



# Meeting Notes

**Project:** Washington State Drought Contingency Plan

**Subject:** Stakeholder Meeting - Large Drinking Water Systems

**Date:** Wednesday, June 15, 2016

**Location:** Department of Ecology, Bellevue, WA

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<b>Attendees:</b> Jeff Marti, Ecology	Gregory McKnight, DOH
Karin Bumbaco, OWSC- UW	Ginny Stern, DOH
Morgan Mak, EMD	Glen George, Tacoma Water
Jon Culp, WSCC	Joan Kersnar, SPU
Barb Anderson, Ecology	Alex Chen, SPU
Teresa Scott, DFW	Jim Miller, Everett
Andrew Graham (Facilitator), HDR	Chuck Clarke, Cascade
Sarah Pimorese, HDR	Jeff Johnson, Regional Water
Kristen Johnson-Waggoner, Ecology	Cooperative of Pierce County
	Steve Hirschey, King County

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## Handouts

- Agenda
- Required Elements of a Drought Contingency Plan Update
- Schedule Overview
- Strategy for Addressing Required Plan Elements

## Purpose and Background for State Drought Contingency Plan Update

- The most recent adopted State Drought Contingency Plan (DCP) was issued in 1992. An update was drafted in 2005 but was not formally adopted by the State. There are differences between the protocol outlined in the 1992 and 2005 DCPs and actual actions taken during a drought. Ecology and its state-agency partners want to update the DCP to reflect actual response actions needed, and to be more action-oriented. This will provide guidance to State agency staff prior to and during the next drought even if they have not been involved in drought relief previously.
- The DCP update will consider opportunities to improve response time, such as improving forecasting methods and establishing pre-staged agreements and forms. The DCP update will also involve developing a communication plan for drought response.
- Ecology is updating the DCP using a WaterSmart grant from the U.S. Bureau of Reclamation (Reclamation). Ecology will submit the updated DCP to Reclamation by July 2017.

## Grant Requirements for Updating Drought Contingency Plan

- Reclamation's WaterSmart grant requires that the DCP include the following elements:

- Establish a process for monitoring drought conditions
- Conduct a vulnerability assessment
- Identify mitigation actions (these are actions implemented prior to a drought)
- Identify response actions (these are actions implemented during a drought to alleviate impacts)
- Develop an operational and administrative framework
- Develop a process and schedule for updating the DCP
- Based on past drought experiences, Ecology has also added development of a communication plan to the elements included in this DCP update.

### **Approach and Schedule**

- Ecology kicked-off the DCP update process in March with the first meeting of the DCP Task Force. The DCP Task Force is composed of State agencies with drought-related responsibilities. The Task Force members are involved in updating the DCP.
- The Task Force has identified several technical topics that will be evaluated during the DCP update process, including evaluating climate change and potential new drought forecasting tools.
- Ecology aims to have a draft plan completed by early 2017. The schedule handout shows the planned sequence of activities.

### **How Large Puget-Sound Region Water Systems Experience Drought**

#### *Drought Determination Criteria*

- Glen George, Tacoma Water, asked if there would be an opportunity to revise the State statutory definition of drought (stream flows less than 75 percent of normal; coupled with “hardship”). The criteria seem poorly defined and could benefit from discussion. Jeff said that the Task Force is open to making recommendations to change elements of the statute, including the definition of drought. However the plan will still need to reflect actions consistent with the current statutory requirements.
- Chuck Clarke, Cascade Water Alliance, said that declaring a drought has impacts on water utilities’ revenue. They worry about both supply and revenue, but supply clearly carries more weight. It would be more effective if entities could make their own drought determination to the State, since they would know best if their systems are stressed. In addition, utilities work closely with the tribes and fisheries under formal agreements to maintain stream flows in areas with managed storage reservoirs.
- Joan Kersnar, SPU, said that the utilities have to activate their own WSCP before they can switch from normal flow releases, to reduced flow releases under their agreements with tribes.
- Jim Miller, Everett Public Works, suggested that the updated DCP evaluate managed systems (i.e. systems with storage) and unmanaged systems (i.e. systems without storage) differently. For example, 75 percent stream flow levels in a managed system is often planned and not an indication of drought. The utility may still have full supply for that year. -Alex Chen suggested the state may want to more formally consider how the

water supply “deficit” applies differently to those systems that have storage, versus those without storage.

- Alex Chen, Seattle Public Utilities (SPU), said that utilities often have other criteria that they use to evaluate water supply conditions in their systems. For example, SPU looks at inflows into their reservoirs. SPU also uses probabilistic models to evaluate their system. They may be able to provide input to the state’s forecasting methods.
- Chuck said that reservoir operations have become more dynamic in recent decades. Many factors are considered on a weekly and daily basis when making water supply decisions. These factors are not captured in the current drought declaration criteria.
- Jim said that Everett, SPU, and Tacoma have Water Shortage Contingency Plans (WSCP). These WSCP identify four water shortage stages. The triggers for stages are unique to each system. Jim said that it would be more meaningful if Ecology considered what stage utilities were in instead of looking at the 75 percent stream flow criteria. The larger utilities could report on their system conditions during the monthly Water Supply Availability Committee meetings or on regular status calls in drought years. Jim also suggested that the updated DCP use a phased approach to ramp up to a drought declaration.
- Jim said that it would still be important for Ecology to consider hardship in areas not served by the larger utilities. That’s on the order of 10 to 15 percent of the population in King, Pierce and Snohomish Counties combined.
- Joan Kersnar, SPU, said that larger utilities often have contingency funds established for drought years to cover revenue losses and response measures. Joan suggested that other water systems consider establishing a similar contingency fund to help with response leading up to and during a drought declaration.

### *2015 Drought Experience and Lessons*

- The large water utility representatives agreed that the State did a good job of communicating drought conditions in 2015. This communication approach was effective because the State distinguished between impacts to smaller water systems and the larger utilities. Alex suggested that Ecology formalize this communication approach in the updated DCP. In addition, the larger utilities would like an opportunity provide input on drought messaging prior to the State declaring a drought. Jeff Marti, Ecology, suggested that in drought years, the larger utilities could provide input at WSAC meetings. In addition, the updated DCP could include a formalized consultation process with the larger utilities when preparing for a drought declaration. This would help to frame the drought declaration messaging to distinguish between areas requiring response action and areas that are okay. Alex said it would also be useful if the State and utilities align terminology to ensure messaging is consistent. For example, the use of the words “conservation” versus “curtailment.”
- Teresa Scott, Washington State Department of Fish and Wildlife, said that in 2015 the public was confused about water use not being curtailed while fish-bearing streams in the State were being impaired. It would be helpful to educate the public that streams in managed systems are not as vulnerable as unmanaged systems, and that managed

systems are operated to maintain stream flows for fish. It is also important to educate groundwater users that groundwater use can impact stream flows.

- Chuck said that it would also be helpful to educate the public about demand trends. There is a misconception that demand is continuing to increase; when in fact it is flat or declining.
- Jon Culp, WSCC, suggested that the updated DCP consider specific areas of impact. Hardships are often isolated to specific areas. As such, basin-wide declarations can be confusing.
- The Central Puget Sound Water Supply Forum conducted a resiliency assessment in 2015. The assessment modeled an extreme drought scenario that would require water suppliers to issue mandatory curtailments. This assessment considered implementation of water shortage response measures. Chuck suggested that Ecology look at this assessment to help inform drought preparedness planning. [Andrew Graham and Sarah Pistoresse, HDR Inc., were involved in this assessment. They will provide a summary of this assessment at the next Task Force meeting.]
- Ginny Stern, Washington State Department of Health (DOH), said that in 2015 the drought primarily impacted smaller water systems. Many of these smaller systems are not prepared for water shortages or aware that they are at risk. DOH would be interested in establishing local coalitions of smaller systems to help plan for droughts and implement mitigation and response measures. It is difficult to predict in advance which systems will be affected. Usually the local health district is the first agency to hear about it. She also noted that DOH can only provide funds to public systems, not private systems.
- Steve Hirschey, King County, says they get calls from small systems, which are often homeowner associations without professional staff. There is no groundwater monitoring in place.
- Jeff Johnson, Regional Water Cooperative of Pierce County, said that a one-year drought doesn't usually affect the mid-sized systems. A multi-year drought may. Their customers are affected by the media messages generated by the large regional systems. The biggest supply problem is small, shallow wells.
- Chuck recommended that the Task Force speak with Will Stelle, National Oceanic and Atmospheric Administration (NOAA). He worked extensively in California during their drought. Also Felicia Marcus, head of California Water Resources Board. They recently updated their drought plan including the economic and agricultural effects.
- Chuck also has data from a large corporation that explored whether to make investments in efficiency improvements in the agricultural sector. They found that profit margins are so low, it would not be a good investment.
- Teresa Scott, WDFW, noted that in the later stages of drought, utilities are driven to pump more from groundwater sources, and this can affect stream flows for fish.
- Jon Culp noted that drought determinations can range from broad areas to more narrow and specific ones. For example, the Yakima Basin has storage, yet even in a year when water-supply conditions for the federal system are good, local tributaries can run dry. Andrew asked if we need a more "granular" approach to differentiate the locations and



groups that are being affected by drought, while avoiding a system that is not practical for the State to apply.

### *Mitigation*

- Alex said that the larger utilities could help with identifying mitigation actions. For example, SPU has implemented supply side and demand management measures, including promoting a conservation ethic within the Seattle area. Conservation has also been improved statewide through fixture efficiency requirements. SPU has also evaluated the impacts that climate change could have on water supplies.
- Ginny said that DOH requires systems requesting assistance to develop WSCP for future preparedness. It is important to encourage water systems to think about their vulnerabilities and prepare mitigation and response strategies in advance.
- Chuck said that better precipitation forecasting would be helpful for water supply planning and management decisions.

### **Further Opportunities for Input on Drought Contingency Plan**

- The large utility representatives agreed that they would be willing to present information about their system operations and drought monitoring tools to the Task Force. This could help to inform elements of the updated DCP. Jeff will set up a meeting with the large water utilities in fall 2017 to learn more about their system operations.
- Jim suggested that the updated DCP also consider what actions the public should take in a drought. It would be helpful to identify specific actions required at each drought stage. He also liked the regular updates on conditions around the state that WDFW provided in the 2015 drought.
- Andrew said we will provide the draft plan for comment when it's ready. In addition, we may reach out to this group on particular topics that involve them.

### **Next Steps**

- The Task Force will be meeting with other stakeholder groups this summer.
- Jeff Marti said that the agendas and meeting notes for all Task Force and Stakeholder Group meetings will be posted on the DCP update website. Jeff will send out the link to this website.
- Stakeholders will be able to review and comment on the draft DCP in spring 2017.
- Joan will share information with the Water Utility Coordinating Committee. Joan requested a copy of the utilities in the stakeholder group to help with outreach.

*(See next page for Action Items)*



## Action Items

<b>Who</b>	<b>What</b>	<b>By When</b>
J.Marti	Send out the link to the DCP Update website	June 30
J.Marti	Send Joan Kersnar the list of utilities in the stakeholder outreach group.	June 30
J.Marti	Set up a meeting with the large water utilities in fall 2017 to learn more about their system operations, drought triggers and flow agreements.	July 27
A.Graham, S.Pistorese	Provide a summary of the Water Supply Forum drought resiliency assessment at the next Task Force meeting	July 27