

Reclaimed Water Use Advisory Committee Meeting
Friday September 7, 2007
9:30 am — 3:00 pm

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Welcome and Introductions

Kathy Cupps, Department of Ecology (Ecology), introduced Angie Thomson, EnviroIssues, as the new facilitator for the Rule Advisory Committee meetings. Angie asked the group for introductions and reviewed the agenda.

Melissa McEachron, Ecology, announced that the Rule Advisory Committee meetings are now set for the second Wednesday of every month. A few committee members had a conflict with that schedule so Melissa offered to work on coming up with alternate dates.

Task 1 – Reclaimed Water Program and Rule Updates

Kathy provided a brief presentation of task one efforts to date. Kathy reviewed the elements of the report work plan, went over the timeline and updated the group on progress to date, including hiring staff to support the work plan. Kathy also highlighted important upcoming dates for the report.

Questions/Comments:

- *What are the dates for the review of the work plan?* Kathy said specific assignments for staff work are due at the October meeting. She was not sure they would have a hard copy available for the committee at that meeting but would like feedback on the elements included in the work plan. Kathy explained the timeframe for reviews is very tight. Ecology wants to make sure they capture everything, but are not sure that there will be time for review and comments by the committee. Committee members

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are welcome to submit comments to the report and they will be included as an appendix to the final December report.

- *Is this the first of a series of reports?* The 2007 report is a status report for the rule advisory committee: it will include a work plan for the activities that will be done in 2008. The 2008 report is also a status report. The final report will be due in 2010, and a review period will be included.
- *When will the work of the committees be complete?* The Long-term Funding SubTask Force work will be concluded this year with submission of their report. Other committees will provide a status report this year and continue working in 2008. The Water Rights Advisory Committee will bring some concepts to the October meeting to get comments and feedback. The group has many statutory recommendations but knows there are more that will have to be submitted next year.
- *Does the legislature intend to take action on the first report?* Kathy said she is not sure and would have to ask the legislature. Ecology has been asked to submit this report and it depends on how they react to the elements. There may be things they want to move on now and others that will wait for further progress.
- *Status of rule making: is the information about permitting still accurate?* Kathy said that information will be in the report, but all of the pieces of the report are iterative and will need to be reviewed by the committee in the next calendar year.

Task 2 – Update on Water Rights Impairment

Lynn Coleman, Ecology, provided an update on the Water Rights Advisory Committee's work and outlined some basic questions being considered. They are working on understanding the issues and looking at case studies to help inform their work.

Lynn provided a few diagrams that outline consumptive and non-consumptive losses associated with water use. Lynn read the legal description of impairment and defined non-consumptive loss as evaporation and leakage. One of the questions is - will reclaiming water take away from the needs or rights of downstream users?

Lynn offered the following example to illustrate some of complexities of issues the Water Rights Advisory Committee is working through. For example, a reclaimed water facility has to consider a "wet-water" hit (requiring impairment analysis) when a city conducting water saving programs does not. The language in the statute supports reclamation projects as long as they do not impact the downstream user. Lynn explained water treatment facilities can increase their overall consumptive use by increasing consumptive losses or making other use changes, which would change the wet water hit on the river. However, the water treatment facility does not have to take into account the impact on downstream users. Lynn said the Water Rights Advisory Committee is evaluating why reclaimed water is singled out and if the law can be changed.

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Lynn noted that downstream water right holders can use legal avenues to claim impairment if an upstream facility increases their consumptive use. The Water Rights Committee is considering how to balance the permit process for the water reclamation facility with the legal process for the downstream user. Lynn asked how the committee can work to balance these processes.

A committee member suggested that if the water plant is upstream and is the first permitted user, then it is the problem of the second user downstream if there is no water available. Just because a water right was issued does not mean it is Ecology's responsibility to make sure there is water available for that user. However, if you make a change to the original permit then you change the water use and therefore are changing the permit.

Lynn said the committee is also looking at the issue of foreign water. If the water source for reclaimed water is drawn from a basin other than the discharge basin, then the facility cannot create impairment. Also, impairment language differs for industrial and agricultural water permits. There are differences for state entities vs. privately held water rights as well.

Questions/Comments:

- *Did the Water Rights Committee find any examples of case law to use as a precedent in this scenario?* Lynn said there is a bit of information available and they are doing more research on this subject. There is some case law on runoff but the statute defines runoff and wastewater outflow differently. The case law in Washington is different than general Western Water Law. A court ruling regarding general impairment will not necessarily be applicable to the situation in Washington.
- *How does groundwater play into this issue?* Lynn said the statute does not implicitly say that groundwater and surface water are connected. It says facilities should not impair any downstream uses but it does not mention groundwater in the statute. Lynn said there are many legal questions that need to be answered such as: What if the entity drawing the water is different than the one putting it back in and does bottled water count as foreign water?
- *Does mitigation and impairment have to take Total Maximum Daily Loads (TMDLs), into account?* Lynn said the City of Carnation has been looked at as an example because they are implementing a treatment plan that will reclaim water into a wetland. Ecology looked at the decrease in flow, what the project did for water quality and other issues that included the benefits to the system when addressing impairment. There are two scenarios that lead an entity to consider reclaimed water: (1) they want more supply or (2) a TMDL has been issued and it is too expensive to treat. The impetus for going to reclaimed water should be addressed.
- *Is the Water Rights Advisory Committee prepared to say to the Governor that they can not fix this issue under the circumstances? If you operate under the assumption that there is not much surplus water left in Washington, then anyone who wants to do water reclamation will cause impairment.* Lynn said one of the things Ecology has

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done is look at E2SSB 6117 which referred to the eminent domain statute for just compensation. Under water code any party has the right to petition to condemn any other water right. The judge makes a decision about the superior and inferior use of the water. Many agencies are interested in keeping reclaimed water out of that legal process.

- *Ecology has a lot of experience saying no for water rights; is there any reason they can not say no to a request for reclaimed water project?* If a facility can not find mitigation and the project can not be changed, Ecology might say no. It is Ecology's role to identify impairment and advise the facility to address it. If it will take 25 years to get through this process then is it too bleak to proceed? The Water Rights Committee is working on identifying then that might be the case.
- Heather Trim, People for Puget Sound, provided an example of the pool of potentially impaired water rights in Washington State and advocated for looking into this pool further.
- Lynn said above and beyond the impairment issue there is a question about when and how a reclaimed water facility can claim water rights. She suggested the group needs to develop a process to streamline the creation of reclaimed water facilities. There are some places where reclaimed water is not considered a new supply.
- *Has the committee looked at what Ecology's authority is for judgment on these scenarios?* Lynn said Ecology has looked at the adjudicated basins and non-adjudicated basins. Their authority in adjudicated basins is clearer than their authority in non-adjudicated basins.
- A committee member asked for the Water Rights Advisory Committee to refrain from recommending mandatory water reclamation given the complexity of these issues. If water conservation and reclamation was mandated it would put water agencies in a tough situation.
- A committee member expressed a desire for the Water Rights Advisory Committee to look at Western Water Law and suggest that the legislature consider a constitutional change.

Task 3 – Update on Funding Task Force

Steve Carley, Ecology, provided an update on the Long-Term Funding SubTask Force's work to date. Steve said they are working on Section 10 of ESSB 6117, exploring existing funding sources and other funding programs that may directly or indirectly affect reclaimed water. They are also looking beyond Ecology's funding sources for other money that could be used for this program. Steve said they are evaluating what other states are doing in terms of incentives and programs. The Long-Term Funding SubTask Force's timeframe is short and their report is due at the end of the month.

Steve discussed Ecology's existing funding for reclaimed water programs, noting there is not enough money for new projects. The State Revolving Fund and the Public Works

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Trust Fund has some money available and much of it goes to wastewater but does not have enough funding for all projects. Steve noted that Ecology staff conducted some informal surveys and found that the need for money is great; this information will be available in the report.

The Long-Term Funding SubTask Force is working with the Department of Revenue to explore various fund sources. Existing sales tax funds continue to be pressed and they are not sure how viable it will be long term unless they can raise the department's limit. Bottled water is one funding source that is favored because it directly impacts water. They have also discussed excise taxes, construction taxes, sales taxes and redirecting sales taxes on products and services used for reclaimed water projects. Steve said the process for funding needs to evaluate what will be accepted by the legislature for long term viability. Steve asked for additional ideas to be submitted to the committee. The committee's ideas are being passed on to the Department of Revenue to evaluate what it would take to implement them and how much money would be involved.

Lang Marsh, Environmental Law Institute, is researching other state models for funding. He has identified other potential options that the Long-Term Funding Sub-Task Force needs to explore. Handouts on this evaluation are available. Steve said the biggest challenges are the long term funding strategies. He felt they do not need to change the eligibility requirements on existing programs but just need more funding sources.

Questions/Comments:

- *The matrix of funding options is useful, but would it be helpful for the Funding Committee to agree on what the criteria for a funding source ought to look like and then define the standards the funding mechanism should adhere to?* Steve said it would be nice for the legislature to embrace dedicating money to this over time. A lot of projects that are funded set up facilities for reclamation projects but are not building the infrastructure necessary to make sure they can engage in reuse. Steve said they have worked with a lot of loans and need to look at how the money that is being proposed should be allocated by project type. He asked for the committees input on that as well.
- *In small systems with membrane plants it can be hard to financially make the program work. Have you looked at the opportunities for these small agencies?* Kathy said there are funding programs for water quality protection and drinking water but not as many for environmental benefits. Ecology is trying to look at projects that might not compete as well but overall have merit, and funding the incremental difference so these projects can move forward.
- *Reclaimed water is a great idea but is not cost effective; the committee should work to develop a new funding source that is grant based to lower the cost of reclaimed water.* Steve responded that the Department of Revenue is struggling with how to tie a tax to bottled water that could be coming from out of state to support reclaimed water. Steve said they will work with the legislature on this.

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- *How much money is needed on an annual basis to fund reclaimed water? A wholesale tax on soda vs. water would generate different amounts of money and it is important to know how much money is necessary.* Steve said Ecology has looked at how much it will cost to run purple pipes and put in the infrastructure and compared that to what the real need is for the water. They are doing informal surveys to better understand these issues. They are talking about a combination of funding options, not just one tax.
- *How is this effort going to tie into the Governor's infrastructure study?* Steve said the infrastructure study is asking what the current needs are for wastewater but the information they are using is three years out of date. He said the Governor is concerned that there are 85 funding sources available but everyone still struggles to get money. They will have more information at the next meeting on the funding situation.
- *The Funding Committee should do as much as they can to think outside the box and develop new ways to generate revenue.* There was support voiced for a voluntary add-on cost to a water bill that could be used for advanced wastewater treatment and reclaimed water. This would work similar to the green power option on energy bills.

Task 4 – Update on Removing Barriers SubTask Force

Melissa provided an overview of the Removing Barriers SubTask Force's work to date, including the objectives, deadlines and expectations. She reminded the group that this subtask force's work will continue over the next 2 years.

Melissa said the committee is starting on the identifying state organizational structure barriers task. They are looking at methods agencies could use collaboratively to optimize the process. The Removing Barriers SubTask Force also spent time identifying unresolved legal issues. Melissa said she is trying to make sure the group is clear and careful about where the group is headed on each of the mandated tasks.

The group discussed the report outline and deadlines for the October meeting. Melissa also detailed the action items for the next meeting. Finally, Melissa is looking for guidance and direction from the Rule Advisory Committee on moving forward for 2008 goals.

Task 5 – Follow up on Removing Barriers Priorities

Melissa led the group in developing a comprehensive list of barriers to using reclaimed water. She will also carry the Rule Advisory Committee instructions to the Removing Barriers SubTask Force to develop a work-plan and prioritize tasks.

The group identified the various Barriers. The brain-storm list is below:

- Public and public agency acceptance

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- Insuring safe source
 - Standards to safeguard utility to do reclaimed water
 - Address Endocrine Disrupting Chemicals & Pharmaceuticals & Personal Care Products (EDC & PPCP) issues
 - Do not create higher standards for reclaimed water than drinking water
- Economics of reclaimed water projects (not long term funding focused: incentives, business plans, etc)
- Liability
- Organizational structure and staffing issues are not real barriers
- Current codes and statues that conflict with reclaimed water programs
- Operator certification – cross training or multiple level certification
- Adaptive change process
- Balance need for water vs. availability
- Standards for pipeline separation
- Water rights impairment issue
- Permit requirements
- Skepticism about cost effectiveness
- A decreasing pool of funding for infrastructure
- Ability to use reclaimed water for mitigation
- Aquifer storage and retrieval
- Organizational hodgepodge between sewer and water utilities
- Who pays vs. who benefits
- Structural barrier of two agencies regulating reclaimed water
- Overall view of water rights (developing a true market for reclaimed water)
- True cost and value of water
- Predictable path from beginning to end (yes/no to move forward)
- Lack of incentives to do reclaimed water projects
- Clear set of technical standards
- Current one-size-fits-all regulations limit ability to decentralize wastewater and create different size plants
- Lack of adequate funding for source control
- Lack of adequate funding for detection
- Politics of new growth
- Conservation concern about salmon flow needs
- Certainty of flow location (discharge to main outfall vs. reclaimed system)
- No market
- Need for guidance at the local level
- Reverse Osmosis as an alternative to reclaimed water
- Maintenance and operation of the reclaimed plant if it is seasonal

Questions/Comments:

- *There are no real barriers to reclaimed water but a lack of a market. It is too easy to get water in Washington and the water going out to the Sound has lower standards.*

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- *Why is the committee and the state investigating reclaimed water that utilizes the wastewater directly from the plant when a reverse osmosis plant could be built and bypass many of the issues the committee just brought up?*
- *If the Barriers Committee continues through 2008, when do the Funding and Water Rights Committees end?* The end of 2007. However, from the reports presented today, that the Funding SubTask Force not likely to complete its work by the end of the year and will likely need more time. The same is true for the Water Rights Advisory Committee. For each, more time is a likely recommendation. The Legislative staffers ask that all the committees to do what they can and do it well. If more time is needed for specific tasks that may be possible. Kathy suggested an additional recommendation, which is to transfer the unfinished priorities from committees that do not continue to the Removing Barriers SubTask Force.

Action Item:

- Melissa said the Barriers committee will prepare a work plan and come back to present it when it is ready.

Task 6 – Proposal – Framework for Technical Standards

Kathy explained that contrary to the discussion at a previous meeting, creating a separate subcommittee to develop technical standards was not feasible. The Rule Advisory Committee will begin working on the technical standards and will address this topic more next year. The committee may form smaller working groups of three to four people to address specific technical standards issues.

Kathy said after a conference earlier this year she heard some interest in the star system and would like to review the details of that system with the committee today and show how it might be modified for use in Washington. The Water Quality Star Rating system was developed in Australia as a tool to describe the quality of the water from wastewater to pure water. It is meant to be easy to understand for the general public. Kathy reviewed the levels of stars in the Australian system, shared her demonstration of a star system modified for Washington State and explained how it would work. She asked the group for feedback on the concept and steps to move it forward.

Questions/Comments:

- *Would there be numerical standards applied to the stars?* Kathy said yes, but they would be use-specific. For example, standards for groundwater recharge vs. surface water augmentation might both be three stars but will have different technical requirements.
- There is a problem with placing Class A at four stars and the Cedar River Watershed at five because they are so far apart on the continuum. Kathy responded that they still

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need to figure out what would fit into each category; this is an overall framework approach.

- This system is missing the cost of producing water that will reach into the next category.
- The continuum of stars for the public may not be necessary. The public wants to know if you can drink or you can not drink it. Six categories are too many for anyone to remember.
- If this approach is developed to address public acceptance then Ecology should get people who are not as familiar with the topic to comment on it. Focus groups were presented as a way to evaluate the effectiveness of a system like this.
- One numerical standard should be assigned to each star rating otherwise it will be confusing. The committee should look more closely at how the public will interpret this rating system. Right now the public understand the A, B, C Class system. The star system will demote our Class A product down and make it look like not as good of a product.
- Some committee members felt the star system is a great system for working with the lay person and the idea of using a star system is one that should be kept on the table.
- The star as a symbol does not have a relationship to water.
- It is important to show a continuum in these rating systems, but a continuum implies a line, and this system is attempting to define a two or three dimensional problem in a one dimensional rating.

Task 7 – Begin workplan for technical standards

Kathy presented some the following questions to the committee for the technical standards work plan:

- What does the committee need to be ready to present technical standards?
- Does the committee need to establish certain water quality standards for specific uses and set treatment technologies for those standards?
- If you just meet the standard, is that enough?
- Do you have to use the right technology too, if there are multiple ways to do one thing?
- Does the committee want to define the methodology?

Questions/Comments:

- The rule should talk about the bottom line and what you need to achieve, then the guidance could inform how you get there.
- The committee needs to know if Ecology and the Department of Health have things they will not consider so the committee does not waste their time exploring those.

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Kathy said right now they just want ideas, if they decide that there are things they will not consider they will bring those up when they are determined.

- As the committee looks at uses and the quality for different uses it needs to evaluate the barriers to achieving a particular quality through different technologies. If an agency meets the standard by developing a certain treatment train then they should not have to monitor the quality all the time. Conversely, an agency may be willing to monitor more often if they do not have to use a specific system for secondary treatment.
- The committee needs to know more about the compounds that are present in wastewater effluent to decide if Pharmaceuticals and Personal Care Products (PPCP) and Endocrine Disrupting Chemicals (EDC) should be incorporated into the technical standards work plan.
- For many uses people are currently getting water from self supply. The committee should evaluate if the water an agency can provide through reclamation is better than what they can get out of the river or other sources.
- Kathy suggested reviewing the current standards for the committee at the next Rule Advisory Committee meeting. She said it might also be worthwhile to provide a status of where other states are compared to Washington so the committee can learn from other examples. The committee agreed that this would be useful and also suggested looking at what period of time the standards were developed for and evaluating if they need to be modified. Kathy said she could present a proposed schedule for dealing with these topics at the next meeting as well.

Action Items:

- Review of what's happening in other states
- Review of existing standards: rationale, are they consistent with where we are today, including drinking water standards?
- Develop schedule for work plan
- Compounds of emerging publicity (PPCP & EDC)

Task 8 – Name that Water

Committee members added to a previous list developed to create a new name for reclaimed water. Below are the new (or re-introduced) names:

- Recycled Water
- Restored Water
- Pre-owned Water
- Working Water

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- Renewed Water
- H2O4US
- NeWater
- Re-purified Water
- Tech Water

The committee voted on their favorite names; Reclaimed Water was the most popular.

Questions/Comments:

- All water is recycled, and if you apply the name recycled to one type of water it limits the ability to educate about the water cycle.
- Focus groups were recommended on this topic. This is a product branding issue; each name implies something and the connotation should be studied.

Ecology Action Items

- Develop work plan for Barriers committee
- Review the technical standards from other states
- Review of existing Washington State standards
 - What was the rationale for their development?
 - Are they consistent with where we are today?
 - How do they relate to drinking water standards?
- Develop schedule for technical standards work plan
- Provide an overview of compounds of emerging publicity (PPCP & EDC)

Public Comment and Wrap up

A representative from the City of Airway Heights attended the meeting and thanked the committee for all of their work on these issues. He said the City of Airway Heights is designing a facility currently for 2009 and 80% will be dedicated to reclaimed water.

Angie Thomson reviewed the action items for the next meeting. The next Rule Advisory Committee meeting will be held on Thursday, October 11, 2007.

Handouts

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- Reclaimed Water and Water Rights, September 7, 2007 RAC Update, Water Right Impairment Subcommittee presentation.
- Reclaimed Water, Existing and Proposed Eligible Activities, 9/7/2007, Funding Subcommittee.
- Rule Advisory Committee Meeting, Reclaimed Water Rule Development, September 7, 2007, Ecology presentation.
- Water Quality Star Rating, Australian Water Association, Ecology.
- Work in Progress – Modify Water Quality Star Ranking System for Washington State – Water to Highly Purified Water, 9/7/2007, Ecology.
- Commonly Used Meanings – Reuse, Recycle, Reclaim, 9/7/2007.

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Meeting Attendees

Department of Ecology

Katharine Cupps, Agency Lead
 Melissa McEachron, Rule Coordinator
 Angie Thomson, Facilitator
 Emily Neff, Note Taker

Department of Health

Maryanne Guichard, Director, Office of Shellfish and Water Protection
 Dave Lenning, Environmental Health and Safety

Committee Members and Alternates	Guests
	Albert Trip, Airway Heights
Barry Pfundt, Center for Justice	Lang Marsh, Environmental Law Institute
Lars Hendron, City of Spokane	Steve Carley, Department of Ecology
Ann Wick, Department of Agriculture	
Doug Raines, Department of Corrections	
Lynn Coleman, Department of Ecology	
Nancy Winters, Department of Ecology	
Clint Perry, Evergreen Valley Utilities	
Keith Folkerts, Kitsap County	
Donald Perry, Lakehaven Utility District	
Karla Fowler, LOTT Alliance	
Erin Curl, Parks and Recreation	
Heather Trim, People for Puget Sound	
Jim Hagstrom, Pacific Northwest Clean Water Association	
Scott Redman, Puget Sound Partnership	
Tom Fox, Seattle Public Utilities	
Bruce Rawls, Spokane County	
Ginger Desy, Sno-King Water Coalition	
Hal Schlomann, Washington Association of Sewer & Water Districts	
John Stuhlmiller, Washington Farm Bureau	
John Kounts, Washington Public Utility District Association	
Ecology Staff	
Eugene Radcliff, Department of Ecology	
Alissa Ferrell, Department of Ecology	
Jim McCauley, Department of Ecology	