

## Status Report – July 18, 2014

### **Contracts**

The following contracts related to “Phase II” work (synoptic and seasonal sampling) have been issued.

#### AXYS Analytical

- PCB Analyses
  - Grab sample and CLAM processing
  - Amendment may be needed to process Gravity High Volume Samples
- NTE \$145,000

#### SVL Analytical

- Conventional Parameters
  - TOC, DOC, TDS, TSS
- NTE \$14,000

#### LimnoTech

- Phase II Work
  - Field Sampling Preparations and QAPP/SAP Maintenance
  - Data Processing
  - Meetings and Coordination including in field oversight for synoptic sampling
- NTE \$90,000

#### Gravity Consulting

- Sampling Under QAPP/SAP
  - Synoptic and Seasonal Sampling
  - “Confidence Test” of High Volume Sampler”
- NTE \$145,000

### **Sampling Methodology Work Group**

A conference call and meeting were held by the Work Group to discuss and address sampling methodology issues. Discussions fell into three main areas, proceeding with grab sampling based on May 2014 Confidence Testing with 2.36 liter grabs, the potential use of CLAMs for riverine sampling, and the potential use of the Gravity High Volume Sampler (PR-2900).

### Grab Sampling

The draft Confidence Testing Memorandum from LimnoTech on the May 2014 sampling event was discussed. The sampling results (Spokane River sampling at the outlet of Lake Coeur d'Alene and near Mirabeau Park) showed that the "signal" from the riverine samples were within the range of the "signal" from the method blanks. The sampling event occurred during relatively high river flows (Post Falls Gauge ~ 18,000 cfs) as compared to the relatively low river flows expected in August (Post Falls Gauge ~ 737 cfs). Since the majority of the inputs into the river are likely to not be flow dependent, the dilution factor on the river in August should be about 20 times lower and as a result the sample "signals" are expected to be above the "signal" from the method blanks. (The acceptance of the Confidence Testing Memorandum from LimnoTech is a separate agenda item). Based upon this assessment of August sampling conditions, the recommendation was made to move forward with the planned 2.36 liter grab sampling as called for in the QAPP/SAP. In addition, it was recommended that the one 4 liter grab sample from the May 2014 sampling event be sent to AXYS to determine if the larger sample size would raise the sample "signal" above the "signal" from the method blanks.

### CLAMs

Two concerns with respect to the CLAM as a sampling method have emerged from the previous field testing by Kaiser and Ecology under discharge sampling and river sampling conditions. One concern was the difference between the sample volume determination method recommended by the CLAM manufacturer (average of the beginning and ending flowrates through the CLAM multiplied by the sampling duration) and the actual collection of the sampled volume during three Kaiser tests. This volume difference resulted in about a 25% to 35% over reporting of PCB concentrations. The second concern was that the reported results from the CLAM samples was consistently higher by about a factor of two from the composite and grab samples collected even though the concentrations reported were about a factor of 33 different (~3,300 pg/L vs. ~100 pg/L).

On the first concern, the CLAM manufacturer is working on use of a "tipping gauge" for measuring the volume of sample passing through the CLAM. On the second concern, a conference call was held with AXYS to discuss what type of controlled laboratory experiments could be conducted to help understand or resolve the apparent factor of two difference between CLAM and grab/composite sample results. AXYS is drafting a technical memorandum that will use the information discussed during the conference call to scope out potential controlled laboratory experiments. A first draft is expected the later

part of July. Based on the above, it was recommended that the CLAM is not yet ready for use in this phase of the Task Forces sampling efforts.

#### Gravity PR 29000 Sampler

Discussions were held concerning the potential applicability of this High Volume Sampler (HVS) to the current sampling program as contained in the QAPP/SAP. The two main questions concerning this HVS were (1) would the “signal” from samples collected by the HVS be above the “signal” from the method blanks not only at low river flow conditions but high river flow conditions as well, and (2) the implementability of the sampling method (amount and type of equipment required to be carried to the sampling location).

After discussion by the group it was recommended that during the synoptic sampling in August that Gravity collects two samples with their PR 2900 sampler at some point inside of the timeframe of initial and final grab sampling events at two locations. The recommended locations were at Nine Mile since it is likely that the sample “signal” from the grab samples should be above the “signal” from the method blanks and thus some comparison between methods could be made and at the outlet of Lake Coeur d’Alene since the expected concentrations of PCB should be lowest there.