

MEETING SUMMARY – Meeting #5
Water Resources and Quality (Freshwater) Preparation/Adaptation Work Group
Water PAWG
October 9, 2007, 10AM-3PM

ATTENDANCE

1. Water PAWG Members:

- a. Tom Laurie, WA Dept of Ecology (Lead)
- b. Ginny Stern, WA Dept of Health
- c. Denise Clifford, WA Dept of Health
- d. Michael Garrity, American Rivers
- e. Dave Monthie, King County
- f. Tom Myrum, WA State Water Resources Assoc.
- g. Jane Banyard, WA DFW
- h. Alan Hamlet, UW CIG
- i. John Stuhlmiller, Washington Farm Bureau
- j. Hal Schlomann, WA Association of Sewer and Water Districts
- k. Tom Ring, Yakama Nation Water Program (via phone)
- l. Alex McGregor, McGregor Company (via phone)
- m. Paul Fleming, Seattle Public Utilities (via phone)
- n. Mike Peterson, The Lands Council (via phone)
- o. Jon Culp, (via phone)

2. Agency and Staff Support:

- a. Hedia Adelsman, WA Dept of Ecology
- b. Stephen Bernath, WA Dept of Ecology
- c. Spencer Reeder, WA Dept of Ecology
- d. Nancy Tosta, Ross & Associates Environmental Consulting, Ltd.
- e. Andy Chinn, Ross & Associates Environmental Consulting, Ltd.

3. Public attendees:

- a. Sue Gunn, Center for Environmental Law and Policy
- b. Beth ?????, Private citizen

BACKGROUND DOCUMENTS:

- 1. Agenda: <http://www.ecy.wa.gov/climatechange/PAWGdocs/wr/10907WRAgenda.pdf>
- 2. Summary of September 14th Meeting:
<http://www.ecy.wa.gov/climatechange/PAWGdocs/wr/91407WRSummary.pdf>
- 3. Presentation on Climate Change and Water in the Columbia River Basin:
http://www.ecy.wa.gov/climatechange/PAWGdocs/wr/100907_CIGsummaryColumbiaRBstudy.pdf

DISCUSSION AND KEY ISSUES:

1. The PAWG discussed its overall work and timeline, as well as its relationship with the Climate Advisory Team. The PAWG's recommendations will not be sent to the Climate Advisory Team, they will be sent to the directors of the Washington State Department of Ecology (ECY) and Washington Department of Community, Trade & Economic Development (CTED). Each PAWG will put its recommendations into a common format, and Barb McGregor will compile it to have a uniform look and feel. It is likely that some of the PAWGs' recommendations will overlap, and it is unclear at this time how this will be incorporated in the final report. A final product of this PAWG will include research recommendations, some of which will be vague and overarching and some of which will be specific and framed within the overarching issues. The list of recommendations will not be limited as long as they are clear. There is no precise path right now for the future of the PAWGs.

2. Update on the CIG and HB 1303:

Columbia River Project: The Climate Impacts Group (CIG), in partnership with Ecology, the states of Idaho and Oregon, British Columbia, the Bonneville Power Administration, and the Northwest Power and Conservation Council, is developing a strategy for the Columbia River Project. This relates to the work of the Water PAWG because of the potential for public confusion if the two efforts make overlapping recommendations. The strategy involves the creation of a large database as a key resource for decision-making using multiple spatial scales.

House Bill 1303: HB 1303 is sponsored by CTED and gives \$1.5 million to the CIG to study impacts in ten sectors. This effort is designed to start analysis in a large number of sectors at a much-reduced level of detail. The sectors are climate change scenarios, hydrology and water resources, agriculture, salmon, forests, coasts, human health, infrastructure, and adaptation. There are two deadlines for this work. In December the CIG will identify crucial needs and design a workplan for the coming year.

The goal of these projects is to have publicly available web service to download scenarios based on best available information from the Intergovernmental Panel on Climate Change.

3. The PAWG reviewed and discussed the work of the scenario team: The scenario team decided to use water management and population as the two variable axes while making some assumptions about climate that would stay consistent for all scenarios. The first scenario envisioned more court mandates for water allocation while population grows at the projected rates. The second scenario envisioned court mandates and greater population growth and/or more variable distribution of population than projected. The third scenario envisioned a watershed-based collaborative decision process for water allocation combined with population growth as projected. The fourth scenario envisioned a collaborative decision process with greater population growth and/or more variable distribution of population. The benefit of this exercise was the opportunity that it created to expand the conversation around the future of water resources in the state.

General Comments:

- In reading through the four scenarios, it seems that many of the events being described are already happening. For example, Los Angeles has increased water rates 10% and reduced agricultural water supply by 30%. Parts of the Southwest, California, and Nevada are installing reverse osmosis plants or permeable membrane

plants to desalinate or send used water directly back into the system. In Puget Sound we have the ability to do tertiary treatment and send it into the Sound, then build osmosis treatment plants next to the water and pull it back out, essentially treating Puget Sound as a reclaimed water source. There has been a large drop in the use of potable water this past year based on conservation and other approaches, but the water district still has the same amount of infrastructure to maintain, so rates have increased. Utilities have moved to block rates, and as the population ages and more people move into fixed incomes their ability to pay is diminished. The dilemma arises because utilities are constitutionally mandated to collect, regardless of income, and reduced water sales are causing the reduced cost factor per unit to go up. Under these conditions it is becoming problematic for people to pay for their water.

- Science is not helpful without some type of context of risk, and these scenarios lay out examples of risk.
- Some context/front end disclaimer should be added to the scenario document to explain that these scenarios are not a product of the PAWG nor are they recommendations from the PAWG. The scenarios are draft tools developed by a volunteer subgroup to explore the use of scenarios as planning tool in this context and to provide the larger group with some perspectives on context. It might be helpful to acknowledge that there is no scenario that assumes no impact from climate change.

4. Discussion of Priority Action Recommendations

The PAWG then discussed the draft write-ups and recommendations that had been developed by PAWG members. The recommendations and discussions about them are summarized below.

Priority Action 1: Enhancing Water Supply Drought Preparedness and Adaptive Capability

The goal of this recommendation is to shift from responding to emergencies to preparing for and avoiding emergencies. One existing tool is the Drought Emergency Response Plan (DERP). One of the issues with this tool is that people who experience drought impacts first may get access to funds first, and people and fish that experience effects later will not have access. It is also important to remember that these funds are not allowed to be spent on expansion of capacity or impact. For example, in the case of agriculture, putting in an emergency well would not be covered by DERP funds. The DERP does not cause a net increase in the amount of water and does not solve the problem of needing to make more water available.

The main point of this recommendation is to revitalize the drought preparation account and actively market it in each sector. Preparedness does not have to be limited to grants and can be extended to loans. The recommendation also suggests rethinking the definition of drought. Thinking forward rather than using historical records might cause people to think about drought differently. One possibility for defining drought is to shift from a 100-year historical record to a 20-year record. The recommendation also proposes mandating local drought response plans tied to the GMA.

General Comments:

- The commitment to agricultural drought relief should be maintained. Agriculture is the last bastion of family business and people in those professions are sensitive to the financial consequences of drought.

- Simply changing the definition of drought will not change the approach to drought; it simply modifies the trigger for the release of drought funds.
- Drought is considered a natural event, but there is also human-made drought. There are many small utilities up against their water rights, but they are under development pressure. Having a drought planning component as well as a future availability component in a water system plan would help to flag points where issues might arise.
- Drought, by statute, is about the net input into the system. A planning and preparation approach can consider this, whereas waiting until an emergency could have dire consequences.
- The recommendation should include something about using conservation policies and growth management planning to ensure that the effects of drought are not exacerbated by a lack of planning.
- The strength of this recommendation is in moving from emergency compensation to planning. However, many of the details, such as changing to a twenty year record for the drought definition, are untested. The recommendation could suggest a determination of the best number(s) to use.
- Preparedness will happen most easily in municipalities and irrigation districts, but this will not address farmers who are direct irrigators.
- Not all emergency need can be offset by preparation.
- Another way to look at the definition of “normal” is to look at system demand rather than looking at what’s available. Drought exists when a certain amount of water is demanded but the amount available is often less than demand.
- From the environmental perspective, the concern is to use this discussion to define demand in a sustainable way.

Priority Action 2: Water Management

The goal of this recommendation is to address current barriers, as well as existing tools for sustainable water management. It suggests an investigation of current policies that may exacerbate the effects of climate change, as well as existing tools that support adaptive management. Promoting marketing incentives to conserve water, including allowing for flexibility in the application of water transfers between users, is emphasized. Creating incentives for large water suppliers to acquire small suppliers is suggested as a way to improve water efficiency. The recommendation also proposes that the state focus on eliminating illegal uses of water and meeting rules for instream flows. It suggests exploring options for new water storage and means to re-time flows, such as modifying infrastructure. The recommendation emphasizes water management in areas of rapid development where these issues are critical.

General Comments:

- Insert “Inappropriate” in front of “reliance on exempt wells.”
- The system is not based on equity among users, it is based on seniority. The PAWG should add the language, “equity should be considered in the process of transfers.” The recommendation advises equity in the ability of anyone to purchase water.
- There are two issues here, temporary and permanent transfers. We should not lose the ability to deal with increased variability in water supply. The transfer process does not disappear under non-drought conditions, it just slows down.
- There are two aspects of water management, emergency response and the long-term markets. Emergency response will not be provided through a transfer.

- Water Supply Information
 - Part of defining demand is figuring out what sustainable demand is for meeting instream flows.
 - For any basin in the state it is important to know how much ground and surface water is available. There are several individual databases with that information, but they are not connected.
 - There is a diversity of rainfall patterns east of the Cascades.
- The recommendation suggests creating efficiencies by encouraging water district consolidation. Water districts are constantly merging, but the obstacles include staffing and obtaining the support of elected officials. The recommendation should keep the broader picture of not only consolidating water systems but assisting rural areas to consolidate.
- There are many human activities that do the same thing as climate change; they exacerbate peak flows and decrease base flows. A treatment for climate change is to push the hydrograph back with actions that will counteract the effects of both climate change and human activities, such as restoring flood plain connectivity or retiring old logging roads. One potential management action would be to allow floodwaters to inundate surrounding land and recharge the soil. Property acquisition is one long-term measure to accomplish this.
- Tom Laurie suggested extending the work that the CIG is doing in the Columbia Basin to the east side of the Cascades.
- The PAWG does not seem to be capturing flooding very well. It may find that flooding is not as large a problem as drought.

Priority Action 3: Conservation

The activity that the PAWG ranked highest under this recommendation was to fund water conservation. The PAWG also recognized the need for a functional statewide approach to conservation, which is not limited to municipal supply but also covers agricultural issues. Additional recommendations include reducing water-related energy demands and replacing infrastructure over time to improve water efficiency.

Some questions for the PAWG to consider:

1. Is there an overarching need for a state-wide conservation program coupled with improvements in technology and infrastructure?
2. What is the payoff? What do we think we'll get in a short time with a large amount of money? How will we measure it?
3. There are a certain number of efficiencies that can be realized, but there is a limit. Should we have new regulations or technology?

General Comments:

- The current plumbing code is the most important conservation tool available. Landscaping is another sector that provides opportunities for conservation.
- It is difficult to define thresholds for water use. In Seattle, for example, average water use is defined as 80 gallons per person per day. It might be possible to move the threshold to 20 gallons per person per day.
- There are other activities besides conservation that the PAWG can investigate, such as leaks, grey water usage, and funding basic service meters in communities. There

- are a number of different tools that can correspond with water conservation program funding, including public education.
- Assuming that each recommendation is viable, the PAWG should make a distinction between east and west side approaches. The recommendations should span both municipal and agricultural conservation.
 - The Referendum 38 program originally had a large fund that municipalities spent quickly and agriculture spent more slowly. That system is in place, but it needs more funding.
 - The technology in agriculture is always advancing, providing potential for water savings. There is significant interest in the Columbia River Basin project from farm families who would like to implement water conserving technology that is otherwise too expensive. For example, a grower who wants to convert from wheel irrigation to pivot would benefit from cost sharing as an effective way to improve efficiency.
 - This section should be called “water use efficiency” not “conservation.”

Priority Action 4: Planning

The main theme of this action is to incorporate climate change into long range planning. Emergency planning is a special type of long term planning. The recommendation proposes a continuation of the PAWG, including forming a task force to monitor, coordinate, and fund transboundary planning activities. The recommendation suggests a list of possible actions to improve water management and associated costs. This type of list has been produced in California and was proven helpful.

General Comments:

- Many of these data, information, and monitoring needs are similar to the research needs. The PAWG may have to list them, rather than rank or prioritize them. While the PAWG works on developing very specific recommendations, it can also develop recommendations for stand alone research categories. Some of the research may be essential to the PAWG’s recommendations.
- The biggest uncertainties with respect to the science of climate change are precipitation and evaporation.
- The PAWG could potentially be more vocal with the federal government about advocating a coherent federal climate research program. There was a recent critique by the National Academies on the federal climate change program. The PAWG could recommend a message from the Western Governors’ Association advocating a strong federal program.
- The PAWG might want to include alternative funding mechanisms (utility fees, for example) in the recommendations.

Outreach

The recommendation for Outreach suggests that the state engage the public in climate change education to raise awareness and develop support. The recommendation also suggests engaging watershed/salmon planning groups to consider climate change in their water management efforts.

General Comments:

- Polling was suggested as a possible outreach opportunity. Surveying people could help to educate them about climate change and could also provide information on the effectiveness of current outreach efforts.
- Communication may need to be elevated into a specific, stand alone recommendation. People need to know that information is available and how to access it.

Public Comment

Sue Gunn, Center for Environmental Law and Policy (CELP): I don't get a sense of the crisis that we're dealing with. I would suggest backing up a bit and getting a sense of the crisis; maybe writing a preamble. We're working around the edges but not getting at the core problem; many of us think there are core problems with water management that are not being addressed. We need to acknowledge that this is a finite resource, and we don't know if transfers and more wells will work. We need to be looking at conservation/restoration; the document is not fleshed out enough. We need to have public education to let people know that there is a crisis going on. There should be a preamble in front of every section talking about conservation. The law requires that water be used with reasonable efficiency, but the state does not have a minimum efficiency standard; this is a crisis so we need maximum efficiency standards. We need retroactive enforcement of efficiency standards, conservation, and restoration. If we protect the environment we protect people. On the issue of water management: I think the exempt well problem is understated; it is a solution to the fact that no one can get a water right. We have to find a real solution for this. The underpinning of this has to be the development of science; we need a comprehensive database that includes monitoring of groundwater and stream gauging; conservation and science need to be the basis of the recommendations.

Next Steps:

1. Craft the draft recommendations, as discussed in this meeting, to fit the structure to which the PAWGs are being asked to conform.
2. Send it to the PAWG for review and comment in advance of the next call.
3. Work to finalize the recommendations during the next call (or two if necessary)
4. Ross & Associates will reaffirm the dates for the next two calls. Tentatively November 7th and December 4th.

[Meeting Adjourned]