Pend Oreille River TMDL Watershed Advisory Group
Meeting Summary
Monday, June 25, 2007
1:00- 4:00 p.m.
University of Idaho/Bonner County Extension Office, Sandpoint, Idaho

Attendees:
Christine Pratt, Seattle City Light; Patty Perry, Kootenai Tribe; Ted Runberg, Priest River Chamber of Commerce; Scott Campbell, Ponderay Newsprint; Kent Easthouse, Army Corps of Engineers; Bruce Vogelsinger, Southside Water and Sewer District; Greg Becker, NRCS; Brett Converse, JUB; Jason Gritzner, USFS; Kody VanDyk, City of Sandpoint; Todd Johnson, agriculture; Robyn Edwards, citizen; Scott Jungblom, Pend Oreille PUD; John Gross, Kalispel Tribe; Don Martin, EPA Region 10; Bob Steed, Jenna Borovansky and Kaysa Stromberg, Idaho Dept. of Environmental Quality; Paul Pickett and Marcie Mangold, Washington Dept. of Ecology; Ruth Watkins, Tri-State Water Quality Council; Jessica Koenig, Tetra Tech (phone).

Welcome:
Ruth Watkins welcomed everyone to the meeting and reviewed the agenda.

Update from contractor on TMDL development:
Jessica Koenig gave a brief overview of the schedule for preparing the draft TMDL and noted that the draft will be ready for the WAG's review prior to the August 16th meeting. The agencies/tribe will be undertaking an initial review of the preliminary draft during July and a copy of the draft will be sent out to the WAG the week of August 6th. Comments will be due from the WAG by the end of August. Tetra Tech will be attending the August 16th meeting to present the draft TMDL.

Idaho standards, compliance points, proposed allocations: (Presentation on state's website)
Bob Steed's presentation covered Idaho's compliance points, assessment status, beneficial use status, targets and example allocations. IDEQ used the modeling results to determine compliance areas on the Idaho portion of the river. Overall, temperature is cooler now than it would be under natural conditions—although there are a few areas where temperature exceeds Idaho numeric criterion and the river is warmer than it would be under natural conditions. Thirteen compliance areas were evaluated and of those, two points do not meet numeric or natural conditions requirements of Idaho water quality standards. Compliance point 5 is the bottom water, 35 km downstream from the railroad bridge, where Idaho's numeric temperature criteria of 19.0^{o}C are exceeded from late June to early September. Compliance point 13 is a cross section of the entire length of the river (in Idaho) where exceedances of water quality standards occur on a hot day of the year (August 8). Additionally, a final compliance point, located at the Idaho/Washington border, is based on Washington water quality standards because Idaho is expected to meet the downstream state's standards at the border.

Regarding beneficial use status, in the reach between 27km and 39km the river's cold-water aquatic life has been negatively affected by excess temperature. Three salmonid fish species are likely to have reduced population strength because of excess water temperatures: adfluvial bull trout, adfluvial cutthroat trout and resident brown trout.

Idaho's suggested water quality targets are:
Priority 1: Idaho cross section (compliance area 13)
Temperature increase is 0.1^{o}C-0.4^{o}C (August 8)

Priority 2: Idaho bottom 35 km (compliance area 5)
Temperature increase is 0.1°C-1.5°C (June 27-Sept 6)
Priority 3: Washington state line
Temperature increase is 1.68°C (May 8)

Findings from the modeling indicate no observed negative effects from permitted dischargers, tributaries or bank shade. All differences in temperature, from natural conditions to current conditions in the Idaho portion of the river can be accounted for due to the operation of Albeni Falls Dam. However, Albeni Falls Dam operation is also the primary source for overall cooler water temperatures at many times of the year. Idaho's approach may include allocations for sources other than Albeni Fall Dam and Bob gave some examples of allocations. For instance, the City of Sandpoint wastewater treatment plant permit could include a heat load target, which would be flexible depending on the time of year. (In the example given, Bob used 4.02 million gallons/day (MGD) and Kody noted that a regional facility would be 10 MGD; volume numbers will need to be re-visited with the city and the regional sewer group.) Idaho's approach may not include any proposed changes to Albeni Falls Dam operations since current operations are set to protect upstream fisheries; rather, the approach at Albeni Falls may include some off-site mitigation measures.

Jenna Borovansky reported on the Pend Oreille tributary TMDLs; all draft tributary TMDLs are now posted on the DEQ website. The Pend Oreille tributary work group is requesting that the WAG revise its operating procedures to delegate authority so the tributary work group can directly recommend tributary TMDLs (and proceeding with public comment on those TMDLs) to the Panhandle Basin Advisory Group. WAG members agreed that the procedures should be changed to formalize delegating this authority to the work group.

Washington and Kalispel Tribe temperature standards: (Presentation on state's website)
Paul Pickett gave an overview of temperature standards, which include Dept of Ecology standards for state waters and Kalispel Tribe standards for tribal waters. Both standards must be met in shared waters. Washington state temperature standards for the mainstem Pend Oreille River are site specific to protect salmon spawning, rearing and migration. State temperature standards for the Pend Oreille River tributaries are for different uses and criteria for different tributaries. Tribal temperature standards are the same for the Pend Oreille River and Calispell Creek (to protect adult salmonid migration), but different for Cee Cee Ah Creek (to protect adult salmonid migration and brown trout spawning). When integrating the state and tribal standards (for shared waters such as the Pend Oreille River), both standards must be met, in other words the most stringent criteria of either standards apply. In addition, all tributaries must meet tributary standards.
For the mainstem Pend Oreille River in Washington waters, criteria are applied as follows:

- Natural daily maximum temperatures greater that 19.7°C:
  No increase in daily maximum temperatures greater than 0.3°C
- Natural daily maximum temperatures less than 19.7°C, the lesser of:
  No increase in daily maximum temperatures greater than 20°C
  No increase in daily maximum temperatures greater than t=34/(T+9), (T=natural temps)

In mainstem waters shared with the Kalispel Tribe, there are two additional tests:

- Natural 7-day average of daily maximum temperatures greater than 17.7 °C:
  No increase in 7-day average of daily maximum temperatures greater than 0.3°C
- Natural 7-day average of daily maximum temperatures less than 19.7 °C:
  No increase in 7-day average of daily maximum temperatures greater than 18 °C

Box Canyon Dam compliance with temperature standards: (Presentation on state's website)
Paul provided a brief review of activities to date for this segment of the river: Portland State University re-calibrated a model initially developed by Pend Oreille PUD during the Box Canyon Dam re-licensing process (information on the calibration was provided to the WAG at the January meeting). The results of eight scenarios, using 2004-05 conditions, were compared and then presented to the WAG at the May meeting. The Washington standards are based on the one-day maximum temperature; the daily maximum is the maximum per segment (over the water column) and the maximum per day (midnight to midnight). The model for the Box Canyon reach has 357 segments, and each segment has multiple layers in the water column. For the purposes of this TMDL, the loading capacity—the capacity of a waterbody to absorb human effects and still meet standards—is equal to the increment of temperature above natural that is allowed by the standards.

Graphs of temperature over time at a critical location (near Tiger) showed the river out of compliance from early April to early May, mid July, and August 2004; and in August 2005. Reducing upstream temperatures (below Albeni Falls Dam) resulted in lower temperatures in the spring, while modeling without Box Canyon Dam produced lower temperatures in the summer. Looking at temperatures from upstream to downstream on two critical dates (May 7 and August 24, 2004), reducing temperatures from Albeni Falls Dam caused lower temperatures in the upstream segments of the Box Canyon Reservoir in May, while the absence of Box Canyon Dam reduced temperatures in the downstream segments of the Box Canyon Reservoir in August. Comparison of all the potential causes of impairment showed that tributary temperatures, mainstem shading, and NPDES permitted point source discharges had small effects on temperatures but not enough to cause impairment.

Boundary Dam compliance with temperature standards: (Presentation on state's website)
Paul provided a brief review of activities to date for this segment of the river: Seattle City Light is conducting studies for re-licensing of the Boundary Dam. SCL's consultant, Battelle PNL, calibrated the model for 109 segments, using 2004-05 conditions (information on the calibration was provided to the WAG at the January meeting). Two modeling scenarios were provided to Ecology, and then Ecology developed six other scenarios; a comparison of scenario results was presented to the WAG at the May meeting.

Graphs of temperature over time at a critical location (above Boundary Dam) showed the river out of compliance at times from late April to late October 2004; and in August and September 2005. Reducing upstream temperatures (below Box Canyon Dam) resulted in lower temperatures in the spring, while modeling without Boundary Dam produced lower temperatures in the summer. Looking at temperatures from upstream to downstream on a critical date (August 25, 2004), reducing temperatures from Box Canyon Dam caused lower temperatures in the upstream segments of the Boundary Reservoir, while the absence of Box Canyon Dam reduced temperatures throughout Boundary Reservoir. Comparison of all the potential causes of impairment showed that tributary temperatures, mainstem shading, and NPDES permitted point source discharges had small effects on temperatures but not enough to cause impairment.

Group discussion:
Scott Jungblom asked Paul what changes were made to the Pend Oreille PUD model and Paul said that the calibration report should list all the changes made from the initial PUD model. He noted that Ecology will be posting the Box Canyon and Boundary calibration reports on the state's website.

Bob Steed said that DEQ is working with the Corps of Engineers on their comments to the Idaho work to date. We will get an update at the next WAG meeting.

The public comment period was briefly discussed and all agreed that the public hearings would be EPA's hearings. The hearings will be held near the beginning of the public comment period.

Wrap up:
The next WAG meeting will be held on Thursday, August 16th. Ruth will find a location and let everyone know. The purpose of the meeting will be to review the draft TMDL and it was agreed to expand the meeting time to start in the morning so we have adequate time for review and discussion.

Jessica will send the TMDL document in PDF format to Ruth, who will distribute it to the full group. If people would prefer a hard copy, they need to let DEQ or Ecology know.

IDEQ website: www.deq.idaho.gov/about/regions/wags_index.cfm
Ecology website: www.ecy.wa.gov/programs/wq/tmdl/pend_oreille/index.html