

**Columbia River Treaty 2014-2024 Review
Flood Control Representatives Dialogue
August 3, 2011; 9:00 a.m.-11:30 a.m.
Portland, Oregon**

Summary of Dialogue

SRT Members in Attendance:

Taylor Aalvik, Cowlitz Tribe
Mark Bagdovitz, U.S. Fish and Wildlife Service
Jim Barton for Witt Anderson, U.S. Army Corps of Engineers
Jim Heffernan, Columbia River Inter-Tribal Fish Commission
Tom Karier, State of Washington
Rick Kruger, State of Oregon
Rick Pendergrass for Steve Oliver, Bonneville Power Administration
Mary Lou Soscia, U.S. Environmental Protection Agency

STT Members and Others

Jack Camp, USACE
Rob Lothrop, CRITFC
John Marsh, CSKT
Rick Mogren, Federal Caucus
Allison O'Brien, Department of the Interior
Bill Proctor, USACE
Matt Rhea, USACE
Rick Rolf, BPA

Flood Control Panelists

Stephen Boorman, City of Bonners Ferry
Dave Hendricks, Multnomah County Drainage District
Dave Houghton, Multnomah County Emergency Management
Kori Olson, Port of Portland

Welcome and Meeting Overview

Rick Pendergrass and Jim Barton welcomed everyone to the meeting. Jim went over the Federal Advisory Committee Act (FACA) ground rules for this type of a meeting with the Sovereign Review Team. One of the ground rules was that the sovereigns were not looking for consensus on the topics at hand; just individual opinions from the panel members.

Dialogue with Flood Risk Management Representatives

Panel members began the session by introducing themselves and highlighting some of their issues of primary importance:

Dave Hendricks from the Multnomah County Drainage District explained that the District was formed in the early 1900s and is a special district under Oregon State Law. The District is funded through revenues from property owners. The District began building levees in 1917, and maintains those levees to Corps of Engineers certification standards. Dave noted that the entire Columbia River system runs on the assumption that levees will remain intact. This year's high flows on the Columbia were carefully watched; an area of particular concern is the possibility of high water levels on the Sandy and Willamette Rivers in combination with high flows on the Columbia. Dave appreciated the opportunity to serve on the panel; noting that the dialogue enabled him to learn more, and to better inform his customers about the details of Treaty Review.

Dave emphasized the importance of public safety, and noted that there is some \$20 billion in property and infrastructure assets currently being protected by system levees. Dave said that *the only acceptable outcome in the future is to ensure that water levels do not rise to the extent they would cause levee damage*. In addition to the levees, there are pump stations and other facilities to protect. Dave encouraged the sovereigns to take a “risk-based approach” to flood control modeling and analysis. He also noted that the modeling needed to take into account peak flows and the time duration of high water levels – water that is high for a relatively short duration is much less damaging than water that stays high for a number of days or weeks.

Kori Olson, Port of Portland, asked how “assured flood storage” is being defined, as well as the way in which flood control and flood mitigation will be defined and modeled. She wondered what would occur if flood risk management rests entirely in the hands of the United States, and especially if the status quo could be maintained under that scenario. She emphasized the severe economic consequences of flooding, as well as the economic impacts to navigation if river levels are changed. Planning in advance is important; if high water events are going to increase, the Port wants to be able to plan for, and mitigate, those impacts. *What is the relationship between the electrical power benefit and the flood control provisions?*

Dave Houghton, Multnomah County Emergency Management, urged the SRT to make sure the upcoming modeling includes potential impacts related to loss of productivity, revenue, and employment; *there are serious potential economic consequences that should be carefully studied*. The potential impacts of climate change are also of concern. In addition, Dave wondered how the impacts of extreme low water years might be accounted for in the modeling and analysis, noting that this could have significant impacts on agriculture, fish, and transportation.

Steven Boorman, City of Bonners Ferry, described the importance of Libby Dam to recreation interests, noting that it is important to maintain a relatively high water level in that reservoir. Levees in that area are mostly protecting farmland, and most high-water damage is due to seepage, not an overtopping of the levees. A primary concern is the length of time the water is high. Sturgeon is a concern in the Kootenai River, especially during spring spawning.

Sovereign Review Team members asked questions of, and engaged in dialogue with, the panelists:

Q: Do you have existing models that might be useful for our analysis? (Marsh)

A: Panelists said they do have a number of models at work, but all are designed to measure internal flooding rather than breached levees. The group agreed to discuss these models further with the sovereigns at a later date. (All Panelists)

Q: What has been your experience this year with high flows on the Columbia? (Pendergrass)

A: This year has not been as bad as 1996; that was a very rough year. The Corps made a number of mistakes in their flood response that year, and they learned a great deal from those mistakes. Our biggest problem relates to seepage on the levees; this causes “boils” where the river goes under the levee and pops out sand and rocks on the other side. We have had six boils to repair since 2006. It hasn’t been too bad this year because, while we have had some high water levels, the water hasn’t stayed high and on top of the levees for too long. (Hendricks)

We certainly kept a close watch on the situation this year. When the Columbia has been high, however, the Sandy River has been down, so the situation hasn’t been as bad as it could have been. (Houghton)

The Port of Portland monitors high water conditions, which are a concern from both an emergency management and a navigation/shipping perspective. The likelihood of a high water event affecting the Port of Portland depends on several factors. Flooding can occur from both the Columbia River and from within the drainage basin itself (as the airport sits at approximately 18-19 feet and is surrounded by higher elevations).

Factors, both natural and man-made, that could contribute to a high water event include: higher than normal snow melt, rain, ice flows, or a combination; dam break; earthquake; terrorist event; levee failure; pump failure; power failure; a collapsed pipe. Weather and river forecasts are monitored and high water preparation would be initiated if necessary.

Navigation/shipping is an entirely different and complicated matter. River levels are monitored and reported by the Northwest River Forecast Center. With those reports and other reports regarding dredging and the actual “draft” of the river, the Columbia River Pilots releases Maximum Draft Advisories on their website. Although this has been a high water year, because of a large amount of shoaling throughout the river, the actual draft of the river is less than usual. This means that ships cannot carry as much cargo because there is not as much river depth. There would be a point, however, in high water conditions, that shipping would be suspended due to the wakes damaging docks and possibly over-topping of the levees. This occurred in 1996. (Olson)

Q: As part of our alternative development, we are considering a scenario where we would run the flows at The Dalles at 600 kcfs. This means the river would be running about five feet higher than normal. We are doing this to test what the impacts would be of running the river at a more natural level, to consider how this might be beneficial to the overall ecosystem. Also, after 2024, we will go to a “called upon” storage situation with Canada, where we will need to pay Canada

for storage. If we could run the river at higher levels, there would be less of a need for storage and we would save money. What do you think of this alternative? (Barton)

A: Running the river at those levels would definitely increase erosion and boils for us. We would get seepage under and through the levees, and if the water stays high for 35 days or more the risk gets much higher. If there was any wind, we would have concerns about traffic on the river. In 1996 traffic was shut down for five days just because of the wave action from barges. The river at that height would also start lapping up against tree roots. (Hendricks)

You can put as much water as you want into the system; it's a matter of cost. You can spend the money repairing levees or spend the money for Canadian storage, but there will always be a cost. Our concern is *who pays?* Changes in river operations may be of benefit to some, but the cost is often borne by a limited number of people who are not reaping the benefits. (Boorman)

Q: Do the panelists have any ideas on how we should be managing the payment to Canada? (Pendergrass)

A: It's very confusing; we need more information in order to try to answer that question. We don't understand how the payment works; how the benefits are calculated. What are the benefits and detriments of the Treaty arrangements? I would be very happy to get a group of port officials and navigation experts together to brainstorm on the potential impacts of different scenarios. (Olson)

Q: Do you know of levees that are in need of repair? Are any nearing the end of their life span? And, what about the possibility of removing some levees? Sometimes this can be done in a way that alleviates flooding in other parts of the river. (Soscia)

A: The Corps of Engineers has been checking all of the levees through their recertification process. Some of the levees are no longer in the program; others are being repaired to try to get to the certification standard. Without repair, the levees do become ineffective. Some \$60 million in federal money will be spent over the next several years for levee repair and rehabilitation. (Hendricks)

No levee is perfect, they are continually degrading. The Kootenai River has only reached flood stage three times in the last ten years. If those levees are removed, the farmers will have to pay the price. If a farmer can't farm his land because a levee has been removed; he will be paying the price. (Boorman)

There is a great deal of development behind those levees; it is infrastructure that supports the entire region; jobs, economy, transportation of goods and people. You need to model what will happen as we move forward in the future with this aging levee system, really understand what the impacts would be to our entire economy. We're not just talking about the Portland Metro area, we are talking about the eastern parts of Oregon and Washington as well, because of the supplier/transportation connections to the metro area. (Houghton)

Q: To what level are the flood plains already developed? And, what is the standard for mitigation for that development? (Aalvik)

A: In our District there are areas where it is 100% developed, in other areas about 85%. The Sandy area is less developed at 30-35%, but it is on a fast track for new development. If

development occurs in the flood plain, we require a 1-1 mitigation set aside, for every 1 acre developed there has to be 1 acre preserved somewhere in the watershed.

Q: We currently have 9maf of storage from Canada. Through our alternative analysis, we are trying to determine how much storage we actually need, and, how we might pay for that in the future. The ports and the diking districts that have received the benefits of storage – could you come up with a way, in the future, of paying for that storage? (Heffernan)

A: How would this payment be calculated? How would you determine who benefits from flood storage? Who pays what amount? How can you measure the benefits to (for example) the Port of Portland vs. a farmer who has a 1000-acre wheat farm in a diking district? (Olson)

Matt Rea indicated that it would be very helpful to have more discussions with port officials, navigation experts, and flood control managers. The panelists said they would be pleased to provide names of organizations and individuals who should be involved in the discussions.

The sovereign representatives present emphasized that there will be continued opportunities for dialogue and engagement throughout the Treaty Review process. Panelists thanked the sovereigns for the opportunity to speak together, and said they would continue to be engaged.