

Spokane River Regional Toxics Task Force Technical Track Work Group (TTWG) Meeting

January 6, 2016 | Washington Department of Ecology | 4601 N Monroe Spokane WA
Draft Summary Notes

Attendees:

Bijay Adams – Liberty Lake Sewer & Water District	Will Hobbs (phone) – WA Dept. of Ecology
John Beacham – City of Post Falls	Kris Holm (phone) – City of Coeur d’Alene
Adriane Borgias – WA Dept. of Ecology	Doug Krapas (phone) – Inland Empire Paper
Galen Buterbaugh – Lake Spokane Association	Greg Lahti – WA Dept. of Transportation
Ben Brattebo (phone) – Spokane County	Dave McBride (phone) – WA Dept. of Health
Lisa Dally-Wilson (phone) – Dally Environmental	Dave Moss – Spokane County
Dave Dilks (phone) – LimnoTech	Chris Page (video) – Ruckelshaus Center
Jeff Donovan – City of Spokane	Sandy Phillips – Spokane Regional Health District
Brandee Era-Miller (phone) – WA Dept. of Ecology	Bryce Robbert (phone) – Avista Utilities
Ted Hamlin – WA Dept. of Ecology	Jeremy Ryf – WA Dept. of Ecology
Mike Hermanson – Spokane County	Kara Whitman – Ruckelshaus Center

NOTE: The Best Management Practices (BMP) Work Group met just before the Technical Track Work Group. The group may meet again on January 20th and will work on standardizing the sheets for moderators during the BMP Session at the upcoming Technical Workshop, February 9-11th.

Introductions and Agenda Review: No changes were made to the agenda

Presentation: “Wet Weather Monitoring Recommendations”

Dave Dilks has been collecting Task Force member feedback through a survey to prioritize study objectives. Among eleven responses, a consensus emerged that the primary objective should be to better understand the seasonal variability of river concentrations. There is also a clear consensus to start with a comprehensive program, rather than a single event. Other objectives and next steps suggested:

- Better understand PCB concentrations in areas of the river where fish live;
- Sample outlet of Lake Coeur d’Alene; and
- Mine existing data.

Based on this feedback, Dave recommends monthly sampling at strategic locations along the river including the outlet of Lake Coeur d’Alene, Trent Bridge, City of Spokane, Nine Mile, and Latah Creek. Other options for possible inclusion in the study:

- Test a City of Spokane Location such as Greene Street near Mission Park at the fish collection site where the Spokane gage can better reflect loadings from the City;
- Add a location on the State line where fish have been collected;
- Do some opportunistic sampling of stormwater outfalls if wet weather and/or snowmelt occurs at the time of the routine sampling, and
- Concurrent placement of semi-permeable membrane devices (SPMDs).

Itemized approximate costs – (Study plan, Quality Assurance Project Plan (QAPP), reporting):

- Fixed costs \$10,000
- Per event costs (Field, lab, data processing) \$30,000/event
- Total cost – Six month program: \$190,000 (12 month program: \$370,000)

Q&A/Comments

- **Q.** What is the confidence level that the study will reveal useful information during wet weather conditions?
A. Moderate chance (not enough for a mass balance calculation).
- **C.** Why not use a tiered approach and do two or three months of sampling (starting in spring), analyze data over the summer, and decide if there is merit to do the monitoring in the fall.
 - This would cost about \$100,000
 - Opportunistic sampling cost: approximately \$1,000/sample
 - Contract for six months, and cancel if needed (to avoid the time constraints of putting studies together).
- **Q.** Lake Coeur d'Alene outlet—coordinate to capture this variability? **A.** Yes, it would also be good to time the sampling during snowmelt to look for PCB loading from atmospheric deposition.
- **Q.** How much of \$30,000 is field and lab costs? **A.** Approximately \$20,000 for field and 10 lab.
- **Q.** Could we employ a local team to be more opportunistic with wet weather? The QAPP is consultant-specific, but amendments are possible.
- **Q.** Can the City of Spokane do sampling of stormwater outfalls during the same times? Jeff Donovan to check on this option.
- Brandee Era-Miller: we have Environmental Assessment Program (EAP) staff in Spokane (Ty Stewart and one more) that can likely assist.

TTWG Recommendation to the Task Force:

- Plan to have Gravity go out for a few months in spring, inform the City of dates so City can do some grab stormwater sampling (opportunistically if there is a rainfall event).
 - **C.** Consider that there are two periods of snowmelts. The study could look at four months, starting in March, to capture both of these events.
 - LimnoTech view hydrograph and plans for control structures on river (e.g. the dam and spillways close on Memorial Day to fill Lake Coeur d'Alene), and come up with a plan. El Nino year, harder to predict.
 - Suggestion to sample at existing operational gages.
 - Semi-Permeable Membrane Device (SPMD): Brandee Era-Miller explained that SPMDs could work well in this situation. They provide an estimate of water concentration (rather than a direct measurement).
- LimnoTech to provide scope by January 20th for Task Force review. The scope will cover six months: 3-4 in spring 2016, with data analyzed summer 2016 to determine if 2-3 more events are needed or useful.

Workshop Planning:

Lisa Dally-Wilson reported that the work group requests the TTWG review the session documents and provide feedback by January 13, 2016.

ACTION ITEM: Ruckelshaus Center send request for feedback on session documents from TTWG. (COMPLETE)

Presentation: "Preliminary Results from Surface Water Monitoring with C.L.A.M. at the Spokane Tribal Boundary in May and September of 2015" – *Note: presentations can be viewed at <http://srtrtf.org/?p=5619>.*

Brandee explained that this study is evaluating the Continuous Low-level Aquatic Monitoring (CLAM) for potential monitoring of PCBs and PBDEs in the Spokane River. The sampling is being done at the upstream boundary of the tribal reservation, off of a dock.

As predicted, the water concentrations are lower in this section of the river. PCB results are within the noise of the CLAM collection system. It appears that there is contamination from the SPE disk housing.

The data were blank-corrected per AXYS correction (10x rule correction). Brandee will re-correct the data per the project objectives. The blanks were either Trip or Transfer blanks, which are most comparable to samples.

Mono and Di (lightest) and Nona and Deca (Heaviest) – no environmental signal; Tri through Octa appear to have potential environmental signal above the noise.

PBDE results show that PBDE99 and 209 are in the sampling “noise” for half of the samples; PBDE47 appears to have the strongest environmental signal above the system noise. Blanks were either Trip or Transfer blanks.

The next steps include the use of XAD-2 instead of the CLAM for upcoming January sampling (by Will Hobbs). They will see if the results can get above the noise. They will apply a blank correction method per the project objectives and feedback from the TTWG, and look for patterns and information in homologues and congeners.

Once completed, EAP will summarize the study information on the CLAM sampling system, go through a Quality Assessment/Quality Control (QA/QC) process internally, then publish a report. They will characterize PCB contamination from disc housing on the sampler. EAP is still evaluating appropriate use of CLAM, as it may not be the best tool for low-level PCBs in the water column that is typical of the Spokane River system.

Q&A/Comments

- **Q.** The study collected water that ran through the CLAM; what was the rate of flow? **A.** Variable, as the disks clogged easily with phytoplankton. Got 12, 15 and 20 liters of water through the clam in May. Also collected 20 liter carboys of water (one-day composites), and sent those to AXYS. This was put through the same SPDE discs in the CLAM to see if there was a difference between the dissolved and particulate fraction.
- **Q.** Is that location well mixed? **A.** This is not a section of the river that is very different across the span, heavily mixed upstream and settles out a bit at this point.
- **Q.** Is there any comparison to a standard grab in glass? **A.** No
- **Q.** Could they use grab samples with XAD-2 used as a control? **A.** Good idea, and will look into it, but don't have the funding for this right now.
- **Q.** NJ flagged data? **A.** As per the QAPP, the NJ flagged data is being used in the totals.
- **Q.** What blank correction should they apply? Depending on the method it can change the results and hence the conclusions. **C.** 3x rule may not be the best to use for this data set.

UPDATES:

- Little Spokane River report review time extended to the January 20th
- Final Hatchery General Permit – Mike Hepp (Ecology) is on the agenda for the January 2016 Task Force Meeting. Appeals are due before then. (Update: Six SRRTTF members appealed the permit; Mike did not attend the January Task Force Meeting.)
- Federal Hatchery Permit just released for comment: requires sampling 1668C for PCB congeners. Comments due at end of March; put on agenda for Task Force discussion, and perhaps a comment letter?

ACTION ITEM: Ruckelshaus send information on comment period for Federal Hatchery Permit. (COMPLETE)

Presentation: SRRTTF Interpretation of Low-Level PCB Data: Project Objectives & Blank Correction Procedures

Adriane explained that data sets can be evaluated and interpreted in many different ways and the QAPP defines how data will be used and interpreted. The QAPP outlines project objectives and how data will answer a particular question(s). Quality objectives cover data accuracy, precision, representativeness, completeness, and comparability. The SRRTTF has outlined a 3x blank criteria in their March 2014 QAPP, designed to identify sources. Blank correction methods should be chosen based on the study objectives. The QAPP also establish a protocol for archiving data (raw data and lab blanks). Uncertainty analysis can help evaluate the blank correction procedure to see if it makes a difference (done for 2014 sampling). Dave Dilks explained that the question of how to characterize the uncertainty needs more work.

Q&A / Comments

- The Little Spokane River study uses 10x correction
- NJs are not supposed to be used for regulatory decisions.

No Public Comment

The next full Task Force meeting is January 27, 2016, 9:00 am – 12:30 pm at the Spokane County Water Resource Center

The 2016 Technical Workshop will be held on February 9, 10, and 11 at the Spokane Convention Center

The next scheduled Tech Work Group meeting is February 3, 2016 from 10:00 am – 12 pm at the Department of Ecology

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