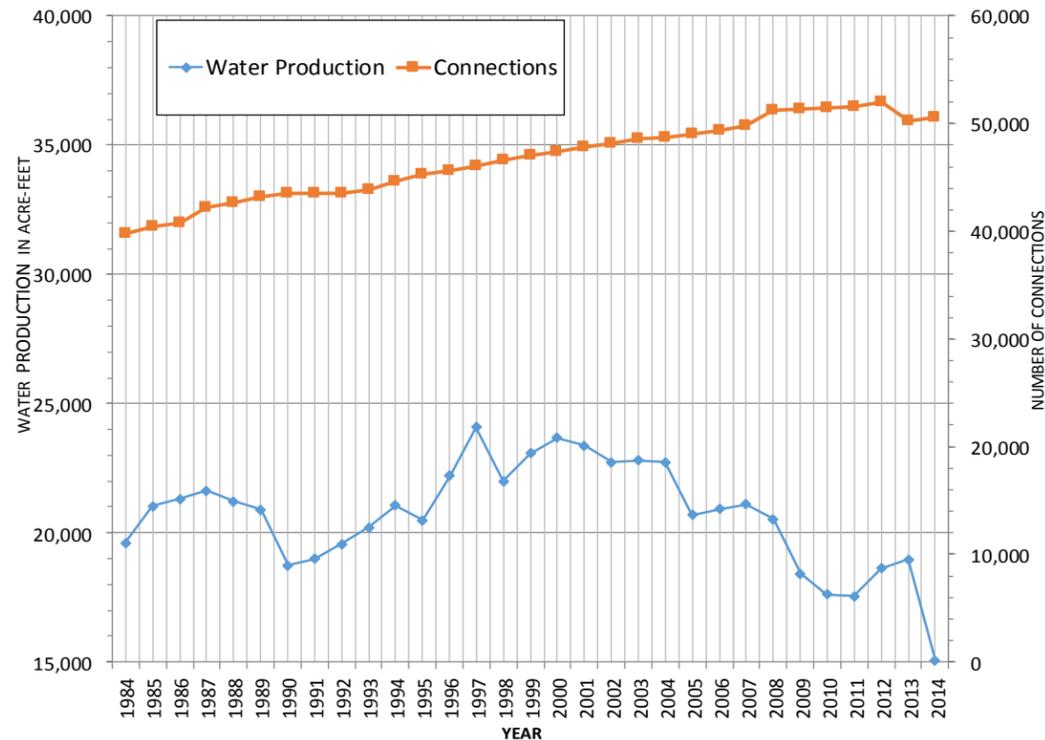


Drought Response and Water Conservation

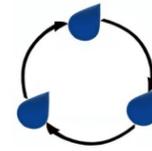
- 2015 was the fourth year of an extreme drought in California and Santa Cruz County. Surface storage in Loch Lomond reservoir recovered to 83%. However, little groundwater recharge occurred and groundwater levels continued to decline in much of the County. Streamflow in the San Lorenzo River continued to be at a 77-year historically low level. Other streams dried up or were at extremely low levels.
- All large public water systems in the County had water rationing, use restrictions, and/or encouragement of voluntary conservation in 2015 to address the impacts of the drought. Santa Cruz County saw some of the highest levels of water use reduction in the state, with reductions of 28.6% in Santa Cruz City and 23-31% in other jurisdictions. For October 2015, Santa Cruz City had the 8th lowest per capita residential water use in the State, at a rate of 40.6 residential gallons per capita per day. Soquel had the 6th lowest residential in the Central Coast at 53.3 R-GPCD. The County adopted additional measures to limit excessive outside watering.
- Although all large water systems reduced their water use significantly, Lompico County Water District and seven small public water systems experienced serious shortfalls requiring purchased water, backup supplies, or severe curtailment. The number of well permit applications in 2014 and 2015 was up about 30% over pre-drought levels. There were no reports of increased number of wells going dry.
- The Water Conservation Coalition of Santa Cruz County participated in numerous events, produced a Water Conservation Guide which was widely distributed, and maintained the website www.watersavingtips.org.
- The figure below represents the total number of connections for north county water systems alongside the total amount of water used by them since 1984. It demonstrates that although the number of connections has increased with a growing population, there has been a marked decrease in overall water use.



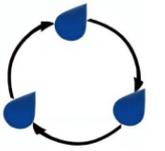
This table provides information on the water used by the residents of each of the major water suppliers, by the agricultural community, and estimates of water use by small water systems (with under 200 connections) and residences with individual wells.

Water Supplier	Population	Water Use Volume (acre-feet/yr)	Percent reduction 2013 to 2015
Santa Cruz City Water Dept.	94,887	8,046	29%
Watsonville City Water Dept.	65,740	7,522	23%
Soquel Creek Water District	37,720	3,474	30%
San Lorenzo Valley Water District	25,485	1,900	28%
Scotts Valley Water District	10,509	1,399	28%
Central Water District	2,700	457	31%
Lompico Creek Water District	1,600	59	
Big Basin Water Company	1,967	127	
Mount Hermon Association	1,238	138	
Forest Lakes Mutual Water Co.	1,076	40	
Small Water Systems	7,300	approx. 1040	
Individual Well Owners	20,000	approx. 3200	
Agricultural		30,284	

The County of Santa Cruz, Regional Water Management Foundation and the Santa Cruz Local Agency Formation Commission (LAFCO) present:



Connecting the Drops Working Together for Water



Santa Cruz County Water Status Report

www.santacruzirwmp.org/DROPS

Santa Cruz County continues to address major water resource challenges. The four year drought of 2012-15 greatly diminished streamflow and available water supplies, but water agencies and their customers were able to substantially reduce demand in order to accommodate the shortfall. Most of the County's groundwater basins are being pumped in excess of sustainable yield and the major water supply agencies do not have sufficient supplies to meet current and future demand. Historic salmon and steelhead populations have been greatly diminished by reductions in streamflow, increased erosion and sedimentation, barriers to migration, and removal of large woody material from streams. Coastal water quality has been degraded by urban runoff and leaky sewer systems. The natural benefits of wetlands, floodplains, riparian corridors, and groundwater recharge areas have been significantly diminished by land development and agricultural use. The County and its partner agencies continue to conduct a range of efforts to address these and other water resource challenges. Following is a summary of topic areas of 2015 water resource management:

Integrated Water Management for Santa Cruz and Pajaro Regions

- Santa Cruz County partner agencies continue to work together on Integrated Regional Water Management, with the Regional Water Management Foundation (RWMF) serving as a hub for the 11 partner agencies.
- The Santa Cruz IRWM region applied for drought funding under Prop 84 to help expand recycled water use in Davenport, help fund treatment for hexavalent chromium in Soquel Creek Water District and replace aging wells for the City of Santa Cruz. The application scored well, and will receive partial funding.
- The Pajaro IRWM, led by Santa Clara Valley Water District, San Benito County Water District, and the Pajaro Valley Water Management Agency, includes water supply and flood management projects throughout the Pajaro Valley and Watershed, as well as water quality and habitat restoration projects.
- The Pajaro Region received \$5M in drought relief funding under Prop 84. This will help fund expanded storage and distribution for recycled water irrigation and improved irrigation efficiency. As a part of the grant, the City of Watsonville was awarded \$3.2M to upgrade its Corralitos surface water treatment plant.
- PVWMA received ratepayer approval of pumping fees to fund implementation of their updated Basin Management Plan, which will implement projects to reduce groundwater pumping by 12,000 acre-feet/year.
- The Community Water Dialogue, a community stakeholder group, continued to promote agricultural grower and community support for a variety of efforts to implement managed groundwater recharge projects, improve irrigation efficiency, and build community support for improved groundwater basin management.
- The Resource Conservation District has worked with the agricultural community to implement a variety of outreach, technical assistance, and cost-sharing programs to reduce water use, promote groundwater recharge, and improve water quality. The County in partnership with the RCD has recently received a \$99,000 grant from the Department of Conservation for the development of a voluntary Rotational Cover Crop Plan for the Pajaro Valley.



REGIONAL WATER MANAGEMENT FOUNDATION



Water Supply, Small Water Systems and Groundwater Management

- The Sustainable Groundwater Management Act (SGMA) of 2014 went into effect on January 1, 2015. This state legislation provides local agencies increased authority and responsibility to eliminate overdraft of groundwater basins. The County is actively working with local water agencies to pursue sustainability for the three major groundwater basins as follows:
 - The Pajaro Valley Water Management Agency is the designated Groundwater Sustainability Agency for the Pajaro Valley Basin within the Agency boundaries.
 - For the Mid-County (Soquel-Aptos) Basin, management is being pursued by a Joint Powers Agency consisting of the County of Santa Cruz, City of Santa Cruz, Soquel Creek Water District and Central Water District. The governing board includes three private well representatives. A series of meetings for interested stakeholders in the Mid-County basin is being held: www.midcountygroundwater.org.
 - Management of the Santa Margarita Basin is being pursued as a joint effort with the County, the Scotts Valley Water District, and the San Lorenzo Valley Water District.
- The City of Santa Cruz Council adopted the recommendations from its Water Supply Advisory Committee to pursue a strategy of water conservation and enhanced groundwater storage, with a back-up option of advanced treated recycled or desalinated water. The City Water Department and Soquel Creek Water District reached agreement to undertake an initial effort to transfer water for in lieu recharge during this winter.
- The Soquel Creek Water District worked with stakeholders to develop the Community Water Plan, which includes: promoting water conservation and water neutral development; implementing groundwater management programs to protect the aquifers; and seeking supplemental water supplies to meet water needs. They have identified injection of advanced purified water into the groundwater basin as a preferred option to support basin recovery.
- Soquel Creek Water District and the City of Santa Cruz Water Department both completed new wells in the 41st Ave area that will shift pumping inland away from the coast to reduce the threat of seawater intrusion.
- Soquel Creek Water District completed construction of two new pump stations to facilitate movement of potable water between service areas. The District secured a full scale hexavalent chromium removal equipment procurement contract for a 2,000 gpm facility that is expected to come on line in 2017.
- The Scotts Valley Water District completed an update of the groundwater model for the Santa Margarita Groundwater Basin. They are completing an evaluation of the feasibility of using advanced treated recycled water for enhanced recharge.
- Scotts Valley Water District made recycled water available for pick up and use by individual water customers.
- The San Lorenzo Valley Water District and the Scotts Valley Water District completed construction of emergency interties connecting the two districts and the four subareas of the San Lorenzo District.
- County staff, the Local Agency Formation Commission (LAFCO), San Lorenzo Valley Water District, and Lompico County Water District are pursuing an effort to make capital improvements and merge the two Districts to address deficiencies in water quality and reliability. Although a bond election failed, formation of an alternative assessment district is currently in progress.
- The County, City of Santa Cruz, and San Lorenzo Valley Water District are conducting a project to identify and better understand the occurrence of karst geology, which has the potential to store and transmit significant amounts of water, though susceptible to adverse impacts from overlying land use.
- The County coordinates submission of groundwater level data to the State's 'CASGEM' groundwater monitoring program.
- County staff continue to effectively assist and direct over 130 water systems with 5-199 connections in order to maintain compliance and meet the ongoing needs of the people and communities, including water quality, quantity, treatment, and distribution. County staff established the Small Water Systems Forum to help build technical, managerial, and financial capacity among the small water systems within the community. The County adopted new requirements for metering and reporting of water use by all small water systems.

Water Quality

- County staff continue to work with the State, City of Santa Cruz, City of Capitola, and the County Sanitation District to implement projects and conduct monitoring to assess public health threats, reduce bacterial contamination, and improve beach water quality.
- County staff participated with the City of Santa Cruz, Save the Waves Coalition, Surfrider Foundation, Sierra Club, and Coastal Watershed Council in the Cowell Beach Working Group, which has been meeting monthly to better understand and control the elevated bacteria levels at Cowell Beach, which have resulted in it being named as one of the most polluted beaches in the State. City improvements have eliminated any significant sources of human contamination and efforts will now target pigeons residing under the wharf.

- A recent investigation of elevated bacteria in the lower San Lorenzo River used multiple lines of evidence to conclude that there was minimal human contribution to the elevated bacteria levels observed in 2014.
- County staff maintain ongoing efforts for water quality protection through septic system management, monitoring, and investigation, funded by County Service Area (CSA) 12.
- Public Works Department staff have received grant funds to upgrade the sewer systems near Nobel Gulch, Soquel Creek, and Neary Lagoon in order to eliminate potential sewer leaks and sources of contamination to Cowell and Capitola beaches.
- County staff continue to work with the City of Watsonville and the Resource Conservation District (RCD) to monitor harmful algae blooms in Pinto Lake. The City and RCD have received grant funds to implement measures to reduce nutrient loading in 2016.
- The San Lorenzo Lagoon experienced a harmful algal bloom in 2015. The County worked with the City of Santa Cruz and researchers from UCSC to monitor the lagoon and post warning signage before conditions were relieved by manual breaching and the onset of fall rains.

Watershed Health and Aquatic Habitat

- Steelhead and coho salmon are two anadromous salmonid species that have historically occurred in County watersheds but have experienced a severe drop in numbers as a result of habitat and watershed degradation. Coho are designated as endangered and steelhead as threatened under the federal Endangered Species Act.
- National Oceanographic and Atmospheric Administration (NOAA) Fisheries has launched a "Species in the Spotlight: Survive to Thrive" campaign and has identified eight NOAA species as the nation's most at risk of extinction. Central California Coastal (CCC) coho salmon is one of the eight identified.
- Environmental Health staff completed the development of the Steelhead and Coho Salmon Conservation Strategy, which describes 19 key actions to protect and improve stream habitat that will be implemented by the County within the next three years, and 13 ongoing actions.
- County staff continued to work with water agencies to maintain annual sampling of stream habitat and juvenile salmonids in four watersheds: San Lorenzo, Soquel, Aptos and Pajaro. In 2015, steelhead numbers were critically low throughout the four watersheds. Coho salmon were found in the Soquel watershed for the first time since 2008, showing that conservation efforts in the Scott Creek watershed are helping to boost adult numbers. The City of Santa Cruz continued monitoring fish downstream of their diversions and found coho juveniles in Laguna Creek for the first time in ten years.
- County staff continued to implement the Large Woody Material Management Program to maintain large wood for habitat value in County streams without increasing flood risks or jeopardizing public safety.
- Environmental Health staff provided recommendations to the Cannabis Cultivation Choices Committee on ways to avoid adverse environmental impacts.
- The Resource Conservation District of Santa Cruz County continued to work with landowners and agency partners to complete habitat improvement projects through the Integrated Watershed Restoration Program.
- As a part of an interim agreement with the fishery agencies, during 2015, the City of Santa Cruz released significant more flow for fish than in previous droughts in Laguna Creek, the lower San Lorenzo River, and other streams.
- County staff are participating with the Coastal Watershed Council, City of Santa Cruz, and other entities in the San Lorenzo River Alliance, which is seeking to improve water quality and reinvigorate community engagement with the lower river and the watershed. The County has also participated in recent efforts to launch "San Lorenzo 2025", which is a targeted lobbying effort to secure substantial funding to restore fish habitat in the San Lorenzo River Watershed.

Stormwater and Flood Management

- County Public Works staff continue to maintain operation of the Automated Local Evaluation in Real Time (ALERT) flood warning system. In September 2015, Public Works received notice of a grant award of \$100,000 from the State to upgrade the ALERT system.
- The County, City of Watsonville, and other entities continue to pursue implementation of a project with the Army Corps of Engineers to upgrade the flood conveyance system to provide an adequate level of flood protection for the Pajaro River, Salsipuedes and Corralitos Creeks.
- The County, City of Santa Cruz, and Scotts Valley Water District received Prop 84 stormwater funds to implement projects that reduce stormwater runoff and increase groundwater recharge.
- The County and local water agencies are working with Ecology Action of Santa Cruz to implement a grant to promote use of low impact development measures and rainwater catchment to reduce stormwater runoff.