



**Joint IRWM Plan Update Workshop #8 &  
Regional Advisory Committee (RAC) Meeting #78**

December 5, 2018

9:00 am – 11:30 am

**Proposition 1 Round 1 – Technical Workshop**

11:30 am – 1:30 pm

**City of San Diego**

**Metropolitan Operations Complex (MOC II) - Auditorium**

**9192 Topaz Way, San Diego CA 92123**

**NOTES**

**Attendance**

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**RAC Members**

Dana Frieauf, San Diego County Water Authority (chair)

Ann Van Leer, Escondido Creek Conservancy

Michelle Berens for Brian Olney, Helix Water District

Chris Helmer, City of Imperial Beach

Greg Thomas, Rincon del Diablo Municipal Water District

John Flores, San Pasqual Band of Mission Indians

Jonathan Witt, San Diego County Board of Education

Joseph Randall for Kimberly Thorner, Olivenhain Municipal Water District

Justin Gamble, City of Oceanside

Ashkan Mozaffarian for Kimberly O'Connell, University of California – San Diego Clean Water Utility

Mark Seits, Floodplain Management Association

Mark Stadler for Kelley Gage, San Diego County Water Authority

Phil Pryde, San Diego River Park Foundation

Robyn Badger, Zoological Society of San Diego

Erick Del Bosque for Ron Mosher, Sweetwater Authority

Michael McSweeney, Building Industry Association

Sandra Jacobson, California Trout

Sarah Brower for Lan Wiborg, City of San Diego

Sarah Pierce, San Diego Association of Governments

Stephanie Gaines for Richard Whipple, County of San Diego  
Yazmin Arellano for Roberto Yano, City of El Cajon

**RWVG Staff and Consultants**

Andrew Funk, City of San Diego  
Jen Sajor, Woodard & Curran  
Jo Ann Weber, County of San Diego  
Loisa Burton, San Diego County Water Authority  
Mark Stephens, County of San Diego  
Roselyn Prickett, Woodard & Curran  
Ruth de la Rosa, County of San Diego  
Sally Johnson, Woodard & Curran

**Interested Parties to the RAC**

Alicia Appel, City of Escondido  
Baily Durant, Viejas Tribal Government  
Catherine Rom, City of San Diego  
Chris Gehrki, City of San Diego  
Dan Schlenk, University of California, Riverside  
Dave Renfrew, Alta Environmental  
David Pohl, Environmental Science Associates  
Eric LaChappa, Southern California Tribal Chairman's Association  
Efren Lopez, City of San Diego  
Jonathan Avila, City of San Diego  
Joni German, San Diego County Water Authority  
Julie Mondon, Deakin University Australia  
Karen Ashby, Larry Walker Associates  
Laura Walsh, San Diego Region Climate Collaborative  
Lindsey Sheehan, Environmental Science Associates  
Marisa Soriano, City of Chula Vista  
Paul Hartman, LWA  
Teresa Bhardwaj, D-Max Engineering, Inc.  
Tony Moore, City of San Diego  
Zach Petsch, Viejas Tribal Government

**Welcome and Introductions**

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Ms. Dana Frieauf, San Diego County Water Authority (SDCWA), welcomed everyone to the meeting and introductions were made around the room. Ms. Frieauf thanked the outgoing RAC members for their service over the past four years. Certificates of appreciation were handed out. Ms. Frieauf introduced the incoming RAC Members and thanked the RAC Membership Workgroup for reviewing applications and recommending applicants for the 2019-2022 term.

## **Stormwater Capture & Use Feasibility Study Update**

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Ms. Stephanie Gaines, County of San Diego (County), and Mr. David Pohl, Environmental Science Associates, provided a final study presentation of the Stormwater Capture and Use Feasibility Study (SWCFS).

The intent of the SWCFS was to develop a regional analysis to determine feasibility of implementing stormwater capture and use projects. The SWCFS is compliant with the Regional Stormwater Resource Plan (SWRP) guidelines and results of the SWCFS will be incorporated into the 2019 IRWM Plan Update. The SWCFS can be used as a management tool to identify the San Diego Region's unique challenges to stormwater capture and use potential. The Technical Advisory Committee (TAC) guided the study by providing technical input from various perspectives. The TAC included representation from wastewater agencies, stormwater entities, the building industry, academia, and environmental organizations. Ms. Gaines also acknowledged the consulting team that worked on the study.

The SWCFS included four tasks: 1) existing conditions analysis, 2) technical feasibility analysis, 3) cost analysis, and 4) alternatives prioritization. The first task identified existing infrastructure that could be used for stormwater capture. Task 2 included modeling the potential stormwater capture benefit in the San Diego Region. The TAC provided important feedback on modeling assumptions that helps make the model more accurate. The modeling resulted in a list of stormwater use alternatives. The SWCFS then narrowed the stormwater use alternatives list to eight through a prioritization exercise that considered 1) potential volume of captured stormwater, 2) unit cost, 3) additional benefits, and 4) constraints and opportunities.

The San Diego Region presents unique stormwater capture and use challenges. The goal of stormwater capture in urban areas, which have increased impervious cover, is to capture the excess runoff that would have otherwise been infiltrated in a natural environment. Increased runoff in urban areas can also lead to increased water quality and flood control issues. Unfortunately, due to the low permeability of natural soils in the western portion of the San Diego County, the region has insufficient groundwater basin storage for any potential stormwater captured in the urbanized areas, which are also located in the western portion of the county. Storage remains the biggest challenge for stormwater capture and use in the region.

Mr. Pohl described the process of the study. The SWCFS was an eight-step process and involved five TAC meetings. Steps 1 and 2 identified potential storage for stormwater. The project team focused on public parcels because the County would have greater access and control. About 1,200 feasible parcels were identified for a total of 92 thousand acre-feet of storage, or about one-fifth of the regional need. Step 3 identified eight stormwater use alternatives. Then in Steps 4 and 5, the project team applied the eight use alternatives to the refined feasible parcels list identified in Steps 1 and 2. Step 6 determined costs for typical projects and applied them to the refined parcels list. In Step 7, the team developed criteria for assessing the use alternatives, and finally in Step 8, the use alternatives were prioritized.

The eight stormwater use alternatives are as follows:

- A. Direct discharge into groundwater basins (injection wells)
- B. Discharge to groundwater using Low Impact Development (LID)
- C. Onsite irrigation on large parcels (i.e., golf course, parks)

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- D. Rain barrels
- E. Flow-through devices (i.e., treatment wetlands)
- F. Dry weather flow discharge to wastewater treatment plants for pollution mitigation
- G. Controlled discharge for indirect potable reuse
- H. Controlled discharge for recycled water use

The project team developed four alternative use assessment criteria: cost per volume, potential volume of stormwater use, constraints and opportunities, and additional benefits. Ms. Gaines presented a series of scale graphics to depict how each use alternative ranked relative to one another for each assessment criterion. While the rain barrels alternative may not capture large volumes of stormwater (low ranking), it ranks as a top choice in terms of unit cost as they are cost-effective to implement. Ms. Gaines also noted that adding a dry weather component to use alternatives (e.g., wetlands) increased the annual volume captured, thus reducing the unit cost of the use alternative. Use alternatives scored well under the Opportunities and Constraints criterion if they had multiple benefits, as multi-benefit projects have a higher chance of leveraging grant funding. Examples of constraints are lack of funding and regulatory issues. The assessment criteria were used to develop a feasibility timeline for the eight use alternative based on technical feasibility, political feasibility, and cost. The timeline sets a schedule of implementation based on near-term and long-term feasibility. This implementation timeline is not a recommendation, but rather a tool that water managers can use to assess feasibility.

Ms. Gaines and Mr. Pohl presented key points and final study results. Using stormwater solely as a supply benefit can be costly due to a variety of constraints. However, creating multi-benefit stormwater projects significantly lowers the cost as well as increases the opportunity for grant funding under state grants such as IRWM and the Stormwater Grant Program (SWGP). Though utilizing dry weather flows are prohibited under the current regional stormwater permit, they were included in this study to address SWRP guidelines and lower the unit costs for use alternatives. The study found that stormwater captured in the region could satisfy about 4.5% of the regional need, if the higher end of the range of opportunities was achieved.

Next steps for the SWCFS were outlined. The SWCFS will be integrated into the 2019 IRWM Plan Update and can be used as a management tool on a programmatic-level and on a project level. The project team is working with students from San Diego State University to finalize the Industrial Land Use Study, which assesses the feasibility of capturing stormwater on industrial parcels instead of on public parcels. On a programmatic level, the project team posed questions to the RAC and RWMG about how to focus resources as they relate to stormwater capture and use. Ms. Gaines will also distribute the questions via email, with the intent to receive comments over the next couple weeks. The study also provides project proponents with instructions on how to quantify project benefits and costs. Ms. Gaines concluded the presentation by describing the ways in which the SWCFS relates to IRWM. Stormwater projects hoping to be funded under IRWM or SWGP must be included in the IRWM database (OPTI) for consideration. Scoring criteria for the Proposition 1-Round 1 implementation grant program has a 15% stormwater weighting, which means projects with a stormwater component will score higher.

The Final SWCFS Report will be available online ([www.projectcleanwater.org](http://www.projectcleanwater.org)) next week. Ms. Gaines will also send today's presentation out to stakeholders.

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Questions/Comments:

- Alternative A is on [the criteria scale graphics] twice. Do the cost of injection well projects only consider capture? Or capture and treatment?
  - Alternative A has two options: injection or infiltration. The injection option includes treatment per Title 22 Recycled Water Regulations. Injection lowers the unit cost.
- Ok. To clarify, infiltration is passive, which costs very little. However, you can only capture very little.
  - Correct. You capture very little due to the low permeability soils in urban areas in the region.
- What does the cost all include? Is it just injection or does this include delivery to customers?
  - The analysis assumed costs for treatment and injection. As part of the project identification process, we only focused on existing groundwater basins and assumed that these projects would utilize existing infrastructure for extraction, conveyance, and distribution.
- Where is the \$2,500 per acre-foot on the [unit cost] scale?
  - It is somewhere in the middle. The scale is relatively linear, so bigger differences reflect a bigger difference in the unit cost. There are a lot of use alternatives above the \$2,500 per acre-foot mark.
- How were multi-benefits criteria measured?
  - We looked at compliance with permits along with other components. Natural treatment and rain barrels have a lot of benefits.
- PureWater would be a higher cleanliness than irrigation. Why are there more constraints for irrigation?
  - Constraints with irrigation involve interagency agreements, the need for infrastructure, among other things. You will need to look at the full list in the report.
- At the beginning of the presentation you said we would be able to capture one-fifth of the region's need. What did that calculation include? Is that rainfall minus vegetative absorption?
  - That number was the total raw volume of potentially captured stormwater without any constraints. This assumes no new infrastructure needs to be built. Once we applied the constraints this number was reduced.
- This is a volume discussion. What about water quality issues?
  - Good question. That's where the upper ranges of 22,000+ acre-feet per year comes from. Factoring in multiple benefits would draw down the costs more.
- There is a difference in water supply and water quality issues. Did this study include pollutant control?
  - No, pollutant control was not included in this study.
- Are parcels included in the Industrial Land Use Study covered under the general permit?
  - Yes, the study used the same filtering criteria as the SWCFS.
- When the study is complete, will GIS data be available by request?
  - Yes, we will make the GIS data available by request.
- On a macro-level and in my experience, I think the biggest issues is dry weather flow and pollutants, so addressing that would be a huge first step.

## **San Diego Basin Study**

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Ms. Sarah Brower, City of San Diego, presented an update on the San Diego Basin Plan. The main objectives of the study were to determine the impact of climate change on the region's water supply system and to develop adaptation strategies to mitigate these climate change impacts. Task 2.1 through 2.4 have been finalized.

The purpose of Task 2.4 was to evaluate how population increase and climate change impact the water supply system in the region. Task 2.4 developed six portfolios, which represented conceptual and planned projects in the region grouped into strategies. These strategies were then grouped in various ways to create the six portfolios. Examples of portfolios include Baseline, Enhance Conservation, and Increased Supplies. Impacts to each portfolio were assessed for four categories: water delivery, flood control, energy, and recreation. Ms. Brower presented the key findings for each of the impact categories. In particular, the study showed that demands increase due to population and climate change. Additional sources of water supply to meet the growing demand vary depending on portfolio.

The purpose of Task 2.5 is to compare the pros and cons of how concepts (included in portfolios) meet the region's water demands and addresses the impacts of climate change. Examples of concepts include conveyance improvements, groundwater, and potable reuse. The trade-off analysis included the development and the relative weighting of evaluation objectives in order to score each concept. The 13 evaluation objectives identified included climate resilience, project complexity, and environmental justice. Evaluation objective weighting was determined by utilizing survey feedback. Each evaluation objective was then assigned a performance measure in order to give it a value. The project team used both quantitative and qualitative data to assign values. Ms. Brower presented the overall results of the trade-off analysis. Concepts such as urban and agricultural water use efficiency, recycled water, and potable reuse were ranked the highest, while enhanced conservation and imported water purchases were ranked the lowest. Concepts with the highest combined evaluation objective values consistently had higher evaluation objective scores for water quality and watersheds, local supplies, and environmental justice/disadvantaged communities. The analysis highlights the benefits and challenges associated with each concept. This scoring system could be used as a decision-making tool.

Ms. Brower invited everyone to attend a public meeting to discuss Task 2.4 and Task 2.5. Meeting information is provided below:

**When:** December 13, 2018, 9 am to noon

**Location:** City of San Diego's MOC II Auditorium (9192 Topaz Way, San Diego, CA 92123)

### Questions/Comments:

- I want to commend Sarah, Andrew, Allison, and others on this huge effort! From an outsider's perspective, I can see how this could be a valuable document. It reminds me of IRWM.
- It is great that you incorporated a qualitative component to the scoring. How does this study compare to the Los Angeles Basin Study's trade-off analysis?
  - In terms of methodology, their analysis was based more on survey results. We wanted to do more than that, so we did our best to quantify qualitative measures. In the end, their results focused much more on stormwater.

## **Final 2019 IRWM Plan – Phase 1**

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Ms. Ruth de la Rosa, County, presented the status of the 2019 IRWM Plan Update. The Final 2019 IRWM Plan – Phase 1. was released in November 2018. The 2019 IRWM Plan – Phase 2 will incorporate the SWCFS and the Water Needs Assessment in 2019. RAC input on the Draft Water Needs Assessment is anticipated in April 2019. Input on the Draft 2019 IRWM Plan – Phase 2 is planned for June 2019.

## **Water Needs Assessment Update**

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Ms. de la Rosa presented an update on the Water Needs Assessment. DAC outreach and presentations are complete, and the Draft Water Needs Assessment is scheduled to be complete in April 2019. The Final Water Needs Assessment is expected to be complete in June 2019. Accomplishments of Water Needs Assessment outreach efforts to-date include over 1,000 emails and 50 phone calls, five in-person presentations, and two webinars. A total of 59 people from 42 agencies / organizations attended presentations and 41 questionnaires were filled out.

## **Proposition 1 Round 1**

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Mr. Andrew Funk, City of San Diego, presented a status update on the Proposition (Prop) 1-Round 1 Implementation Grant program. As a response to previous requests, Mr. Funk presented the quantified benefits of all implementation projects funded through IRWM. Water supply and water quality tended to be the primary or secondary project benefit for the majority of funded projects. Distribution of state funding was based on the nature of the grant program (e.g., 100% of funding for Prop 84-Round 3 went to water supply projects). The San Diego IRWM Region has awarded \$13.7 million (15% of all available funding) to 17 disadvantaged community projects over the last 10 years.

Mr. Funk presented the schedule for this round of funding. The Call for Projects period is open now. Local Project Sponsors (LPS) must submit projects to the project database (OPTI) by January 11, 2019. A Technical Workshop will be held today on how to use OPTI. The Grant Cycle Kickoff Meeting was held on November 7. Key upcoming schedule dates are listed below:

- Call for Project: November 7 – January 11
- Scoring Workshop: February 6
- Project Selection Workgroup: February – March 2019
- Present Project List to RAC: April 3

The Project Selection Workgroup (PSW) will convene in February / March 2019 to review submitted project OPTI files. The goal of the PSW is to select projects to recommend to the RAC for inclusion in the San Diego IRWM Region's grant application. Mr. Funk described the process for project selection. Nominations for members to the PSW are scheduled to take place at today's meeting. The PSW would include three RWMG representatives and one representative from each of the five voting caucuses for a total of eight. In addition, alternates for each PSW member should also be selected. Mr. Mark Stadler, SDCWA, asked the RAC to consider a 6th caucus to represent the Tribal Caucus. Though the current RAC does not include this caucus, PSW meetings will be held next year when the Tribal Caucus will be officially incorporated into the RAC.

*Motion to add a Tribal Caucus representative to the PSW was taken.*

**Yes votes: 20**

RAC and members of the public broke out into caucus groups to discuss nominations. Nominees and their alternates were presented as follows:

- Tribal: Erica Pinto, A: Eric LaChappa
- DAC/Environmental Justice: TBD (no RAC members present)
- Water Supply: Joseph Randall, A: Erick Del Bosque
- Water Quality: Justin Gamble, A: Mike Thornton
- Natural Resources and Watershed: Sandra Jacobson, A: Ashkan Mozaffarian
- Other: Laura Walsh, A: Robyn Badger

*Motion to confirm PSW nominees was taken.*

**Yes votes: 21**

### **Grant Administration**

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Ms. Loisa Burton, SDCWA, presented updates on grant administration. The San Diego IRWM Region has six open grant programs with 41 projects completed or at least 80% complete. Of the open grant programs, the program has billed \$58.4 million to DWR. Ms. Burton highlighted significant milestones and upcoming activities under each grant open grant program. All construction and implementation activities have been completed in Prop 84-Round 1. In Prop 84-Round 2, three additional projects have been completed, including the Carlsbad MWD Recycled Water Pipeline Extension Project. In Prop 84-Round 3, Rincon's Customer Demand-Driver Water Management Program has saved over 11 million gallons of water to date. A significant milestone for Prop 84-Round 4 was the completion of the Conservation Home Makeover in Chollas Creek Watershed Construction Project. Ms. Burton also presented significant milestones and upcoming activities for the Prop 1 Plan Update grant and the Prop 1 DAC Involvement grant. As presented earlier in the today's RAC meeting, the Final SWCFS Report and the Final 2019 IRWM Plan – Phase 1 are complete. Milestones for the DAC Involvement grant program include continued coordination on the Water Needs Assessment outreach. Ms. Burton also presented on the recent two-day DWR project sites visit.

### **Public Comments**

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None.

### **Summary and Next Steps**

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Ms. Prickett, Woodard & Curran, presented current and upcoming funding opportunities in the Region. There are five funding opportunities open now. Please visit each respective grant program's website (listed below) for the most current information.

Project Types	Deadline	Website
<b>1 Round 1 IRWM Implementation Grants</b>		
Implementation Grants – Local Project Selection Process (Call for Projects)	January 11	<a href="http://sdirwmp.org/home">http://sdirwmp.org/home</a>
<b>SWRCB Prop 1 Storm Water Grant Program</b>		
Stormwater Grant Program	Summer 2019 (anticipated)	<a href="https://www.waterboards.ca.gov/water_issues/programs/grants_loans/swgp/prop1/">https://www.waterboards.ca.gov/water_issues/programs/grants_loans/swgp/prop1/</a>
<b>SWRCB Nonpoint Source Grant Program</b>		
2019 Nonpoint Source Grant program	December 18	<a href="https://www.waterboards.ca.gov/water_issues/programs/nps/319grants.html">https://www.waterboards.ca.gov/water_issues/programs/nps/319grants.html</a>
<b>CDFW Restoration Grant Program</b>		
Proposition 1 and Proposition 68 Restoration Grants	December 18	<a href="https://www.wildlife.ca.gov/Conservation/Watersheds/Prop-68">https://www.wildlife.ca.gov/Conservation/Watersheds/Prop-68</a>
<b>National Fish and Wildlife Foundation</b>		
Five Star and Urban Waters Restoration Grant	January 31	<a href="https://www.nfwf.org/fivestar/Pages/2019rfp.aspx">https://www.nfwf.org/fivestar/Pages/2019rfp.aspx</a>

Next RAC Meeting:

- February 6, 2019 – 9:30 am – 11:30 am at SDCWA’s Board Room.

**Technical Workshop**

Ms. Sally Johnson, Woodard & Curran, welcomed everyone to the Technical Workshop. Ms. Johnson provided an overview of the IRWM grant application process. LPS will first submit projects to the San Diego IRWM Program for consideration and inclusion in the Region’s funding package. The San Diego IRWM Program will then prepare the final grant application for submission to DWR. The Local Project Call for Projects period is currently open and will end January 11, 2019. Ms. Johnson outlined LPS responsibilities as they relate to each step of the IRWM application process. During the Call for Projects period, LPS must submit their project to OPTI. Ms. Johnson briefly outlined DWR application requirements and local eligibility requirements. Projects must meet Objective A, Objective B, and at one additional objective of the 2019 IRWM Plan in order to be eligible.

Ms. Johnson provided an overview on how to submit projects to OPTI. Workshop participants spent the remainder of the workshop asking questions about OPTI and the grant application process in general.

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