

**CHEHALIS BASIN PARTNERSHIP  
WATER QUALITY COMMITTEE  
Washington State Department of Ecology  
Lacey, WA  
April 17, 2009  
9:00 AM**

**Meeting Summary**

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**MEMBERS & GUESTS PRESENT**

Bob Amrine, Lewis County Conservation District	Kim Ashmore, City of Centralia
David Rountry, Department of Ecology (DOE)	Patrick Wiltzius, City of Chehalis
Cindy Burton, US Department of Agriculture	Sue Davis, Thurston County
Eric Erler, Capitol Land Trust	Don Loft, The Evergreen State College/Grays Harbor College
Ann Wick, Washington State Department of Agriculture	Randy Lewis, City of Westport
Kathy Jacobson, Chehalis Basin Education Consortium	Joel Green, Grays Harbor College
Teri Franklin, Citizen, Grays Harbor County	Heather Saunders, Thurston County
Janel Spaulding, Chehalis Basin Partnership	Doug Wangen, Lewis County Health Dept.
Ron Schillinger, City of Montesano	Harry Pickernell, Confederated Tribes of the Chehalis Reservation
Valerie Gow, Puget Sound Meeting Services	Lydia Wagner, DOE
Tonnie Cummings, DOE	Kim McKee, DOE
Dustin Bilhimer, DOE	
Janet Strong, Chehalis River Basin Land Trust	

**Welcome & Introductions**

Chair Patrick Wiltzius called the April 17, 2009, Chehalis Basin Partnership (CBP) Water Quality Committee Progress Review Workshop meeting to order at 9:10 a.m. Everyone present provided self-introductions.

Dave Rountry reported the meeting is the second progress review of implementation activities for water quality protection efforts occurring throughout the Chehalis River basin. There is an ongoing responsibility for the Department of Ecology (DOE) and others involved in efforts to improve water quality within the basin to track and document efforts. The information will be used to inform ongoing planning efforts for adaptive management. Additionally, the effort is at the point of being able to integrate a view of water quality data with implementation activities. Up to this point, both activities have been viewed separately and in a piecemeal fashion. The value and the opportunity of the information lies in the ability to make informed decisions on where to prioritize future resources.

Mr. Rountry referred participants to a copy identified as "Table 2," which is a description of the entity, pollution source, action, status/schedule, and funding source. The format is a tracking tool from the Total Maximum Daily Loads (TMDL) Cleanup Plan for improving dissolved oxygen, bacteria, and temperature conditions throughout the basin. The information obtained during the review will be used to update the table for activities directly linked to the TMDLs.

The first progress review revealed a tremendous amount of water quality work occurring by volunteer and nonprofit organizations that wasn't identified in the Water Cleanup Plan. No expectation or description was formulated for tracking that work in the original table.

The second format for recording implementation activities is a narrative of the first progress review.

Mr. Rountry expressed appreciation to participants for the work they've completed and for taking the time to attend and present information on specific projects.

Mr. Rountry described his involvement in the water quality/protection planning for TMDL efforts in the Southwest Regional Office of DOE.

## **PRESENTATIONS**

### ***Capitol Land Trust – Eric Erler***

Mr. Erler, Director, Capitol Land Trust, reported the organization has been working within the basin over the last 20 years beginning with the Black River watershed. The work is guided by a new strategic plan, adopted last year, which identifies conservation goals in the organization's area of focus. Efforts have been concentrated on marine shorelines and estuarine habitat in partnership with many other agencies and organizations. The organization has conserved more than 10 miles of Puget Sound shorelines as well as focusing on wetlands, riparian areas, and upland forested areas within numerous watersheds in southwest Washington. The plan identifies conservation of working lands as one of the organization's priorities. That's important because working lands and their conservation are essential for connectivity across the landscape and because often working lands and landowners are the people who have preserved the property and who are critical allies in the work.

As the organization has grown, the ability has expanded to address more complicated projects because more resources are available.

Mr. Erler presented a picture of the Gordon Farm, located south of Elma. Jay Gordon is the Executive Director of the Washington State Dairy Federation. The organization completed two conservation easements on the Gordon farm. The property is a 600-acre farm along the Chehalis River. Mr. Gordon and Martha Jordan, who is with the Trumpeter Swan Society, approached the organization and requested assistance in pursuing the easements. The conservation easements are the first for the Land Trust and were necessitated by the removal of the Elwa Dam and the flooding of Trumpeter swan habitat on the Elwa, which is prime roosting habitat in western Washington. The farm is a working farm and the Gordons are converting the entire farm to an organic operation, a major undertaking. Different kinds of food crops are grown on the farm.

Mr. Erler presented a photo of one of the wetland areas used by swans. There are extensive open water wetlands located on the property. Mr. Gordon can predict to the day when the swans will arrive and leave for the year. Swans typically feed on the farm and neighboring farms during the day.

At the turn of the 20<sup>th</sup> century, an assessment was completed documenting the population of Trumpeter swans at 100 swans within the continental United States. Ms. Jordan has worked across the country to further efforts to protect Trumpeter swans.

Mr. Erler referred to Mr. Gordon's efforts for conservation and who represents farmers who are likely not supportive of encumbering their properties for conservation. Mr. Gordon understands the benefits of conservation as well as advocating for working farmers.

The property is used by many other bird species as well.

The first conservation easement completed by the Land Trust was in 1989 in the Black River watershed on a donated 120-acre conservation easement. A number of groups continue to work in the Black River

watershed over the last several decades involving the Land Trust, US Fish and Wildlife Service, Chehalis River Basin Land Trust, Washington Department of Fish and Wildlife (WDFW), and Thurston County.

Mr. Erler displayed a map of the Black River watershed showing the areas of focus by the agencies and organizations. He pointed out the area of the US Fish and Wildlife Service Refuge, Mima Mounds preserved by the Department of Natural Resources (DNR), the Berquist property, Chehalis River Basin Land Trust properties, Glacier Heritage Preserve owned by Thurston County, and the Maytown site partially owned by the Port of Tacoma. Capitol Land Trust and several other partners and state agencies worked for approximately 18 months and were instrumental in segregating the north section of the Maytown site, which was purchased by WDFW for prairie habitat. The remaining portion of the property involved an agreement allowing limited mining on the property. Unfortunately, the Port of Tacoma purchased the property for its planned logistics center. The logistics center would have included much impervious surface and 24-hour operations involving noise, traffic, and trains. However, because of the economy and the efforts of Friends of Rocky Prairie, the Port of Tacoma decided not to pursue the construction of the logistics center. Capitol Land Trust has become involved reluctantly because of the politics, to determine a solution for conserving the property. It's highly unlikely the remaining property of 700 acres can be purchased by any of the entities at the cost of \$25 million. The Land Trust is working with the Port of Tacoma and perspective buyers who have bids on the property, as well as with Thurston County and other groups to determine a way to preserve the land.

Mr. Erler referred to an area called the Tilley wetland complex. Capitol Land Trust has been working over the last several years to acquire the remaining property through a variety of means. The 240-acre section is immediately adjacent to the Aldridge property owned by DNR. The Trust has been working with the Legislature to have the property transferred to WDFW in either fee simple or a long-term lease through the Trust Land Transfer Program. The Trust is also working with a number of partners to acquire 300 acres on each side. If successful, it will create another 600-acre wetland complex critical for the Black Lake and Chehalis basin in terms of the amount of water filtered and the habitat. The Tenino elk herd is frequently present on the property.

Mr. Erler referred to a 2,000-acre property in the Black River watershed that the Trust is attempting to purchase using Forest Legacy funding in partnership with DNR. The project was ranked as the number one project in the state for fiscal years 2009 and 2010. However, securing federal funds from Congress is a significant challenge. Meetings were held with key federal legislators, state legislators, and the Commissioner of Public Lands to pursue federal funding. However, those efforts have been unsuccessful to date because Congress is not funding projects in today's economy. Previously, a project ranked as the state's top forest legacy project would have been funded. Efforts continue however, and the goal is to acquire the property and maintain long-term timber production.

In partnership with the Nature Conservancy, the Trust is working to create a 5,500-acre corridor from Capitol Forest to Scatter Creek.

Mr. Erler displayed photographs of Decker Creek located on the east fork of the Satsop River. The area is prime salmon habitat with an incredible wetland system at the foothills of the Olympics. Efforts have been ongoing over the last three years. The final stage is nearing with the Trust working with Green Diamond Resource Company.

Mr. Erler said the Trust will likely propose during the current Salmon Recovery Funding Board (SRFB) funding round an assessment to identify parcel level priority sites of the tributaries to the Chehalis River. The goal is partnering with the Chehalis River Basin Land Trust and the Cascade Land Conservancy and

begin with tributaries prioritized through other actions and plans to identify the most strategically important sites within them to direct future work.

***Chehalis River Council – Janet Strong***

Ms. Strong reported the Chehalis River Council produces and publishes the *Drops of Water* newsletter. The newsletter is distributed in three major newspapers within the Chehalis basin. Temporary funding has been secured from the U.S. Fish and Wildlife Service for publishing the newsletter.

The Chehalis River Council is dedicated to the protection of all natural resources within the Chehalis River basin. It began its focus on water quality, but broadened its area of interest. Several members of the Council teach as well as undertake water quality testing and monitoring on many of the subbasins and the river. They produce data and teach students and adults on water quality monitoring methods. The council participates in most of the restoration events and provides comments on State Environmental Policy Act (SEPA) documents for various projects primarily within Lewis County and also in Grays Harbor County to ensure issues are addressed to protect water quality. The Council's office includes a library and a website located at [www.crcwater.org](http://www.crcwater.org)

The Council participates in the Chehalis Basin Watershed Festival, the Student Congress, and other basin events relating to water quality.

***Chehalis River Basin Land Trust – Janet Strong***

Ms. Strong distributed a list of water quality achievements from October 2007 through March 2009. The Trust works with many partners on projects.

The Trust is near finalization of a memorandum of understanding with the Grays Harbor Audubon Society to protect the Society's holdings of approximately 3,000 acres purchased over the last 10 years. The donor wants an additional layer of protection for the land. The project is ongoing.

The Trust and the Society have adopted two WDFW boat launches under the department's Adopt an Access program, which involves removal of trash periodically.

The Trust funded a \$1,000 grant to Chehalis River Council for its work with the Boistfort Elementary School's restoration project on the south fork of the Chehalis River. The Trust and The Evergreen State College students helped on planting day, along with CRC members. The grant will also help establish a small greenhouse at the school to raise native plants.

The Trust received a gift of 9.6 acres on the Chehalis River within the boundaries of the Confederated Tribes of the Chehalis Reservation. Subsequently, the Trust donated the land to the Tribe, who has placed the land in a conservation status category in perpetuity.

The Trust continues working with the Chehalis Basin Education Consortium and others at the Chehalis River Discovery Trail, Riverside and Boris Parks in Centralia, on six acres owned on the Black River, at Boistfort Valley Farm on the south fork of the Chehalis River, and at other locations. All the projects involve students within the basin, who have very good experiences. Teachers comment on the impact the experience has on the students. The Boistfort Valley Farm received a restoration grant on the south fork of the Chehalis River, which will also involve students. The farm is contributing a large piece of property along the river that will be restored to natural riparian forest.

Recently, the Trust joined others in the formation of the Centralia Stream Team, with an initial cleanup and restoration project of China Creek in downtown Centralia.

The Trust's most ambitious project involves a partnership with Cascade Land Conservancy and Grays Harbor Audubon Society on an acquisition project to purchase 1,344 acres of the Hoquiam River surge plain north of the City of Hoquiam. The property is forest and wetlands lying along 10 river miles of both major forks and one minor fork of the river. The property is intact and provides tremendous fish and wildlife habitat as well as protecting water quality of the Hoquiam River and Grays Harbor, 2.5 miles downstream. Ms. Strong distributed maps of the surge plain. Funding has been obtained for the west fork through the SRFB and US Fish and Wildlife Service Coastal Wetlands Protection Program and also from a private funding source. The Trust received commitments for the funds and closed the property on the entire west fork, encompassing five river miles and over 714 acres along US 101. The next project within the surge plain includes 635 acres encompassing another five river miles with approximately 1.5 miles on both sides of the river. Grays Harbor Audubon Society is a partner in the endeavor. Cascade Land Conservancy is the main partner and is providing technical and negotiating expertise to help secure the property. Surge plains provide tremendous habitat diversity and fish habitat. The combined effort will protect approximately 85% of the remaining surge plain on the Hoquiam River.

Ms. Strong distributed pamphlets of the Chehalis Discovery Trail, which is owned by the City of Centralia. The Trust is working on a conservation easement of a 200-foot buffer along the river on a 350-acre farm. The location is across from another area with a conservation easement of mature riparian forest.

Ms. Strong answered questions on land ownership involving the surge plain properties. Rainier owns 90% of the property and Green Diamond owns a smaller piece.

***Chehalis Basin Education Consortium (CBEC) – Kathy Jacobson***

Kathy Jacobson reported the CBEC is a watershed education program similar to the Nisqually Education Project and South Sound Green. CBEC was initiated with the help of DOE approximately 10 years ago. The organization is a consortium of school districts and natural resource agencies. Funding is received from US Fish and Wildlife Service, WDFW, and the Community Salmon Fund. The CBEC also works with the Chehalis River Council, Chehalis River Basin Land Trust, and other agencies within the watershed. The primary purpose of the project is supporting stewardship of the Chehalis watershed through environmental education by linking Washington's learning goals and standards to environmental issues that are part of the watershed. Additionally, the program aims to provide related professional development and enrichment opportunities for teachers. A major component of the consortium is water quality monitoring. Typically, 30 to 40 teachers monitor local streams, creeks, and the main stem of the Chehalis River throughout the watershed. Teachers represent numerous school districts. Approximately 1,500 students are involved in monitoring. Funding pays for testing equipment, transportation, and supplies. Water monitoring involves testing with chemicals and equipment.

Another large component of the program involves tree plantings by students during all types of weather. Funding from the Community Salmon Fund provided plant materials for the DNR project site at Elk River and another site near Grays Harbor College.

Participating students are encouraged to pick up debris during their plantings and water quality monitoring activities. Hundreds of bags of debris have been collected throughout the years. Boat launches tend to become dumping grounds for many items. Ms. Jacobson displayed several photos of various debris collection sites.

Another component of the program is exposing students to the environment in which they live. Field studies are scheduled along the Chehalis River Discovery Trail involving 10 classes of students in May. Each student receives a copy of a guide to help students identify various plants and animals of the trail system and ways riparian corridors protect salmon habitat.

On March 27, 2009, the eighth Annual Chehalis Basin Student Congress was held at Grays Harbor College. A big component is students attending who are prepared to locate monitoring sites and identify water quality samples that are not within optimal range. Students provide recommendations for improving water quality. The congress includes sessions with facilitators, entertainment, and afternoon hands-on workshops. Students issued a proclamation on a list of actions they believe they can participate in to protect water quality within the basin. The actions will be used to guide the work during the next year.

The consortium works with DOE to provide Project WET (Water Education for Teachers) to teachers to help them with curriculum on water quality. Rhonda Hunter is the department's key contact for the program. Other curriculum includes Healthy Water Healthy People. A teacher's guide was developed listing some water quality activities teachers can promote.

The grant awarded to the consortium from the Pioneers in Conservation, links farmers with water quality. Two farms involved in the project include Boistfort Valley Farm and a new farm, Growing Places Farm & Energy Park, created by Danielle Craig and John Smith. Funding will help provide plant material and bus transportation for students.

Ms. Jacobson referred to a new program through DOE called Cool School Challenge. She recently participated in training. Teachers have been trained to make the link between climate change and water quality. She distributed some posters on the program. Participating students review personal energy uses, trash consumption, heating use, and ways to reduce their carbon footprint.

Ann Wick advised that the Department of Agriculture has a pesticide disposal program if students find containers of pesticides during debris cleanup events.

***Lewis County Conservation District – Bob Amrine***

Bob Amrine reviewed the District's Conservation Reserve Enhancement Program (CREP), which leases property along streams and rivers to protect and improve fish habitat. The District provides technical assistance. Since October 2007 through April 2009, six contracts were secured with 58.9 acres planted with native trees and shrubs.

Eleven conservation plans have been developed and approved totaling 531.5 acres. The District provides resources to help farmers comply with ordinances and state water quality requirements. The District also provides cost share services. Approximately 17 practices have been submitted or implemented for nutrient management representing 412 acres and another 216 acres for cover crops to provide protection from erosion on fields along the south fork of the Chehalis River. The District replaced two fish blockages opening up approximately five miles of habitat to anadromous fish species.

Since December 2007, the District spent time on the flood event by expending over \$500,000 to assist farmers affected by the flood. Most of the funds were targeted for debris removal, field reshaping, and perimeter fencing.

Within the last month, the District has agreed to assist with irrigation because many of the farm irrigation systems along the river were devastated during the flood. The District has contracted for \$200,000 for the effort. After the 2009 flood event, other districts attempted to secure some funds from the 2007 flood. The District hasn't expended any funds to assist farmers with the 2009 event, but continues to concentrate on the 2007 flood event.

Mr. Amrine responded to questions about the District's operating budget. He noted the Quinault Indian Nation has contracted with the District for culvert survey work from now until June 2010. The District is primarily funded through grants. Much of the work occurs in the Cowlitz basin as well as other adjacent counties.

Mr. Rountry said District staff provided survey and field reconnaissance work for a fencing and planting project in Grays Harbor County.

***Thurston Conservation District – Dave Rountry***

Mr. Rountry provided a map and an update on projects and activities completed by the Thurston Conservation District through 2007 within the Chehalis basin.

Mr. Rountry said activities by organizations and agencies are reviewed by legislators, federal agencies, citizens, and others. The Environmental Protection Agency (EPA) monitors each state's water quality program because of the Clean Water Act. EPA often showcases success stories.

Ms. Strong asked about the distribution of workshop presentations to various agencies. Mr. Rountry indicated he hasn't previously forwarded the information, but it's something the Water Quality Committee should discuss because what hasn't been done to this point is to make the best use of the information. The information is definitely underutilized.

Mr. Rountry shared information from the EPA regarding the routine water quality assessment process DOE undertakes in tracking conditions statewide on water quality health. Category 1 meets standards with Category 5 requiring a TMDL study. Through the assessment process, DOE's Region 10 Office in Seattle recommended redesignating two sections in the Chehalis system from Category 4A (TMDL required) to Category 1 (meeting standards). One site is located at Prather Road where it crosses the Chehalis River downstream from the Centralia Treatment Plant. It meets standards consistently for fecal coliform bacteria. The other site is located near the bend in the river near the inner harbor near the Log Pavilion in Aberdeen, which is also identified as meeting standards for bacteria. EPA hired a contractor to write and publish nationwide success stories. Mr. Rountry said he was asked to document the implementation activities leading to the improvements. He followed up with the Thurston Conservation District regarding the sites. The District's representative provided information on the practices that were applied to sites in the area of the two improved areas. He recognized Thurston Conservation District and its work, as well as the landowners who made the investments leading to water quality improvements.

***US Department of Agriculture – Cindy Burton***

Cindy Burton reported USDA Natural Resources Conservation Service works closely with conservation districts and undertakes similar work. She distributed a table listing implementation activities. The department works with many landowners involving cost share programs with a 50/50 split. She shared information on the types of projects, pollution source, and action by the department:

- Animal/Livestock Waste – Comprehensive Nutrient Management Plans and Livestock Conservation Plans

- Agrichemicals – Cropland Conservation Plans implemented to treat water quality concerns
- Soil Erosion – Forestry Conservation Plans implemented to treat soil erosion problems for water quality concerns
- Forestry Practices – Forestry and Wetland Conservation Plans implemented to treat forest health concerns following the blowdown from December 2007 windstorm, and riparian habitat concerns
- Wetland Enhancement and Restoration – Wetland and Wildlife habitat on agricultural lands Conservation Plans to enhance and/or restore wetland functions

Ms. Burton said that typically, the department doesn't share information on activities because of privacy issues associated with the landowner.

***East Grays Harbor County – Teri Franklin***

Teri Franklin reported she's been dealing with a timber company for the last two years concerning the company's violations of forest practices, ecology rules, and other violations. In 2008, the company agreed to restore some wetlands that were damaged. Currently, the company is planting the wetland border. She noted that it's possible for a citizen to make a difference through persistence and perseverance.

Mr. Rounry shared information from organizations who submitted written information because of schedule conflicts:

***Briggs Nursery - David Jarzynka***

Briggs Nursery is located near the shoreline of the Chehalis River near Porter. Briggs Nursery is very supportive of the efforts to improve water quality conditions along the Chehalis River. Some actions undertaken by the nursery over the last 18 months to protect the watershed include:

1. Reduced the use of liquid fertilizer by 50%. Fertilizer used by the nursery is a long-term, slow release fertilizer allowing more nutrients to the plants and less leaching into the environment.
2. The nursery has spent more hours hand weeding crops and uses less herbicide.
3. The nursery is no longer farming near the river and consequently alders and cottonwood trees have naturally developed. The nursery is planting sequoia trees within 100 feet of the river's edge.
4. The nursery is no longer using harsh chemicals to disinfect flower pots.

***Chehalis Basin Partnership/Grays Harbor College – Janel Spaulding***

Janel Spaulding, Watershed Coordinator, Chehalis Basin Partnership, shared several photos of recent restoration projects within the basin. One project involved planting 1,000 trees at the Straddleline ORV Park during two Saturdays. Over 30 volunteers participated in both events. A group of seventh and eighth grade students from McCleary Middle School also participated.

Another tree planting was in the vicinity of Alder Creek and Nice Creek at Grays Harbor College.

Lonnie Crumley completed a restoration project along the Mox Chehalis Creek involving the removal of reed canary grass. Gravel was added along the bank.

Ms. Spaulding shared photos of the tree planting events.

Ms. Spaulding presented the Chehalis Watershed Pledge, created by two AmeriCorps volunteers from Grays Harbor College last year. The pledge has been updated and reprinted with support from the Confederated Tribes of the Chehalis Reservation, DOE, and Grays Harbor County. The pledge includes information and steps individuals can do to improve and protect the environment and water quality. She urged participants to sign the pledge and participate in protecting water quality.

The Chehalis Watershed Festival is scheduled on Saturday, September 19, at Morrison Riverfront Park in Aberdeen. Everyone was invited to attend.

Ms. Spaulding displayed a Chehalis River basin map produced by Don Loft. Each participant received a copy of the map. The map has been recently updated. Don Loft credited Randy Lehr for initiating the development of the watershed map.

Ms. Spaulding reported on the development of the Centralia Stream Team with the assistance of Kim Ashmore. The effort involves working with the City of Centralia, Chehalis River Council, citizens, and various groups on establishing a stream team in Centralia. The first project is located on China Creek. The cleanup is scheduled on Saturday, May 2, to remove debris, blackberry vines, weeds, and garbage. Recently, a grant application for \$12,500 was awarded by DOE under the Terry Husseman Grant program. Another cleanup is scheduled in the fall. The team will develop some signage and outreach/educational materials, as well as complete a riparian planting. The team received funding for the first stream team project.

Mr. Ashmore described how the stream team effort was initiated. Last October, a photo in the front page of the *Chronicle* newspaper featured a man dumping a bucket of motor oil in China Creek. The City was able to clean up the site, which led to some discussions with Ms. Spaulding and Kahle Jennings about the opportunity to create a stream team for the area. The first organizing meeting was held in December 2008 with monthly meetings following. There are many participants in the effort. Mr. Ashmore said he and Ms. Spaulding are the co-leads for the team. The long-term goal is expanding into a Lewis County Stream Team.

#### ***City of Centralia – Kim Ashmore***

Mr. Ashmore reported on the City's stormwater Phase 2 Permit. Currently, the City is working on a project funded by DOE involving an urban stormwater catch basin retrofit project. The project involved cleaning three stormwater subbasins in the City and conducting sampling during six to twelve storm events. Currently, five sampling events have been completed. One more is needed to meet the requirement at which point, the basins will be re-cleaned and catch basin filters installed for stormwater treatment. The filters range in price from several hundred to thousands of dollars. Samples will be submitted for testing to determine the range of contaminants. The goal is targeting main pollutants. Data and test results will provide information on the effectiveness of filters for removing different types of pollutants. The three subbasins are located on China Creek, which will help improve the creek. The sampling team includes eight crewmembers. After this rainy season, the City will release the results to inform citizens on what pollutants are being targeted. The next sampling should help determine whether the filters are removing the pollutants. Testing so far has revealed multiple sources of pollutants in each subbasin.

#### ***City of Chehalis – Patrick Wiltzius***

Mr. Wiltzius reported on the construction of the City's wastewater treatment plant several years ago in response to a TMDL study. The plant has been in operation for several years and is performing significantly better than the old treatment plant. As part of the plant's requirements, no discharge to the

river is permitted when flows are less than 1,000 cubic feet per second (cfs), which typically occurs from April to December. When not discharged to the river, treated water is applied to a 250-acre poplar tree farm, which was established in 2003. The farm includes approximately 40,000 trees. Last year was the first year irrigation was required. From May through November, approximately 210 million gallons of treated water was applied. Recently, the tree farm was pruned. The City of Centralia is using the pruned materials for its composting project.

The City is replacing wastewater outfalls into the Chehalis River, which will include diffusers and other features to meet existing zoning standards. The outfalls will also meet dry weather standards if it's determined treated water is more valuable for discharging into the river.

Mr. Wiltzius reported on the City of Tenino's efforts to construct a new wastewater treatment plant that will also include a reclaimed water component for use as groundwater recharge and other various industrial uses. The plant will connect approximately 650 users who are currently on septic systems. The plant should be operational by November 2009.

Mr. Wiltzius responded to questions on reclaimed water uses. Use of reclaimed water is based on agronomic uses. Reclaimed water is available in different classes. Class C can only be applied at agronomic rates where Class A reclaimed water is high quality that can be discharged directly. Because of flooding occurring to the poplar tree farm, the City cannot use reclaimed water 100% for agronomic uses but applies it to the trees. The farm includes five groundwater monitoring wells monitored since 2003. There has been an improvement in groundwater quality since the use of reclaimed water.

***Thurston County Environmental Health Division – Sue Davis***

Sue Davis, Thurston County Health Department, provided a matrix of water quality monitoring results for the Chehalis basin. The department performs surface water quality monitoring at 10 rivers and tributary sample sites on a monthly basis. Sampling results confirm that the Chehalis River is meeting water quality standards for fecal coliform.

Thurston County has a non-point source ordinance involving agriculture activities impacting water quality. Best management practices should be in place to prevent water pollution to both groundwater and surface water. There have been a number of cases within the Chehalis and Black River basins that the county is working on to help the landowner comply through the implementation of best management practices. One of the first steps is advising the landowner about the assistance available through conservation districts to obtain technical assistance to change practices.

Heather Saunders, Thurston County Health Department, reported the county is conducting groundwater monitoring in the Scatter Creek basin. The county has worked in the area since 1984 and can provide historical data. Based on the availability of funding, the county applied for a grant for modeling and a review of land use practices. The county was unsuccessful in obtaining the grant. However, the county is continuing some work involving nitrates. The county is monitoring 34 wells in the area on a quarterly basis.

Ms. Saunders commented on results in reducing nitrate levels by a landowner's application of best management practices. She pointed to the benefits of having a non-point ordinance as an enforcement tool to change management practices. The results are revealed in the quarterly monitoring samples.

Ms. Saunders referred to the high number of individual family wells in the south county area (from Tenino to Grand Mound/Rochester) and the goal of pursuing more policies to control nitrate levels. Ms.

Davis added that sampling for nitrates must occur routinely to avoid missing big spikes in levels. Additionally, the aquifer in that area experiences levels of bacteria contamination.

***Grays Harbor College – Joel Green***

Joel Green, Natural Resources Instructor, Grays Harbor College, reported on the work begun by his predecessor, Randy Lehr. He is also working with Don Loft with The Evergreen State College (TESC) and Harry Pickernell with the Confederated Tribes of the Chehalis Reservation. The Water Quality Monitoring project includes a series of monitoring sites, some of which have been monitored by Thurston County since the 1990s. In 2006, the Chehalis Tribe began monitoring activities. Grays Harbor College obtained a grant from DOE to continue the work and complete analysis of water quality trends. Partners include Grays Harbor College, Chehalis Tribe, Chehalis Basin Partnership, and DOE. The Tribe is collecting samples from 95 monitoring sites located throughout the basin. Initial analysis completed a year ago resulted in data showing water quality as a whole in site-specific averages relative to state standards.

Mr. Green said a more stringent standard was applied for temperature, dissolved oxygen, turbidity, pH, and fecal coliform. As a first pass, the overall water quality data revealed that the percentage of time the samples didn't comply with the high standards ranged from 19% to 56%. The percentage of time in noncompliance with the lower standard was 12% to 34%. At that time, 84 sites were monitored.

Water quality was examined by month for temperature. There were some instances with temperature exceeded standards in October. Generally, sites most commonly not meeting standards in October, met the standards in March.

More recent work includes looking at the effects of land use on water quality. An example of a specific event was considered. Logging roads can lead to sedimentation as well as logging activities or clear cutting, especially in the areas of unstable slopes, which can also cause landslides. After the December 2007 storm, a substantial number of landslides occurred. Analysis included reviewing the length of time for high turbidity after the storm. Some of the other issues under review include the relationship between high flow events and fecal coliform levels and investigation of specific sites that are problematic or need further investigation. Background levels for turbidity were graphed and examined from October 2006 to June 2008. However data for December 2007 are missing because of the high level of water, which prevented sampling activities. Turbidity levels at the Pe Ell site varied from a low in January 2007 with a higher level at the Adna site because of the inflow of the south fork of the Chehalis River.

Mr. Green reviewed sediment loads from the December 2007 storm and impacts to different creeks and streams. Most of the landslides were associated with clearcuts with some naturally occurring landslides because of the high level of rainfall during a short period of time. Mr. Green noted that timber companies and DNR are working closely to avoid logging in areas of unstable slopes.

Mr. Green commented that it took nearly four months for the samples to return to background levels for turbidity. Turbidity occurred further downstream rapidly after the storm. The delay in returning to background levels will have consequences for steelhead that spawn in the spring and juvenile salmonids, steelhead, Coho, and Chinook that are incubating within gravel. This is only one example of the effect of land use on water quality.

Don Loft, The Evergreen State College/Grays Harbor College, reported that in the data elevation model, it's possible to extract information on water flowing to specific points. The sample sites were selected as the point of interest in defining the flows to those points. Information is available on what is affecting

those sites, dependent upon the flow basin. The effort is very time-consuming, as it requires GIS tools and analysis to process the information. The result is data defining the watershed at specific points. Upstream, sampling reveals that water quality is better, but as it enters into one point within the watershed, something is contributing to the decreased level of water quality. The analysis provides the ability to target a range or area to investigate possible sources of the problem. The project at this point, is at that stage. Not all areas have been targeted or defined. It will take time to define all the areas.

Harry Pickernell, Confederated Tribes of the Chehalis Reservation, thanked the Tribe's field tech for obtaining the samples during all types of inclement weather.

Mr. Green reported he is working on developing a report for fiscal year 2008. The next project will be the report for fiscal year 2009.

Mr. Green was asked about the process for follow up on water quality parameters not meeting standards. Mr. Green said the effort to date has focused on the research aspect of the program. The entire process is the work of the Chehalis Basin Partnership, as a component of its Watershed Plan in coordination with DOE and the Tribe. Currently, there are no procedures in place for follow through. The goal is identifying problem areas that can be followed up in coordination with other organizations.

Ms. Jacobson said the Bowerman basin appears to have received much of the sedimentation from the storm. She asked whether any studies have been conducted or future studies planned for the area. Mr. Green said he's not aware of any studies at the Bowerman basin. Sediments gradually move downstream and deposit in the ocean over time.

***City of Westport – Randy Lewis***

Randy Lewis, City Administrator, City of Westport, reported on activities by the City. Over the last several years the City has focused on upgrades to its wastewater treatment plant. The plant discharges into Grays Harbor and Half Moon Bay. A significant event occurred after the storm in 2003. The City recently completed a series of upgrades primarily looking at redundancy and efficiency improvements. The system is an open ditch aeration system. The City has reworked the ditches, added systems, and expanded its composting system. The 2007 December event was similar to the 2003 event, which caused the problem. However, with the improvements, the City has been in compliance throughout the events occurring since the 2003 storm.

The City is now focusing on identifying and removing infiltration areas, such as inflow and infiltration (I&I) problems to reduce the impacts on discharge. Another issue is Winter Creek drainage. Septic tanks located south of the City are affecting the area. Recently, efforts were spearheaded to meet with Grays Harbor County to ascertain and account for monitoring currently underway to coordinate those efforts as well as mapping potential solutions. A large mobile home park was allowed to connect to the City's sewer system because the septic system failed. That action removed 48 units off septic systems. The City is seeking different opportunities for public education and coordination between entities to resolve those types of issues.

***City of Montesano – Ron Schillinger***

Ron Schillinger, Mayor, City of Montesano, said that for 20 years he was the City's forester. He referred to Mr. Green's presentation and clarified that not all landslides can be attributed to clear cutting, road building, or logging activities. When an area receives greater than four inches of rainfall in 24 hours on a steep slope, it doesn't make any difference whether the land is clear or forested. The ground becomes so saturated that landslides will occur regardless of land activity. Weather systems with combined rain and

wind can lead to forest landslides involving established forest with large trees. The same situation applies to roads. Outcomes are dependent on management practices. One of the major goals is ensuring active and sustainable agriculture and forest management.

The City of Montesano received a DOE award for meeting and exceeding discharge standards for its wastewater treatment plant. The City receives no outside sources of funding from the state or the federal government. Ratepayers pay the cost for providing cleaner water that is returned cleaner than existing river water. The City left buffers along the creek of approximately 100 feet on each side of any fishbearing stream. The buffers total 40 acres costing the City \$316,000.

The City is represented on the Chehalis River Flood Authority. Recently, the Authority contracted with a survey consultant to conduct a public survey. Over 2,000 phone calls were initiated to complete 600 surveys within the basin. One of the first questions was whether the participant was aware of the river basin in which they reside. The results reflected that only 30% of the survey participants were aware that they live within the Chehalis River basin. The survey is important as it reveals the understanding, knowledge, and the attitude of residents living within the basin.

The Chehalis Basin Watershed Festival has been extremely valuable and important. One feature of the festival is the water taste test. Last year, the City of Centralia won the contest. The City of Montesano plans to participate in this year's contest to claim first place.

Mr. Schillinger said the Flood Authority will be addressing land use regulations. Problems occur with development within floodplains and wetlands. However, not everyone agrees with a specific approach to the issue. Land use has a substantial impact on water quality. Much of the effort needs to be focused in that arena.

Mr. Schillinger said he would like to see stakeholders who provided a presentation participate at the watershed festival. He commented on the need to connect people with the natural environment through trail systems, as it's an important element of all stakeholder efforts. He noted that he's been walking along the river and is surprised at how much stream bank has been lost to the river. He questioned what the Partnership can do to work on stream bank protection.

***Lewis County – Doug Wangen***

Doug Wangen, Lewis County, reported he's been with the county for approximately 10 years. He commented on his efforts to obtain documentation on the county's efforts, but noted the county has reduced staff because of budget cuts.

***Department of Agriculture – Ann Wick***

Ann Wick, Department of Agriculture, said the department provided information on dairy inspections. There are no violations. The department works closely with farmers to ensure compliance.

Ms. Jacobson reported the consortium received a *No Child Left Inside* grant. The grant will enable children and their families to visit and participate in three state parks involving Rainbow Falls State Park, Millersylvania State Park, and Ocean City State Park. She invited members to submit their e-mail address if they want additional details about the events.

Mr. Ashmore commented on competition by all organizations and agencies competing for various grants. Some organizations are beginning to organize and meet on a regular basis to plan for submittal of grants to avoid over competition on available grants. He suggested the group should consider a similar process.

Ms. Spaulding shared information on an Education and Outreach Workshop on May 13 and May 20 at Montesano City Hall. She invited participants to attend. The workshops include a lunch and will be held from 10:00 a.m. to 2:00 p.m.

Mr. Loft recommended for those agencies undertaking restoration projects to consider mycoremediation, which is a fairly new technology and researched thoroughly by Paul Stamets, who has produced systems reducing fecal coliform from dairy farms and farms with livestock. Mycelium creates a network or web that helps to reinforce the ground to reduce erosion. It's a viable, natural, and an inexpensive method for remediation projects. Mr. Loft referred to Mr. Stamets' book for additional information on the subject.

Mr. Rountry reported on additional correspondence received from the City of Cosmopolis from Darrin Raines, Public Works/Community Development Director. The cities of Hoquiam, Cosmopolis, Aberdeen, and Westport have stormwater high-water ditches that drain to the Chehalis River. Those ditches were involved in a bacteria TMDL Study 10 to 12 years ago. There were actions and steps identified in the TMDL cleanup plans for each of the municipalities to prevent fecal coliform bacteria in stormwater inputs. The City of Cosmopolis continues to work on the issue.

In his correspondence, Mr. Raines shared that with the City's downtown corridor Phase 2 project, the City installed new sidewalks, street lighting, ADA accessible ramps, landscaping, nine new WSDOT Type 1 catch basins, and three WSDOT Type 2 catch basins. Some of the outfalls connecting the new catch basins to the 10-inch trunk lines were increased from four-inches to eight-inches. Additionally, the City installed ultra drain guard retainers in all Type 1 catch basins and in the Type 2 catch basins, allowed for more sifting of silt debris to help clean stormwater from Highway 101. The City was scheduled to begin Phase 3 of the project during the summer with the same number of catch basins. However, the State Transportation Improvement Board (TIB) pulled its match, which would have enabled the City to receive some federal funding. Phase 3 is on hold until 2010 or later pending additional funding sources.

### **Adjournment**

Chair Wiltzius expressed appreciation to everyone for attending and contributing information. With there being no further business, Chair Wiltzius adjourned the meeting at 12:12 p.m.