

**Chehalis Basin Partnership
Water Quality Committee
Grays Harbor County Administration Building
Montesano, Washington
August 13, 2009
9:30 a.m.**

Draft Minutes

MEMBERS PRESENT:

Janel Spaulding, Grays Harbor College/Chehalis Basin Partnership
Dave Rountry, Department of Ecology (DOE)
Patrick Wiltzius, City of Chehalis
Dave Jarzynka, Briggs Nursery
Cindy Burton, US Department of Agriculture, Columbia Resource Conservation and Economic Development District
Don Loft, The Evergreen State College (TESC)/Grays Harbor College
Tom Gibbons, Quinault Indian Nation
Karl Braden, Quinault Indian Nation
Virginia Prest, Washington State Department of Agriculture
Valerie Gow, Puget Sound Meeting Services

Call to Order, Introductions and Changes to the Agenda

Patrick Wiltzius called the Chehalis Basin Partnership (CBP) Water Quality Committee (WQC) meeting to order at 9:33 a.m. Everyone present provided self-introductions.

Janel Spaulding reviewed the meeting agenda, which included two additions to the agenda by Dave Rountry on the DVD from the Water Quality Committee workshop held in April and a request from the Environmental Protection Agency (EPA).

Presentation of Updated Water Quality Monitoring Map

Don Loft presented results of water quality and mapping analysis transferred to a Geographical Information System (GIS) application. Data covers 94 monitoring sites with the data range from October 2006 to June 2009. Data were reviewed and proofed to clean up some anomalies. Current data are a good representation of water quality conditions in the Chehalis River basin.

Data were converted into tables for GIS to join mapping features. In the analysis for the map, water quality parameters were ranked by the percentage of time the results did not meet water quality criteria. The source of data is from the monitoring conducted by the Confederated Tribes of the Chehalis Reservation. Coordinates of the sites were used to map the location of the monitoring sites, which was added to GIS, a geo database containing spatial reference and the database tables of monitoring data. The intent is providing internet access so that visitors can view the map interactively. However, work on the map begun at Grays Harbor College was in an earlier version creating some software compatibility problems, which delayed the release. The map should be available on the internet by the end of August.

Mr. Loft reviewed rating criteria for each of the water quality parameters. The intent is gauging tendencies or trends in water quality without considering specific violations. The ranking system, initially developed by Randy Lehr, was established reflecting that if the water quality sample did not meet criteria the following percentage of time, samples were ranked under the following color scheme:

- 0%-5% = purple
- 5%-15%=blue

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- 15%-25%=green
- 25%-35%=yellow
- 35% plus= red

Mr. Loft reviewed results for water quality testing parameters for dissolved oxygen (DO), pH, fecal coliform, and turbidity.

The criterion established for DO is 8 milligrams per liter.

Dave Rountry arrived at the meeting.

Samples were ranked the percent of time they did not meet the criterion if the sample was less than 8 milligrams per liter. In upper WRIA 22, the samples reflect purple and blue results with that area generally meeting the criteria, whereas in WRIA 23 there are some red and yellow sites involving the Black River, Chehalis, and Centralia. The results provide a snapshot of problem areas.

For pH, the samples were measured for quality between 6.5 and 8.5 on the pH scale. Anything less than 6.5 or greater than 8.5 were considered as not meeting the criteria. Some anomalies that were found were off the scale that would lead to conditions contributing to fish kills, which did not occur. Those anomalies were removed. Overall results reflect a ranking of purple for most sites.

For fecal coliform, the samples were measured for quality at 50 colony forming units (CFU) per one hundred milliliters (ml). Anything greater than 50 CFU/ml was ranked. Overall, results are generally good within the basin.

Turbidity is the amount of particulate matter suspended in water. Measuring turbidity is reported in nephelometric turbidity units (NTU). The criterion selected for turbidity was 7 NTUs. Samples greater than 7 NTU failed to meet the standard. There are some areas with higher levels of turbidity.

Mr. Loft referred to sampling for pH and some of the anomalies that were eliminated because they were extreme and couldn't exist. Documentation of the anomalies was verified by the Tribe because of problems encountered with the pH meter.

For temperature, the measurement included only one criterion of any sample above 9°C as not meeting the criteria. Mr. Loft said efforts were undertaken to break temperatures into seasons based on rearing habitat and spawning runs. The result reflects a difference in temperature rankings than in previous rankings where only water temperature was factored. A more accurate view is provided when seasons are factored. The categories were divided into four areas:

- All year
- Fall, winter, and spring for salmon and trout spawning
- Summer for salmon and trout habitat
- Fall for char spawning

The first sampling covered the first category of all year and involved a full range of data from October 2006 to June 2009. Samples for all year should not exceed 12°C. Mr. Loft said there are some areas in the headwaters of WRIA 23 where temperature is not meeting the standard year-round. For fall, winter, and spring, the data range is from September 16 to June 14, with the criterion set at 13°C. Samples exceeding 13°C did not meet the criterion. Results indicate that most areas are meeting standards. One area near Puget Sound reflecting a

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ranking of yellow is a site where Black Lake actually flows in the other direction, which is difficult to assess the value of that particular site.

The data range for summer temperatures included June 15 through September 16, with the criterion established as 16°C. There are areas reflecting a ranking of red. However, the data range of less than three years doesn't include many samples in the summer. As the data range extends, the results will become more valuable over time with the results also normalizing. He noted the results are indicators of a tendency or a trend with data identifying places to concentrate efforts.

The data range for fall was from August 15 through November 30 with criterion established at 9°C. As more data is added to the analysis some sites will likely normalize. Some sites have only several samplings while some have many samplings. To obtain a view, approximately five years of data is needed. However, the results do provide a snapshot of potential problem areas.

Mr. Loft reviewed sources and the analysis of data. Some of the same anomalies found in pH were also found in the results for DO because the same equipment was used. Joel Green recalculated DO data based on the percent saturation to milligrams per liter, which provided a more accurate result.

Mr. Wiltzius commented on the issue of ensuring the Tribe's data is correct because if underlying data are incorrect, it will never stand up. Mr. Loft said efforts are underway to ensure data accuracy. If there is a belief data are unreliable, it's rejected to ensure accuracy. There may still need to be some finetuning. Mr. Loft said Harry Pickernell has a spreadsheet containing the QAQC (Quality Assurance/Quality Control) for each of the sites, which he is scheduled to receive. That's another method to double check accuracy of data.

Mr. Rountry said he shares the same concerns and that it's unfortunate that the amount of QAQC undertaken is really necessary because of the time involved as well as the budget. There was recognition approximately one year to 18 months ago that field measurements for pH were skewed significantly. Based on that information, the Tribe purchased a new meter for measuring all field values. He said he was under the impression that the sampling was with the new equipment and that there was data accuracy. Since then, it's been discovered that's not necessarily the case. Now, DO results are in question along with pH in terms of field measurements. He asked whether the most recent data reveals any normalization of the data. Mr. Loft said he discovered the anomalies early on, and as data has been added, a better picture has emerged regarding the accuracy of data. It appears to be more accurate in the latter part of the data than in the earlier timeframe when problems were experienced with the equipment. Some data were removed from the dataset because of that failure. The goal is to producing a more accurate picture by removal of extreme outliers. A large number of records were removed for both DO and pH.

Mr. Rountry asked whether the point where it was no longer necessary to extrapolate percent saturation back to milligrams per liter is known. Mr. Loft replied that the spreadsheet also reveals the point where the results are normalizing, which is approximately during the period when the new equipment was used. He offered to meet with Mr. Rountry to review the spreadsheet.

Mr. Wiltzius said that his concern involves the lab. During any extended period of time, a competent lab professional would know that some readings are inaccurate. Collection of samples with varied readings should be recognized prior to transmittal of the data.

Mr. Loft reviewed a spreadsheet for temperature and how data were segregated by season and analyzed. Mr. Loft responded to questions about the frequency of monitoring. Collection of samples occurs monthly. There are some long-term monitors involving up to nine sites with readings occurring daily.

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Virginia Prest asked whether mapping will reveal land uses located near sampling sites. Mr. Loft indicated identifying land uses is one of the next steps in the work. Narendran Kodandapani has the most recent Landsat satellite land use data for inclusion to the GIS application. In GIS, there are hydrology tools that can be used to extract flows to specific points. Land use data could be overlaid to determine surrounding land uses within an area of influence. That work is a future step. Some of the flow basins have been defined, but the work is lengthy. It will be possible to add to the analysis by adding land use, flow data, rainfall, and other influences where eventually as more data are accumulated a temporal analysis could be performed.

Discussion on Frequently Asked Questions

Ms. Spaulding referred to the previous meeting's discussion for creating a list of frequently asked questions (FAQ) about the Partnership. The reason for a FAQ list is because of the September open houses on the Twin Cities project. The Partnership has been invited to sponsor a table during the workshops. It would be helpful to clarify the roles between the different entities involving the Partnership and the Flood Authority.

Ms. Spaulding referred to the basic list developed to date and asked members to consider adding more questions. Glen Connelly is finalizing the FAQ document. At the August Partnership meeting, members will provide feedback on some of the answers to several of the questions. The FAQ is geared for citizens who may not have any knowledge about the Partnership.

Members suggested rephrasing the question concerning the two General Investigation (GI) Studies by stating it to read, "What is a GI Study and what is the difference between the two studies." Part of the answer should include the area that is encompassing the watershed or Twin Cities area.

Ms. Spaulding reported the open houses will be held in Thurston County, Lewis County, and Grays Harbor County. Mr. Connelly will have more information on the meetings at the Partnership meeting. The Flood Authority and the US Army Corps of Engineers are hosting the open houses to provide information on the studies underway, the organizations involved, and how the organizations are working together.

Ms. Prest suggested including DOE's phone number for citizens to report illegal discharges. Discussion followed on DOE's possible role in the open houses. Mr. Rountry said he was unsure whether DOE was involved. Members discussed having DOE provide a pamphlet on how citizens can report a concern or a spill.

Mr. Wiltzius referred to the question on whether the CBP is an arm of DOE and suggesting rephrasing it to state, "How does the Chehalis Basin Partnership relate to the Department of Ecology?" He suggested adding a question stating, "What has the CBP done in the last five years?" Information could be provided in a bulleted format highlighting some of the accomplishments, such as water quality monitoring of 95 sites, compilation of data on the web, etc. Ms. Spaulding advised that a brochure has been prepared that will be provided to legislators. The brochure was created through the STC and will also be available during the open houses. The *Drops of Water* August edition includes an article on the CBP as well. Mr. Wiltzius suggested providing copies of those publications at the table.

Ms. Spaulding noted that the FAQ will be reduced to five or six questions. Members suggested merging some of the questions.

Cindy Burton recommended adding, "What does the Chehalis Basin Partnership do?"

Members discussed the option of including information on different partners contributing to improving the watershed by providing information on the resources that are available through the CBP. It would be a good way to provide information and to encourage people to become involved.

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Continued Discussion on Water Quality Monitoring Program and Funding

Ms. Spaulding reported funding for water quality monitoring and collection ended June 30, 2009. The Tribe agreed to continue sampling through the end of December. At this point, there are no plans underway to apply for a new grant to fund the program. The grant also funds the GIS Clearinghouse. Because the GIS program at the college is being eliminated, Mr. Kodandapani and Joel Green are leaving at the end of the month. The grant also funds some of Mr. Loft's time. The grant contract ends on December 30, 2009. The issue is whether the Tribe will share the data they collect from now until the end of December 2009. The contract to the Tribe is \$75,000. The total budget is \$245,000, which paid for some of Mr. Loft's time for analysis, Mr. Green's time to oversee the Water Quality Monitoring Program, and payment to the Tribe to collect and analyze samples.

Dave Jarzynka commented on the importance of continuing the program, because of progress to date. Mr. Wiltzius suggested an option of asking CBP members to contribute in the short-term to continue funding.

Mr. Loft responded to a question on the location of the water quality monitoring sites and indicated site coordinates for all the sites have been identified.

Ms. Prest asked whether the sites could be subdivided into different land use areas, such as sites located near dairy operations or industrial sites that could be sponsored. Mr. Wiltzius commented on the possibility of cities and counties contributing. Ms. Prest said her agency provides some grant funding for sampling. There might be a possibility of securing a grant for \$5,000. She offered to provide a copy of the grant application to Ms. Spaulding.

Mr. Wiltzius commented on the need for an official call for funding during the CBP meeting. He indicated he could include some funds as a placeholder within his respective department's budget. However, the CBP should issue an official call for funding support.

Jarzynka suggested considering sponsorship of individual sites as well as funding from cities and the counties. Businesses could sponsor sites located near its respective site along the river.

Discussion followed on different alternatives to continue the monitoring and analysis by either the Tribe or the cities, possible funding through DOE through other funding appropriations because of access and future use of data, and acknowledgement of the different partners that are completing the work through in-kind support with minimal financial support.

Mr. Rounry reported on three workshops for the annual water quality financial assistance grant program through DOE. There are fewer funds available for sampling, but if a sampling project is complemented by an effort on source identification or targeting a specific area experiencing water quality problems, those situations have some opportunities for funding. He suggested information developed by Mr. Loft and Mr. Green is a good translation of the data into information that could be shared with the Partnership and others to raise awareness. The discussion on the future of the water quality monitoring program should occur in tandem with the presentation on how the data has been translated into information so that people can gain an understanding of the value of the program as well as beginning to see how they can use the information. There are other resource agencies, such as the conservation districts, State Department of Agriculture, or DOE that could receive a presentation. Follow up is needed.

Mr. Loft commented on his intent of having the map available because the website provides the user with the option of clicking on the icon and pulling up records. Any record can be attached to a particular site so the user can extract information. That's the main objective of the program.

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Ms. Prest offered to provide data on active dairy sites within the Chehalis River basin. Ms. Prest said she's interested in water quality data near active dairy sites because it could influence the department's work with dairy farmers.

Mr. Loft commented on his objective to continue work on defining flow basins. The work is very time consuming and it would be beneficial to define specific areas of more research to maximize the efficiency of his time pertaining to the work.

Ms. Spaulding reported the website address for the GIS Clearinghouse is www.gis.ghc.edu. The site is accessible to all internet users. Currently, the college houses the computer server for the GIS Clearinghouse at the Satsop Industrial Park. The college is paying for the annual cost and it's likely that sponsorship will not continue after the end of this year. Mr. Loft said he's discussed the possibility of managing the database until December.

Grant Funding Opportunities

Mr. Rountry reported on funding opportunities for ongoing monitoring or in combination with a larger project for source identification and technical assistance to a neighborhood to reconcile a particular water quality concern identified by data analysis. The application cycle opens September 1, 2009 and closes December 1, 2009, for fiscal year 2011 funding through DOE for the Washington State Pollution Control Revolving Fund, Centennial Clean Water Program, Clean Water Act Section 319 Nonpoint Source Fund, and the Stormwater Retrofit and Low Impact Development Grant Program. Workshops are scheduled on September 15 in Spokane, September 16 in central Washington, September 23 in Tacoma, and September 29 in Everett.

DVD of WQC April Workshop

Mr. Rountry referred to the progress review workshop on water quality protection, implementation, outreach, and support/technical assistance completed by various partners contributing to water quality protection and restoration throughout the Chehalis basin. Approximately 28 people attended with 24 presentations provided during the workshop. Attendees discussed how to move forward with the information because groups are often asked through different networks about the status of the work or asked whether there is an accountability of funding that's been allocated. A DOE staff member packaged the presentation information into a DVD, with the goal to distribute the DVD to partners, legislative staffers, and others to provide information on what activities are underway to protect water quality within the basin.

Mr. Rountry reviewed information contained in the DVD and asked members to review the information and provide feedback. Mr. Loft, Ms. Spaulding, and Ms. Prest volunteered to review the DVD and provide feedback by the end of August.

EPA Success Stories

Mr. Rountry said EPA has contracted with Tchrtech, to assemble nationwide success stories of TMDL implementation activities that have improved water quality. Of particular interest are successes achieved through non-point implementation work. Mr. Rountry said he's provided a draft success story that's under a third review with Tchrtech verifying the data through DOE's EIM database. The most recent information included in the document occurred in 2004. EPA is requesting more current information. EPA is also seeking budget information to show what Section 319 grants are associated with improvements in water quality. He noted that only 3% of the funds are for nonpoint sources. More funding is needed and decision-makers need to hear the message that more funding is needed for nonpoint implementation activities.

Mr. Rountry shared information on a meeting between DOE and representatives from American Rivers regarding water resource conditions in three rivers within the state, one of which includes the Chehalis River.

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Ms. Spaulding provided a live demonstration of the GIS Clearinghouse application.

Members discussed ongoing funding needs and how to present the information to the Partnership. Mr. Loft said Mr. Green is providing a report to the Partnership on the state of the river. Mr. Wiltzius suggested including information at the end of that presentation about the end of funding for the program and that the committee is requesting the Partnership consider funding to continue the program. Ms. Spaulding said she'll add the discussion to the Partnership's agenda.

Next Meeting

The next meeting of the committee is scheduled on September 10, 2009. Members discussed potential agenda topics and agreed to a tentative agenda including:

- Possible tour of Centralia's catch basin retrofit project with business meeting following at the Utilities Conference Room
- Include an update on Stream Team activities – visit site of China Creek project
- Update on the Chehalis Basin Watershed Festival scheduled for September 19 from 10:00 a.m. to 4:00 p.m. at Morris Riverfront Park in Aberdeen. Mr. Wiltzius recommended providing water quality maps at the Partnership's table during the festival.

Mr. Jarzynka offered to host a meeting at Briggs Nursery in the fall for either the November or the December meeting.

Mr. Rountry referred to a recent release of information involving stormwater treatment through the use of mushroom matting to contain and filter pollutants in Mason County. It might be a project the committee could review at a future meeting. The treatment process has undertaken several levels of environmental review. It's been tested and implemented effectively at different sites. A DVD is available on one of the workshop presentations. Mr. Wiltzius suggested inviting a Mason County representative to a future meeting to discuss the project.

Mr. Wiltzius inquired about the status of a work plan or expectations from the committee for next year. Ms. Spaulding said she's involved in the overall work plan of the Partnership. Mr. Wiltzius suggested addressing the development of the work plan either with the STC or with the Partnership.

Adjournment

With there being no further business, the meeting was adjourned at 11:43 a.m.

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