



GIANG T. NGUYEN
HEALTH SERVICES AGENCY DIRECTOR

County of Santa Cruz

HEALTH SERVICES AGENCY

POST OFFICE BOX 962, 1080 EMELINE AVENUE, SANTA CRUZ, CA 95060
TELEPHONE: (831) 454-4000 FAX: (831) 454-4770

AGENDA: January 27, 2015

January 15, 2015

BOARD OF SUPERVISORS
County of Santa Cruz
701 Ocean Street
Santa Cruz, CA 95060

SUBJECT: County Water Resources Management Status Report for 2014

Dear Members of the Board:

The Health Services Agency (HSA) Environmental Health Services Division requests that your Board accept and file the 2014 status report on County water resources management. This report highlights major drought response efforts, sustainable groundwater management, Integrated Regional Water Management (IRWM), and restoration of coho salmon and steelhead habitat. Additional attached information provides a summary of all water resource management efforts related to water supply, water conservation, water quality protection, habitat restoration, stormwater management, and flood management in the IRWM regions of Santa Cruz and Pajaro (Attachment 1).

Drought Response and Water Supply Planning

2014 was the third year of a critical drought in California. In 2014, Santa Cruz County was federally classified at 'Exceptional' drought level 5 of 5, and in 2015, is currently at "Extreme" drought level 4. Federal drought classifications are determined by the U.S. Drought Monitor, sponsored by the National Oceanic and Atmospheric Administration (NOAA), and the U.S. Department of Agriculture. Such high levels of drought have resulted in impacts such as reducing streamflow in the San Lorenzo River, one of the primary municipal water sources within the county, to a 77-year low.

All large public water systems in the County implemented water rationing, use restrictions, and/or conservation programs in 2014 to address the impacts of the drought. Santa Cruz County had some of the highest levels of water use reduction in the state, with decreases of 28% in the Santa Cruz City service area, and 20-27% in other jurisdictions (Attachment 2). The County also adopted emergency measures to limit excessive outdoor watering. County staff responded to reports and observations of excessive or unpermitted water use and sent out 14 notices to water users and stream diverters to reduce use. Most of the public small water systems under County jurisdiction fared relatively well, with only one system needing to import water and three systems experiencing water quality issues. All of these systems were dependent on surface water. Lompico County Water District was in danger of complete water loss and received emergency drought funding to complete an emergency intertie to San Lorenzo Valley Water District. In 2014, the intertie was used twice.

In addition to current drought, Santa Cruz County continues to face water supply shortfalls during normal years as well as future droughts. All of the County's major water agencies are continuing to explore future water supply options, as described in Attachment 1.

Sustainable Groundwater Management

State adoption in September 2014 of the Sustainable Groundwater Management Act (Act) provides authority and responsibility to manage groundwater uses and supplies to eliminate adverse effects of overdraft. Provisions of the Act, effective January 1, 2015, will empower and enhance local management efforts already underway in Santa Cruz County to manage the three major overdrafted groundwater basins: Soquel-Aptos, Santa Margarita/Scotts Valley, and Pajaro. Key provisions of the Act include:

- Formation of local Groundwater Sustainability Agencies (GSAs) by June 30, 2017. GSAs can be single agencies or Joint Powers Authorities. In the absence of an agency coming forward, the county would become a GSA.
- Development of a Groundwater Sustainability Plan (GSP) by January 31, 2022 for medium and high priority basins, and by January 31, 2020, for critically overdrafted basins.
- Twenty years after adoption of the GSP, the basin must achieve sustainability through implementation of the GSP and use of the tools provided by the Act, including the authority to determine the sustainable yield of the basin, measure and limit extraction, impose fees for groundwater management, and enforce the terms of the GSP.
- Sustainable groundwater management is defined in the Act as use of groundwater without causing undesirable results such as lowering groundwater levels, reducing storage, seawater intrusion, water quality degradation, land subsidence, or streamflow depletion.
- If local agencies fail to act, then the state will act to achieve groundwater sustainability.

The Pajaro groundwater basin is the only one in the County designated as critically overdrafted. This basin is already subject to a higher level of management through the powers conferred on the Pajaro Valley Water Management Agency (PVWMA) through its creating legislation in 1984. The PVWMA Board adopted an updated Basin Management Plan (BMP) in 2014 and is now seeking approval to charge the water use fees necessary to fund full implementation of the BMP. The PVWMA is already specifically designated as a GSA under the Act.

Most of the Soquel-Aptos groundwater basin is designated as medium or high priority for management, given its serious levels of overdraft, depressed groundwater levels, seawater intrusion, and streamflow depletion. The Soquel Creek Water District (SqCWD) and Central Water District (CWD) have already developed a groundwater management plan and are implementing it through the Basin Implementation Group (BIG) established by a Joint exercise of Powers Agreement. In order to comply with the new Act, these efforts will need to be strengthened significantly and expanded outside the boundaries of the water districts. A number of efforts are already underway to improve management of the Soquel-Aptos basin:

- SqCWD and CWD invited the County, the City of Santa Cruz Water Department, and PVWMA to participate in the BIG. On August 19, 2014, your Board accepted that invitation and designated the County's First and Second District Supervisors to work with SqCWD to expand the scope of the BIG. The City has also agreed to participate. Your Board previously approved County participation in the Soquel-Aptos Groundwater Authority on September 27, 2005, providing further basis for organizing a groundwater management program.
- Discussions are currently underway regarding the best approach for building on current efforts to implement the Sustainable Groundwater Management Act. There is some consideration to having the County assume the lead in developing the approach, given that the County is the only agency that has authority over the full geographic extent of this basin. It is anticipated that all participating agencies would contribute to the costs of the effort. There is also some consideration for forming one large Groundwater Sustainability Agency to encompass all of the

participating agencies would contribute to the costs of the effort. There is also some consideration for forming one large Groundwater Sustainability Agency to encompass all of the north county groundwater basins, excluding the Pajaro basin.

- The County, SqCWD and CWD have held a series of meetings for private groundwater users, small water systems, and other interested stakeholders in the Soquel-Aptos groundwater basin, to discuss basin management issues and engage non-municipal pumpers in long term management of the basin. Discussions are currently underway about the best mechanism to formalize ongoing stakeholder participation in the next steps for development and implementation of the GSP.
- The water districts have initiated the development of a groundwater model to better guide management of the basin. It is anticipated that this will be a two year process and that all agencies, including the County, will contribute financially. HSA's staff is particularly interested in modeling the effects of groundwater depletion on streamflow, and better assessing the effects of inland pumping on depleted groundwater levels along the coast. Staff will return to your Board for consultation once the scope of work and costs are better defined.
- HSA staff continues to monitor stream diversions, measure streamflow, measure groundwater levels in private wells, and work with small water systems in the Soquel-Aptos groundwater basin. Estimates of the amount of private water extraction will also be reviewed.

There is an ongoing history of groundwater management in the Scotts Valley/Santa Margarita groundwater basin that extends from Scotts Valley to Boulder Creek and serves the Scotts Valley Water District, San Lorenzo Valley Water District, Lompico County Water District, Mt. Hermon Association, and a number of small water systems and individual users. The groundwater basin also helps to sustain baseflow in the San Lorenzo River, which is the primary supply for the City of Santa Cruz. Discussions about ongoing basin management occur among staff and elected officials at biannual meetings of the Santa Margarita Basin Advisory Committee. Discussions are just beginning regarding the process for strengthening current efforts to meet the goals of the Sustainable Groundwater Management Act. HSA will report to your Board as further recommendations are developed

Integrated Regional Water Management

Integrated Regional Water Management (IRWM) continues to be a key program at the local and state level to promote a coordinated approach to the range of water resource issues. This program has helped to further bolster the County's long-standing watershed management approach, bringing together water agencies, resource protection agencies, and other stakeholders to address water supply, habitat protection, water quality protection, flooding, groundwater recharge, stormwater management, and wastewater management in an integrated and comprehensive manner. County staff have been actively engaged in IRWM programs, locally and at the state level, for the regions of northern Santa Cruz County, the Pajaro Watershed, the general Central Coast area, and state-wide.

Updated IRWM plans for both the Santa Cruz and the Pajaro regions were completed in 2014. Both regions have received state grants to implement a range of programs. There will be some additional IRWM grant funds available through Proposition 84, and a significant amount of new funding will be available through Proposition 1. These regions are also making use of the IRWM approach to provide coordination of projects for emergency interties, stormwater management, and possibly groundwater management. These efforts are described further in Attachment 1.

Steelhead and Coho Salmon Recovery Strategy

The County of Santa Cruz has a long history of implementing programs and projects that benefit

local steelhead and coho salmon fish populations. Since steelhead and coho salmon were listed under the federal Endangered Species Act, the County has actively participated in the development of the federal plans that provide a blueprint for species recovery. Now that the Fisheries division of NOAA has completed its recovery plans for steelhead and coho salmon within Santa Cruz County, HSA believes the timing is right to identify high priority actions that the County can implement as a recovery partner.

NOAA's Coho Salmon Recovery Plan (Coho Plan) addresses six watersheds including Waddell, Scott, San Vicente, San Lorenzo, Soquel, and Aptos, and identifies specific recovery goals, prioritized as 1, 2 or 3, for each watershed. HSA's Water Resources staff has evaluated the Priority 1 actions from the Coho Plan and integrated them with NOAA's recovery plans for South-Central Steelhead and Central Coast Steelhead (Draft Plan). While there are somewhat different priorities for steelhead and coho salmon, many of the goals and actions for the two species are the same.

By integrating the NOAA plans, HSA's Water Resources staff has developed a Draft Steelhead and Coho Salmon Conservation Strategy (Draft Strategy) that identifies 20 high priority actions which the County could take or continue in order to improve habitat for steelhead and coho salmon. These actions are planned for the next four years through 2018. Most of the actions can be accomplished within current work programs and budgets, but some may require more focused efforts or grant assistance. The Draft Strategy plan includes 12 well established programs and policies that were identified as high priority actions in NOAA's recovery plans. The Draft Strategy is currently being reviewed by affected County departments, and the County's Fish and Game Advisory Commission and Water Advisory Commission. Staff is also consulting with various local agencies to assemble a comprehensive collaborative approach to coho and steelhead habitat restoration within the County. HSA anticipates bringing a report on these activities to your Board in mid 2015.

Conclusion and Recommendation

HSA staff is working closely with partner agencies to provide a comprehensive and integrated approach to county-wide water resources management, resulting in a substantial number of collaborative projects to address significant water resources issues.

It is, therefore, RECOMMENDED that your Board accept and file the 2014 status report on County water resources management and direct the Health Services Agency to provide its next annual status report in January 2016.

Sincerely,


Giang T. Nguyen
Health Services Agency Director

RECOMMENDED:


SUSAN A. MAURIELLO
County Administrative Officer

Attachments: 1. 2014 Status Report of Water Resource Management Efforts in Santa Cruz County
2. Water Use Restrictions and Savings in Santa Cruz County, 2014

Cc: Public Works Department
Planning Department
Water Advisory Commission
LAFCO
Water Agencies: SCWD, LCWD, SVWD, SqCWD, CWD, PVWMA

2014 Status Report of Water Resource Management Efforts in Santa Cruz County

Santa Cruz County continues to address major water resource challenges. 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 are conducting a range of efforts to address these and other water resource challenges.

Following is a summary of 7 topic areas of 2014 water resource management:

- A. Drought Response
- B. Water Supply and Conservation
- C. Water Quality
- D. Watershed and Aquatic Habitat
- E. Stormwater and Flood Management Integrated Regional Water Management (IRWM) – Santa Cruz Region
- F. IRWM- Pajaro Region

A. Drought Response

1. 2014 was the third year of a critical drought in California, with Santa Cruz County in the majority of the state that was designated as subject to exceptional drought. Streamflow in the San Lorenzo River, the primary water source of Santa Cruz, reached the lowest levels reported in 77 years of monitoring.
2. Following the rains of December 2014, the state of drought in Santa Cruz County has only abated one level, and is still considered to be extreme drought, according to the U.S. Drought Monitor.
3. All large public water systems in the county implemented water rationing, use restrictions, and/or conservation programs in 2014 to address the impacts of the drought. Santa Cruz saw some of the highest levels of water use reduction in the state, with reductions of 28% in Santa Cruz City, and 20-27% in other jurisdictions.
4. The County adopted emergency measures to limit excessive outside watering. County staff responded to reports and observations of excessive or unpermitted water use and sent out 14 notices to water users and stream diverters to reduce use.

B. Water Supply and Conservation

1. The City of Santa Cruz formed a Water Supply Advisory Committee in order to further re-evaluate the water supply deficiencies and potential options to address those deficiencies. The Committee is expected to make recommendations to the City Council in mid to late 2015.

2. The City of Santa Cruz completed a baseline water conservation study and will complete a new ten year water conservation plan to quantify the amount of additional conservation that can be reliably expected.
3. The Soquel Creek Water District continues to face the need to cut pumping by 35% and has conducted a series of public workshops to evaluate its options without a joint desalination project in Santa Cruz, including use of water exchange, recycled water, groundwater injection, water use curtailment, desalination from Moss Landing or within the District's service area, and increased groundwater management.
4. County staff continue to work with the water agencies to complete an evaluation of potential opportunities for water exchanges, including potential yield, infrastructure needs, costs, fish impacts, and water rights issues. Report preparation is underway.
5. The County, Soquel Creek Water District and Central Water District have held a series of meetings for private groundwater users and other interested stakeholders in the mid-county groundwater basin, to discuss basin management issues and engage non-municipal pumpers in long term management of the basin. A pilot project has also been initiated with private well owners to assist with conservation measures both inside and outside the home.
6. Soquel Creek Water District and Central Water District invited the County, the City of Santa Cruz and the Pajaro Valley Water Management Agency to participate in the Basin Implementation Group (BIG) for the mid-county/Soquel/Aptos groundwater basin. These efforts will be furthered by the adoption of the Sustainable Groundwater Management Act, which mandates formation of Groundwater Sustainability Agencies by 2017 and development of a plan by 2022 to achieve groundwater sustainability by 2042.
7. The City of Santa Cruz continues to negotiate its habitat conservation strategy with state and federal fishery resource agencies. This work has been somewhat delayed by other water planning efforts that will help determine options and costs for alternative supplies that will allow the City to give up some of its current water supply in order to support the recovery of Coho salmon and steelhead. As an interim measure, the City released a significant amount of water below its diversions on Laguna Creek and the San Lorenzo River to enhance habitat.
8. The San Lorenzo Valley Water District has begun development of information necessary to evaluate the impact of its stream diversions on fish habitat. It is expected that this process will take 5-10 years to reach an agreement on the amount of stream flow the District needs to release to adequately restore fish habitat.
9. The San Lorenzo Valley Water District and the Scotts Valley Water District secured a grant from the California Department of Public Health to construct emergency interties connecting the two districts and the four subareas of the San Lorenzo District. These interties can eventually be used of conjunctive management and water exchange, but not until a full evaluation of fishery and other environmental impacts is completed.
10. County staff worked with staff from the Local Agency Formation Commission (LAFCO), San Lorenzo Valley Water District and Lompico County Water District to pursue an effort to make capital improvements and merge the two Districts to address substantial deficiencies in water quality and reliability. The merger was approved by LAFCO, pending

approval by Lompico voters of a proposed capital improvement bond in early 2015. An emergency intertie between the districts was completed with the aid of state drought funding assistance.

11. County staff are working with the City of Santa Cruz, Soquel Creek Water District, and Scotts Valley Water District to apply for state grants to evaluate recycled water options.
12. County staff have assisted Pasatiempo golf course in the pursuit of options to use recycled water from Scotts Valley on the golf course.
13. Scotts Valley Water District will complete an update of the groundwater model for the Scotts Valley area in 2015 that will help determine groundwater management objectives and options, including the effects of water exchange.
14. Central Water District completed a study of options for moving pumping to the Purisima Formation groundwater basin and reducing pumping from the Aromas Formation, which is overdrafted and subject to naturally elevated levels of hexavalent chromium. Central and Soquel Creek Water Districts are continuing to evaluate options to address hexavalent chromium, including treatment, modification of wells, and abandonment of some wells.
15. 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, but which is very susceptible to adverse impacts from overlying land use. This work should be completed in 2015 and may result in recommendations to update County policies to provide more water resource protection in karst areas.
16. County staff continue to regulate the 130 small water systems with 5-199 connections. The County is using a one-time grant from the State Department of Public Health to bolster that program. Three small water systems are in the process of consolidating with larger systems, and two systems are in the process of upgrading their surface water treatment. County staff were in contact with all the systems during the drought and conducted measurements of groundwater depth if requested. With the adoption of the new lower state drinking water standard for hexavalent chromium, larger systems are conducting tests and a number of south county systems potentially have elevated levels.
17. The County, City of Santa Cruz, and Scotts Valley Water District received a Proposition 84 stormwater grant to implement projects to reduce stormwater runoff and increase groundwater recharge by infiltrating runoff from impervious surfaces. This will be implemented in 2015.
18. The County continues to coordinate submission of groundwater level data to the State's groundwater monitoring program (CASGEM). County staff also implement a cooperative program to monitor private well levels in the inland mid-county area.
19. County staff continue to work with the water agencies and the real estate community to implement the water conservation programs, including promotion of greywater reuse.
20. The presence of naturally elevated levels of hexavalent chromium in excess of the new state drinking water in south county groundwater will create expensive treatment challenges for the City of Watsonville, Soquel Creek Water District, Central Water District, and some small water systems that draw water from the Aromas Formation. Soquel has

worked with consultants to develop a new treatment approach and is one of the first in the state to receive a permit for a treatment plant for hexavalent chromium.

C. Water Quality

1. 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. The Environmental Health Services Division's Water Resources Director continues to serve on the State Clean Beach Task Force.
2. County staff maintain ongoing efforts for water quality protection through septic system management, monitoring, and investigation, funded by County Service Area (CSA) 12. In 2014, staff began work with the Onsite Sewage Disposal Technical Advisory Committee to update the County's onsite wastewater management program and sewage disposal ordinance to bring it into compliance with new state septic system requirements.
3. The County Water Resources Laboratory continues to offer free nitrate testing to residents with individual private wells. Several wells with nitrate above drinking water standards have been identified through this program.
4. Public Works Department staff have received approval from the State Clean Beach Task Force for grant funds to upgrade the sewer system near Soquel Creek and Neary Lagoon in order to eliminate potential sewer leaks and sources of contamination to Cowell and Capitola beaches.

D. Watershed and Aquatic Habitat

1. The Resource Conservation District of Santa Cruz County worked with landowners and agency partners to complete over 70 habitat improvement projects through the Integrated Watershed Restoration Program (IWRP). These projects included wetland restoration, fish barrier removal, rural road upgrades, stream habitat improvement, and community education.
2. County staff continued to work with the water agencies to maintain annual sampling of stream habitat and juvenile salmonids in four watersheds: San Lorenzo, Soquel, Aptos and Pajaro. In 2014, steelhead numbers were very low in Aptos Lagoon and Soquel Lagoon compared to the two previous years, and steelhead were again not found in Pajaro Lagoon. Numbers in the upland streams were also significantly reduced as a result of the drought.
3. County staff completed riparian assessments and general stream condition surveys for much of Bean, Zayante, and Branciforte Creeks and portions of Soquel, Lompico and Mountain Charlie Gulch Creeks.
4. 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. There were few requests for large woody material removal due to the limited number of storms in the 2013-14 winter season.

5. County staff are participating in a multi-agency group working with Caltrans to replace the CA Highway 1 Bridge at Scott Creek in a way that also enhances lagoon and beach habitat for listed species including coho salmon, steelhead, tidewater goby, red-legged frog, and snowy plover.
6. County staff are working with the National Marine Fisheries Service (NOAA Fisheries) to identify critical efforts to be implemented from the Coho Salmon Recovery Plan, which was released in 2013, and the draft Steelhead Recovery Plan, which was released for agency review in 2014. Staff are developing a coho and steelhead conservation strategy that lists key actions for the County to take. Staff are also consulting with other local agencies to put together a more comprehensive collaborative approach to coho and steelhead habitat restoration in the County.
7. As a part of an interim agreement with the fishery agencies, the City of Santa Cruz released significant flows for fish in Laguna Creek and the lower San Lorenzo River during much of 2014.
8. Staff of the County Planning and Environmental Health Services Departments continued to meet with other regulatory agencies to coordinate effective approaches to environmental code compliance.
9. 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.

E. Stormwater and Flood Management

1. County Public Works Department staff maintained operation of the ALERT flood warning system.
2. County staff continued to implement the County's stormwater management program and are updating the program to address the new requirements of the State's new municipal stormwater permit, that was adopted in 2013.
3. The County, City of Santa Cruz, and Scotts Valley Water District received Proposition 84 stormwater grant funds to implement projects that reduce stormwater runoff and increase groundwater recharge by infiltrating runoff from impervious surfaces. This will continue 2014 implementation through 2015.
4. The County and 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.

F. Integrated Regional Water Management (IRWM) – Santa Cruz Region

1. Regional partners competed most of the work on 8 projects funded by a \$1 million Proposition 84 IRWM Planning Grant:
 - Update the IRWM plan framework, including governance, financing, relation to land use planning, and stakeholder involvement, County Environmental Health, \$14,000

- Provide improvements to the IRWM Plan, including updated objectives, management strategies, projects, project prioritization and effectiveness assessment, data management, and performance evaluation, County Environmental Health, \$120,000
 - Develop a climate change strategy relative to water resources and water facilities, County Environmental Health, \$31,500.
 - Evaluate the potential to increase pumping in the eastern Purisima Formation in order to reduce pumping from the overdrafted Aromas formation, Central Water District, \$200,000
 - Update the Santa Margarita Groundwater Model, Scotts Valley Water District, \$221,519
 - Develop detailed recommendations for conjunctive use and water transfers, County Environmental Health, \$164,500
 - Develop a hydrologic and hydraulic model of the middle and lower Watsonville Slough system to support future management and enhancement efforts, Resource Conservation District, \$199,056
 - Administer and manage the Grant, Regional Water Management Foundation (RWMF), \$49,175
2. The RWMF received a \$100,000 grant from California Department of Water Resources to promote engagement of disadvantaged communities in IRWM. Work will be focused in Davenport and Watsonville with an evaluation of other potential low income communities in the region.
 3. County and RWMF staff completed work on the IRWM Plan Update, which was adopted by the County and other partner agencies in August 2014. This plan will help guide water management efforts and will form the basis for application for additional water bond grant funds.
 4. The Santa Cruz IRWM region applied for drought funding under Proposition 84 to explore groundwater recharge with recycled water and make more efficient use of the City of Santa Cruz supply. Although the application scored well, there was not enough funding available for the Central Coast funding area.
 5. Partner agencies continue to provide \$80,000 to the RWMF to support ongoing IRWM planning and management in the region for FY 2014-15.
 6. County staff have provided outreach to the community on IRWM efforts, including one public workshop and talks to County commissions and service groups.
 7. County staff participated in statewide water planning, including the Public Advisory Committee for the California Water Plan Update 2013, and the IRWM Strategic Plan development.

G. IRWM- Pajaro Region

County staff also participate actively in the Pajaro IRWM, which encompasses the entire 1300 square mile Pajaro watershed. Pajaro IRWM includes water supply and flood management projects throughout the Pajaro Valley, as well as water quality and habitat restoration projects in the Pajaro Valley outside the Watsonville Slough system. The Pajaro IRWM is led by Santa Clara Valley Water District, San Benito County Water District, and the Pajaro Valley Water Management

Agency. Following is the list of current water resource management activities within the Santa Cruz County portion of the Pajaro Watershed:

1. The Pajaro Valley Water Management Agency (PVWMA) adopted the Basin Management Plan Update in 2014. Implementation of this plan is expected to reduce groundwater extraction by 12,000 af/yr and halt further seawater intrusion.
2. PVWMA formed an Ad Hoc Funding Committee to develop a rate structure for collection of pumping fees to fund implementation of their updated Basin Management plan. The new rates will be put to a vote of the well owners in 2015.
3. The Community Water Dialog, a community stakeholder group, continued to promote agricultural grower and community support for a variety of efforts to implement managed groundwater recharge projects, improved irrigation efficiency, and community support for improved basin management.
4. The Santa Cruz County 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.
5. The City of Watsonville, County, and other entities have worked together to better characterize and address the causes of excessive harmful algae blooms at Pinto Lake. Additional grant funds have been received to better characterize the specific sources of algal nutrients, and to begin implementation of measures to reduce nutrient loading.
6. The County, City and other entities continue to pursue implementation of a project with the Army Corps of Engineers to significantly upgrade the flood conveyance system to provide an adequate level of flood protection.
7. In 2014 the Resource Conservation District and partner agencies completed College Lake Improvement and Watershed Management Project. This project involved field work and modeling to better understand the movement and storage of water in College Lake, and evaluated various scenarios for management of the lake for water supply, fish habitat, wildlife habitat and agricultural use. Modelling and findings from this effort will support further evaluation of water supply options for College Lake, which is identified as an important project in the PVWMA Basin Management Plan.
8. In late 2013, the Pajaro IRWM region was notified that they were the only region in the Central Coast selected for Round 2 of Proposition 84 funding, in an amount of \$7,569,000. Within Santa Cruz County, this grant will fund an increased recycled water storage project for PVWMA and an agricultural water quality and aquifer enhancement project to be conducted by the Resource Conservation District.
9. PVWMA and its partners received approximately \$5 million in drought relief funding under Proposition 84. This will help fund expanded storage and distribution for recycled water irrigation and improved irrigation efficiency.
10. As a part of the drought relief funding, the City of Watsonville was awarded a \$3.2M grant to upgrade its Corralitos surface water treatment plant. This upgrade will (1) allow the City to treat and distribute water in the winter time (2) reduce the amount of groundwater used in the winter time and (3) enhance stream flow to benefit fisheries.

24

Water Use Restrictions and Savings in Santa Cruz County, 2014
(June through November)

Agency	2014 Drought Restrictions	Average Residential Water Use June-Nov. 2014 (gal. per person per day)	Average Monthly Savings June-Nov. 2013 to 2014
State (SWRCB) Requirements, July 15, 2014	<ul style="list-style-type: none"> • Water Waste Prohibitions • Limit outside watering to 2 days per week or equivalent savings 		Objective of 20%
County of Santa Cruz	<ul style="list-style-type: none"> • Permanent Water Waste Prohibition <ul style="list-style-type: none"> ○ No hosing off of hardscapes ○ No irrigation run-off ○ Shut-off nozzle required on hoses ○ Limit outside watering to 2 days per week ○ No spray irrigation 10 am-5 pm • 20% voluntary reduction 		
City of Santa Cruz Water Department	<ul style="list-style-type: none"> • Stage 3 (of 5) Water Shortage Emergency • Mandatory 25% reduction • Permanent Water Waste Prohibition <ul style="list-style-type: none"> ○ No spray irrigation 10 am-5 pm ○ No hosing off of hardscapes ○ Shut-off nozzle required on hoses ○ No irrigation run-off ○ Water service at visitor facilities only on request 	47	26%
Soquel Creek Water District	<ul style="list-style-type: none"> • Stage 3 (of 5) Water Shortage Emergency • Permanent Water Waste Prohibition <ul style="list-style-type: none"> ○ No Watering 10 am-8 pm ○ No hosing off of hardscapes ○ No irrigation run-off ○ Shut-off nozzle required on hoses • 200% Water Demand Offset for new connections 	62	22%
Scotts Valley Water District	<ul style="list-style-type: none"> • Stage 1 (of 3) Water shortage • Permanent Water Waste Prohibition <ul style="list-style-type: none"> ○ No spray irrigation 10 am-5 pm ○ No hosing off of hardscapes ○ Shut-off nozzle required on hoses ○ No irrigation run-off 	82	19%
San Lorenzo Valley Water District	<ul style="list-style-type: none"> • Stage 2 (of 5) Water Restrictions <ul style="list-style-type: none"> ○ Outdoor watering 3 days only ○ No spray irrigation 10 am-5 pm ○ No hosing off of hardscapes ○ Shut-off nozzle required on hoses ○ No irrigation run-off 	74	21%
City of Watsonville	<ul style="list-style-type: none"> • Permanent Water Wise Use • 20% voluntary reduction • Permanent Water Waste Prohibition <ul style="list-style-type: none"> ○ No spray irrigation 9 am-5 pm ○ Shut-off nozzle required on hoses ○ No irrigation run-off 	73	15%

Notes: Water usage and reductions from reports submitted by urban water agencies to state:

http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/conservation_reporting_info.shtml

See agency websites for more detail on programs and restrictions.