Portneuf Watershed Advisory Group
August 21, 2007

Group Memory

Snake River Conference Room, Pocatello Regional Office
Idaho Department of Environmental Quality

The Idaho Department of Environmental Quality Pocatello Regional Office hosted a meeting on Tuesday, August 21, 2007 in the Snake River Conference Room at the Regional Office located at 444 Hospital Way, Suite 300 in Pocatello, Idaho.

Meeting participants included the following voting members of the Portneuf Watershed Advisory Group: Kim Gower (JR Simplot Company), Jon Herrick (alternate, City of Pocatello), Brad Higginson (Caribou-Targhee National Forest), M. Keene Hueftle (Southeast Idaho Environmental Network), Jim Mende (Idaho Fish and Game [IDF&G]), John Sigler (City of Pocatello), and Candon Tanaka (Shoshone-Bannock Tribes).

The following non-voting members were also in attendance: Amy Jenkins (Idaho Association of Soil Conservation Districts), Greg Mladenka (Idaho Department of Environmental Quality [DEQ]), Andrew Ray (DEQ), Sue Skinner (US Environmental Protection Agency [EPA]), and Lynn Van Every (DEQ).

One visitor attended: Doug Anderson (Hoku Materials).

Members who were absent from the meeting included: Larry Ghan (alternate, Bannock County Commission), Wilder Hatch (Caribou County Soil Conservation District), Kevin Koester (Portneuf Soil and Water Conservation District), Hannah Sanger (Portneuf Greenway Foundation), Roger Thompson (Southeast Idaho Flyfishers), Elliot Traher (Natural Resources Conservation Service), Louis Wasniewski (alternate, Caribou-Targhee National Forest), and Lin Whitworth (Bannock County Commission).

Wendy Green Lowe of P2 Solutions facilitated the discussion. This "group memory" documents discussion and decisions that occurred.

Review and Approval of June Group Memory

Corrections were noted to the June Group Memory. Changes will be made in accordance with those corrections noted and the final Group Memory will be posed to the Portneuf Watershed Advisory Group's website.

Review and Approval of July Group Memory

No corrections were needed. The final Group Memory will be posted to the Portneuf Watershed Advisory Group's website.

Actions Taken Since the Last Meeting

Greg Mladenka reported that he will share information about other pollutants in the Portneuf Watershed, as requested, at the September meeting.

It was suggested that his presentation include a review of the process by which pollutants could be added to the scope of the Portneuf Watershed Total Maximum Daily Load (TMDL). It was also proposed that a diagram might be a helpful tool for conveying steps of the listing process to the WAG. If possible, Greg will have information posted on the Portneuf Watershed Advisory Group's website prior to the next meeting.

Pollutant Targets for the Mainstem Portneuf

Andy Ray explained that pollutant loads are calculated using concentrations found in the river segment and measured flows through that segment. The two periods used for setting targets in the existing TMDL,

are: 1) outside the spring runoff period (not to exceed a 28-day average of 50 mg/L), and 2) during spring runoff (not to exceed a 14-day average of 80 mg/L).

Andy distributed handouts illustrating actual TSS loads in relation to the target loads for 2004, 2005, and 2006. 2004 represents a low-flow year, 2005 an average flow year, and 2006 a high-flow year (participants were advised to make note of the labels on the Y axis of the graphs). The handouts showed TSS loads and targets at monitoring stations located at Tyhee, at Siphon Road, above March Creek, at March Creek, at Edson Fichter Nature Area, and at Batiste Road.

Because of natural and managed fluctuations in annual flows, the target load (loads are the product of flow and TSS concentration) varies daily, monthly, and annually as a consequence of actual variations in flow and concomitant changes in TSS concentration. The graphs help illustrate how sediment loads vary from one year to the next.

It was noted that every water body has a different capacity for pollutants. Amy Jenkins suggested that another way to illustrate target loads would be to describe qualitative targets. For example, there are no negative effects associated with loads below 25 mg/L, negligible effects between 25 and 80 mg/L, and effects over 80 mg/L.

Greg Mladenka suggested that the non-peak flow targets of 50 mg/L might be too high. It is his opinion that the target is being achieved during much of the year at most monitoring stations. He maintained that the specific targets should established for each waterbody to be protective of beneficial uses, including cold water aquatic life, recreation and aesthetics.

Jim Mende suggested that since sediment stays in the system for a considerable amount of time (months to years) once it enters the system (as a general rule), the Watershed Advisory Group might want to consider stricter targets for tributaries in order to keep sediment from entering the mainstem.

Greg Mladenka said that the River is the sum of the parts, and that some tributaries contribute more pollution to the watershed than others.

Sue Skinner suggested that lower targets might provide more protection in-perpetuity, particularly if those lower targets are incorporated into future land use planning efforts. In the future, when land uses change (like when agricultural lands are converted through development), stricter targets incorporated into zoning ordinances would accomplish compliance into perpetuity.

Lynn Van Every observed that the 80 mg/L target is not being achieved during peak-flow time periods. If the spring runoff targets could be reached, it is possible that the non-peak flow loads would decrease as well because excess sediment would not have been delivered to the system. In the vicinity of many of the monitoring stations, beneficial uses are being reached despite current pollutant loads.

In response to a question regarding targets for fine sediments, **Lynn Van Every** explained that fine sediments can impact on fish spawning.

In response to a question, **Andy Ray** explained that actual loads presented in the graphs are calculated using daily median turbidity values, based on 10-minute sampling frequencies. These calculations when combined with flow data are converted to a daily load.

Sue Skinner asked about the elevated TSS values at the Batiste Road monitoring station in December of 2004. There was no consensus as to the specific cause for this observation, however, all three years of data indicate the same trend.

Brad Higginson suggested that perhaps target loads could be established for low-, medium- and high-flow levels.

Andy Ray observed that macrophytes (large water plants) have the capability of capturing sediment. He also observed that when such macrophytes die (senesce), they release some attached material and themselves become part of the suspended particles flowing through the watershed.

Lynn Van Every observed that flow can increase in September when irrigation season ends as water in irrigation canals is returned to the river.

Greg Mladenka observed that TSS loads can increase as a result of increased flow – even if no new sediment has entered the system (because sediment becomes resuspended).

There was general agreement in the room that the 50 mg/L target should probably be reduced.

Greg Mladenka stated that one beneficial use relates to aesthetics and that it is not possible to see very far through water with TSS concentrations of 50 mg/L. He further explained that all agencies developing implementation plans would have to address lower targets if the target load is decreased for the Revised TMDL.

In response to a question about whether some agricultural best management practices (BMPs) apply in only specific seasons, **Amy Jenkins** reported that some BMPs (like contour plowing and steam bank stabilization) do only apply in certain times of the year.

Lynn Van Every observed that most BMPs result in reductions of multiple pollutants.

In response to a question, **Jim Mende** explained that IDF&G does not have data or expertise to suggest how different target loads would affect different aquatic species. Jim went on to say that IDF&G focuses its attention on habitat improvement (bank stabilization, for example). IDF&G does not have the expertise that DEQ has regarding the rationale for target loads.

Keene Hueftle suggested that what is good for native fish species should be good for people as well. **Lynn Van Every** responded by explaining that DEQ does not have the authority to set targets to benefit specific species. He provided an example: non-native fish species found at the Lava Hot Springs monitoring site are thriving. As a result, that beneficial use is being achieved, even if the specific species might not be considered to be desirable to some. Discrimination among specific species does not fall under the Clean Water Act.

Brad Higginson suggested that it might be possible to consider more variation among the various reaches. The 50 mg/L target load may be appropriate for some reaches, but too high for others.

Lynn Van Every observed that comparison of loads at different locations may add additional insight. For example, if loads go down between two monitoring stations, it may mean that sediment is dropping out due to decreasing velocity/flow or that significant volumes of water are entering the system through groundwater/springs.

Regarding nitrogen in the watershed, **Lynn Van Every** explained that the current target in the 2001 TMDL for Nitrogen (as total inorganic nitrogen) is 0.3 mg/L. The challenge is that the goal is likely unattainable — even in the more pristine reaches of the watershed with no cultivated agriculture — because of higher nitrogen in groundwater entering the system. There is a seasonal component to nitrogen concentrations in many parts of the watershed.

In response to a question about whether the nitrogen is "background" or not, **Candon Tanaka** observed that although it might be considered background, it is not natural in origin.

It is likely that nitrogen targets will not be included in the Portneuf Subbasin TMDL. DEQ representatives believe the focus will be on phosphorus.

John Sigler observed that nitrogen will likely not be addressed by the American Falls TMDL.

Lynn Van Every clarified his earlier statement by observing that other regulatory processes may provide more effective measures for addressing nitrogen than the TMDL process. Documented cases of elevated nitrogen concentrations in the groundwater are more effectively addressed through other regulatory mechanisms.

In response to a question, it was explained that nitrogen is addressed in some TMDLs in Idaho, but that no waste water treatment facility is addressing nitrogen through the TMDL implementation planning process. The nitrogen that enters the watershed through groundwater does not necessarily fit the TMDL process.

Jim Mende asked about the biological implications of not addressing nitrogen. **Lynn Van Every** responded that phosphorus is thought to be the "limiting nutrient" in many parts of the watershed and phosphorus can be more effectively addressed using the TMDL process because it is not generally a major constituent in groundwater outside of the lower reaches where conditions are well documented.

Lynn Van Every suggested that the TMDL could state that nitrogen levels should not be allowed to increase in the watershed – but that nitrogen will be addressed qualitatively rather than using targets and monitoring.

Andy Ray added that there are some reaches where high nitrogen levels are found despite the fact that BMPs are in place. The BMPs appear to be controlling other constituents– yet nitrogen concentrations are still high in stream reaches adjacent to or downstream of BMPs. This suggests that nitrogen may be entering stream reaches despite BMPs and other management efforts. **Lynn Van Every** stated that nitrogen behaves differently in groundwater than phosphorus does.

Candon Tanaka was asked about the Tribes' position on nitrogen. He said the while Tribes are not completely supportive of the concept of not addressing nitrogen in the TMDLs; they do recognize that current goals may not be attainable.

Keene Hueftle asked about selenium. **Lynn Van Every** responded that there is no evidence that levels of selenium are high enough in the watershed to cause concern.

Sue Skinner asked if the Portneuf Watershed Advisory Group would be allowed to see the language in the Settlement Agreement that will address the American Falls TMDL. **Lynn Van Every** observed that once the Settlement Agreement has been signed, it will be a public document.

Participation in Watershed Advisory Group Meetings

Participants discussed the fact that not all Watershed Advisory Group members are in attendance. DEQ representatives stated that it would be their preference that everyone would attend every meeting. The folks that are listed as members have been appointed by the DEQ Director. Replacing them would be time-consuming. **Sue Skinner** asked whether there is some vulnerability to the Watershed Advisory Group process if interested parties are not paying attention to the development of the revised TMDLs.

It was agreed that **Wendy Lowe** should call all members and make sure they are aware they are invited to attend. She might also explore the possibility of having folks who are having trouble finding the time to attend identify a proxy who would attend in their stead.

It was suggested that Wendy might call all members (including those who are attending) for feedback on the process to date and suggestions for improvement.

Announcements

Lynn Van Every will be speaking at a three-day conference sponsored by Utah State University September 5-7, 2007. The conference will address water quality and water quantity issues in the Bear Lake region. The first day will offer two tour options, one focusing on Cutler Reservoir and the other on Bear Lake.

Sue Skinner reported that the Portneuf Watershed Partnership did not receive the US EPA Targeted Watershed grant it had proposed. As a result, the Partnership may need to delay plans until funding is available.

John Sigler reported that the City of Pocatello will conducted a Poop Scoop program – which will focus on City Creek, Centennial Park, Sacagawea Park, etc.

John Sigler also reported that the City of Pocatello will give away about 2,500 reusable water bottles and run a campaign to increase awareness about how bad bottled water is. Such bottles are shipped over 1000 miles from filling to consumption. The endeavor results in the addition of greenhouse gases at the same time that it replaces a perfectly safe natural product.

Documents Relevant to the July 17, 2007 Meeting

Six documents were provided to participants during the meeting. All can be found on the project website located at:

http://www.deq.state.id.us/about/regions/portneuf_river_tribs_wag/index.cfm

The six documents are:

- Marsh Creek TSS Loads and Targets
- Portneuf River above Marsh Creek TSS Loads and Targets
- Portneuf River at Edson Fichter Nature Area TSS Loads and Targets
- Portneuf River at Batiste Road TSS Loads and Targets
- Portneuf River at Siphon Road TSS Loads and Targets
- Portneuf River at Tyhee TSS Loads and Targets

Next Meeting

The next meeting of the Portneuf Watershed Advisory Group will be at 7:00 p.m. on September 18, 2007 in the Snake River Conference Room at the Regional Offices located at 444 Hospital Way, Suite 300 in Pocatello, Idaho. The objectives for the meeting will focus on concluding the discussion of:

- Discuss pollutant targets for the mainstem Portneuf
- Discuss load allocation for the mainstem Portneuf
- Receive a presentation from DEQ regarding other (not listed) pollutants in the Portneuf Subbasin and the process for including pollutants in a TMDL

Objectives for the September meeting (from the Working Charter) will be delayed by one month.

Next Steps

The following next steps will be completed:

1) Wendy Lowe will prepare the draft Group Memory for review and approval at the next meeting.
2) Andy Ray will post the draft Group Memory on the project website along with copies of handouts provided at the meeting.
3) Greg Mladenka will review water quality information collected by Union Pacific Railroad, U.S. Geologic Survey, and the U.S. Environmental Protection Agency and report back to the WAG.

Wendy Lowe's contact information: (208) 523-6668 and wendy@p2-solution.com