



Notes from the desk of Amy Keranen

Fall-
Winter
2015
-
2016

Hi! This note is brought to you by the Remediation and Redevelopment Division (RRD) of the Michigan Department of Environmental Quality (DEQ) Calumet Field Office. Our division's goal is to keep you up to date on the RRD's environmental projects underway in the Keweenaw Peninsula. My name is Amy Keranen and I'm the DEQ project manager for the sites you are about to read about (this issue is all about the Abandoned Mining Wastes—Torch Lake project). I can be reached at the following phone number and addresses, and hope you'll keep in touch! DEQ Calumet Field Office (MSP Post), 55195 U.S. 41 North, Calumet, MI 49913; 906-337-0389; keranena@michigan.gov.

Amy

Abandoned Mining Wastes (including PCBs) Project -- Torch Lake

May 2015 Project Open House—Large Turnout

As announced in the last newsletter, the Abandoned Mining Wastes (AMW) project team was available at the Lake Linden—Hubbell School auditorium to meet with the community in May 2015. We were able to show the tools we use to conduct our investigations and share the findings of our 2014 on-land and in-lake work.

Our on-land field team had the Geoprobe, which is used to collect soil and groundwater samples, on display. Our on-lake crew was also present to show video collected with the underwater camera. We had poster boards on display showing where we conducted our work and what we found.

We received a lot of feedback from attendees who said they appreciated the opportunity to talk one-on-one with project team members to get their questions answered and receive information directly. Others preferred to just listen in or to look around and take in the information for themselves.

We didn't keep track of how many people came to the open house, but estimates are between 60 and 100. That is a large turnout for an event like this, considering public meetings regarding Torch Lake in the recent past have drawn only 10-15 attendees. Given this response and interest, we plan to hold another open house in the spring of 2016. As the time gets closer, we will announce the details for another opportunity for the community to see what we have learned from our recent work and what additional work we have planned, and to interact with the project team.

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We're on the web!

DEQ/RRD

http://www.michigan.gov/deq/0,4561,7-135-3306_28608--,00.html

Abandoned Mining Wastes Project Update – What We Did in 2015

Since the time of the last newsletter (April 2015), we continued our field work on the AMW project. You may recall from past newsletters this work is needed to address two concerns remaining after the completion of the EPA's Superfund project: The continued presence of PCBs in Torch Lake is preventing the recovery of the Torch Lake ecosystem and keeps it from being delisted as an Area of Concern under the Great Lakes Water Quality Agreement. In addition, other potential environmental and human health risks are present which require further evaluation and possible clean-up.

The EPA's Superfund remedy involved capping the exposed stamp sands/tailings and was to require property/resource use restrictions to prevent certain activities in select areas. The EPA has defined the Superfund Site as the upper six inches of stamp sand and slag in certain areas of Houghton County and any soil cap and vegetative cover applied to these areas. It has also included a "no-action" remedy for lake sediments. The Superfund program continues to monitor this remedy.

The current work on our AMW project involves looking at contamination which wasn't addressed as part of the Superfund project.

2015 Work Included Completing Our Investigations in the Calumet & Hecla Lake Linden Operations Area (CHLL)

(see the figure on the next page.)

We were finally able to obtain access to the former Calumet and Hecla Stampmill properties and conducted sampling on those properties over the summer.

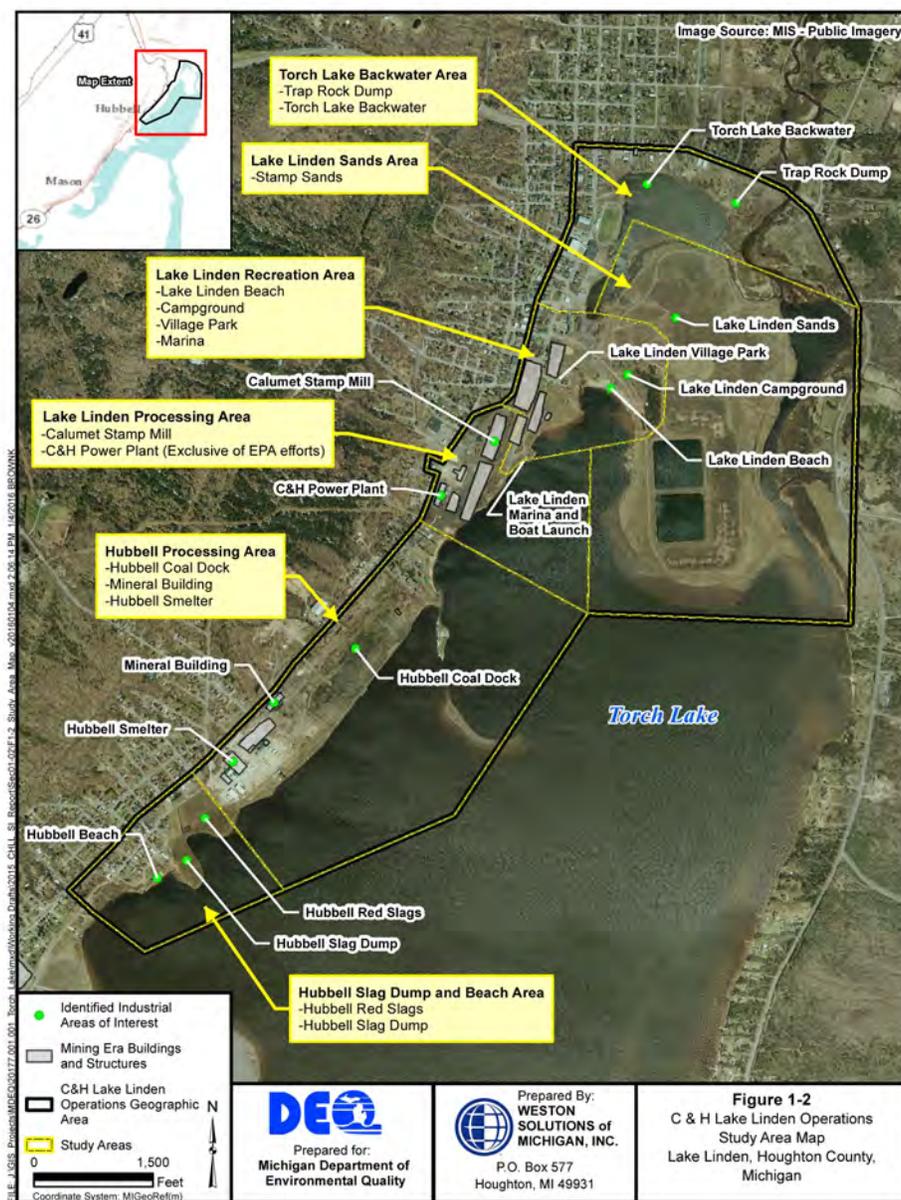
Most of the remains of the Calumet Stampmill are located on property now owned by the historic museum. Our investigations found that asbestos is widespread on the foundation of the former stampmill, which is located inside of the railroad tracks used by the historic society to give train rides throughout the summer and fall. Due to the extent of the asbestos and the costs associated with clean up, we have requested that the EPA Emergency Response Branch manage this asbestos project. The museum operators have indicated that access to this area of the property will be prohibited until the asbestos is cleaned up.

On the former Hecla Stampmill property (where the former power plant was demolished by Honeywell Specialty Materials, Inc.) we collected samples of soil and groundwater. We were able to determine that the PCBs that had been found in the water in the basement of the building were apparently confined to the building, and have been addressed by Honeywell's cleanup on that site. This property does not appear to be a significant source of PCBs into Torch Lake. We did, however, find remaining uncontrolled wastes, including some asbestos, on this property.

We continue to share our data with the Michigan Department of Health & Human Services (MDHHS, formerly the Michigan Department of Community Health) for their review and to ensure that any public health concerns be evaluated and identified.

This figure is of the CHLL project area, where our studies were focused in 2014 with follow-up in 2015.

The key issues are with asbestos at the former Calumet Stampmill; PCBs, asbestos and metals in the former Hubbell Smelter area; a small area of asbestos in a dump in Tamarack City; and, PCBs in sediments in the lake at Lake Linden and Hubbell.



Lake Linden Recreation Area

In the Lake Linden Recreation Area, our studies confirmed the EPA report of PCB contamination remaining in sediments offshore of their 2007 “time critical response.” Our 2014 sediment PCB detections were found in water 14’ - 24’ deep, not within the swimming or wading area.

In July 2015, the Village of Lake Linden heard concerns from local residents regarding the use of their beach for swimming. The MDHHS’s review of the new data didn’t identify any new concerns; MDHHS’s earlier Public Health Assessment conclusions are still accurate. Based on the location and depth of PCBs in the Lake Linden Recreation Area, the risk posed by PCBs is to aquatic organisms - not to a typical beach user. There is a link to MDHHS’s documents on page 6 in this newsletter.

Our 2015 Work Included Starting Investigation in the Calumet & Hecla Tamarack City Operations Area (CHTC)

The focus of the 2015 work was in the CHTC. Unlike the CHLL area, where PCBs were found in the Lake Linden Recreation Area sediments and on-land and in-lake in the Hubbell Processing Area, PCBs are not as big a problem in the CHTC operations area. Like the CHLL area, asbestos is an abandoned mining waste we continue to find during our investigation.

At the right is a map of the CHTC area. It includes the properties of four former stampmills: Ahmeek, Tamarack, Lake, and Osceola.



A lot of the 2015 work occurred at the hillside ruins of three of the old mills and out on the large stamp sands area. PCBs had been detected at a couple locations around the mills in the past, but our 2015 sampling did not find widespread PCBs.



Tamarack City Trail Asbestos

The photo to the left shows an area where asbestos from an old steam pipe was left behind after the pipe was removed and the mines shut down. As part of addressing the asbestos, the DEQ capped the former railroad grade and brought in soil and grass seed. We did this work in late September and thanks to a beautiful fall, it appears the grass started growing before winter.

2015 In-lake Investigation

In 2015 we upgraded our underwater camera to one that is able to determine and display the GPS coordinates of whatever we are looking at, so that we can return to an exact location to collect samples. We were able to confirm that the areas where lots of drums had been located are also areas with elevated PCB concentrations in sediment samples. We were able to directly sample a drum at the shoreline that contained elevated concentrations of PCBs.



The original underwater camera was useful in identifying debris on the lake bottom; additional steps only allowed us to identify the general location of drums. The upgraded equipment provides detailed information in a much more straightforward manner.



These are photos of some drums in an area where many drums have been found. The information on the screen shows their precise locations in about 43 feet of water. None of the drums we have seen so far are intact – all have some sort of hole.

Hubbell Beach

Physical hazards such as metal and porcelain-like debris continue to be an issue at the Hubbell Beach near the old town dump. These wastes can be seen in the shallow water near the swimming area. In June 2015, the Torch Lake Township board determined that it was in the public's interest to close the beach to swimming due to the debris on the lake bottom and the beach.

We continue to share our data with the MDHHS for further evaluation to supplement their 2014 *Public Health Assessment, Evaluation of Recreational Uses at Beach Areas at Lake Linden and Along Torch Lake, Houghton County, Michigan*. Those reports have since been finalized and have been shared with the community. You can find these at the local library or on the internet at http://www.michigan.gov/mdch/0,4612,7-132-54783_54784_56159-278958--,00.html.



This sign was designed and posted by the Torch Lake Township board to advise visitors of the hazards at the beach. The photo to the right shows debris present at the beach area.

Key PCB Findings

Key findings related to PCBs within and adjacent to Torch Lake include:

- In the Hubbell Processing Area, PCB contamination is present in debris, charred waste materials, waste piles, soil, surface water and groundwater.
- These materials are subject to migration into Torch Lake via erosion channels on the ground surface that lead to holes in the former coal dock bulkhead.
- Off-shore sediment sampling confirmed that PCBs are present in Torch Lake sediment in front of the former Hubbell smelter and coal dock as well as off-shore of the former leach plant in Lake Linden.



Above is a photo provided by the NPS from old C&H News n' Views newsletters. These newsletters described how scrap was brought in from all over the country for reclamation of copper during the war effort.

2016 Response to Findings

- Our AMW team's investigation and clean up work will include:
 - Developing engineering estimates and designs for the Hubbell Processing Area (the former Coal Dock & Mineral Building properties), pertaining to PCB containing materials, asbestos and drums. Until conditions at the site can be improved, the public should avoid accessing this private property without taking appropriate precautions.
 - Conducting geophysical investigations of suspected buried waste in the Tamarack City area (to determine the extent of waste buried in the stampsands).
 - Developing plans to address an old dump area containing asbestos in the CHTC area.
 - Conducting additional underwater camera work in the Hubbell area; and,
 - Conducting in-lake side-scan sonar investigations in the "Quincy-Mason" area of the AMW project, in advance of our on-land investigation anticipated in 2017.
- The EPA Emergency Response Branch is working on asbestos issues at the former Calumet Stampmill.
- We plan to have another Abandoned Mining Wastes open house, with the same drop-in format, around May 2016, and hope to see lots of you there!

In the meantime, if you have any questions, have other information regarding historic waste handling we should be aware of, or have any concerns you wish to discuss with me, please contact me. This spring and summer I'll be busy out in the field so you won't easily find me at my desk. If you don't bump into me around town as I work at the various sites, the next best way to find me is via my email at keranena@michigan.gov. I'll keep you informed as significant progress is made. Thanks for your interest, patience, and attention. I am hoping to see you at the project open house in May. *Amy*