

SRRTTF Technical Track Work Group (TTWG) Meeting

DRAFT Meeting Notes

May 6, 2015 | 10:00am-12:00pm

Department of Ecology | 4601 North Monroe Street | Spokane WA 99205-1295

Bijay Adams – Liberty Lake Sewer & Water District
Adriane Borgias – WA Department of Ecology
Galen Buterbaugh – Lake Spokane Association
John Covert – WA Department of Ecology
Lisa Dally-Wilson (phone) – Dally Environmental
Dave Dilks (phone) – LimnoTech
Jeff Donovan – City of Spokane
Ryan Ekre – Inland Empire Paper
Ted Hamlin – WA Department of Ecology
Mike Hermanson (phone) – Spokane County
Kris Holm (phone) – City of Coeur D’Alene

Doug Krapas – Inland Empire Paper
Greg Lahti – WA Department of Transportation
Bud Leber – Kaiser Aluminum
Rob Lindsay – Spokane County
Dave McBride (phone) – WA Department of Health
Dave Moss – Spokane County
Chris Page (Video) – Ruckelshaus Center
Sandy Phillips – Spokane Regional Health District
Lynn Schmidt – City of Spokane
Kara Whitman – Ruckelshaus Center

Introductions and Agenda Review

After Introductions, Chris Page went over the agenda. No changes were made.

Expenditures: “SWAT Team” Pilot Project Costs

Flow Gaging

At its April 22, 2015 meeting, the Task Force decided that the TTWG and LimnoTech would review the recommendations for gages and prioritize the expenditures.

Rob Lindsay summarized the recommendations of the flow gaging work group. The group met in April and worked their way through the watershed identifying key gaging locations. They looked at who funds the gages and whether additional resources are needed to re-engage and/or operate and maintain the gages.

The group identified three locations where they recommend the Task Force consider expenditures for gage installation, upgrades, and/or operations and maintenance (O&M) costs:

- Greene Street Gage: The Administrative and Contracting Entity (ACE) is contracting with Spokane Community College for \$9,200 to install and operate this gage in coordination with the United States Geological Survey (USGS); an additional \$2000 is needed to update the gage rating curve. ACE is entering into a contract with Spokane Community College (SCC); SCC is reviewing the agreement and we should hear back within the next week. USGS will be a partner in many of the gage stations, but not all. Greene Street gage would be installed during the lowest flow of the year.
- Trent Bridge Gage: The Trent gage is no longer operational (funding ran out). This is a significant gage (downstream from Barker at gaining reach) since it will be needed to quantify this reach. This gage will require approximately \$19,880/yr to operate and maintain. The group asked if USGS would partner on this gage. USGS is not planning on doing 50/50 split going forward. Rob explained that if the Task Force wants the greatest level of certainty and quality of data, then working with USGS is the best method to ensure that. The group asked if the Spokane County Conservation District (SCCD) might partner with the Task Force. Rob explained they typically only set up gages on smaller tributaries; however, he will ask. Ted Hamlin suggested asking if Spokane Community College students can monitor flows at this gage to save costs.

- **Nine Mile Gage:** This gage needs to be re-installed. The anticipated cost is \$25,000 to purchase and install the gage and update the rating curve. O&M would cost \$19,880/year. The group is looking for a funding agency/partner for this gage. Avista indicated a willingness to partner on this gage; we need to clarify if Avista would assist with installation or O&M. Rob will talk with Speed Fitzhugh and Steve Esch at Avista.

Dave Dilks asked how soon the Green Street will be operational, as the data from this gage is needed as soon as possible. Rob explained that the data would come quickly after installation; the critical timing element will be the establishment of the rating curve. Should be before Labor Day (Sept. 7)

DECISION: The group agreed the extra \$2000 should be spent to establish a rating curve at the Green Street gage after installation.

ACTION ITEM: Rob Lindsay to engage Avista, USGS, SCC and the SCCD about partnering on the Trent and Nine Mile gages to cover monitoring, O&M, and/or installation costs. Rob to bring any information of cost sharing to the next full Task Force meeting. This information is needed on or before Wednesday May 20th.

High-Level Scoping for Wet Weather Monitoring

Dave Dilks discussed some background on the 2013 data gap assessment, which identified wet-weather PCB loading as a key data gap. LimnoTech thinks it unlikely that a wet weather mass balance assessment will see sufficient increase in instream PCB concentration during wet weather event to be able to accurately measure it. It is unrealistic to expect that the study could detect <20pg/l. Dave recommends the Task Force not implement wet weather sampling this fall.

A wet-weather mass balance assessment could confirm the existing assessment that wet-weather concentration increases are typically small; however, this may not be worth the additional cost. Fortuitous weather conditions could provide a much larger than average storm event; however, this is would be very difficult to time so is not a desirable option.

Further, the wet weather loading data gap is not nearly as large as it was in 2013. The city has collected a significant amount of data. Dave recommends considering other monitoring alternatives, such as the assessment of potential dry weather source between Green St. and Spokane Gage.

Other options could include the direct measurement of wet weather loads, such as Combined Sewer Overflow (CSO) sources. The City of Spokane has been compiling a robust data set on stormwater loading. Direct measurement could supplement this data set incrementally, not filling a gap, but adding to the existing set. Lynn Schmidt said the City of Spokane will likely not do any more stormwater sampling events. Loadings (concentration and flow) have been calculated and incorporated into the City's integrated stormwater management plan.

Other Recommendations

Improved flow estimates (through the addition of Greene Street flow data) indicate a potential additional dry weather source (between the Greene Street and Spokane gages). Dave recommends a second round of dry weather assessment, given the information from the 2014 dry weather sampling. LimnoTech will provide the final high-level scoping report in the next two weeks.

Dave also provided recommendations on the installation and/or O&M of the flow gages:

- The Greene Street gage and the rating curve are necessary for investigating the unknown source identified in the 2014 synoptic sampling.

- The Nine Mile gage would be needed if the Task Force decides to do a wet weather mass balance study; however this may not be a priority given the feedback on wet weather sampling.
- The Trent Avenue gage will be necessary to identify the unknown source between Barker and Trent.

Q&A/Discussion

- Doug Krapas: Do we have flow calculations at Hangman Creek? Yes and there were some occasional high PCB concentrations coming out of Hangman Creek.
- Bud Leber: Are flow gages accurate enough to show the total flow increase in the river? If you have a flow event, can you do an integrated load assessment using data from the City of Spokane (based on area, flow and data from Spokane CSOs)? 2006 assessment pegged stormwater as a main source.
- Adriane added that we could use flow data as a surrogate for PCB concentrations. What is the average percent of river from a flow event? Perhaps 5+ samples could cover the CSO basins and integrate those with flow. Answer: This may be a good option that would work well to Nine Mile gage, but may be difficult below Nine Mile. This study could focus on a segment with no influence from the dam flow.
- Doug: The Trent Avenue gage should be a priority, to confirm data near Kaiser (due to the variability of groundwater flow regime in the area). Adriane asked “What would this study look like?” Bud suggested that the Task Force do a synoptic study in this smaller section, and examine the homolog pattern to see if it is stable. Study question: What is the fingerprint that is coming in that is a non-Kaiser contribution?
- Lynn: do we need 24-hour continuous data? Reducing this could trim the costs, but it depends on the information that is needed.
- Greg Lahti suggested wet-weather sampling on Hangman Creek, where there are lots of farming activities, chemical pollutants, and treatment facilities. There was a spike in PCB concentrations on Hangman Creek seen during the 2014 synoptic sampling. Can we isolated PCB sources for wet weather?
- Jeff Donovan suggested looking at smaller stormwater basins on the tributaries.
- Groundwater has a significant impact on phosphorus. This should be a concern for PCBs.
- The group would like LimnoTech to prepare rough scopes and budgets for the following:
 - Wet-weather mass balance using river flows in conjunction with City of Spokane CSO data.
 - Trent Avenue: build upon dry weather sampling by preparing a study to identify unknown sources from groundwater (e.g. congener cross-check with Kaiser sampling; fingerprinting).
 - Assess utility of wet-weather sampling Hangman Creek and possibly other tributaries.
 - Dry-weather sampling on the Greene Street segment to try and identify unknown source.

ACTION ITEM: Lynn Schmidt to look at historical data on stormwater impact on river flow, what percentage of river is from stormwater.

ACTION ITEM: The group agreed to recommend operating and maintaining the Trent Avenue Gage to the full Task Force.

ACTION ITEM: LimnoTech to look into the potential and usefulness of wet weather sampling on Hangman Creek and report back to the Task Force.

ACTION ITEM: Dave Dilks to develop a plan overview and cost estimates for dry-weather sampling between Greene Street and Trent, and Barker to Trent, to look at contributions from groundwater, fingerprinting, and verification of existing data. This overview is to be provided for review at the next full Task Force meeting.

“SWAT Team” Work Costs

Hydroseed: Doug said they gave AXYS labs the green light to proceed with analysis of the hydroseed samples. The samples (three different manufactures) contain solids and liquid, and will be analyzed using a method that makes the cost \$475/sample. They are using the city Quality Assurance Project Plan (QAPP) used for product

testing, with an addendum. Total cost will depend on the number of samples. Note: since the conclusion of this meeting, the most recent estimate (as of May 14th) is \$9,975.

Vector Waste: The group is done collecting samples and has sent the samples (both solids and liquid) to the lab. The QAPP includes nine samples using method 1668C at a cost of \$785/sample, and 6 samples using modified 8270 method at \$460 per sample. (Total estimated cost is \$10,125 including shipping costs)

Hatchery Fish Meal: Adriane explained that a study of hatchery fish meal could be done through the little Spokane Fish Hatchery Case Study approved as a project for the Environmental Assessment Program (EAP).

Flow Gages: See discussion earlier in meeting notes.

Data Management and Outreach: not work cost to report at this time.

Related projects:

Fish Samples for Testing: Ted Hamlin explained this work has been rolled in with the Little Spokane Fish Hatchery Case Study. Adriane explained that the sampling has been arranged. The fish will be acquired from Trout Lodge (in Soap Lake, WA) and the Little Spokane Fish Hatchery (stocked fish), which will be going out in 1-2 weeks. The rainbow trout will be collected, processed and frozen, and sent to EAP. EAP will retain the samples until the analysis occurs. They still need to develop an analysis procedure depending on the purpose of the analysis. The original question addressed loading and contribution to the river, which requires a whole fish analysis. They are collecting 15 fish from each hatchery, compositing into six samples for each hatchery. The sample size (15 fish) was chosen because of a specific fin fish sampling procedure used by Ecology. Kris Holm expressed the need to collect as many samples as would be needed to be statistically significant.

Next Steps for Issues Related to PCBs and Fish

Chris Page noted that the issues and conversations related to fish and PCBs have been complicated and encompass a variety of related topics. The idea for a workshop to address these issues has been expressed on a number of occasions by multiple parties in, and associated with the Task Force. The facilitation team (Chris, Kara, Adriane, Bud, and Lisa Dally Wilson) has compiled these issues and broken them into three “buckets” to assist in planning a potential 1-2 day workshop if the Task Force decides to hold one. These buckets include:

1. PCB loading into the Spokane River system via local fish hatcheries and stocking.
2. The connection between PCBs in the water column and fish tissues in the Spokane River.
3. Statewide scope and context of 1&2.

ACTION ITEM: The Ruckelshaus Center and the Hatchery SWAT team to connect with Washington State Department of Fish and Wildlife regarding these buckets and a workshop; and to loop back on these “buckets” and bring to the next Task Force meeting for the potential planning of a workshop.

The next Spokane River Regional Toxics Task Force meeting is May 27, 2015 at the Spokane County Water Resource Center from 9am—12:30pm

The next Technical Track Work Group meeting is June 3rd at the Department of Ecology from 10am –12:00pm