

**Spokane River DO TMDL Advisory Group Meeting**  
**Minutes**  
**May 22<sup>nd</sup>, 2013**

**In Attendance:** Bud Leber, Kaiser; Jeff Donovan, City of Spokane;; Doug Krapas, Inland Empire Paper; Dan Redline, IDEQ; Diana Washington, Ecology; BiJay Adams, Liberty Lake Sewer and Water District; Tom Agnew, Liberty Lake Sewer and Water District; Ben Brattebo, Spokane County; Adriane Borgias, Ecology; Dave Moss, Spokane County; Meghan Lunney, Avista; Bruce Rawls, Spokane County; Dave Knight, Ecology; Jim, Ecology; Lisa Daly Wilson, SRSP; Rob Lindsay, Spokane County; Walt Edelen, Spokane Conservation District; Elaine Snouwaert, Ecology; Mike Neher, City of Post Falls; Brian Crossley, Spokane Tribe of Indians; Charlie Kessler, Stevens County Conservation District; Wes McCart, Stevens County; Chad Atkins, Ecology.

**On Phone:** Kris Holm, Attorney; Brian Nickel, EPA

**Spokane River Forum Staff:** Andy Dunau, Cami Haveman

Power Point presentations referred to in this document are available on the DO TMDL web site.

### **Welcome and Introductions**

Andy Dunau welcomed participants to the meeting, each of whom introduced themselves.

### **Transitions, Introductions, General Updates**

Dave Knight reported that Dave Moore accepted a position in Ecology's wetlands unit. Dave Knight, who is the unit supervisor, is temporarily filling in until there is a new hire, likely around July 1.

Jim Ross, EAP ERO unit supervisor, will be taking on work related to tracking, monitoring and the ten year assessment. At some point in the future, there may be a DO TMDL EAP lead.

Brian Nickel provided EPA Idaho NPDES update. On behalf of IDEQ, Dan Redline submitted additional draft 401 certification changes regarding

metals. Assuming consensus reached on language in the next two weeks, the permits will be sent out for 45 day public comment followed by a public hearing. Questions from group clarified that the 401 certification and NPDES permits will go through the public comment and public hearing cycle at the same time.

## **Tool Box Update**

Currently, Diana is waiting on comments from the Attorney General's office regarding four tools in draft form. The AG's office time line for providing comments is May/June. When the comments are received, the next tool box workgroup meeting will be scheduled.

An initial AG office comment was about the flowchart. A public comment period is recommended do to the questions "Does the public question the science? Do they require additional information?" This is based on WAC requiring public comment. The group asked some questions. Diana responded detailed discussion would occur at the next tool book workgroup meeting.

Regarding the tools submitted for AG review, she added the WAC wording to support each item. All draft materials to be covered at the work group meeting will be posted on the Forum's web site one week prior. The full advisory group will be advised of the work group meeting, and everyone will have opportunity to attend the meeting.

## **Lake Spokane Presentations**

FERC approved water quality attainment plan: Meghan Lunney provided a Power Point presentation that provided the regulatory context, analysis of reasonable and feasible nutrient reduction measures, prioritization of measures, and measuring progress. The time line for these activities is ten years, starting in August 2012.

A number of different measures were considered, including potential load estimates (reduction of TP) in Lake Spokane, with the goal of improving dissolved oxygen levels in the lake.

Avista will focus initial efforts on two of these measures: Carp Population Reduction and Aquatic Weed Management. If Carp are reduced by up to

twenty-five percent, TP per year may be reduced by 1,594 to 2,625 kg. Reduction in aquatic weed biomass may reduce TP per year by 481 – 3,852 kg.

It was clarified these measures are separate from the FERC license requirement to add 155,000 rainbow trout per year to Lake Spokane for a put-and-take recreational fishery.

To measure compliance, monitoring will include: measure specific non-point source load reductions (e.g.— lbs of carp removed x TP biomass); baseline lake monitoring (e.g.—changes over time at water quality measurement stations); and habitat specific, e.g.—conditions for fish at various locations.

In addition, Avista will run the CE-QUAL W2 model, refining it to incorporate ten years (e.g. 2001 to 2011) of flow data along with utilizing bathymetry collected in 2009. The refinements are being completed to better compare and assess model outputs of the non-point source reductions in Lake Spokane.

Avista will be providing annual reports on specific control and implementation measures, monitoring results, as well as habitat analysis. There will be more detailed five, eight and ten year reports assessing all monitoring, modeling and data collected.

Questioning also clarified that Avista's responsibility is ultimately to address their share of responsibility for DO levels in Lake Spokane, not achieving a specific reduction in total phosphorus.

WRIA 54 Sampling – Lake Spokane Optical Brightener: Charlie Kessler provided a Power Point on initial results from study Stevens County Conservation District is doing to detect septic or sewage discharges to Lake Spokane. Essentially, this is to determine possible contributions from Suncrest and other areas with homes near the water.

Optical brighteners were selected because their presence would provide a strong indication that household wastewater is reaching the lake. Further, they are relatively slow to decay and are detectable far from the point source. Optical brighteners are compounds added to laundry detergents to make clothes appear brighter.

Monitoring parameters included: Optical brightener: ppb; Fecal coliform bacteria: colonies / 100 ml; Temperature: Degrees Celsius; Dissolved oxygen: mg/L; pH; and specific conductance: microSiemens / cm.

A number of graphs showed results. Currently, detection of optical brighteners in the lake is minimal.

Question clarified that this study does not include testing of groundwater.

Charlie also reviewed how students from the local high school are being brought into the project and creating their own experiments and devices. This is part of the educational outreach needed for the community to better understand Lake water quality and their role in long term protection.

EAP Data Summary Review: Jim Ross provided an overview of Spokane River Basin monitoring. Ambient stream water quality monitoring is done state wide. Program information can be found at [http://www.ecy.wa.gov/programs/eap/fw\\_riv/rv\\_main.html](http://www.ecy.wa.gov/programs/eap/fw_riv/rv_main.html). Data can be found in Ecology's EIM data base, <https://fortress.wa.gov/ecy/eimreporting/Search.asp?Type=StudyName>.

Some comparative data going back to the early 1970s show phosphorus declines in Hangman as well as Little Spokane River. It also shows TMDL target allocation concentrations Ecology is trying to achieve .The model inputs reflect TMDL percentage reduction in human load from 2001 actual data and are not identical.

Charts shown confirm the effect of flows on phosphorus loading and DO. Higher flows in 2011 vs. 2010, for instance, improved DO situation. Additional charts show DO sag that occurs at monitoring station closest to Long Lake over the summer months.

Question confirmed that at the “compliance point” (station 54A090) data for 2011 was not collected due to budget constraints. Spokane River stations are currently fully functional, and Avista has picked up the cost and is coordinating with Ecology to maintain six stations in Lake Spokane. In addition, there is interest in possibility of adding one or more stations between state line and Hangman/Spokane confluence.

In August, Jim will provide a conceptual framework for tracking and monitoring activities that will be used in preparation for developing 10 year assessment. Dave Knight remarked this will include collecting a combination of empirical data, e.g.—non-point source projects implemented, real data, e.g.—water quality parameters measures at stations, and modeling updates as necessary, e.g.—flow considerations.

## **Non-point Source Updates**

**Loan Awards:** Walt Edelen provided Power Point regarding how current and proposed Centennial Grant funds and Revolving Loan Fund administered through Ecology helps support non-point source reduction. Currently, there is a \$250,000 Centennial grant and \$250,000 Revolving Loan to support the conservation district’s Livestock and Land program.

Several slides showed the “war on mud” and other activities that improve water quality entering into surface waters while addressing land owner desires for improved aesthetics, animal health, safety and other factors.

A proposed septic tank loan replacement program includes \$300,000 of Centennial Grant Funding, a \$450,000 revolving loan fund, and a \$50,000 Revolving Fund Principal Loan Forgiveness program. Information suggests many septic tanks were installed before 1974 and thousands of on-site septic systems are releasing poorly treated sewage to streams and groundwater.

Funding would be used to replace or repair existing systems, or connect to a sewer system. The typical cost of replacing a septic system is over \$18,000.

Other non-point source projects include Garden Springs Restoration, which is being done in collaboration with City of Spokane, and a Hangman Creek Riparian Project, which is being done in collaboration with Inland Northwest Land Trust.

Questions clarified that this is separate and distinct from County Septic Elimination program, which has sunset and focused on transferring people from septic systems to the county sewer system. Further, the conservation does quantify the amount of non-point source reduction associated with projects using an EPA model. This, however, is a different question than monitoring reduced phosphorus loading at the confluence of the Spokane

River, which can be affected by numerous variables, e.g.—annual runoff conditions.

Hangman Creek Livestock Watershed Assessment Results: Chad Atkins provided a Power Point on Ecology’s non-point source livestock program, which is a statewide initiative.

Activities to date focused in Asotin, Garfield, Columbia, Whitman, Adams, and Lincoln counties. They have worked with over 100 livestock producers to implement more than 300 miles of riparian protection.

Statistics show significant effects of livestock on water quality, particularly as it relates to fecal coliform bacteria, nutrients (nitrogen, phosphorus), temperature, dissolved oxygen, turbidity, and pH.

In April, 2013 they conducted a Hangman Creek watershed assessment. Through visual observation, they found quite a bit of non-point source issues in need of attention.

The next step is to coordinate with the conservation district to develop further plans to implement changes. Possible sources of funding include Continuous Conservation Reserve Program (Continuous CRP), Ecology Centennial / 319 grants, Conservation Commission grants, Environmental Quality Incentive Program (EQIP), Ecology Terry Husseman grants, and Direct Implementation (DIF) grants.

Questions clarified that coordination with conservation district has not yet begun and that visual (from road) observations likely only caught a subset of issues present.

**Deferred Presentations:** Due to time constraints, presentations on Ecology Lake Spokane Shoreline Project and Little Spokane DO TMDL update were deferred until next quarterly meeting. For next meeting, group also requested an update from Idaho on related upstream Hangman Creek non-point source reduction efforts.

**Next Meeting:** Andy & Dave will prepare a draft agenda. SRSP would like to provide input to agenda and will meet with Dave in next couple of weeks to discuss.

Dave suggested next quarterly meeting be the third week in August. There was some concern regarding summer schedules. Andy will send out Doodle Poll to compare availability in third week of August vs. third week of September. Group agreed to continue scheduling meetings on Wednesday's at 1:00.