



**Regional Advisory Committee
Meeting #24 Notes**

October 14, 2009, 9:00 a.m. – 11:30 a.m.
San Diego County Water Authority
4677 Overland Avenue, San Diego, CA 92123

Attendance

RAC Members

Kathleen Flannery, County of San Diego (chair)
Albert Lau for Neal Brown, Padre Dam Municipal Water District
Anne Bamford, Industrial Environmental Association
Barry Lindgren for Doug Gibson, San Elijo Lagoon Conservancy
Cathy Pieroni for Marsi Steirer, City of San Diego
Dave Harvey, Rural Communities Assistance Corporation
Eric Larson, Farm Bureau San Diego County
Iovanka Todt, Floodplain Management Association
Jeremy Jungreis, United States Marine Corps Camp Pendleton
Karen Franz, San Diego Coast Keeper
Kathy Viatella, The Nature Conservancy
Kirk Ammerman, City of Chula Vista
Linda Flournoy, Planning and Engineering for Sustainability
Linden Burzell, Yuima Municipal Water District
Lori Vereker, City of Escondido
Maggie Houlihan for Mike Thornton, San Elijo Joint Powers Authority
Mark Stadler for Ken Weinberg, San Diego County Water Authority
Mark Umphres for Mark Weston, Helix Water District
Michael Bardin, Santa Fe Irrigation District
Rick Alexander, Sweetwater Authority
Keith Greer for Shelby Tucker, San Diego Association of Governments
Rob Hutsel, San Diego River Park Foundation
William Simmons for Craig Adams, San Dieguito River Valley Conservancy

Non-Voting Members

Marilyn Thoms for MaryAnne Skorpanich, Tri-County FACC-South Orange County IRWM
Perry Louck, Tri-County FACC-Upper Santa Margarita IRWM

RWVG Staff

Jeffery Pasek, City of San Diego
John Van Rhyn, County of San Diego
Sheri McPherson, County of San Diego

Interested Parties to the RAC

Anna Aljabiry, California Department of Water Resources
Crystal Najera, City of Encinitas
Diane Nygaard, Unknown
Heather Parkison, RMC Water and Environment
Joseph Randall, Olivenhain Municipal Water District
Jim Peugh, San Diego River Park Foundation
Kelley Gage, San Diego County Water Authority
Rob Roy, La Jolla Indian Reservation
Rosalyn Stewart, RMC Water and Environment
Stephanie Gaines, County of San Diego
Tim Bombardier, San Diego Water Authority

Introductions

Ms. Kathleen Flannery (chair), County of San Diego, welcomed everyone to the meeting. Introductions were made around the room.

San Diego IRWM Updates

DWR Update

Anna Aljabiry, California Department of Water Resources, announced that the SBxx1/ Expedited Grant PSP and IRWM Plan Guidelines are taking shape. DWR staff is working on both documents for draft release in the fall or winter. Climate Change analysis is currently not a major requirement of the IRWM Plan Guidelines. No word on release of Final RAP Determination; however, San Diego can rest assured that we've been fully accepted.

Region Acceptance Process

Ms. Kathleen Flannery explained that the San Diego IRWM Region was approved with no conditions. This was due to the impressive level of cooperation not only among the RAC members, but also among the Tri-County FACC regions. The Upper Santa Margarita and Southern Orange IRWM regions were also fully accepted.

RAC Membership Workgroup

Ms. Cathy Pieroni, City of San Diego, introduced two new members to the RAC: Mr. Linden Burzell, Yuima Municipal Water District, and Ms. Lori Vereker, City of Escondido, will both represent water retailers (replacing Sue Varty, Olivenhain Municipal Water District, and Keith Lewinger, Fallbrook Public Utilities District).

Ms. Pieroni also proposed two new positions to the RAC (based on Membership Workgroup recommendations): Ms. Iovanka Todt, Floodplain Management Association, to represent flood control and Mr. Jeremy Jungreis, United States Marine Corps at Camp Pendleton, to represent the military community.

MOTION TO CREATE TWO NEW RAC SEATS. MOTION CARRIED.

Afterward, Mr. Jeremy Jungreis thanked the RAC for the invitation and agreed that since there is a high level of water resources management activity at Camp Pendleton, the military community must be part of a regional solution. However, Mr. Jungreis explained that he will not

be able to vote until the military community authorizes him to do so. In the meantime, he will serve as a non-voting member of the RAC.

Ms. Maggie Houlihan, mayor of the City of Encinitas, introduced herself and explained that she will serve as an alternate for Mr. Michael Thornton, San Elijo Joint Powers Authority, who represents the wastewater agencies.

Legislative Proposal

Ms. Cathy Pieroni explained a new legislative proposal spearheaded by the City of San Diego proposing greater involvement of IRWM programs in development of Basin Plan water quality objectives, beneficial uses, and 303(d) listing activities. Mr. Jeffery Pasek, City of San Diego, is the Technical Adviser for this approach and is interested in RAC member comments.

Climate Change Panel

Mr. Rick Alexander, Sweetwater Authority (panel moderator), opened the panel by defining climate change. Citing Wikipedia, Mr. Alexander defined climate change as “a change in the statistical distribution of weather over periods of time that range from decades to millions of years. It can be a change in the average weather or a change in the distribution of weather events around an average (for example, greater or fewer extreme weather events). Climate change may be limited to a specific region, or may occur across the whole Earth...In recent usage, especially in the context of environmental policy, climate change usually refers to changes in modern climate (see global warming)...”

He then introduced the panel members: 1) Mr. Daniel Cayan from the Scripps Institution of Oceanography, University of California, San Diego; 2) Mr. John Andrew from the Division of Planning and Local Assistance, California Department of Water Resources (DWR); 3) Mr. Mark Rentz Esq., from the Association of California Water Agencies (ACWA); and 4) Mrs. Karen Franz from San Diego CoastKeeper. Each panelist was given fifteen minutes to address three targeted questions related to climate change (see meeting handout).

Panel Presentations

Mr. Daniel Cayan explained that climate change is progressing at an unprecedented pace and that in 2009 oceans were the warmest temperatures on record. With the continuously warming climate, dry areas will become dryer and wet areas will become wetter. There will be more rain and less snow, which means less natural water storage, since the spring snow packs (which serve as reservoirs) will be drastically reduced. The Sierra Nevada's, the source of State Water Project (SWP) supplies, are vulnerable to significant changes. Another expected result of warming climates is an increase in flood hazards. Sea level rise has been observed and is expected to continue to a 2- to 4-foot rise by the end of the century.

Mr. Cayan specified that Mediterranean regions, such as Southern California, will likely suffer moderate drying in the form of lessened participation, which will be amplified to reduced soil moisture and runoff in arid basins.

Mr. John Andrew discussed the fact that the San Diego region's imported water supplies from the SWP will decline based on various climate change modeling trends. The SWP's stored water supply will decline as a result of reduced snow pack and the Delta's salinity will increase as sea level rises. A dead pool situation—where reservoir levels are so low no water can be released

for export—is anticipated to occur once every 6- to 8-years by mid-century and every 3- to 4-years by the end of the century. Groundwater pumping can be expected to increase.

Mr. Andrew also discussed the water quality repercussions associated with the decline in water supply across the state. Changes in runoff timing will result in more polluted runoff during storm events, as well as flooding hazards. Watershed ecology will change as influent water supply and quality are degraded. Additionally, there may be an indirect effect of increased desire to use water for recreation and subsequent requirements for additional treatment. Ultimately, more energy and effort will be needed to ensure public health as climate change causes increased temperatures, drying, and runoff situations.

Finally, Mr. Andrew explained that DWR does record and work to reduce its greenhouse gas (GHG) emissions. Notably, DWR is already back to its 1990 emissions levels per its AB 32 goal (1990 levels by 2020). DWR's carbon footprint was verified by the California Climate Action Registry as 3.2 million CO₂ tons, most of which is associated with its contractual purchase of energy from the Reid Gardner Coal Power Plant. However, DWR will abandon the coal plant after its contract expiration in 2013. Mr. Andrews ended by discussing the fact that most energy (75%) is spent in the end use of water. He stressed that for this reason, water use efficiency must be linked to energy efficiency.

Mr. Mark Rentz began by discussing four critical components to a water manager's adaptation to climate change: short-and long-term planning; commitment to ongoing analysis; education/public awareness; and IRWM stakeholder collaboration. Mr. Rentz stressed that all four components are interdependent and should occur concurrently. Mr. Rentz called attention to the fact that today is the day when water supply options are evaluated according to their GHG footprint in addition to other criteria. Given that approximately 19% of total electricity use is due to water use, there are already several mechanisms in place to evaluate water supply options and their GHG emissions (such as AB 32, SB 97, and SB 375).

Mr. Rentz informed the RAC that the IRWM program is an ideal mechanism for addressing flexible and effective climate adaptation. Since IRWM Plans coordinate on the regional level to satisfy local needs while balancing consumptive and environmental priorities, the IRWM Plans are the most comprehensive and effective approach to climate adaptation. Mr. Rentz highlighted that stakeholder involvement and collaboration is the key to the success of this adaptation, and suggested that universities and businesses participate more in raising public awareness.

Ms. Karen Franz discussed the sea level rise projected to occur in San Diego and the associated impacts on local coastal wetlands. Currently, the sea level in San Diego is 2.76 meters, and could one day rise to seven meters. Using the Sea Level Rise Affects Marshes Modeling (SLAMM), Ms. Franz explained the situation in which San Diego could likely find itself by the year 2100. SLAMM incorporates inundation, erosion, overwash, saturation, and ecretion to determine the impacts climate change will have on wetlands.

Ms. Franz explained that the greatest sea level rise impacts would occur in new transitional marsh areas, which are scrub habitats that are inundated rarely. She noted that while wetland loss will be less in San Diego than suffered in other places, sandy beaches will be the first to drown in higher sea levels. Importantly, Ms. Franz stated that the coastal habitats in San Diego are in need of increased buffer areas to aid in the adaptation to sea level rise.

Ms. Franz introduced the RAC to the San Diego CoastKeeper wiki (which can be found at http://www.sdwatersheds.org/wiki/index.php/Main_Page). She then demonstrated the modeling

portion of the website which simulates the areas that will be impacted by specific stages of sea level rise. While the San Diego CoastKeeper's wiki page will assist in educating the public and provide a user friendly visual to the reality of inevitable sea level rise, Ms. Franz also suggested that public awareness and preparedness be raised by adding a section to the IRWM Plan about adaptation to the impending sea level rise.

Questions and Answers

- How can the IRWM program positively address climate change?
 - *Integrated project planning (such as development of co-generation facilities at water treatment plant sites)*
 - *Update of the IRWM Plan can be used to brainstorm climate change adaptation strategies for implementation by the region's agencies and organizations*
- Why are the climate change model's population assumptions incorporating an increase in population to mid-century, and then a decline? Are rural populations considered?
 - *San Diego 2050 Focus Study used IPCC model assumptions as a basis. Panelists could not answer definitively.*
- GHG emissions "debt" will require several years after leveling off human GHG generation to reduce projected climate change trends.
- How can conservation organizations incentivize land and ecosystem conservation and/or other human changes to mitigate climate change?
 - *Develop a communication strategy. Link economic setting to climate change and protection of habitats for individual species.*
 - *Scientific education opportunities need to be increased.*
 - *Address water waste by agriculture and industrial users.*
- Might climate change result in more tropical conditions in the San Diego region?
 - *No, models are showing an increase in arid Mediterranean conditions.*
 - *Though very occasional big rain events will still be possible.*
- Desalination appears to be the one water resource not affected by climate change. How else can we produce future supplies?
 - *There are high GHG impacts of desal production, so that supply source does contribute to climate change.*
 - *There is research underway for dealing with salts and using them in some type of co-generation process.*

Other Announcements

Ms. Kathleen Flannery announced that Mr. Rick Alexander and Ms. Karen Franz will both be leaving their positions on the RAC after this meeting. Ms. Flannery expressed gratitude and appreciation for the dedication and service both Mr. Alexander and Ms. Franz invested in the RAC, and wished them luck in their future endeavors.

Next RAC Meeting

The December 2009 RAC meeting has been canceled. Our next RAC meeting will be held on Wednesday February 3, 2010 from 9:00am to 11:30am at SDCWA's Board Room.