



Notes from the desk of Amy Keranen

Spring
2018

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 Abandoned Mining Wastes Project—Torch Lake. 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.

Abandoned Mining Wastes Project—Torch Lake

Open House on June 20, 2018 at Lake Linden-Hubbell School

The DEQ Abandoned Mining Wastes (AMW) Project team will be available from **4—7 p.m. on Wednesday, June 20th** at the Lake Linden-Hubbell High School Auditorium to share our findings with the community. This team consists of staff involved in the planning, fieldwork, cleanup, and reporting for the project; along with the On-Scene Coordinator, Mr. Brian Kelly, from Environmental Protection Agency (EPA) Emergency Response Branch (ERB) who is managing three projects in the area. We will have maps and photos on display to show you where we conducted our work, what we have found, and what we have planned. It will be an informal open house that will provide you with the opportunity to drop in, meet the project team and to get any questions answered. We hope to see you there!

Inside this issue:

Open House & Key Updates	1
EPA Referrals & Project Status	2-3
Remedial Activities Completed & Sturgeon River Gas Spill	4-5
Quincy Mining — Portage Planning	6

Quincy Mining Company Mason (QMCM) Operations Area Asbestos

The 2017 sampling in former mining ruins in the Mason area identified the presence of widespread asbestos and abandoned containers, at three of the five properties that make up the QMCM area. The privately owned parcels where asbestos and abandoned containers are present are all physically accessible and frequently explored by locals and tourists. The DEQ and EPA ERB have notified the property owners and representatives of the Michigan Department of Health and Human Services (MDHHS), Western Upper Peninsula Health Department (WUPHD), and Osceola Township of the study area conditions. In order to avoid exposure to these hazardous substances, it is recommended the public not enter these privately owned properties.

PCBs in the Torch Lake Environment— Connection Between On-land Wastes and Fish Tissue

Polychlorinated biphenyls (PCBs) are of particular concern in the Keweenaw since their presence in former industrial areas along the shoreline and within Torch Lake serves as a continuing source of PCBs into the environment, including fish tissue. The AMW Project has evaluated the PCBs found in the reclamation areas of Lake Linden and Hubbell and connected them to the presence of PCBs in the tissue of Torch Lake fish. The [AMW PCB memorandum](#) is available on the [AMW website](#). Though the on-land PCBs have been partially addressed by emergency response actions via the AMW Project, the in-lake drums and sediments in the Hubbell and Lake Linden areas are being discussed with various divisions within the DEQ and EPA.

AMW Referrals to EPA Emergency Response Branch

Lake Linden Recreation Area Sediments

Evaluation of the results of several studies conducted at the Lake Linden Recreation Area (LLRA) between 2005 and 2017 shows that contamination exceeding health based and ecological criteria extends outward from the area along the shore that was the focus of a 2007 emergency removal. Based on these findings, in January 2017, the DEQ requested assistance from the EPA ERB to address the contaminated sediments at the LLRA site. The EPA evaluated the existing information and is working with Honeywell Specialty Materials to further evaluate risks and develop a remedy for contaminated sediments.

Representatives of the EPA, DEQ, MDHHS, WUPHD, and Village of Lake Linden are working together to identify and implement measures to ensure the safety of the recreational area users.



Near-shore sediment sampling in 2017.



Excavator removing near-shore reclamation plant wastes during an emergency removal in Lake Linden in 2007.

Quincy Mining Company Mason (QMCM) Operations Area

A sampling and analysis plan, developed based on a review of existing information, was implemented during 2017 by the DEQ. Findings of the site investigation indicated the presence of widespread asbestos containing materials (ACM), residual wastes and abandoned containers throughout the QMCM, including at the Quincy Mill ruins west of M-26 that is frequented by recreational users. These wastes were not addressed by the Torch Lake Superfund Site Cleanup project that did cap a portion of the QMCM east of M-26. Based on the presence of these waste materials and the frequent trespass access to this area, in November 2017, the DEQ requested assistance from the EPA ERB to address the ACM, abandoned containers, and residual wastes.

The DEQ and EPA have notified the property owners and representatives of the MDHHS, WUPHD, and Osceola Township of the study area conditions. The EPA is in the process of evaluating existing information and planning a potential removal action during 2018.



These photos are of the Quincy Stampmill No. 1 ruins in Mason



Calumet and Hecla (C&H) Mineral Building Waste Piles and Asbestos

Evaluation of data collected from the C&H Mineral Building property between 2005 and 2017 identified potential threats to human and ecological receptors, including exposure through direct contact and inhalation to PCBs and metal-contaminated soil and waste materials; inhalation of asbestos; and physical hazards. Asbestos wastes, including roofing material from the Mineral Building, are present on the ground, waste piles, and smokestack rubble piles. The roofing material has, and continues to, come off the Mineral Building into the Michigan Department of Transportation (MDOT) right of way (ROW) that includes a wide paved shoulder used heavily by local residents for recreational purposes.

Based on the conditions at the site, the DEQ RRD completed a series of clean ups in 2016 and 2017 that included removal of over 13 tons of ACM, a 118-ton hazardous waste pile, and 16 abandoned containers.

Due to the continued presence of wastes at this site, in November 2017 the DEQ requested assistance from the EPA ERB to address the remaining waste piles and stack debris.

The EPA evaluated the existing information, conducted a removal assessment, and is working with Honeywell Specialty Materials and the property owner to further evaluate risks and develop a remedial approach. The DEQ, EPA, MDHHS, WUPHD, the property owner, Houghton County, and Torch Lake Township officials worked together to find a solution to the C&H Mineral Building property roof. The property owners have indicated their intention to remove the roofing material from the Mineral Building in the upcoming weeks.



Asbestos roofing in M-26 ROW.



Debris piles at the Mineral Building property.



Calumet Stamppmill foundation after asbestos removal completed and the area seeded and mulched.

Calumet Stamppmill Asbestos

The EPA ERB continued working with Honeywell Specialty Materials and the Houghton County Historical Society to complete removal of asbestos near the foundations at the Museum in Lake Linden in spring 2017.

2017 AMW Remedial Activities Completed

Investigations at the former Hubbell Smelter property and on the south side of the Tamarack Sands found wastes buried beneath the Superfund soil cap. Investigations also found PCB-contaminated soils eroding into Torch Lake at the former Hubbell Coal Dock property. To address the conditions in these three areas cleanups were implemented during 2017.

Tamarack Sands Waste Seep Removal



Completed seep cleanup at the C & H Tamarack City Sands area including test pitting, characterization, transportation, and disposal of 19.29 tons of seep material and cap restoration. The photos show the flowing, plasticizer-type waste being removed from one of the seep areas and the work area following restoration in accordance with EPA capping standards for the Torch Lake Superfund site.



Hubbell Smelter Area– Shoreline Drum Removal

Cleanups on the Hubbell Smelter property shoreline included test pitting; characterization, transportation, and disposal of 10 abandoned containers and restoration in accordance with EPA capping standards. The contents of the drums were unknown, but based on field observations, included hardened masses of granular materials sometimes embedded with copper wire and other metallic debris. One container included a whitish-sludge, similar to that observed in submerged drums in deeper water just offshore of the Hubbell Smelter property. All eight of the drums with contents contained PCBs.

The photos show drum removal from beneath the cap at the water's edge.



2017 AMW Remedial Activities Completed, continued

2017 cleanups at the Hubbell Coal Dock property, where PCB containing scrap was burned, included:

- Capping approximately 7-acres of PCB-contaminated soils to stop water and wind erosion and inhibit direct contact;
- Replacing approximately 170 feet of failing culverts;
- Improving and armoring 750 feet of drainage ditch;
- Removal and disposal of 320 pounds of ACM and one drum of PCB-contaminated residual wastes; and,
- Removal and disposal of 118 tons of hazardous waste soil contaminated with PCBs and lead.



Coal Dock PCB-Burn Area Remediation



Sturgeon River Gasoline Spill Cleanup– February 2018

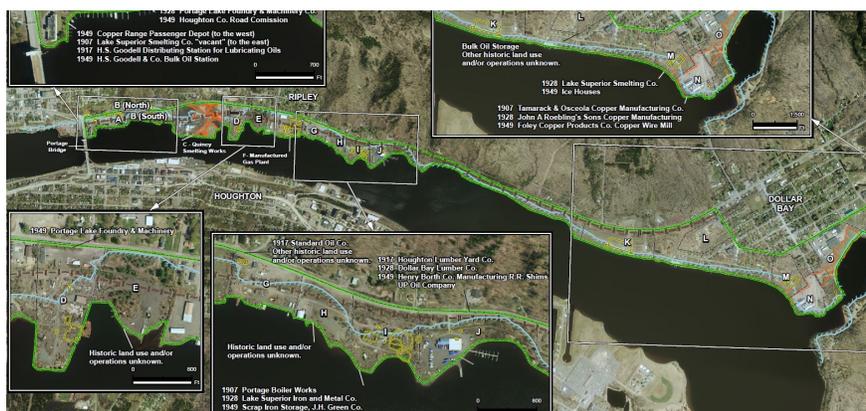
On February 3, 2018, a tanker truck was involved in a multi vehicle accident causing the tanker truck to overturn on US HWY 41 at the Sturgeon River Bridge southeast of Chassell. The tanker was carrying clear diesel fuel and gasoline that leaked onto the road surface and migrated onto the frozen surface of the Sturgeon River. The release volume was estimated at 4,000 gallons of gasoline and 1,500 gallons of diesel.

The Chassell Fire Department and other area first responders provided initial containment and recovery work. DEQ and EPA mobilized to lead and oversee spill recovery and public health response. Subsequently the truck owner retained local contractors and mobilized additional response contractors to mitigate the release. During the course of the project, 6,200 tons of contaminated soil was removed and taken to a landfill and 9,300 gallons of contaminated water was pumped and taken off-site for treatment. Following extensive soil removal, restoration of the bridge embankment was conducted under MDOT supervision. Adjacent yard and driveway areas were also restored. Although much of the fuel was removed, residual contamination remains in the soils beneath the bridge where excavation could not reach; remedial efforts to address this are currently underway. Details of the spill and subsequent response are available at https://response.epa.gov/site/site_profile.aspx?site_id=12557



Quincy Mining Company Portage (QMCP) Operations Area - Focus of 2018 Field Investigation

In 2017, the AMW project team started looking at the Quincy Mining Company operational areas from Dollar Bay down to the Portage Lift Bridge – the QMCP. We completed preliminary reconnaissance activities in 2017 including a side scan sonar survey. In 2018, we will complete a comprehensive review of existing information and develop a sampling plan to assist in the identification of historic areas of contamination or data gaps requiring further assessment. Subsequently, the plan will be implemented and depending on the findings, cleanup actions may be undertaken to reduce the public's potential for exposure to mining era wastes. The below picture shows the QMCP project area and what historic industrial operations took place in that area.



AMW Work Planned for 2018

- Complete a comprehensive assessment of existing information and implement the QMCP sampling plan, prepare an investigation report, and undertake cleanups, if needed.
- Complete the Coal Dock PCB-Burn Area cleanup in the Hubbell Processing Area.
- Continue to work with the EPA ERB and Honeywell Specialty Materials for the assessment and potential removal activities associated with the Lake Linden Recreation Area sediments and C&H Mineral Building waste piles and asbestos.
- Continue to coordinate with the EPA ERB on removal activities related to the QMCM.
- All project documents will be posted on the Abandoned Mining Wastes project [website](#) as they are finalized.

In the meantime, if you have questions, any information regarding historic waste issues we should be aware of, or any concerns you wish to discuss, please contact me (keranena@michigan.gov).

If you have questions regarding projects managed by the EPA ERB, Brian Kelly can be reached at kelly.brian@epa.gov. Information pertaining to sites EPA ERB has worked on or are working on currently can be found at websites [via this link](#).

I'll keep you informed as significant progress is made. Thanks for your interest, patience, and attention to the AMW project and other local sites of environmental interest. I am hoping to see you at the project open house on June 20th.

Amy