

Spokane River Regional Toxics Task Force

DRAFT Meeting Notes | Wednesday, April 26, 2017 | 9:00 am – 12:20 pm
Liberty Lake Sewer and Water District | 22510 E. Mission Ave | Liberty Lake, WA
Meeting Documents posted at <http://srtrtf.org/?p=7865>

Attendees:

*Voting Members and Alternates (*denotes a voting member)*

Tom Agnew*, Bijay Adams –Liberty Lake Sewer and Water District (LLSWD)
Mike Coster*, Jeff Donovan*, Cadie Olsen –City of Spokane
Adrienne Cronebaugh* (phone), Mike Zagar –Kootenai Environmental Alliance (KEA)
Chris Donley* --Washington Department of Fish and Wildlife (WDFW)
Don Keil*, Kris Holm (phone) –City of Coeur d'Alene
Doug Krapas*, Ryan Ekre --Inland Empire Paper (IEP)
Mike LaScuola* –Spokane Regional Health District (SRHD)
Bud Leber*, Brent Downey –Kaiser Aluminum
Dave McBride* –Washington Department of Health
Dave Moss*, Mike Hermanson (phone), Rob Lindsay –Spokane County
Monica Ott –City of Post Falls
Mike Petersen*–Lands Council
Jerry White* --Riverkeeper
Ken Windram –Hayden Area Regional Sewer Board

Advisors

Kevin Booth –Avista
Adriane Borgias, Holly Davies, Sara Hunt, Grant Pfeifer, Jeremy Schmidt, Sandy Trecanni, Diana Washington -
Washington Department of Ecology (Ecology)
Brian Nickel, Lucy Edmondson –Environmental Protection Agency (EPA)

Public/Interested Parties

Dianne Barton –Columbia River Fish Commission
Dave Dilks –LimnoTech
Sarah Hubbard-Gray – Facilitator for Spokane River Stewardship Partnership (SRSP)
Jim Kimball –JUB Engineering
Lisa Rodenburg –Rutgers
Geena VanDessel –Lee and Hayes

Introductions and Agenda Review:

After a round of introductions, the group made no changes to the agenda.

DECISION: The Task Force approved the March 22, 2017 meeting summary with minor edits as delineated at the meeting. (change March to February, add year for any mentions of months)

ACTION ITEM: Kara Whitman to make the discussed edits to the March 22, 2017 meeting summary and place them on the Task Force website. (COMPLETE)

TTWG Report and Technical Topics:

ACE Report: Bud gave an overview of committed and uncommitted funds. He explained that the uncommitted funds listed will be reduced based on LimnoTech Contract and potentially the Ruckelshaus contract.

Monthly Sampling: LimnoTech is waiting on data validation. Dave Dilks will give a presentation at the TTWG meeting on May 3, 2017. Then will provide a report draft for review and potential formal approval at the May 2017 Full Task Force meeting.

Dr. Rodenburg presentation: Duwamish River PCBs

Dr. Lisa Rodenburg called in to present her “PCB Congener and Factor Analysis Results on the Duwamish River Watershed.” She was contracted because of her expertise in analyzing large datasets on PCBs and other pollutants. The study involved determining what data (analyzed for 209 congeners with method 1668) could be used in a factor analysis. For factor analysis, ideally one needs more samples than analytes. One also needs surrogate recoveries and duplicates to estimate uncertainty. It also important that the lab provide data in a certain way (need to specify which column should be used for GC column and co-elution pattern).

Dr. Rodenburg said they had wanted to use the software PMF 5.0 (free download, runs in windows), but this software did not give good results. She ended up using PMF 2. (EPA is currently trying to figure out why PMF 5 is not doing what they want.) She analyzed five data sets. This took a long time (she started September of 2016).

Analysis Results Highlights:

- The dominant sources in Duwamish: 1260 > 1254 > 1248, > 1016/1242; no de-chlorination (possibly due to salinity); Aroclors are the dominant PCB sources in this watershed.
- For non-aroclors, PCBs had low molecular weight PCBs.
- There is a spatial trend in sources consistent across water, sediment, and biota:
 - Air (atmospheric deposition): lined up with aroclors (90% of mass was from aroclors).
 - Sediment: dominated by 1260 near the mouth of the river. Some PCB 11 found upstream.
 - Surface Water: did not have enough data (too many non-detects), so could only do 42 factors. However, all factors found resembled aroclors (1260).
 - Fish tissue: five fingerprints. PCB 11 does not bioaccumulate much. The 5 fingerprints were aroclors. Aroclor 1260 (18% of mass), some bioaccumulation happening (#4 started out at 1260. Been processed by organism). Saw the same thing in the samples of fish from Hanford. Spokane River: compared this data to small amount of data: multiple linear regression. Can explain the fish data from Spokane with this. Pretty good match, nothing too surprising, similar fingerprints Duwamish and Hanford. Fish tissue is accumulating high molecular weight PCBs.
- The further away from the source, the less it looks like the original aroclor (this does not necessarily mean that it was not originally from an aroclor).

Q&A/Comments

- **Q.** What did Duwamish do with the PMF information? **A.** They have not fully digested it yet (stopping working on the report). This work will help clarify their thinking and be used to make future sampling decisions, and they plan to use some of the results for superfund allocation. They also plan on avoiding silicon rubber tubing for sampling (now using platinum-cured silicon rubber tubing). She recommended they don't need to model PCB 11.
- **Q.** Are all watersheds unique, or are there perceived/real similarities (i.e. are aroclors the dominant source in most watershed?) **A.** Dr. Rodenburg was surprised that Duwamish had no dechlorination. All of the systems she has compared are low-energy systems; the Spokane River is different as it is low in sediment, highly scoured, and high energy so it could end up different (she does not know without an analysis).
- **Q.** Can you explain why PCB 11 does not bioaccumulate in fish? **A.** PCB 11 is found in fish, but the bioaccumulation factors are not high, only two chlorines, which don't bioaccumulate as much.
- **Q.** How are columns selected, is there a preference? **A.** Dr. Rodenburg prefers SPB-octal (seems to be standard), don't mix and match columns. They need to specify the column to the lab. **Q.** What does the Task Force lab use? (AXYS). Lisa thinks that AXYS is reporting SPB-octal.
- **Q.** Can you assess a correlation between PCB in fish tissue and source? **A.** Portland Harbor had paired samples and they can match those pathways tightly. Once you get to fish, it's more difficult as they swim

around—you can see some spatial trends, but it is less obvious. Osprey have a wide range, but have the same fingerprint, although some at much higher concentration.

- **Q.** Is PMF analysis a value to Task Force at this time? **A.** Dr. Rodenburg has seen the synoptic data from 2014 and 2015, fish tissue (15 or 16 samples), may be more fish data? There is definitely enough water column data, but not sure about fish data. Fingerprinting would be most useful for the water column. She has already done PMF for Spokane County.
- **Q.** Homolog analysis? Words of advice on doing this? **A.** In her professional opinion, to do a water model using total PCBs is obsolete. Basing management decisions off of this is also obsolete. To do a homolog analysis one needs good 1668 data. Duwamish has a lot of aroclor data, but may not be useful for modeling or for management decisions.
- **Q.** The Task Force has a lot of 1668 data, advice moving forward? **A.** Dr. Rodenburg explained that as long as there is sufficient data, this analysis makes sense.

LimnoTech Presentation

Dave Dilks discussed preliminary findings of the homolog specific mass balance analysis of 2014 and 2015 data. The results are generally consistent between years and no new sources have been identified. He has estimated fingerprints for previously-identified suspected sources. Reaches being analyzed:

- For 2014: Lake Coeur d'Alene to Post Falls, Post Falls to Barker, Barker to Trent, and Trent to Greene.
- For 2015: Barker to Mirabeau, Mirabeau to Trent, and Trent to Greene.

Mass balance assessment is not suited to reaches that gain *and* lose water, as with the Trent-to-Greene reach (which originally had some counterintuitive results). The Barker-to-Trent reach shows a strong signal in the tri, tetra, and penta homologs. The Trent-to-Greene reach still shows overall loss of lower-chlorinated homologs; Dave sees no logical explanation for this—perhaps Upriver Dam, volatilization, or settling out (settling can likely be ruled out)? The Greene-to-Spokane reach shows a stronger penta signal, with some tris and tetras. Dave is not sure if these are spurious or real signals.

Mirabeau-to-Trent shows penta, tri, and tetra, and had a hexa load that may be anomalous or ephemeral. When looking at the patterns, an unexplained load appears to be coming in from groundwater with homolog patterns something like this. Some questions remain, e.g.

- Is the load above Mirabeau anomalous or ephemeral?
- Why is there a loss of tri and tetra below Trent?
- Is there a source below Greene?

Dave's next step is to compare homolog patterns for the "unknown" loads to homolog patterns for groundwater samples. Brian added that hepta PCBs are a component of 1260 (38% by weight).

Q&A/Comments

Q. What do those gaining homologs mean? **A.** Anything dominated by hexa is likely aroclor 1260. (industrial), if more of a penta signal then likely aroclor 1254 often used in caulk. Anything tri or tetra are likely aroclors 1216 or 1248. Hepta is odd, not sure why this is coming up—could be part of altered 1260.

EPA Regulatory Reform Comment Period: Open until May 15th

Chris Page explained that the Task Force does not have another full meeting scheduled before the end of the federal comment period for EPA regulatory reform. Doug Krapas suggests the Task Force submit a letter.

ACTION ITEM: Doug Krapas to put a letter together on TSCA Reform. The letter to be posted by May 3rd for a decision on a Conference Call meeting on May 10th at 10 am. (COMPLETE)

ACTION ITEM: Kara Whitman to schedule a conference call for May 10th at 10 am and send out call in information for the meeting. (COMPLETE)

Announcement: EPA Public meeting: May 1st from 9am to 12pm eastern (this info went out via Task Force list serve and the Task Force website).

EPA PCB Cleanup Sites

Brian Nickel discussed what he has learned from research on federal cleanup in the Spokane River Basin. Unfortunately, most sites in the area are inactive and not much available on the web or in an EPA database. Brian asked the EPA Site Assessment and Brownfields office to pull a list of sites. He looked at it to gauge potential for PCB contaminants. Brian found four sites of interest:

- Rathdrum, Idaho: Arrcom (Drexler Enterprises). 1960-1982- waste oil recycling facility. PCBs among the contaminants. Brian got attorney permission to share record of decision (ROD) on this site. Waste oils stored and recycled over time, spills contaminated soil. A couple of removal actions occurred, completed in 1992 (some PCBs still remaining with a detection limit at the time of one microgram/liter. Aroclors: will be in the ROD. Aroclors found at site: 1260 and 1254 at low concentrations.
- Coeur d'Alene, Idaho: Thorco. Four transformers improperly disassembled in March of 2003. Aroclor 1260. Did removal action. Post removal PCBs showed no detectable PCBs in soil below <.05 ppm.
- Newman Lake, WA: Former Fairchild Atlas E Missile S-2 Site. Newman Lake is 303(d) listed for PCBs. Site inspected in 2011, but new owner will not grant access.
- Spokane: Washington Chemical, Inc.: Starting in 1984, this site operated under a Resource Conservation and Recovery Act (RCRA) permit from Ecology as a solvent recycler and waste fuel blender. The owner pled guilty to lying about disposal practices in 2003. Brian is not sure what kind of removal action was done. Concern on this site: presence of both PCBs and other organic compounds that can mobilize PCBs to water. 3828 E. Queen. Jeremy Schmidt added that groundwater flows North at this location, but eventually finds its way back to the River. Jeff Donovan says there has been sewer sampling in this area and it is higher in PCBs. Brian suggested the Task Force go view the EPA Federal Cleanup sites. Brian can dig in the files if needed.

WDFW PCB Cleanup Sites

Chris Donley explained that WDFW sent a letter related to low-PCB purchasing to fish feed vendors as a permit requirement. This is a new relationship with these vendors. The State purchasing rule does not specify a test methodology. This letter has not been well-received by the vendors as they comply with federal Toxic Substances Control Act (TSCA) standards. WDFW went back to them and asked again.

The WDFW pollution prevention plan is due in about a year (in 2018). The Federal Hatchery Permit also has PCB conditions, but does not specify a testing for the vendors (their efforts are limited to those deemed "economically and practicably feasible"). The suppliers want to sell feed, so will likely provide the necessary testing. However, they need to make sure the testing method is adequate.

Chris also discussed a new type of feed (soldier fly larvae), theoretically PCB-free. WDFW is piloting the feed at one hatchery to see whether they can we grow fish timely and efficiently enough to make it economically practicable/feasible. They may try this feed on Trout next, but it is expensive (low demand, 3-4x the cost—but if demand goes up, that could drop). They will know more in six months.

Chris also said WDFW intends to capture PCBs (in settling ponds etc.) to eliminate discharge to the River, as part of a larger modernization of their facility. They tried to get funding for this in the State budget, but it does not appear to be funded at this time. They will be looking to partner with sister agencies in the next fiscal biennium (WDFW requested \$12 million, \$11 million of which would fund the redesign replacement).

Events and Outreach:

- Task Force meeting with Color Pigment Manufacturers at Inland Empire Paper: 10am–4pm, May 9th. SRRTTF members encouraged to attend; please let Doug Krapas know if they would like to attend.
- Outreach Work Group: Jerry White and Mike LaScuola updated the SRRTTF on the outreach work group:
 - Group has been meeting, brainstorming, looking into options for website. The group sees the site as a cornerstone of PCB outreach. There will be a lot of room for partner organizations to assist (e.g. events, guerilla marketing). It will be a space to share all SRRTTF participant PCB outreach activities.
 - Bundle messages: clean water, fish, birds, wildlife, green plants! Clean earth.
 - Sarah Hubbard: need actual calls to action, easy behavioral changes.
 - There are specific tasks in the Comp Plan that the group is also working on.
 - **Q.** How do you know who to target? Is there money available to do the right research? **A.** The work group will likely create a package and bring it to the Task Force to request funding. Suggestions:
 - Identify what the core audience is and find the change agents.
 - Test efficacy of the message – beta test.
 - Health District has been putting together a PCB link to educate on PCBs in the home.
 - The Health District will help the outreach group work through a similar process that their social marketing group guided them through.

Funding:

- UPDATE: The Legislature has gone into a special session. June 30th is the end of the fiscal year. Currently there is 310,000 in senate budget, and \$650,000 in House budget allotted for the Task Force as a line item proviso in Ecology's budget, specifically delineated for the Task Force. Ecology legislative liaison = Denise Clifford. WDFW liaison will contact Ecology's liaison to see how they can help.
- Ecology has a loan package (millions of dollars) waiting for legislative approval.

Updates and Announcements:

- Adriane Borgias contacted UC Berkeley as they have a class on green chemistry solutions. Ecology green chemistry staff = Tom McKee, Ken Zarker, Saskia Van Bergen. To address the pigment question, Adriane sent them a bunch of info. They are interested in tackling the issue, but need sponsorship. Hewlett Packard is one of their sponsors and may have interest, and color pigment manufacturers could be a connection.
- Ruckelshaus Center scope of work (7/1/17-6/30/18)
 - 12-month contract with 30-day cancellation clause. Already in previous contract. No need to change the contract. Call out line item for the workshop – optional.
 - Pull line item 9 out in the numbers.

DECISION: The Task Force decided to extend the Ruckelshaus Contract for the FY17-18, pulling out line item nine (public workshop) and specifying that amount as optional, to be determined.

- Dave Moss is transitioning to part time before retirement. Rob Lindsay is Water Programs Manager and will take over as primary County rep for the SRRTTF. Mike Hermanson is now Water Resource Manager, Ben Brattebo is now Reclamation Engineering Manager.
- Grant Pfeifer: Ecology is writing the Task Force members a letter to invite participation in brainstorming how to navigate the permitting landscape. They continue to press for reductions in PCBs reaching the Spokane River, but taking some time to navigate the permit process and reliably and effectively meet the needs of the Clean Water Act, SRRTTF, permittees, and the community. EPA is supportive of the Ecology approach.
- Reminder: The May 2017 Task Force meeting is the 5th Wednesday of the month (May 31st).

No Public Comment

The next Task Force Conference Call to be held on May 10 from 10:00 am to 11:00 am.
The next full Task Force meeting will be held on May 31, 2017 at Spokane County Water Resource Center from 9:00 am to 12:30 pm.
The next TTWG meeting will be May 3, 2017 at the Department of Ecology from 10:00 am to 12:00 pm.

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