

Spokane River Regional Toxics Task Force Technical Track Work Group Meeting

DRAFT Meeting Summary

April 5, 2017 | N. 4601 Monroe St. | Spokane, WA 99205

Meeting Documents: <http://srrttf.org/?p=7794>

Attendees:

Bijay Adams –Liberty Lake Sewer & Water District
Adriane Borgias –WA Dept. of Ecology (Ecology)
Lisa Dally Wilson (phone)–Dally Environmental
Dave Dilks (phone) –LimnoTech
Jeff Donovan –City of Spokane
Ryan Ekre –Inland Empire Paper
Brandee Era-Miller (phone) –Ecology
Ted Hamlin –Ecology
Mike Hermanson (phone) –Spokane County

Kris Holm (phone) –City of Coeur d’Alene
Doug Krapas –Inland Empire Paper
Mike LaScuola –Spokane Regional Health District
Bud Leber –Kaiser Aluminum
Dave McBride (phone) –WA Dept. of Health
Dave Moss –Spokane County
Monica Ott –City of Post Falls
Jeremy Schmidt –Ecology
Sandy Trecanni –Ecology
Kara Whitman –Ruckelshaus Center

Introductions and Agenda Review

After introductions, Kara Whitman went over the agenda. No changes were made.

Update on December Monthly Sampling Data and 2016 Technical Activities Report

Dave Dilks explained the objective of the 2016 monthly sampling data: to determine seasonal variability in Spokane River PCB concentrations by collecting data during flows higher than those during previous (synoptic) surveys. The fall 2016 sampling also opportunistically assessed PCB concentrations during wet weather. Monitoring occurred each month March-June, and again in in October and December.

One day of sampling occurred each month at six stations, including one wet-weather sample in October. In addition, the Idaho municipalities collected data during May and October at the same time as Task Force data collection. Preliminary lab results show generally low concentrations in Idaho for all months, with Washington concentrations lower than those found in the 2014 and 2015 synoptic sampling (higher river flows diluted the overall concentrations). Concentrations appeared slightly higher during the rain event, consistent with levels in stormwater/CSO loads. Dave will distribute a draft report when AXYS provides all the necessary information to validate the December data. Until LimnoTech issues that report, the December data should be considered Preliminary.

Blank Contamination: The December laboratory results exhibited high blank contamination. AXYS reran samples using archives, and the Lake Coeur d’Alene outlet sample again showed higher-than-acceptable contamination (the Trent, Greene, Spokane Gage (duplicate), Ninemile, and Latah Creek samples were acceptable). The group discussed the blank contamination and whether it was consistent and if there was a specific congener at fault. Dave explained that the first batch of blank contamination in December had a contamination with total PCBs at 302 picograms/liter containing a whole slew of congeners, while the second batch had 197 picograms/liter, half of which was PCB 11. Doug Krapas explained that IEP ran some internal samples in December and had the same issue with blank contamination at AXYS.

HIGHLIGHTS/Q&A/COMMENTS

- The Idaho Municipality data collected in May and October showed generally low PCB levels, with the exception of one high point in May at the Lake Coeur d’Alene outlet.

- One data point at Latah Creek was off the scale, similar to the synoptic survey. Dave believes this indicates a small localized source; notably, this occurred at low flow—so the *overall* load to the Spokane River is small. The City of Spokane could investigate a couple of stormwater discharges upstream, including a Combined Sewer Overflow (CSO) upstream of the sampling point that Jeff Donovan says has not been tested. There is also an upstream discharge at Browns Addition. The data could then be compared to information from Cochrane Basin, which is typical of the City’s stormwater. Dave would like this question raised again after he has had time to think about it.
- As expected, PCB concentrations correlate inversely to instream flow levels: at lower flow, PCB concentrations are higher, and vice versa. This suggests the importance of continuous sources.
- There was discussion about what the term “high flow” and “low flow” mean in terms of numbers. Dave Dilks will include flow numbers in the report, rather than relying on qualitative terms.
- Homolog distributions: a common trend, across all months and general patterns, is apparent: the Lake Coeur d’Alene outlet looks as if it has a similar homolog pattern to stormwater/CSO patterns.
- Variability from the flow from Coeur d’Alene Lake appears to be lessening (PCB concentrations are fairly stable).

Overview of LimnoTech New Scope of Work:

- Task 1: Put Quality Assurance Project Plan (QAPP) together. The QAPP will be an addendum, and there will not be any substantive changes to the previous approach.
- Task 2: Reach-by-reach, homolog-specific mass balance calculations that expanding on the work that Mike Hermanson had done (basically, redoing the mass balance on a homolog basis).
- Task 3: Compiling and validating available 1668 data and breaking it down into homologs, and conducting limited fingerprinting analysis. This work will provide information to Ecology and the Toxics Cleanup Program (TCP) about potential groundwater sources impacting the river.
- Task 4: Ongoing Task Force support, with availability for ad hoc, unspecified tech support.

Positive Matrix Factorization proposal from Dr. Lisa Rodenburg:

Bud Leber gave a broad scope of what Dr. Rodenburg’s work can do, if data comes to her in the right format. Some of the proposed work could be useful for Comp Plan 5.1.4 and some would be useful in the future for Future Studies section (Comp Plan section 6.0).

- Groundwater piece: data needs to fit specific criteria. The data up-gradient of Kaiser fits this criterion (exposed to same set of sources and also have a similar homolog pattern; similar concentrations). 73-90 data points, collected over time, exist in just the 1668C up-gradient data.
- Aroclor positive matrix factorization (PMF) analysis could help identify the unknown source.

The group discussed whether this work would assist in source identification, wanting to make sure that any money spent (of limited funds) covers specific actions in the Comp Plan and lead to useful information, and ultimately produce reductions of PCBs to the river. Jeremy Schmidt and Sandy Trecanni of Ecology’s Toxics Cleanup Program (TCP) gave insight on the potential usefulness of this work: Jeremy thinks there is opportunity for research up-gradient of Kaiser. He said that the Task Force could look at the well log database, work with the County and Spokane Valley to see if wells could be put in public right-of-ways. An aroclor analysis could evaluate potential industrial sources, to inform the siting of monitoring wells. Jeremy noted that TCP has data from five wells and they don’t point in any direction but uphill. Even recognizing disparate cleanup goals, the need still exists to pinpoint the target.

COMMENTS/DISCUSSION:

- Monica Ott added that Dr. Rodenburg's work seems like step one to help coordinate work with TCP; however, database work (CDM Smith) and LimnoTech Task 1 and 2 may need completing first.
- Sandy Trecanni noted the Comp Plan has a vague step of "consult with TCP." TCP could create a stepwise list for the SRRTTF to identify the pieces the Task Force can fill in (Part 3 of Task 5.14).
- LimnoTech Homolog analysis completion timeline: end of July, early August
- CDM Smith to take 12 weeks (put data in a format that works better for Dr. Rodenburg). Mike Hermanson spoke with CDM Smith and said they are first sampling various types of data sets to understand the universe of data. Not all data will be in the database at first (the bottleneck will be in providing datasets to them). They could prioritize the input of the data that would be utilized for a study by Lisa Rodenburg.
- Before hiring Dr. Rodenburg: have all ducks in a row, e.g. specific goals, a clear TCP process, confirming that the Task Force has the correct number of samples, etc.

ACTION ITEM: Mike Hermanson to coordinate with CDM Smith to prioritize input of data into database.

ACTION ITEM: Dave Dilks to provide a draft of the Monthly Monitoring Report for Task Force review one week prior to the April Task Force meeting on 4/26/17.

ACTION ITEM: TCP (Sandy and Jeremy) to develop a stepwise process for Comp Plan Task 5.14, Part 3 in coordination with Bud Leber.

Updates on Ecology's Environmental Assessment Program (EAP):

Brandee Era-Miller discussed preliminary findings from the EAP Atmospheric Deposition Study, which had equipment blanks lower than background PCBs (this met expectations and confirmed trends). The concentrations appear similar to those seen in King County's literature. The Augusta Avenue site for the 2nd quarter was fairly high (flux concentrations): 90 nanograms per square meter per day. EAP has a lot more work to do with the data, so this is *preliminary* information. Brandee will spend the next couple of months working on the data and on bulk deposition to see what is discernible over four quarters. They saw variability between replicates, and must look at this when they write up the data, but this does not affect the overall trends.

Technical Workshop before 6/30/2018? The group agreed that, yes, the Task Force would probably benefit from holding a technical workshop in late 2017 or early 2018. The EAP program has half a dozen Spokane River-related studies currently underway, and should have enough data by fall 2017 to spend a half to a full day presenting and discussing. This could comprise part of a workshop, or occur at a longer-than-usual SRRTTF meeting.

 The next SRRTTF meeting is on April 26, 2017 at Liberty Lake Sewer and Water District from 9:00 am to 12:30 pm
 The next TTWG meeting is on May 3, 2017 from 10:00 am to 12:00 pm at the Department of Ecology