street tree maintenance and planting.	<p>Continue progress in the street tree inventory project. Research various options for a long-term alternative funding mechanism using data from the street tree inventory data already collected (60% complete).</p> <p>Reach out to neighborhood groups to explore potential creation of short-term pooled tree maintenance contracts.</p> <p><b>Status:</b> Additional areas of the City will be inventoried later this fiscal year.</p>	<p>Continue street tree inventory and target completion by 2014 in order to evaluate funding mechanisms, planting and maintenance strategies.</p> <p>Coordinate City's community forestry programs with OCF to optimize scarce resources and advance San José's tree planting programs.</p>

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
Identify funds to upgrade to smart, energy-efficient streetlights.	Require energy-efficient lighting for new development; Identify Federal & City funding sources; Investigate potential for pooled purchase to improve purchase price and financing options.	Continue to seek financing and grant opportunities to fund conversions.  <b>Status:</b> RFP for an ESCO completed in 2012 which includes streetlights. Also identifying other means of financing conversions within or outside of the ESCO RFP.	Continue to seek financing and grant opportunities to fund conversions, including projects under the ESCO Agreement.
<b>Strategic Partnerships</b>			
Expand, maintain, and track new community forest tree plantings through partnerships with residents and community groups.	Continue to build upon and enhance Our City Forest partnership through collaborative initiatives. Jointly pursue other partnerships that might advance City's tree goals.	Seek funding to complete street tree inventory.  Continue to work with Our City Forest to leverage resources, including promoting the OCF Community Nursery and successfully relocate OCF offices.  Continue Four-Year Tree Management Plan for street trees in the downtown core in partnership with the Property-Based Improvement District and Downtown Association.  <b>Status:</b> Funding has been secured for the inventory.	Continue to build upon and enhance OCF partnership through collaborative initiatives. Jointly pursue other partnerships that might advance City's tree goals. Work with OCF to leverage resources, including promoting the OCF Community Nursery.  Seek opportunities through grants, development projects, and OCF partnership to create complete streets with LED lights, trees and bike lanes.
Leverage partnerships to research heat island effect and determine priority areas to develop the community urban forest tree canopy.	Partner with LBNL, for data support, planting demonstration projects, and ties to energy efficiency measures.	Pursue grant funding in collaboration with LBNL's Cool Cities pilot.  <b>Status:</b> The USDA Forest Service is completing a tree canopy study in San José that will be used as a pilot for other cities in the state.	<i>Not Applicable.</i>

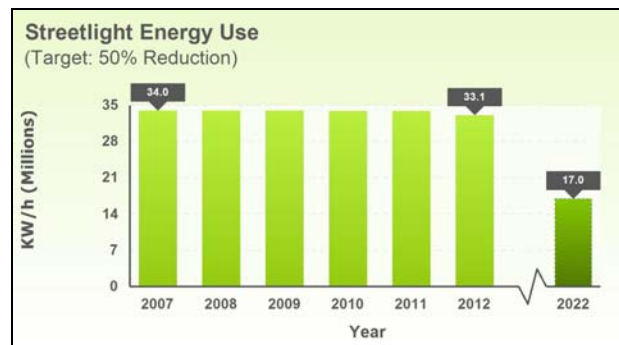
## Performance Metrics



**2012: 8,648 trees**  
2011: 6,617 trees



**2012: 2,497 smart streetlights**  
2011: 297 smart streetlights



**2012: 33.1 kWh (millions)**  
2011: 33.9 kWh (millions)

## Create 100 Miles of Interconnected Trails

*San José's vision for a 100-mile trail network is being developed primarily along creeks, rivers and open space corridors, opening access to some of the City's most scenic areas. In addition, 400 miles of on-street bikeways are also being developed to complement and enhance the interconnectivity of the trail network. The City continues to make progress in development of the off-street trail network and on-street bikeways.*



Guadalupe River Trail near Virginia Street

### Achievements & Successes

Mirroring national trends, San José's many trails are enjoying greater usage as documented by the City of San José's annual Trail Count. For the sixth consecutive year, San José staff and volunteers have documented a continued increase in trail usage. The number of users increased by 3.4% along the Guadalupe River Trail and 12% more users were documented at 6 count stations throughout the City. People are seeking more opportunities to walk and bike, and the City has made a significant investment over the past 10 years to increase the size of its multi-system trail and bikeway network.

- The Trail Network is currently at 54.7 miles. Mileage increased during the year with 0.9 mile along Three Creeks Trail (Interim) and 0.8 mile along Highway 237 (Zanker-Coyote Creek). A short-term closure of 4.4 miles along Lower Guadalupe River Trail has occurred due to paving but this reduction is not reflected in the total mileage figure reported. The trail system is anticipated to reopen in by April 2013.
- On-Street bikeways are currently at 216 miles adding ten miles of new facilities in 2012.

### Trail Improvements:

*Highway 237 Bikeway Reopens with Two Important Designations* – The Highway 237 Bikeway project was completed and reopened to the public on June 28, 2012. The 0.8 mile project replaces a deteriorated construction road that had been built as temporary staging during the highway's construction 15 years ago. Over the past several years, staff has successfully secured grant funding, resolved property boundaries with the State, negotiated a maintenance agreement, designed the project and overseen its construction. Construction commenced in January 2012 with significant funding from a State of California Environmental Enhancement and

#### **Easy Actions You Can Take Now**

1. Try riding your bike to work or school by the trail and/or on-street bikeway once per week. Plan your trip using the Trail Map on the City website: [www.sjparks.org](http://www.sjparks.org).
2. Encourage your State and Federal representatives to sustain and expand competitive grant funding for active transportation funding.
3. Join local and national advocacy groups Guadalupe River Park Conservancy, San José Parks Foundation, and American Trails organization because their work supports development and operation of local trails.

Mitigation Program (EEMP) grant. The project is a test bed for new trail development approaches which include recycling gravel found on site, paving with a warm-mix asphalt method, which requires less energy; the use of highly reflective striping, making commutes safer; and using compostable erosion control measures to restore native grasses along the bikeway, and installation of lighter-weight aluminum bollards to reduce potential for employee injury. Beyond innovation, the bikeway is notable for its designation as part of the San Francisco Bay Trail and the multi-state Juan Bautista de Anza National Historic Trail.

*Three Creeks Trail* – Lands from a former railway alignment were successfully acquired in late 2011 between Lonus Street and Minnesota Avenue. The 7.5 acres are in an undeveloped state, but staff added fenced entries and trail signage to permit passage along a new 0.9 mile “interim” trail. Funding is in place and work is underway to master plan a future paved and landscaped trail.

*Guadalupe River Trail* – In March 2012, construction began on the Lower Guadalupe River Trail. Phase 1 (880 to Green Island) was completed in November 2012 and provided about 2 miles of paved trail surface for improved commutes and recreation. Phase II accounts for 4.4 miles between Highway 101 and Gold Street. All asphalt pavement is now installed and the contractor is completing work on decorative entryways, interpretive and regulatory signage, striping, and under-crossing lights. Staff is working with the Guadalupe River Park Conservancy and Silicon Valley Leadership Group to publicly celebrate the greatly-improved trail and build industry and community awareness about this great resource. Completion of the entire trail is anticipated by late March and public celebration is being planned for April (specific date and event details to be communicated at a later date).

Development of many trails in San José occurs through a successful partnership with the Santa Clara Valley Water District. Through a Collaborative Action Plan, the two agencies have permitted public recreation across Water District lands which make projects like the Guadalupe River and Coyote Creek Trail projects possible.



*Kiwanis Volunteers*

**Volunteer Spotlight:** In April 2012, The San José Kiwanis members coordinated and worked very hard during their “One Day” event along the Guadalupe River Trail in downtown San José from Highway 280 to Highway 880. Over 100 volunteers gathered to help keep the trail clean and safe. Working along various stretches of the path, the volunteers pulled weeds, raked leaves, picked-up trash and thinned the maturing plants along this busy commuter trail.

**On-street Bikeway Improvements:** During 2012, nine miles of downtown streets were resurfaced and restriped with new bike-friendly design treatments, and one mile of bike lanes was added to other parts of the city. The new downtown bike lanes were installed on portions of Almaden Boulevard, Third Street, Fourth Street, Tenth Street and Eleventh Street by replacing traffic lanes with a bikeway. To enhance safety and encourage bicycle travel, eight of the new nine miles of downtown bike lanes include a painted “buffer” area that increases the separation



of bicyclists from motor vehicles. Additionally, one section was enhanced with a parking-protected bike lane which moved on-street parallel car parking away from the curb and put a bikeway in its place. With buffered bike lanes, state law allows motor vehicles to cross the painted buffer to access a parking space or a driveway. State law also allows motorists to cross the buffer in the last 200 feet approaching an intersection to make a turn. San José conducted public outreach using flyers and a press release to inform the public about these state laws and the use of buffered bike lanes. Buffered and protected bike lanes are considered best practices for cities striving to increase their bicycle mode share. San José also installed 400 new public bike parking spaces during 2012. The adopted City goals for bicycle travel are to increase from a current bike mode share of 1%, to 5% by 2020, and to 15% by 2040. With the completion of these projects, San José now has 216 miles of on-street bikeways.

*San Fernando Enhanced Green Bike Lanes* – The City has received grant funds to install green bike lanes along the San Fernando Street corridor between Diridon Station and San José State University to enhance the visibility and safety of this route as a primary bikeway. The project is scheduled for construction beginning spring 2013.

*Complete Streets* – Envision 2040 as discussed in the Goal 7 Chapter, describes the policies to support the development of Complete Streets which need to be designed or modified to make them accessible for everyone supporting a full range of activities, including bicycles. The recently approved Envision 2040 aims to promote San José as a walking and bicycling city by providing and prioritizing projects that enhance and improve bicycle and pedestrian facilities. It includes aggressive goals and policies to reduce vehicle use by 40% and increase trips by bike to 15% by 2040.

### Special Designations & Awards:

The City of San José received two Awards of Merit at the 2012 Trails and Greenways Conference, the first in recognition of the City's Guadalupe River Trail Reach 6 and the second for the Coyote Creek Trail Master Plan. Additionally the California Parks and Recreation Society (CPRS) awarded San José two 2012 CPRS Awards of Excellence for those same projects.

### Grant Funding:

*Off-Street Trails* – In 2012, staff secured \$350,000 in new grant funding for Lower Silver Creek (Alum Rock to 680). As this report is being prepared, staff has or will seek Council authority to pursue the following grants:

- \$350,000: Coyote Creek Trail (Tasman to Montague), through EEMP grant program
- \$350,000: Thompson Creek (Quimby to Aborn), through EEMP grant program



Example of Public Bike Share System (Washington DC)

**Bike Share:** The City of San José in partnership with Santa Clara Valley Transportation Authority and the Bay Area Air Quality Management District are working on a regional pilot program to bring bike sharing to the Bay Area. The pilot program will provide about 700 bicycles and 70 bike share stations along the Caltrain corridor. The pilot program is funded through local and regional grants including a \$4.3 million Metropolitan Transportation Commission's Climate Initiatives Grant. As a part of a five city regional pilot project, San José will host approximately 14 bike stations with 140 bikes available for public use in the downtown area with an expected launch in 2013.

- \$1,200,000: Three Creeks Trail (Trestle): through programming of State Prop 40 funds
- \$2,200,000: Coyote Creek Trail (Story to Selma Olinder), sourced from a combination of OBAG, SAFETEA-Lu, State Prop 40 and OSA funding sources
- \$1,400,000: Penitencia Creek Reach 7 – The Valley Transportation Authority (VTA) is the lead agency for seeking OneBayArea Grant (OBAG) funds for a future trail connection from King Road to the Berryessa BART station. City staff is providing cost estimating, design input and grant-writing expertise to support the effort.

*On-Street Bikeways* – During 2012, San José received twelve grants totaling over \$9.7 million (M) in funding for on-street bicycle and pedestrian improvements were obtained. Highlights include:

- \$144,000: Geometric Design Standards Manual
- \$675,000: Safe Pathways to Diridon Caltrain Station
- \$75,000: St. John St. Ped/Bike Improvement Project
- \$1,456,000: St. John St. Multi-modal Improvements
- \$1,500,000: Park Ave. Multi-modal Improvements
- \$859,128: Park Ave. Storm Water Treatment Project
- \$343,000: Safe Routes to Schools on Bucknall Rd.
- \$340,200: Safe Routes to Schools on Downing Ave.
- \$900,000: N. First St. Safety Enhancement Project
- \$900,000: Park Ave. Safety Enhancement Project
- \$533,500: N. 1st St. Bikeway
- \$265,000: Park Ave. Bikeway

**The Trail Count Survey:** The 2012 Trail Count documented a 12% increase in trail usage across six count stations compared to the 2011 Count. A 3.4% increase was measured along the Guadalupe River at Coleman Avenue – this station has been part of each year’s count and has continually recorded an increase in usage. This increase is notable because the trail system north of Highway 880 was closed for construction.

During the sixth annual count, City staff and volunteers counted and surveyed trail users on September 19. Approximately 3,500 users were counted in 2012 (in comparison to about 3,100 users in 2011). Six individual trail count stations were set-up for surveying off-street trail users. Two count stations were located along the Guadalupe River Trail with the remaining four stations placed along other trail systems through out San José. Thirty-five volunteers staffed the stations and manually counted the pedestrians and bicyclists. Interested trail users were offered a



**Think Bike Workshop:** On October 22-23, 2012 the Dutch Cycling Embassy joined the San José Department of Transportation and the Silicon Valley Bike Coalition to co-present a ThinkBike Workshop. Similar workshops have been hosted by the cities of Austin, Chicago, Los Angeles, Philadelphia, Pittsburgh, San Francisco, Toronto and Washington D.C. The intent of this week’s workshop was to:

- Gather a roomful of transportation professionals and downtown community advocates.
- Learn how Dutch cities have been redesigned so that more than one in four trips is made by bike.
- Create and share design solutions to two challenging hotspots for bicyclists in downtown San José.

Currently San José is a bronze rated Bicycle Friendly Community. But with continued dialogue between groups and refining the ideas generated from the ThinkBike Workshop, San José aspires to become a gold or even platinum-level Bicycle Friendly Community.

postcard that led them to an online survey where they were asked 18 questions about their usage of the trail network. The data collected over the past six years has been used to build public awareness about the need for more trails, prepare more competitive grant applications, and justify inclusion of trails as part of a transportation element in the City's newly adopted General Plan. Some findings from survey included:

- Regular and steady use: 63% of respondents use a trail from 1 to 5 times per week. 24% use trails daily.
- Trails are a preferred travel option: Users cite convenience, savings and environmental stewardship as key reason for use of San José trails.
- Trail users report that trails are clean, safe, well-maintained and “more fun than driving.”

Conducting the 6<sup>th</sup> annual Trail Count was made possible through a partnership with the Guadalupe River Park Conservancy, Silicon Valley Bicycle Coalition, Five Wounds Neighborhood/Community and San José's Department of Parks, Recreation and Neighborhood Services. A detailed Summary Report is posted on the Reports page of the Trail Program website which can be found on the Parks Department homepage at: [www.sjpark.org](http://www.sjpark.org).

San José's Bike & Pedestrian Program staff report that according to the U.S. Census, in the last four years, the percent of San José trips made by bike has increased by 43% and currently sits 67% above the national average.



*Save Our Trails members*

**Volunteer Spotlight:** On October 20, 2012, a residents' organization called "Save Our Trails" brought together more than forty volunteers who worked for the full morning walking the length of the right-of-way of the Three Creeks Trail (about 1 mile and 7.5 acres), picking up trash, trimming back brush, and piling it up for pick-up by the City. In a follow-up action in the following week, four volunteers returned to move many large piles of branches that had accumulated along the trail onto the street for pickup by the City's yard-waste disposal service. In addition, as an on-going effort, individual members who use the trail often pick up and remove small items of waste from the right-of-way.

## Strategic Direction

The City continues to make progress in the development of new trail mileage. However, at the current pace of funding it is unlikely that a 100-mile interconnected trail network will be built by 2022. Available funding levels and current staff resources prevent more rapid planning, design and construction. Recently completed master plans permit a focus on construction for the next 3 to 4 years, but the pace will slow if greater resources are not identified for an extended period of time. Ongoing efforts to pursue competitive grants from State and Federal sources supplement the City's budget. Federal Earmarks from the 2005 Transportation Bill have supported large-scale project development, but grants from State and Local sources have been inadequate to otherwise keep up with a 3-mile per year pace required to meet the Green Vision Goal. Even with grants, City funding is used to meet match requirements and “front” expenses prior to reimbursement.

Significant development can be supported with completed plans recently prepared for Coyote Creek and older plans for Bay Trail, Thompson Creek and Lower Silver Creek. Design and construction work on these projects can be advanced if local and State funding can be identified. Additional resources will be required to complete planning, design and construction of the remaining network. Federal dollars can support trail development but require additional environmental studies which sometimes results in alteration to planned alignments. For example, based on experience with the Bay Trail and Guadalupe River Trail development supported by federal funds, staff can report that 3 to 5 years is required for supplemental design work, environmental studies and agency reviews. Pending flood control along Coyote Creek and Guadalupe River also limits some trail development. From recent bids, staff estimates between \$1.5 – \$3 M is required to develop each new mile of paved trail on undeveloped sites. Staff is identifying strategies to overcome the fiscal and staffing challenges to achieving the Green Vision goal. Staff will present potential policy, funding and other actions for Council’s consideration at a future Transportation & Environment Committee Meeting.

### **Climate Change**

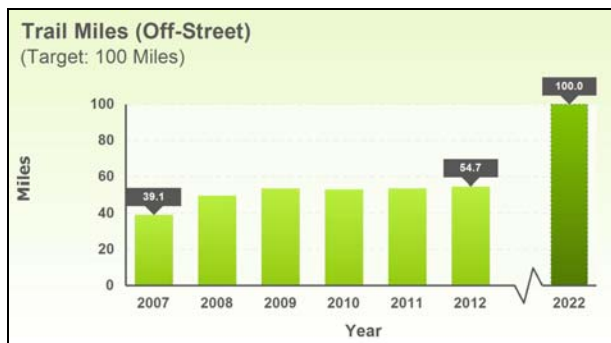
San José continues to encourage people to use either biking or walking as an alternative mode of travel versus conventional fossil fueled vehicles to commute each day. By developing our trails and bikeways, the City will reduce the amount of Greenhouse Gas (GHG) emissions produced from the transportation sector, one of the largest and most difficult sectors to address. In the Bike Plan 2020, a goal of a 5% bike mode share was developed for the year 2020. In lieu of annual surveys, a methodology is being used to assume a small but linear growth in bike ridership each year from the 2007 baseline year. This method was vetted with a climate scientist at San José State University and provides a reasonable estimate of GHG emissions. Since the baseline year, approximately 73,269 metric tons (MT) of carbon dioxide (CO<sub>2</sub>) equivalents have been reduced from the transportation sector, which is equivalent to annual greenhouse gas emissions from 15,264 passenger vehicles.

### **Work Plan**

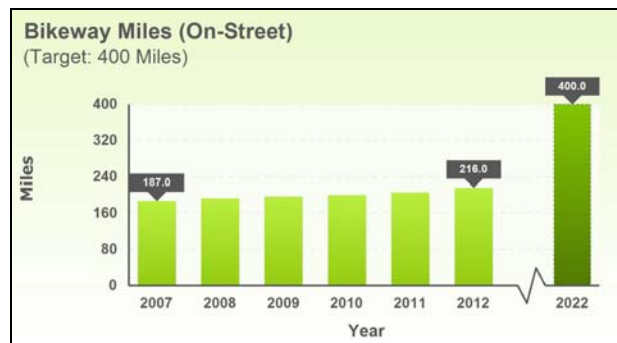
Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<b>Lead by Example</b>			
Expand City’s trail network.	Identify priority areas to expand the interconnected trail network.	Start pavement of Lower Guadalupe River Trail (6.4 miles) and Highway 237 Bikeway Trail (0.8 miles).  <b>Status:</b> Commenced construction of Lower Guadalupe River Trail and construction of Highway 237 Bikeway completed.	Commence construction of Guadalupe River Tasman Under-Crossing (500’), Lower Silver Creek (0.5 mile) and Coyote Creek (0.8 mile) trails.
Expand City’s bike network.	Implement “Bike Plan 2020”, the council-approved citywide bike plan.	Install 10 miles of bike lanes, bike routes and bike boulevards.  Install 500 public bike parking spaces.	Install 20 miles of on-street bikeway including bikeways enhanced with color and separation.  Install 500 public bike parking spaces.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		<b>Status:</b> 10 bikeway miles completed including eight miles of enhanced lanes. Installed 400 public bike parking spaces.	
<b>Financing Mechanisms</b>			
Fund expansion of trail network.	Work with regional, state, federal and private entities to secure funding and sponsorship.	Pursue 5 competitive grants (minimum).  <b>Status:</b> Applied for three grants. Awarded \$350,000 for Lower Silver Creek Trail.	Pursue 5 competitive grants (minimum).
Fund expansion of on-street bikeway network.	Seek grants to help expand and improve on-street bikeway network.	Seek grants that match <i>Bike Plan 2020</i> goals.  <b>Status:</b> Applied to a total of 21 grants totaling to \$116 M. Awarded \$9.7 M so far.	Seek grants that match <i>Bike Plan 2020</i> goals.
<b>Strategic Partnerships</b>			
Expand and maintain trail network through partnerships.	Establish partnerships with non profits and private entities.	Partner with the Bay Area Open Space Council to include all San José trails on the Transit & Trails Smart Phone application.  <b>Status:</b> All San José Trails are available on the <i>Transit &amp; Trails</i> phone application.	Investigate partnership with health care organization to promote usage of trail network for health and fitness.  Conduct Trail Count with community partners.

### Performance Metrics



**2012: 54.7 miles**  
 2011: 53.7 miles  
 2012 mileage does not reflect a temporary closure due to paving of 4.4 miles of interim trail along Lower Guadalupe River.



**2012: 216 miles**  
 2011: 206 miles

## Urban Environmental Accords

San José City Council became a signatory to the Urban Environmental Accords in November, 2005. The Accords were developed as part of the 2005 United Nations Environment Day conference and consist of 21 “actions” designed to help cities across the world move towards greater sustainability. The Actions fall into seven categories: Energy, Waste Reduction, Urban Design, Urban Nature, Transportation, Environmental Health, and Water. To date, over 114 cities worldwide have signed on to the Accords. San José has completed fifteen of the Actions and work is underway to complete all of them.



In conjunction with the ten Green Vision goals, the Urban Environmental Accords well position the City of San José to become a national leader in environmental sustainability, improving the quality of life and the environment for its residents while fostering a vibrant and sustainable economy.

### Progress to Date

The following Actions are considered completed:

Actions	Related Initiatives or Policies
<b>Action 1:</b> Adopt and implement a policy to increase the use of renewable energy to meet 10 percent of the City’s peak electric load within 7 years	The City has adopted and is implementing its Strategic Energy Action Plan (2010) and Green Vision (2007), both of which have the goal of reducing energy use by 50% and obtaining 100% of the City’s electricity from renewable sources. See the chapters on <i>Reduce Energy Use by 50%</i> and <i>Receive 100% of our Electrical Power from Renewable Sources</i> for more information.
<b>Action 2:</b> Adopt and implement a policy to reduce the city’s peak electric load by 10% within 7 years through energy efficiency, shifting the timing of energy demands, and conservation measures.	See Action 1 above.
<b>Action 4:</b> Establish a policy to achieve zero waste to landfills and incinerators by 2040.	City Council adopted a Zero Waste Strategic Plan in October, 2008. See the chapter <i>Divert 100% of Waste from Landfills and Convert Waste to Energy</i> for more information. The City’s plastic bag ban went into effect in January, 2012.
<b>Action 5:</b> Adopt a Citywide law that reduces the use of a disposable, toxic, or non-renewable product category by at least 50 percent in 7 years.	The City adopted an ordinance banning the use of single-use plastic shopping bags that went into effect on January 1, 2012. The ban has resulted in an appreciable decrease in related litter.
<b>Action 6:</b> Implement “user-friendly” recycling and composting programs, with the goal of reducing by 20% per capita solid waste disposal to landfill and incineration in seven years.	City Council adopted a Zero Waste Strategic Plan in October, 2008. San José has been implementing innovative, recycling-focused, integrated waste management programs since the early 1990’s. See the chapter <i>Divert 100% of Waste from Landfills and Convert Waste to Energy</i> for more information.

Actions	Related Initiatives or Policies
<b>Action 7:</b> Adopt a policy that mandates a green building rating system standard that applies to all new municipal buildings.	The City’s Green Building Policy for municipal buildings was adopted in 2001 and revised in 2008. Council also adopted a Green Building Ordinance for the private sector in 2009. See the chapter on <i>Build or Retrofit 50 Million Square Feet of Green Buildings</i> for more information.
<b>Action 8:</b> Adopt urban planning principles and practices that advance higher density, mixed use, walkable, bikeable and disabled-accessible neighborhoods which coordinate land use and transportation with open space systems for recreation and ecological restoration.	San José adopted Smart Growth policies in the 1970s and each successive General Plan has reflected these principles. The San José Bike and Pedestrian Program develops infrastructure that facilities biking and walking in San José. The <i>GreenPrint</i> is San José’s guiding document related to the development of parks and recreational programs. The <i>Envision San José 2040 General Plan</i> was adopted by Council in November, 2011 and more fully addresses the various elements of the Green Vision. See the chapter on <i>Adopt a General Plan with Measurable Standards for Sustainable Development</i> for more information.
<b>Action 9:</b> Adopt a policy or implement a program that creates environmentally beneficial jobs in slums and/or low-income neighborhoods.	San José’s Work2Future program is working closely with numerous non-profits with similar goals. Its Green Cadre program trains and places at-risk youth in environmental internships. Green Vision Goal 1, 25,000 New Clean Tech jobs, also focuses on green jobs for all. Details can be found in the chapter <i>25,000 Clean Tech Jobs</i> .
<b>Action 12:</b> Pass legislation that protects critical habitat corridors and other key habitat characteristics (e.g. water features, food-bearing plants, shelter for wildlife, use of native species, etc.) from unsustainable development.	San José adopted its “Riparian Corridor Policy Study” in 1994 to prevent the loss of habitat to development in San José. Habitat protection is addressed more fully in the <i>Envision San José 2040 General Plan</i> . A new regional stormwater permit has been finalized that requires cities to reduce trash to creeks by 40% by 2014 and 100% by 2022. Staff is currently determining how to best address litter from food ware made from expanded polystyrene (EPS).
<b>Action 14:</b> Pass a law or implement a program that eliminates leaded gasoline (where it is still used); phases down sulfur levels in diesel and gasoline fuels, concurrent with using advance emission controls on all buses, taxis, and public fleets to reduce particulate matter and smog-forming emissions from those fleets by 50% in 7 years.	National laws addressing these concerns have been in place for decades. California has also adopted regulations to implement its Low Carbon Fuel Standard, consistent with California Assembly Bill 32 and the Governor’s Executive Order S-01-07. The standard calls for a reduction of at least 10 percent in the carbon intensity of California’s transportation fuels by 2020. The City adopted a Green Fleet Administrative Policy in 2007 designed to reduce greenhouse gas emissions and other air pollutants from the City fleet. Every year, older, more-polluting vehicles are replaced with cleaner and alternative-fuel vehicles. See the Goal 8 Chapter on <i>Ensure that 100% of public fleet vehicles run on alternative fuels</i> .
<b>Action 15:</b> Implement a policy to reduce the percentage of commute trips by single occupancy vehicles by 10% in seven years.	In 2012, the City adopted the <i>Envision San José 2040 General Plan</i> , an update of the City’s existing General Plan. The Transportation element of the update establishes aggressive mode shift goals with supporting policies. Among other things, the General Plan calls for a reduction in single occupancy vehicles from 78% to 40%, nearly 34 percentage points, by 2040. See the General Plan Table TR-1: Commute Mode Split Targets for 2040.
<b>Action 18:</b> Establish an Air Quality Index (AQI) to measure the level of air pollution and set the goal of reducing by 10% in seven years the number of days categorized in the AQI range as	The Bay Area Air Quality Management District (BAAQMD) is the Control Authority for setting California standards to minimize air pollution. It monitors air quality and implements the federal and state Clean Air Act requirements. BAAQMD is working to improve air quality through programs such as: the Regional Ozone Plan, CEQA Thresholds of Significance for Toxic Air Contaminants and

Actions	Related Initiatives or Policies
“unhealthy” or “hazardous.”	GHG emissions, low carbon fuel standards, and “Spare the Air Days.” The City is regulated by BAAQMD, has created a Community Risk Reduction Plan to minimize the impacts of transit oriented development, and currently has a City Council member on the BAAQMD Board of Directors.
<b>Action 19:</b> Develop policies to increase access to adequate and safe drinking water aiming at access for all by 2015. For cities with potable water consumption greater than 100 liters per capita per day, adopt and implement policies to reduce consumption by 10% by 2015.	<p>Council approved a Water Conservation Plan on September 23, 2008.</p> <p>Since the mid 1990s, San José has funded indoor water conservation and water recycling programs in support of the South Bay Action Plan to reduce freshwater discharges to the Bay. The City works closely with the Santa Clara Valley Water District (District) on these initiatives.</p>
<b>Action 20:</b> Protect the ecological integrity of the City’s primary drinking water source (i.e. aquifers, rivers, lakes, wetlands and associated ecosystems).	<p>The City supports District efforts to protect the groundwater supply and local reservoirs. To reduce demand for these resources, San José and the District have almost completed construction on an advanced water treatment facility for recycled water. The facility, known as the Silicon Valley Water Purification Center (SVWPC), will become operational in Spring, 2013.</p> <p>See Action 12 above regarding the regional stormwater permit that better protects local waterways.</p>
<b>Action 21:</b> Adopt municipal wastewater management guidelines and reduce the volume of untreated wastewater discharge by 10% in seven years through the expanded use of recycled water and the implementation of a sustainable urban watershed planning process that includes participants of all affected communities and is based on sound economic, social, and environmental principles	<p>The City owns and operates a tertiary Water Pollution Control Plant. It does not discharge any untreated municipal wastewater to local receiving waters.</p> <p>Part of the South Bay Action Plan to reduce effluent flows to the bay, the City’s South Bay Recycled Water Program delivered an average of 15.8 million gallons of water per day during the dry weather period of 2012 to 650 customers, 20 of which came online in 2012. Construction of the SVWPC began in 2011 and it will start processing water in Spring, 2013. The City has also been working on a strategic and master planning effort for system maintenance and expansion as well as to ensure the meeting of regulatory and financial commitments. Completion is expected in 2013.</p> <p>Since 1996, San José has participated in the Santa Clara Basin Watershed Management Initiative to address all sources of pollution that threaten the Bay, and to protect water quality throughout its watersheds.</p>

Below are highlights of what was achieved in 2012 to implement the Accords:

Urban Environmental Accords Action	2012 Achievements and Milestones	Next Steps
<p><b>Energy</b></p> <p>1. Renewable Energy 2. Energy Efficiency 3. Greenhouse Gas Reductions</p>	<p>See chapters on <i>Reduce Energy Use by 50%</i> and <i>Receive 100% of our Electrical Power Renewable Sources</i>. Additionally, the City’s Greenhouse Gas reduction activities are discussed in the chapter entitled <i>Climate Change</i></p>	<p>See chapters on <i>Climate Change and Greenhouse Gas Emissions</i>, <i>Reduce Energy Use by 50%</i>, <i>Receive 100% of our Electrical Power Renewable Sources</i>, and the climate change portions of each chapter.</p>



Urban Environmental Accords Action	2012 Achievements and Milestones	Next Steps
	<i>and Greenhouse Gas Emissions</i> as well as in each goal chapter.	
<b>Waste Reduction</b> 4. Zero Waste 5. Ban a Nonrenewable product from the City 6. Recycling Programs	<p>See the <i>Divert 100% of Waste from Landfills and Convert Waste to Energy</i> chapter.</p> <p>The City worked with retailers and residents to ensure that the community was prepared for the ban on single-use plastic bags which occurred on January 1, 2012. Bag litter has decreased appreciable since then. Worked with the Cities of Palo Alto and Sunnyvale to discontinue accepting packaging that contains expanded foam plastic with City shipments. Worked with the County Recycling and Waste Reduction Commission to roll out the initiative to other local cities as well. Revised the City's Environmentally Preferable Procurement Policy (EP3) to ban the use of City funds to purchase food ware made from expanded polystyrene.</p>	<p>See the <i>Divert 100% of Waste from Landfills and Convert Waste to Energy</i> chapter.</p> <p>Continue to work with vendors and other cities to reduce the presence of problematic plastic packaging in City procurement.</p> <p>Monitor compliance with the City's ban on EPS food ware purchases.</p>
<b>Urban Design</b> 7. Municipal Green Building 8. Smart Growth 9. Green Jobs	<p>2012 achievements in this category are discussed in the chapters on <i>25,000 Clean Tech Jobs, Build or Retrofit 50 Million Square Feet of Green Buildings, and Adopt a General Plan with Measurable Standards for Sustainable Development</i>, respectively.</p>	<p>See chapters on <i>25,000 Clean Tech Jobs, Build or Retrofit 50 Million Square Feet of Green Buildings, and Adopt a General Plan with Measurable Standards for Sustainable Development</i>.</p>
<b>Urban Nature</b> 10. Parkland Accessibility 11. Urban Forestry 12. Habitat Protection	<p>94% of City residents live within 1/3 mile of existing, or proposed parkland, schoolyard, trail, and/or other recreational open space as noted in the City's <i>Greenprint</i>. There are 51 areas in the City that do not comply with Action 10, equating to approximately 18,700 households.</p> <p>See the chapter on <i>Plant 100,000 Trees</i> regarding Action 11 (urban trees). Critical habitat corridors continue to be protected by the City's Riparian Corridor Policy Study (Action 12). Additionally, habitat is addressed in the <i>Envision San José 2040 General Plan Update</i>.</p>	<p>It is anticipated that park acreage will remain the same through 2013.</p> <p>See chapter on <i>Plant 100,000 Trees</i>.</p> <p>In addition to the plastic bag ban of 2012, the City continues to evaluate and develop actions that would significantly reduce expanded polystyrene (EPS) food service ware litter. An ordinance requiring San José restaurants to phase out use of EPS food service ware will be considered by the City Council in Spring 2013.</p>
<b>Transportation</b> 13. Public Transportation	<p>To reduce solo commuting (Action 15), San José was involved in the</p>	<ul style="list-style-type: none"> <li>• Work will continue on the BART</li> </ul>

Urban Environmental Accords Action	2012 Achievements and Milestones	Next Steps
<p>Access 14. Leaded Gasoline 15. Single Commuter Reductions</p>	<p>following efforts in 2011:</p> <ul style="list-style-type: none"> <li>• Construction began on the BART extension to Berryessa.</li> <li>• Continued to work on the Bus Rapid Transit project.</li> <li>• The City installed 43 electric vehicle chargers in San José, primarily downtown.</li> <li>• The City issued an agreement with ZipCar for the use of 15 public parking spaces at no cost for 18 months, as part of the City's CarShare Parking Pilot Program.</li> <li>• In July, the State approved the issuance of \$2.6 billion in Prop 1A bonds matched by \$3.2 billion in federal funding to build the initial segment of high-speed rail between Merced and the San Fernando Valley. The California Transportation Authority also released \$40 million in Prop 1A money for CalTrain improvements.</li> <li>• During 2012, the Bike/Pedestrian Program completed six new on-street bikeways projects adding 9 miles to the bikeway network.</li> <li>• Citywide, trips by bike increased 67% in the last year and 150% over five years.</li> <li>• The City hosted a Bike Friendly Business District workshop (August) and a ThinkBike Workshop with the Dutch Cycling Embassy (October).</li> <li>• Completed Feasibility Study on the Automated Transit Network.</li> <li>• The City Green Team supported San José employees in their use of commute alternatives and participated in last year's Great Race for Clean Air. The Team also supported Bike to Work Day and promoted a "Summer of Cycling."</li> </ul>	<p>extension to San José as well as the Bus Rapid Transit Project which is to be completed by the end of 2014.</p> <ul style="list-style-type: none"> <li>• The City is working with federal, state, and local agencies to disseminate information from the Automated Transit Network Feasibility Report and determine how best to encourage the development of this technology in US.</li> <li>• The City will evaluate the effectiveness of the CarShare parking pilot program. Depending upon utilization, the City can offer up to 25 more spaces to CarShare service providers in 2013.</li> <li>• The City plans to install another five electric vehicle chargers at its Environmental Innovation Center in 2013 when construction is completed.</li> <li>• Complete 15 miles of new bikeways and install 500 new bike parking spaces.</li> <li>• Launch a public bike share system in downtown San José, in partnership with VTA and the BAAQMD.</li> <li>• The Green Team will continue to support employees in their use of commute alternatives.</li> </ul>
<p><b>Environmental Health</b> 16. Municipal Environmental Procurement</p>	<p>San José joined with other Bay Area cities to discontinue accepting packaging made from expanded polystyrene.</p>	<p>Continue to work with City Departments and the procurement division to incorporate environmental specifications into</p>

Urban Environmental Accords Action	2012 Achievements and Milestones	Next Steps
17. Local Organic Foods 18. Air Quality	<p>The Convention Center continues to procure local organic foods.</p> <p>In 2011, The City began developing a <i>Community Risk Reduction Plan</i> with the help of the Bay Area Air Quality Management District. Once completed, the Plan will be used to facilitate infill projects in geographical areas that have been identified as having air quality health effects. The CRRP will lead to policies and mitigation strategies to reduce exposures to air toxins.</p>	<p>upcoming solicitations.</p> <p>Continue to educate City staff about the EP3 policy and green alternatives to products currently being procured.</p> <p>Monitor compliance with the ban on the use of municipal funds to procure expanded foam plastic food service ware.</p> <p>The City will determine how to address the new toxic air thresholds through the General Plan update process. Once data is made available by the BAAQMD, San José will complete the <i>Community Risk Reduction Plan</i>.</p>
<p><b>Water</b></p> <p>19. Water Conservation 20. Water Quality Protection 21. Recycled Water and Watershed Management</p>	<p>The City continues to implement water conservation through a cost-sharing agreement with the Santa Clara Valley Water District for programs such as incentives for water-efficient retrofits, and by conducting outreach. The City is also drafting an ordinance to require water efficient landscaping in new development.</p> <p>Data for the Average Daily Water Use in San José is no longer available. Instead, water use in the San José Municipal Water System's service area, a portion of the City of San José, is now being tracked. In 2011, Average Daily Water Use in the San José Municipal Water System was 152 gallons per person per day, compared to 177 in 2007.</p> <p>For an update on the South Bay Recycled Water Program see the chapter on <i>Recycle or Beneficially Reuse 100% of Wastewater</i>.</p>	<p>Continue to promote reduced per capita water use indoors and outdoors.</p> <p>For an update on recycled water activity, see the chapter on <i>Recycle or Beneficially Reuse 100% of Wastewater</i>.</p>

Another strategy San José uses to implement the Accords is to collaborate with other California signatory cities through Green Cities California (GCC). GCC's model environmental programs are available to the public through their well-received Best Practices Website [www.greencitiescalifornia.org](http://www.greencitiescalifornia.org) which was updated in 2012. Several San José programs are highlighted on this website. GCC's current focus is on developing programs to assist GCC members on outreach strategies for their Climate Action Plans, Community Choice Aggregation and sustainable food choices.

## Glossary

Abbreviation	Description
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AD	Anaerobic Digestion
ARRA	American Recovery and Reinvestment Act
B	Billion
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BART	Bay Area Rapid Transit
BBP	Better Buildings Program
BOS	Business Owner Space
BRT	Bus Rapid Transit
BYOB	Bring Your Own Bag
CAL-SLA	California City-County Street Light Association
CALGreen	California Green Building Standards Code
CAPCOA	California Air Pollution Controls Officers Association
CARB	California Air Resources Board
CDBG	Community Development Block Grant
CDD	Construction and Demolition Diversion
C&D	Construction and Demolition
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFL	Compact Fluorescent Light
CIGS	Copper Indium Gallium Selenide
CNG	Compressed Natural Gas
CO <sub>2</sub>	Carbon Dioxide
CPRS	California Parks and Recreation Society
CPUC	California Public Utilities Commission
CTO	Clean Tech Open
DOE	Department of Energy
DOT	Department of Transportation
DPF	Diesel Particulate Filter
E85	Ethanol
EDA	Economic Development Administration
EECBG	Energy Efficiency and Conservation Block Grant
EEMP	Environmental Enhancement and Mitigation Program
EIC	Environmental Innovation Center
EP3	Environmentally Preferable Procurement Policy
EPA	Environmental Protection Agency
EPR	Extended Producer Responsibility
EPS	Expanded Polystyrene
ESCO	Energy Service Company
ESD	Environmental Services Department
EUC	Energy Upgrade California
EV	Electric Vehicle
FOG	Fats, Oils, and Grease
FY	Fiscal Year
GCC	Green Cities California
GEM	Green Energy Match
GGS	Go Green Schools
GHG	Greenhouse Gas
HHW	Household Hazardous Waste

<b>Abbreviation</b>	<b>Description</b>
IVC	In-vessel Composting
kW	Kilowatt
kWh	Kilowatt Hour
LBNL	Lawrence Berkeley National Lab
LCOE	Levelized Cost of Energy
LED	Light Emitting Diode
LEED	Leadership in Energy and Environmental Design
LLC	Limited Liability Company
LPG	Liquid Propane Gas
LPS	Low Pressure Sodium
M	Million
MFD	Multi-Family Dwelling
MIDI	Moderate Income Direct Install
MW	Megawatt
MGD	Million Gallons Per Day
MSA	Metropolitan Statistical Area
MT	Metric Tons
MTC	Metropolitan Transportation Commission
NETS	National Establishments Time Series
NOx	Nitrogen Oxide
NCU	Neighborhood Clean Up
NTP	Notice to Proceed
OBAG	OneBayArea Government
OCA	Office of Cultural Affairs
OCF	Our City Forest
OED	Office of Economic Development
PACE	Property Assessed Clean Energy
PG&E	Pacific Gas and Electric
PM	Particulate Matter
PPA	Power Purchase Agreement
Prospect SV	Prospect Silicon Valley
PV	Photovoltaic
PW	Department of Public Works
RAFT	Resource Area for Teaching
RENs	Regional Energy Networks
RFP	Request for Proposals
RFQ	Request for Qualifications
SB	Senate Bill
SBIR	Small Business Innovation Research
SBWR	South Bay Water Recycling
SCVWD	Santa Clara Valley Water District
SF	Square Feet
SNI	Strong Neighborhoods Initiative
SVAWPC	Silicon Valley Advanced Water Purification Center
SVEW	Silicon Valley Energy Watch
T&E	Transportation and Environment
TOCKNA	Tully Ocala Capitol King Neighborhood Association
USBR	United States Bureau of Reclamation
USGBC	United States Green Building Council
VC	Venture Capital
VMT	Vehicle Miles Traveled
VTA	Valley Transportation Authority
WPCP	San José/Santa Clara Water Pollution Control Plant
ZWED	Zero Waste Energy Development Company

# Appendix A – Comprehensive Work Plan

## Leading by Example

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
1. Identify space for local clean tech companies to manufacture in San José. (25,000 Clean Tech Jobs)	Work with key property owners and brokers to support site selection efforts for clean tech companies.	Continue to develop and use data and analysis to identify industry clusters, target policy, and track performance.  <b>Status:</b> Continuing ongoing efforts to support location and expansion efforts of clean tech companies in San José.	Bring Prospect Silicon Valley on-line to provide infrastructure and affordable space for emerging clean technology companies.  Continued work through Business Attraction, Retention and Expansion Program.
2. Demonstrate clean transportation, renewable energy, smart grid and energy efficiency. (25,000 Clean Tech Jobs)	Pursue increased flexibility in implementing demonstration policy to allow for more clean technologies deployed in San José facilities.	Attract resources to support demonstration projects at the San José Environmental Innovation Center.  <b>Status:</b> Amended Demonstration Policy approved by Council to allow more flexibility for companies to partner with City on Demonstration Projects. Launched PROSPECT SV.	Issue a Request for Qualifications (RFQ) for Demonstration Projects for Prospect Silicon Valley and the City of San José focused on building technologies and battery storage.
3. Greening of small businesses through BusinessOwners Space.com. (25,000 Clean Tech Jobs)	Launch resources to support greening of small businesses.	Complete BusinessOwnerSpace.com (BOS) enhancements and implement outreach strategy.  <b>Status:</b> Continuing to promote BOS Green Resource pages through email outreach and linking to websites such as ShopSanJosé and Green Energy Match.	<i>Not applicable.</i>

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
4. Implement energy efficiency projects in City facilities. <i>(50% Energy Reduction)</i>	<p>Partner with PG&amp;E to conduct audits; identify additional sources of funds for energy efficiency projects.</p> <p>Use federal and other financing sources for energy efficiency installations.</p>	<p>Complete 45 remaining EECBG energy-efficiency projects.</p> <p>Reduce municipal energy use by 5% from previous year.</p> <p><b>Status:</b> Completed 40 of 45 projects (EECBG extended to June 2013).</p> <p>Achieved 3% reduction from previous year.</p>	<p>Complete remaining five EECBG projects and five Energy Fund projects.</p> <p>Reduce municipal energy use by 5% from previous year.</p> <p>Begin audits and implementation of energy conservation measures on City facilities related to the ESCO Agreement.</p>
5. Install Solar on City Facilities. <i>(100% Clean, Renewable Electricity)</i>	<p>Power Purchase Agreement RFP finalized and available for all City facility solar projects; remove barriers to solar installation for all City facilities.</p>	<p>Install solar on a minimum of 4 City facilities.</p> <p><b>Status:</b> 4 systems have been installed to date. 5 more installations in progress and 3 in preliminary design review.</p>	<p>Complete solar installations on 8 City facilities.</p>
6. Implement Private Sector Policy for New Construction. <i>(50 Million Sq. Ft. of Green Building)</i>	<p>Evaluate effectiveness of Policy by monitoring number of projects obtaining Green Building Certification.</p> <p>Policy modifications or Deposit increase may be necessary to increase levels of Green Building.</p>	<p>Track State AB 1103 and specific requirements for energy benchmarking and disclosure to facilitate energy upgrades to existing commercial buildings.</p> <p><b>Status:</b> Discussion of AB 1103 now being tracked under Goal 2.</p>	<p>Continue to evaluate the implementation of the private sector green building policy.</p>
7. Certify existing City facilities using LEED-EB Rating System. <i>(50 Million Sq. Ft. of Green Building)</i>	<p>Participate in USGBC Portfolio Program (now known as the Volume Program).</p>	<p>Complete protocol precertification.</p> <p>Identify and pursue new funding sources that are aligned with program objectives.</p> <p><b>Status:</b> Protocol development in progress.</p>	<p>Finalize direction for LEED-EB certification of existing municipal facilities based on organizational capacity and funding availability.</p>

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		<i>Will be aligning funding sources based on move to PW.</i>	
8. Advance Commercial Redesign. ( <i>Zero Waste &amp; Waste to Energy</i> )	Implement contracts with Allied Waste and Zero Waste Energy Development that offer a range of services to SJ businesses while complying with state mandated diversion and furthering Green Vision and other City policies.	<p>Complete transition process to Allied Waste and ZWED to go live on July 1, 2012.</p> <p>As information becomes more available through transition and start of service, work with Allied and ZWED to ensure maximum recovery of materials.</p> <p><b>Status:</b> Successfully transitioned to a new “wet/dry” collection system on July 1, 2012. Work has begun with Republic Services and ZWED to ensure maximum recovery of materials.</p>	<p>Continue to work with Republic and ZWED for maximum recovery of materials in order to meet 2013 goal of 75% diversion.</p> <p>As more information on the success and challenges becomes available through various measureable avenues, the City will provide input and approval to Republic’s business outreach plan.</p>
9. Streamline Construction Demolition Diversion Deposit (CDDD) program. ( <i>Zero Waste &amp; Waste to Energy</i> )	Develop new program/reporting requirements for C&D facilities.	<p>Develop outreach material to communicate waste diversion requirements for new construction projects.</p> <p><b>Status:</b> Collaboration with the service facilities is underway to develop parameters for reporting requirements.</p>	<p>Develop policies and procedures for in-house certification of C&amp;D facilities. Explore opportunities for regional certification of C&amp;D processing facilities. Revise outreach materials and website to reflect new CalGreen requirements. Facilitate implementation of online system and explore potential integration into AMANDA database.</p>
10. Maximize diversion and safe disposal opportunities for residents. ( <i>Zero Waste &amp; Waste to Energy</i> )	Test and evaluate strategies to enable residents to divert additional materials safely and conveniently.	<p>Finalize evaluation of results of Recycle Plus pilot programs and develop options for future program enhancements to achieve Zero Waste.</p> <p>Implement Recycle Plus recycling rewards pilot program to multifamily residents as a way to incentivize recycling, increase</p>	<p>Utilize results of Recycle Plus pilot programs to develop options for future program enhancements to achieve Zero Waste.</p> <p>Implement recycling bag pilot program to MFD residents as a way to increase diversion and decrease contamination of recyclable material.</p> <p>Complete EIC construction and prepare for HHW facility opening in Fall 2013.</p>



Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		<p>diversion, and decrease contamination of recyclable material.</p> <p>Complete EIC construction by December 2012. Prepare for opening of HHW facility in Spring 2013.</p> <p><b>Status:</b> Results of the pilot programs were presented to Council in April 2012. Assessment of potential program enhancements will take place as part of evaluating Recycle Plus customer service and billing service delivery. Coordination with the multifamily hauler is underway to develop a pilot program to promote recycling at multifamily complexes. Completion of the EIC construction is expected to be Spring/Summer 2013.</p>	<p>Integrate the NCU event schedule with the online Collection Day Look-up tool.</p> <p>Continue evaluating the two alternative service delivery options for Recycle Plus Billing and Customer Service and present to Council for final approval.</p> <p>Begin replacing aging citywide public litter containers to improve maintenance efficiency, worker safety, and increase diversion.</p>
11. Eliminate litter to achieve Zero Waste. <i>(Zero Waste &amp; Waste to Energy)</i>	Reduce use of disposable, single use items that contribute to litter, including single-use carryout bags, water bottles, and polystyrene takeout food packaging.	<p>Evaluate options for expansion of the street sweeping program.</p> <p>Implement Council direction to halt the purchase and use of EPS food service ware at City facilities and City funded events.</p> <p>Continue to research impacts of a City-wide EPS policy and evaluate other alternatives for eliminating EPS litter.</p> <p><b>Status:</b> DOT is evaluating street</p>	<p>Continue to monitor trends in single-use bag bans and return to Council in fall 2013 with recommended modifications to the City's BYOB Ordinance.</p> <p>Prepare a draft ordinance, by Spring 2013, to phase out EPS which incorporates stakeholder feedback for consideration and report out with further detail on implementation, including clearer definitions for phase-ins, exemptions, and timeline. If directed by Council to proceed with EPS phase out, prepare a CEQA initial study for the proposed phase out ordinance on EPS.</p>

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		<p>sweeping needs in parking-impacted areas. City's EP3 was amended to halt the purchase and use of EPS at City facilities and events. Completed regional study on EPS product replacements, and started disintegration testing for compostable plastics using matching funds from local compost producers.</p>	
<p>12. Drive large San José events toward Zero Waste. (<i>Zero Waste &amp; Waste to Energy</i>)</p>	<p>Provide education and assistance to event organizers and food vendors to increase waste diversion.</p>	<p>Expand Green Event Certification and Grant programs to cover additional events. Coordinate Green Event Grant process and timeline with OCA grant program and co-promote to events.</p> <p><b>Status:</b> Grant program is in progress to add additional events.</p> <p>Green Event Certification program is ongoing.</p>	<p>Improve Green Event Certification and Grant Programs through focus groups to increase participation, improve sustainability of event landfill diversion efforts, and create efficiencies.</p> <p>Coordinate Program with other City departments and County Health to streamline service provision to the event community.</p>
<p>13. Determine the most effective and efficient options to expand uses of Recycled Water. (<i>Recycle or Beneficially Reuse Wastewater</i>)</p>	<p>Identify options as part of the Strategic Planning process.</p>	<p>Commence Strategic Planning effort.</p> <p><b>Status:</b> Executed agreement with SCVWD to cost share up to 50% of SBWR Master Planning expenditures. Initiated master planning process.</p>	<p>Continue master planning in collaboration with the SCVWD.</p>
<p>14. General Plan Update. (<i>Sustainable General Plan</i>)</p>	<p>Complete Envision San José 2040 General Plan (adopted 11/01/11).</p>	<p>Develop a Council Implementation Policy for the Greenhouse Gas Reduction Strategy; complete the first set of Urban Village Plans, and revise the Zoning Ordinance to facilitate</p>	<p>Propose Council Implementation policy for the Greenhouse Gas Reduction Strategy; complete the first set of Urban Village Plans, and revise the Zoning Ordinance to facilitate sustainable urban development in identified focused growth areas.</p>

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		<p>sustainable urban development in identified focused Growth Areas.</p> <p><b>Status:</b> Developing implementation policy, several Village Plans are underway.</p>	
15. Reduce fuel consumption and GHG emissions. <i>(100% Public Fleet on Alternative Fuels)</i>	Use higher fuel efficiency vehicles in public safety fleet.	<p>Complete one cycle of procurement of new patrol vehicles during calendar year 2012.</p> <p><b>Status:</b> Currently 20 units on order. Expected delivery is Spring 2013.</p>	Explore opportunities with flex fuel and CNG vehicles, including cost of infrastructure upgrades, compatibility of vehicles to service delivery requirements, and availability of fuel.
16. Reduce Citywide streetlight energy consumption. <i>(100,000 Trees &amp; Zero Emission Lights)</i>	<p>Develop streetlight design guide that will guide the City when it replaces existing lights, installs new LED lights, and dims lights during off-peak hours.</p> <p>Use federal grant funds to convert LPS streetlights to LED with adaptive controls.</p>	<p>Install approximately 2,200 network-controlled dimmable LED streetlights.</p> <p>Staff intends to proceed with a comprehensive update to the Policy on Outdoor Lighting on Private Development (City Council Policy #4-3).</p> <p><b>Status:</b> Lights installed by December 2013. Start installation of an additional 570 lights funded by CDBG in early Summer 2013.</p>	Install 570 lights funded by CDBG.
17. Expand City's trail network. <i>(100 Miles of Interconnected Trails)</i>	Identify priority areas to expand the interconnected trail network.	<p>Start pavement of Lower Guadalupe River Trail (6.4 miles) and Highway 237 Bikeway Trail (0.8 miles).</p> <p><b>Status:</b> Commenced construction of Lower Guadalupe River Trail and construction of Highway 237 Bikeway completed.</p>	Commence construction of Guadalupe River Tasman Under-Crossing (500'), Lower Silver Creek (0.5 mile) and Coyote Creek (0.8 mile) trails.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
18. Expand City's bike network. <i>(100 Miles of Interconnected Trails)</i>	Implement "Bike Plan 2020", the council-approved citywide bike plan.	<p>Install 10 miles of bike lanes, bike routes and bike boulevards.</p> <p>Install 500 public bike parking spaces.</p> <p><b>Status:</b> 10 bikeway miles completed including eight miles of enhanced lanes. Installed 400 public bike parking spaces.</p>	<p>Install 20 miles of on-street bikeway including bikeways enhanced with color and separation.</p> <p>Install 500 public bike parking spaces.</p>

**Advocating Policies**

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<p>1. Develop and implement policies to encourage expansion of existing, and development of new clean tech companies, and production and markets for clean tech products. <i>(25,000 Clean Tech Jobs)</i></p>	<p>Expand Fed/State incentives to promote manufacturing and consumer adoption of California products.</p>	<p>Partner with clean tech industry, and regional advocacy groups to develop 2012-2013 Clean Tech Legislative Agenda for Silicon Valley.</p> <p><b>Status:</b> No 2012-2013 Clean Tech Legislative Agenda published. Staff modified the Enterprise Zone to capture tax benefits for clean tech companies. Submitted comments to CEC advocating for support of emerging clean tech. Brought forward guiding principles for pending Cap and Trade legislation. Testified on Senate Select Committee on Green Jobs. Supported clean tech company grant applications to DOE and CEC.</p>	<p>Support State and Federal policies and programs that promote clean energy demonstration and deployment.</p>
<p>2. Identify &amp; remove barriers to creating energy improvement areas and smart grids. <i>(50% Energy Reduction)</i></p>	<p>Work with PG&amp;E, CEC and CPUC to advance use of energy areas or smart grids.</p> <p>Implement AB811 or PACE financing districts that will encompass both solar and energy efficiency installation, to be rolled out in conjunction with community education efforts.</p>	<p>Support and coordinate with statewide partners to develop a Commercial PACE program.</p> <p><b>Status:</b> Working with County on this effort.</p>	<p>Pending Council direction on Energy Disclosure Policies, PACE or other energy related programs, bring forward recommendations as part of the FY 13-14 budget process.</p>

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
3. Remove regulatory barriers to widespread adoption of solar. <i>(100% Clean, Renewable Electricity)</i>	Work with CPUC, utilities and others to establish fair, appropriate and reasonable tariffs to encourage expansion of solar.	Participate on the Local Government Sustainability Commission and the City will continue to monitor and provide input on CPUC rulings and draft legislation.  <b>Status:</b> Successfully advocated for the development of RENs.	Work with the Bay Area REN and CPUC to develop regional and local programs related to energy efficiency and renewable energy.
4. Monitor and advocate for legislation that enables the implementation of the General Plan. <i>(Sustainable General Plan)</i>	Review proposed legislation and implementation of existing laws related to sustainable land use planning.	On-going review and analysis as needed.  <b>Status:</b> Inter-departmental team has been formed to review the proposed Cap and Trade program.	Continue to monitor, review, and participate as needed in the Cap and Trade program.
5. Change State regulation to allow cost effective metering of individual lights. <i>(100,000 Trees &amp; Zero Emission Lights)</i>	Advocate CPUC regulatory changes.	Launch first year of PG&E dimmable streetlight tariff pilot.  <b>Status:</b> Staff is working with PG&E to set up pilot. Working out some database issues. Very close to resolution. Next step is crediting process.	Collaborate with PG&E on evaluation of LED streetlight tariff pilot. Begin discussion of potential longer-term billing solutions, such as development of a permanent tariff for adaptable streetlights.

**Financing Mechanisms**

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
1. Support for incubators and commercialization of clean tech products, and innovation clusters. <i>(25,000 Clean Tech Jobs)</i>	Compete for federal and state funding opportunities to support clean tech sector.	Continued efforts to access resources to support clean tech industry.  <b>Status:</b> Staff is pursuing strategic sponsorships that tie to PROSPECT SV, San José’s clean tech demonstration center scheduled to open in Spring of 2013. Staff has supported grant applications at the State and Federal level for clean tech companies.	Collaborate on grant applications that tie to Silicon Valley clean tech interests.
2. Support energy efficiency programs and retrofits. <i>(50% Energy Reduction)</i>	Facilitate collaboration between various community providers to develop new and existing funding mechanisms for energy efficiency improvements.  Market existing rebate and incentive programs to increase their uptake rates, particularly among hard-to-reach communities and those facing barriers to clean energy implementation.	Continue and complete two Innovator Pilot programs.  Evaluate different funding models to support energy efficiency projects beyond pilot programs.  <b>Status:</b> Innovator Pilot programs in progress. Housing pilot was significantly delayed due to staffing reductions.	Develop financing and seek rebates for municipal energy efficiency projects related to ESCO Agreement.  Actively engage in Prop 39 and Cap & Trade revenue proceedings.
3. Support solar programs for rental markets; and other innovative financing mechanisms. <i>(100% Clean, Renewable)</i>	Work with city departments, CPUC, PG&E, and CEC to implement solar programs for multi-family and low income	Continue to work with other City departments, external stakeholders, and PG&E on financing mechanisms for solar.  <b>Status:</b> Working with County on	Work with the Bay Area REN to leverage funding opportunities.  Actively engage in Proposition 39 and Cap & Trade revenue proceedings.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<i>Electricity)</i>	residents; Develop integrated financing offerings for the community.	developing a PACE program.	
4. Pursue implementation of clean energy municipal financing for the community. <i>(100% Clean, Renewable Electricity)</i>	Participate in regional efforts and examine development of City-wide clean energy financing.	Will continue discussions with community groups on what, if any, role the City should play.  <b>Status:</b> Working with County on developing a PACE program.	Pending Council direction on whether to pursue Energy Disclosure Policies, PACE or other energy related programs, pursue implementation of clean energy financing for the community.
5. Determine funding options for recycled water infrastructure, operations and maintenance, and expansion. <i>(Recycle or Beneficially Reuse Wastewater)</i>	Identify options as part of the Strategic Planning process.	Continue to work with USBR to maximize funding opportunities in support of increasing SBWR return on investment and system reliability.  <b>Status:</b> Staff working to maximize grant funding opportunities for future capital expenditures. In 2012, SBWR received over \$3.9 million in grants.	Continue to work with USBR to maximize funding opportunities and seek reimbursement for Phase 1B construction.
6. Leverage grants. <i>(Sustainable General Plan)</i>	Seek outside funding sources for sustainability planning activity and implementation of the General Plan.	Continue to apply for planning grants in order to support development of Urban Village Plans and other General Plan implementation actions.  <b>Status:</b> Awarded a grant to develop an Urban Village Master Plan for the East Santa Clara Street corridor between City Hall and Coyote Creek.	Continue to apply for planning grants in order to support development of Urban Village Plans and other General Plan implementation actions.
7. Reduce green house gas emissions from fleet. <i>(100% Public Fleet on Alternative Fuels)</i>	Utilize annual fleet replacement funding to replace fleet in accordance with the Green Fleet Policy;	Complete on-road diesel retrofit and retire non-compliant vehicles. Continue to seek opportunities for Off-road diesel equipment retirements and replacements	Continue to pursue grant opportunities. Work with departments with vehicle needs that are supported by special or fee supported programs in replacing vehicles with alternative fueled vehicles.



Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
	Identify additional funding needed for diesel emission retrofits; Pursue grant funding.	including grant funding if available.  <b>Status:</b> On Road diesel retrofits complete.	
8. Increase the care of the community forest and meet the Green Vision planting goal. <i>(100,000 Trees &amp; Zero Emission Lights)</i>	Prepare long range plans for an alternative funding mechanism for street tree maintenance and planting.	Continue progress in the street tree inventory project. Research various options for a long-term alternative funding mechanism using data from the street tree inventory data already collected (60% complete).  Reach out to neighborhood groups to explore potential creation of short-term pooled tree maintenance contracts.  <b>Status:</b> Additional areas of the City will be inventoried later this fiscal year.	Continue street tree inventory and target completion by 2014 in order to evaluate property based funding mechanisms.  Coordinate City's community forestry programs with OCF to optimize scarce resources and advance San José's tree planting programs.
9. Identify funds to upgrade to smart, energy-efficient streetlights. <i>(100,000 Trees &amp; Zero Emission Lights)</i>	Require energy- efficient lighting for new development; Identify Federal & City funding sources; Investigate potential for pooled purchase to improve purchase price and financing options.	Continue to seek financing and grant opportunities to fund conversions.  <b>Status:</b> RFP for an ESCO completed in 2012 which includes streetlights. Also identifying other means of financing conversions within or outside of the ESCO RFP.	Continue to seek financing and grant opportunities to fund conversions, including projects under the ESCO Agreement.
10. Fund expansion of trail network. <i>(100 Miles of Interconnected Trails)</i>	Work with regional, state, federal and private entities to secure funding and sponsorship.	Pursue 5 competitive grants (minimum).  <b>Status:</b> Applied for three grants. Awarded \$350,000 for Lower Silver Creek Trail.	Pursue 5 competitive grants (minimum).

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
11. Fund expansion of bikeway network. (100 Miles of Interconnected Trails)	Seek grants to help expand and improve on-street bikeway network.	Seek grants that match <i>Bike Plan 2020</i> goals.  <b>Status:</b> Applied to a total of 21 grants totaling to \$116 M. Awarded \$9.7 M so far.	Seek grants that match <i>Bike Plan 2020</i> goals.

**Strategic Partnerships**

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
<p>1. Coordinate workforce development.</p> <p>Green initiatives for workforce development.</p> <p><i>(25,000 Clean Tech Jobs)</i></p>	<p>Develop regional strategy to coordinate clean tech career training programs.</p> <p>Well-trained, skilled workforce to support the clean tech sector.</p>	<p>Continue to partner with workforce training providers to develop clean tech training opportunities.</p> <p><b>Status:</b> Grid Alternatives led SolarThon installation effort of free solar systems on low income family homes furthering efforts to add solar to San José rooftops. Additionally solar installation training was provided furthering our work force development goals.</p> <p>Staff also serves on the Board of San José-based SolarTech which was successful in securing Department of Energy grants to launch Solar 3.0 a national platform to reduce balance of systems costs associated with solar adoption at scale.</p>	<p>Coordinate with Silicon Valley Manufacturing Roundtable.</p> <p>Partner with workforce training providers to develop clean tech training opportunities.</p>
<p>2. Formation of National Labs Partnership focused on clean technology deployment strategies.</p> <p><i>(25,000 Clean Tech Jobs)</i></p>	<p>Connect Green Vision platform to nationally significant research teams and R&amp;D resources, and commercialization support.</p>	<p>Advance partnership efforts with LBNL, academic institutions, manufacturers and incubators, accelerators and business plan competitions.</p> <p><b>Status:</b> Partnership agreements completed with LBNL, Cleantech Open, Greenstart, Stanford Office of technology Licensing and others. Hosted three national CTO events in San José.</p>	<p>Develop additional partnerships that support Prospect Silicon Valley business model and support advancement of the Green Vision.</p>

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
3. Expand knowledge and awareness of energy efficiency program resources. <i>(50% Energy Reduction)</i>	<p>Work in partnership with businesses, energy resource providers, Bay Area Air Quality Management District, Santa Clara County and cities, and community organizations to implement coordinated programs that minimize gaps and redundancies in program delivery.</p> <p>Coordinate with local workforce development and training providers to ensure a robust clean energy workforce that links to utility- and government-funded energy programs.</p>	<p>Continue to refer residents to EUC Santa Clara County program.</p> <p>Better Buildings Program implementation will continue through September 2012. Will seek extension options with DOE through September 2013 to leverage energy efficiency upgrades in additional neighborhoods.</p> <p><b>Status:</b> Continue to refer residents to EUC Santa Clara County program.</p> <p>BBP ended December 2012.</p>	<p>Work with BayREN to identify additional energy efficiency opportunities throughout the community.</p>
4. Develop waste to energy technology infrastructure at the City's WPCP. <i>(Zero Waste &amp; Waste to Energy)</i>	<p>Collaborate with regional and state public partners as well as private planners and investors will provide the most efficient solution for waste diversion and energy production.</p>	<p>Complete Landfill post-closure site preparation.</p> <p>Complete Permitting Process for AD facility construction. Begin feedstock testing for AD system.</p> <p>Complete feasibility study for gasification pilot recommendations.</p> <p>Meet contract milestones for construction of dry fermentation AD system.</p> <p>Design and construct pilot FOG receiving station at the Plant.</p>	<p>Finalize Gasification Feasibility Study and conduct stakeholder outreach if project deemed feasible.</p> <p>Complete permitting process for AD facility operations. Begin feedstock testing for AD system.</p> <p>Meet contract milestones for construction of dry fermentation AD system.</p> <p>Evaluate opportunities for fats, oil, and grease (FOG) collection and processing with private sector partners.</p>

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
		<p><b>Status:</b> Grading permits complete. Site Grading underway at Nine Par. Construction milestones being met by ZWED. Organic feedstock being collected and characterized as part of new commercial agreements. Gasification Feasibility study report being prepared for January 2013 stakeholder input process. FOG project with plant staff at this point – no update.</p>	
5. Develop the SCVWD and other agency partnerships to further the objectives of SBWR. <i>(Recycle or Beneficially Reuse Wastewater)</i>	Take advantage of strategic partnering opportunities to leverage SBWR resources effectively.	<p>Approval of regulatory permits and O&amp;M agreement between the City and SCVWD.</p> <p>Engage Tributary agencies, the SCVWD, and other potential partners in the Strategic Planning effort.</p> <p><b>Status:</b> City and SCVWD received their respective regulatory permits and executed an O&amp;M agreement and engaged Tributary agencies and on the master planning effort.</p>	Continue collaborative efforts with the SCVWD to seamlessly connect the SVAWPC to the SBWR system.
6. Support the State's goals for additional use of recycled water which leverage state and regional resources to meeting SBWR objectives. <i>(Recycle or Beneficially Reuse Wastewater)</i>	Participate in regional and State recycled water efforts and forums which further SBWR objectives.	<p>Continue to support and develop efficient and consistent regulated uses of recycled water in the region and State, engage in regulatory efforts restricting recycled water use to protect groundwater.</p> <p><b>Status:</b> SBWR staff participating in State and regional efforts to support water recycling.</p>	Continue to support efficient and consistent regulated uses of recycled water in the region and State, engage in regulatory efforts to protect groundwater.

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
7. Stronger advocacy; broaden partnerships. <i>(Sustainable General Plan)</i>	Increase role as an advocate in State / Regional planning and grow partnerships with non-profits.	Continue to participate in MTC, ABAG, BAAQMD regional planning initiatives (e.g., Sustainable Communities Strategy).  <b>Status:</b> Ongoing.	Continue to participate in MTC, ABAG, BAAQMD regional planning initiatives (e.g., Sustainable Communities Strategy).
8. Expand alternative fuel infrastructure. <i>(100% Public Fleet on Alternative Fuels)</i>	Collaborate with other jurisdictions for regional compatibility.	Move forward with the development of up to two battery switch stations and 49 EV charging stations.  Launch car share program in late Spring-early Summer. <b>Status:</b> The EV Taxi Battery Swap Partnership Agreement was approved. City and Airport staff continued to work with Better Place to identify a site for the first battery swap station. However, in early 2013 Better Place announced it was closing down its US operation. As a result this initiative is being terminated.  43 EV chargers have been installed in downtown public garages.  Car share program was launched in Summer 2012. Parking Pilot program was instituted in December 2012.	Consider expanding Car Share Parking Pilot program to up to 40 vehicles if usage warrants.  Work with private firms to evaluate the potential of installing a fast charger in one of the downtown parking garages.  Install the remaining five CEC-funded chargers at the Environmental Innovation Center, when construction of that building is completed.
9. Expand, maintain, and track new community forest tree plantings through	Continue to build upon and enhance Our City Forest partnership through collaborative	Seek funding to complete street tree inventory.  Continue to work with Our City	Continue to build upon and enhance OCF partnership through collaborative initiatives. Jointly pursue other partnerships that might advance City's tree goals. Work with OCF to leverage resources,

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
partnerships with residents and community groups. <i>(100,000 Trees &amp; Zero Emission Lights)</i>	initiatives. Jointly pursue other partnerships that might advance City's tree goals.	<p>Forest to leverage resources, including promoting the OCF Community Nursery and successfully relocate OCF offices.</p> <p>Continue Four-Year Tree Management Plan for street trees in the downtown core in partnership with the Property-Based Improvement District and Downtown Association.</p> <p><b>Status:</b> Funding has been secured for the inventory.</p>	<p>including promoting the OCF Community Nursery.</p> <p>Seek opportunities through grants, development projects, and OCF partnership to create complete streets with LED lights, trees and bike lanes.</p>
10. Leverage partnerships to research heat island effect and determine priority areas to develop the community urban forest tree canopy. <i>(100,000 Trees &amp; Zero Emission Lights)</i>	Partner with LBNL, for data support, planting demonstration projects, and ties to energy efficiency measures.	<p>Pursue grant funding in collaboration with LBNL's Cool Cities pilot.</p> <p><b>Status:</b> The USDA Forest Service is completing a tree canopy study in San José that will be used as a pilot for other cities in the state.</p>	<i>Not Applicable.</i>
11. Expand and maintain trail network through partnerships. <i>(100 Miles of Interconnected Trails)</i>	Establish partnerships with non profits and private entities.	<p>Partner with the Bay Area Open Space Council to include all San José trails on the Transit &amp; Trails Smart Phone application.</p> <p><b>Status:</b> All San José Trails are available on the <i>Transit &amp; Trails</i> phone application.</p>	<p>Investigate partnership with health care organization to promote usage of trail network for health and fitness.</p> <p>Conduct Trail Count with community partners.</p>

**Communications and Engagement**

Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
1. *Attract and retain clean tech companies to locate in San José.	Providing information to small businesses and emerging clean technology companies, as well as large established companies.	<i>Did not have a 2012 work plan item.</i>	Engage with 50 clean tech companies throughout the region.
2. Implement community-wide energy efficiency programs. (50% Energy Reduction)	<p>Implement the Strategic Energy Plan.</p> <p>Increase demand for energy efficiency and clean energy education and resources.</p> <p>Increase the number of local residents, agencies, and businesses who, by leading by example, become energy efficiency and clean energy “ambassadors.”</p>	<p>Will seek extension options with DOE through September 2013 to leverage energy efficiency upgrades in additional neighborhoods.</p> <p>Complete major update to Silicon Valley Energy Map.</p> <p><b>Status:</b> DOE extend grant until December 2012. Program ended December 2012.</p> <p>Silicon Valley Energy Map update completed April 2012.</p>	<p>Continue county-wide energy efficiency outreach through the SVEW programs.</p> <p>If directed by Council to pursue Energy Disclosure policies and PACE programs, conduct stakeholder outreach to develop the appropriate policies and programs.</p>
3. Promote green building for private sector new construction through staff interactions with the public. (50 Million Sq. Ft. of Green Building)	Develop outreach materials to support Private Sector Green Building Policy for New Construction and showcase municipal facilities.	<p>Conduct additional outreach and education for staff and development community.</p> <p><b>Status:</b> Continue to provide staff training and outreach to development community.</p>	Continue outreach and education for staff and development community.
4. Increase awareness about green initiatives at San José schools. (Zero Waste & Waste to Energy)	Provide educational opportunities for and assistance to schools about recycling and waste reduction, energy	<p>Conduct outreach to encourage participation in Green Star School certification program.</p> <p><b>Status:</b> Grant recipients from FY</p>	Continue outreach for school participation in Green Star Schools program, focusing on waste, water, energy and transportation pathways.



Strategic Focus	Proposed Strategy	2012 Work Plan	2013 Work Plan
	and water use reduction, healthy buildings, and transportation alternatives including the Safe Routes to Schools program.	2011-2012 have completed Green Star Certification process. Additional schools are anticipated to complete certification in 2012-2013.	
5. Effectively engage potential customers and other stakeholders on the benefits of recycled water. <i>(Recycle or Beneficially Reuse Wastewater)</i>	Increase Recycled Water customers and partners.	Continue to effectively collaborate with non-profit, academic, and private sector partners to increase the use of recycled water for customers along existing SBWR pipelines.  <b>Status:</b> Suspended until master planning has been completed.	Current status shows this effort is suspended until master planning has been completed which is September 2014.
6. Publicize Envision San José 2040 General Plan policies. <i>(Sustainable General Plan)</i>	Focused civic engagement with identified stakeholders and community organizations, First Horizon village area residents.	Engage the community in Envision General Plan Implementation elements, such as Zoning Ordinance amendments and Urban Village Plans through community meetings, website information, and other modes; engage Planning Commission in creation of Urban Village zoning districts; and engage developers to catalyze new development in focus areas.  <b>Status:</b> Three out of ten Urban Village workshops held in Fall 2012; and community outreach occurred for the Zoning Code changes considered by Council in 2012.	Continue to engage the community in Envision General Plan Implementation elements, such as Zoning Ordinance amendments and Urban Village Plans through community meetings, website information, and other modes; engage Planning Commission in creation of Urban Village zoning districts; and engage developers to catalyze new development in focus areas.

\* Work plan item added during Council Special Session – March 18, 2013