2021 Annual Report – Iron County Watershed Coalition

Even though we were rarely able to get together face-to-face in 2021, the Iron County Watershed Coalition had a great year of projects and planning.

By way of providing information on the yearly activities of the Iron County Watershed Coalition, several members have helped to pull together highlights of the year which are presented in this report.

- Maggie Scheffer provides a beautiful presentation of the work on the Miskwaagamiiwiziibi Park Shelter and the fun of the Paint River Float
- Jennifer Johnson provides a summary of the MEF Project "Assessment of Trout and Muskellunge Populations within the Upper Paint River Watershed
- Bette Premo provides parts of a grant request for an Iron County Watershed Coalition Support Grant for 2022.

Thank you for your interest in the Iron County Watershed Coalition. Our mission is to ensure the highest possible quality of waters in Iron County by educating and engaging our communities in projects that will restore and preserve our watersheds for future generations.

A watershed is the area of land where both surface water and groundwater drain to a specific waterbody. What we do on the land directly affects what happens in our lakes, streams, and rivers. It is this connection between the water and the land that makes understanding watersheds so important. Once we realize how our actions impact the water, we will be well on our way toward improving and protecting our world's most vital natural resource

Please take the time to visit our website at www.ironcountywatershedcoalition.org where you can find out about our projects and reports, useful maps for navigating the watershed, and concerns about particular pollutants.

Iron County Watershed Coalition

P.O. Box 367

Iron River, Michigan 49935

MISKWAAGAMIIWIZIIBI Park Shelter

A project of the Iron County Watershed Coalition and Iron County Rise-UP
With funding from an Upper Peninsula Environmental Coalition (UPEC) Community Grant.

2021 Annual Report to the Iron County Watershed Coalition

Construction of the cordwood shelter located on the north side of the Paint River in Bates Township began two years ago with planning and site preparation, involving approximately ten volunteers. On June 12th, 2021 a workbee kicked off the actual shelter construction. Workbees were held June - October, one to two weekends per month. Over this period of time 110 people have shown up to help, forty five of them returning multiple times at this summer's work bees, averaging five hours each day. It was the remarkable dedication of volunteers and the motivation to participate in cordwood construction of the shelter that has made the project so successful!

In addition to volunteer support, and to cover expenses beyond the $6,000 Community Conservation grant received from UPEC, in-kind donations of site materials valuing just under $3,000 as well as cash donations of $1300 have been made by local residents and supporters.

At the time of this report, all but one of the eight shelter walls are completed; the door and windows are in; and the roof has an ice and snow barrier on it. Completion of the eighth wall (with a stained glass window being made by a Bates Township resident), putting in the floorboards and finishing the roof covering is anticipated for next spring and early summer.

In addition to the shelter itself, consideration must be given to a suitable fire ring, a pit toilet, as well as a take-out ramp at the river and trail between river and shelter. In partnership with the township trustees, these final touches will complete what can be a valuable asset for the park going forward, for this shelter on the Paint River in Iron County can be an enduring recreational site for paddlers as well as those wishing to find solitude for an afternoon near woods and water. It is *"by educating and engaging our community in projects like this that we work to restore and preserve our watersheds for future generations"* (ICWC mission).

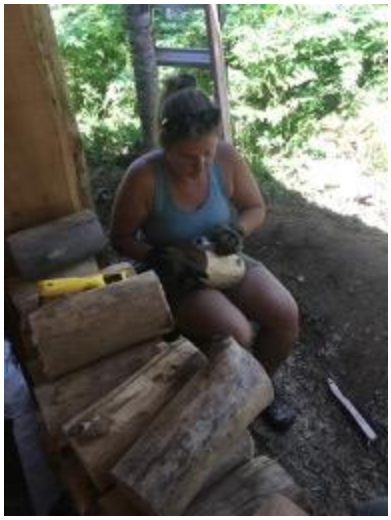
Project coordinators are grateful to the Iron County Watershed Coalition for providing support that helped secure the UPEC grant, and for the pledge of members to oversee light seasonal clean-up for the first two years of shelter use. Going forward, the organization can also play a role in bringing awareness to the site so that the public may begin to reap the benefits of the visionary Herb Larson, who in 1923 was instrumental in this river frontage being held for public use.

Respectfully submitted by Maggie Scheffer, January, 2022
Photo Gallery, next two pages

On July 10th and 11th, a crew of volunteers helped dig and pour the footing for the octagon shaped shelter. Seen here, Rich Sloat, Daniel Miller, Gary Pisoni, Terry Yackel, Kaye and Lars Anderson.

July 24th and 25th: nine large cedar posts were brought in to the site on foot and erected at the corners. This was the work requiring the most muscle, and 7-8 strong men rose to the occasion! Seen here: Rich Sloat, Jonny Waara and Brody Eckburg. Not pictured: Tom Coats, Gary Pisoni, Terry Yackel, Jon Ahlberg.

Construction of the roof for the eight sided building was the work that took the most time (and head scratching), but it was finished and covered by August 13th…. Ready for cordwood walls to go up!



Many volunteers over the next two months came to workbees to help rasp cordwood (Barbara Waara), mix mortar (Dodi Felger and Jonny Waara) and lay up cordwood (Daniel Miller).

Here, Laurie Jackson attends to detail on an inside wall, while Rich Sloat and Mark Hovel install the door.

This photo, taken in September shows the shelter with five completed wall sections. Dodi Felger and Maggie Scheffer begin the sixth wall.

The lunch ladies: Sara Basso, Dodi Felger, Maggie Scheffer and Barb Waara. (Not pictured: Margee Brennan).

A happy crew paused on cleanup day for a photo. Dodi, Mary Baumgartner, Maggie, Jonny and Barb Waara, and Rich, project director.

“Float the Paint” – A Report of the 2021 Event

The 2021 ICWC “Float the Paint” was held on a beautiful sunny Saturday, July 31st. Nineteen people registered to float the Paint River, however several joined the group after the registration had completed. The number of participants was down this year, due to a variety of reasons: CoVid; fewer coalition members being able to attend; and perhaps lacking the enticement of a drawing for a kayak!

Some participants opted to visit the construction site of the Miskwaagamiiwiziibi Park shelter before getting on the river. Rich was on hand to explain construction progress and answer questions.

Those who floated the river were given the option to order lunch which was ready at take out at the former Paint River Landing. Some also bought ICWC shirts, sales totaling $85.00. The lunches were provided at cost and were arranged with Angeli’s Grocery store and picked up and delivered to the take out. There was no formal activity at the take out other than sitting to eat lunch for those who ordered.

Thanks go to volunteers who helped shuttle, arrange lunches, and work at registration and shirt sales.

Left: The last to launch. Paddlers got into the river as soon as they were registered, making it impossible to capture all of them in the river at once.

Right: These paddlers came all the way from Alaska and had a great time!

Assessment of Trout and Muskellunge Populations within the Upper Paint River Watershed

PROJECT MANAGER(S):

Name Jennifer Johnson
Organization Michigan DNR Fisheries Division
Address 500 West US 2 Norway, MI 49870
Phone 906-563-9247 ext 103
E-Mail johnsonj17@michigan.gov

Name Bette Premo
Organization Iron County Watershed Coalition
Address 429 River Lane Amasa MI 49903
Phone 906-822-7889
E-Mail ironcountywatershedcoalition@gmail.com

Name Mike Golas
Organization Trout Unlimited: Fred Waara Chapter
Address PO Box 123 Marquette, MI 49855 **Phone** 801-870-9863 **E-Mail** mikelindagolas@gmail.com

2021 Project Summary

- DNR Fisheries Division was able to conduct surveys over less days because electrofishing was the quickest, most efficient method to capture musky within the Paint River System (as opposed to nets). Because of this efficiency, it is expected to have DNR's match may decrease in total survey hours for the subsequent grant years.
- There was an error found in the July report on the number of musky captured during the April-June time period. The original number reported was 34, when actually it was 43 (number was transposed). The updated report reflects that correction.
- A total of 44 individual musky were tagged in the three sections surveyed on the Paint River ranging from 20.4-45.5 inches in length. An additional 4 recaptures were collected during the effort and all were tagged and recaptured in the same area (Section 1). A total of 30 males and 14 females were recorded. For the four recaptures, three were males and 1 was female.
- No muskellunge were captured during the SB Paint River survey. Brook trout and brown trout numbers and average size increased compared to the previous 2020 survey.
- Trout Unlimited was successful in temperature logger deployment and retrieval of 16 loggers throughout the Paint River Watershed. Unfortunately, only one site recorded average July temperatures optimal for brook trout (Cooks Run).
- The pit tag array system was installed in early summer. However, technical issues described below made the 2021 data questionable. With an upcoming purchase of a cell phone booster, all technical difficulties will be resolved by 2022 field season.
- The pit tag system did record two individual musky that were both tagged near the Blockhouse location on the Paint River. Details are within the report.

Thank you to We Energies for providing grant monies which were essential to this project. A special thank you needs to go towards the volunteers of the Trout Unlimited Fred Waara Chapter that dedicated many hours of labor. We also give the utmost thanks to the two individual landowners who gave permission for the DNR to deploy the pit tag arrays on their property- Brad Tomassucci and Kevin Grundy. Last, but not least, Iron County Watershed Coalition for their administrative and match contributions towards this project.

Iron County Watershed Coalition Support Grant

Project Description and Summary:

The Dober Mine is located south of the City of Iron River, Michigan. It represents part of the environmental legacy left by iron mining in our region. Acid runoff, waste rock, and suspended solids continue to contaminate the Iron River and destroy aquatic habitats. On land this area creates safety hazards and wasteland for humans and all living things. The land and water degradation created by the abandoned mine systems have contributed to environmental injustice in parts of Iron County with higher concentrations of low income residents. Studies and projects carried out by the State of Michigan since 1974 have significantly slowed this pollution, but currently there is no activity occurring on site that works toward solving the problems. The Iron County Watershed Coalition requests support from EGLE Nonpoint Source Program to gather more information that can be used to plan and implement additional mitigation.

A. Project goals and objectives

The project goal is to gather information that be used to further mitigate environmental hazardous runoff from the Dober Mine and its surrounding area.

Objectives:

(1) Measure pH and total suspended solids throughout the Dober Mine system to determine if change is occurring due to time and activities
(2) Conduct a pH/depth profile of the water in the upstream Hiawatha Mine shaft to determine depth of water and pH changes within those depths
(3) Conduct a pilot study at the Hiawatha Mine shaft to pump water from that shaft and determine if it impacts underground inflow to the Dober Pit
(4) Survey, map and photograph the sludge in the Dober ponds and the waste rock piles around the Dober pit areas to determine the scope of work necessary to remove sludge from the ponds and mitigate the waste rock.
(5) Compile, summarize and report the gathered data and interpret for possibility of further mitigation of acid runoff and hazards at the site.

B. Organization Information and Project Partners

The Iron County Watershed Coalition (ICWC) is a 501(c) 3 non-profit organization that has worked to restore the Iron River for the last 25 years. Their mission is to ensure the highest possible quality of waters in Iron County by educating and engaging our communities in projects that will restore and preserve our watersheds for future generations.

White Water Associates (WWA) is an environmental laboratory and consulting firm with over 36 years experience. The firms services include environmental chemistry, research and development, and field sampling. **Dr. Bette Premo** of White Water is head of the laboratory services and will serve as project facilitator for water quality studies associated with this project.

Dr. Stan Vitton, PE is Professor, Civil, Environmental, and Geospatial Engineering and Affiliated Professor in Geological and Mining Engineering and Sciences at Michigan Technological University. Dr. Vitton's research focus is applied geomechanics. His research is concentrated in the applied area and has a number of field based research projects. Dr. Vitton and a graduate student from Michigan Tech will assist with the Hiawatha Mine pilot pumping study and with ongoing water sampling and analysis.

Dr. Allan Johnson, is Professor Emeritus in the Department of Geological and Mining Engineering and Sciences at Michigan Technological University. Beginning part time as a student and then full time after finishing his Ph.D., Al worked at the Institute of Mineral Research at Michigan Tech. In 1986, Al was appointed Director of Mineral Biotechnology Group of the Biosource Institute at Michigan Tech's Institute of Materials Processing. Following this, Al transferred to the Department of Mining Engineering until his retirement in 1998. Dr. Johnson played an instrumental role in designing the Dober mitigation site for the Dober Mine.

Dr. Maria S. (Marisol) Sepúlveda is Professor of Ecotoxicology and Aquatic Animal Health at Purdue University. Dr. Sepúlveda's main area of research is ecotoxicology. Purdue University fisheries and aquatic sciences students have done annual studies on the ecological health of the Iron River under the guidance of Professor Maria S. Sepulveda, Department of Forestry and Natural Resources. These students will assist with the water testing for this project.

Pisoni Land Surveying and Gary Pisoni has been a registered surveyor for over 30 years. Licensed to practice in Michigan and Wisconsin and specialize in several areas of land surveying, including: mortgage surveys, property surveys, GPS surveys, and subdivisions

C. Partners Related Funding and Experience

The Iron County Watershed Coalition (ICWC) was responsible for administering the money gained from settlement to the State of Michigan ($318,000) with the Hannah Mining Company for the legacy left by mining activities over 100 years ago. The monies were used to match and leverage funds from MDOT, MDEQ, and NFWF for a watershed management plan and implementation of the plan that resulted in bank riparian restoration, instream habitat improvements, trail construction along the river, and education programs. In this process the ICWC has worked with the conservation district, area schools and universities, the road commission, the City of Iron River, and local contractors and land owners to see the completion of these projects.

D. Monitoring and Evaluation – shall be carried out by following our project timetable, project goals, objectives and tasks and budget. A quality assurance project plan (QAPP) will be prepared to outline project organization and responsibility, sampling and analytical procedures and data quality objectives.

- **a. Timetable-** Please see attached
- **b. Map of site, photos and history -** as Attachment Article

E. Project Summary - (Please see first paragraph of Project Description above)

Work Plan

During meetings between Iron County Watershed Coalition, EGLE and Dr. Al Johnson, several actions have been discussed to mitigate further acid runoff from the Dober pond system: (1) Prevent water from entering from underground through the Dober Pit, (2) removing or covering the mine rock piles that are at the site, and (3) Remove accumulated sludge in the Dober Pond system thereby allowing for additional years of passive mitigation. The Hiawatha Mine is upslope of the Dober Pit and feeds water from underground into the Dober system. The Hiawatha shaft contains surface and groundwater of neutral pH that could be pumped and discharged at the Hiawatha site. The question remains as to whether the pH of water at depth in the Hiawatha shaft remains neutral and if a certain level of pumping the neutral pH water could keep the water head levels low enough to no longer contribute water that would discharge from the Dober Pit. This along with closing the current Iron River water access pipe to the Dober could then allow for no flow emanating from the Dober Pit thereby rendering the Dober Pond system and outflow inactive and no longer contributing water with low pH and high suspended solids and iron to the Iron River. If this process is untenable due to ongoing maintenance or costs, another option is to dredge the existing Dober Ponds so that they have more years to serve as passive mitigation, mixing acid water with river water, raising pH of mine water and removing precipitant solids. The following tasks are aimed at helping answer these questions.

Task 1: Develop and submit a Quality Assurance Project Plan (QAPP) for review and approval at least nine weeks prior to monitoring. Estimated Cost: $1,500; Responsible: MTU Grad Student, Premo

a. QAPP will outline project organization and responsibility, sampling and analytical procedures and data quality objectives
b. Submit QAPP for approval to EGLE

Task 2: Grant Administration and Reports Estimated Cost: $2,000; Responsible: ICWC Staff

a. Develop and submit quarterly status reports following EGLE guidance and within 30 days of the end of each quarter.
b. Provide draft and final products and deliverables as specified in the Nonpoint Source Grant Administrative Summary documents.
c. Develop and submit a final report following EGLE guidance and submit the final report within 30 days of the end of the grant.
d. Submit and electronic copy of all project related photos with the final report.

Task 3: Measure pH, iron and total suspended solids throughout the Dober Mine system to determine if change is occurring due to time and activities. Estimated Cost: $8,821; Responsible: Sepulveda, Vitton, Students, WWA Lab.

a. Purchase equipment and supplies necessary for this work (field pH meter with long cable) – HACH HQ Portable multi-parameter probe with 100 ft. cable - $3,901.
b. Train on use of equipment, sampling techniques and measurements as per QAPP
c. Establish and carry out schedule for water quality measurements (6 locations plus QC samples, 8 sampling events for analysis of TSS ($15/sample) and Total Iron ($15/sample)).
d. Deliver samples to lab for analysis of total suspended solids and total iron ($1,920)
e. Record and report measurements

Task 4: Conduct a pH/depth profile of the water in the Hiawatha Mine to determine depth of water and pH changes within those depths. Estimated Cost: $2,000; Responsible: Sulpeveda, Purdue Students.

a. Purchase equipment and supplies necessary for this work
b. Train on use of equipment and measurements as per QAPP
c. Obtain and record measurements

Task 5: Conduct a pilot study at the Hiawatha shaft to pump water from that mine and determine if it impacts inflow to the Dober Pit. Estimated Cost: $12,895; Responsible: Vitton, students

a. Purchase or rent equipment and supplies necessary for this work (submersible pump, Solinst static water level indicator) – Equipment: $7,095.00 Supplies (pump tubing, gloves, boots): $800.00 – Another option for this may be to contract Kleiman Pump and Well Drilling
b. Train on use of equipment and measurements as per QAPP
c. Obtain appropriate State and local permits to conduct the pilot study
d. Pump and measure discharge from the Hiawatha and discharge from the Dober during pilot study
e. Measure pH in discharge from the Hiawatha during pilot study

Task 6: Survey, map and photograph the sludge that is currently in the Dober site ponds and the waste rock piles around the Dober pit areas. Estimated Cost: $8,284; Responsible: Pisoni Surveying

a. Contract with surveyor for survey and map production
b. Measure and determine the volume of sludge in the Dober pond system that could be potentially removed to extend the life of the passive mitigation ponds.
c. Locate the Iron River, the Dober Pit, the Hiawatha shaft, and the waste rock piles with volumes
d. Provide a 24”x26” drawing showing the area from the Hiawatha shaft to the Dober , how it crosses the road to the first pond and elevations of smaller drawings of individual areas
e. Obtain and provide photographs of the area.

Task 7: Compile, summarize and report the gathered data and interpret for possibility of further mitigation of acid runoff and hazards at the site. Estimated Cost: $4,500; Responsible: all parties

a. Compile new data and compare with some historic data from the Dober pond system studies
b. Interview Dr. Al Johnson (designer of Dober pond system)
c. Follow QAPP and EGLE procedures for final data reporting

Estimated costs for each main task listed above includes ICWC staffing, contractual services, supplies and materials (as listed), and an estimated 2200 miles of travel at $0.56 per mile.

TOTAL BUDGET $40,000

Iron County Watershed Coalition Support Grant				
Tasks and Subtasks	**Timeline: Quarters**			
	Q1: Apr-June 2022	Q2: Jul-Sept 2022	Q3: Oct-Dec 2022	Q4: Jan-Mar 2023
1: Develop and submit a Quality Assurance Project Plan (QAPP)				
a. Create draft QAPP for the project				
b. Submit QAPP for approval to EGLE				
2: Grant Administration and Report				
a. Submit quarterly status reports				
b. Provide draft and final products and deliverables				
c. Develop and submit a final report				
d. Submit electronic copy of all project related photos				
3: Measure pH, total suspended solids throughout Dober mine pond system				
a. Purchase equipment and supplies				
b. Train on use of equipment and sampling				
c. Conduct water quality measurements				
d. Deliver samples to lab for analysis				
e. Record and report measurements				
4: Conduct a pH/depth profile of the water in the Hiawatha Shaft				
a. Purchase equipment and supplies				
b. Train on use of equipment				
c. Obtain and record measurements				
5: Conduct a pilot pump study at the Hiawatha Shaft				
a. Purchase or equipment and supplies				
b. Train on use of equipment				
c. Obtain appropriate State and local permits				
d. Pump and measure discharge from the Hiawatha Shaft				
e. Measure pH in discharge				
6: Survey and map pond sludge the waste rock piles at Dober pond areas				
a. Contract with surveyor for survey and map production				
b. Locate Iron R, Dober Pit, Hiawatha shaft, with volumes				
c. Provide a 24”x36” drawings of area from Hiawatha shaft to the Dober				
d. Estimate volume of pond sludge for potential dredging operation				
7: Interpret data for possibility of further mitigation				
a. Compile new data and compare with some historic data				
b. Interview Dr. Al Johnson (designer of Dober pond system)				
c. Follow QAPP and EGLE procedures for final data reporting				

IRON COUNTY'S ABANDONED DOBER MINE

A once and future problem

Bette Premo, PhD

The Dober mine is located south of the City of Iron River, Michigan. It is part of an interconnected complex of historic but now abandoned mines also made up of the Hiawatha and Isabella mines. The mines were opened in the late 1800s and iron ore was mined and shipped directly from the Riverton Iron formation at the Dober-Hiawatha-Isabella mine complex. This formation is underlain by slate and pyrite. When exposed to air and water, the fine-grained and porous pyrite rapidly oxidizes to form iron sulfate and sulfuric acid.

Although the mine complex during its operation was not particularly wet, acid waters were pumped from the mine into the Iron River. The Iron River rapidly neutralized this acid causing the former soluble iron to become an insoluble iron hydroxide precipitate. This turned the waters into an orange-yellow color, commonly called "yellow boy." As many other mines operating in the Iron River District also produced acid waters and the economy was almost totally supported by iron ore mining, the discolored river waters were mostly accepted in the early days. When the Dober-Hiawatha-Isabella mine complex closed, the flow of acid waters into the river stopped, as did the yellow boy formation.

Production at the Hiawatha mine ceased in 1966 and all the mines of the complex flooded as the workings of the three mines had been interconnected by stopes, cross cuts,

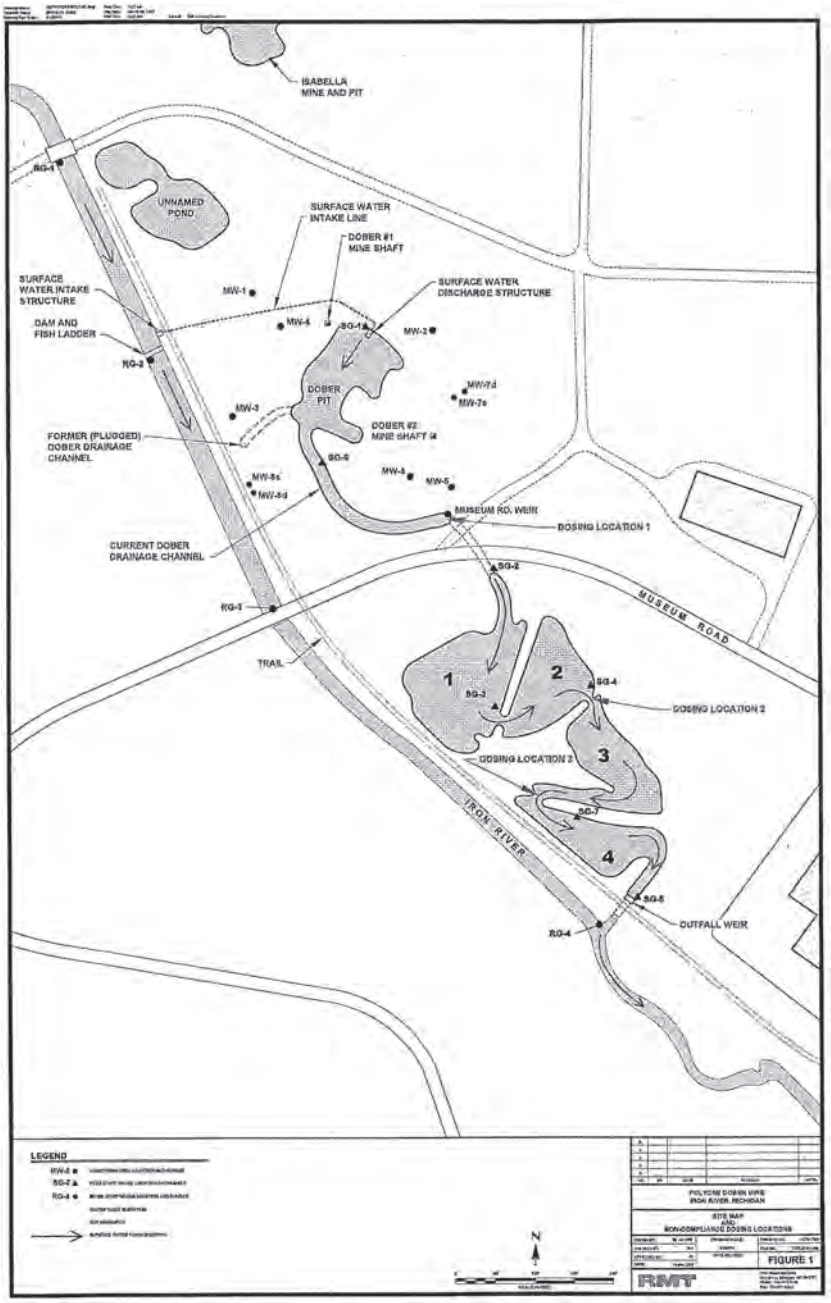
A pool of water at the outlet from the Buck mine settling ponds into the Iron River, with evidence of "yellow boy."

MAGGIE SCHEFFER

and drifts. Six years later, in the fall of 1972, water was noticed in the bottom of the open Dober mine pit. Over a period of 45 days it rose 100 feet. Residents were quite surprised to see the Dober and Isabella mine pits flood as they had been dry for as long as anyone could remember.

The rising acid waters were of more than just idle curiosity. The main sewage line feeding the nearby Stambaugh Sewage Treatment Plant passed immediately west of the Dober mine pit. When the acid waters reached the level of the sewage line they entered corroded sections of the cast iron pipe and flowed into the plant, disrupting the bacteriological sewage digester. This problem was temporarily solved by inserting a smaller-diameter plastic pipe inside the sewage line and by lowering the level of the acid water about two feet by dredging a ditch from the Dober mine pit to the Iron River.

This action diverted the acid directly into the Iron River, resulting in the seemingly intractable problem of persistent acid water drainage and billowing plumes of yellow boy forming in the river at the Dober discharge ditch. This insoluble iron hydroxide hydrate discolored the Iron River from Stambaugh, past the downstream Iron County communities of Caspian and Gaastra, to the state line with Wisconsin where the roiled waters entered the Brule River some seven miles to the south. This occurrence soon drew the attention of the State of Wisconsin and the Nicolet National Forest. Pressure from these groups caused the State of Michigan to provide funding to study these problems in 1974.



Site map of the Dober Mine system.

COURTESY OF BETTE PREMO

Mine studies funding came to what was then called the Institute of Mineral Research (IMR) of Michigan Technological University (now part of MTU's Institute of Materials Research) through the Geological Survey Division of the Michigan Department of Natural Resources. Dr. Allan Johnson, a young research engineer at IMR with degrees in geological engineering and geology, was given the responsibility of overseeing the acid mine water drainage study plus issues related to mine subsidence. These studies resulted in a series of reports that initially addressed these problems. Supplemental funding to follow up on the recommendations of the initial reports led to a plan for addressing the acid drainage problem at the Dober mine: a synergetic acid water pond treatment system.

Reviewing all options, it was recognized that the acid water from the Dober pit was readily neutralized by the Iron River and that the iron was converted to an insoluble precipitate. It was reasoned that if this could be done at a site away from the river a possible solution was at hand. Further development of this idea was to use the Dober mine open pit as a mixing chamber for neutralization and a series of natural pond areas south of the mine as settling ponds for further treatment of the effluent. The goal was to promote settling of the insoluble iron precipitates before returning a neutralized and largely iron-free effluent to the Iron River.

The favorable attributes of the synergetic pond system for treating acid mine water from the Dober mine, combined with persistent efforts by individuals of the local Acid Mine Water Clean-Up Committee, MTU, the Michigan Department of Natural Resources (MDNR), the Natural

MAGGIE SCHEFFER

Dr. Bette Premo speaking to a group of local residents at the June 2019 Legacy Mine Tour, organized by the Iron County Watershed Coalition.

Resources Commission, Trout Unlimited, the Outdoor Clubs of Iron County, and others, finally paid dividends. In August 1985, then Governor James Blanchard came to Iron River to present an Act 307 (Michigan's Superfund) check for $140,000 for the pond system design and construction. By late 1988, the system was installed and operated by the State of Michigan.

In 1994, the MDEQ brought suit against M.A. Hanna Mining Company, the company responsible for the former Dober mine, in response to the acidic water's impact on the Iron River. The parties agreed to a consent decree that required Hanna to monitor and prevent further contamination of the Iron River at the site of the old Dober mine. By the time the consent decree was completed Hanna had merged with another company to produce PolyOne Corporation. Polyone held the National Pollution Discharge Elimination System (NPDES) permit (which was handled by MDEQ) stipulating monitoring of the outfall from the Dober Mine. From 1994 until 2012 Polyone monitored the outfall and completed studies to determine the state of acid production in the pit.

In July 2012 Polyone submitted a Notice of Completion to MDEQ and received no response. In October 2012 Polyone submitted a request for a Certificate of Completion, which was ultimately issued. However, the Certificate of Completion included instructions to continue with certain remediation work.

Polyone objected to these additional requirements, claiming that the original consent decree included no such provisions. In response, MDEQ argued that the employee who signed the Certificate was not authorized to do so. MDEQ also argued that the additional requirements included in the Certificate were valid under the terms of the consent decree. At Ingham County Circuit Court on March 2, 2017, Judge William E. Collette agreed with Polyone and ordered MDEQ to pay Polyone for the work that they continued to do post receipt of the order of completion. MDEQ appealed the circuit court's decision to the Court of Appeals (COA) and the COA upheld the circuit court. MDEQ filed for reconsideration with the COA and was denied. MDEQ then filed for leave to appeal with the Michigan Supreme Court and was denied there as well. That is where the legal situation stands today.

The Dober mine synergetic pond system has been operating for a little over 32 years since its construction. For the most part, the system has performed well. An estimated 600,000 tons of iron have been precipitated from acid waters issuing from the Dober mine that otherwise would have gone into the Iron River.

Still, some problems have been encountered during this period. High water levels in the spring sometimes flood the Dober mine pit and pond system, which make its functioning questionable until water levels drop to normal. In addition, presently there is no monitoring of the Dober outfall, no maintenance of the settling ponds that prevent or minimize the acid runoff to the Iron River—ponds that are filling with iron precipitate up to and above the level of inflow pipes from the river—and no safety fences surrounding the area to prevent children from playing and falling into the acid pit ponds.

We had come a long way from the days when the Iron River ran orange, full of iron hydroxides and other heavy metals. Now, unfortunately, we are very close to reverting to those same conditions.

Bette Premo holds a doctorate degree in limnology. She is president of the Iron County Watershed Coalition.