

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING December 6, 2012
Prepared on November 26, 2012

ITEM NUMBER: 13

SUBJECT: Water Resources Management Efforts in the Region

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INTRODUCTION

Board members expressed interest in further discussing water resources management following attendance at the November 2012 Water Quality Coordinating Committee (WQCC) meetings. Integrated water resources management refers to water management that considers and coordinates both water quality and water supply. Board members also expressed interest in improving their understanding of integrated water resource management issues, projects, and related regulatory authorities in the Central Coast Region.

In response, staff presents the following lists and brief descriptions of existing projects and programs, as well as of some additional tools that speakers at the WQCC encouraged regional boards to consider to effectively implement water management dealing with both water supply and quality issues. The existing projects and programs are listed in priority order according to the region's existing priority issues. Those priorities include, in priority order:

1. Preventing and Correcting Threats to Human Health
2. Preventing and Correcting Degradation of Aquatic Habitat
3. Preventing Degradation of Hydrologic Processes
4. Preventing/Reversing Seawater Intrusion
5. Preventing Further Degradation of Groundwater Basins from Salts

DISCUSSION

The Central Coast Water Board's water quality regulatory authority provides a key framework for watershed-based resource management with direct links to water supply protection. For example, the State Water Resources Control Board recently signaled a desire for the Regional Water Boards to consider setting flow objectives in streams and rivers to protect all associated beneficial uses. Integrated water resources management has become more critical in recent years due to increasing demands on water use, decreasing availability of clean and affordable water, decreasing agency resources, and increasing focus on priorities, efficiency and effectiveness. The Central Coast Region is susceptible to ongoing water resource pressures. At the same time, the Central Coast Water Board and several local agencies are progressively and actively managing water quality and supply as demonstrated in part by the projects listed below.

Overview of Integrated Regional Water Management (IRWM) - Central Coast Region

- IRWM Grant Program (addresses priorities 1, 2, 3, 4, 5) (Harvey Packard)
 - Integrated Regional Water Management is a collaborative effort to manage all aspects of water resources in a region. IRWM encourages local agencies to work cooperatively to manage local and imported water supplies to improve quality, quantity, and reliability. The Department of Water Resources is managing \$1.8 billion in grants to local agencies.
 - There are six IRWM areas in the Central Coast Region: Santa Barbara County, San Luis Obispo County, Monterey Peninsula, Carmel Bay, and South Monterey Bay, Greater Monterey County, Pajaro River Watershed, and Santa Cruz County.
 - Water Board staff coordinates with each IRWM area to help develop projects that complement Water Board priorities. Water Board staff also helps DWR review grant proposals from the IRWM areas.
 - DWR has awarded numerous grants totaling tens of millions of dollars to local IRWM areas in many areas of water supply and water quality (see table below)
 - Katie McNeill is the Central Coast Water Board's IRWM Coordinator. She leads a team of six Region 3 staff liaisons (see table below) assigned to each of the funding areas to identify opportunities to prioritize efforts to maximize water quality benefits through the IRWM process and to facilitate cross-program input and regional consistency. She provides Water Board reviews of IRWM funding guidelines and IRWM plans as needed, and develops concept proposals that are aligned with our highest priorities, in concert with area liaisons, for inclusion in the IRWM plans. Katie also leads the Central Coast Water Board's technical reviews of IRWM grant proposals for the Department of Water Resources to ensure consistency with the Basin Plan and the Central Coast Water Board's Vision and Priorities.

IRWM Funding Area	R3 Liaison	R3 Program
Santa Barbara County	Peter Meertens	TMDL
San Luis Obispo County	Dominic Roques	Storm Water
Monterey Peninsula, Carmel Bay and Southern Monterey Bay	Matt Keeling	GAP
Greater Monterey/Salinas	Hector Hernandez	Ag
Pajaro Valley	Cecile DeMartini	WDR
Northern Santa Cruz County, not including the Pajaro	Alison Jones	NPS

Existing Water Quality and Supply Projects related to Integrated Water Resources Management

- Capture and Reuse: Low Impact Development (LID) Initiative and Joint Effort for LID and Hydromodification Control (addresses priorities 2, 3) (Lisa McCann)
 - The Central Coast LID Initiative supports the vision of healthy watersheds through implementation of LID design principles, hydromodification controls, and sustainable development throughout the Central Coast Region. The Central Coast Water Board established a Low Impact Development Endowment Fund (LID fund) with the Bay Foundation of Morro Bay in 2008. This fund provides support for the LIDI, which operates in partnership with the UC Davis Extension, Land Use and Natural Resources Program and the Planning, Design and Construction Institute at Cal Poly San Luis Obispo. LIDI services focus on the planning, design, and implementation of LID projects and programs. This includes regional training, regulatory compliance, site-specific project designs, and large scale, long-term community level planning.
 - The Joint Effort is a collaborative, region-wide approach municipalities are using to implement Low Impact Development and Hydromodification Control. Municipalities participate in the Joint Effort to fulfill obligations in their Storm Water Management Programs (SWMPs). SWMPs for each municipality participating in the Joint Effort contain specific Best Management Practices (BMPs) pertaining to the Joint Effort. These BMPs fall into two categories: development of hydromodification control criteria, and implementation of hydromodification controls and LID. The Central Coast Water Board recently approved a Resolution enacting post-construction requirements that fulfill the obligation of permitted municipalities to implement these BMPs in their SWMPs. The post-construction requirements specify how development projects must be designed to treat, capture and reuse stormwater so watershed processes such as base flow in streams and groundwater recharge are protected. The requirements emphasize strategies to achieve reductions in pollutant loading, runoff volumes and enhancement of groundwater recharge.
- Water efficiency, waste, and unreasonable use (addresses priorities 4, 5)
 - Using Water Code Authority (Jessica Jahr)

Water Rights utilizes a doctrine called the “Reasonable Use Doctrine,” which is based on the California Constitution and California Water Code. The Constitution states that a water right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. The State Water Board is empowered to institute necessary judicial, legislative, or administrative proceedings to prevent waste or unreasonable use. The heart of the reasonable use doctrine includes issues of waste or inefficient use of water delivery or use – including failure to employ appropriate water conservation measures or make use of recycled water where available, but the doctrine also extends broadly to cover diversion, delivery, and use of water. If a Regional Board believes that water is being wasted or used unreasonably, then it can make a request for the State Water Board to investigate that water right and make a determination on whether the reasonable use doctrine was violated.
 - Pajaro Valley Water Management Agency (Harvey Packard)

In response to PVWMA’s process to develop projects to address seawater intrusion, the Executive Officer sent a letter to PVWMA recommending that it seriously consider water efficiency, especially in agriculture. The letter

recommended that PVWMA evaluate irrigation practices to determine where improvements could be made. PVWMA has made this project part of their efforts. The letter is included as Attachment 1.

- Water recycling (addresses priorities 4, 5) (Harvey Packard)
 - Numerous facilities in the region produce recycled domestic wastewater. This water replaces potable water for mostly irrigation purposes. Monterey Regional Water Pollution Control Agency operates the world's largest water recycling facility designed for food crop irrigation, capable of 91 acre-feet per day. Use of recycled water replaces groundwater pumping in the Castroville area to slow seawater intrusion.
- Aquifer Storage and Recovery (ASR) (addresses priorities 1, 3, 4, 5) (John Robertson)
 - Currently, the Monterey Peninsula Water Management District manages diversion of excess rainy season flows from the Carmel River Basin during high flow periods. The District uses existing California American Water (CAW) wells located in the lower stretches of the river. The diverted water is treated to potable drinking water standards and pumped approximately six miles through the CAW distribution system to the hydrologically-separate Seaside Basin, where the water is injected into specially-constructed ASR wells for later recovery during dry periods. This storage works to offset a portion of the overdraft in the Seaside Basin. More information is available on this ASR project at:
<http://www.mpwmd.dst.ca.us/WaterProject1.html>
 - Within the last month, Groundwater Section staff has received inquiries regarding potential permitting of several additional ASR projects in the region. Given the lack of year-around surface water flows, and the challenges of seawater intrusion and negative water balances for many of the region's aquifers, combined with a growing population, ASR projects should continue to increase in the region for the near future.

Existing Planning and Assessment Projects related to Integrated Water Resources Management

- CCAMP (addresses priorities 1, 2, 3) (Lisa McCann)
 - The Central Coast Ambient Monitoring Program (CCAMP) is the Board's regionally scaled water quality monitoring and assessment program. CCAMP is primarily funded by the State Water Board's Surface Water Ambient Monitoring Program and by a private endowment held with the Bay Foundation of Morro Bay. The CCAMP mission is to collect, assess, and disseminate scientifically based water quality information to aid decision makers and the public in maintaining, restoring, and enhancing water quality and associated beneficial uses.
- CCAMP-GAP (Groundwater Assessment and Protection) (addresses priorities 1, 3, 4, 5) (John Robertson)
 - GAP's current focus is on participating in a USGS domestic well sampling effort in the Salinas groundwater basin. The original project is funded by State Board's GAMA (Groundwater Ambient Monitoring and Assessment) program. GAP plans to supplement this project with additional funding (estimated at \$50,000) to expand the number of domestic wells sampled as part of this effort.
 - Additionally, GAP staff is currently setting up the endowment and operating funds approved by the Water Board in May 2012.
- Healthy Watersheds Assessment (addresses priorities 1, 2, 3, 4, 5) (Lisa McCann):

- The Healthy Watersheds Assessment is a new project that will assess comprehensive, available field data (in addition to Central Coast Ambient Monitoring Program water quality data) to identify where watersheds are healthy, where they are not, what trends look like and what is the status of regional conditions for the Central Coast Water Board's three goals of properly managed land, healthy aquatic habitat and clean groundwater. The assessment will also evaluate the relationships between the three goals, and the connections between land activities and impacts to habitat and groundwater. The project is building on work being done for the California Healthy Streams Partnership. The Partnership is devoted to monitoring and assessing the quality of California's stream and river ecosystems and bringing the resulting information to decision makers and the public via the internet. The Partnership is a work group of the California Water Quality Monitoring Council (a State inter-agency effort mandated by CA Senate Bill 1070) and that includes representatives from the State and Regional Water Boards, the Department of Fish and Game, University of California at Davis, the US Environmental Protection Agency and others. Our project is also being coordinated with a related effort at the San Diego Water Board. We ultimately hope to share the approach with other Regions in support of the California "My Water Quality" data portal that can be accessed from all the Regional Board and the State Board websites. The data portal presents California water quality monitoring data and assessment information that may be viewed across space and time to answer questions like "Is our water safe to drink?" and "Is it safe to swim in our waters?". The work to develop and display results of our final Healthy Watersheds Assessment will include the following:
 - Translating the Water Board's goals into assessment questions and indicators
 - Spatially estimating watershed and regional conditions based on data and indicators
 - Developing assessment thresholds and scorecards
 - Linking field measurements to program performance measures
 - Displaying the assessment results and outcomes in reports and on our website
- Salt and Nutrient Management Plans (addresses priority 5) (Harvey Packard)
 - The State Water Board's Recycled Water Policy requires development of a salt and nutrient management plan for each groundwater basin in the state. The plan is to be developed by local stakeholders with involvement of Water Board staff. The plan is intended to guide local agencies and salts dischargers to develop implementation and monitoring plans to protect groundwater against excessive salts buildup.
 - Salt and nutrient management plans are currently being developed for the following groundwater basins: Santa Maria, Paso Robles, Seaside, Pajaro Valley, Llagas, and Hollister area. All but Paso Robles have received IRWM planning grants to help develop the plans.

Other Possible Efforts to Improve Integrated Water Resource Management

- Educating the public on the value of water
 - The Regional Board has not historically taken an active role in education the public on the value of water. Typically, this activity is done at the local level.
- Planning for climate change

- Planning is occurring at the state level including the Governor's Office, CalEPA (Air Board), and Natural Resources Agency (Department of Water Resources). Recently the Air Board sold the first permits to regulate greenhouse gases.
- Public Trust- setting flow objectives (addresses priorities 1, 2) (Jessica Jahr)
 - The State Water Board and Regional Boards may set water quality standards for flow (flow criteria) to protect beneficial uses, just as it may set objectives for other water quality parameters. There are three methods used to set flow objectives. The first is that the Regional Board could set flow objectives in its basin plan, and then the State Board would approve the basin plan amendment. The second is that under Porter-Cologne section 13170, the State Board can adopt water quality control plans which would include flow objectives. This is the method the State Board has used in the Delta Plan. The third method is that under Porter-Cologne section 13140, the State Board can formulate and adopt state policy for water quality control. Under section 13142(b), state policy can include water quality objectives as key locations for planning and operation of water resource development projects and for water quality control activities. This includes setting flow objectives. The Regional Board could do the leg work and develop the water flow objectives, propose them to the State Board, which would then adopt the state policy.

Staff will introduce each item above and provide a brief overview for Board discussion.

ATTACHMENT

1. July 5, 2011 letter to Pajaro Valley Water Management Agency