

Chehalis Basin Partnership Water Quality Committee
Chehalis Tribe Community Center
461 Secena Road
Oakville, WA
January 13, 2011
9:30 a.m.

Minutes

MEMBERS & OTHERS PRESENT

Patrick Wiltzius, City of Chehalis	Tom Gow, Puget Sound Meeting Services
Janel Spaulding, CBP/Grays Harbor College	Bob Amrine, Lewis County Conservation District
Glen Connelly, Confederated Tribes of the Chehalis Reservation	Karl Braden, Quinault Indian Nation
Amber Carlson, Chehalis Basin Education Consortium	Chris Hempleman, Department of Ecology
Tom Gibbons, Quinault Indian Nation	Ron Schillinger, City of Montesano
	Harry Pickernell, Confederated Tribes of the Chehalis Reservation

Call to Order, Introductions and Changes to the Agenda

Patrick Wiltzius called the January 13, 2011, meeting of the Chehalis Basin Partnership (CBP) Water Quality Committee (WQC) to order at 9:35 a.m. Everyone present provided self-introductions.

Brief Review of Past Year's Work and Project by Participants

Attendees provided updates on projects and programs within their respective organization since the last meeting of the committee.

Mr. Wiltzius reported the City of Chehalis built a new treatment plant approximately 3 years ago. Treatment quality has improved and continues to approve each year. Normally when high flows are experienced there have been some minor issues associated with water quality. The poplar tree plantation is growing well and the City just completed its third year of irrigation using 220,000,000 gallons of water each season of reclaimed water.

Mr. Wiltzius said he also works for the City of Tenino, which recently opened its wastewater plant. The plant handles approximately 90,000 gallons a day and discharges on-site. Monitoring wells monitor annually for heavy metals and quarterly for DOE water quality parameters. Tenino is currently working with DOE on a review of the groundwater monitoring system. A scope of work has been submitted. The City will complete groundwater characterization to monitor the direction of groundwater to ensure monitoring wells are positioned accurately.

Mr. Wiltzius said harvesting of the poplar plantation will not occur until 15 years after planting. The trees were planted six years ago. Some of the tallest trees are 80 to 100 feet. The trees grow approximately 15 feet a year.

Bob Amrine said the Conservation District continues to do as much as possible to improve water quality within the basin by working with dairies and completing dairy nutrient management plans. Most of the plans have been certified. The district has exhausted cost-sharing funds and it's unknown whether the Legislature will fund the program. The district has a large database of projects ready to complete but no funding. The district also works on the Conservation Reserve Enhancement Program (CREP), which takes Ag out of production to restore forest riparian buffers. The district has five new pond tracks in production for a total of 784 acres enrolled in the program within the Chehalis basin. The Conservation

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District is still working on some plans and is currently working with the City of Centralia's new farm for conversion to all-grass production. The plan includes soil information and proper nutrients for the vegetation the City wants to produce. Another program the Conservation District pursues is culvert replacement with three more planned this year for a total of 30 since 2000. The Conservation District has an inter-district agreement with Grays Harbor for the CREP.

Mr. Amrine reported on limited funds for conservation districts and how some districts are reorganizing and consolidating beginning July 1. Districts will be by county, which will not affect Lewis County Conservation District. There is some movement to include the Conservation Commission with the Department of Agriculture, which conservation districts are attempting to block because it would be detrimental to districts being involved with a regulatory agency.

Ms. Hempleman asked about potential state cuts to funding for conservation districts. Mr. Amrine said the Governor's budget included \$400,000 less than the last biennium for conservation districts. The Commission would also receive less funding. He outlined some measures the district is pursuing for securing different funding sources. The district recently met with the Natural Resources Conservation Service (NRCS) for initiating some NRCS programs in the basin to open up oxbows and possibly groundwater recharge ponds to help flood reduction. The district has submitted an application to construct dams that are no larger than 25,000 acre feet and only half can be used for flood retention. However, funding is very tentative. If included on the list, it could be earmarked by Congress. There has been agreement to develop a northwest hydrology model to examine why flooding was so severe.

Another program is the Emergency Watershed Program (EWP). If there is damage during an event, EWP can work during an event to save property, such as homes and businesses. EWP must have a sponsor to agree to maintain the recovered properties for a period. That has been difficult because the sponsor must contribute 25% of the actual cost and any cost of maintenance. Lewis County did not participate because of the lack of funding.

Glen Connelly reported the Tribe's work in water quality includes shifting over to MVR systems throughout the reservation. The Community Center is connected to a bio membrane system. The casino includes an engineered wetland. There have been some discussions with Oakville to form a sewer district and possibly pursue an MVR system. However, the Tribe doesn't have that many households to connect to the system. The Tribe is also conducting service water sampling through an individual that will end the latter part of the month. The Tribe is still completing some groundwater testing because of the egg farm located on the reservation that may be causing some nitrate issues.

Mr. Connelly addressed questions on the casino's wastewater system. The system includes a primary tank as a settling tank for solids. Liquids are processed through the bio membrane system and then discharged through a wetland system. Mr. Wiltzius asked whether the Tribe's system is permitted by either DOE or the Environmental Protection Agency (EPA). Mr. Connelly said he believes the reservation's system is sovereign.

Mr. Connelly addressed questions on the completion of the Wickett project involving the removal of a levee.

Mr. Schillinger said he believes the City of Montesano does not have a designated person focusing on water quality. As a prior forester and a resource manager, he has always believed that leaving lands in a natural state benefitted water quality. However, through time, as a land manager, many things can have either positive or negative impacts on water quality. He commented on the impact of the 2000 timber

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harvesting rules and how that impacted water quality and sediment loading. Based on his observations, if the goal is reducing and eliminating mass movement, harvest of steep areas and areas viewed to be potentially unstable should be allowed. He cited the example of Lake Silva, which experienced landslides in an unharvested area versus fewer occurrences in the managed forest. Essentially, development activities occurring in a drainage basin have no bearing when the area is subject to an extreme volume of rainfall in a specific period of time. Mt. Rainier is a good example where the old growth forest suffered extensive damage after the 2007 record rainfall.

Mr. Schillinger said the City of Montesano's stormwater and treatment activities are funded by users. Utility tax generates approximately \$50,000 annually. Stormwater is a water quality issue and currently the City of Montesano has no treatment system for stormwater, which is discharged directly to surrounding creeks. When the City eliminated its gravity drainage sewer/septic system in 1997, all piping became the City's stormwater system. All roads and drainage areas in the City are connected to the previous septic system that travels directly to the Chehalis River.

Mr. Wiltzius asked how new development is permitted as there are stormwater permit requirements by the state. Mr. Schillinger said the City permits through its Planning Department. Within the last 15 years, the City has had three new developments. One was a dairy farm within the City limits of Montesano. The dairy could no longer comply with all the environmental regulations that added to the cost of producing milk and closed. One of the goals in the Partnership's Watershed Management Plan is pursuing efforts to retain Ag and forestry uses.

The City's sewer treatment plant is located near the junction of the Wynoochee and the Chehalis Rivers. The placement of the plant should have been at higher ground because of the natural movement of rivers. The plant cost \$1.8 million with no funding provided from state or federal funds. The City funded the plant through City forest timber revenues. The sewer plant treats approximately one million gallons of day with treated water discharged directly to the Chehalis River. Water discharged into the river is cleaner than river water. Users fund the operation of the plant. The City wants to place a flood wall around the plant and applied for a grant, which the City did not receive.

Ms. Hempleman reported she is preparing an article for the *Drops of Water* publication on Scott Collyard's report.

Tom Gibbons reported the Quinault Indian Nation has limited but interested participation in the Partnership and did not sign the interlocal agreement or support the basin plan because of treaty interests and self-governance. However, the Tribe wants to maintain connections and explore partnerships that benefit water quality in the Chehalis River. Since his arrival at the Tribe, he's written and submitted to EPA, four quality assurance plans for four projects on the reservation and in waters adjacent to the reservation. Monitoring includes E-coli bacteria, stream discharge, and normal ambient water quality parameters as well as a surface water priority pollutant on waters of the reservation. He is also working on the update of the Section 319 Plan, which it is the non-point water quality plan for waters of the reservation. The tribe receives \$30,000 for non-point water quality issues and restoration. Each year, the Tribe can apply for competitive funding under the 319 Program. The Tribe recently submitted a \$150,000 proposal to detect and treat with herbicide, knotweed in the tributaries of the Queets basin as part of an aggressive program to treat knotweed. Work will continue for many years as the lower Quinault is impacted by knotweed infestation. Through another funding source of the Indian General Assistance Program, the Tribe is cleaning up illegal solid waste dump sites with over \$70,000 expended last year. The Tribe has requested through EPA, a government-to-government consultant on the NPDES Pesticide General Permit that is forthcoming in 2011 that will be required for applications of pesticides in or near

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waters of the US. The Tribe is concerned that the proposed thresholds, how they are applied, and where they applied, will impact knotweed control. EPA has indicated some uncertainty in response to the questions. The Tribe also works on monitoring and restoration projects and has the capacity to do both and is interested in partnerships subject to the approval of the Tribe.

Ms. Hempleman commented on some problems with RVs dumping sewage along roadsides.

Ms. Hempleman asked if the Tribe is considering the establishment of its own water quality standards. Mr. Gibbons said the Tribe has draft water quality standards that have never been reviewed or approved by EPA. He met with EPA in December to begin the process of establishing those standards. However, there are some issues to contend with in terms of E-coli issues in waters adjacent to the southern reservation and in Lake Quinault.

Mr. Amrine asked how the Tribe's parameters compare with DOE's water quality parameters. Mr. Gibbons said at this point, the draft parameters have not been adopted by the Tribe. They could be similar, more, or less restrictive in some areas.

Mr. Amrine commented on the district's work at the mouth of the Queets that includes a large infestation of knotweed. Mr. Gibbons said he's aware of the area and is in consultation with a contractor to address knotweed infestation. He described the program's initial approach.

Discussion followed on low pH in various water bodies of the reservation that is likely related to bogs in wetlands. It tends to occur in the Moclips drainage area. However, that is not the only issue affecting the distribution of fish. Other issues include fish passage barriers. He noted that a study found that Coho salmon have adapted to low pH in the Moclips area.

Discussion followed on natural background conditions creating low pH readings in water bodies. Dave Rounry prepared a paper on natural background conditions creating low pH readings.

Ms. Spaulding inquired about the status of the NOAA Marine Debris Removal grant. The Partnership submitted a letter of support of the grant submittal for the Tribe. Mr. Gibbons said he's unsure of the status of the application. He mentioned the casting basin for the SR520 pontoon project. For mitigation purposes there was an agreement between WSDOT and the Tribe to compensate for wetlands mitigation and treaty issues. Some of those funds could be used as match for projects in the future. The Tribe is interested in leveraging funds into projects.

Ms. Spaulding reported on work ongoing with the Centralia and Grays Harbor Stream Teams. Many stream clean-ups have been completed along with beach clean-ups in Grays Harbor. Tree plantings have been completed with one scheduled at the ORV park near McCleary.

Ms. Spaulding provided an update on the recent E-3 (Environmental Education Association of Washington) collaborative workshop at Grays Harbor College.

Amber Carlson provided an update on water quality testing efforts by students through the Chehalis Basin Education Consortium, as well as the Student Congress at Grays Harbor College. The students also participated in various plantings in the basin with one at the Boistfort Valley Farm. Another planting is planned in February. Approximately 1,100 trees were planted at Carlisle Lake as well as 1,100 trees along the Chehalis Discovery Trail. The species of trees include cottonwoods, willows, red alder, and

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Western Red Cedar. Students also participated in the organic farm tour at Boistfort Valley Farm. Mr. Amrine commented that the district under the CREP program can provide funds for purchasing trees.

Mr. Schillinger said one of the teachers at the Montesano School District wants to create a stronger environmental program within the district.

Review of Scott Collyard's Report and What it Means for Water Quality Basin-Wide

Ms. Spaulding reported on the joint meeting of the WQC and the Steering Technical Committee in November 2010. During that meeting, Scott Collyard provided a water quality monitoring effectiveness review for the upper Chehalis basin based on data from 1994 to 2004. DOE wanted to link clean-up activities with water quality monitoring results to ascertain if there was any linkage and to help provide guidance for future activities. The results indicated that fecal coliform levels at all 63 sites met water quality standards from 2006 through 2009. TMDL stations also met target limits for bacteria. Temperature and dissolved oxygen did not fare as well and of the 63 stations sampled, 47 did not meet water quality criteria for temperature and 62 did not meet criteria for dissolved oxygen. There were some improvements in the parameters, however.

Ms. Spaulding reported Mr. Collyard's recommends that although efforts have been tracked, the details are not sufficient and more detailed information to help determine the effectiveness of the cleanup effort and the associated impacts on water quality should be pursued. That will help guide future cleanup and watershed management efforts.

Mr. Collyard's recommendations include:

- Begin to inventory implementation of BMP practices throughout the Upper Chehalis River basin (WRIA 23) in a comprehensive way using the following questions as a guide:
 1. Describe in detail the BMP being implemented and how it is expected to improve water quality in the Chehalis River watershed.
 2. Is the BMP sustainable?
 3. When and where was the BMP implemented?
 4. What is the spatial extent of the BMP?
- Monitor fecal coliform at TMDL target stations not sampled by the Chehalis Basin Partnership (CBP) and compare results to TMDL target limits.
- Monitor fecal coliform at stations and critical periods identified in the TMDL.
- Use the Lewis County Conservation District's riparian assessment maps to implement BMPs on impaired stream reaches with low buffer percentages.
- Use and explore the numerous past assessment efforts to guide new BMP implementation efforts in the watershed: http://wcssp.org/WCSSP_library/wria22_23/wria22_23.htm
- Assess percent shade at target stations identified within the Upper Chehalis Temperature TMDL to track progress for this long-term goal.
- Continue to explore data from WRIA 23 using appropriate statistical techniques, such as multi-linear regression, to better detect long-term trends. Also explore techniques for linking land use and other activities with water quality data.
- Consider monitoring temperature using continuous temperature loggers at stations with the highest number of temperature violations.
- Assess land use using ground sleuthing and GIS in surrounding areas where dissolved oxygen continues to be a problem. Based on this approach, design a monitoring strategy in areas that

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have the greatest risk to negatively affect dissolved oxygen and where low dissolved oxygen values are observed.

- Consider monitoring dissolved oxygen using continuous loggers at stations with the greatest number of violations. Also, periodically supplement dissolved oxygen data during critical periods with ammonia, carbonaceous biochemical oxygen demand (CBOD), and streamflow data to determine what is driving low dissolved oxygen levels.
- Use a source tracking component in all future water quality sampling designs to help define major pollutant sources when water quality violations are identified.
- Consider using instream biological and habitat methodologies in the upper reaches of WRIA 23 to address fine sediment concerns (Cusimano et al., 2006; Rosgen, 1994).
- Continue to support ambient monitoring efforts in the Chehalis River watershed and consider the reactivation of some of Ecology's ambient monitoring stations with the basin: www.ecy.wa.gov/apps/watersheds/riv/stationlistbywria.asp?wria=23
- Once TMDL compliance stations and critical periods are determined to be meeting targets, change the fixed-station, WRIA-wide sampling strategy to a probability (random)-based sampling design to monitor the status and trends of fecal coliform concentrations. Sampling should be conducted every 3-5 years and should follow probability survey designs outlined by EPA: www.epa.gov/nheerl/arm/designpages/monitdesign/monitoring_design_info.htm

Ms. Spaulding asked members to consider identifying some of the recommendations to pursue for improving water quality in the basin.

Mr. Amrine said he's interested in the temperature modeling logs at some sites and would like to expand them into some current sites that have been in place for the last five to ten years to obtain some background data. In the next 10 years, there should be some improvement in temperature, which should improve dissolved oxygen.

Harry Pickernell arrived at the meeting.

Mr. Gibbons said it appears temperature continues to be problematic and one of the recommendations is continuous monitoring. He said he has been considering monitoring temperature on the Chehalis River. He asked about obtaining more information to assist in interpreting Mr. Collyard's comments. Mr. Amrine said it would be beneficial to have a map of the areas that have been replanted. It's important to plant more trees to help lower temperature. Mr. Gibbons referred to the work USGS is conducting within the basin. There is interest in completing a watershed-wide level temperature study, which the Tribe could likely support with the goal of moving toward restoration. He said the information that he is missing is a level of projects and the quantity for the last 10 years. Several members indicated those questions could likely be answered by Dave Rountry.

Members discussed whether future efforts are possible if there is no funding. Mr. Wiltzius suggested if the committee wants to continue meeting and pursuing some of the recommendations, the committee should propose some ideas. Some ideas include obtaining information that has been documented, such as public information brochures and include them within local utility billing statements to educate the public on environmental practices. Other places such as cities and particular distribution points could be identified to place brochures for the public. Members supported the suggestion as many cities send out information in monthly utility bills.

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Mr. Wiltzius commented that if the committee is going to be effective it's important to see results. The committee could also continue to operate as a sounding board and invite individuals to provide briefings on pertinent subjects. Temperature monitoring is currently underway in the Chehalis River by several different entities. There may be a way to partner. Mr. Gibbons expressed interest in future partnering opportunities.

Mr. Wiltzius suggested another option of spending a meeting brainstorming all of the recommendations in the report. He asked about the likelihood of preparing a CBP brochure devoted to water quality.

Ms. Hempleman shared that she is preparing an article for the *Drops of Water* publication on Mr. Collyard's report and stressed the importance of any publication being short and concise. She referred to Ms. Holbrook-Shaw's recommendation at the last STC meeting to provide a forum at the monthly CBP meetings for organizations to provide an update. That same format could be incorporated within the *Drops of Water* publication, which could include the conclusion of the analysis and the good news about fecal coliform in the basin and then follow up with a series of stories about different projects occurring in the basin.

Mr. Amrine suggested promoting rain barrels and rain gardens to help manage stormwater in cities. Ms. Spaulding reported that she and Mr. Ashmore worked with a group of high school students at Centralia last year installing a rain garden. Another one is planned at Aberdeen High School. Mr. Amrine pointed out that the schools and the stream teams are good mechanisms for promoting rain barrels and rain gardens.

Members discussed other methods and limited sources of funding. Ms. Spaulding reported on a meeting on the *Drops of Water* survey results. The CBP is continuing publication in a hard copy format through June and is then likely will convert to an electronic format to save costs. Mr. Schillinger recommended releasing the results of the survey. Ms. Spaulding said the publication will include the results of the survey in an upcoming edition.

Members discussed the importance of continuing to meet as well and acknowledged that all members have other full-time commitments. Members individually expressed interest in continuing to promote water quality efforts in the basin and committed to participation on the committee.

Members discussed the recent electronic message from Mr. Rountry and noted that the committee does not have the funding to pursue some of the study's major recommendations, while also acknowledging that it's possible to continue promoting public outreach and education, and well as promoting partnership opportunities. Mr. Amrine recommended inviting Mr. Rountry and Mr. Collyard to discuss some of the recommendations with the committee and share ideas on ways to proceed.

Members agreed to meet in February.

Ms. Spaulding provided an update on the status of the Partnership. The Partnership continues to meet with funding ending June 30, 2011. DOE has submitted the WaterSmart Washington bill that includes language extending watershed planning another four years. The Partnership is pursuing some legislative outreach to support the DOE bill and is requesting bridge funding to help the CBP transition to a new organizational structure under RCW 39.34.200 as a watershed management partnership. The CPB was able to secure some pro bono assistance to help with the documentation. Currently, Lewis County Commissioner Bill Schulte is reviewing the pro bono retainer agreement with Lewis County Deputy Prosecutor Glenn Carter. At this time, Mr. Schulte has not followed up on the status of that review.

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Next Meeting

The next meeting is scheduled for February 10, 2011. Mr. Wiltzius suggested the agenda should include developing the committee's work plan. Discussion followed on inviting Mr. Rountry and Mr. Collyard to the next meeting. Ms. Hempleman recommended inviting Mr. Collyard when the committee is ready to focus on the technical aspect of refining monitoring because of limited resources within DOE.

Ms. Spaulding offered to research materials for rain gardens and stormwater quality measures for homeowner brochures. Ms. Wiltzius offered to research backflow disruptors and water conservation brochures.

Harry Pickernell provided an update on the status of water quality monitoring by the Tribe. The Tribe will continue monitoring at a reduced level.

Adjournment

With there being no further business, Mr. Wiltzius adjourned the meeting at 11:49 p.m.

Prepared by Valerie Gow, Recording Secretary/President
Puget Sound Meeting Services