

PLATINUM LEVEL AWARD WINNER

BEACON

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BEST PRACTICE  
ACTIVITIES



# City of Carlsbad

Sustainability Best Practices Activities



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*Promoting Good Government at the Local Level*

## About This Document

This document tracks and shares local agency best practice activities completed and counted as part of a city or county's participation in the climate change and sustainability recognition program, the Beacon Program. The Beacon Program is a statewide program recognizing cities and counties that are working to reduce greenhouse gas emissions, save energy and adopt policies and programs that promote sustainability.

The Beacon Program is sponsored by the Institute for Local Government and the Statewide Energy Efficiency Collaborative. The Statewide Energy Efficiency Collaborative (SEEC) provides support to cities and counties to help them reduce greenhouse gas emissions and save energy. SEEC is an alliance between three statewide non-profit organizations and California's four Investor-Owned Utilities. It builds upon the unique resources, expertise and local agency relationships of each partner.



## Supporting California local governments

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.



## SPOTLIGHT AWARD

Areas of Accomplishment

		SILVER LEVEL	GOLD LEVEL	PLATINUM LEVEL
	Agency GHG Reductions			
	Community GHG Reductions			
	Agency Energy Savings			
	Natural Gas Savings			
	Sustainability Best Practice Activities			2017





## Energy Efficiency and Conservation Activity

Level	Energy Efficiency and Conservation Activity	Reported
Silver	1. Adoption of a 2006 policy that declares new facilities will be designed to be at least 25% more energy efficient than required by Title 24 Regulations. The policy calls for new city facilities to strive for LEED “Silver” certification or its equivalent and to generate a minimum of 10% of its energy demand onsite, whenever practicable and within a reasonable cost/benefit ratio – City of Carlsbad document: <a href="#">Policy 71: Energy Conservation and Management</a>	2017

Level	Energy Efficiency and Conservation Activities	Reported
Gold	1. Development and adoption of City of Carlsbad Energy Roadmap (2014) that encompassed an in-depth energy audit and identified four distinct opportunities for the city to lead by example: saving energy in city facilities, greening the city fleet, developing employee knowledge of energy efficiency, and promoting commuter benefits to city employees – SANDAG document: <a href="#">City of Carlsbad Energy Roadmap</a> 2. Adoption of City of Carlsbad’s Environmental Guiding Principles (2007) for the city to support efforts to reduce energy and greenhouse gas emissions and find new and more energy efficient methods for delivering services – City of Carlsbad website: <a href="#">Environmental Guiding Principles</a>	2017

Level	Energy Efficiency & Conservation Activities	Reported
Platinum	1. Development and adoption of City of Carlsbad Energy Roadmap (2014), which identifies opportunities to lead the community with innovative programs for energy efficiency and sustainability: leveraging planning and development authority; providing clean and efficient transportation options; marketing energy programs to residents, schools, and local businesses; and supporting green jobs and workforce training – SANDAG document: <a href="#">City of Carlsbad Energy Roadmap</a>	2017





# Energy Efficiency and Conservation Activity

Level	Energy Efficiency & Conservation Activities	Reported
Platinum	<ol style="list-style-type: none"><li>Adopted several Property Assessed Clean Energy (PACE) programs for both business and residential projects. For example, as of 05/16/17 <a href="#">California HERO</a> has approved 782 projects, saving 56.5M kWh, 16.3K tons GHG, and 68.9M gallons of water</li><li>Adoption of City of Carlsbad's Environmental Guiding Principles (2007) for enabling the community to design energy saving features such as solar energy systems into public and private projects – City of Carlsbad website: <a href="#">Environmental Guiding Principles</a></li></ol>	2017





# Water & Wastewater Systems Activity

Level	Water & Wastewater Systems Activity	Reported
Silver	1. Water conservation efforts in city parks: recycled water is used at half of all of the city's community parks, including the five largest; dozens of "smart controllers" and water efficient irrigation systems are used and upgrades are ongoing in other irrigation controllers/systems; the city has seven artificial turf athletic fields and one artificial turf event area (2005 to present) – City of Carlsbad website: <a href="#">Water &gt;&gt; City Efforts</a>	2017

Level	Water & Wastewater Systems Activities	Reported
Gold	<ol style="list-style-type: none"> <li>1. Adoption of water efficient landscape ordinance that establishes requirements for planning, design, installation and maintenance of water efficient landscapes in new construction – City of Carlsbad document: <a href="#">Landscape Manual: Policies &amp; Requirements 2016</a></li> <li>2. Adoption of Plant Policy that encourages incorporation of native and drought tolerant plant materials whenever possible - City of Carlsbad document: <a href="#">Landscape Manual: Policies &amp; Requirements 2016</a></li> </ol>	2017

Level	Water and Wastewater Systems Activities	Reported
Platinum	<ol style="list-style-type: none"> <li>1. Adoption of Water Conservation Policy that requires irrigation systems for all projects to be designed to use non-potable, treated recycled water, unless otherwise approved by the city. Graywater systems are encouraged to assist in on-site landscape irrigation - City of Carlsbad document: <a href="#">Landscape Manual: Policies &amp; Requirements 2016</a></li> <li>2. Adoption of Urban Water Management Plan in June 2016 including potential impacts of climate change and demand management measures – City of Carlsbad document: <a href="#">Urban Water Management Plan</a></li> <li>3. Participation in WaterSmart Checkup program in partnership with San Diego County Water Authority (SDCWA) to provide residential water conservation audits (2009 to present) – SDCWA website: <a href="#">WaterSmart Checkup</a></li> </ol>	2017





# Green Building Activity

Level	Green Building Activity	Reported
Silver	1. City Landscape Manual requires building projects in the city to create opportunities for installation of solar energy or optimize use of passive solar design features such as shade trees – City of Carlsbad document: <a href="#">Landscape Manual: Policies &amp; Requirements 2016</a>	2017

Level	Green Building Activities	Reported
Gold	<ol style="list-style-type: none"> <li>In 2015, adopted Green Building policies in the Sustainability Element of the General Plan: promote energy conservation and retrofitting of existing buildings, adopt a construction and demolition waste recycling ordinance that requires all projects of specified criteria to divert from landfills, decrease the need for artificial climate control, promote outdoor lifestyles, and mitigate urban heat island effect - City of Carlsbad document: <a href="#">General Plan &gt;&gt; Sustainability</a></li> <li>Participation in the Sustainable Region Program (2009) with the San Diego Association of Governments, California Center for Sustainable Energy, and San Diego Gas &amp; Electric to develop energy management plans and implement cost-saving energy measures for municipal facilities</li> </ol>	2017

Level	Green Building Activities	Reported
Platinum	<ol style="list-style-type: none"> <li>Water conservation efforts in city fixtures: about ¾ of city facilities have low flow toilets with plans to increase; waterless urinals have been installed in restrooms; most of the faucets are water saving models (2012 to present) – City of Carlsbad website: <a href="#">Water &gt;&gt; City Efforts</a></li> <li>Adoption of Energy Conservation Regulations stating that all new residential units shall include provisions specifically designed to allow the later installation of any system which utilizes solar energy as an alternative energy source – City of Carlsbad website: <a href="#">Carlsbad Municipal Code</a> (Chapter 18 Building Codes and Regulations 2014)</li> <li>Adoption of Green Building Code mandatory measures for non-residential and residential construction (2017)– City of Carlsbad documents: Green Building Code checklists <a href="#">Nonresidential</a>, <a href="#">Residential</a></li> </ol>	2017





# Waste Reduction and Recycling Activity

Level	Waste Reduction Activity	Reported
<b>Silver</b>	1. Recycling activities promoted: single-stream recycling bins at each desk and in agency facilities, double-sided printing, reusable water bottles, “Mini bin” program - 5.5”x5.5” bins in all agency facilities reduce trash waste, use of scanners to distribute electronic copies, uploading of bid documents using online resources – City of Carlsbad intranet; City of Carlsbad website: <a href="#">Bids</a>	<b>2017</b>

Level	Waste Reduction Activities	Reported
<b>Gold</b>	<ol style="list-style-type: none"> <li>1. Environmental Management Recycling and Trash division staff hosted the city’s annual household hazardous waste collection event at the Farmer’s Building parking lot. Approximately 1,000 Carlsbad residents participated and brought to the event products such as paints, cleaners, oils, batteries, needles, medication and pesticides. This year’s (2017) event is part of the city’s celebration of Earth Month, designed to raise awareness of more sustainable practices in Carlsbad.</li> <li>2. Every year since 2008, the Recycling and Trash Program has been awarded grant funds for used oil and used oil filter collection/recycling. The Department of Resources Recycling and Recovery (Cal Recycle) administers the Used Oil Payment Program (OPP) to provide opportunities for local governments to receive grant funds for used oil and used oil filter collection and recycling programs. The City of Carlsbad will use these funds to increase public education and awareness, provide an annual collection event for residents, purchase and distribute free used oil recycling kits to “do-it yourselfers” and encourage certified collection centers in the city to accept used oil free of charge from residents.</li> </ol>	<b>2017</b>

Level	Waste Reduction Activities	Reported
<b>Platinum</b>	1. The quarterly Recycling Champion Program, a partnership between the City of Carlsbad and Waste Management, recognizes Carlsbad businesses for their exemplary recycling and waste reduction activities – City of Carlsbad website: <a href="#">Recycling Champion Program</a>	<b>2017</b>







# Waste Reduction and Recycling Activity

Level	Waste Reduction Activities	Reported
<b>Platinum</b>	<ol style="list-style-type: none"><li>2. Trash &amp; Recycling Guide available on the city website to provide residents with important information on waste and recycling services, and other recycling and diversion programs available in Carlsbad - City of Carlsbad document: <a href="#">Trash &amp; Recycling Guide - A Reduce, Reuse, Recycling Resource</a></li><li>3. Waste Management residential services: on-call bulky items pick up, curbside cellphone and household battery collection, no-charge e-waste drop off at Waste Management's Recycling Centers or on-call pick up of up to five e-waste items three times annually - Waste Management website: <a href="#">Carlsbad &gt;&gt; Residential Services</a></li></ol>	<b>2017</b>





# Climate-friendly Purchasing Activity

Level	Climate-Friendly Activity	Reported
<b>Silver</b>	1. Purchasing policy requiring the use of products that incorporate recycled materials including but not limited to: paper products, construction supplies, automotive and road supplies, landscape materials and equipment, janitorial supplies, plastic materials and equipment, glass and rubber supplies. A 15% preference, not to exceed \$1,000 per contract, shall be given to recycled products – City of Carlsbad website: Contracting and Purchasing, City of Carlsbad document (1991): <a href="#">Policy 49:</a>	<b>2017</b>

Level	Climate-Friendly Activities	Reported
<b>Gold</b>	<ol style="list-style-type: none"> <li>Adoption of policy to maximize energy conservation measures when purchasing equipment and products, e.g. "Energy Star" labeled products or equivalent – City of Carlsbad document(2006): <a href="#">Policy 71: Energy Conservation and Management</a></li> <li>Replacement of more than 7,000 high-pressure sodium street lights with energy-saving, high efficiency induction lamps. The lamps use 60% less energy and save city taxpayers an estimated \$300,000 a year in energy and maintenance costs (2011) – City of Carlsbad website: <a href="#">Energy &amp; Clean Air</a></li> </ol>	<b>2017</b>

Level	Climate-Friendly Activities	Reported
<b>Platinum</b>	<ol style="list-style-type: none"> <li>Carlsbad doubled the size of its water recycling plant (2016) - Carlsbad has invested approximately \$55 million in recycled water projects to date, and infrastructure includes the water recycling plant, pipelines, four pumping stations and storage capacity totaling 35.5 million gallons. Because of this investment the city has more than doubled its recycled water consumption in the last 10 years. Carlsbad has more recycled water meters than any other water district in San Diego County. The Carlsbad Water Recycling Facility expansion also includes adding 18 miles of new pipe to the existing 79-mile recycled water distribution system and building a new 1.5 million gallon reservoir. – City of Carlsbad News Update: <a href="#">Carlsbad Doubles Size of Water Recycling Plant</a></li> <li>Replaced 15% of the city's fleet vehicles with hybrid models while reducing the overall size of the fleet (2006 to present) – City of Carlsbad website: <a href="#">Energy &amp; Clean Air</a></li> </ol>	<b>2017</b>





# Climate-friendly Purchasing Activity

Level	Climate-Friendly Activities	Reported
Platinum	3. Use of Propel Diesel HPR, made from 100% renewable inputs, in all fleet diesel vehicles – reduces fleet's GHG emissions by up to 80% - Propel Fuel news release (2016): <a href="#">Propel Fuels Low-Carbon Diesel</a>	2017





# Renewable Energy and Low-Carbon Fuels Activity

Level	Renewable Energy and Low Carbon Fuels Activity	Reported
Silver	1. Installation of 720 solar panels at Alga Norte Community Park that generate 360,000 kWh per year and cut CO2 output by 6,838 tons over 25 years – City of Carlsbad News Update (2015): <a href="#">New Solar Panels Power Alga Norte Park</a>	2017

Level	Renewable Energy and Low Carbon Fuels Activity	Reported
Gold	1. Installation of 352 solar panels at the city’s Safety Training Center – generate 195,000 kWh per year - City of Carlsbad News Update (2016): <a href="#">Sun Energizes Safety Training Center</a> 2. Installed electric vehicle charging stations at Stagecoach Park and Carlsbad Village – City of Carlsbad News Update (2016): <a href="#">Climate Action Plan Update</a>	2017

Level	Renewable Energy and Low Carbon Fuels Activity	Reported
Platinum	1. Hydroelectric power system at the Maerke Reservoir – projected to generate ~2 million kWh of electricity per year (125% of CMWD’s annual consumption) – City of Carlsbad document (2015): <a href="#">Sustainability Working Paper</a> 2. Installation of bicycle racks/lockers and showers at City of Carlsbad facilities – City of Carlsbad document (2007): <a href="#">Bikeway Master Plan</a> 3. Participation in the development of the San Diego Regional Plug-in Electric Vehicle (PEV) Readiness Plan to support the growing market of PEVs in the San Diego region by enabling municipalities and others to address and resolve challenges of deploying charging infrastructure – Center for Sustainable Energy document (2014): <a href="#">San Diego PEV Readiness Plan</a>	2017





# Efficient Transportation Activity

Level	Efficient Transportation Activity	Reported
Silver	1. Participation in and promotion of Bike to Work Day 5/18/17. Hosting of seven pit stop locations within the city as well as a “Get Ready to Ride” event on May 17 featuring bike tune up services, demo bikes, and bike safety checks. – City of Carlsbad News Update: <a href="#">Bike to Work Day, 5/18</a>	2017

Level	Efficient Transportation Activities	Reported
Gold	<ol style="list-style-type: none"> <li>1. During the month of October (2016), Traffic and Mobility Division staff made strides towards promoting smarter commuting by participating in the iCommute Corporate Challenge in partnership with SANDAG. During the challenge, 36 employees logged 1,294 trips, burned 215,440 calories, reduced carbon emissions by 4.9 tons and saved \$6,143.42 on their commute. In addition, staff will be launching the Transportation Demand Management program (TDM) in partnership with Community and Economic Development with a kickoff meeting next month. The team will discuss requirements for implementing a successful TDM program in Carlsbad, such as identifying stakeholders, best practices and challenges. The goal will be to develop strategies and policies such as developer requirements, ordinances and interactive manuals to reduce travel demand in Carlsbad and encourage different modes of travel.</li> <li>2. Implementation of idling policy for city Police Department vehicles to decrease GHG emissions (2010) – City of Carlsbad website: <a href="#">Energy &amp; Clean Air</a></li> </ol>	2017

Level	Efficient Transportation Activities	Reported
Platinum	1. Implementation of a state-of-the-practice traffic signal management system that integrates traffic signals in the city to a single access point, allowing city staff to monitor and update signal timings to improve safety, improve traffic flow and reduce idling (2016) – City of Carlsbad website: <a href="#">Signals</a>	2017





# Efficient Transportation Activity

Level	Efficient Transportation Activities	Reported
Platinum	2. Completion of Bicycle Master Plan in 2007, which includes the implementation of approximately 6.5 miles of new Class I Bike Paths, 2.8 miles of new Class II Bike Lanes, and 4.2 miles of new Class III Bike Routes. It also includes programs such as bicycle parking improvements, multi-modal (transit) support facilities, bicycle safety and education programs for cyclists and motorists, safe routes to schools programs, community and employer outreach programs, continued development of bikeway network maps, and bike-to-work and school day events, among others – City of Carlsbad document: <a href="#">Bicycle Master Plan</a> 3. Completion of a Pedestrian Master Plan in 2008 – <a href="#">Pedestrian Plan</a>	2017





# Land Use and Community Design Activity

Level	Land Use and Community Activity	Reported
Silver	1. Land Use Vision in city's General Plan: greater mix of uses in closer proximity, density linked by public transportation, create opportunities for vertical mixed-use development, and develop recreation facilities closer to/ within existing neighborhoods – City of Carlsbad document (2015): <a href="#">General Plan &gt;&gt; Land Use and Community Design</a>	2017

Level	Land Use and Community Activities	Reported
Gold	<ol style="list-style-type: none"> <li>1. Open Space, Conservation and Recreation Element of the General Plan that guides enhancement of resource conservation, ensures adequate open space for conservation and recreation, and promotes accessibility to recreation areas – City of Carlsbad document(2015): <a href="#">General Plan &gt;&gt; Open Space, Conservation and Recreation</a></li> <li>2. Sustainability Element of the General Plan that sets goals for continued pursuit of sustainable energy sources and use of the CAP to implement energy conservation measures - City of Carlsbad document(2015): <a href="#">General Plan &gt;&gt; Sustainability</a></li> </ol>	2017

Level	Land Use and Community Activities	Reported
Platinum	<ol style="list-style-type: none"> <li>1. Mobility Element of the General Plan sets policies for designing facility improvements to promote biking, walking, safer street crossings, and attractive streetscapes; considering innovative design solutions such as traffic circles, roundabouts, separated bicycle lanes, and more; and working with adjacent cities and regional organizations to improve connectivity – City of Carlsbad document (2015): <a href="#">General Plan &gt;&gt; Mobility</a></li> <li>2. Adopted a Climate Action Plan that included a baseline GHG inventory, streamlines CEQA review, and details measures and actions to reduce GHG emissions through 2035 - City of Carlsbad document(2015): <a href="#">CAP</a></li> <li>3. Envision Carlsbad initiation engaged the community in envisioning and planning through citizens' committee (met 18times over 3 years), community-wide surveys (7,167 responses), community workshops (six), stakeholder meetings (80 participating organizations), and a website – City of Carlsbad documents (2015): <a href="#">General Plan &gt;&gt; Introduction &amp; Vision</a>; <a href="#">Envision Carlsbad Final Report</a></li> </ol>	2017





# Open Space and Offsetting Carbon Emission Activity

Level	Open Space Offsetting Carbon Emission Activities	Reported
<b>Silver</b>	1. Annual Arbor Day volunteer planting event has allowed the City of Carlsbad to retain its Tree City USA distinction from the National Arbor Day Foundation for 13 consecutive years – Arbor Day Foundation website (2016): <a href="#">Tree City USA</a>	<b>2017</b>

Level	Open Space Offsetting Carbon Emission Activities	Reported
<b>Gold</b>	<ol style="list-style-type: none"> <li>Habitat Management Plan adopted in 2004 to preserve natural land for plant and animal species. As of the latest reporting cycle, nearly 6,000 acres have been gained in the preserve system – City of Carlsbad website: <a href="#">Habitat Management</a></li> <li>Growth Management Plan approved by residents in 1986 that protects nearly 40% of the city as open space – City of Carlsbad website: <a href="#">Open Space</a></li> </ol>	<b>2017</b>

Level	Open Space Offsetting Carbon Emission Activities	Reported
<b>Platinum</b>	<ol style="list-style-type: none"> <li>Parks and Recreation Department manages Carlsbad's parks, trees, and medians, which include more than 19,000 trees and 65 acres of landscaped medians. The Community Forest Management Plan sets guidelines that seek to provide maximum canopy cover and include rich species and age diversity – City of Carlsbad website(2000): <a href="#">Parks, Trees &amp; Medians Maintenance</a></li> <li>Participation in the Carlsbad Community Gardens Collaborative to support a network of community gardens throughout the City of Carlsbad, including two offered by the Parks and Recreation Department – Carlsbad Community Gardens website (2017): <a href="#">Carlsbad Community Gardens</a></li> <li>Sustainability Element of the General Plan that sets policies to seek ways to partner with community supported agriculture programs, support home gardening and small-scale urban farming, incorporate additional community gardens, and implement a healthy food purchasing policy for city facilities - City of Carlsbad document (2015): <a href="#">General Plan &gt;&gt; Sustainability</a></li> </ol>	<b>2917</b>







# Promoting Community and Individual Action Activity

Level	Promoting Community and Individual Action Activities	Reported
Silver	<ol style="list-style-type: none"> <li>The Chamber of Commerce Sustainability Committee hosted an informational workshop on the City of Carlsbad's sustainability initiatives and the business case for going green. Mike Grim of Environmental Management detailed the measures in the Climate Action Plan and described the various incentives, rebates and programs available to assist businesses with engaging in energy efficiency, renewable energy, electric vehicles, and employee commuting activities. The workshop was attended by over 65 people, including Mayor Matt Hall and Council Member Cori Schumacher, as well as Chamber President Ted Owen and representatives from SDG&amp;E, Sierra Club and Carlsbad Sustainability Coalition. (2017).</li> </ol>	2017

Level	Promoting Community and Individual Action Activities	Reported
Gold	<ol style="list-style-type: none"> <li>Over 160 Carlsbad residents participated in the first Earth Day Festival (2017) at the Agua Hedionda Lagoon Foundation, sponsored by the city's Environmental Management Recycling and Trash Program and the Ecology Center. Residents learned about compost and how to build and maintain healthy organic soil using kitchen food waste and yard waste. They also learned how to grow herbs and vegetables with limited space and children created take-home ecofriendly crafts. This year's event is part of the city's celebration of Earth Month, designed to raise awareness of more sustainable practices in Carlsbad.</li> <li>On Saturday April 22<sup>nd</sup> 2017, Earth Day, the City of Carlsbad Watershed Protection Program hosted a site for the 15th Annual Creek to Bay Cleanup at Tamarack State Beach. The Creek to Bay Cleanup is organized by I Love a Clean San Diego, and encompasses over 100 cleanup sites. Over 90 volunteers at the city's Tamarack State Beach site cleaned about two miles of beach, removing almost 300 pounds of trash and 50 pounds of recyclables. Many volunteers also brought their own reusable work gloves and buckets, bringing the event closer to being zero waste.</li> </ol>	2017





# Promoting Community and Individual Action Activity

Level	Promoting Community and Individual Action Activities	Reported
<p><b>Platinum</b></p>	<ol style="list-style-type: none"> <li>1. Environmental management staff recently teamed up with the Climate Science Alliance and Batiquitos Lagoon Foundation to host a Climate Kids field trip at the Batiquitos Lagoon Nature Center. Climate Kids is a program of the Climate Science Alliance that teaches students about climate change through art, storytelling and science. The event was attended by over 65 6th graders from Carmel del Mar elementary school. It involved an exploratory nature walk, instructional talk about the lagoon's food web, demonstration of the Foundation's watershed model, and arts and crafts related to the birds, fish and plankton of Batiquitos Lagoon. (2017)</li> <li>2. Climate Action Plan sets actions for communications staff: Promote installation of photovoltaic systems, building cogeneration, energy retrofits, commissioning, and rainwater and greywater systems – City of Carlsbad document (2015): <a href="#">CAP</a></li> <li>3. Participation in the Climate Science Alliance South Coast, a trans-border partnership to create and support a network of leaders, scientist, and natural resource managers focused on sharing ecosystem-based resiliency approaches to safeguard communities and natural resources from climate change risks. Since March 2016 the CSA has led or participated in 11 trainings, 24 community events (10 of which were in Mexico), and 12 conferences – Climate Science Alliance website: <a href="#">Climate Science Alliance</a></li> </ol>	<p><b>2017</b></p>





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