

Infrastructure/Retrofit Working Group of the Blue Ribbon Panel on Water Sustainability

Meeting Minutes

June 16, 2010

Introductions

Chair Guy Carpenter called the meeting to order at 9:30 am. Attendees introduced themselves. Per the sign-in sheet, 21 people attended the meeting.

Approval of Minutes from Previous Meetings

Copies of draft minutes of the May 12, 2010 meeting, sent out by email the day before, were made available. Because so few attendees had a chance to review them before the meeting, Chair Carpenter postponed a vote to adopt until next meeting and gave attendees one week to get any suggested edits to him.

Reports by Subcommittees

Since the meeting of May 12, the Recharge for Indirect Potable Reuse (IPR) Subcommittee prepared and distributed an issues paper (“white paper”) and received comments from Working Group participants. Chair Carpenter said he tried to include the substance of the issues identified by the Subcommittee into the draft Interim Report. Discussion of these issues in the Interim Report was deferred until the next agenda item.

Interim Report Review

1. The intent of defining the term “multiple barriers” was discussed—does it refer to the additional barriers that rural communities have in developing and reusing recycled water compared to urban communities or does it refer to a series of treatment and protective measures employed to improve and safeguard the quality of reclaimed at the end use, particularly with respect to a drinking water end use? Attendees agreed that the desired definition relates to the latter situation, although the former issue is certainly one that needs to be addressed by the Blue Ribbon Panel.
2. Table 1, Gap 6. This and some other statements in Table 1 were questioned, in some cases because one or more attendees thought the language implicitly expressed a recommendation. After discussion, Gap 6 was reworded to: “The quality of reclaimed water from the point of compliance to the end user is not addressed.”
3. Table 1, Gap 10, was reworded to: “Should a permit be required to operate a reclaimed water distribution system, and if so, what type?”
4. Table 1, Gap 11, was reworded to: “Should certification/training for reclaimed water distribution systems be required?”

5. Table 1, Gap 13, was reworded to: “Administrative processes for mixed, non-potable water supply systems (reclaimed water, CAP and canal water, pumped groundwater, etc.) are not clear.”
6. Table 1, Gaps 14, 15, and 16, were deleted because they don’t directly relate to the objectives of the Infrastructure/Retrofit Working Group. These issues are included in Table 3 below and will be forwarded to the appropriate working group for consideration.
7. Discussion ensued about whether there really is a need to develop design and construction technical standards for reclaimed water conveyances. The consensus seemed to be that both appropriate prescriptive and performance standards are needed, but the result should allow for new technology solutions. Also, it was stated that technical standards are needed to ensure protection of human health. The following statement was added to the Interim Report: “The balance between providing prescriptive technical standards versus performance standards has been discussed numerous times by the Working Group. There is general support for ensuring that standards are sufficiently performance-based to allow for new technology solutions.”
8. Operations and Maintenance Practices, Item II.b, Risk Assessments. The need to do formal risk assessments as part of O&M was questioned. Co-chair Graham Symmonds, who contributed the list of potential O&M best management practices to the Interim Report, replied that he was thinking of “risk assessment” in a more generic sense. For the Interim Report, the wording was changed to: “Identifying and managing potential risks.”
9. Focal Area #3, *Treatment and infrastructure design standards and associated best practices (guidelines)*. Four bullet points derived from the IPR “white paper” will be added to this item in the Interim Report. One participant expressed a preference for ensuring that applicable water quality standards are met post-extraction for a particular end use in an IPR project rather than imposing requirements to treat to that standard at the point of injection. Thus, related to this, the participant felt that there was no need to develop a super-A+ “platinum level” reclaimed water quality class applicable to IPR. Chair Carpenter said he would expand the last sentence of this item in the Interim Report, which currently reads, “However, not all in the regulated community agree,” to better express the nature of these comments.

Chair Carpenter requested that further comments on the Interim Report be sent to him within one week. He will then finalize the Interim Report and send it to Sandy Fabritz-Whitney at ADWR for inclusion in the full Interim Report of the Blue Ribbon Panel.

Next Meeting

Chair Carpenter reminded everyone that the next Blue Ribbon Panel meeting is scheduled for Friday, July 9, 2010, at ADWR, from 10:00 am until 1:00 pm. The next Infrastructure Working Group meeting will be held on Wednesday, June 30, at ADEQ, 5th Floor Conference Room, from 9:30 am – 11:30 am.

Adjourn

Chair Carpenter adjourned the meeting at 11:30 am.

Gaps, Proposed Methods to Fill Gaps, and Issues to Forward (Continuing)

The Working Group has identified “gaps” in the State of Arizona existing reclaimed water technical standards. These gaps are shown in Table 1 along with the date of the meeting where each gap was identified.

No.	Description	Date of Meeting	Potential Source of Guidance/Applicability for Arizona
1	There is no guidance provided on retrofitting systems (e.g., converting an existing potable water line to deliver reclaimed water).	2-24-2010	
2	Current standards do not address groundwater augmentation that occurs when reclaimed water is recharged to the aquifer.	2-24-2010	
3	There is no guidance provided on distribution and use of reclaimed water inside buildings.	2-24-2010	Tucson Water
4	There is no guidance provided on using raw water to augment reclaimed water to meet seasonal demand fluctuations.	2-24-2010	
5	The quality of reclaimed water from the point of compliance to the end user is not addressed. [supersedes text of 2-24-10]	6-16-10	
	There is no guidance provided regarding using high quality reclaimed water to augment potable water supplies at water treatment plants during emergencies.	2-24-10	
6	There is no guidance provided related to the protection of reclaimed water from the point of delivery to end users in order to preserve the quality of the water.	2-24-2010	
7	On-site issues are not addressed.	2-24-2010	State of Florida
8	There is no guidance provided related to operations and maintenance of reclaimed water conveyances.	2-24-2010	
9	There is no guidance provided for abandoning a reclaimed water line.	3-24-2010	
10	Should a permit be required to operate a reclaimed water distribution system, and if so, what type? [supersedes text of 3-24-2010]	6-16-2010	

	Should a General Aquifer Protection Permit (APP) be required to operate a reclaimed water distribution system?	3-24-2010	
11	Should certification/training for reclaimed water distribution systems be required? [supersedes text of 3-24-2010]	6-16-10	
	Should certification/training for reclaimed water users be required?	3-24-2010	
12	There is more EPA guidance for drinking water treatment unit processes than for wastewater treatment unit processes.	4-7-2010	
13	Administrative processes for mixed, non-potable water supply systems (reclaimed water, CAP and canal water, pumped groundwater, etc.) are not clear. [supersedes text of 4-21-2010]	6-16-2010	
	There are no technical criteria for mixed, non-potable water supply systems (reclaimed water, CAP and canal water, pumped groundwater, etc.)	4-21-10	
14	There is no process for proving new technology.	5-12-10	

The Working Group has suggested several ways to fill in the gaps in the state of Arizona's existing reclaimed water technical standards. These suggestions are shown in Table 2 along with the date of the meeting where suggestion was made.

No.	Description	Date of Meeting
1	Incorporate design standards in the regulatory rules.	2-24-2010
2	Consider aquifers as "infrastructure" for storing reclaimed water for future use.	2-24-2010
3	Review existing standards from other states or countries to determine applicability to the State of Arizona.	2-24-2010
4	Incorporate a visioning process that will help chart a course to achieve goals of the working group.	2-24-2010
5	Develop Best Management Practices (BMPs) for operations related to reclaimed water distribution.	3-24-2010
6	Develop a definition for "recycled" and/or "non-potable" water.	4-21-10
7	Study to sample and characterize critical microbial and chemical constituents in SRP, CAP, and reclaimed over the same period. (Research need)	5-12-10
8	Provide better information on treatment and O&M for microbial parasites relative to reclaimed water systems. (Research need)	5-12-10
9	Define "multiple barriers" with respect to indirect potable reuse.	5-12-10

10	Craft a recommendation to develop a path to accomplishing direct potable reuse of reclaimed water in Arizona.	5-12-10
11	Develop a standardized list of PPCP analytes for use by reclaimed and recycled water practitioners. (Research need)	5-12-10

The Working Group has identified several issues that are related to reclaimed water infrastructure but that also might be more appropriately addressed by another working group or at the Blue Ribbon Panel level. These issues are shown in Table 3 along with the date of the meeting where each issue was identified.

Table 3. Proposed Reclaimed Water Issues to be Forwarded to Another Working Group or the Blue Ribbon Panel		
No.	Description	Date of Meeting
1	Impact of water softening on reclaimed water quality with primary concern for increased salinity and TDS concentrations	2-24-2010
2	De-centralized use of reclaimed water resources	2-24-2010
3	Permitting issues related to jurisdictional boundaries that might result in potable water supplies being located too close to reclaimed water recharge projects	2-24-2010
4	Review the Type 3 Reuse (Agent) permit for a reclaimed water distribution utility in regards to risk to the utility versus the end user with respect to the use of reclaimed water "after the meter"	3-24-2010
5	Addressing the formation of Disinfection By-Products (DBPs) in reclaimed water	3-24-2010
6	Addressing reclaimed "water wheeling" whereby an intermediate party delivers water to another user (e.g., a golf course providing water from its lake to a HOA subdivision).	3-24-2010
7	All Working Groups should develop a list of research needs, to be included in the final Blue Ribbon Panel Report as a recommended research agenda.	5-12-10
8	Initiate issue-focused water quality research to guide the establishment of technical standards aimed at protecting public health.	6-16-2010
9	How to manage salinity created as a by-product of reclaimed water.	6-16-2010
10	Establish and maintain centralized water quality databases and consistent sampling frequency among various required permits.	6-16-2010