



2014-2020

City Operations Sustainability Plan



CITY OPERATIONS GREEN TEAM

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INTRODUCTION

Chula Vista has a proud history of being a municipal leader in sustainability. The City Council has long recognized that the City’s environmental efforts also create numerous community co-benefits such as utility cost savings, less congested streets, healthier and more connected neighborhoods, local economic development, and an overall higher quality of life. As such, the City of Chula Vista has been recognized by the Environmental Protection Agency, California Sustainability Alliance, California Department of Resource Recycling and Recovery, Industrial Environmental Association, Sierra Club, and others.

City of Chula Vista strives to “lead by example” in integrating innovative sustainable practices throughout its operations and facilities

Chula Vista has created its first *City Operations Sustainability Plan*. The Plan’s vision is that, through a continuous improvement framework, the City will strive to “lead by example” in integrating innovative sustainable practices throughout its operations and facilities, thereby helping to ensure clean air, water, and land in the community. The Plan formally outlines the goals and strategies that the City hopes to accomplish by 2020 in seven key sustainability areas:

- ❖ Energy Use
- ❖ Water Use
- ❖ Green Purchasing
- ❖ Recycling & Waste Management
- ❖ Pollution Prevention
- ❖ Transportation
- ❖ Green Buildings & Infrastructure

As part of the *City Operations Sustainability Plan*, various potential funding sources have been highlighted that could support its implementation. The level of implementation will be dependent upon the City’s ability to secure these funding opportunities. Nonetheless, the *City Operations Sustainability Plan* provides a powerful policy framework for the City of Chula Vista to pursue external funding and to leverage existing municipal programs to effectively integrate sustainability throughout its operations and facilities.

Employee Engagement

While the Plan was developed through an inter-departmental “Green Team,” the ongoing support and participation of all City employees will be critical to its success. City leaders and employees will be frequently engaged through:

- CLEAN Employee Award (Annual)
- Employee Lunch & Learns (Quarterly)
- Employee Surveys (Annual)
- Green Teams (Ongoing)
- New Hire Orientation (Ongoing)
- Plan Progress Reports (Annual)

EXISTING POLICIES & DOCUMENTS

Municipal Building Energy Efficiency Policy (2005)

Energy Efficiency

- New buildings should maximize passive cooling and heating.
- New and renovated buildings (>4,500 sf) should be at least 20% more efficient than State code.
- Existing buildings should be retrofitted with more efficient technologies (as available).
- Only purchase EPA ENERGY STAR qualified appliances and products.

Renewable Energy

- New and renovated buildings should incorporate onsite renewable energy.
- Overall goal is to meet at least 20% of energy demand with onsite renewable energy.
- Up to 100% of purchased electricity should be renewable (if costs are equal or less than conventional electricity).

FUNDING OPPORTUNITIES

- Local Government Partnership with SDG&E and CA Public Utilities Commission
- CA Energy Commission loans
- CSCDA Sustainable Energy Bond program
- Municipal Utility Reinvestment Fund (proposed)

1. ENERGY USE

The City of Chula Vista spends approximately \$3 million annually on electricity and natural gas use at municipal facilities. Energy management efforts help to reduce these long-term utility costs and associated greenhouse gas emissions, while typically improving building performance and occupants' health and comfort.

Goal:

Reduce municipal energy use by 20% by 2020 through energy efficiency and renewable energy initiatives.

Baseline Year: 2010

Partnerships: DOE Better Buildings Challenge

EPA Green Power Partnership

SDG&E Local Government Partnership

Strategies:

1. Implement all cost-effective energy efficiency upgrades, such as the Multi-Site Lighting Upgrade project.
2. Retro-commission all municipal buildings that are greater than 20,000 square feet and more than 10 years old to improve energy performance.
3. Establish a Municipal Utility Reinvestment Fund (using previous utility cost savings) to create a revolving mechanism for funding energy improvements.
4. Purchase 100% renewable energy for the City's facilities under Direct Access contracts.
5. Transition to "Zero Net Energy" design for all new municipal facilities.

Performance Metrics:

- Annual kWh and Therm usage
- Energy use intensity (MMBTU/square foot)
- % onsite renewable energy

EXISTING POLICIES & DOCUMENTS

Landscape Water Conservation Ordinance (2010)

- Promote the values and benefits of landscapes, while recognizing the need to utilize water as efficiently as possible.
- Establish a structure for planning, designing, installing, maintaining, and managing water efficient landscapes in new and rehabilitated landscapes.
- Promote the use of recycled water, gray water, and captured rainwater for irrigation landscaping, when it is available.
- Use of water efficiently, and without waste, by setting a Maximum Applied Water Allowance as an upper limit for water use at the lowest practical amount.

FUNDING OPPORTUNITIES

- Water districts' rebates and incentives
- CSCDA Sustainable Energy Bond program
- Municipal Utility Reinvestment Fund (proposed)

2. WATER USE

Water is an increasingly limited and expensive resource costing municipal operations over \$3.8 million annually. In addition, the transport and treatment of water requires significant energy use.

Goal:

Reduce overall municipal potable water use by 10% by 2020 through water conservation, efficiency, and reuse.

Baseline Year: 2009

Partnerships: Sweetwater Authority
Otay Water District

Strategies:

1. Implement all cost-effective water efficiency upgrades, such as the Aquatic Center Shower Upgrade.
2. Install a new web-based irrigation monitoring and control system at all Parks and Open Space sites.
3. Purchase only EPA WaterSense-labeled plumbing fixtures, appliances, and products.
4. Establish a Municipal Utility Reinvestment Fund (using previous utility cost savings) to create a revolving mechanism for funding water improvements.
5. Transition to landscape designs that achieve at least 20% less water use for all new municipal facilities, except active recreation areas (compared to water allowances in 2010 Landscape Water Conservation Ordinance).

Performance Metrics:

- Annual potable water use
- Annual recycled water use

EXISTING POLICIES & DOCUMENTS

Environmentally Preferable Products Purchase Policy (2008)

- Leasing of selective products rather than purchasing them
- Requesting less toxic alternatives.
- Requiring manufacturers to “take back” their products at the end of the useful life (either directly or through producer-funded collection programs).
- Consider “Total Cost of Ownership” (includes all purchase, operating, and disposal costs) when selecting products or services.
- If fitness and quality are equal, environmentally preferable products will be purchased when available at the same or lessor total cost.

Municipal Building Energy Efficiency Policy (2005)

- Only purchase EPA ENERGY STAR qualified appliances and products.

100% Clean Fleet Policy (2008 - Climate Action Plan)

- All replacement vehicles purchased for the fleet should be hybrid or alternative fuel.

FUNDING OPPORTUNITIES

- Departmental supplies and services budgets

3. GREEN PURCHASING

Green Purchasing is defined as using purchasing power in the most cost-effective, fair, and environmentally benign way. Annually, the City of Chula Vista spends over \$200,000 just on office products and supplies.

Environmentally-friendly products can also help reduce long-term utility costs and create a healthier workplace.

Goal:

At least 80% of all office and custodial supplies annually are categorized as “green” by 2020.

Baseline Year: 2013

Partnerships: Responsible Purchasing Network

EPA West Coast Materials Mgmt. Forum
Washington & Oregon states

Strategies:

1. Integrate green product specifications in the upcoming bid solicitation for custodial cleaning products.
2. Develop a Top 10 list of environmentally-preferred products for frequently ordered supplies.
3. Transition to 100% recycled copier paper and 30% post-consumer content for all paper products.
4. Include a “sustainability” questionnaire into the City’s standard Request for Proposals (RFP) template.

Performance Metrics:

- % “green” products purchased
- Average % recycled content of copier paper and paper products

EXISTING POLICIES & DOCUMENTS

CVMC 8.25 Recycling

- Provides standards for municipal integrated solid waste management including source reduction, recycling, and composting of solid wastes.

AB 939 CA Integrated Waste Management Act (1989)

- Jurisdictions required to divert 50% of all solid waste from landfill disposal by 2005, through source reduction, recycling, and composting activities.

City of Chula Vista Integrated Waste Management Plan (1993)

- Municipal plan outlining the programs and policies needed to locally reach the AB939 diversion goal.

AB 341 Solid Waste Recycling (2011)

- Establishes a statewide recycling goal of 75% by 2020.

FUNDING OPPORTUNITIES

- AB 939 fee
- Free service provided by Republic Services to City facilities
- CA Department of Resource Recycling and Recovery grants

4. RECYCLING & WASTE MANAGEMENT

There will always be discards in society, that is a given. But whether or not those discards become waste or a material resource for something else is a matter of choice. Through landmark initiatives like the Integrated Waste Management Act, Beverage Container Recycling and Litter Reduction Act, and AB 341 Mandatory Commercial Recycling, California works toward a society that uses less, recycles more, and takes resource conservation to higher levels.

The implementation of those strategies will drive changes in Chula Vista's recycling programs in order to achieve 75% recycling statewide.

Goal:

At least 75% of waste from municipal operations is recycled annually by 2020.

Baseline Year: 2014

Partnerships: Republic Services

Strategies:

1. Establish a baseline of waste generation for City operations – waste and recyclables volumes.
2. Perform a waste audit of the City waste stream to identify the materials types.
3. Identify materials that are to be reduced and recycled and that are difficult to manage.
4. Establish appropriate actions for each type of material.

Performance Metrics:

- Annual waste and recyclables volumes

EXISTING POLICIES & DOCUMENTS

Non-Storm Water Discharges

CVMC 14.20.100.A

- It is unlawful for any person to discharge non-storm water into the storm water conveyance system, except as provided in CVMC 14.20.110.

NPDES Municipal Permit (2013)

- Non-storm water discharges are to be effectively prohibited, through the implementation of Provision E.2, unless such discharges are authorized by a separate NPDES permit.

Storm Water Discharges

CVMC 14.20.120.A

- It is unlawful for any person not to comply with BMPs and pollution control requirements established by the City or other responsible agency to eliminate or reduce pollutants entering the City's storm water conveyance system.

NPDES Municipal Permit (2013)

- Discharges from storm drains in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance in receiving waters of the state are prohibited.

FUNDING OPPORTUNITIES

- Proposition 84 grants

5. POLLUTION PREVENTION

Pollution negatively impacts all aspects of Chula Vista's environment and quality of life, but this impact is far more pronounced on water quality due to the local scarcity of water resources. Local agencies that are responsible for implementing Clean Water Act regulations should set examples for their citizens.

Goal 1:

Prevent all **non-storm water** discharges from municipal facilities (including landscape over-irrigation) to storm drains by June 2015.

Goal 2:

Comply with **storm water** "Best Management Practices" (BMPs) requirements on all municipal facilities and pass annual inspections with a minimum score of 80% by 2020.

Baseline Year: 2014

Partnerships: Public Works Operations

Strategies:

1. Conduct annual assessments and improve existing strategies or establish new strategies, as needed.
2. Facilitate citizen and staff pollution reporting.
3. Phase out chemical pesticide and fertilizer use.
4. Create a rainwater harvesting demonstration.
5. Transition to high-efficiency irrigation nozzles at municipal sites to avoid runoff.
6. Expand biannual pollution prevention trainings to include staff from every department.

Performance Metrics:

- # of observed or reported non-storm water discharges
- # of non-compliant annual inspections

EXISTING POLICIES & DOCUMENTS

100% Clean Fleet Policy (2008 - Climate Action Plan)

- All replacement vehicles purchased for the municipal fleet should be hybrid or alternative fuel.
- Factors such as the appropriateness for the vehicle task, fueling infrastructure, petroleum displacement, and the overall cost and environmental benefit must be considered prior to purchasing each replacement vehicle.

City-Contracted Clean Fleet Policy (2008 - Climate Action Plan)

- Work with fleets under City authority to influence their expanded use of hybrid and/or alternative fuels.

FUNDING OPPORTUNITIES

- CA Energy Commission grants
- CA Clean Vehicle Rebate Program
- CalTrans Bike Locker Program

6. TRANSPORTATION

Alternative transportation helps improve local air quality, reduce traffic congestion, and is typically a more cost-effective way to commute. In addition, these transportation options help reduce employee stress and improve their well-being.

Goal 1:

Transition 40% of fleet to hybrid or other alternative fuel technology by 2020.

Goal 2:

Increase the percentage of employees who are regularly using sustainable commute options to 30% by 2020.

Baseline Year: 2013

Partnerships: iCommute San Diego

San Diego Regional Clean Cities

San Diego County Bicycle Coalition

Strategies:

1. Install electric vehicle chargers for fleet use.
2. Designate preferred parking spaces for carpool/alternative fuel vehicles at all major municipal facilities.
3. Install outdoor bike lockers for employee use.
4. Initiate a pre-tax transit reimbursement program.
5. Expand the use of alternative work schedules and teleworking through supervisor and employee outreach.

Performance Metrics:

- % of alternative fuel/hybrid vehicles in fleet
- % of employees alternatively commuting (per pay period)

EXISTING POLICIES & DOCUMENTS

Municipal Building Energy Efficiency Policy (2005)

- See Energy Use section.

Environmentally Preferable Products Purchase Policy (2008)

- See Green Purchasing section.

Landscape Water Conservation Ordinance (2010)

- See Water Use section.

Shade Tree Policy (2012)

- New parking lots should be designed to incorporate shade trees in order to achieve 50% canopy coverage over the parking stalls within 15 years.
- Cool paving materials and solar canopies are alternate ways to comply with the 50% threshold.
- Healthy, existing shade trees should be retained and shall be credited 150% towards the 50% threshold.
- Trees should be planted along streets to maximize shade cover.

FUNDING OPPORTUNITIES

- Local Government Partnership with SDG&E and CA Public Utilities Commission (Trainings Only)
- SDG&E rebates and incentives
- Development Impact Fees

7. GREEN BUILDINGS & INFRASTRUCTURE

Green buildings and infrastructure are environmentally-responsible and resource-efficient throughout their life-cycle: from siting to design, construction, operation, maintenance, renovation, and demolition. Other components of this Plan will also greatly contribute to meeting green building and infrastructure standards.

Goal 1:

All new buildings over 10,000 sf will be designed and constructed to meet enhanced green building standards, while at least two existing buildings will be operated and maintained to meet enhanced green building standards by 2020.

Goal 2:

Integrate sustainable design concepts and products into all infrastructure projects by 2020 using the American Public Works Association’s Envision – Self Assessment Tool.

Baseline Year: 2013

Partnerships: US Green Building Council – San Diego
American Public Works Assoc. – San Diego

Strategies:

1. Train at least 2 staff members in every department in green buildings and sustainable operation practices.
2. Train at least 10 engineering and planning staff members in green infrastructure and the Envision framework.
3. Develop an inter-departmental Green Building Team to coordinate and guide green building efforts.

Performance Metrics:

- # of buildings meeting standards
- # of projects using Envision framework
- # of trained employees