

UP MINING
AND THE
“ENERGY
TRANSITION”
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THQ



YDWP PRESERVES
280 ACRES OF WILD LANDS
See page 9

HOWL

Fall/Winter 2024

www.yellowdogwatershed.org

Bi-annual Newsletter
Volume 28, Issue 2

Preserving the Yellow Dog Watershed in its most natural state for the use of the public, now, and for the benefit of future generations.

DEER CREEK ROAD STREAM CROSSING: RESTORATION COMPLETE

By Rochelle Dale, Executive Director, with Mitch Koetje, Michigan EGLE

After almost 3 years of planning, revising, struggling through the permitting processes, collecting data, losing sleep, and searching for the right construction crew for the job, the Deer Creek road stream crossing project reached its climax in early August when Ultra Construction removed the old crossing and replaced it with an 18ft long by 8ft diameter aluminum culvert.

The project began in 2021 when the Yellow Dog Watershed Preserve was awarded a nonpoint source pollution grant from Michigan Environment Great Lakes and Energy (EGLE) to repair an old road stream crossing on Deer Creek, a major feeder stream to the Yellow Dog, and thus restore the creek to its natural, free-flowing condition.

During the first half of the 1900s, logging practices were quite different than they are today. Early 20th-century loggers placed logs, both hollow and solid, in the bed of Deer Creek, along with large boulders, to form a makeshift crossing for their work. Over the years, subsequent logging operations added hewn log platforms to top the pile. Eventually, the hollow logs filled, and the creek found holes underground for the water to go through. All the while, the sediment increased upstream of the crossing.

Mitch Koetje from EGLE's Water Resources Division in Marquette was the agency's point person on our project. He first saw the site two decades ago:

The Deer Creek crossing was probably the first 'problem' site a guy named Chauncey introduced me to in the Yellow Dog Watershed early in my 21-year long career at EGLE. The stream morphology and sediment transport capacity at this crossing was severely impacted by this "old school" way of crossing small streams. I must admit though, I was rather excited to see the conglomeration of materials used for the crossing that somehow lasted this long. But not



Ultra Construction installing the new culvert at the Deer Creek crossing. Photo by Sam Prentice.

as excited as I was to watch a bankfull width spanning shiny aluminum culvert installation that will last another century!

During data collection in 2022, we determined the sediment depth immediately upstream of the old crossing was at least 3 feet deep. The sediment deposit continued upstream in decreasing levels for another 75 feet. The possibility of the bridge failing and releasing an estimated 100 or more tons of sediment into the nearby Yellow Dog River all at once was a real danger.

Not only has this threat been averted, aquatic organisms, including brook trout, as well as other wildlife, can freely pass through once again. The creek has found what seems to be its old channel, and boulders that haven't seen daylight in nearly a hundred years are gleaming. The water from this spring-fed stream now reaches the river unhindered, adding much needed cold-water recharge that is so important in the summer months.

(continued on page 6)

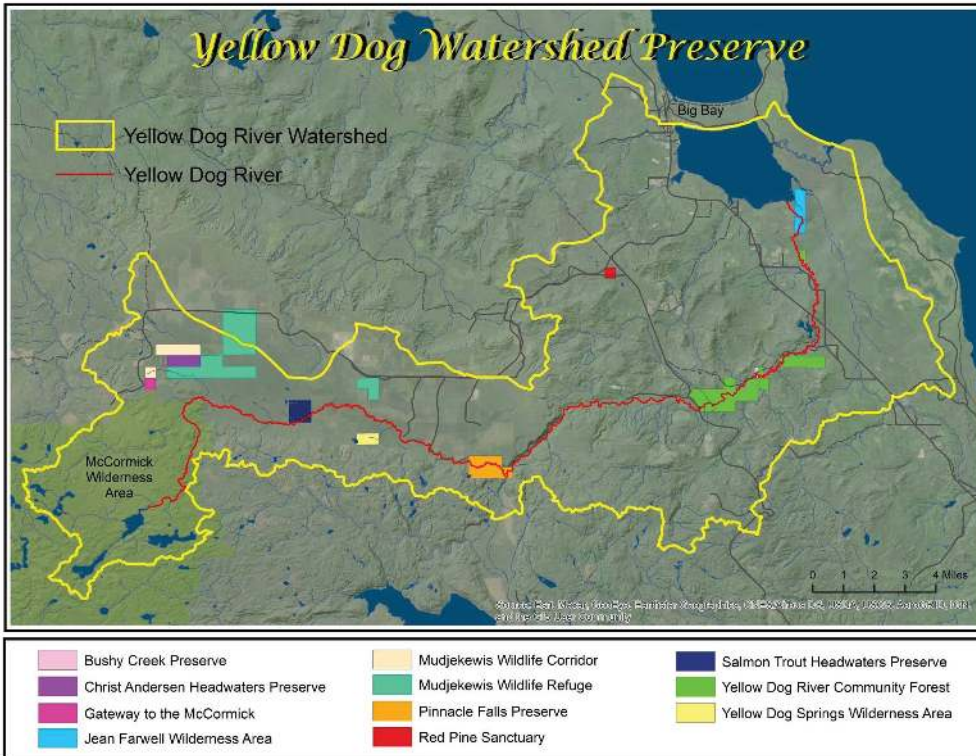
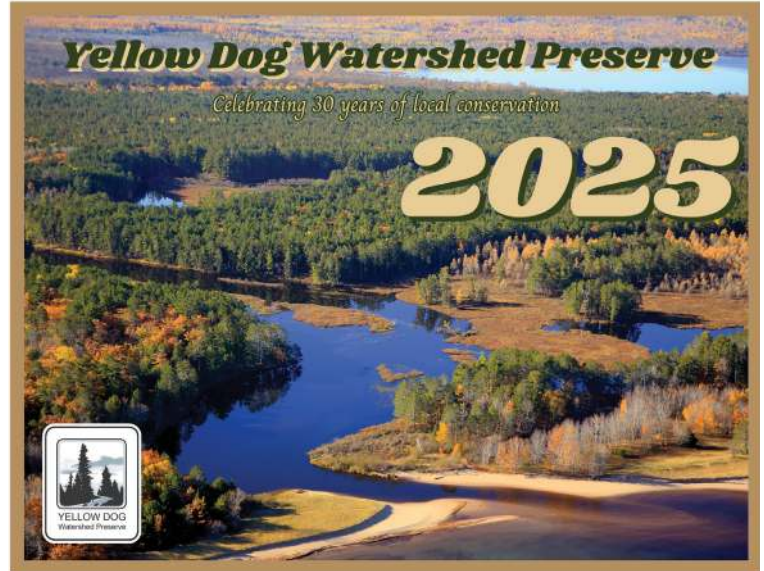
YDWP TURNS 30 IN 2025: SPECIAL EDITION CALENDAR

YDWP had an eventful year of acquisition in 2024, adding two new properties totaling 280 acres to the lands under our stewardship. To celebrate these acquisitions, as well as the organization's 30th anniversary, the 2025 calendar features photographs of each of our parcels, as well as an explanation of their history and ecology.

Calendars make great Christmas gifts! If you are local, you can find them in Marquette at Superior Outfitters, Downwind Sports, and The Gallery. Otherwise, place your order on our webstore by December 18 to receive it by the holiday. Proceeds support our education and outreach programs.

Thanks to our sponsors: Range Bank, Edward Jones, Marquette Community Federal Credit Union and two anonymous donors.

The YDWP Board and staff wish everyone a blessed Christmas and joyful New Year!




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YOUR SUPPORT FOR THE COMMUNITY FOREST SAVES ACREAGE FROM COMMERCIAL FORESTRY

By Rochelle Dale

Wow! The success of the campaign to remove Yellow Dog River Community Forest acreage from commercial forestry emphasizes the importance of this special place and how much our members and supporters appreciate it. We at YDWP are heartened and inspired by your generous support for this project!

The popularity of the Community Forest is borne out in the data from our TRAFX trail counters. So far in 2024, the YDRCF has seen approximately 8,000 visitors. Since we installed the counters in July of 2022 we have had in excess of 24,500 people pass through the preserve.

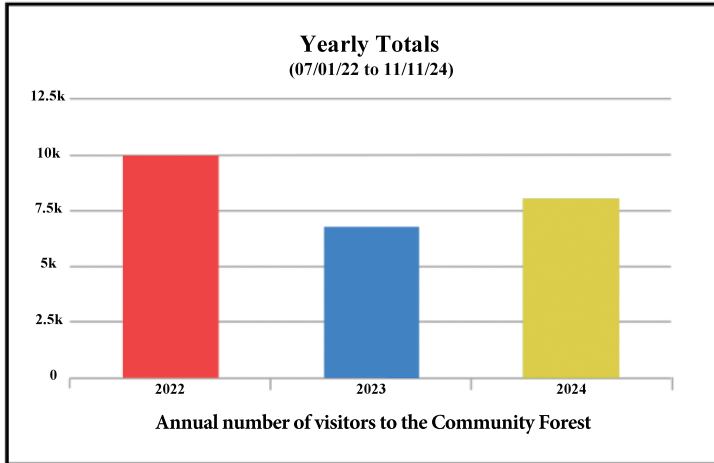


Image on the back of the special edition t-shirt.

Our recent campaign also illustrates that those who love the Community Forest are willing to sacrifice to preserve it in its most natural state. In our spring/summer 2024 issue of the Yellow Dog *Howl*, we wrote about the status of the Community Forest, the requirements of its forestry plan, and our desire to remove 494 acres from commercial forest designation. 150 acres of the above total were slated to be cut within the next year. If these lands were not removed before the time period was up, the State of Michigan would require the parcels to be timbered. To remove the land from CF and thus avoid the requirement to harvest trees, we would need to pay a penalty to Ishpeming Township of approximately \$140 per acre. This added up to a total of \$21,328 for 150 acres.

In the wake of our appeal in the spring issue and subsequent email campaign, over 90 individuals contributed a total of \$30,882 to help us remove Community Forest land from commercial forestry. Combined with the \$10,000 grant from Upper Peninsula Environmental Coalition, we now have funding to remove 250 acres, 100 more than our original goal!

The application for removal is currently being processed by the State of Michigan, and although we have exceeded our initial target, we have 244 more acres to remove from commercial forestry in the not-so-distant future. Contributions to ensure we clear this next hurdle are welcome. Please contact us if you would like to help us keep the momentum going.

To celebrate this project and to show our appreciation, our own Sarah Heuer designed a special “Forests for Grandchildren” t-shirt. We still have a few remaining, so if you haven’t received yours yet, let us know. They are free to donors or are available for purchase on our website. We might even print a few long-sleeve tees or hoodies if there is interest. Let us know what you think.



Chest logo of the t-shirt.

THE UPPER PENINSULA MINING EXPLORATION BOOM IN THE “ENERGY TRANSITION” CONTEXT

By Brian Noell, Communications Director

It is by now a truism that mining activity in the Central and Western UP is accelerating. New exploratory drilling is being done around the Eagle Mine on the Yellow Dog Plains, and the Canadian company, Talon Metals, has just announced a new discovery in neighboring Baraga County. Meanwhile, other companies are angling for mineral rights and selling projects to investors in advance of what they expect to be a bonanza in the Western UP. Finally, while taxpayer money has not yet been allocated for the proposed Copperwood Mine adjacent to Lake Superior and Porcupine Mountain State Park, the grant approved by the Michigan Strategic Fund is back on the docket in the State Senate.

This activity is dizzying, but what does it portend? The future impact of mining on our region can only be glimpsed by considering the actual resource needs of the energy transition being touted by governments and corporations to address runaway climate change. The abundant small moves made by companies in our area today represent a ramping up for mining on a scale that will dwarf the UP’s “golden age” of extraction. Indeed, to complete the transition envisioned by policy makers and trumpeted by executives in the tech, automotive, energy, and defense industries, we will need to remove more metals from the earth in the next 30 years than we have in all of human history.

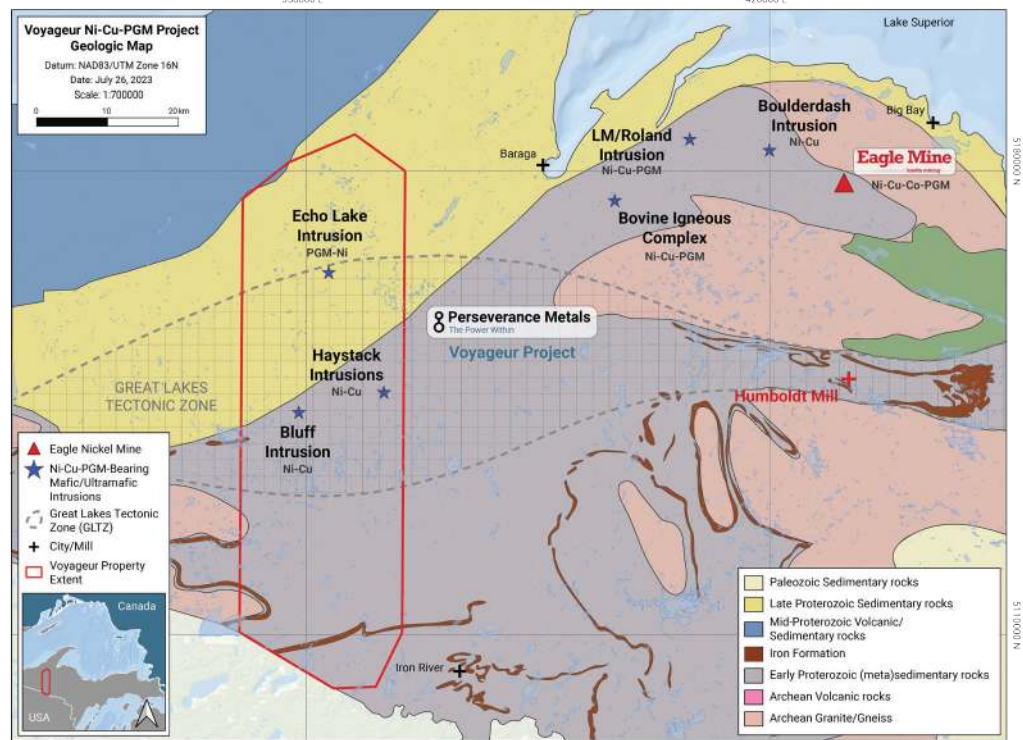
Visitors to Ishpeming and Negaunee are familiar with the scale of the destruction and degradation of the environment from iron mines that peaked in the late 1800s. And then there are the stamp sands from nineteenth-century mines in the Keweenaw, which continue to wreak havoc on the aquatic ecosystem and shorelines of Keweenaw Bay more than 100 years later. If present estimates of resource requirements for the energy transition are accurate, we soon can expect to see sacrifice zones on an order dwarfing these, especially in what is presently the wilderness of the Western UP.

Predictions based on targets established by the Paris Climate Accords are that the transition to a carbon-free human future (itself unlikely given the growth imperatives of our present economic system) will require an increase in the supply of “critical minerals” by 5 to 10 times over the next 30 years, a staggering amount considering that we are already extracting these materials at a record-breaking pace. And, lest one think that we can get there through recycling, think again. Unless we factor in dramatic cutbacks in resource consumption, we can say with confidence that most of the metals needed to power a transition that maintains our current standard of living are still in the ground.

There is a great deal of maneuvering in the mining industry’s corporate ecosystem to get at these metals (in the UP, mostly copper and nickel), with profit being made at every step of the way. Exploration and marketing of potential mines is done by junior mining companies, whose job is to test drill and analyze the results to tout projects to investors, as well as to clear the way in potentially impacted communities for the next stage of development. We can gauge the industry’s interest in a region by the activities of these and associated companies that profit from speculation and associated public relations.

Recent months have seen several junior mining companies and/or land brokers jostling for leases on UP mineral rights owned by the State of Michigan. In August, Perseverance Metals, a Canadian junior, applied to lease 1,629 acres of state mineral leases for their Voyageur project, whose projected scope encompasses a large swath of the Western UP, from the bottom of the Keweenaw Peninsula stretching south to the Wisconsin border near Iron River. Also notable was the deal in October between the local mineral and land management company Keweenaw Land Association (KLA) and the Michigan DNR to trade 8,392 acres of rights the former held beneath Porcupine Mountain State Park for 9,551 elsewhere in the Western UP, a net gain to the company of over 1,000 acres. Earlier this year KLA applied to lease over 10,000 more acres of state mineral rights, adding them to its portfolio of more than a million acres of mineral rights in the UP and Eastern Wisconsin.

Mineral rights are not valuable until viable quantities of metals are discovered and market and regulatory conditions make it possible to exploit them. KLA’s biggest potential score to date is the leasing of mineral rights for the Canadian junior Highland Copper’s Copperwood Project in Gogebic County. Readers of the *Howl* are familiar with the saga of the proposed \$50 million State grant to the company, which seeks to establish a sulfide mine on terrain sloping toward Lake Superior, adjacent to Porcupine Mountain State Park. In line with President Biden’s push to establish a domestic supply chain of metals needed for industry and national defense, Michigan officials see this project as a means to complete the circle of EV manufacture, with subsidized Upper Peninsula metals going (theoretically) to supply subsidized battery plants and car factories downstate.



This geologic map from the Perseverance Metals website shows the extent of their Voyageur project (outlined in red). Talon Metal’s Boulderdash site, Eagle Mine, and the town of Big Bay are in the top right corner.

Although the grant made it all the way to the Michigan legislature, it was left off the 2025 appropriations bill, apparently because citizen activism gave senators pause. Indeed, Highland Copper would not only be extracting ore on the site, it would also be creating a tailings facility containing 30+ million tons of toxic waste, which, if the dam containing it failed, would contaminate Lake Superior in a matter of minutes.

Senators also were skeptical of the benefits to Michigan of this giveaway. The ore is slated to be processed in Canada, with no guarantee that it would be used in US industry or would benefit the State after initial extraction and shipment. In fact, when the mine’s life is over and the company moves on, Michigan taxpayers will be on the hook in perpetuity for the maintenance of the dangerously situated waste facility. Despite all these reservations, the Michigan Senate is now reconsidering the grant and is expected to vote very soon on reinstating it.

Meanwhile, Talon Metals, another Canadian company, is also doing what juniors do. It has skillfully positioned itself to receive federal money for its exploratory activities, leveraging further investment from the private sector. Over the last few years, Talon has been ramping up its capacity both in the UP and further west. In September 2023, the US Department of Defense entered an agreement with the company, providing \$20.6 million to speed exploration and exploitation of deposits at their flagship mine in Tamarack, Minnesota. In November of that year Talon secured an additional \$114.8 million from the Department of Energy, made possible by the 2021 Bipartisan Infrastructure Act, for a battery minerals processing facility to be built in Mercer County, North Dakota. It also has an agreement with Elon Musk to supply Tesla with 165 million pounds of nickel concentrate from its Minnesota operations.

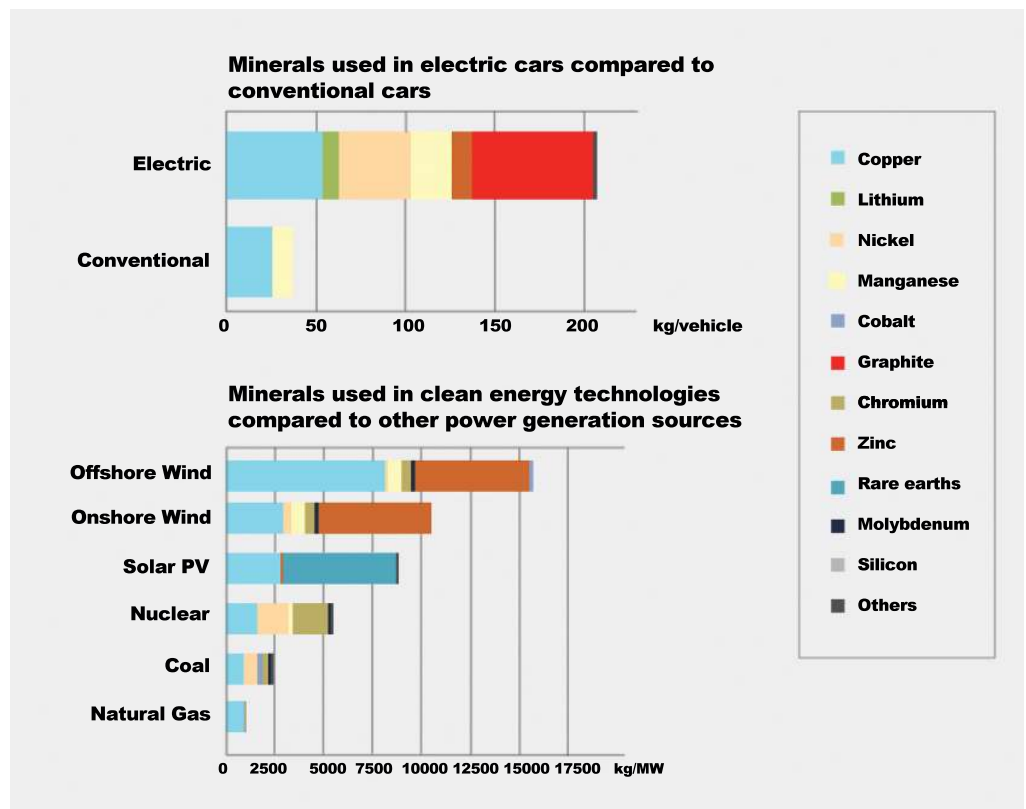
Here in the UP, Talon entered into an option agreement with UPX Minerals in August 2022 for an 80% share in the mineral rights on around 400,000 acres in Marquette, Baraga, Houghton, and Iron County, initially owned by the Ford Motor Company, then sold to Rio Tinto (former owners of Eagle Mine) and finally to UPX. Talon is proceeding through the Michigan DNR permitting process and now is actively prospecting for nickel and copper in this vast tract of privately-owned land.

Talon also has embarked on a public relations campaign, particularly among the Anishinaabe, whose treaty rights in Michigan give them significant say over what happens on the territory they have ceded. It is giving assurances, as all mining companies do, that extraction will be a net positive for the community. For the non-tribal audience, it bills its geologists as “nickel hunters,” heroically scouring the wilderness to discover deposits of the minerals that government and industry assure us are the way out of the climate crisis.

In October the company announced what it says is a significant copper and nickel discovery from its maiden drilling hole at the Boulderdash site in Baraga County, part of the same formation as the deposit being exploited by Eagle Mine, about 60 miles to the east. Predictably, the company’s stock rose dramatically on the announcement.

Despite all this activity in the UP, the moment is fraught for mining companies, particularly juniors like Talon and Highland Copper, which depend on government giveaways to pursue their operations. President-elect Trump has promised to withdraw subsidies for the EV industry, but he has also developed a close relationship with Elon Musk, who has business ties to Talon and a strong interest in seeing the pace of mining accelerate. How the politics will play out is anybody’s guess, but it seems unlikely that mining activity will slow. As long as the present economic model remains in force, based on the need for an ever-increasing supply of metals for the technology, energy, automotive, and military sectors, demand for metals like nickel and copper will continue to skyrocket. Moreover, our access to offshore supplies, which have largely enabled us to ignore the costs of mining to the environment and to affected communities, are dwindling due to global competition.

In the absence of serious reductions in resource consumption, this damage will no longer be externalized. To view it positively, mining is about to become a lot more visible, and therefore its effects will be better appreciated by the American public, perhaps leading to meaningful opposition. The Copperwood Project is illuminating in this regard. Bordering the state park recently ranked as the country’s most beautiful, Copperwood will reach beneath public land to extract ore. The mine’s infrastructure, including sewage lagoons, explosives plants, and rerouted streams, will be a stone’s throw from the popular North Country Trail. Its tailings disposal facility, the size of 244 football fields and taller than the Statue of Liberty, will be visible from Copper Peak and Lake of the Clouds Overlook. To top it off, Michigan taxpayers, in exchange for 11 years of production to supply the EV industry, will be saddled forever with the responsibility to keep the sulfides and heavy metals from more than 30 million tons of mining waste from leaching into the lake we all love and that contains 10% of our planet’s reserve of fresh water.



This graphic from the International Energy Agency illustrates that electric vehicles and “clean energy” technologies use greater quantities of common metals than their conventional counterparts as well as an abundance of other mined materials.

DEER CREEK CROSSING RESTORATION COMPLETE

(continued from page 1)

An undertaking of this magnitude required a lot of collaboration, and we were fortunate to have a great team working with us. A few of these folks and their associated organizations were part of the mission even before we secured the EGLE grant. The Brook Trout Subcommittee formed through Partners for Watershed Restoration (PWR) joined Sarah Heuer and myself for a walk-through of problem sites on the Yellow Dog River and tributaries during the summer of 2020. The committee was looking for ways to improve trout habitat throughout the UP, and YDWP had volunteered to show them around our area. We visited the Deer Creek site that day, and since then John Highlen and others from the Fred Warra Chapter of Trout Unlimited, Sam Prentice from GIE consultants, and Jeff Koch from PWR have been reliable consultants, engineers on the job, or volunteers. As time went on, others joined forces with us: JM Longyear (the landowners), Superior Watershed Partnership, The Great Lakes Climate Corps, and the Ultra Construction crew.

I should add that EGLE was more than just the grantor. Mitch Koetje was on site nearly every day during construction, helping make sure all went well and that the water was protected. He also helped oversee the first data collection, conferring



Deer Creek data collection 2022: Olivia Engelhart of GEI (on bridge) with John Highlen and Doug Vanerka of TU preparing to take a depth of refusal measurement, which determines the amount of sediment buildup on the original streambed. Photo by Mitch Koetje.



Bill LaForge of Ultra Construction guiding machine operator Todd Taskila during construction. Photo by Mitch Koetje.

and discussing protocol with Sam all along the way. And during the grant writing process, he cheerfully answered my weekly barrage of questions.

When we asked him to contribute his thoughts to this article he wrote,

I am thankful that Rochelle and YDWP took the opportunity to apply for a Non-Point Source Pollution Control Program grant from EGLE to get this project completed. As they well know, it can take a little patience navigating the grant funding world. This project was one of the highest-ranking priorities in the Yellow Dog Watershed Management Plan that the YDWP developed and EGLE approved in 2018. It has been a rewarding experience working and learning alongside such great partners as the YDWP, JM Longyear, Sam Prentice with GIE Consultants, Fred Warra Chapter of Trout Unlimited, and my first experience with the talented crew at Ultra Construction, including Todd Taskila and Bill LaForge.

I thought I would never want to undertake a restoration project of this sort again, but no sooner was the task completed than I started asking myself, "What's the next priority?"



Mitch Koetje (center of culvert), working alongside the Ultra Construction crew during the final stages of installation. Photo by Sam Prentice.

In some ways, restoration work may be the most stressful and wearisome, but in the end, the most satisfying. The results are clear. The creek is free again. The river is free of the threat of excess sediment instantaneously clogging its channels, and the trout can move up the creek whenever they want.

Mitch is already encouraging us to build on this achievement:

This stream crossing replacement project is a drastic stream morphology and aquatic organism passage improvement. EGLE is happy to be a partner in the implementation of this work. When the next opportunity for stream improvement work is pursued, you know where to find me, and I know where to find all of you. Let's get it done!

And he wisely adds, "Patience and opportunity are both something you hope for quite a bit in the natural resources improvement realm. Patience and opportunity have a bit to teach us along the way too."



Before restoration: Creek bed is full of sediment and the old culvert is non-functional. Photo by Mitch Koetje.



After restoration: This boulder had been submerged in sediment before our work allowed the stream to find its original bed, exposing it once again to the light of day. Photo by Mitch Koetje.



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FOR THE WATER: 2024 GICHIGAMING WATER WALK

By Rochelle Dale

“We do this for the water” were the words spoken every time the new relay pair took the copper pail of water and staff to carry to the next team waiting up ahead. This kettle of water, dipped from the Montreal River on the border of Michigan’s Upper Peninsula and Wisconsin, remained in motion from early morning until dusk, when we reached the mouth of the Presque Isle River on the shores of Lake Superior in the Porcupine Mountains Wilderness State Park. Once dipped from the river, the water had to keep moving until we reached our destination. The day was one of reflection and contemplation, a ceremony focused solely on water.

The 2024 Gichigaming Water Walk on September 14, 2024, was sponsored by Protect the Porkies and coordinated by multiple local tribal nations, but open to all. The ceremony was to remind us once again of the sacred nature of water, its necessity in the lives of all living things, and therefore the absolute need for it to stay pure and unpolluted so that we all may live healthy lives. This year’s walk was 31 miles, with approximately 80 participants from various locations throughout Michigan, Wisconsin, and Minnesota. Some people came who were unable to walk any distance, but they drove cars instead with water and supplies for those who could. Everyone had a part.

At the end of the walk, the Anishinaabe women waded into the lake and with songs and prayers for healthy water, released the water from the Montreal River into the Great Lake as the sun was setting. A much-welcomed potluck feast followed the ceremony in the park pavilion (lunch had only been snacks on the run).

Yes, my feet and legs were sore the next day, but I felt extremely grateful to be reacquainted with old friends, to make new ones, and to be a part of a group of people with such determination and dedication. We were not always received graciously as we progressed on this journey, but the leaders and the people of the water walk never responded harshly in return. We just kept on flowing.

Thank you to the Anishinaabe women for sharing their knowledge and traditions, and to everyone else who helped make this special event possible.



Young participants wade in the waters of Lake Superior after the long day’s walk. Photo by Sol Anzorena.

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CAUSE FOR CELEBRATION: YDWP PRESERVES 280 ACRES OF WILD LANDS

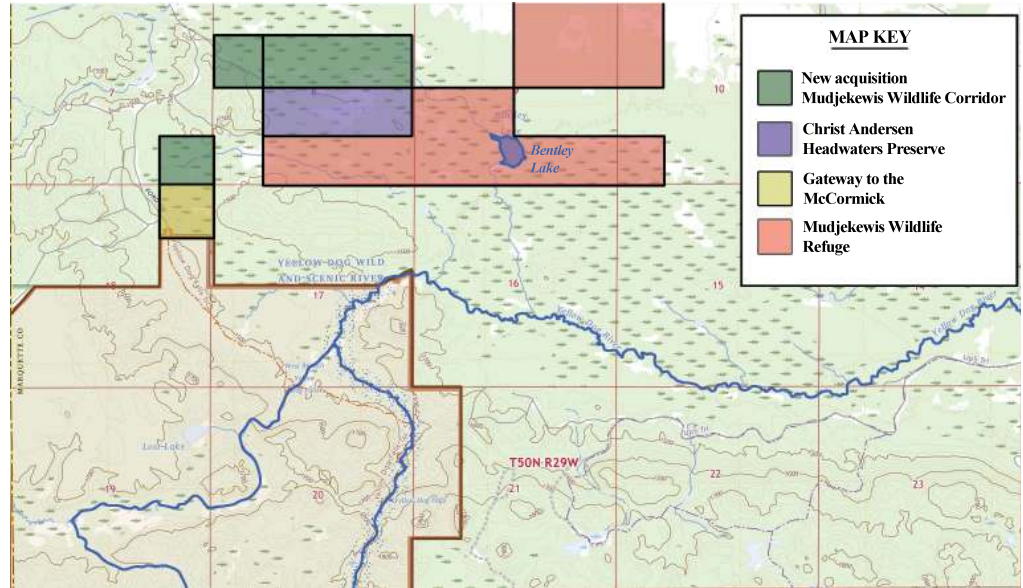
By Brian Noell

The preservation of wild lands in Michigan's Upper Peninsula is becoming increasingly vital. As development and resource extraction pressures mount, the health of our regional ecosystem depends more and more on the filtering effects of upstream wetland environments such as those on the Yellow Dog Plains. YDWP is committed to preserving these in their most natural state so they can continue to perform that function both for the creatures who make their homes in the upper reaches of the watershed and for downstream humans who benefit from them in a myriad of ways.

In the spring edition of the *Howl*, we announced that we had received a grant from the US Fish and Wildlife Service to purchase 200 acres adjacent to our previously acquired Christ Andersen Headwaters Preserve and Gateway to the McCormick. The primary intent of the North American Wildlife Protection Act, which provides funding for the grant, is to protect migratory bird species, dependent on wetlands for breeding, feeding, and shelter. But US Fish and Wildlife is also concerned about endangered or threatened species. Among these are moose, little brown bats, spruce grouse, northern harriers, and black-backed woodpeckers, all of which have been identified in the wetlands on or near the newly acquired parcels.

The YDWP board named the property Mudjekewis Wildlife Corridor because it expands the area's already significant tract of preserved wild land, encompassed by the McCormick Wilderness Area and our own Mudjekewis Wildlife Refuge and Christ Andersen Headwaters. Much of the acreage consists of boreal forest, in particular black spruce/tamarack bog, which, although making up only 3% of the earth's landscape, sequesters 30% of its terrestrial carbon. The property is near the southern terminus of this ecosystem's range, where scientists predict warming temperatures will cause bogs to dry out, releasing sequestered carbon dioxide and methane and begin to contribute to climate change rather than mitigating it.

In a recent study, scientists predicted that, by century's end, most of the boreal forest in the Upper Midwest will disappear. However, some of these environments in cooler, undeveloped highlands likely will endure, continuing to sequester carbon and blunt the impacts of climate change. A substantial, undeveloped boreal bog such as that on our new preserve stands a good chance of survival now that we have removed it from the market and put conservation measures in place to protect it in perpetuity.

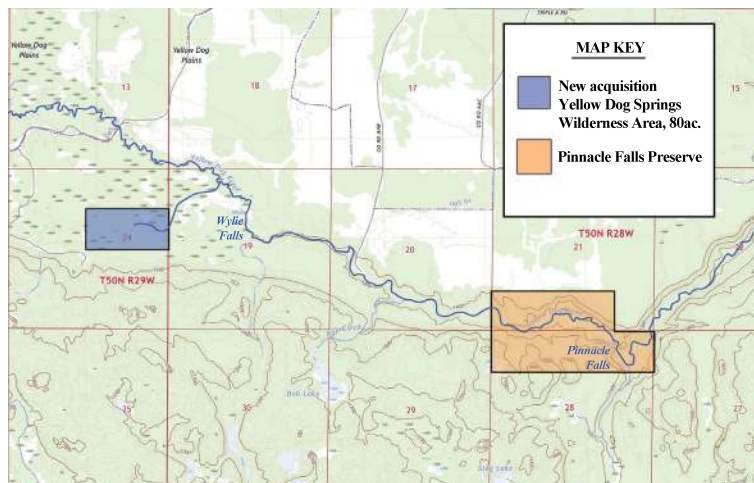


YDWP is also pleased to report that, thanks to the generous contribution of donors Walt Kummer and Steve Kelley, we have added an additional 80 acres to the wetlands we steward on the Plains. The new Yellow Dog Springs Wilderness Area is home to bear, deer, moose, coyote, and wolves and contains stands of mature white pine, hemlock, yellow birch, and maple. The wetlands here also serve as cold-water recharge for the Yellow Dog River, maintaining appropriate temperatures for brook trout to thrive and reproduce.

Mature forests and unspoiled wetlands like those in our new preserves give sustenance not only to the flora and fauna that inhabit them and the fish in the connected waterways, but also to people, whose wellbeing, knowingly or not, is linked to that of the wilderness. These benefits are not solely material. If we immerse ourselves in the wild, even for just a short while, we gain intangible blessings, which YDWP equally affirms. We are awed by the mottled markings of a 12-inch brook trout we have just pulled from a favored fishing hole kept secret from others. We feel cleansed when we drink from a spring flowing from a hillside in a secluded valley. And we experience healing as we stretch our arms around a 300-year-old white pine inexplicably spared hundreds of years of logging.

Scientists have now measured, and the media has widely touted, the immune-boosting and anti-depressive effects of wilderness. Yet we repeatedly allow natural systems to falter, even on public lands, which, admittedly, were envisioned from the start as repositories of resources, but which are increasingly viewed as requiring more intensive exploitation.

For this reason, the preservation of wild lands like those the Yellow Dog Watershed Preserve has acquired this year, as well as similar efforts by other land trusts and individuals, who have pledged to leave their properties undeveloped, is essential work. We are at a pivotal moment in history, and it is cause for celebration that our small organization has managed not only to save vital habitat but also to contribute to the material and spiritual flourishing of our species in a time of great need.



BACK IN THE DAY
30 YEARS OF SCIENCE-BASED ADVOCACY IN THE YELLOW DOG & SALMON TROUT WATERSHEDS
By Chauncey Moran, Chairman

In 1994, a group of locals with a passion for right action met at the Thunder Bay Inn in Big Bay to find ways to address timber industry practices that were having a deleterious effect on the water quality of the Yellow Dog River. Later that same year, a series of beaver dams upstream from Bob Lake crossing south of the AAA road restricted water flow, causing the aquatic temperature to rise from 58F to 68F in that stretch. Later, community members found a motorized sluice, which increased the already rising water temperature to 74 degrees, an extremely dangerous level to brook trout. Also concerning was the accumulation of sediment over the gravel substrate required for trout reproduction and the propagation of their macroinvertebrate food source.

At the same time, roads built for timber extraction were degrading and contributing significantly to runoff entering the Yellow Dog and its tributaries. During the winter of 1994-1995, a record snowfall was succeeded by a catastrophic spring melt, resulting in the washing out of 11 of the 12 beaver dams in the upper reaches of the river and revealing how poor road building practices allowed excessive sediment to flow into the river.

1995 saw the official formation of the Yellow Dog Watershed Preserve, whose mission statement was drafted, appropriately enough, in an off-grid cabin right on the river. In the early years, a core group of individuals monitored activity on the river, worked with federal, state, and local agencies, township planning boards, and landowners to enhance the natural state of the Yellow Dog River by advocating best practices in camping, building, and logging.



*The 1996 landslide along the Yellow Dog was still visible in 2011, when this aerial shot was taken.
Photo by Chauncey Moran.*

Logging industry abuses came to a head in 1996, when a landslide 3 miles upstream from the CR510 bridge sent 40 acres of sediment crashing into the river. The result of a decade of bad practices and neglect of access roads, the disaster brought wider public attention to timber industry malfeasance (partly due to photographic documentation of the disaster produced during YDWP's first overflight of the river). For years our newly minted organization persisted in advocacy before industry executives and regulatory agencies, eventually resulting in improvements to logging practices and road construction.

In 2001 we initiated our water monitoring program, selecting 8 sites along the river to gauge stream health by sampling for macroinvertebrates, identifying substrate coverage, water clarity, bank conditions, water temperature, average depth, and tree canopy. In 2003 the Michigan Department of Environmental

Quality provided a grant for us to expand water monitoring to 20 sites twice a year for 3 years. We have maintained our program using this protocol ever since and extended our reach to include sites in the Salmon Trout River Watershed as well.

YDWP's mining activism and advocacy began around the turn of the millennium. In 1999 we observed large vehicles on the Yellow Dog Plains along the AAA road, discovering that they were engaged in seismic testing using large pistons that strike the ground, recording the signals that identify substrates within the earth's core to various depths, used to locate minerals, oil, water, and gas. In 2001, drilling began in an area that had been identified in the 1980s as having mineral anomalies.

We increased our monitoring of mining activity with overflights, using photography to document drilling operations and to identify headwater springs, streams, and ponds near them. We established communication with the companies who were exploring as well as the contractors who were operating the equipment to establish access



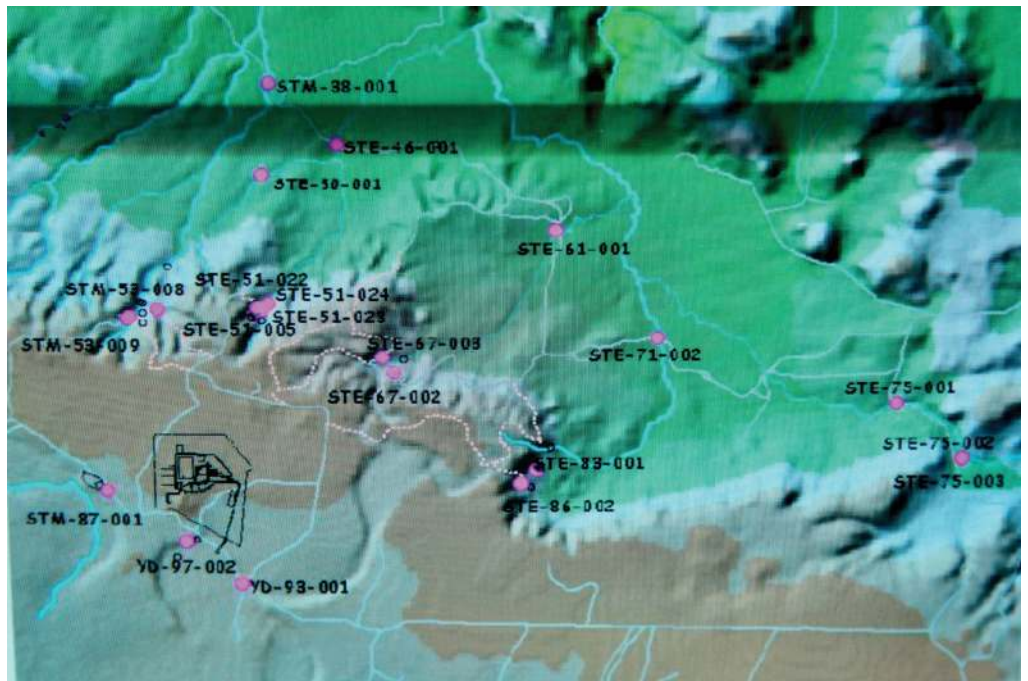
Mining exploration along the Middle Branch of the Salmon Trout River in 2007. Photo by Chauncey Moran.

to sites to monitor the effects of exploratory drilling.

In 2003 we augmented data collection around the area of the proposed Eagle Mine, including the intensive mapping of springs north of the site. We identified over 400 springs flowing into the Salmon Trout River East Branch and its tributaries and designated the area “The North Rim” due to the elevation changes from around 1,450 feet on the Yellow Dog Plains to less than 1200 at the Northwest Road crossings of the 4 tributaries of the East Branch of the Salmon Trout River. We chose monitoring sites here, as well as others on the Salmon Trout headwater springs, which were subsequently integrated into the independent water monitoring protocol for Eagle Mine that continues today under the auspices of Superior Watershed Partnership and Great Lakes Indian Fish and Wildlife Commission.

For over 30 years, various agencies, academics, and tribal communities have engaged in water monitoring in Northern Marquette County, but none have been more intensive than those undertaken by the Yellow Dog Watershed Preserve. In all weather conditions, in all four seasons, on foot, in watercraft, by snowshoe and skis, and in airplanes, this legacy will continue.

Now, staff, members, and volunteers with passion for right action are bringing new methods and technology to bear on our mission, enhancing our ability to collect scientific data and to effectively evaluate emerging threats to water quality in our area. As we move into the future, we will continue to bring a scientific approach to our advocacy, always remaining true to our mission to preserve the Yellow Dog River in its most natural state, now, and for future generations.



GLIFWC map of water sampling sites around the “The North Rim” of the Yellow Dog Plains, including the future footprint of Eagle Mine in the lower left corner.



John Coleman, field scientist for GLIFWC, on the Northwestern Road, West Branch of the Salmon Trout River in December 2007, 7 years before Eagle Mine’s first ore extraction. The monitoring team established a solid data baseline by going out 4 times a year to collect water samples. Photo by Chauncey Moran.



Old tech: A Garmin GPS unit verifying time and location of data collection alongside a handheld YSI meter, February, 2011. Photo by Chauncey Moran.



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WORKING FOR WILDLIFE: DNR HABITAT GRANT

By Rochelle Dale

YDWP recently received a Michigan DNR Wildlife Habitat grant, which will fund a major 2025-26 project to enhance wildlife habitat in a 160-acre parcel of the Yellow Dog River Community Forest.

This project addresses wildlife habitat concerns for more than just the near future. It enhances it in the long-term by mitigating the negative effects of climate change in this important area along the Yellow Dog River. Located downriver from the bulk of the Community Forest, this 160-acre piece is disconnected and isolated from the rest and rarely visited by humans. It is particularly significant habitat for white-tailed deer, located not far from a major wintering complex near the mouth of the river, which, in turn, is part of the larger Harlow Lake wintering complex.

The project area is considered a “breakout” region that deer use for shelter and food as they move from their winter homes to their summer feeding grounds. Our goals are to facilitate the growth of already existing mast producing trees (mainly red oak) and then introduce other food source trees such as white oak, black walnut, and potentially, hickory.

Assisted migration (the introduction of species that traditionally grow in warmer climates) is one of the ways to prepare for warming temperatures in the Lake Superior Watershed. If the current tree species are impacted, the introduction of native species from a bit farther south will help reduce the impact. White oaks are also resistant to oak wilt disease and could become a vital food source should the disease ever affect the population of red oaks presently predominant in our area.

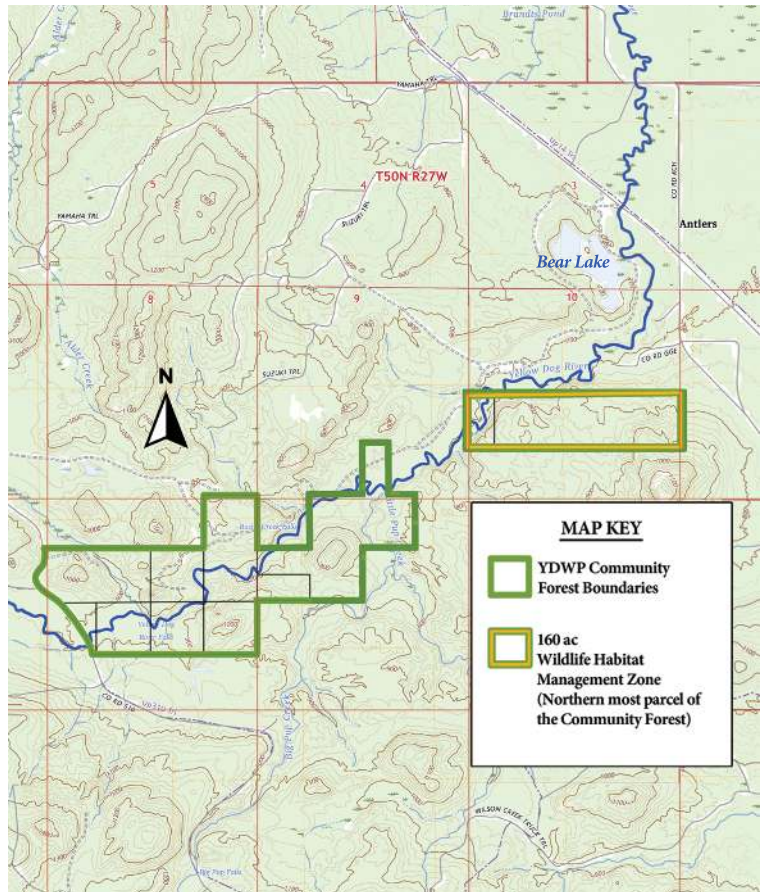
In addition to facilitating assisted migrations, we will also create or enlarge forest openings to plant fruit trees and shrubs, hemlocks where more thermal cover is needed, pollinator plants, and clover and rye in the small clearings and along the edges of interior roadways. These will provide additional food and shelter for a wide variety of wildlife including birds, monarch butterflies, and bees. We will build brush shelters for small game and maintain groves of aspen in various growth stages, including areas of fresh regeneration especially important for the golden-winged warbler, a “species of greatest concern” in Michigan’s Wildlife Management Plan.

Habitat enhancement will also benefit black bear, who roam the ridges along the river, where large trees will be left as possible hibernation dens. Our aspen groves will add much needed nutrition to their diet, as this tree’s buds are a favorite food in spring. Ruffed grouse will benefit from the yellow birch catkins and the fruit and nut trees that will be planted and maintained. Snowshoe hare, gray squirrel, marten, and fisher are also inhabitants of this area, and as wild turkeys make their way farther north each year, they likely will venture here as well.

We should be planting in 2025, and there will be ample opportunities to volunteer. Look for emails or visit our Facebook page for updates! Also, thanks to UP Whitetails and the Big Bay Sportsmen Club for supporting this project.



Photo by Carl Sams.



NEW BOARD MEMBER JANE FITKIN INTRODUCES HERSELF



Our new Board member, Jane Fitkin, next to an old-growth cedar in the Pictured Rocks National Lakeshore. Photo by Glenn Fitkin.

Hey there, Yellow Dog folk! I'm Jane. I moved to the U.P. in 2019 from Lower Michigan to study at Northern Michigan University. When I got here, I fell in love almost immediately with the wonder and power of Lake Superior and its tributaries, with the Yellow Dog Community Forest quickly becoming one of my very favorite places. I was able to get involved with YDWP through conservation-oriented student organizations I was part of at NMU, and I love walking the trails and meeting the many unique and inspiring people involved with the Yellow Dog.

Following my graduation from NMU in 2022, I've been working with Citizens for a Safe & Clean Lake Superior, an environmental advocacy organization in the area and partner to YDWP. In that position, I have been focusing much of 2024 building an understanding of local wetland protections, and mounting support for stronger local regulations of these vulnerable, though critical, ecosystems. I also enjoy hiking, swimming in Lake Superior, and rock climbing, and I'm passionate about standing up for the Earth and its living beings through activism and community. I'm excited to bring this same care and knowledge to the Yellow Dog. Having just joined the Board in late 2024, I'm stoked to build a stronger connection to the watershed and experience more of its magic.



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HEARTFELT THANKS TO ANNUAL MEETING CONTRIBUTORS AND ATTENDEES

By Kristi Mills, YDWP Secretary

We extend our gratitude to all those who made YDWP's 29th Annual Meeting a success. Once again, we hosted a pre-meeting hike up Breakfast Roll and then convened at the Thunder Bay Inn for the meeting. The staff and Board would like to acknowledge the following:

- Chris Lawler for leading 30+ hikers safely up and back down Breakfast Roll.
- The generous landowners and the Huron Mountain Club, who extended permission to do so.
- Jan Zender, who opened and led the member meeting with his own style and flair.
- The 35+ members who attended.
- Mike Finlay, Wade Saari, and Dan Vrieland for the wonderful Bentley Trail presentation.
- Executive Director, Rochelle Dale, for a comprehensive review of the year's accomplishments.
- Jane Fitkin for applying for and accepting the open seat on the YDWP Board of Directors.
- Jon and Christine Saari, Dan Rydholm, John Anderson, Nancy Moran, Chris and Sandy Weber, John and Victorica Jungwirth, and many others for their donations to the live auction, and to the attendees who patiently bid on them.
- Mark Bevins for his always entertaining auctioneering approach.
- Sue Bevins (and Mark) of the Thunder Bay Inn for hosting the event.



This year's hikers atop Breakfast Roll. Photo by Kristi Mills.

Next summer we will gather again to reflect on YDWP's history of stewardship and celebrate turning the "big 3-0." More details to come...

An advertisement for Quick Stop Bike Shop. The top part features the shop's logo and the text "Sales - Service - Rentals". Below this is a photograph of several people riding bicycles on a paved path. The bicycles are prominently displayed, with one in the foreground being a bright green Trek. The background shows a building with the shop's name on it. At the bottom, the address "1100 N. 3rd St. - Marquette, MI 49855 - (906)225-1577" is listed. The words "TREK" and "Transition" are written vertically on the left and right sides of the photo respectively.



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Please contact Brian at (906)345-9223 or email brian@yellowdogwatershed.org so we can make it right.

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FATHER MARQUETTE KIDS HAVE SOME YELLOW DOG FUN

By Sarah Heuer, Programs Director



Through personnel connections at Father Marquette Catholic Academy in Marquette, YDWP staff connected this fall with Alex Gencheff, a middle school teacher looking for an outdoor field trip for her 6th grade class. YDWP is always looking for opportunities to get the local community involved with our programs, so we brought the kids out to the Yellow Dog River to participate in our biannual stream monitoring.

On October 9, along with another supervisor, their bus driver, and eleven 6th graders, Alex met staff member Brian Noell and me, volunteers Mike and Cathy Benda, and our mascot Sergey at the Bear Lake site. The kids were overjoyed to be out in the woods and in the water for the day. They were stoked to find two native lamprey and a large sculpin in their nets, amongst a diverse array of new and exciting aquatic organisms. Afterwards we directed them to the Community Forest, where they took a hike to Hills Falls and explored the areas ecosystem.

Thanks to everyone who helped make this day possible! YDWP looks forward to future outings with middle schoolers at Father Marquette.