ASSEMBLY COMMITTEE ON WATER, PARKS AND WILDLIFE

Tuesday, December 17, 2013, 12-2 p.m.
Seaside City Council Chambers
440 Harcourt Avenue
Seaside, CA

INFORMATIONAL HEARING SERIES:
THE NEED FOR A 2014 WATER BOND: LOCAL PERSPECTIVES

BACKGROUND

The purpose of this series of hearings is to explore the need for a general obligation bond in 2014 to help fund water-related projects and programs and to hear local perspectives on the potential public benefits to communities throughout the state from such a water bond. The California Department of Water Resources (DWR) subdivides the state into ten hydrologic regions for water planning purposes and each of those hydrologic regions matches the contours of a major watershed, which is an area of land where all of the water that falls on it or flows under it all drains to a common location.

The Central Coast Hydrologic Region extends from southern San Mateo County in the north to Santa Barbara County in the south but is divided into northern and southern planning subareas at the San Luis Obispo County line. The Northern Planning Subarea (Northern PSA) of the Central Coast Region includes the southern tip of San Mateo County, part of Santa Clara County, most of San Benito County, and all of Santa Cruz and Monterey Counties. The Southern Planning Subarea consists of San Luis Obispo and Santa Barbara Counties.

Today's hearing will focus on the unique needs of the Central Coast Hydrologic Region, and in particular the Northern PSA.

<u>Short History of the 2009 Water Bond</u>

In 2009, former Governor Schwarzenegger convened the Legislature in extraordinary session to take up issues related to protecting and restoring the Delta ecosystem and improving water reliability and management, including addressing water conveyance, storage, conservation and groundwater, and considering a general obligation bond. Subsequently, a historic five-bill package of water legislation was passed and signed, including SB 2 (Cogdill), Chapter 3, Statutes of the 2009-10 Seventh Extraordinary Session (SBX7 2).

SBX7 2 called for a bond to be placed on the November 2010 ballot that, if approved by the voters, would authorize the issuance of $11.14 billion in general obligation bonds for a wide range of water projects and programs including water conservation and efficiency, groundwater protection and cleanup, integrated regional water management, ecosystem and watershed protection and restoration, water recycling, and water storage (Water Bond).

Delay and Anomaly

However, in 2010 and again in 2012, supporters of the Water Bond recognized that a sluggish economy coupled with the state's need to focus on its dire budget shortfall meant that delaying the bond vote could increase its chances of success. AB 1265 (Caballero) moved the Water Bond to the 2012 general election and deleted a provision allowing for-profit entities to be members of joint powers authorities for bond-funded surface water storage projects. AB 1422 (Perea) moved the Water Bond to the November 4, 2014 statewide general election but otherwise left the text unchanged. While changing the text of an initiative measure requires a 2/3rds vote of each house, changing the date of an election can be done with only a majority vote. As a result, the Water Bond currently on the ballot is still titled the "Safe, Clean, and Reliable Drinking Water Supply Act of 2012."

Efforts to Reduce and Refocus the Bond

Both houses of the Legislature have engaged in substantial efforts to reanalyze and right-size a bond so that voters can be confident that it addresses California's most pressing water infrastructure and program needs and is accountable.

In the Assembly, Speaker John A. Pérez convened a Water Bond Working Group comprised of members with diverse regional and statewide perspectives and chaired by Assemblymember Anthony Rendon. With a historic level of new members in the Assembly and a high degree of interest in the bond, the Working Group members conducted an extensive series of workshops and meetings among themselves and with their Assembly peers covering the background and composition of the current Water Bond, shifts in priorities that have occurred since it was passed in 2009, and the need to reduce its size and increase its accountability.

The 2013 Assembly Water Bond Working Group process included:

- 5 public hearings (3 in the Assembly; 2 in the Senate)
- 6 legislator briefings on water policy and funding
- Establishment of *Principles* that set priorities and emphasized accountability to the voters
- 3 rounds of public comments, and
- Publishing the *Water Bond Framework* & posting summaries of public comments on the Water, Parks & Wildlife Committee website at http://awpw.assembly.ca.gov/waterbond

Those efforts resulted in a public hearing in July of 2013 to present and receive comment on a set of Water Bond "principles" and another public hearing in August of 2013 to present and receive comment on a more specific "framework" for a revised water bond language.

Following the Working Group process, AB 1331, an Assembly Water, Parks and Wildlife Committee bill awaiting hearing in the Senate Natural Resources and Water Committee (SNRW), was amended on August 26, 2013 into the *Climate Change Response for Clean and Safe Drinking Water Act of 2014.* AB 1331 repeals the existing bond and places a $6.5 billion bond on the November 4, 2014 ballot that is better tailored to current water management challenges. AB 1331 was further refined on September 11, 2013.[1]

Specifically, the $6.5 Billion Assembly Water Bond proposal includes:

- $1 Billion for maintaining and improving Drinking Water Quality
- $1.5 Billion for protecting Rivers & Watersheds
- $1.5 Billion to fund integrated regional water management that will improve water delivery and help regions reduce the impact of climate change on water supply.$1 Billion to protecting The California Delta that is critical to the state water supply system and a key ecological resource.
- $1.5 Billion for Water Storage projects that will also reduce the impact of climate change on clean, reliable and affordable water supply.[2]

Meanwhile, the Senate has also actively sought to educate members of the Legislature and the public on a need to refocus and reduce the Water Bond by holding a series of four informational hearings during 2013.[3] The Senate has two current bond measures, SB 40 (Pavley) and SB 42 (Wolk). Like AB 1331, both are also awaiting hearing in SNRW. SB 40, the *Safe, Clean, and Reliable Drinking Water Supply Act of* 2014, changes and updates the name of the current bond act and calls for reducing and potentially refocusing it. SB 42, the Safe *Drinking Water, Water Quality, and Flood Protection Act of 2014*, would repeal the existing bond and place an entirely new $6.475 billion measure on the November 2014 ballot.

Central Coast Hydrologic Region Northern Planning Subarea

As demonstrated by the graphic on the following page, the Northern PSA ends at the northern border of San Luis Obispo County. However, even within the Northern PSA there is a diversity of water needs and water supply options. For example, in addition to local groundwater and surface water supplies Santa Clara County receives water from both the federal Central Valley Project (CVP) and the State Water Project (SWP); San Benito County also receives CVP water; and, Santa Cruz County and Monterey County receive no imported water supplies.

[1] Specific bills, including AB 1331, SB 40, and SB 42, may be reviewed and tracked through the California Legislative Information web site maintained by the Office of Legislative Counsel at: http://leginfo.legislature.ca.gov/.

[2] Information on the Assembly water bond process, including links to comment letters on the Assembly Working Group Framework, can be found at: http://awpw.assembly.ca.gov/waterbond .

[3] Information on the Senate Water Bond Oversight Hearings can be found at: http://sntr.senate.ca.gov/informationaloversighthearings .

Central Coast Region

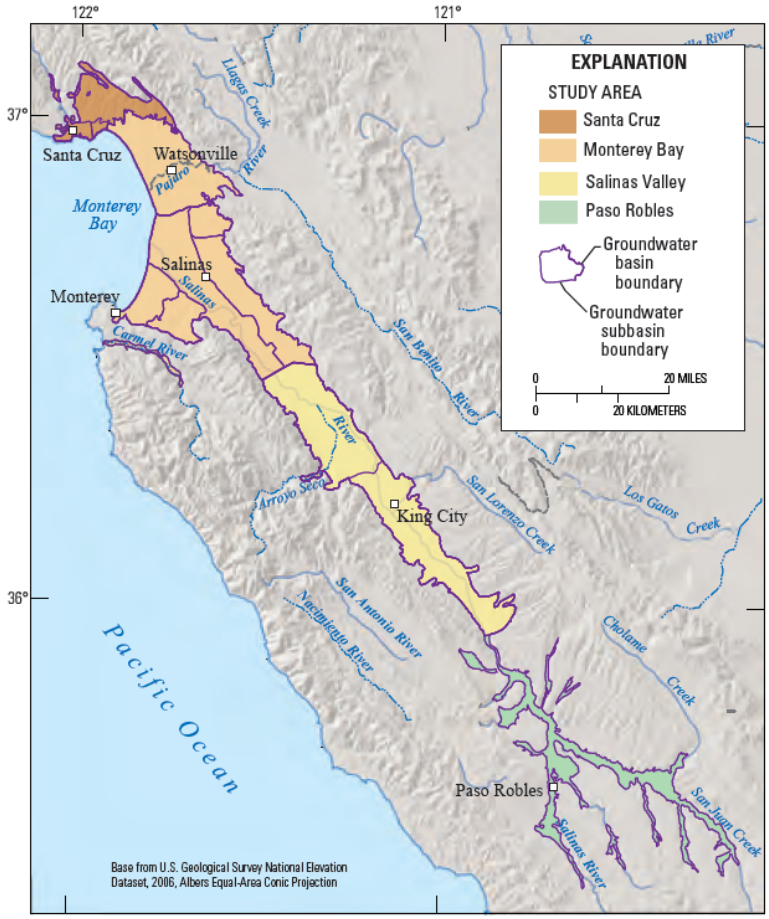
Image courtesy of DWR California Water Plan 2009 (Bulletin 160-09)

Groundwater Contamination

Historically, groundwater is the primary water supply in Santa Cruz and Monterey Counties followed by local surface water. However, groundwater supplies in some areas of this region have experienced high levels of nitrate contamination, primarily due to agricultural fertilizers, and suffered from overdraft, which exacerbates salinity intrusion.

The Groundwater Ambient Monitoring and Assessment Program (GAMA) at the State Water Resources Control Board (State Water Board) is California's comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. GAMA then compiles these test results with existing groundwater quality data from several agencies into a publicly-accessible internet database.[4]

AB 599 (Liu/2001), the Groundwater Quality Monitoring Act, resulted in the GAMA "Priority Basin Project" (PBP), a plan to monitor and assess the quality of groundwater basins that account for over 90% of all groundwater used in the state. The Monterey-Salinas Study Unit, below, which consists of nearly 1,000 square miles, is one of those priority basins.



The PBP assesses water quality in that part of the aquifer system used for drinking water, primarily public supply. Water quality in the primary aquifer may differ from that in the deeper parts of the aquifer, or from the shallower parts, which are being assessed by GAMA's Domestic Well Project.

Land use in the PBP Monterey-Salinas Unit is 44% natural (mostly grassland and forests), 43% agricultural, and 13% urban. Primary agricultural uses are row crops, pasture, hay, and vineyards. The largest urban areas are the cities of Santa Cruz, Watsonville, Monterey, Salinas, King City, and Paso Robles.

In the Monterey-Salinas Unit nitrate is the constituent that most frequently exists at high concentrations in the primary

[4] For more information see: http://www.waterboards.ca.gov/gama/

aquifer. Nitrogen in groundwater can occur as dissolved nitrate, nitrite, or ammonia. Nitrate pollution can pose serious health risks to pregnant women and infants if consumed at concentrations above the Maximum Contaminant Level (MCL) of 45 milligrams per liter set by the California Department of Public Health. Nitrate contaminated groundwater is a particularly significant problem in the Tulare Lake Basin and Salinas Valley areas, where about 2.6 million people, including many of the poorest communities in California, rely on groundwater for their drinking water. Many other areas of the State, however, also have nitrate contaminated groundwater making it the most frequently detected anthropogenic chemical above an MCL in drinking water sources.

On February 20, 2013 the State Water Board submitted a report to the Legislature entitled *Recommendations Addressing Nitrate in Groundwater*. The report was required by SB 1 (Perata) from the Second Extraordinary Session of 2008 (SBX2 1). SBX2 1 directed the State Water Board to develop pilot projects focusing on nitrate in groundwater in the Tulare Lake Basin and Salinas Valley and to submit a report to the Legislature on the scope and findings of the pilot projects, including recommendations, within two years of receiving funding. The purpose of the pilot projects was to improve understanding of the causes of groundwater contamination, identify potential remediation solutions and funding sources to recover state costs to clean up or treat groundwater, and ensure the provision of safe drinking water to all communities.

One of the State Water Board's first steps in the development of the pilot projects was to contract with the University of California, Davis (UC Davis) in 2010 to conduct an independent study. Some of the findings of the UC Davis Nitrate Report were:

- Nitrate problems will likely worsen for decades. For more than half a century, nitrate from fertilizer and animal waste has infiltrated into Tulare Lake Basin and Salinas Valley aquifers. Most nitrate detected in drinking water wells today was originally applied to the surface decades ago.
- Agricultural fertilizers and animal wastes applied to cropland are by far the largest regional sources of nitrate in groundwater. Other sources can be locally important.
- Nitrate loading reductions are possible, some at modest cost. Large reductions of nitrate loads to groundwater can have substantial economic cost.

The State Water Board/UC Davis reports raise many issues, including the need to adequately fund projects and programs to address the needs of communities with nitrate-contaminated groundwater, many of which are economically disadvantaged or severely economically disadvantaged.[5]

A second major groundwater challenge for parts of the Northern PSA, particularly around Monterey, is saltwater intrusion. Saltwater intrusion is the movement of salty water, such as

[5] The full State Water Board Report, which includes the UC Davis Report as an appendix, can be found at: http://www.waterboards.ca.gov/water_issues/programs/nitrate_project/index.shtml

ocean water, into a freshwater aquifer where it can lead to contamination of drinking water sources and other consequences.

Groundwater pumping in excess of freshwater recharge and subsurface inflow from adjacent areas is the primary cause of seawater intrusion. Generally, groundwater and seawater are somewhat connected in most coastal aquifers. When adequate groundwater is flowing down towards the coast, it can create a barrier that pushes back against the saline water. However, saltwater has a higher mineral content than freshwater, which makes it denser and gives it a higher water pressure. That can lead to saltwater pushing back inland in a wedge beneath the freshwater. Human activities, especially groundwater pumping from coastal freshwater wells, can unbalance the relationship between seawater and groundwater by dropping the groundwater level, which reduces its water pressure and allows saltwater to flow further inland.

As far back as 1952, the predecessor agency to DWR, the State Department of Public Works, Division of Water Resources, published *Water Quality Investigations Report No. 3* detailing the "more important groundwater basins" as part of a mission to "investigate the condition of the quality of all waters within the State, including saline waters, coastal and inland, as related to all sources of pollution of whatever nature…." These ongoing investigations evolved into a series of reports known as Bulletin 118: *California's Groundwater*. The last update of Bulletin 118 was in 2003.[6]

DWR Bulletin 118 maps out by name, and with a unique numerical identifier, all of the groundwater basins and subbasins in California. All Central Coast basins begin with a "3." In the Northern PSA, two of the most major groundwater basins are the Pajaro Valley Basin (3-2) and the Salinas Valley Basin (3-4). Even in 2003, it was recognized that the Pajaro Basin was one of 11 groundwater basins in California that had reached a critical state of overdraft. Overdraft is defined as the condition where the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years under water supply conditions that are considered average. In some basins groundwater recharge occurs uniquely through natural surface water percolation. In other areas it is augmented by artificially constructed water spreading basins or by injecting water through wells.

In the Northern PSA, the high dependence on groundwater for almost all of the water needs in the Salinas Valley has resulted in overdraft conditions in the Salinas Basin. As a result, numerous urban and agricultural supply wells have abandoned or destroyed due to the degradation of groundwater supplies. While there is a recognition in the area that aquifer pumping and recharge rates need to be brought into balance, there is also concern that further overdraft of groundwater resources and seawater intrusion will continue without the development of additional water supplies to supplement existing groundwater supplies.

Surface Water Challenges

Many surface water resources in the Northern PSA are also strained. For example, there are two dams on the Carmel River that were originally constructed as drinking water reservoirs but both

[6] Bulletin 118 (2003) can be accessed at: http://www.water.ca.gov/groundwater/bulletin118/update2003.cfm

are experiencing severe sediment buildup. The San Clemente Dam, built in 1921, once provided much of the drinking water throughout the Monterey Peninsula but is now 90% silted up. The Los Padres Dam, built in 1949, had an original capacity of 3,030 acre feet but is now down to less than 60% of capacity.[7]

Currently, the Carmel River Reroute & San Clemente Dam Removal (CRRDR) Project is the culmination of a long-term effort to resolve the public safety issues associated with the existing San Clemente Dam, while improving access for steelhead to upstream spawning and rearing habitat, sediment transport to the lower river and Carmel River beach, and ecological continuity of aquatic and riparian habitats through the project reach. It is the largest dam removal project ever to occur in California and one of the largest on the West Coast. One of the thorniest issues in achieving the dam removal has been what to do about the 2.5 million cubic yards of sediment behind the dam that would pose both an economic and ecological nightmare if released downstream. The proposed innovative solution is to re-route a half-mile portion of the Carmel River around the dam area via San Clemente Creek and use the abandoned reach as a sediment storage area.

According to a 2001 estimate, the San Lorenzo River provides 60% of the water supply for Santa Cruz's 90,000 customers. However, it has also suffered a precipitous decline as a viable river ecosystem and populations of steelhead trout and coho salmon have dwindled over the last 20 years. Extensive logging, starting in the Gold Rush era and continuing through post WW II filled the San Lorenzo and its tributaries with sediment, fouling habitat for native salmon. But Sediment loading can also be a problem for the municipal water system when heavy storms lead to muddy runoff that prevents the City of Santa Cruz from using the river as a water source and force it to draw water instead from Loch Lomond reservoir. Water quality in the San Lorenzo River can also be affected by runoff from septic tanks, which contribute to high levels of pathogens and nitrates. This is a critical issue not only for the year-round community but for the tourist industry. There are three state parks in the Santa Cruz area along with many summer homes and rental properties. The San Lorenzo River itself discharges into the ocean at the Santa Cruz Beach Boardwalk, one of the busiest beaches in Santa Cruz County.

One of the tools to try and address the San Lorenzo River and other water supply and management challenges is integrated regional water management.

Integrated Regional Water Management

Senate Bill 1672 (Costa) created the Integrated Regional Water Management Act of 2002.[8] The stated purpose of SB 1672 was to encourage local agencies to work cooperatively to manage their available local and imported water supplies to improve the quality, quantity, and reliability of those supplies. SB 1672 provided a framework for coordinating water projects and programs through publicly adopted Integrated Regional Water Management (IRWM) plans.

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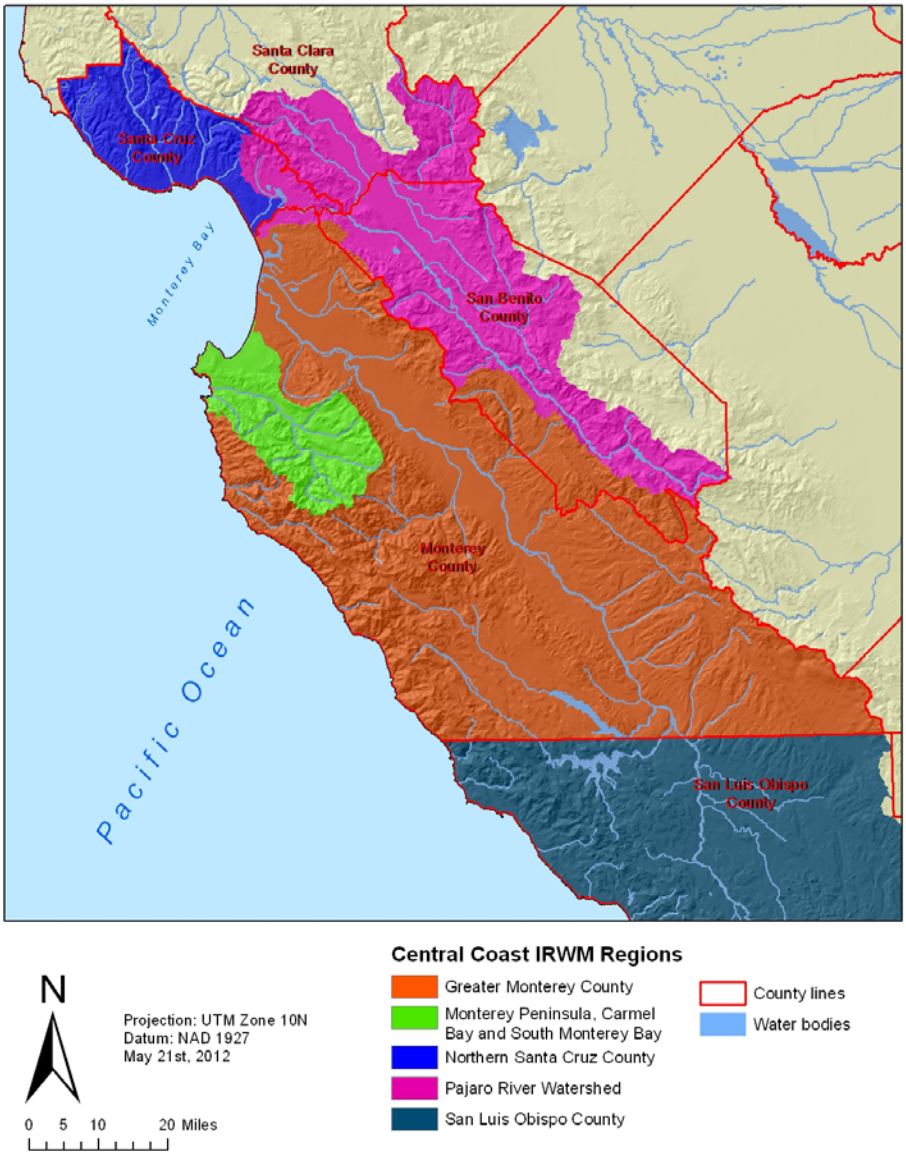
[7] An acre-foot is a standard water measurement. It is enough water to flood one acre of land a foot deep or about 325,900 gallons.

[8] Water Code §§ 10530 and sequence



While the development of IRWM Plans is voluntary, two of the past three general obligation bonds – Propositions 84 and 1E (2006) – made the adoption of an IRWM Plan a prerequisite for IRWM grant fund eligibility. In addition, before regions could apply for DWR's grant funds, they had to be accepted through the Regional Acceptance Process (RAP).

There are six IRWM planning areas within the Central Coast Region that met the RAP criteria in DWR's last round of grant funding. Each had its own Regional Water Management Group (RWMG).

As shown on the map above, four of those Regions are in the Northern PSA:[9]

- Santa Cruz County IRWM Region
- Monterey Peninsula, Carmel Bay, and South Monterey Bay IRWM Region
- Greater Monterey County IRWM Region
- Pajaro River Watershed IRWM Region

The Santa Cruz County IRWM Region boundary includes a large portion of Santa Cruz County and borders the Pajaro and San Francisco Bay Area IRWM Regions. The Santa Cruz County RWMG partner agencies are the County of Santa Cruz, Santa Cruz County Sanitation District,

[9] The Southern PSA includes both the San Luis Obispo County IRWM Region and the Santa Barbara County IRWM Region (not shown).

Soquel Creek Water District, Scotts Valley Water District, Resource Conservation District of Santa Cruz County, Davenport Sanitation District, City of Santa Cruz, City of Watsonville, and Watsonville Wetlands Watch. The Santa Cruz IRWM seeks to address water supply shortfalls, groundwater overdraft and stream depletion. Among other goals are the promotion of habitat and watershed restoration and water quality improvement, stormwater management, drainage, and flood management.

The Monterey Peninsula, Carmel Bay, and South Monterey County IRWM Region covers the coastal areas by Monterey and Carmel, in Monterey County. The RWMG includes the Big Sur Land Trust (BSLT), City of Monterey, Monterey County Water Resources Agency (MCWRA), Monterey Regional Water Pollution Control Agency (MRWPCA), and the Monterey Peninsula Water Management District. The Monterey Peninsula Region boundary encompasses 350 square miles mostly located in the urbanized areas of Monterey County. In addition to San Clemente Dam and Carmel River restoration challenges, some of the major concerns of this IRWM Region include salinity intrusion in the Seaside Basin and addressing the needs of Disadvantaged Communities (DACs).

The Greater Monterey County Integrated IRWM Region covers much of Monterey County. Its RWMG members represent various resource areas, interests, and geographic areas throughout the Greater Monterey County region, and consist of BSLT, California Water Service Company, Castroville Community Services District, the City of Salinas, the City of Soledad, the Elkhorn Slough National Estuarine Research Reserve, the Environmental Justice Coalition for Water, the Garrapata Creek Watershed Council, the Marina Coast Water District, the Monterey Bay National Marine Sanctuary, the Monterey County Agricultural Commissioner's Office, MCWRA, MRWPCA, Moss Landing Marine Laboratories, the Resource Conservation District of Monterey County, the Rural Community Assistance Corporation, the San Jerardo Co-operative, and, the Watershed Institute at California State University Monterey Bay. Some of the specific water management concerns of the Region include: saltwater intrusion; water supply diversification; watershed restoration; reducing nutrient, sediment and pathogen pollution to surface and ground waters; addressing contaminated groundwater in DACs; improving wildlife habitat, flood control and water availability on the Salinas River and its tributaries; and, enhancing steelhead habitat on the Big Sur River.

The Pajaro River Watershed IRWM Region is based on the Pajaro River watershed and is mostly located in San Benito County, but the northern portion also crosses into Santa Clara, Santa Cruz, and Monterey counties. The RWMG in this Region, also called the "Collaborative," is comprised of Santa Clara Valley Water District (SCVWD), San Benito County Water District, and Pajaro Valley Water Management Agency. All three agencies receive imported water supplies from the CVP with SCVWD also receiving imported water supplies from the SWP. Within the Pajaro IRWM Region, the City of Watsonville and the Town of Pajaro are identified as DACs. Some of the goals of the Pajaro River Watershed IRWM planning process include, but are not limited to: fostering regional partnerships; maximizing local resources; diversifying regional water options; and optimizing the management of water and environmental resources.

AB 1331, the Assembly Water Bond proposal, currently allocates $58 million to the Central Coast Region for competitive grants and loans to implement an adopted IRWM Plan.