



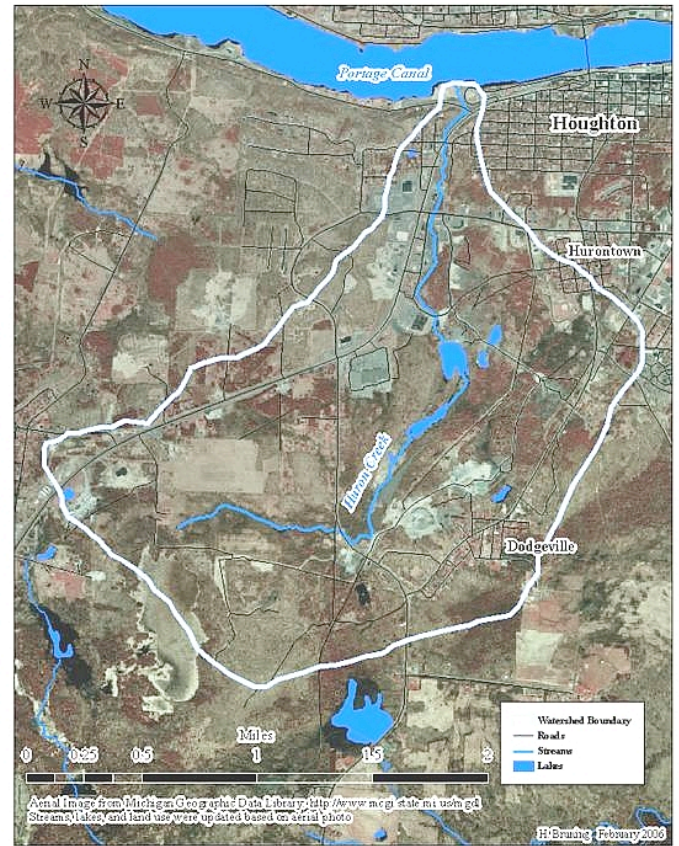
Lessons of the Watershed Linda Rulison

“You may have wondered how a drop of rain falling on your community finds its way to the Great Lakes,” say Kevin Mercer and Jennifer Hounsell in an article found in the “Great Lakes Aquatic Habitat Network & Fund” publication 2006/2007 Volume 6. They write that “Too many people don’t understand the impact that stormwater has on the city.” Residents of the Keweenaw may be asking this very question. We also may be asking “How did we not know that living in a large watershed with many smaller watersheds could cause so many stormwater problems, maybe BIG problems?” **We wonder no longer!** The June storms with their massive amounts of stormwater in a very short time made their impact felt on entire communities in the Keweenaw watershed.

The Upper Peninsula has three primary watersheds: Lake Superior, Lake Michigan and Lake Huron. So just what is a watershed? On their website, the U.S. Geological Survey defines a watershed: “A watershed consists of surface water—lakes, streams, reservoirs, and wetlands—and all the underlying groundwater. Larger watersheds contain many smaller watersheds. It all depends on the outflow point; all of the land that drains water to the outflow point is the watershed for that outflow location. Watersheds are important because the streamflow and the water quality of a river are affected by events, human-induced or not, happening in the land area “above” the river-outflow point.”

Here in the western end of the Upper Peninsula, we live mainly in the Lake Superior Watershed. How watersheds work is an important concept to keep in mind as communities in the Keweenaw rebuild and continue to expand, clearing trees, laying new pavement, reshaping streams and rivers to accommodate new residential areas or commercial sites. How do we plan for rebuilding or expanding in the same areas where stormwater wants to drain into a waterway? This is a particularly important question since it is becoming increasingly evident that

Huron Creek Watershed: 1998 Aerial Photo



Map photo from MTU archives. Note that there has been a lot of pavement added to the watershed since 1998

there is and will be a greater frequency of catastrophic storms. This is our challenge: to be proactive and plan for a future where weather events will be more unpredictable. For information about groups that work on watershed protection go to the following websites: www.keweenawlandtrust.org/organization-lsftp.php and www.wetlands-initiative.org/value-of-wetlands

Pelkie: Natural Gas Power Plant Under Construction Doug Welker

Upper Michigan Energy Resources Corporation (UMERC), a subsidiary of We Energies, is constructing a natural gas-fired electric power plant on Sarya Road, just north of M-38 and south of Pelkie, in Baraga Township. According to www.marketreportsonline.com/667662.html, “The project involves the construction of a 35-55MW natural gas-fired power plant. It includes the construction of a substation, a powerhouse, gas storage tanks and related infrastructure, the

installation of gas-fired turbines, transformers and generators, and the laying of transmission lines.”

Power will not be produced by boiling water to create steam. Instead, it will be produced by large engines that burn natural gas much as automobile engines burn gasoline. Gas would be burned in cylinders, which push pistons that turn a crank shaft, and the crank shaft will turn a large electrical generator.

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Pelkie: Natural Gas Power Plant

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Natural gas, of course, is a clean-burning fuel, but there can be negative environmental impacts during its extraction from the ground, particularly if fracking is utilized, and while transporting it.

There are also local impacts. Several hundred acres of land are affected at the power plant site, though most of that area could be returned to a usable state if reclaimed properly. A natural gas pipeline connecting a major north-south pipeline west of Baraga to the power plant is being buried in the north side right-of-way of M-38.

The land surface needs to be built up at the power plant; the material used to do that is dolomitic limestone quarried at a reopened limestone quarry on the east side of Limestone Mountain, four miles WNW of the plant in Laird Township, Houghton County. Reopening of the quarry has impacted a number of acres of land. However, three potential negative impacts of limestone mining—noise, dust, and effects on underground aquifers—are minimal in this case because no homes are nearby and the entire quarry is above the local water table.



This photo, taken near the quarry entrance, shows large piles of crushed rock, with part of a 50' high by 300' long highwall behind them. The geology of Limestone Mountain is quite complex, and the highwall shows rock layers in a lot of different orientations.

L'Anse Township: Industrial Wind Development Concerns

Catherine Andrews

- An industrial-scale wind project would irreparably damage wildlife and the unique ecology of the Huron Mountains.
- U.S. Fish and Wildlife Service lists five threatened or endangered terrestrial species in the Upper Peninsula: Gray Wolf, Canada Lynx, Kirtland's Warbler, Red Knot and Northern Long-eared Bat.
- The Michigan DNR's Wildlife Action Plan lists approximately 35 species of plants and animals of greatest conservation need in Baraga County.
- The proposed 28,000-acre site is part of a critical migratory bird flyway.
- Renewable Energy System (RES) claims they will use existing logging roads "as much as possible". Major road construction would necessitate the use of heavy equipment and dynamite to build relatively straight roads to deliver gigantic equipment used to erect forty-eight 492 ft. high wind turbines on five acre cleared plots.
- Numerous bridges and culverts would have to be built to cross rivers and streams.
- The proposed 100-foot wide 27-mile transmission line would cross the Silver River and a large wetland as well as many creeks, streams, beaver ponds, etc. It would also cross private property in L'Anse and Baraga townships.
- RES is a global construction company with historic ties to Rio Tinto mining.
- RES admits this proposed wind energy project will not lower local electricity rates.
- Promised tax revenues cannot be guaranteed. RES has a buyer for the proposed project whose name they refuse to divulge. Southern Company from Georgia may be the likely buyer.
- The school district would receive little increase in its budget because the state's school formula automatically reduces its contribution as tax income increases.

Torch Lake: Update on Remediation Horst Schmidt

Torch Lake Public Advisory Council has, with its consulting engineer, started exploring ways to deal with the tailings that cover the bottom of the Torch Lake. The tailings, also known as stamp sands, are often contaminated with heavy metals and other toxic material. They have covered most of the lake bottom leaving the benthic or bottom layer of water degraded and with an extremely limited amount of plant life. The lake is unable to sustain

fish at the same level as other water bodies. The DEQ Remediation Division has worked to clean up PCBs and asbestos contamination over the last few years on the west shore as well as locating and sampling metal barrels dumped into the lake. The EPA is involved on the north end of Torch Lake in Lake Linden where contaminated sediments have been exposed. Their emergency response team is working on how to remove them.

Current Legislation



Horst Schmidt

What happens at the state and federal levels affects people at the local level because the quality of our air, water and land are all under siege at the state and national level. Our State Senator, Tom Casperson, seems to represent the interests of the mining companies instead of the citizens of the 38th district. He has introduced seven pieces of legislation, which all disenfranchise citizens of Michigan, and all of which passed. Senate Bills 652 through 654 were the most devastating. These bills created a newly formed board to oversee DEQ decisions. While this board was to be representative of various interest groups, it is actually dominated by industry, and they are able to override DEQ decisions without any recourse from the public. There were three special interest pieces of legislation that were designed to make it easier for Lundin's Eagle Mine and Highland Copper's Copperwood Mine (Lake Superior watershed) and the proposed Back 40 mine of Aquila Resources (Lake Michigan watershed) to avoid following mining regulations.

What is heartbreaking about these mines—operating and proposed—is that they will be dumping their treated water into streams that form the watershed for Lake Superior and Lake Michigan. These are all sulfide mines with the potential to permanently pollute our water bodies. There is increased pressure to find new ore bodies by mining companies. Should a mining company want to explore for metal-bearing materials, they can request to lease these parcels from the state if the state owns the mineral rights. If landowners do not own their mineral rights, which is often the case, they have no legal right to stop mining companies from coming onto their property.

FOLK Board of Directors 2017-2018

Chris Alquist, Catherine Andrews, Rosemary Grier, Linda Rulison, Dave Rulison,
Horst Schmidt, Doug Welker

Although we, as FOLK board members, are involved in our communities, we are not focused on a single issue. Board members live primarily in Houghton and Baraga Counties. We belong to different organizations and attempt to improve the quality of life in the Keweenaw. From highway pick up to wind turbines to biomass pollution to mining and short-sighted economic development to legacy mining clean-up such as Torch Lake and Gay stamp sands, there are many issues that need public input. FOLK aims to provide that input to protect our natural environment.



The boardwalk as viewed from the northeast end.

NCT Boardwalk Completed

Doug Welker

The 110-ft. boardwalk (Type 3 Puncheon, in trail construction parlance) on the FOLK section of the North Country Trail is now complete and ready for use. The boardwalk is 2.5 miles by trail southwest of South Laird Road, south of Alston, and is just below a beaver dam and beautiful beaver

pond. Some logging took place on the trail in this past winter, but the Forest Service made sure the loggers did a good job, so the trail is easy to follow. A small campsite near the boardwalk has been cleared, and a bench/table overlooking the pond will be built this summer (once the deer flies are less of a problem). For more info, contact Doug Welker 906-338-2680 or dwelker@up.net.



Adopt-A-Highway volunteers Linda Rulison, Rosemary Grier, Catherine Andrews, and Becky Darling (taking the pic) keeping FOLK's two miles at the Houghton-Baraga county line beautiful.

ATTENTION

Adopt-A-Highway Volunteers

You never know what you'll find! Will it be a random CD, a broken bumper, a lawyer's bill, or an empty beer bottle? Show you care by helping us clean up FOLK's two-mile stretch on US 41 at the Houghton/Baraga county line. We know you are environmentally conscious and want to make a personal contribution to a cleaner environment. Join us for the last highway pick-up of the season during the week of September 22-30th. We supply the vests, garbage bags, and memories. Contact Rosemary @ 334-2660 or keweenawfolk@gmail.com.

Please print Name _____
 Address _____
 City _____ State _____ Zip _____
 (Optional) Email _____ Phone (____) _____ Date _____
 Individual (Annual Membership / Jan-Dec): \$10
 Senior Citizen, Unemployed, Student (Annual): \$5
 Organization (Annual): \$35
 I would like to contribute to FOLK's legal fund. \$ _____
 I cannot afford the annual membership fee but would still like to be listed as a member.
 I am not a member but I would like to receive the newsletter.
 I want to get involved with FOLK! Please contact me by: (circle one) email or phone.
 Other _____
 Total enclosed: \$ _____

FOLK Friends of the Land of Keweenaw
 PO Box 671 Houghton MI 49931
 Membership Form

From your Treasurer: As your treasurer, I want to thank you for your support in 2017. It was outstanding. This year has been slow as we are past the halfway point in 2018 and have received *less than 20 percent* of last year's donations. We ask that you consider sending in your annual dues of \$10 (\$5 for seniors). Membership expires at the end of December each year.

We changed post office boxes in Houghton. It is now PO Box 671, Houghton 49931. We were assured by the post office all mail would be forwarded, but have run into some problems. If you sent your contributions to the old box number, but it was returned, please send it to the new box number. Thank you and we apologize for any inconvenience this may have caused. *Horst Schmidt*



FOLK

Friends of the Land of Keweenaw

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NEW PO BOX: 671