

Santa Clara Valley Water District Response to Climate Change

Overview

The Santa Clara Valley Water District (District) provides wholesale water supply, flood management and watershed stewardship to the residents and businesses of Santa Clara County, which lies at the southern end of San Francisco Bay. The District's facilities include 10 surface water storage reservoirs, three large groundwater basins, more than 800 miles of streams, and three water treatment plants.

The mission of the District is a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner.

The District is a certified "Green Business" across all of its operations. Our watershed program is ISO 9000/14000 certified, our capital program is ISO 9000 certified, and we have begun an initiative to become ISO 14000 certified District-wide. In 2006, the District also received the California Awards for Performance Excellence Silver Placement, one of only three government agencies in Northern California to ever achieve that distinction.

Issue

In furtherance of our mission and our vision to be 'greener', the District is developing and implementing policies and practices to achieve water resource sustainability. This commitment to action includes a forward thinking, multi-pronged approach to mitigation of, and adaptation to, climate change. The District also engages the broader California water community, our local business community and the residents of Santa Clara County in developing partnerships to promote a more comprehensive, collective response to the challenges of climate change.

The following summary reflects some of the actions the District has already taken, and highlights some of the benefits of these efforts:

Mitigation -- reducing our carbon footprint

- Assessed our green house gas (GHG) emissions and reduction potential. First reporting of CO₂ emissions was made to Sustainable Silicon Valley in 2005. Sustainable Silicon Valley (SSV) is a collaboration of businesses, governments, and non-governmental organizations that are identifying and addressing environmental and resource pressures in Silicon Valley.
- Joined the California Climate Action Registry in December 2006, in furtherance of our commitment to reducing emissions.
- Evaluated GHG emissions reduction and energy savings potential of our water conservation and recycled water programs. Our recycled water and water conservation programs have resulted in total energy savings of approximately 1.42 billion kilowatt-hours (kWh) and avoided emissions of 740 million lbs CO₂ from FY 92/93 through FY 05/06.



- Generating clean electricity from two renewable sources: 200 kW of solar generation at the District's Headquarters and an 800kW hydroelectric facility at our largest reservoir.
- Joined the Power and Water Resources Pooling Authority (PWRPA), which prioritizes use of power from renewable energy sources.
- Utilized a 97% carbon free energy portfolio in 2006, equating to an 8.2 million lb CO₂ reduction and cost savings of \$944,570. This was achieved using PWRPA power, hydroelectric power from our hydroelectric facility and solar power from our Headquarters Campus collectors.
- Continuing our efforts to reduce air pollution. Recognized by Breathe California, which bestowed its Clean Air Award for Leadership on the District; the only organization to receive distinction in that category this year.
- Re-evaluating a major upgrade to a water treatment plant using sustainable design and Leadership in Energy and Environmental Design (LEED) Green Building protocols.
- Replacing gasoline powered fleet vehicles with hybrids as they are retired.

Adaptation -- planning for, reducing and mitigating potential impacts of climate change

- Incorporated climate change scenarios ~~are~~ into long-term water supply planning. Climate change was first addressed in our 2003 Integrated Water Resources Management Study. Because of likely significant impacts to water supply, watershed stewardship and flood protection, responding to climate change has been identified by the District Board and CEO as a key strategic challenge, both in the near term and foreseeable future.
- Integrated climate change into flood control planning and design activities. As an example, the District is a partner in the South San Francisco Bay Shoreline Study, examining tidal flood risk in the southern San Francisco Bay, including the potential effects of sea-level rise.
- Developed a comprehensive suite of water conservation and water recycling programs resulting in cumulative savings of 370,000 acre-feet of water from FY 92/93 through FY 05/06.

Knowledge Sharing and Community Engagement

- Engaged in local, regional, and statewide forums and organizations pertaining to climate change issues. The District is participating in a survey undertaken by the California Urban Water Agencies to gauge response to climate change. District staff provides leadership through participation on the Board of Sustainable Silicon Valley.
- Works with its local water retailers, as well as with the SFPUC, EBMUD, Zone 7 and others on climate change issues related to local and regional water supply.
- Supported AB 32 in 2006, one of only a few water districts to do so. In fact, the Board Chair personally lobbied for the bill at the end of last year's legislative session.
- Published opinion pieces prepared by the District Board Chair in local media, articulating the challenge climate change presents.
- Engaging the community through a webpage and outreach materials focused on climate change.

