

FINAL
MINUTES OF MEETING NO. 6
State Water Resources Control Board Division of Drinking Water
Advisory Group for Expert Panel on Direct Potable Reuse
July 29, 2015

Chair Garry Brown called to order the sixth meeting of the Advisory Group for the Expert Panel on Direct Potable Reuse (DPR), held on behalf of the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW), at 10:30 a.m. on July 29, 2015, at the Visitors' Center of the Padre Dam Municipal Water District in Santee, California. The meeting was facilitated by the National Water Research Institute (NWRI).

Advisory Group Members Present:

- Garry Brown, Chair, Orange County Coastkeeper
- Randy Barnard, California State Water Resources Control Board
- Amy Dorman, City of San Diego
- Conner Everts, Environmental Justice Coalition for Water
- Jim Fiedler, Santa Clara Valley Water District
- Julie Labonte, San Diego Regional Chamber of Commerce
- Al Lau, Padre Dam Municipal Water District
- Bruce Macler, U.S. Environmental Protection Agency
- Traci Minamide, City of Los Angeles, Bureau of Sanitation
- Keith Solar, San Diego County Taxpayers Association
- Frances Spivy-Weber, California State Water Resources Control Board
- Roy Tremblay, County Sanitation Districts of Los Angeles County
- Andria Ventura, Clean Water Action
- Mike Wehner, Orange County Water District

Others Present:

- Mark Bartson, California State Water Resources Control Board
- Brian Bernados, California State Water Resources Control Board
- Larry Brenner, O.C. Environmental Health
- Wendy Broley, California Urban Water Agencies/Brown and Caldwell
- Jing Chao, California State Water Resources Control Board
- Suzanne Faubl, National Water Research Institute
- Monica Gasca, LACSD
- Robert Hultquist, California Department of Public Health (retired)
- Karen Larsen, California State Water Resources Control Board
- Maria Marisol, SDCWA
- Scott McClelland, Sweetwater
- Michael McSweeney, BA San Diego
- Jeff Mosher, National Water Research Institute
- Victor Occiano, Brown and Caldwell
- Brian Olney, Helix Water District
- Jeffrey Pasek, City of San Diego
- Tom Richardson, RMC Water
- Daynan Rigg, Brown and Caldwell
- Sherly Rosilela, California State Water Resources Control Board
- Toby Roy, San Diego County Water Authority
- Suzanne Till, Mater Dei Academy of Science
- Shane Trussell, Trussell Technologies

- Sarah Williams, Kennedy/Jenks
- Doug Wilson, California State Water Resources Control Board
- Erica Wolski, California State Water Resources Control Board

Remote Participants (via GoToMeeting webinar and/or teleconference):

- Janet Bell
- Guy Carpenter, Carrollo Engineers
- Annette Carraway, California State Water Resources Control Board
- Mickey Chaudhuri
- Ian Clampett
- Brian Dickinson, Elsinore Valley MWD
- Christopher Gabelich, Metropolitan Water District
- Mark Harrington, Water Planet
- Walter Jakubowski, WaltJay Consulting
- Rita Kampalath
- Jayne Joy, Eastern MWD
- Joyce Lehman
- Sun Liang
- Keith Maruya, SCCWRP
- Richard Mills, Department of Water Resources
- Jessica Nuewerth, Colorado River Board of California
- Toni Pezzetti, Department of Water Resources
- Jennifer Pulido, Department of Water Resources
- Christopher Stevens, California State Water Resources Control Board
- Jon Strutzel, California State Water Resources Control Board
- Dawn Tattler, Kennedy/Jenks
- Jenna Voss, Orange County Public Works
- Claire Waggoner, California State Water Resources Control Board

1. WELCOME AND INTRODUCTIONS

Garry Brown, Chair of the Advisory Group, called the meeting to order and acknowledged members of the public participating via teleconference and webinar.

2. REVIEW AND APPROVAL OF AGENDA

Members of the Advisory Group commented that the work to determine feasibility of developing uniform criteria for DPR is a critical project. Comments put forth included the following:

- Julie Labonte: What is a critical need?
- Karen Larsen: What can be determined on a case by case basis?
- Andria Ventura: Would DDW waive the CEQA process to expedite projects?
 - Response from Karen Larsen: DDW does not have authority to wave CEQA
- Bruce Macler: Current state regulations do not preclude DPR projects. On the federal side, the water must the current drinking water regulations.
- Jeff Mosher mentioned the Texas experience and GWRS

3. REVIEW AND APPROVAL OF MINUTES FROM PREVIOUS MEETING

The minutes of Advisory Group Meeting #5, held on May 1, 2015, was presented to the Advisory Group. A motion was made to approve the minutes. The motion was seconded and approved unanimously.

4. PUBLIC COMMENTS, INCLUDING PUBLIC COMMENTS ON MATTERS NOT ON THE AGENDA

Suzanne Till, Director of Mater Dei Academy of Science, made the following comments:

- Our objective is to get kids interested in science and water science particularly
- We are working with Sweetwater and Padre Dam
 - School participates in sustainability session
 - Potable reuse is a popular topic (comparing with other water sources)
 - Need more outreach and education with large water users
 - Students are interested in drought
 - Increase water awareness
 - Water/energy
 - Padre Dam has been an excellent partner
 - Water science is not in any curriculum
 - Large water users – like the school

Michael McSweeney, a member of a local builder association, made the following comments:

- Industry is supportive of using water more efficiently and BIA
- Working with IRP
- Very excited about potential for potable reuse
- Irrational fear of using water isn't supportive
- Padre Dam and City of San Diego are doing a good job
- Requests that SWRCB get the regulations in place

Conner Everts, Advisory Group Member, made the following comments:

- Highest level of public interest he has seen in 30 years
- Regardless of El Nino, the drought is a critical issue
- Don't miss opportunity to engage media before this process ends next year

Jim Fiedler, Advisory Group Member, made the following comments:

- SWRCB should accelerate the reuse program
- Groundwater subsidence – with IPR

5. DEVELOPING A DPR NATIONAL FRAMEWORK

Mark Bartson, Supervising Sanitary Engineer, State Water Resources Control Board's Division of Drinking Water, delivered an update on direct potable reuse (DPR) deadlines and deliverables for the Expert Panel. Key points and information from his PowerPoint slides are provided below.

- Recycled water unit staff (Randy Barnard, etc.) are working on this project
- Indirect Potable Reuse and Groundwater – I year annual review
- Texas and Australia efforts have subsided

- What SWRCB needs from expert panel
- Goal is to coordinate SWRCB efforts with DPR expert panel
- Expert Panel charge
 - Finishing up the Surface Water Augmentation (SWA) criteria
 - Beginning to evaluate feasibility of developing criteria for Direct Potable Reuse (DPR)
 - Advisory Group requests feedback on practical issues
 - Water quality and health risk assessments associated with existing water supplies - Dick Bull from expert panel can present
 - See list from CWC 13563
- Expert Panel next steps
 - September 23-24, 2015 meeting in Berkeley, CA
 - DPR Seminar on September 23 is open to public
- Deliverables and deadlines
 - June 30: Draft Expert Panel report
 - SWRCB will then submit a summary of that report
 - Expert Panel
 - Recommendations, findings, and feedback
 - Dialogue with DDW staff
 - Dialogue with Advisory Group
 - Coordination between SWRCB and Expert Panel on meeting deadlines
- Advisory group
 - Advise the Expert Panel
 - Make recommendations to SWRCB DDW on other topics (protection of public health, etc.)
- Discussion
 - Expert Panel process
 - WRF 15-01 synthesis report
 - Interaction between Advisory Group and Expert Panel
 - Can meetings be scheduled so that there is one day overlap between Advisory Group and Expert Panel meeting? That would make it easier for some of the Expert Panel to attend the Advisory Group meeting.
 - Need to be clear on the role of the Advisory Group
 - Advisory Group are the advocates
 - Los Angeles has been talking about IPR for a long time
 - Can we step up the schedule? Things have changed significantly since the Expert Panel and Advisory Group were formed
 - How we can serve the expert panel?
 - Make sure the Expert Panel receives the Advisory Group minutes
 - Formalize wisdom of the Advisory Group and importance of topic
 - How do we take advantage of opportunities?
 - Expert Panel is developing topics for briefing papers on the feasibility of developing uniform criteria for DPR
 - Advisory Group could review these topics
 - Advisory Group would like an update on the status of DPR Framework
 - Topics to address include:
 - Operator training issues
 - Communicating with the public
 - Policy work

- Need to have a discussion with Expert Panel:
 - These are feasible for DPR
 - These need to be developed
 - How to turn theory into real DPR
 - Messaging with state and NGOs
 - Other, training
 - Take science into action
 - Messaging today may be different than in a year or two
- Randy Barnard
 - To get direction, look at the statutes
 - Advisory Group can come up with topics and issues for DDW and for expert panel on feasibility
 - Everything does not have to go to expert panel
 - Advisory Group can create a write up for DDW that would impact the DPR regulations
- Keith Solar
 - Is cost an issue?
 - Randy Barnard emphasized that the focus is on protection of public health
 - Bruce Macler commented that the Advisory Group could offer thoughts on what is cost prohibitive
 - Fran Spivy Weber said they are worried about stranded assets. Which principles that should be considered as we move down the DPR road?
- Garry Brown
 - How do we address topics that are neither science nor policy?
 - Safe drinking water plan – we can use existing authorities and resource
 - Other topics required additional resources
- Bruce Macler
 - Consumer confidence report and public notice - should the Advisory Group comment on this?
 - NDWAC - Public notification
- Fran Spivy Weber
 - Advisory Group would benefit from seeing the data
 - How much recycled water is there? (2009 survey)
 - SWRCB will repeat survey in 2016
 - Recommend that the Advisory Group should get this information regularly
- Andria Ventura
 - Source is listed in CCR. List as recycled?
- Karen Larsen
 - Advisory Board could direct staff on changes with CCR
- Mike Wehner
 - Our producers – say “groundwater”
 - Source water assessment – say “recycled water”

- Advisory Group can help determine if there are legislative needs to fulfill next steps
- Jim Fiedler
 - Advisory Group and Expert Panel sunset in December 2016. What is the path forward after this?
- Garry Brown
 - We should incorporate some policy issues in final document.
- Bruce Macler
 - We have issues related to larger water systems. What about small systems? Like 100,000 gal a day. Tribes are the EPA's concern.
 - Response from Randy Barnard: Need to consider TMF (technical, managerial, financial)
 - Response from Conner Everts: Small communities need a different approach
- Andria Ventura
 - Environmental justice issues and feasibility
 - How do we search for ways that are economically and technically feasible?
 - How can policy needs be addressed?
 -

6. ORANGE COUNTY COASTKEEPER DPR WORKSHOP

Garry Brown, Orange County Coastkeeper, spoke briefly about an event planned for next month. Coastkeeper and NWRI are administering the event. Key points from his talk are below.

- Statewide meeting for environmentalists
- Will be held October 6 at OCWD in Fountain Valley
- Program will focus on science and messaging
- Participants will tour the water treatment facility at OCWD
- Funded by an NSF grant
- Advisory Group is invited
 - Jim Fiedler will send Garry the names of SCVWD folks who would like to attend
- Julie Labonte asked about the program and type of information that will be provided. Who is the intended audience?

7. TOUR OF PADRE DAM ADVANCED WATER PURIFICATION DEMONSTRATION FACILITY

Al Lau of Padre Dam gave a brief presentation on the Padre Dam Municipal Water District and led a tour of the demonstration facility.

8. REPORT FROM THE AD HOC COMMITTEE ON OPERATOR TRAINING

Traci Minamide, chair, provided an update on the committee's activities.

- CUWA is in Phase 1 of their process and is conducting a survey

- Phase 2 will include two workshops at which the participants will review alternatives, prioritize strategies and reach consensus and the content for the final white paper
- CUWA wants DDW involved in this process. Doug Wilson (certification group), Randy Barnard, and Brian Bernados will participate.

Al Lau reported on the activities of the CA-NV AWWA section with respect to operator training and certification

- Sweetwater, as an example, has membrane treatment for brackish water desalination and needs certification
- Potable reuse facilities often have wastewater certified operators
- Looking at ways to develop standards for operators to operate facility
- They will also get on-the-job training at the facility
- Selecting officers
- Forming committees

Bruce Macler also reported on the activities of the CA-NV AWWA section

- Section has certification programs such as “Water use efficiency” and is interested in other certification efforts related to algal control, reuse, and arsenic and hexavalent chromium
- Working on an analysis of job descriptions

COMMENTS

Scott McClelland, Sweetwater

- Distinguish between certification and training
- Existing organizations provide education opportunities
- Community colleges teach relevant courses

Toby Roy, SDCWA

- AWT technologies
- CUWA multiple barriers

Jim Fiedler, SCVWD

- Some training can be accomplished with computers
- Supplement with practical training/walking the plant
- Operators will face changes in their duties and responsibilities
- Bay area has developed a group to pull resources baywork.org for operators
- What can be done to get kids interested in these careers?

Al Lau, Padre Dam MWD

- Programs to train operators on site
- Internal organization
- For transitions
- Operators need to have solid math and communication skills

Brian Bernados

- Process could be to offer individual endorsements or one general certification, or some intermediate credential

Mike Wehner

- We need to develop a pool of people trained to operator the new facilities

Julie Labonte

- We could invite AWWA CA-NV to present at a future meeting

Doug Wilson

- We should act on the CUWA and AWWA CA-NV input

9. REPORT FROM THE AD HOC COMMITTEE ON DPR TERMINOLOGY

Amy Dorman, chair, provided an update on this committee's activities.

- Still updating the list of terms and definitions
- Have been receiving input from stakeholders
 - CUWA, CWEA, ACWA, and CASA have all submitted comments
 - Most feedback has been editorial
 - WateReuse suggested adding a preface and explaining the intent of the document
 - ACWA suggested we do a conflict check and include terms for public outreach
- Committee developed the list to serve several purposes
 - Technical and science based
 - Bound to certain terms
 - Communications and outreach
 - Expanding the definitions to include sub-lists

COMMENTS

Monica Gasca

- Document should include definitions from LACSD; she will get them from Ray Tremblay and forward to Amy Dorman and Suzanne Faubl

Garry Brown

- Define augmentation for groundwater versus surface water

Andria Ventura

- Public outreach component is important and you may want to solicit input from community based organizations

10. UPDATE AND REVIEW OF EXPERT PANEL ACTIVITIES

Jeff Mosher of NWRI provided a status update on the activities of the DDW Expert Panel on DPR. A summary of his presentation is provided below.

Meeting #5 took place June 2-3, 2015, in Irvine, CA

Day 1 focused on Surface Water Augmentation, including:

- DDW's comments on Report #4
- Reviewing the Draft Surface Water Criteria
- Next Steps
 - Panel to provide preliminary notes to DDW
 - Panel Chairs to begin the draft conceptual letter
 - DDW to draft the next version of the criteria
 - Panel Chairs to submit Meeting #5 Report to DDW as soon as it is available

Day 2 focused on DPR Topics, including:

- George Tchobanoglous explained the content and purpose of the "DPR Framework"
- Dick Bull (Panel Member) discussed high-throughput bioassays
- Shane Trussell reported on the progress of WRRF Project 14-12, "Demonstrating Redundancy and Monitoring to Achieve Reliable Potable Reuse"
- Next Steps
 - Finalize Report from Meeting #5 and submit to DDW (Submitted on July 2, 2015)
 - Request that DDW supply revised SWA criteria regulatory text (ongoing)
 - Draft the conceptual approval letter (expected by early August)

Meeting #6 will take place September 23-24, 2015, in Berkeley, CA

- Day 1: Direct Potable Reuse in California Specialty Seminar (see Program)
 - Co-sponsored by NWRI, SWRCB, and UC Berkeley School of Public Health
 - In memory of Dr. Robert Cooper
 - Open to the public; nominal registration fee
 - Advisory Group members are invited to attend
- Day 2: Closed session of Expert Panel (DDW will attend in the morning)
 - Identify DPR questions and "topics"
 - Panel members assignments for "briefing papers" on each topic
- Plan to schedule 3-4 meetings between Dec 2015 and June 2016

11. DISCUSSION AND COMMENTS FOR EXPERT PANEL

- It would be useful to have members of the Expert Panel attend Advisory Group meetings
- An idea is to schedule the Expert Panel meeting and the Advisory Group meeting so that they overlap for one day; that way the Expert Panel members would not have to travel

12. AGENDA ITEMS FOR NEXT MEETING

- Operator training and certification
- AWWA CA-NV meeting is scheduled for September 24
- State operator and certification meeting on October 13
- Expert Panel – ideas for the DPR briefing papers

ACTION ITEM: NWRI will send out Doodle poll for meeting dates for October 2015. The meeting will be held in the Bay Area, at either East Bay Municipal Utility District (EBMUD) or San Francisco Estuary Institute (SFEI).

13. FINAL DISCUSSION AND REVIEW

- Jim Fiedler noted that SCVWD is offering a public open house and tour on October 24, 2015; he invited Advisory Group members to attend and asked them to spread the word
- Andria Ventura asked Jim to send her an announcement to forward to her network

ACTION ITEM: Jim Fiedler will forward the announcement for the October 24 open house event to Andria Ventura and Suzanne Faubl of NWRI for distribution.

14. ADJOURN

The meeting was adjourned at 3:00 pm.