



Regional Advisory Committee (RAC) Meeting #83

October 2, 2019

9:00 am – 11:00 am

San Diego County Water Authority

Board Room

4677 Overland Ave., San Diego CA 92123

(858) 522-6600

NOTES

Attendance

RAC Members

Elizabeth Lovsted, San Diego County Water Authority (chair)
Ann Van Leer, Escondido Creek Conservancy
Bill Hunter, Santa Fe Irrigation District
Brook Sarson, San Diego Sustainable Living Institute
Eric La Chappa, La Posta Band of Mission Indians
Julia Escamilla, Rincon del Diablo Municipal Water District
Jennifer Hazard, Rural Community Assistance Corporation
John Flores, San Pasqual Band of Mission Indians
Karina Danek for John Helminski, City of San Diego
Jonathan Witt, San Diego County Board of Education
Alicia Appel for Justin Gamble, City of Oceanside
Kimberly O'Connell, UCSD Clean Water Utility
Joseph Randall for Kimberly Thorner, Olivenhain Municipal Water District
Lance Andersen, Mission Resource Conservation District
Marisa Soriano, City of Chula Vista
Mark Seits, Floodplain Management Association
Michael McSweeney, Building Industry Association
Michelle Berens, Helix Water District
Phil Pryde and Rob Hutsel, San Diego River Park Foundation
Stephanie Gaines for Richard Whipple, County of San Diego
Robyn Badger, Zoological Society of San Diego
Ron Mosher, Sweetwater Authority
Seval Sen, Padre Dam Municipal Water District
Yazmin Arellano, City of El Cajon

RWMG Staff and Consultants

Amy Dorman, City of San Diego
Goldy Herbon, San Diego County Water Authority

Jeffery Pasek, City of San Diego
Loisa Burton, San Diego County Water Authority
Mark Stadler, San Diego County Water Authority
Mark Stephens, County of San Diego
Nicole Poletto, Woodard & Curran
Sally Johnson, Woodard & Curran

Interested Parties to the RAC

Alison Pau, University of California San Diego
Amelie Catheline, Public Health Alliance
Andrew Funk, City of San Diego
Bob Coleman, City of Chula Vista
Catherine Rom, City of San Diego
Christopher Paulino, Viejas Tribal Government
Daniel DuGal, Viejas Tribal Government
David Adler, San Diego Green Building Council
Dinna Morris, County of San Diego Department of Agriculture, Weights and Measures (AWM)
Janelle McCullough, County of San Diego
Joni German, San Diego County Water Authority
Lori Johnson, Pauma Valley Water Company
Mick Cothran, Fallbrook Public Utility Department
Rebecca Benson, Ramona

Welcome and Introductions

Ms. Elizabeth Lovsted, San Diego County Water Authority (SDCWA) welcomed everyone to the meeting and introductions were made around the room.

Project Completion Report

Ms. Goldy Herbon, SDCWA, Mr. Jeff Pasek, City of San Diego, and Mr. Andrew Funk, City of San Diego presented the project completion report for the Hodges Water Quality and Quagga Mitigation Measures Project, funded through Proposition 84 Round 1 funding.

Hodges Reservoir was constructed in 1918 with the damming of San Dieguito Creek, and is the catchment for the San Dieguito watershed. The reservoir is owned and operated by the City of San Diego Public Utilities Department. Neighboring Olivenhain Reservoir is owned by SDCWA and was completed in 2003 as part of the Emergency Storage Project.

Water quality and ecological concerns (Quagga mussel infestation in Olivenhain Reservoir) led to the need for the project. The Project has translatable benefits to address the bioaccumulation of mercury, a top concern for the State Water Resources Control Board. Hodges Reservoir suffers from poor water quality that can be attributed to nutrient loading from various land uses in the upstream catchment area causing a reinforcing system loop. The reservoir experiences toxic algal blooms in the summer and mass fish kills in the fall. Winter rains bring nutrient loading to the watershed to continue the cycle.

This project funded five technical studies, three monitoring programs, water quality monitoring equipment, and the environmental documentation and activities required to move forward with selected management actions. The *Hodges Nutrient Identification Study* performed wet weather sampling at 10 locations across Hodges Reservoir's 248 square mile watershed to address a major data gap on water quality data during flow periods. Completed environmental documentation included biological and cultural surveys for the Hypolimnetic Oxygenation System (HOS), which was funded under Proposition 84 Round 3 (Drought Round) IRWM Implementation Grant.

The HOS includes the installation of a speece cone. The speece cone, 25 feet and over 100,000 pounds, will be installed at the reservoir to stop nutrient cycling. Completed studies helped determine oxygen demand. The speece cone will be highlighted at a lake management conference in San Diego next week.

The Hodges Water Quality and Quagga Mitigation Measures Project has provided many benefits over the years including cross jurisdictional collaboration, data sharing, improved water quality modelling and validation, numerous management actions thoroughly investigated for potential future implementation, led to projects that will improve water quality at Hodges Reservoir, and evaluated methods to protect water treatment infrastructure reliability. Project challenges included staffing changes and reallocation of funding. Because no quagga were found, funds related to construction for quagga prevention measures included in the project's original scope were reallocated to planning, though overall goals and measurable targets still needed to be met.

3D modeling of Hodges and Olivenhain Reservoirs were completed in November 2018 and a report summarizing the results of the modeling and limnology study was completed. Both reservoirs feature an anoxic hypolimnion, with anoxia persisting for most of the year. After turnover, the surface waters experience a decline in dissolved oxygen as they mix with deeper anoxic water.

What makes this project the IRWM golden child? Hodges Reservoir and the area upstream of it is a good example of how IRWM could work. The project brought together local stakeholders to address long standing water quality and environmental issues. There are a number of different land uses upstream that affect the reservoir.

Questions/Comments:

- Where is the structured wetland?
 - Green Valley Creek, just upstream of the reservoir.
- Can you talk more about the fish? What fish are in the reservoir, when do they die off, and what are your expectations with the speece cone? Will there be fewer fish die-offs?
 - Surface water is continually oxygenated by the wind but deep water is devoid of oxygen. In winter when the lake mixes, it causes a fish die-off due to unoxygenated water throughout the lake. Younger, smaller fish are more susceptible.
- What is the numerical relationship between the speece cone and the number of dead fish? Will the number of fish kills be reduced?
 - Not sure yet. We have to limit the nitrogen and phosphorous that is released into the reservoir. Most is trapped in the soil at the bottom of the lake. Oxygenating the bottom water with the speece cone helps lock the nitrogen and phosphorous into the soil instead of being released during lake turnover.
 - The installation of the speece cone is a Proposition 84 Round 3 project.

- There are a number of dead trees in the upper end of the reservoir. Are they a significant issue for the reservoir?
 - The area around I-15 bridge with dead trees is a few hundred acres of vegetation that decomposes and enters the reservoir. While every little bit of decomposed vegetation contributes to the water quality of the reservoir, the acreage of dead trees is small in comparison to the size of the watershed and therefore does not have a large impact on its own.
- Have you looked at other reservoirs for their list of issues? How does Hodges' water quality rank compared to other reservoirs?
 - Speece cones have been implemented in Denver and Comanche Reservoir in Northern California. Recent studies have shown that water quality has improved and been maintained following the installation of the speece cone.
- Have you looked at other City of San Diego reservoirs? Are there any lessons learned to apply from one local reservoir to another?
 - Other local reservoirs are not nearly as impacted as Hodges. There is a statewide program to look at methyl mercury in fish statewide. Methyl mercury can be a measure of lake conditions. We can take what we learn at Hodges about mercury to apply it to other reservoirs.
- Who are the five co-permittees for the reservoir?
 - County of San Diego, City of Poway, City of San Diego, City of Escondido, and the Cleveland National Forest. The National Forest is Federal land so not quite a co-permittee.

Public Health Alliance: Decentralized Water Systems for a More Resilient Region

Ms. Amelie Catheline, Public Health Alliance, introduced the decentralized water systems project funded under Proposition 1 Disadvantaged Community Involvement (DACI) planning dollars with UC San Diego. The scope of the project encompasses greywater, recycled water, stormwater, A/C condensate capture and use in buildings from single-family, multi-use, commercial and industrial buildings. The Alliance provides a strong focus on health and equity. Thus, this project includes a foundational perspective on health and equity to ensure that underrepresented communities are fully considered.

The first phase of the project looked at barriers to onsite potable systems in all times of housing, how to overcome these barriers, and a communication strategy. These barriers are regulatory barriers, a lack of knowledge, and inadequate access to information. The Alliance looked at the issue from a regulatory perspective to uncover the gaps and inconsistencies observed throughout the region. They observed variation in knowledge whether among regulators or the general public. It includes also silos that lead to a lack of system integration. The overarching barrier is competing economics; centralized systems are preferred and the Alliance observed that externalized costs and benefits are not fully assessed. These barriers are discussed in a report published in May 2019.

Ms. Brook Sarson, San Diego Sustainable Living Institute, discussed why decentralized non-potable reuse is important. They could offset 18% of imported water. An average educated household installed 2,500 gallons of rainwater storage which is equivalent to 2 inches of storm offset. Systems installed in single family homes (not county, industrial commercial, schools, parks, etc.) where residents were more

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likely to be growing food and habitat compared to their neighbors with an additional benefit of increased cooling effects from trees.

The Alliance recommends sharing data across projects and jurisdiction and to support regional data collection and maintenance. For example, the San Diego Basin Study is an original data collection tool. Analysis of greywater systems would benefit from analyzing a wider range of projects. Is there a way that the RAC can foster more connection between subsequent projects to better inform policies? There are more opportunities for integration. These systems are not currently in wide use, so it is a good time to address health and safety concerns to add to the water portfolio for the region.

City of San Diego just created the first greywater toilet to tap system. Data sharing could help other organizations to not reinvent the wheel. The airport is pioneering reuse and condensate reuse and we should be sharing their best practices at the RAC. It is important that the educational piece is out there to ensure health and safety. Decentralized systems should be accessible to all, which may include offering credits and rebates in rural areas and disadvantaged communities.

This approach is well timed with SB 966, which requires on-site treated nonpotable systems. It will also help save resources, money, time, effort as we share outcomes and lessons learned for best practices. The Alliance is publishing a blueprint soon and beginning communication strategy. If you want to see what the systems look like in person, there will be a water harvesting bike tour on October 26 to see 8 different homes and how effective these projects can be in real life.

Thank of how IRWM and the RAC can help support this effort. Can they RAC help with data collection and developing best practices? Can you champion this at your own organization? How can the Alliance better communicate with your organization?

Public Comments of Support:

David Adler, San Diego Green Building Council

The Green Building Council is a 501 c(3) non-profit organization. Reusing water within buildings is a way to decrease building impacts that contribute to climate change. The market for this reduction already exists. SB966 is a driver for water reuse. Reduced building costs and positive environmental benefits are the most obvious reasons to implement onsite water reuse and promote conservation. Buildings from San Francisco to Santa Monica have successfully implemented on-site water reuse projects that are safe and cost effective for some projects.

San Diego region lacks best practices and lacks a clear permitting pathway to allow building owners to implement these onsite nonpotable projects at their buildings. Onsite nonpotable reuse not only provides benefits for the building, but also the community. San Diego will continue to be thirsty as more people move to the region. It is time for San Diego to develop its own standards for reuse.

Alison Pau, University of California, San Diego

We are grateful to the RAC for supporting the DACI grant and the project presented today. It represents a community based, transformative approach. Thanks for supporting disadvantaged communities.

Amanda Sousa, San Diego Housing Commission

The San Diego Housing Commission is part of the public health advisory committee. Creating a path for permitting structures of onsite potable reuse is a critical need. The development of regulatory

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framework is required. As water supply in the future becomes more strained, water rates will rise. Current water rates put a strain on disadvantaged communities.

Questions/Comments:

- In the presentation, you mentioned the average installation is 2,500 gallons. How many residences have you studied? This is a pretty good size storage.
 - We've installed 400-500 systems over the last 10 years in San Diego. These are the homes that we have studied.
- Where are you putting these tanks at an average family home? Regarding the engineering footprint, how does this work? Have you plotted to see where the return on investment is on these systems?
 - Due to the current cost of water, these systems do not always work out on paper. The people installing these systems are in it for more reasons and the additional benefits that they provide. Rainwater is better quality than the water coming out of the taps, and oftentimes people have gardens that can be watered with the rainwater. People are investing their dollars this way knowing the tables will turn and the systems will be feasible when the cost of water rises.
- Have you looked at the County Stormwater Capture and Use Feasibility Study and shared data? Seems to be a good alliance for private and public.
- As someone who is part of the land conservation community, many people have strong concerns about rainwater harvesting. Downstream impacts may be very significant and need to be studied.

Public Comment

- Bob Leiter with Stay Cool for Grandkids, a climate advocacy and climate resilience group: We support the approach of using rainwater harvesting through capture systems. I installed a 3,000 gallon water harvesting system in our backyard, consisting of two large tanks. You can landscape the tanks in the backyard; vines have totally covered the two tanks which sit next to the vegetable garden which screen the tanks for the view for the yard. As the cost of water continues to rise, we will see that these strategies are going to be more feasible. The cost of water should better reflect the impact on the environment. I do think it is important to study the impacts of these systems on downstream water and water quality. I think this is something that we should be doing more of and I commend IRWM for promoting this idea.

DAC Assistance

Mr. Mark Stadler, SDCWA, introduced the disadvantaged community (DAC) assistance discussion that had originated as a topic of discussion for the IRWM Proposition 1, Round 1 Project Selection Workgroup. While selecting projects, the Workgroup spent a substantial amount of time discussing the Pauma Valley Water Company project application, which serves 100% DAC residents. Pauma Valley Water Company was seeking funding to annex to Yuima Municipal Water District, a SDCWA agency that has capacity to take on their demand. The project met a critical need and needed IRWM support but required 40% of the SDIRWM Region's total available grant funds to pay for connection fees. Workgroup members were taken by Pauma Valley's dilemma and discussed how to best support their

project as well as future DAC projects. Although the project was not selected for funding, at least one person has reached out to offer pro bono support as they seek funds from the State Board.

Over the last 14 years of IRWM, the following challenges for DAC applicants and projects have generally emerged:

1. DAC projects are at unequal footing for the application process.
2. The size of DAC projects may fall under the \$500,000 grant minimum for projects to apply. If a project is below that minimum, the cost of administering the project on SDCWA's end makes it difficult to justify.
3. Limited technical support during project development.
4. Inadequate administrative capability during implementation.
5. Complex, challenging grant requirements (e.g., CEQA, labor compliance, and procurement process).
6. Insufficient and interrupted cashflow to support project implementation – you need to pay the bills before you are reimbursed.
7. Post-construction operation and maintenance is ineligible for funding support.

The IRWM program currently offers technical support for DACs during the IRWM application process by hosting a workshop on submitting projects to the project database. IRWM program and grant writing staff are available for questions before and during the Call for Projects. SDIRWM has advocated to the state and sponsored advanced funding legislation for advanced payment for DACs. IRWM has also supported partnerships for DAC projects to help overcome the technical capacity challenge. For example, the Rural Community Assistance Corporation (RCAC) received funding through three rounds to support rural DAC projects that would not have otherwise applied. RWMG suggestions for next steps include lobbying DWR and directing support to State Water Resources Control Board Prop 1 Technical Assistance Funding Program. The purpose of this RAC discussion will be to determine how to improve the existing support structure and some mechanisms to address these challenges.

Questions/Comments:

- I would like to applaud SDCWA, they have been a leader in this issue and have led a number of discussions over the years. An additional issue that should be included is the timeline compression issue. DACs can't start a project early because they need to wait until everything is signed so they know when they are going to be paid. This shortens the amount of time the organization has to implement and complete the project, causing cash flow issues. A \$500,000 grant over two years is an insurmountable cash flow challenge. There should be flexibility for DACs and NGOs to do a programmatic approach in a grant in order to be more flexible with project scope to avoid amendments.
 - Those are both great points. You have been through this process and you understand.
- To continue the discussion of a programmatic approach, in Proposition 84 Rounds 1 and 2 we (RCAC) took a more flexible, open look at how to support DACs. We wrote we would help 5-9 DAC projects in our grant application. Then, when funding was in place, we put together a basket of projects. This is the model that should be followed in the future. It takes so long for funding to be received that it can't address critical needs in a timely manner. For communities

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that have a severe water quality issue, we hope that by the time we return with funding, that they have solved this. I would also like to note, when RCAC puts together a basket of projects for funding it is not for us, it is for specific communities. In the funding round where we were turned down, the Project Selection Workgroup rejected five disadvantaged communities, not just RCAC.

- Agreed that the Proposition 84 Rounds 1 and 2 approach is preferable, but DWR disagreed with the format of having a more open project scope. During Proposition 84 Round 4, DWR insisted that the projects be identified up front which has led to amendments that are currently underway. DWR seems to be getting less flexible, not more. They are under pressure from legislators to get funding out and spent ASAP in order to demonstrate benefits. IRWM wants to support projects that would not normally be completed, which requires patience.
- Hasn't DWR made the connection between the faster the money gets through, the faster the money gets spent? Actions have shown that DWR is more committed to adhering to the process and less about distributing funding.
 - Good point, things take longer with DWR than they say that it will.
- Are you working with other regional IRWM programs to speak with a broader voice to Sacramento to lobby DWR?
 - Yes, through the Roundtable of Regions for IRWM programs in California. Mark Stadler is the co-chair and talks to DWR on behalf of the IRWM regions about issues like this.

Public Comments

- My name is Bob Leiter and I have been on the board of a small NGO for the last 6 years. Issues for small NGOs include fiscal administration, grant applications, and managing grants. A practical approach for a small NGO is to use a fiscal sponsorship partnership with a larger NGO. We've become a project of a larger NGO, Mission Edge, who provides the fiscal and administrative support for our work and assists with grant applications. We are currently partnered with the San Diego Audubon society because our missions are aligned. Our staff are all volunteers. Larger NGOs have the capacity to help with grant writing and could connect with smaller NGOs to help put together an application.
- Lori, how did you feel your Prop 1 Round 1 grant application experience went and how can we support you better?
 - Lori Johnson, representing Pauma Valley Water Company. I wish I had known about partnering with RCAC; I would have done that from the beginning. The IRWM grant application is an intense process. The Water Company is in need and they don't know what to do. I think partnering with RCAC is a good thing for small DAC communities. However, our need is immediate. We are hoping to get some planning dollars from DWR for the annexation. Additional assistance is needed for small DACs as they have no staff. Some operators are serving a community; that is crazy because it isn't safe. There have been a couple organizations that have reached out to help make the annexation easier. I encourage the RAC/IRWM to make the process easier for DACs.
- It may help to add a gentler first step for DACs in the IRWM funding process instead of being immediately thrown in with other applicants to make it less intimidating. This could be

something comparable to a concept proposal. The proposal could be presented to a larger group for feedback and to help shape the process before it is finalized. It is a lot of work to get the application together. Can we help give the applications a first read before the application is submitted?

- We have done “speed dating” in the past to help applicants find partnerships. This could be done for DACs exclusively.
- The grant application timelines are tough, and we need to get ahead of them. There are even more technical issues outside of the intimidation factor. It would help to bring regulators into the conversation. Permitting and regulatory review is not free. We need to have someone who knows the regulatory process help provide feedback and advice. With Pauma Valley there were regulatory issues with big unknowns on whether or not the project could get permitted through DDW, or if LAFCO would approve the annexation.

Proposition-1 Round 1 Update

Ms. Karina Danek, City of San Diego, presented updates on the Proposition 1, Round 1 project application process. The DWR Pre-Application workshop was on September 18 for the San Diego Funding Area. DWR noted they were grateful for the San Diego Funding Area’s funding split MOU and history of collaboration. They encouraged the Local Project Sponsors to scale projects to a more manageable size, despite decreased benefits, and to focus on climate change benefits. DWR also demonstrated difficulty understanding more complex, multi-benefit projects, which may in part be due to the page and character limits in the Project Information Forms (PIF).

DWR will provide feedback on the PIFs by October 18 and the SDIRWM Grant Application is due on December 13, 2019. Final Grant Award is expected in late spring 2021.

Questions/Comments:

No questions or comments

Grant Administration

Ms. Loisa Burton, SDCWA, presented updates on grant administration. In total, the San Diego IRWM Region has received \$96.4 million dollars and 66% of that has been billed to DWR. \$63.4 million has been distributed through the funding rounds. RCAC Round 2, methods to monitor nitrates in the system. They compressed the schedule and completed in a short time. Prop 84, Round 3 SD Regional Emergency Storage and Conveyance Intertie Optimization Project by the City of San Diego, the speece cone project has been received and will be on display next week. Prop 84, Round 4: Ms. Smarty-Plants water education center has had over 40,000 families educated through the system.

Prop 1 DACI grant updates include the Healthy Water for Forester Creek DACs is recruiting volunteers and analyzing final trash assessment, Alternative Non-potable Water Supplies for Xeriscape Design and Flood Prevention for DACs is conducting education and outreach around City of San Diego properties to transform the park for sustainable landscaping and Sediment Management for Tijuana River Valley DACs is underway.

Extraneous grant process is difficult for DACs. The Grant Administration Workgroup is hoping to help minimize the crunch time. The grant administration team will develop a project guide handout to

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highlight key conditions on the grant. Loisa is the chair of the Statewide Grant Administration Workgroup and is talking to DWR about the challenges.

Public Comments

Bob Leiter, APA noted two upcoming workshops on climate change and invited the RAC to attend:

- Climate Change and its Consequences for Regional Water and Natural Hazards Planning in the San Diego Region (American Planning Association)
 - Tuesday, October 8 11:45-1:15 at the Weingart Library, City Heights. Mark Stadler will be one of four speakers.
 - Register today at <https://tinyurl.com/y26ze2sv> (\$15, lunch provided)
- Climate Change Effects on Southern California Wildfires and Necessary Land Use Policies (Stay Cool for Grandkids)
 - Friday, October 11, 6:30-8:00 p.m. at the Unitarian Universalist Fellowship of San Dieguito.
 - Register today at <https://www.eventbrite.com/e/stay-cool-1011-terrestrial-changes-in-so-cal-due-to-global-climate-change-tickets-72576637677>

Summary and Next Steps

Ms. Sally Johnson, Woodard & Curran presented a list of upcoming funding opportunities. They have been included in the table below. Jennifer Hazard noted the Prop 1 Technical Assistance is for drinking water and wastewater programs and recommends the program. Assistance can be obtained for tasks such as a funding application, asset management plan, rate study, or income analysis.

Project Types	Deadline	Website
Department of Water Resources		
Sustainable Groundwater Management Grant Program: Planning Grant – Round 3	November 1	https://water.ca.gov/Work-With-Us/Grants-And-Loans/Sustainable-Groundwater
US Bureau of Reclamation		
Drought Resiliency Projects for Fiscal Years 2020 and 2021	October 14	https://www.grants.gov/web/grants/search-grants.html?keywords=BOR-DO-20-F002
SWRCB		
Prop 1 Storm Water Grant Program (SWGPP)	Expected to open in October	https://www.waterboards.ca.gov/water_issues/programs/grants_loans/swgp/prop1/
Prop 1 Technical Assistance Funding Program	Open: rolling	https://www.waterboards.ca.gov/water_issues/programs/grants_loans/proposition1/tech_asst_funding.html

Next RAC Meeting:

- December 4, 2019 – 9:00-11:30 a.m. at SDCWA’s Board Room

2020 RAC Meeting Schedule

- February 5
- April 1
- June 3
- August 5
- October 7
- December 2