

BEACON



SPOTLIGHT
AWARD

WINNER

BEST PRACTICE
ACTIVITIES



City of San Carlos

Sustainability Best Practice Activities

City of San Carlos

California communities are leading the fight against climate change. From small projects to large-scale programs, cities and counties are making great strides to create healthy, sustainable and economically prosperous communities. Participants in ILG's Beacon Program serve as leaders in this effort, making measureable contributions to reducing energy and greenhouse gas emissions, and sharing their sustainability best practices.

This document represents a collection of activities your agency has completed in 10 areas of sustainability. While local governments have a wide range of choices available to address climate change, these activities represent the unique opportunities and values in your community. These voluntary actions are essential to achieving California's goals to save energy, reduce greenhouse gas (GHG) emissions and create more sustainable communities.

SPOTLIGHT AWARD

Areas of Accomplishment		SILVER LEVEL	GOLD LEVEL	PLATINUM LEVEL
	Agency GHG Reductions		2015 (15%)	2019 (45%)
	Community GHG Reductions		2015 (12%)	2018 (21%)
	Agency Energy Savings		2015 (17%)	2018 (32%)
	Natural Gas Savings	N/A	N/A	N/A
	Sustainability Best Practice Activities			2014
	Beacon Award		2017	2019

Cities and counties throughout the Golden State should be proud of the accomplishments made through the hard work, innovation and collective community action. The Institute for Local Government applauds your achievements and thanks you for your continued participation in the Beacon Program.

The Beacon Program is sponsored by the Institute for Local Government and the Statewide Energy Efficiency Collaborative (SEEC). SEEC is an alliance between three statewide non-profit organizations and California's four Investor-Owned Utilities. The Beacon Program is funded by California utility ratepayers and administered by Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison and Southern California Gas Company under the auspices of the California Public Utilities Commission.



Energy Efficiency and Conservation Activities

Silver

1. The City of San Carlos promotes Energy Upgrade California energy efficient incentive home improvement programs by including fliers in every permit packet dispensed by the Community Development Department.

Gold

2. In June 2013, San Carlos replaced its city hall HVAC system with a Variable Air Volume (VAV) system. There are two primary advantages to VAV systems: reduced energy use and dehumidification. The fan capacity control, especially with modern electronic variable-speed drives, reduces the energy consumed by fans, which can be a substantial part of the total cooling energy requirements of a building. Dehumidification is greater with VAV systems than it is with constant-volume system, which modulates the discharge air temperature to attain part load cooling capacity.
3. On June 9, 2015, city council adopted Resolution 2015-061 approving a Turnkey streetlight conversion project with PG&E, an application for the PG&E on-bill financing program, and appropriating \$135,000 from the General Fund to complete the project. According to analysis, the project would convert 1,465 street lights to LED, cut \$132,000 in current energy costs, save 489,506 KW hours of energy per year, and reduce annual CO2 emissions by 256,601 pounds.

Platinum

4. Traffic Signal LED Retrofit: This project was completed in 2013. The city replaced approximately 200 (16 locations) yellow bulbs at existing traffic signals with LED bulbs.
5. The city received evaluations and recommendations for energy efficient retrofits at several municipal buildings by participating in the San Mateo County Energy Watch Energy Efficiency Program in 2011. In conjunction with the evaluations, the city contracted Power Down Lighting Systems to carry out lighting retrofits totaling over \$67,000 (including \$24,377 of EECBG funds) at San Carlos City Hall, library, Laureola Center, Kiwanis and adult community center.
6. Park lights are on a timer and adjusted monthly to ensure they are off and not wasting electricity when not in use.





Water & Wastewater Systems Activities

Silver

1. On May 12, 2014, the City of San Carlos passed Resolution No. 2014-042, Implementing Water Reduction Measures in response to the drought. The resolution prompted actions by the city to reduce water consumption, such as: turning off the water fountains at city hall and Laurel Street Park, retrofitting the remaining six commodes at city facilities that were not low flow, purchasing and installing flow restricting aerators for every faucet located in city facilities, continuing to respond immediately to repair malfunctioning equipment to conserve water, installing drought-tolerant plants when needed for new landscaping, adding a water conservation news item to the city website with links to various water conservation sites, including information on water conservation in the city newsletter, and requesting that Cal Water conduct a water audit to see where additional water reductions are possible.

Gold

2. The City of San Carlos maintains a webpage dedicated to water savings and promoting frugal water use, especially in droughts. The page provides and even has a link encouraging participation in Cal Water's rebate program.
3. Mulch is used in all 14 San Carlos parks and in municipal landscape as an integrated pest management (IPM) tool and water reduction measure.

Platinum

4. Irrigation systems at all 14 of San Carlos' parks are monitored by a computerized irrigation system with a weather station and moisture sensors that alert the operator of problems and adjust water output based on need.
5. The city received a \$300,000 C/CAG grant and \$220,000 from Bay Area Stormwater Management Agencies Association to implement low impact stormwater treatment facilities along Bransten Road to reduce pollutants in the stormwater runoff to the Bay. This Green Street Project not only helps capture and remove PCBs in the East San Carlos area, but also serves as a pilot project for future green streets throughout the city.
6. In response to the current drought, the City of San Carlos started a water reduction campaign, even passing Resolution No. 2014-041 recommending that residents and businesses in San Carlos implement 20% water use reductions. The city created and provided a list of "Potential Water Reduction Measures" on its website.





Green Building Activities

Silver

1. Synthetic turf at Highland Park saves approximately four million gallons of water annually. In addition to fertilizer, it also saves electricity and fossil fuels typically used to maintain traditional grass fields.

Gold

2. Ordinance No 1408 is an amendment to the San Carlos Municipal Code Chapter 8.05, Recycling and Diversion of Construction and Demolition Debris. The amendment increases the state's mandated 50% diversion rate of construction and demolition debris to 60%.
3. The San Carlos Adult Community Center is equipped with a cool roof. Cool roofs are made of materials with higher solar reflectivity, which counters the urban heat island affect and reduces air conditioning use. Dark roofs absorb heat from the sun, creating higher urban temperatures and increasing the need for air conditioning. According to a recent study by Akbari, Menon and Rosenfeld, using white materials for a 1,000 square foot roof can reduce carbon dioxide emissions by approximately ten metric tons and urban surface temperatures up to three degrees.

Platinum

4. The City of San Carlos routinely trains appropriate city staff in Green Building Design Guidelines to facilitate approval and inspection processes.
5. Through San Carlos Green, the City of San Carlos has a webpage dedicated to promoting green building.
6. The City of San Carlos created sustainable design measures for the Palo Alto Medical Foundation-San Carlos Center project. The project is construction of a healthcare center including a hospital, medical office building/clinic, central utility plant, parking garage, driveways, surface parking, walkways, landscaping and similar site features. The project includes: a 207,800 square foot, four-story hospital, a 189,500 square foot, four-story medical office/clinic building attached to the hospital, a detached 17,300 square foot Central Utility Plant, a detached 275,700 square foot four level parking space garage, landscaping, including pedestrian hardscape totaling 353,900 square feet, surface parking totaling 122 parking spaces, loop road providing circulation throughout the site with 3 access points, loading bay, ambulance bay, site lighting and other related features, and sustainable design criteria cover site design, site construction, water efficiency, energy and atmosphere, materials/resources, building construction, green roofs, green walls and landscaping and operation.





Waste Reduction and Recycling Activities

Silver

1. The City of San Carlos adopted a Plastic Bag Regulation on March 11, 2011, which disallows the use of single-use plastic bags, charges for paper bags and encourages the use of reusable bags at San Carlos retail locations. The ordinance, which aims to reduce plastic waste in landfills and the environment (especially the Bay), officially took effect on July 1, 2013.

Gold

2. On March 12, 2012, the San Carlos City Council adopted Ordinance 1442, which adopts the County Model Ordinance that bans polystyrene (styrofoam) foodware in restaurants. The ordinance took effect in San Carlos on July 1, 2012.
3. Since 2011, the city has partnered with its recycling and garbage collection service, Recology, to increase waste awareness, recycling and composting. This includes outreach efforts to businesses and multi-family residents for the city's Mandatory Recycling Ordinance, and community events like clean-ups and Hometown Days.

Platinum

4. The city increases opportunities for e-waste and hazardous waste recycling by partnering with the South Bayside Waste Management Authority's Door-to-Door Household Hazardous Waste Program.
5. Oil along with coolants and absorbents used by the city's fleet are recycled by a company called Safety Kleen.
6. The City of San Carlos mandates commercial recycling, according to Section 8.25 of the San Carlos Municipal Code.
7. The City of San Carlos encourages recycling and composting as a condition of approval for public events. Permits suggest event planners: order recycling and trash containers from a hauler and confirm schedule of arrival, find a volunteer or group to be responsible for recycling operations on the day of the event and allow them to take the refundable beverage containers for cash, post large display boards instead of distributing programs, provide beverages in recyclable containers, hang signs telling people where they can recycle, maximize use of media to promote event, minimize packaging, do not let leftovers go to waste.
8. The city received grants from both the Rotary Club and South Bayside Waste Management Authority in the total amount of \$32,342, and used the money to purchase 14 trash receptacles for the downtown.





Climate-friendly Purchasing Activities

Silver

1. San Carlos's Climate Action Plan has set its sights on replacing 18 of its fleet's vehicles with hybrids or CNG vehicles. Public works and its garage division has worked to bring more hybrid and smaller vehicles into the city vehicle fleet during this period. This includes the downsizing and use of hybrid cars for building inspectors, and the purchase of a hybrid SUV for the police chief known at the city as the "Green Chief" vehicle. Due to the lack of technology, not all vehicles can be replaced, but so far the fleet has acquired three Ford Fusion hybrids, one Toyota Prius hybrid and one CNG 1-ton van.

Gold

2. The city's vehicle fleet uses locally purchased oil. The oil base product for some oils used in the fleet is refined recycled oil.
3. Computer purchases meet the Gold EPEAT certification level. The Dell All-In-One Desktop PCs are donated to non-profit organizations and/or given to Electronic Recycling Centers. The money comes from the city's Technology Replacement Reserve – in FY 2006-2007, the city created it as part of the budget a technology replacement fund. Most of the funding was consolidated from various department budgets into one centralized location. A replacement schedule and procedures have been created. Additional funding was added to the budget in the last few years which is now part of the budget for FY 2014-2016. Under this fund, city hall procures new computers every five years.

Platinum

4. According to the purchasing policy 3.12.100, "preference shall be given to bidder within the city when bids are equal. A bidder with a permanent place of business within the city shall be preferred over a bidder without a permanent place of business within the city, in cases where two or more bids are judged to be equal."
5. San Carlos Together continues to hold the popular Annual Citywide Garage Sale event each October. It's an opportunity for residents to sell or give away unused items and avoid dumping them in the landfill. The city and San Carlos Green work with San Carlos Together to publicize the event.
6. The city participates in San Carlos' Farmer's Market: Hot Harvest Nights, which features certified local produce and specialty foods, musical entertainment and walk-away food. The market generally has 50 to 60 booths, produce, flowers, music, food and artists - something for everyone.





Renewable Energy and Low-Carbon Fuels Activities

Silver

1. In 2007, the City of San Carlos and San Carlos Green teamed up to offer the Solar City Community Solar Discount Program. The program offers businesses and residents a substantial discount on photovoltaic solar installations through a group purchasing program that allows them to reduce electricity costs and greenhouse emissions. By signing up, San Carlos residents can save 15-20% over typical solar installation and service costs.

Gold

2. The City of San Carlos is home to the first ever urban “waste-to-energy” biomass conversion facility. The plant utilizes waste from a local brewery to fully power the brewery and divert 70% of its organic waste. Though the city did not fund or recruit the project, it opened doors wherever possible, and expedited the plan review process in order to keep the project viable and flowing smoothly. Brandon Julian, CEO of Pure Energy Group LLC stated, “We wanted the city to be the first to see this project given San Carlos’ leadership creating a sustainable community and its phenomenal support in permitting the facility to make it a reality.”
3. The City of San Carlos is home to a CNG station. Last year, PG&E customers used 191,897 GGEs (Gasoline Gallon Equivalents) during 23,776 transactions. From that total, 9,675 GGEs were consumed by San Carlos residents. The city provided a building permit that is signed off by the Fire Department.

Platinum

4. San Carlos adopted the Silicon Valley Model Code Amendments that encourage the installation of Solar Energy Generation. Several San Carlos businesses have installed Solar Systems that provide a major portion of their electricity needs.
5. The city’s corporation yard utilizes and produces renewable energy as it is equipped with a total of 60 kW solar inverters.
6. The city creates affordable renewable energy opportunities for the public by participating in the CaliforniaFIRST Property Assessed Clean Energy (PACE) program, which encourages and helps finance projects like solar photovoltaics, wind turbines, and fuel cells. The city has passed the CaliforniaFIRST resolution.





Efficient Transportation Activities

Silver

1. The city partners with Arundel Elementary School to promote “San Car-less” Days (every first Wednesday of the month) and events held to encourage walking or biking to school.

Gold

2. In April 2014, the City of San Carlos participated in a traffic signal analysis. The report presents the results of DKS traffic signal timing analysis for traffic signal systems located along the following corridors in the City of San Carlos and the City of Redwood City: San Carlos Avenue, Holly Street, Industrial Road, Ralston Avenue, El Camino Real, Old County Road, and harbor Boulevard. The goal of this project is to facilitate traffic progression along the study corridors and update the timing parameters to comply with recent changes in the CA MUTCD traffic timing guidelines. The project objective is to develop traffic signal timing plans for the weekday a.m. peak, midday peak, and p.m. peak periods to reduce traffic congestion, traffic delays, GHG emissions, travel time along the study corridors and improve traffic safety.
3. San Carlos adopted a Complete Streets Program in October 2012.

Platinum

4. The City of San Carlos has received several grants, including an \$83,500 MTC grant, for streetscape, pedestrian and bicycle access improvements for Old County Road and East San Carlos Avenue. The East Side Transit Connectivity Project (East Side Connect) combines these grants and other funding sources, including underground utility funds.
5. The Arundel Safe Routes to School Project was funded by a \$325,231 Surface Transportation Program grant to implement improvements targeting pedestrian safety along routes to Arundel School. The scope of work included new curb, gutter and sidewalk, access ramps, in-pavement lighted crosswalk on San Carlos Avenue, underground conduits, minor pavement restoration and pavement striping on Phelps Road, Wellington Drive and San Carlos Avenue.
6. Public works received a federal HISP grant in the amount of \$198,000 to promote active transport on roads leading downtown. Due to numerous complaints, San Carlos staff conducted an initial study on the crosswalk from El Camino Real to Belmont Avenue. The crosswalk was confirmed in need of enhancements and received flashing yellow beacons to alert drivers of the presence of pedestrians.





Land Use and Community Design Activities

Silver

1. In 2011, the City of San Carlos revised Title 18 of its Municipal Code to encourage mixed-use, infill and high-density development. This included a revision that encourages and allows for higher density commercial and residential centers near transit corridors with the express intent of encouraging transit ridership and reducing the use of personal automobiles.

Gold

2. The San Carlos Housing Element contains a number of actions to incentivize infill residential development. These actions address incentives such as reducing or waiving development impact fees, developing a lot consolidation program, increasing contributions of RDA Housing for affordable housing projects, using RDA Housing Funds to purchase land or buildings for affordable housing projects, streamlining the permit process for certain affordable projects and reducing the minimum size allowed for condominium units.
3. The City of San Carlos currently provides recreational and public health opportunities at 14 city parks that offer everything from ball fields, to courts, to restrooms and BBQ grills. The locations and number of parks in San Carlos increase the livability and foster a community infrastructure across the city.

Platinum

4. The city is actively involved in promoting infill residential development through current efforts like Wheeler Plaza and the Transit Village projects. These projects alone are expected to help produce up to 420 infill units.
5. Policies 3.1-3.7 in the San Carlos General Plan Land Use Element encourage the establishment of "Neighborhood Hubs" within existing residential neighborhoods in the area beyond a half a mile radius from downtown, west of El Camino Real. "Neighborhood Hubs" are envisioned as nodes or focal points that offer neighborhood-serving retail and amenities within a reasonable walking distance from adjoining residential areas. These hubs would increase the accessibility of goods and services within existing residential neighborhoods.
6. San Carlos' Bike Transportation Plan was approved by city council in February 2012. This planning effort provides safer, non-motorized transportation alternatives for commuters, shoppers and recreational users and leads to a reduction in motorized trips within the city.





Open Space and Offsetting Carbon Emission Activities

Silver

1. The City of San Carlos is a Joint Venture Investor. Since 2007, Joint Venture has convened representatives from many of the public agencies in Silicon Valley through the Public Sector Climate Task Force to develop strategies for reducing greenhouse gas emissions from public agency operations. The program focuses on inventories of greenhouse gas emissions from publicly owned buildings, setting goals for emissions reductions and the creation of climate action plans. Through the Task Force, members share best practices related to their sustainability efforts, success stories and challenges, and embark on collaborative projects to achieve environmental goals. Collaborative projects often include purchasing pools for green products and services, such as emissions inventories, tools and renewable power.

Gold

2. The City of San Carlos completed a Climate Action Plan in 2009 that discusses potential heat island effect reductions caused by an increase in albedo (reflectivity) of urban surfaces including roads, driveways, sidewalks and roofs. Assuming that 12% of San Carlos is covered in pavement, or approximately two million square feet, and assuming that 30% of hardscape controlled by the city is repaved with high albedo content material by 2030, it is estimated that this measure will result in at least 2,320 metric tons of CO₂ equivalent savings per year. The plan also encourages tree planting as a carbon offsetting strategy.
3. San Carlos Green is a volunteer group that explores and promotes conservation and resource management best practices for the city, businesses, schools and citizens of San Carlos in order to inspire a more actively sustainable community. The organization grew out of the 2006 City of San Carlos Natural Resources Task Force Report, Conservation and Resource Management sub-section.

Platinum

4. Industrial Road Landscape Improvements: In an effort to create connectivity between the city and residential neighborhoods, the city planted 27 trees (where none currently existed) in the bulb-outs within the parking strip on Industrial Road, north of Holly Street. Under this project, the city requires individual projects on the east side of Industrial Road (Palo Alto Medical Facility and In-N-Out) to create gateway improvements adjacent to their private property.





Open Space and Offsetting Carbon Emission Activities

Platinum

5. In 2006, city council kicked off the Natural Resource Task Force by hosting a meeting to determine how the task force would pilot sustainability goals in San Carlos. The Task Force worked internally with city staff to organize itself, select a chairperson, layout timelines, milestones and targets and divide into three subgroups (Conservation and Natural Resource Management, Creeks & Watersheds, Open Space). In 2007, the Conservation and Natural Resources Management subgroup grew into San Carlos Green: a volunteer group that explores and promotes sustainable best practices for the city, businesses, schools and citizens to inspire a more actively sustainable community. In addition to numerous efforts San Carlos Green has inspired, the group works extensively with valued open spaces. For example, the group organizes creek cleanup events and invasive-species weeding events, and currently spearheads a campaign and workgroup to restore the native landscape at Vista Park.
6. In the base year of 2005, the City of San Carlos emitted approximately 231,057 metric tons of carbon dioxide equivalent (CO₂e) from the residential, commercial, industrial, transportation waste and municipal sectors. In comparison, the City of San Carlos emitted 203,404 metric tons of CO₂e from these same sectors and sources in 2010, a decrease of 27,653 metric tons of CO₂e, or 12% of 2005 baseline emissions.





Promoting Community and Individual Action Activities

Silver

1. San Carlos businesses have been active in green programs and climate protection in cooperation with the city. The San Carlos Chamber of Commerce is playing a leading role through its creation of a Green Business Task Force. The task force meets regularly and provides information and profiles of leading businesses in San Carlos in its newsletter.

Gold

2. In April 2014, the city promoted and participated in the National Mayor's Challenge for Water Conservation. Residents were encouraged to take one minute to visit www.mywaterpledge.com to register and commit to water and energy saving practices for the month of April. San Carlos ranked sixth in the nation for its category consisting of cities similar in size.
3. The City of San Carlos advertises sustainable tips, ideas, events and opportunities on city-run social media sites like Facebook and Twitter.

Platinum

4. Compost Giveaways: The city works with Recology on compost giveaway events at Crestview Park in San Carlos. Residents can drive to the park and pick up free compost.
5. The City of San Carlos is proud to be one of the charter members of the rollout of the Bay Area Green Business Program in San Mateo County. The city encourages all San Carlos businesses to consider joining the ranks of these local firms in becoming a Certified Bay Area Green Business. As of 2014, more than 20 San Carlos businesses have earned the Bay Area Certified Green Business designation.
6. With brochures and its website, the City of San Carlos encourages its residents to participate the Bay Area Regional Energy Network (BayREN) program. BayREN offers new programs and rebates for single family homeowners in the Bay Area who make energy-efficient home improvements. Eligible improvements include: air sealing; duct sealing; attic insulation; high-efficiency furnaces; cooling systems and water systems; wall insulation; and more.





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