EGLE

Fall 2022

Notes from the desk of Amy Keranen

Hi! This note is brought to you by the Remediation and Redevelopment Division (RRD) of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) 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 am the project manager for the Abandoned Mining Wastes—Torch Lake project. I can be reached at: EGLE Calumet Field Office (MSP Post), 55195 U.S. 41 North, Calumet, MI 49913; 906-337-0389; keranena@michigan.gov.

Amy

Abandoned Mining Wastes Project– Torch Lake

Open House October 5, 2022 at Lake Linden-Hubbell School

The EGLE Abandoned Mining Wastes (AMW) project team will be available from **4-7 p.m. on Wednesday, October 5th** at the Lake Linden-Hubbell High School Auditorium to share our findings with the community. This team consists of staff involved in planning, fieldwork, cleanup and reporting for the project; including Brian Kelly, an On-Scene Coordinator with the Environmental Protection Agency (EPA) Emergency Response Branch (ERB), staff from EPA Great Lakes National Program Office (GLNPO), EGLE and Honeywell. The team will be at the open house to discuss in-lake remediation options being considered. We will have maps and photos on display to show the community where we have conducted work and what is planned in the future. The open house provides the community with an opportunity to drop in, meet the project team and get any questions answered. We hope to see you there!

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Remedial Activities Completed

Julio Salvage and Julio Scrap Yard & Tower Sites

Environmental studies along the Portage Canal and the Michigan Department of Natural Resources (DNR) Recreational Trail on Julio properties in the Ripley area identified old drums, cylinders, tanks, asbestos, PCB and mercury containing wastes and equipment. EGLE, DNR, EPA and the property owner worked together to conduct several removal actions between 2019 and 2021 that included the removal and disposal of mercury contaminated equipment and soil; recycling of abandoned containers, cylinders and scrap metal; and disposal of asbestos, PCB and metals contaminated soil and wastes. After the containers and wastes were removed, the contaminated areas were covered with gravel or topsoil and grass to assist with site drainage and prevent direct contact and erosion by wind or water. Additional site information is available here Julio Properties Site.

These photos are the before (L) and after (R) images of the scrapyard.

Gay Stamp Mill

EPA ERB conducted an assessment of the Gay Stamp Mill ruins and identified asbestos and metals in the soil. In 2021, EPA ERB addressed these concerns by conducting a removal of the contaminated soil and wastes. Once removal and disposal was complete, the area was graded, topsoiled and seeded to prevent erosion concerns in the future. Additional site information is available here Gay Stamp Mill.

The photo on the left depicts a pile of asbestos containing building materials. The photo on the right shows the same area, post-removal.

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

Environmental investigations at the C&H Mineral Building, located between Lake Linden and Hubbell, identified PCBs and metals contaminated soils, asbestos, piles of mining waste, abandoned containers and smokestack debris. Asbestos roofing material that had blown off the roof of the Mineral Building was present on the ground, including outside of the fenced Site property in the MDOT M-26 right of way (ROW). EGLE notified the property owner of the site conditions and completed a series of investigations and requested assistance from the EPA ERB to help address the concerns at the site. Between 2018 and 2020, the property owner and Honeywell in partnership with EPA's GLNPO undertook a series of cleanups that included: asbestos removal from the roof of the Mineral Building and surrounding ground surface and removal and disposal of almost 14,000 tons of PCB, metals and asbestos containing wastes. The site was restored by placement of sand backfill and a gravel cap to promote drainage and prevent direct contact and wind and water erosion concerns. Additional site information is available here C&H Mineral Building.

The photo on the left shows the site before the removal action took place. The photo on the right is the view after cleanup.

Calumet Warehouse Drum Site

As part of the Centennial Mine Site, EGLE identified 30 abandoned containers in a warehouse near the Calumet Township office, the Calumet Housing complex and the Calumet Public Schools K-12 campus. EPA ERB conducted an emergency removal which included characterizing the drum contents for disposal and placing them in over pack containers for subsequent proper management and disposal. Calumet Warehouse Drum Site. The drums were disposed during the last week of September 2022.

The photo on the right shows a drum in the Calumet warehouse being sampled.

Julio Contracting/Former Standard Oil Company

Environmental studies in the Ripley area identified petroleum contaminated sediments and a sheen within a drainage canal that discharges to the Portage Canal. The EPA ERB undertook an interim response in 2022 that included the removal and disposal of 236 tons of petroleum contaminated sediments from the drainage canal. After the sediment was removed, a clay cap and riprap stone was placed to address direct contact and water erosion concerns in the drainage canal. Additional site information is available here Standard Oil Site.

The photo on the left shows the petroleum sheen collecting in the bottom of the ditch in Ripley. The photo on the right shows the ditch as it was excavated, lined with clay and capped with rock.

Other Copper Country Environmental Projects

Hancock Tanker Spill

In June 2021, a gasoline tanker overturned while driving uphill around the corner at the intersection of US-41 and Ethel Avenue (locally known as "Santori's Corner"). The overturned tanker spilled approximately 6,500 gallons of a mixture of unleaded gasoline and diesel fuel. The spilled petroleum ran down US-41, entered the storm drain system and was discharged to the Portage Canal. EPA and EGLE personnel mobilized to the site and responded with local agencies to cleanup the spill. Response activities included: spill containment and recovery by constructing a sand berm across US-41 downhill of the overturned tanker; use of a petroleum absorbing boom in the Portage Canal at the storm sewer outlet; removal and replacement of gasoline soaked asphalt pavement; excavation of contaminated soils along the highway shoulder; cleaning the storm sewer network; and follow-up investigation within the spill area to ensure full cleanup was achieved. Additional site information is available here K and V Transport.

Left photo is of the overturned tanker. The one on the right is of the restored roadway.

Calumet 5th Street Fire Debris Cleanup and Dry Cleaner Site

Three structures on 5th Street in Calumet were destroyed by fire in May 2021. EGLE collected samples of the fire debris confirming that siding, plaster, insulation, flooring and roofing materials contained asbestos which can pose potential health risks. EGLE, EPA ERB, the Village of Calumet, Calumet Township and Houghton County worked together to find a solution. EPA ERB assistance was requested and a removal action was conducted to remove the asbestos containing fire debris. In 2021 and 2022, almost 3,000 tons of demolition waste was removed and disposed from the site which was then backfilled and restored. During the removal of the fire debris, solvent tanks were found buried under a concrete slab. EPA ERB removed the tanks and 152 tons of solvent contaminated soil but contamination still remains in the soil and groundwater. EGLE is in the process of identifying the extent of contamination and will sample the groundwater from wells on site and conduct periodic monitoring of vapors in surrounding buildings. The village is hopeful for redevelopment of the now vacant parcels in the near future. Redevelopment, while taking into consideration existing contamination, is possible with coordination between agencies, property owners and developers. Additional site information is available here EPA 5th St Calumet Fire Site. EGLE will provide additional environmental assistance to local stakeholders to facilitate redevelopment of the property.

Before and after pictures of the 5th Street Fire site

Calumet Airport PFAS

The Houghton County Memorial Airport received a grant to investigate potential PFAS contamination associated with Aqueous Film Forming Foam (AFFF) used at airports for training and aircraft fire suppression. The first phase of the investigation focused on sampling soil, groundwater and surfacewater near two areas on the airport property where AFFF was known to have been used by the airport for fire suppression equipment testing. Nearby residential wells were sampled in December 2021 and determined to not be affected by use of AFFF at the airport. EGLE is in the process of working with the Airport on the next phase of the investigation which will mainly focus on surface and storm water sampling. Additional site information is available here Houghton County Airport PFAS.

In-Lake Drums and PCB Contaminated Sediments

Past studies conducted at the Lake Linden Recreation Area (LLRA) identified contamination in the sediments exceeding standards protective of human and aquatic health. In 2019, Honeywell removed and covered an area of the shallow, nearshore sediments in the LLRA to reduce risks to recreational area users.

EGLE studies conducted off shore of the C&H Hubbell Processing Area identified the same types of contamination as at LLRA. Deteriorating drums and sediments around those drums in Torch Lake are contaminated with PCBs, metals, and petroleum/oil compounds and are the focus of ongoing planning for future remediation.

Between 2020 and 2022, Honeywell , GLNPO, and EGLE continued evaluating risks posed by the remaining contaminated sediments in the LLRA and offshore of the C&H Hubbell Processing Area. A Feasibility Study to review and select a remedial approach (es) for remaining contaminated sediments in the LLRA and contaminated sediments, drums, debris, and deteriorating drum contents offshore of the C&H Hubbell Processing Area is on-going. GLNPO has a website where you can follow the progress of the in-lake work. Staff involved in this project will be available at the Open House on October 5th. They will also be meeting with local officials earlier that day to explain the details of the plans they are considering.

Torch Lake Benthos Experiment

Torch Lake was designated as part of the Torch Lake Superfund Site in 1986 and as a Great Lakes Area of Concern Torch Lake AOC. Stampsands with high concentrations of metals, especially copper, were deposited in the lake and on the lake bottom. The stampsands that cover much of the lake bottom harm the aquatic organisms (benthos) which are critical to the fishery and health of the lake. The Superfund project selected natural accumulation of sediments in the lake, over time, as the method to allow for the recovery of the benthos. Studies since that selection was made determined that sediment accumulation, and therefore benthos recovery, was going to take over 800 years.

Given that excessive predicted timeframe, in 2019, EGLE's Water Resources Division held a technical summit with scientific experts, policy makers from local, tribal, state and federal agencies, construction experts, and other stakeholders to discuss options to improve the benthos in Torch Lake in a shorter timeframe. One outcome from this meeting included construction and monitoring of test plots to determine which types of capping and habitat restoration may work long term.

Mini test plots were constructed in 2021 and are monitored periodically to determine if these techniques improve the Torch Lake benthic organisms. If the experiment seems to be effective, a larger-scale project will be evaluated.

Photos depict test plot construction.

AMW Focus and Looking Forward

During 2022, the environmental work at the Abandoned Mining Wastes project has focused a little less on the on-land side, since most areas have been addressed by RRD and EPA ERB, and moved towards looking at the in-lake habitat recovery and evaluation of options for addressing the drums and contaminated sediments on the lake bottom which is being managed by GLNPO and EGLE's Water Resource Division staff.

In 2023, the environmental work in the Keweenaw will focus on the Calumet Dry Cleaner site and evaluation of the Centennial Mine area. Centennial Mine is next on the list of sites the Superfund program transferred future investigations to the Upper Peninsula District Office for management through what is called "Other Cleanup Authority" when the Torch Lake Superfund site was delisted. Our initial observations at Centennial Mine suggest the presence of some abandoned containers and potentially some asbestos but not to the degree we have seen in the other areas of the AMW project. Obtaining permission to access some of the more important parcels at Centennial has been an issue and unless access is granted, cleanup at Centennial under the AMW project may not be possible.

As we have done during the course of the AMW project, all project documents will be posted on the Abandoned Mining Wastes project website AMW Project as they are finalized.

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 at keranena@michigan.gov.

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 October 5th, 2022. ***~Amy***