

CHEHALIS BASIN PARTNERSHIP
Chehalis Tribe “Lucky Eagle” Casino
Rochester, Washington
November 19, 2010
9:30 a.m.
Meeting Summary

MEMBERS, ALTERNATES & GUESTS PRESENT

Bonnie Canaday, Chair, City of Centralia
 Mark White, Vice Chair, Confederated Tribes of the Chehalis Reservation
 Glen Connelly, Confederated Tribes of the Chehalis Reservation
 Lee Napier, Grays Harbor County
 Kahle Jennings, City of Centralia
 Miranda Plumb, US Fish & Wildlife Service (USFWS)
 Julie Balmelli-Powe, Lewis County Farm Bureau
 Janel Spaulding, Chehalis Basin Partnership
 Chanele Holbrook-Shaw, Citizen, Thurston County
 Bob Burkle, Washington Department of Fish & Wildlife (WDFW)
 Lisa Dilley, Citizen, Grays Harbor County
 Jim Hill, Citizen, Lewis County
 J. Roach, Citizen, Thurston County
 Bob Thomas, Citizen
 Lyle Hojem, Citizen, Lewis County
 Loren Hiner, City of Montesano
 Jerry Louthain, HDR Engineering
 Ross Gallagher, Mason County
 Steve Hallstrom, Citizen, Grays Harbor County
 Mark Swartout, Thurston County

Andy Gendaszek, US Geological Survey (USGS)
 Bob Metzger, US FWS
 Dan Thompson, City of Oakville
 Vern Merryman, City of McCleary
 Amy Georgeson, Mason County
 Terry Harris, City of Chehalis
 Christine Hempleman, Department of Ecology (DOE)
 Bill Schulte, Lewis County
 Patrick Wiltzius, City of Chehalis
 Bill Goss, US Army Corps of Engineers (Corps)
 Kristin Kerns, Corps
 Ann Wick, Department of Agriculture
 Janet Strong, Chehalis River Basin Land Trust
 Gary Waltenburg, Citizen, Grays Harbor County
 Bruce Treichler, Northwest Steelhead & Salmon Conservation Society
 Eric Wisch, Department of Natural Resources
 Chris Stearns, Thurston Public Utilities District
 Nadine Romero, Thurston County
 LaJane Schopfer, Mason County
 J. VanderStoep, One Voice
 Cheri Lindgren, Puget Sound Meeting Services

SUMMARY OF ACTION ITEMS:

Approval of Meeting Summary	Deferred action on the October 22, 2010 meeting summary to the December meeting.
Approve Next Steps for Non-Profit Formation	General consensus to move forward exploring the nonprofit concept and directing the STC to develop a detailed recommendation for the Partnership’s consideration.
Next Steps for Watershed Facilitator Position Description and Salary	Directed Ms. Spaulding to update the job description and include the benefits package with the salary information. Scheduled item for discussion at the December meeting.
GI Update – Discussion of CBP Recommendations	The Partnership agreed to defer further discussion of the GI Report to the January meeting pending availability of supplemental information from the Corps.

GENERAL PARTNERSHIP BUSINESS

Welcome, Introductions, and Roundtable Comments

Bonnie Canaday called the November 19, 2010 meeting of the Chehalis Basin Partnership (CBP) to order at 9:37 a.m. Everyone present provided self-introductions.

Discuss October 22, 2010 Meeting Summary

Janel Spaulding suggested the Partnership defer reviewing the October 22 meeting summary until Ms. Napier arrived at the meeting with copies of the minutes.

SPECIAL PROJECTS AND PRESENTATIONS

Non-Profit Update

Kahle Jennings referred to ongoing discussions on forming a non-profit enabling the Partnership to access sources of funding typically not available to government agencies. He contacted Hugh Spitzer, an attorney experienced with forming non-profits. Mr. Spitzer agreed with previous concerns of some members of the Partnership. He recommended reviewing Chapter 39.34, Revised Code of Washington – Interlocal Cooperation Act. The introductory paragraph under Section 39.34.200, Watershed management partnerships – Formation, states, “Any two or more public agencies may enter into agreements with one another to form a watershed management partnership for the purpose of implementing any portion, or all elements of a watershed management plan, including the coordination and oversight of plan implementation. The plan may be any plan or plan element described in RCW.” The existing intergovernmental agreement could provide a strong foundation for forming watershed management partnerships (WMPs). Mr. Jennings distributed copies of Chapter 39.34 RCW. He also spoke to Karen Reed, who works with agencies that want to establish cooperative working relationships.

Lee Napier arrived at the meeting.

Mr. Jennings advised that Chris Hempleman contacted the watershed lead in the Walla Walla area. He said he understands that there has not been a fully functional watershed management partnership formed to date. One option is hiring an attorney to work with the Partnership to review the bylaws and intergovernmental agreement for determining whether forming WMPs is the best solution as it's a new concept.

Mark Swartout asked whether a WMP is considered a municipal corporation with the ability to execute contracts or whether a fiscal agent of a governmental entity is required. Mr. Jennings said the statute stipulates that public agencies forming the partnership shall designate a county or city treasurer of a county or city participating in the agreement to form the partnership. The act also allows special purpose districts to authorize up to 10% of its water related revenues to implement watershed management plans. There are a number of elements within the legislation to review and consider. Governmental entities are equivalent to nonprofits. Options the Partnership can consider is bypassing the opportunity, consider raising funds to hire an attorney to review the WMP concept and whether it could provide the best solution, and/or establish an ad hoc group to consider facts and implications.

Bill Schulte commented that he has some concerns and prefers having some time to review the option. He agreed to forming a group to explore the concept and providing a recommendation to the Partnership.

Members agreed to move forward with exploring the nonprofit concept and directed STC to develop a detailed recommendation for consideration by the Partnership.

Review Draft Letter to CBP Membership for Increasing Member Participation

Review of the letter was deferred to the December meeting.

Discuss October 22, 2010 Meeting Summary, Continued

The Partnership deferred action on the October 22, 2010 meeting summary to the December meeting.

Report Regarding Watershed Facilitator Position Description and Salary

Ms. Spaulding reported on the status of the review of the Watershed Facilitator position. STC members reviewed the position and recommends upgrading the position to "Watershed Coordinator." The current job description was developed in 2008 and should be updated. Grays Harbor County is negotiating a new contract with Grays Harbor College effective January 1, 2011.

Several members expressed agreement with upgrading the position.

Ms. Spaulding reviewed the process Grays Harbor College utilizes when reclassifying or upgrading positions. The final decision is made by the Human Resources Director. She asked members to consider approaching her supervisor about the issue rather than her speaking to her supervisor about the issue. Mr. Jennings recommended updating the job description before contacting the college.

Mr. Schulte commented that the duties Ms. Spaulding's assumed since Ms. Napier's departure should be incorporated in the job description. He recommended having three members to include the Chair meet with the supervisor about reclassification of the position from Facilitator to Coordinator. A revised job description will also be prepared.

Chris Hempleman volunteered to meet with the supervisor.

Ms. Spaulding agreed to update the job description for review by the STC and the Partnership. The Partnership can identify members to meet with the supervisor.

Chair Canaday suggested incorporating the benefit package with the salary information.

GI Update – Discussion of CBP Recommendations

Ms. Napier provided background information on the General Investigation (GI) Study. Grays Harbor County is currently the local sponsor. The project has been underway for approximately 10 years. An advisory group of the Flood Authority and the CBP are working to update the Project Management Plan (PMP).

Ms. Napier referred to the October 7 joint meeting of the CBP and the Flood Authority. Conclusions and recommendations developed during that meeting included:

- Whether the GI Study should have one purpose of ecosystem restoration or should it become two to include a flood component. Members at the joint meeting agreed to pursue two purposes. However there were some concerns involving time and costs of adding a second purpose.
- When developing a PMP and moving into feasibility, a conditions report is required. The PMP describes a without conditions report that includes the levee project. Some members were uncomfortable including a project that is not on the ground. Typically, only one without conditions report is produced. The Corps was asked to consider developing two without conditions reports, which the agency said it could do. Members agreed to move forward and develop two without conditions reports.

- The third issue is local project sponsorship. Ms. Napier said she can no longer assume the role of project manager and the county has no designated replacement. Members agreed to request the Governor's Office consider having the state assume the role of local sponsor.

The issues were reviewed with the CBP at its October meeting. Ms. Napier reported she revised the PMP and forwarded it to the Flood Authority as well as the Partnership for review.

Kristin Kerns clarified that it was agreed approximately a year ago to expand the existing Ecosystem Restoration GI Study to include the flood component. The U.S. Army Corps of Engineers is pursuing the Twin Cities Flood Damage Reduction Project (levee), which has received Congressional authorization for design and construction.

Ms. Napier commented on the results of the Flood Authority's November 18 meeting. Keith Phillips with the Governor's Office addressed the Flood Authority and offered to serve as the local sponsor. The Governor's Office will consider identifying and funding staff support to cover local sponsorship duties. Inherent in the offer, the Governor's Office assumes:

- The GI is a two-purpose study.
- In-kind credit has been documented from the Partnership and Flood Authority
- Governor's Office to provide half-time staff support.
- Advisory groups will provide a unified voice.

Ms. Napier recommended advising the Governor's Office on the distinct roles of the CBP and Flood Authority in that the CBP is the lead advisory body for the Ecosystem Restoration GI Study and the Flood Authority is the advisory body for flood related issues.

Discussion ensued on the possibility that the storage component could become the main focus of the GI Study leading to a loss of emphasis on Basin-wide Ecosystem Restoration if the state assumes the local sponsor role. Ms. Napier emphasized that each project requires similar steps moves forward on parallel paths.

Mark Swartout commented that Mr. Phillips indicated that the match currently assigned to the Ecosystem Restoration could also be used for the flood component. He said he believed there was an assumption by the Corps that the match could only be used for the Ecosystem project. .

Ms. Kerns said the issue involves amending an existing agreement to include flood risk management. It is somewhat confusing in terms of in-kind services and where that credit is assigned. After the amended agreement is signed, it essentially involves adding it to the credit bank to apply to the projects.

Mr. Schulte asked whether any of the groups have approved the PMP. Ms. Napier advised that Grays Harbor County, as the current local sponsor, is not approving the PMP because the assignment of the local sponsor is transitioning to the state.

Mr. Swartout asked about the decision-making process if the state is the nonfederal project sponsor.

Mr. Schulte pointed out that not all information on the levee plan, including a cost/benefit analysis and final costs, is available.

Ms. Napier added that the county is willing to provide transitional assistance.

Bruce Treichler urged the Partnership to inform the Governor's Office that citizens have a significant voice in decisions and that the process should be transparent and inclusive.

Chanele Holbrook Shaw asked whether Mr. Phillips or another representative from the Governor's Office will participate on the CBP. Ms. Napier advised that the representative would not be Mr. Phillips. It's important for the Partnership to clearly define expectations. Ms. Shaw said it's important for the Governor's Office to be engaged in the project.

Ms. Kerns pointed out that if the state does become the nonfederal local sponsor, the Corps is obligated to provide the state with a copy of the PMP for review and comment. It's up to the state on how it interacts with the Partnership, Corps, and others. The state could choose to use interlocal agreements. Some level of expertise will be required.

Mr. Swartout commented that full-time staff support is beneficial and necessary during the transition period.

Lisa Dilley advised that the Governor's Office conveyed the importance of a unified voice by all groups. The CBP should proactively define its relationship with the local sponsor.

Ms. Napier asked members to consider for discussion whether the GI Study should have one purpose involving ecosystem restoration or whether it will include a flood component as well, and whether the PMP should include one or two purposes with or without project conditions reports. The information will be forwarded to the Governor's Office.

Mr. Schulte said he'd prefer to have a cost/benefit analysis and understand how the Corps will proceed before making a decision on the GI Study. He prefers separating the projects. The Corps believes it will have additional information available by January 2011.

The Partnership agreed to defer further discussion of the GI Report to the January meeting pending supplemental information from the Corps.

Special Presentation by USGS Regarding Groundwater/Surface Water Interactions Within the Chehalis Basin

Andy Gendaszek, USGS, reported the study focuses on groundwater/surface water interactions and how surficial aquifers near the Chehalis River provide and recharge water to the river. The bulk of the work occurred during August 2010 when stream flows were at the lowest and easier to detect interactions.

Mr. Gendaszek reviewed the overall study objective of characterizing the hydraulic, hydrologic, and geologic setting of the Chehalis River Basin using in part, the well inventory presented to the Partnership in January 2010. The data was collected in 2009 from 250 stations providing a snapshot of the water table in the surficial aquifer at that time. This is an important step as the snapshot provides a baseline to understand groundwater/surface water interactions. The data is available online at www.wa.water.usgs.gov/projects/chehalis. The data will be presented as a USGS Scientific Investigation Report in June 2011.

Mr. Gendaszek reported on two new real time stream flow gages funded through the study to help the Corp model the Chehalis River basin. The gages are located at Saltzer Creek near Centralia and Elk Creek near Doty.

Mr. Gendaszek provided an overview of the geology of the basin. Slides were displayed illustrating the USGS report from the early 1980s delineating the extent of multiple Pleistocene glaciations forming the modern topography for a majority of the Chehalis River basin. The river formed the outlet from the water melting as the glacier receded north to Canada and deposited material that formed a very productive aquifer allowing interaction with the river. He displayed a map depicting the topography of the area. Glacial deposits in the uplands not emanating from the ice sheet filling Puget Sound were from the Cascades and the Olympics. Particularly in Lewis and Mason Counties, those deposits can form important aquifers for domestic supply. Basalt and sedimentary rocks are also located upstream but are not very productive as aquifers. The major hydrogeologic units within the river valleys include alluvium/glacial outwash and tertiary bedrock. The latter forms the base of the aquifer.

Mr. Gendaszek reviewed the hydrogeology of the Chehalis River Basin. A map of sampling locations was shared. The CBP, USGS, and DOE funded the well inventory. The inventory provides a better understanding of how expansive and deep the aquifers are. More than 350 wells were inventoried over a six-week period from August to September 2009. Well inventory sites were integrated with Google Maps. The majority of wells are private. The wells shown in green form the well monitoring network. A well in Montesano provides data for the tidal influence portion of the surficial aquifer. Wells shown in black represent where water levels were recorded. Yellow dots illustrate the lateral extent of the surficial aquifer based on geology. Black lines reflect contours of the water table. Water flows perpendicular to those contours.

Mr. Gendaszek focused on an area where a seepage run was done that consisted of 41 measurements of water moving through the river at both upstream and downstream portions of the river over a three-day period. The data accounts for inflows and diversions. What's remaining is water moving into the ground and recharged to the aquifer (losing reach) or if it gains water, it's a gaining reach. Discharge equipment was strapped on to kayaks enabling staff to access portions of the stream that are typically unavailable for discharge measurements. Acoustic Doppler current profiler (ADCP) is sonar used to produce a record of water current velocities for a range of depths. The Chehalis River is slow moving in the summer and can be quite deep at some points. The extent of the seepage run goes from the confluence of the Newaukum and the Chehalis down to Cedarville and encompasses portions of the Black River, Scatter Creek, and Skookumchuck towards Bucoda. Areas in blue illustrate where the stream gains water, red is where the stream loses water into the aquifer, and purple represents areas with no net gain or loss.

Mr. Gendaszek displayed bar charts of the same data set. Gains are reflected in blue and losses shown in red. Ground/surface water interactions in the upper basin are not dynamic. However, there are gains and losses in the Black River/Scatter Creek area. Twice as many measurements were recorded along the mainstem of the Chehalis than in 2007. Darker shades of blue and red show the magnitude of gains and losses in 2007. Between the Newaukum and the Skookumchuck, there was a slight gain in 2010. The data is relatively consistent between the two seepage runs. The gains are occurring in a smaller area than previously shown. There are inconsistencies between the two data sets indicating this is a dynamic system. Gains and losses do not necessarily occur at the same places or the same magnitude over time.

Mr. Swartout asked whether USGS corrected for precipitation prior to the most recent seepage run. A wet summer versus a dry summer makes a difference on the amount of surficial groundwater. Mr. Gendaszek advised that USGS did not complete that analysis.

Discussion ensued on stream flow data for Scatter Creek. Mr. Gendaszek identified the location of the fish hatchery. The first measurement was zero. The gains from the fish hatchery discharging flows occurred at a rate of 6.5 cubic feet per second (CFPS). There were some modest gains and losses at the

first bridge downstream of the fish hatchery. Scatter Creek is dry during the summer at Case Road where it parallels I-5.

Mr. Gendaszek provided information on a newer water resource hydrology technology involving distributed temperature sensor (DTS) using fiber optics to monitor temperature. DTS was deployed at the beginning reach of the Grand Mound Grange near Prather Road. Diagrams showing the deployment over two days (August 16-18) were presented. He pointed out areas illustrating heating and cooling of the entire temperature cable. According to the river, the hottest part of the day is after sundown.

The cable was draped over river cobbles and exposed to cool air at night. As the sun set, the cable immediately became cool, which is interesting in terms of ground/water surface interaction. The aquifer experiences a constant temperature.

Chris Stearns arrived at the meeting.

Mr. Gendaszek reported on another data set of well monitoring over the 2010 water year at 14 locations. He presented maps, graphs, and information on four locations throughout the course of the river beginning at the Skookumchuck/Chehalis confluence. In some cases, the river is setting the tempo of the movement of the aquifer up and down, but diffusing outward.

Mr. Gendaszek identified a private irrigation well located in the area of the Chehalis/Scatter Creek confluence. Measurements were taken until May when irrigation started. Water transmitted more slowly through the aquifer at that point. In the tidally influenced portion near Montesano using a week time period, the river stage and the water in the aquifer moved up and down in response to the tides of Grays Harbor.

Alternating gains and losses within the Chehalis River are not necessarily consistent and change over time. Previous graphs demonstrate the aquifer is closely tied to the level of the river and vice versa. The surficial aquifer consists of glacial and alluvial sediments and is bounded on the bottom by tertiary basalt and sedimentary rocks.

Several members asked about the location of wells in relation to the river. Mr. Gendaszek said the well near the Skookumchuck/Chehalis confluence is within 50 yards of the river. The other three wells are within a mile of the Chehalis River.

Discussion ensued on the strong connection between the river and the aquifer, how the Corp might use the data for its modeling efforts, and as the basin fills up, the tributaries can back flood at mouths because of similar elevation with the river.

Chris Stearns said one concern is whether updated FEMA maps properly address the issue.

Mr. Gendaszek provided additional information on baseline information and historic data developed by USGS.

Terry Harris asked how USGS compares information more than 10 years old with data collected in 2010. Unless data is collected under identical situations, it's difficult to compare data. Those factors influence outcomes and the ability to obtain accurate information. Policymakers base future planning on the accuracy of that information. Mr. Gendaszek advised that the current data set is comparable to data collected in 2007.

Mr. Swartout shared that Nadine Romero with Thurston County is working in Scatter Creek and is interested in Scatter Creek well monitoring activities and data. Ms. Romero said Thurston County released a new numerical model two weeks ago, which will be released after approval by the County Commissioners. The model confirmed the Chehalis River responds quickly to flooding.

Special Presentation by One Voice Regarding Storage Facilities

J. VanderStoep reported One Voice formed after the December 2007 Chehalis River flood to promote a basin-wide flood reduction plan for the Chehalis River. He displayed several photographs of the Chehalis River basin, the second largest river basin in Washington beyond the Columbia. The photograph highlighted the river alignment, flooding of Boistfort Valley located approximately 10 miles west of Chehalis. The south fork of the Chehalis River runs through the valley, and flooding at Mellen Street in Centralia. I-5 is located in the background.

Mr. VanderStoep said he wasn't involved in flood control issues before 2007 and had not paid much attention to the levee plan developed in 2002. The levee plan for 11 miles around the I-5 corridor has been on the table for decades and shelved because state and affected governmental entities could not agree. Then, the 2007 flood even occurred. Federal and local officials asked what could be done to address flood control within the Chehalis basin. The Corps levee plan was the only major plan available, which has since been resurrected.

Some of the issues with the levee plan include holes at the Skookumchuck, China Creek, Salzer and Coal Creeks, and the Dillenbaugh, the Chehalis River is higher when constricted creating a narrow channel during a flood, there is risk as water backs up further and longer sending it downstream faster and increasing flooding to people living downstream, and the goal of protecting I-5 would not have been accomplished in 2007 as the levees would have overtopped.

Lewis County citizens have serious concerns about the levee plan:

- Levees leak and fail.
- Local sponsor must pay for land acquisition and maintenance.
- Flooding is worse upstream and downstream.
- Federal money spent to protect I-5 means no funding for other flood control measures in the basin.

Another option is exploring whether there is a basin-wide solution benefiting more families, communities, and interests up and down the river for flood control. In 2008, the Lewis PUD funded a high level investigation to determine whether sites were available upstream capable of safely holding a significant amount of water. Two sites were identified. One is south of Pe Ell on the mainstem of the Chehalis (80,000 acre feet) and the second site is on the head of the Boistfort Valley (20,000 acre feet).

A rainfall chart produced by Northwest Hydraulic Consultants was presented. Mean annual precipitation behind the main stem dam site is 131-140 inches. Mean annual precipitation is between 31-41 inches annually in the vicinity of the twin cities. Northwest Hydraulic Consultants modeled impacts downstream using the two proposed water retention facilities. A bar graph was displayed comparing the 2007 flood with a 100-year flood for various sites in the basin. The model suggests a significant reduction in western Lewis County (Doty/Boistfort area). A 3.8-foot reduction is estimated at Mellen Street, and a 2-foot reduction projected at Porter. One hundred thousand acre feet of water is 156 miles long, a mile wide, and a foot deep. A three-foot reduction at flood stage at Mellen Street benefits families and communities that are flooded. The proposed retention facilities won't stop flooding, they but could dramatically reduce the level of damage.

Mr. VanderStoep reviewed flood control benefits of water retention facilities through reduction of water levels downstream, reduction and/or delay in flood flows to help the lower basin (coordinated releases with Black, Satsop, Wynoochee, and Grays Harbor high tides), and a reduction in flood related costs. Assumptions include a reduction in the flood level, but not eliminated in all areas. Benefits were determined based on readily available public information and estimates of flood damage from recent floods in the Chehalis basin. Damages in the basin from the December 2007 flood are estimated at \$500 million.

Mr. VanderStoep reviewed potential instream flow and water quality benefits and how the water retention facilities could improve fish and wildlife habitat. A year-round permanent facility could provide secondary hydropower benefits. Questions to address include:

- ***Will the proposed facilities hold water?*** DOE agreed with Shannon & Wilson's initial conclusion that the proposed dam cross-sections could all work at the site. Mr. VanderStoep pointed out that before anything is built, drilling and more evaluation will be done.
- ***Is water retention cost effective?*** The state funded and the Flood Authority authorized an evaluation of whether water retention in the upper basin could pass the Corp's methodology for cost/benefit. The answer is yes and no. The Boistfort Valley site does not pass the Corp's 1:1 or better cost/benefit test. The main stem site does pass with a 1.13 cost/benefit. No one has modeled further downstream from Porter. The agency developing the Satsop site monitors the Chehalis River in that specific area – Mile 18 Satsop. The project manager stated there would be a 1.6-foot reduction at Porter translating into a 1.6-foot reduction at River Mile 18 suggesting significant flood control benefits downstream from Porter.
- ***Will water retention pass environmental review?*** The Flood Authority has hired a consultant to develop fish and water quality studies. If the data concludes that either of the dams impact fish in the basin, the dams wouldn't move forward. However, if data reveals dams are not detrimental to fish and they can provide flood control, citizens would be asked to consider whether water retention facilities at various sites in the basin might be a better option than the twin cities levee plan. It is also assumed the federal government will eventually take action to protect I-5. There are choices on how to best protect I-5. One Voice doesn't believe the levee plan is the best option to protect I-5, nor would it benefit communities, families, and interest up and down the basin.

Mr. VanderStoep emphasized the dams will not be owned by the PUD.

A number of jurisdictions have adopted resolutions urging the Corp and Congress to explore alternatives other than the levee plan to protect the basin and that the study focus on upper basin retention rather than 11 miles of levees. If flood control is the goal, the Corp has not studied whether land use regulations, forestry, wetland, and other nonstructural measures are considered flood control measures.

Mr. VanderStoep referred to a Grays Harbor-Lewis County P.I.E. Study completed in 1998, which concluded watershed management would have little affect on major floods in the Centralia-Chehalis area. However, that doesn't mean management of the watershed shouldn't be pursued through various actions. The study indicates those measures are not flood control measures.

Earth Economics was hired by the Flood Authority to complete an analysis report. The bulk of natural value in the Chehalis River Basin is provided by forest land (87%). Only 4% of land is developed for urban uses. Data does not support the contention that urban-level development is the problem. A

flooding solution is not possible without some human capital. At the same time, Earth Economics concluded there should be a focus on watershed management, forestry, and land use issues.

Congress has authorized the current version of the Twin Cities levee plan. If the Partnership believes it's the right plan for the basin, members should oppose water retention or any other answer. If members don't believe the Twin Cities levee plan is the best answer and water retention in the upper basin deserves serious consideration, One Voice welcomes the Partnership's support. One Voice is interested in developing a comprehensive basin-wide flood control plan. The single most significant measure is main stem water retention below Pe Ell. However, that's not the only element for a basin-wide solution. One Voice also supports flood control enhancements at Saltzer Creek and the Skookumchuck Dam, if possible. Improvements to existing levees at the airport in Chehalis will also be required. Additional modest levees might be needed downstream. There is an opportunity for environmental mitigation as well, such as acquiring and preserving sensitive areas. One Voice would like to continue discussions and develop a comprehensive strategy to address flooding.

Northwest Hydraulics also modeled the levee plan using 100,000 acre-feet. The model discovered a number of miles in the Centralia/Chehalis area where levees would not have been exposed to flood water if they had been constructed. Eleven miles of levees are not needed with that much water storage.

Bob Burkle expressed concerns with some of inaccuracies portrayed in the presentation. The notion that flood events are bad for salmon is wrong. Channel forming flows are essential to creating salmon habitat. Wild salmon populations have plummeted where dam processes have stopped channel flows. Floods benefit other salmon species because they can maneuver around barriers and reach upper portions of rivers and streams that they couldn't reach otherwise. There is no evidence suggesting that increasing summer flows artificially improves habitat. You can't build a dam that will protect fish runs. Data collected from the fish study will be inconclusive because it will run from September to June.

Specific to the last point made by Mr. Burkle, Mr. Schulte commented that Keith Phillips with the Governor's Office understands that. The state is looking to extend the fish study.

Mr. Burkle said hydropower facilities block wild anadromous salmon. A run of the river dam would not block salmonid access but on the main stem Chehalis, it would inundate or block access upstream to 93% of wild steelhead currently using that area. The fish can't swim through the dam when it's closed off. Fish would have to bypass over the dam somehow. Mr. Schulte commented that there are different engineering solutions.

Ms. Hempleman said there are many questions and no agreement has been reached. She discussed the concept with DOE's dam safety section regarding the issues and there is little information available on the potential impacts. Additionally erosion and sedimentation hasn't been considered at this point.

Mr. Burkle suggested One Voice should not include references stating storage facilities benefit fish. Some statements are way off base. The only dam benefitting wild fish runs was built in Norway establishing an Atlantic salmon run below the river.

Mr. Schulte commented that the Partnership is not looking at beliefs but a study that answers the questions.

Mark White asked about the source of information pertaining to improving fisheries. Mr. VanderStoep advised that it's his opinion that there is a potential benefit in terms of water quality in the upper basin. The cities of Centralia and Chehalis have spent millions of dollars in response to DOE's concerns of low

flows, high temperature, and low water content in the upper basin. He emphasized the unknowns of whether flood control option benefits fish. It has a potential for holding water and releasing it at a time when there are low flows. The state is paying for a fisheries study. If results are inconclusive, then more research will be needed.

Mr. Treichler said he understands no funds will be allocated to a fish study. Data collection will be completed soon. There are significant data gaps. Some fish data are 18 years old. There are an insufficient number of spawning seasons to understand what's occurring over time.

Additional comments from the Partnership are summarized below:

- The two studies also conclude that dams are not feasible. Why are we looking at the alternative a third time? *Mr. VanderStoep responded that the current design is not a viable alternative. However, circumstances have changed. The 2007 flood resulted in greater damage to the basin than when the Corps looked at upper basin retention in 1982, which didn't pass the cost/benefit test. The data available today indicates it would.*
- It is well known that the winter steelhead entering the basin spawn in those areas where the dams are proposed. The Tribe does use that as a subsistence fishery and harvests winter steelhead in this basin. The Tribe would be concerned about reservoirs located in habitat of spawning salmon. There is a regional flooding in the basin. One part of the "bathtub" is higher and one part of the bathtub has more snow pack. It's a good idea to reexamine the Skookumchuck Dam. It was noted that the Skookumchuck Dam is located in Thurston County.
- The 1982 study by the Corps placed the dam in Adna, a residential area. The dams are now proposed within nonresidential areas, which reduce costs. Damages are restricted to the Twin Cities and GI Study boundaries and are why they are being reexamined.
- How does the dam or levee solution affect flood insurance, and will development in the floodplain under any scenario will be allowed. *Mr. Schulte stated that FEMA and the Corps do not always work together. State law does not allow expanding urban growth areas into floodplains. Centralia no longer permits fill in the floodplain. However, federal law areas behind levees are not considered to be located within a floodplain. All three counties have strict rules against building in the floodplain.*
- Building dams will not stop fish. A greater concern is someone losing their life or their home and that efforts should concentrate on saving lives.
- According to FEMA, if a citizen is not located behind a 100-year rated levee, the area is considered a floodplain and locally adopted rules apply. The draft PMP states water retention will be studied and part of the basin-wide study that will examine what measures will work, and what measures are cost effective.
- It was suggested to separate the I-5 transportation issue from the flooding issue. Not one of the overpasses flooded. An option is working through the transportation element and then on solutions to protect people.

Ms. Canaday commented that one option is building an elevated freeway above I-5 allowing cars to run across the top and truck on the bottom and when it floods, everyone gets to be on top.

Ms. Balmelli-Powe commented that the 1948 and 2008 pictures are accurate. One Voice wants a basin-wide solution, not just a solution that protects I-5.

Mr. VanderStoep said elevating I-5 is a flood issue. The biggest change between 1948 and 2008 in the Chehalis Basin is I-5.

Nominations for Officer Elections Open

Ms. Spaulding reported nominations for Chair and Vice Chair were opened in October. The partnership will vote on a Chair and Vice Chair at the December meeting.

Agenda Items for December 17, 2010 Meeting and Future Meetings

- Watershed Festival Recap
- Election of Officers

ADJOURNMENT

With there being no further business, Chair Canaday adjourned the meeting at 12:14 p.m.

Prepared by Cheri Lindgren, Recording Secretary
Puget Sound Meeting Services