

Reclaimed Water Rule
 Technical Advisory Panel
 February 11, 2009
 9:00 a.m. – 12:00 p.m.

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Welcome and Introductions

Ecology welcomed everyone and introductions were made. There were four participants on the phone and five participants in the meeting room for part or all of the meeting. Larry Esvelt had submitted written comments that were read to the group.

Task #1 Review action items from January meeting

The group discussed two Action Items from the January 2009 meeting:

1. Separation between reclaimed water discharge & surface water intake. Denise Lahmann presented her white paper which defined methods of streamflow or surface water augmentation and acknowledges that in some cases there may be withdrawals for potable use. A prescriptive separation distance (California and Florida use 500 feet) may be used as a barrier or environmental buffer between a reclaimed water discharge point and a potable supply withdrawal point. Another alternative is using a time of travel factor to alleviate short circuiting issues. Florida uses 4 hours for Class 1 water (WA Class A) and 72 hours for Class II (secondary effluent) with travel time calculated at the wettest time of the year. NPDES mixing zone requirements from rule (WAC 173-201A-400) and guidance are used to control wastewater discharge and folks agreed there is no reason to be more stringent with reclaimed water standards. However there is no minimum time or distance of separation specified for wastewater discharges, other than a potable intake must be out of the mixing zone. There are surface water quality and effluent toxicity standards that consider a higher beneficial use of the receiving stream such as potable water. An additional tool that could be used as a barrier is intermediate storage but this can be costly. It was suggested that a combination of travel time and separation distance may be best and could be placed into rule as a minimum standard unless it could be proven that equivalent protection can be achieved by a different means. A March 2007 article by Crockett (published by WERF) will be reviewed by Denise for guidance on this topic. She will check with DOH drinking water staff for further input. Kathy will check with Water Quality program surface water staff for their input. A white paper will be emailed to the TAP after revisions are incorporated.

2. UV guidance for field verification of alternatives to NWRI criteria and small systems. Jay Swift discussed a method for rerating the capacity of a UV installation. The NWRI criteria are conservative and may lead to overdesign. Jay proposes to complete the initial design using NWRI guidelines at a Phase 1 design. After construction, six months of daily monitoring of UV transmittance (3 times each day) would be used to establish the 10th percentile transmittance factor. Using this field verification a Phase 2 flow rate could be applied to the UV system capacity. This method implies that designers would need to anticipate the Phase 2 flow rating the design other plant components to match. There was a question as to whether on-site validation may be costly, but Jay said the testing is simple and not very time consuming. There may be a way to use data from other facilities to justify weekly rather than daily data collection. Jay will email a written copy of his white paper to Jim for distribution to the TAP members for review and comment.

Task #2 Source water considerations

Kathy revisited an earlier white paper regarding “type of source water” issues. The TAP made four recommendations at that time and the group reconfirmed these concepts today as follows:

1. Focus on suitability for the use – not the history of the water.
2. Require the same criteria (standards) regardless of the source water.
3. Require treatment standards (AKART + adequate and reliable) as a minimum for any use.
4. Include language allowing flexibility for special situations.

The TAP also agreed with suggested rule language presented in the white paper. Kathy will add that internal plant recycling is not considered subject to reclaimed water standards. Use of graywater on-site will be regulated by DOH under a yet to be proposed rule. Uses for greywater established under 90.46 will be considered the same as reclaimed water. Industrial process water will be regulated on a case-by-case basis for its intended use.

Task #3 Blending reclaimed water with other sources

Jim presented a white paper regarding reclaimed water blending, focusing mostly on stormwater blending. He pulled information from the existing ECV Permit Writer’s Manual, and incorporated several questions. First the TAP distinguished between rainwater harvest and incidental runoff and stormwater collection systems. Rainwater harvesting on a de minimus basis does not require a water right but collecting stormwater and using it for a beneficial purpose does require a water right. The group acknowledged that disposing of stormwater via a rapid infiltration pond does not trigger water right permits.

If someone proposed to blend stormwater with reclaimed water for infiltration/disposal (not a beneficial use), certainly Class A reclaimed water should not be a quality concern. However, reclaimed water by definition is for a beneficial purpose, so this actually would be permitted as wastewater discharge to ground. It was agreed that reclaimed water standards should be based on the end use, but there is still some confusion as to point of compliance issues. One point of

view is that “end of pipe” at discharge to a storage pond is the pt. of compliance. But there may be situations where a reclaimed water discharge is in hydraulic continuity with surface water that has water quality limitations (TMDLs such as temperature). There was agreement that there may be instances where water other than reclaimed may be blended and transported in a purple pipe. Potable water or stormwater treated to the same quality as reclaimed water is an example. In some cases local jurisdictions may be reluctant from a permitting or administrative standpoint to permit co-mingling reclaimed water with stormwater. These are emerging programs and there may need to be further communication efforts as we learn more about the quality and quantity aspects of reclaimed and storm water.

Task #4 Completing the TAP recommendation package

There are a few pending topics on our workplan that the group agreed to complete via email communication. Revised white papers for these subjects will be emailed to the TAP for comment. Ecology staff will incorporate the TAP recommendations into the RAC discussion as these technical topics come up each month. It was suggested that TAP member’s names be added to ListServ so that they are aware of upcoming RAC meeting agendas. It was also suggested that we email the rule language materials that the RAC is discussing to TAP members. Kathy mentioned that all RAC meetings are open to the public and Tim added that there is a specific agenda item each month for general public comment. At this time no additional meetings of the TAP are scheduled. However the RAC may wish to refer technical issues back to the TAP for further study and input. If necessary, additional meetings may be scheduled for this purpose.

Meeting Attendees

Committee Members and Alternates	Ecology and Health Staff
Bill Backous, CH2M Hill	Jim McCauley, Ecology – TAP Chair
Ken Butti, LOTT	Tim Gaffney, Ecology (notes)
John Malady, (by phone)	Katharine Cupps, Agency Lead (by phone)
Jay Swift (by phone)	Denise Lahmann DOH
Paul Schuler (by phone)	