

Citizens for a Clean Columbia

Our mission: to advocate for a clean Columbia River ecosystem

NEWSLETTER JANUARY 2015

Who are we?

Citizens for a Clean Columbia (CCC) is a volunteer organization focused on advocating for the health of the Upper Columbia River and Lake Roosevelt. Visit us at www.cleancolumbia.org.

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News in Brief

Residential Soil Study

- Sample collection was completed on 83 properties (over 400 discrete samples). CCC obtained a total of 9 split samples from 2 properties to obtain full splits for mechanical and chemical analyses.
- Results from this study are expected in late winter or early spring of 2015.

Upland Soil Study

- Sampling is complete on 142 aerial deposition decision units (DUs) (which is the number of DUs proposed) but fewer than planned windblown sediment and relict floodplain DUs were sampled due to limited access on private property.
- Results from this study are expected in late winter or early spring of 2015.

Colville Confederated Tribes Update

- Expert Reports prepared by CCT shows that metals present in Teck air emissions are detected in bottom sediments of local lakes and are bioavailable.
- There is also an indication that the release process is ongoing.

October 1: Lake Roosevelt Bus Tour

- The Lake Roosevelt Forum bus tour took place Oct

1, 2014 with 43 people, including CCC members.

- Visits were made to the student run fish hatchery in Colville, the Kettle Falls Marina, Marcus Island, Northport Park, Wolohan/Hall residence, and Evans Boat Launch.

Technical Advisor Update

- Joe worked with CCC on the Residential and Upland Soil Studies, the Macroinvertebrate Tissue Study Quality Assurance Project Plan (QAPP), and grain size determination issues about the beach sediment study.
- He also observed soil sampling at two properties and received split soil samples from EPA for the Residential Soil Study.

Columbia River Round Table (CRT)

- CCC has a representative on the CRT, a group devoted to establishing Ecosystem Function as a co-equal purpose with power generation and flood control in a modernized Columbia River Treaty.

Proposal for Shoreline Cleanup

- Consider volunteering for a September shoreline cleanup day.

Teck Toxic Plume and Spill News

- No additional spills were reported.
- Construction of Phase 1 of Teck's treatment plant begins in early 2015

Residential Soil Study sampling completed on schedule

Residential soil study sampling activities were completed in October 2014 (see purple area on the map below). Background on this study can be found in our July newsletter. A total of 83 properties were sampled for the study. The residential soil study QAPP specified the collection of split samples, with wet chemistry (metal concentration determinations) to be performed at two laboratories. Mechanical sample preparation of the split samples was to be done only by the primary analytical laboratory. CCC believed it was important that complete sample analysis be performed at an analytical laboratory other than the contract laboratory used by Tech American Incorporated (TAI) for the upland soil study and EPA for the residential soil study. Nine split samples were provided to CCC from two properties and were fully analyzed by an independent analytical laboratory. Results from this study are expected in late winter or early spring of 2015

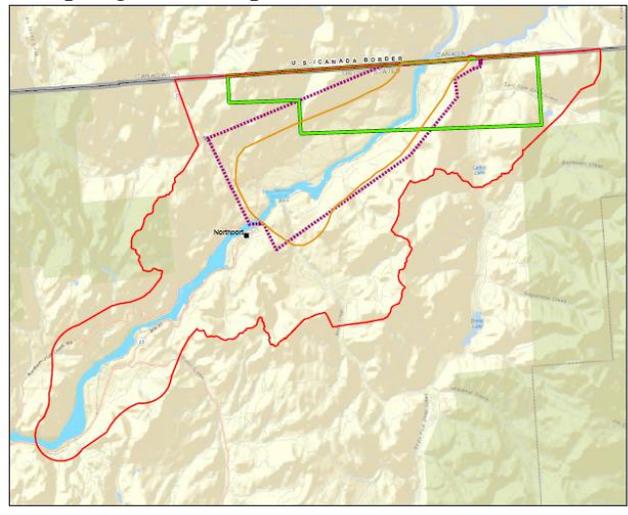
Mindy Smith, CCC secretary and Joe Wichmann, Technical Advisor

Upland Soil Study also completed on schedule

This study is one of the final parts of the Remedial Investigation Feasibility Study. This study examines soil for contaminants from air emissions, historic flooding, or windblown dust from contaminated sediment. The area of interest for air emissions is approximately 99 square miles (see red area on the map on p.2), with a 23 square mile area along the Upper Columbia River downstream of the border designated for more intensive sampling (see orange area on the map). The sampling area for flood effects was from 5 relict floodplain areas. The windblown dust areas included near-shore areas near Marcus Flats and Seven Bays.

The Upland Soil Study sampling also finished in October 2014. All three major companies with significant land holdings in the study area agreed to allow access in time for sampling to occur on their property. As a result, 142 aerial deposition decision units (DUs) were sampled which is the number of DUs proposed for sampling in the study QAPP. Less than half of the originally planned windblown sediment and relict floodplain decision units were sampled due to private property owner access refusals. Teck will provide EPA with the study data in late January 2015. Results will be provided to landowners once EPA fully validates the data. It has not been decided if additional windblown sediment and relict flood plain sampling will be attempted in 2015.

Sampling areas map



- Green: DOE study area
- Purple: residential soil study area
- Orange: upland soil intensive study area
- Red: upland soil study area

Mindy Smith, CCC secretary and Joe Wichmann, Technical Advisor

Update from the Colville Confederated Tribes (CCT)

- As part of ongoing litigation with Teck around pollution of the Columbia River, CCT has prepared several Expert Reports documents that show the following: Metals present in Teck air emissions are detected in bottom sediments of lakes more than 60 miles away from Trail.
- These metals are released into pore water and are therefore mobile and bioavailable.
- Metals are present in both older and recently-deposited sediments and the release process is ongoing.

Mercury concentration profiles examined in sediment cores from Bonaparte, Ellen and Cedar Lakes show that mercury deposition is greatest in close proximity to the Trail smelter. The mercury in Cedar Lake was primarily derived from ore deposit sources and about half the mercury from Lake Ellen sediments were derived from ore deposit sources.

Potentially damaging to their case is the decision (case law) that air emissions should not be considered toxic discharge. CCT is also hoping to convince EPA and the Department of the Interior to conduct pilot clean-up studies at Deadman’s eddy to determine the best clean-up strategies.

Lake Roosevelt Bus Tour

On October 1 2014, forty-three passengers went on a wonderful adventure to learn about many of the programs taking place on the Columbia River and to network with each other.

The tour began at the student-run Colville Fish Hatchery where students, under the direction of Jono Esvelt, lead us through the facility where they learn about the processes of fish farming and provide thousands of fish to stock local ponds creating a self-sustaining unit.



The tour moved on to the Kettle Falls Marina where a local volunteer, Gene Smith, and Brent Nichols spoke about the net pen program and Dan Foster gave an update from the National Park Service.

At Marcus Island, we heard from Lynne Brougner on Lake Roosevelt operations and the difficult balancing act between flood control, fish, and recreation and from Liz Carr and Mindy Smith on the Fish Advisory and public survey. Lunch talks at the Northport Park informed the group about plans for Salmon return (Stacy Horton) and the white sturgeon recovery and the Creel survey (Brent Nichols and Bret Nine).



The tour continued with talks on the RI/FS from EPA’s Laura Buelow and Teck’s representative Kris McCaig at the Wolohan/Hall residence followed by a walk to Black Sand Beach to hear about the removal action and ongoing monitoring from Chuck Gruenenfelder from the Department of Ecology.

The final stop was Evans Boat Launch where Laura and Kris spoke about the phase II sediment study and Bossburg sampling plans.

This was a great day and provided an opportunity for participants to meet and learn from each other. Many thanks go to Cami and Andy Dunau for organizing the event and herding cats.

Mindy Smith, MD, MS, CCC secretary

Technical Advisor Report

Joe Wichmann, PhD; CCC Technical Advisor

My efforts over the past five months focused on the Residential and Upland Soil Studies, the Macroinvertebrate Tissue Study Quality Assurance Project Plan (QAPP), and grain size determination issues about the beach sediment study. CCC used my reviews as the basis for their comments to EPA. I also received split soil samples from EPA for the residential soil study.

Residential soil study sampling activities, as noted above, were completed in October 2014. I observed soil sampling at the properties of two CCC members and received nine split samples from EPA for the two properties. These split samples have been fully analyzed by an independent analytical laboratory. A third party paid for these analyses. CCC looks forward to a comparison of the split sample results with the corresponding primary residential soil study sample results. EPA hopes to provide analytical results to property owners in late January or early February 2015.

Upland soil study sampling also finished in October 2014 as noted above. Results will be provided to landowners once EPA fully validates the data.

As a result of my involvement in finding a laboratory to do the split sample analyses for the residential soil study, I became concerned with the grain size determinations for the beach sediment study. Mechanical sample preparation prior to metal level determination is a critical step in the overall analytical procedure. Review of the beach sediment results database revealed a number of “estimated” grain size determinations. All metal levels for the study were calculated based on the grain size distribution of the less than 2 millimeter size fraction divided into four narrower grain size fractions. A number of lead and arsenic determinations were also flagged as estimated in the database. CCC is concerned about the overall data quality of beach sediment lead and/or arsenic levels for China Bend, Dalles Orchard, Northport Beach, Summer Island and Swimming Hole and continue to discuss this concern with EPA during monthly calls.

I also reviewed the draft macroinvertebrate tissue study QAPP and provided comments to CCC. CCC’s main concerns with the draft included “opportunistically” collecting samples required for risk assessment, the relatively narrow depth range specified for collecting samples, referencing unpublished tissue level data, and methods for porewater collection. EPA sent combined comments on the QAPP to TAI in January 2015. A revised draft is expected in late February or early March 2015.

Sediment toxicity study sampling finished in October 2013. All samples have been analyzed for metals concentrations and the short-term toxicity studies have been finished. Long-term toxicity studies and slag determination using backscatter electron microscopy has still not yet begun. It is hoped that data from this study will be released in 2015.

The final sampling and analysis plan for the Bossburg study is available on Teck's website at <http://www.ucr-rifs.com/documents-plans/>.

Columbia River Round Table

The Columbia River Round Table is a group of conservation NGOs representing citizens from Canada and the United States. They have come together to honor Tribal and First Nations leadership to establish Ecosystem Function as a co-equal purpose with hydroelectric power generation and flood control in a modernized Columbia River Treaty.

Recently accepted core principles include:

- Ecosystem function of the Columbia River and its tributaries an explicit and equal Treaty purpose.
- Create resilience to climate change and other environmental threats within the Columbia watershed by restoring ecosystem functions and enhancing ecological health.
- Reduce harmful impacts of dams and reservoirs.
- Restore salmon and other anadromous fish throughout their historic habitats, and protect and restore other native fish and wildlife and their habitats.
- Honor and support Columbia River First Nations and Tribes as leaders in bringing ecosystem function and salmon restoration into the Treaty.
- Be transparent and inclusive, so future basin governance and Treaty arrangements meaningfully engage all affected people.

Shoreline Cleanup Day

What can we do to make the river better? How about a shoreline cleanup day? Trail, B.C. has been doing this for the last several years and it's been quite successful! Trail sponsors of this event

provided gloves, garbage bags, and instructions about how to sort garbage and debris. Teck and City of Trail trucks took all of the collected garbage and debris to the RDKB landfill; drop-off fees were waived for this event.

Over the next several months, CCC will be seeking both volunteers and sponsors. In addition, if anyone knows of sites around the Northport area that would be good candidates for cleanup, please let us know. We envision the volunteers picking up trash for 2 or 3 hours and taking it to a central location where it will be then taken to the dump. Afterwards, we'll have a lunch/barbeque and draw prizes for the volunteers. The timing for this will likely be in early September.

Please contact Matt Wolohan (509-732-6236 or webeep@gmail.com) if you are interested in participating in this event.

Spill News and Teck PLUME

No additional spills have been reported since the last newsletter.

The Teck Trail Operations groundwater remediation plan, including a series of wells to trap and treat contaminated groundwater, was accepted by Environment Canada in 2013 and will take 5 years to complete. Per a recent communication with Darin Conroy from Environment Canada (EC), EC continues to follow Teck's progress towards implementation of continuous treatment of the contaminated groundwater plume. Representatives met with Teck regularly over the past year. Teck plans construction of Phase 1 of the treatment plant in early 2015. Teck also recently submitted updated progress reports to EC on the installation of a treatment plant, and a number of other related issues, but these are not available to the public yet

Mindy Smith, MD, MS, CCC secretary

Want to be More Involved?

CCC welcomes new members; you can join on our website (www.cleancolumbia.org). You can also find meeting minutes and links to other organizations involved in protecting the environment.

Our next General Member Meeting will be in the spring. We will post updated information on the website. Please join us.

You can also write to our EPA project managers Laura Buelow (buelow.laura@epa.gov), Matt Wilkening (wilkening.matt@epa.gov) or the EPA region 10 administrator Dennis McLerran (McLerran.Dennis@epa.gov).