Our Next Coalition Meetings will be on

October 12, 2017 and

January 11, 2018

10:00 AM at the Harrisville Library

PINE RIVER VAN ETTEN LAKE WATERSHED COALITION

Working Together to Restore and Protect Our Natural Resources

BUHL DAM REMOVAL REALIZED

Just north of Michigan's Alcona/Iosco county line and within the Au Sable Watershed, Wallace and Bryant creeks flow together to form the South Branch of the Pine River. The South Branch provides quality coldwater fish habitat for brook, brown and rainbow trout as well as the occasional steelhead, seasonal salmon and northern hogsucker. The State-threatened channel darter is also thought to be present here. Before the South Branch joins the Pine River, it had been disrupted by Buhl Dam. Buhl Dam sat on U.S. Forest Service land and its removal was deemed a top priority. The dam had outlived its useful lifespan and with a two-foot height difference between the top of the structure and its outfall, the remnants of Buhl Dam posed a barrier to fish passage and led to warming water and downstream scouring from the fast-moving water. After more than a decade of planning and fund raising, Buhl Dam has finally been removed!

Before

Deconstruction began on May 18, and within a few days the Pine River was flowing freely under a newly installed foot bridge. The new pedestrian bridge connects the trail on either side of the river, with the old bridge being repurposed for use at a the nearby Pine River Campground. The crew from contactor, Team Elmer's, did a fantastic job on the project, working efficiently, safely and with care for our natural resources.

The removal was accomplished by Huron Pines in partnership with the U.S. Forest Service, Michigan DNR and the Pine River Van-Etten Lake Coalition (PRVEL) with grant funding of over $370,000 to date. The funding comes from a combination of sources which includes:

- $105,000 from MDNR-Habitat Improvement Account as part of a major settlement agreement that relicensed the company's hydropower projects on the AuSable, Manistee and Muskegon rivers
- $157,000 from National Fish and Wildlife Foundation-Sustain Our Great Lakes and
- $88,000 from United States Forest Service

Plan to help us celebrate this significant inprovement at the ribbon cutting ceremony planned for September 21 at the new bridge (see flyer on page 8).

After

Macro Invertebrate Sampling at Sprinkler Lake Day Camp 2017

By Arnie Leriche

The United States Forest Service (USFS) held Sprinkler Lake Day Camp for two weeks this 2017 summer at their Sprinkler Lake Education Center in Glennie, MI. There were two weeklong sessions. Participants were split into groups by their grade levels: 2nd & 3rd grade, 4th & 5th grade and 6th & 7th grade. Each week there were two groups of about 13 campers for each age level.

During the camp day, groups completed research, worked on activities and crafts with their counselors, took wildlife observation hikes, canoed and attended special presentations. Sprinkler Lake Day Camp provides local children with the opportunity to learn about the environment in a fun outdoor setting. Camp is free of charge to participants; it is completely funded by donations and grants. Many children who come to this camp would not be able to attend other camps for financial reasons.

Macro-Invertebrates – PRVEL's macro-invertebrate Team was honored to be invited to volunteer in the camp this year. It is fitting that we became more involved at this summer camp because Sprinkler Lake is in the northwest corner of our Pine River watershed.

Here, Dave Golder is showing students how to identify the insects' family and sometimes the species using a chart. The students identify the insects by counting the number of legs, tails, having shells or not, etc.

Campers entering the fourth grade or older attended a program about macro-invertebrates. They learned to get samples from the pond. Then they observed and identified the creatures they found in the water using their hands, tweezers, magnifying glasses, microscopes, etc. Arnie Leriche of PRVEL led the classes but the recruited instructors below were the stars of the classes and entertained the kids.

- Brandon Schroeder, Lincoln, *MI Sea Grant Extension*, Placed-based education program
- Dave Golder, Hubbard Lake, PRVEL Macro team member *PRVEL Watershed Coalition*
- Connor Hubbard, Lincoln, Alcona HS Science teacher

Brandon Schroeder is an educator in the MI Sea Grant Extension service. Here, he enthusiastically engages with the students. The students are very happy to answer his questions about the environment, wildlife and hear about the life cycles of macro invertebrates.

The US Forest Service owns the Sprinkler Lake Camp, a 60-acre parcel of land. The camp is partially funded by the USFS but requires donations and volunteers to operate each year. Please contact the USFS at the Oscoda Ranger office located on the former Wurtsmith AFB for more information. Contacts are Delyn Lovelace and Daisy Fryer at (989) 739-0728.

Macro-invertebrate Sampling Update

by Arnie Leriche

Our Fall 2017 macro invertebrate sampling will occur during the week of Sept. 27 or Oct. 4 if weather delays or water levels require. The primary dates are the first week:

- 9/27 (Wed.) at 8:45a; (Optional) 10/4 (Wed.)
- 9/30 (Sat.) at 8:30a; (Optional) 10/7

(Note: As usual, we will be joined on the Wednesday sampling dates by OHS students and possibly some members from the Alcona HS macro team program this Fall or next Spring)

Check out our Facebook page at *www.facebook.com/pineriverwatershed* for details and more interesting facts about our watershed projects. Please sign up for macro sampling in the special "Event" post because this can allow us to quickly notify you if a last minute weather situation requires a delay or cancellation. You may also contact Arnie via email at *aleriche526@gmail.com*.

Sampling our streams for aquatic insect populations is an important part of assessing water quality in the Pine River and its tributaries. The data we collect about the macro invertebrate insects and organisms gives us critical insights into the health and viability of trout habitats and sustainability in our beautiful watershed.

Upcoming macro-invertebrate sampling & habitat improvement training:

PRVEL is looking for more people to step up and volunteer to take the training made available through MiCorps (Michigan Clean Water Corps). Both seminars provide training in macro invertebrate sampling and identification. Each seminar provides additional training on stream habitat but also restoration methods during the sessions.

- October 25-27:
  http://michiganstreams.org/
  (Reduced cost deadline – Sep. 15.)
- November 8-9:
  https://micorps.net/events/micorps-annual-conference-2017/

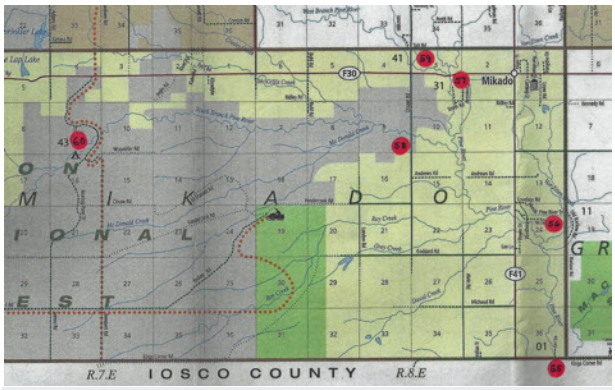
Registration fees will be paid for by PRVEL. Having an interest in nature and preserving the environment makes you a perfect candidate for this training program and you can help PRVEL to achieve our goals. Training includes the procedure for collecting specimens, insect identification, stream habitat analysis, and field protocols and is offered each year.

You may contact Arnie Leriche via email to learn more or visit the links above. If you prefer to be a volunteer for the sampling program, either collecting specimens in the streams or sorting "bugs" up on the river bank, you can still sign up for this Fall's sampling online at Facebook or by email. Remember, the stream bank and sorting table locations are much easier to navigate and chairs can be made available.

CROWDHYDROLOGY UPDATE

Primarily due to funding constraints the number of gauging stations operated by the United States geological Survey (USGS) in Michigan has been declining. The closest station to the PRVEL watershed is near US-23 at the mouth of the Au Sable River. The station that was located near F-41 on Van Etten Creek was shut down in about 1993.

While it is unlikely that any new gauging stations will be established in the area by USGS, water level measurements by other agencies and citizens along with the development of water level/flow curves has the potential provide supplemental data to help fill a flow rate data gap at our remote/data scarce area. Even though the measurements of this type are intermittent and relatively infrequent when compared to the almost continuous recording of water levels at USGS stations, they can still provide estimated data values which may be useful for the following purposes:



CrowdHydrology Sites MI1055 thru MI1060

- Identifying changes in streamflows due to changes in land use, water use and climate change

  Major changes in land use can have significant effects on streamflow, as can even more obvious changes in water use. In the near future it will be the effects of climate change on the amount and timing of streamflow that will get the most attention.

- Water quality conditions and trends support water quality sampling for estimating contaminant transport and Total Maximum Daily Loads (TMDLs)

  Streamflow information is required to determine the load, or amount, of a contaminant that is moving past a given point.

- Characterizing and evaluating instream conditions for habitat assessments, instream flow requirements and recreation

Streamflow information is required to determine the amount and timing of streamflow to assess habitats and to develop instream flow requirements. In addition, many boaters, swimmers, and fishermen use streamflow information to decide if the streamflow is appropriate for them to visit their favorite locations.

Obviously, the more valid measurements taken, the more useful the data base will be. In this regard, a total of 57 level readings have been reported to the *CrowdHydrology* web page to date in 2017 from the six gauges located in the PRVEL Watershed. This compares to a total of 36 readings sent in 2016. We are making progress but we have a long way to go to reach a goal of 15 readings per year per station or 90 total readings per year. It is also important to obtain readings when conditions are less than ideal such as during rainy times and very hot and very cold times.

13th Annual MiCorps Volunteer Monitoring Conference & Training
At the Kettunen Center, November 8-9, 2017

Consider planning to attend this event featuring afternoon training sessions on Day 1 along with presentations and dialogue on lake and stream monitoring on Day 2.

This conference is intended for volunteer monitoring program leaders, new and experienced volunteers, water resource professionals and others interested in protecting Michigan's rivers, lakes, and streams.

Visit *www.micorps.net* for more information and online registration this fall.

Invasive Species Issues

PRVEL Partners with CWMA

In line with PRVEL goals to protect and preserve our natural habitat, our efforts to inventory, monitor and treat invasive plant species will now be aided by a partnership with Northeast Michigan's Cooperative Weed Management Area program. Organized by Huron Pines in 2008, the CWMA provides a framework for the implementation of successful and cost-effective weed management in our area. All partners have a mutual interest to eradicate unwanted invasives, restore native plants, and monitor/manage important ecosystems.

Early detection and rapid response to individual species, e.g. phragmites, is a priority and through this partnership, we hope to make this endeavor possible throughout all 11 counties located in NE Michigan, including Alcona and Iosco.

Partners include Huron Pines RC&D, Michigan Dept of Natural Resources, Michigan Dept of Environmental Quality, US Fish/Wildlife, US Forest Service, Michigan Sea Grant, Natural Resources Conservation Service, Michigan Natural Features Inventory, Nature Conservancy, Thunder Bay Nat'l Marine Sanctuary, and now us!

Troubled Waters: Invaders Threaten Forests & Fish

By Nick Sanchez, Conservation District Forester, Montcalm, Kent & Ionia Counties

It is estimated that there are more than 170 million Eastern hemlock trees in Michigan. Hemlocks can be found in abundance on wooded dunes and in our Northern forests, especially near rivers and streams. Hemlocks protect watersheds by stabilizing stream banks which keep water clean, and by casting deep shade which keeps water nice and cool. Do you like clean, cold water? Our state fish, the brook trout, sure does. Healthy riparian forests also provide a steady supply of much needed wood into streams. Fallen trees help gravel accumulate for spawning, create deep pools for low flow periods, provide refuge from predators and trap organic matter which provides forage for macro invertebrates, which feed the fish. Wood in the water also slows stream speeds and decreases sediment movement, provides additional shade and forms pockets of cooler water lowering temperatures throughout the stream. These forests are also an important refuge during tough winter months. Their dense foliage keeps snow depths shallow and provides thermal cover for many species of birds and mammals.

Like many Michiganders, I like to enjoy clean, cold water and wildlife at the same time, so I find myself generally in favor of our hemlock trees. Overall, Michigan is home to an aging hemlock resource which makes it more susceptible to stressors in the environment like drought. Deer love to eat hemlock seedlings, so fewer younger, healthier hemlocks are available to join the ranks. To make matters much worse, Hemlock Woolly Adelgid (HWA) has recently been detected in three counties in West Michigan. HWA is a tiny aphid-like insect native to Japan which has decimated hemlock populations in the Eastern US. HWA threatens to diminish habitat quality for fish and wildlife that depend on the ecosystems where hemlocks typically thrive. Invasive species mean big trouble for our forest water resources, economy and quality of life. For more information on Hemlock Woolly Adelgid, including how to identify and report sightings, visit *www.savemihemlocks.org* your help in detecting invasive species and other forest health threats on the landscape; a threat to our forests is a threat to our waters.

Forests for Fish is a new project funded through the Forest service and administered by the Michigan Department of Natural Resources (DNR) to connect foresters, loggers and fisheries biologists to discuss how forest management and wood in water can improve fish habitat. Forests for Fish also provides resources and incentives to landowners and anglers to better manage their forests for clean water and quality fish habitat. Check out Forests for fish at *www.Michigan.gov/forestsforfish*

One of our key volunteers and hard worker Doug Jager lost his wife, Carole on August 26 after a hard, two year fight with bladder cancer. These past 6 weeks have been especially difficult as he lovingly cared for Carole in hospice care at their home.
Please know that Doug is doing well and has his family of two daughters and three granddaughters and 2 brothers supporting him. However, they are in the Detroit area so please keep him in your thoughts and occasionally reach out to him here in the Oscoda area over the coming months.
Doug's impressive volunteer work for PRVEL Macro sampling, Invasives removal and his work mentoring middle-school students could not have occurred without the support and love that Carole provided him. She was an impressive force and huge supporter in his life.
Memorials may be directed to the Bladder Cancer Advocacy Network through *BCAN.ORG* and you may offer condolences at *www.bureshfuneralhomes.com*

Get to Know Your Watershed

Whether you're interested in hiking, fishing, boating, snowmobiling, cross country skiing, or any other outdoor adventure, there are lakes, campgrounds, and trails right in your own watershed just waiting for you to make a visit. Check these sites out:

- Jewell Lake – 193 acre lake for fishing, boating – campgrounds close by - hiking, snowmobile trails/cross country skiing

- Reid Lake – 13 acre lake with 12 mile rolling trail around the lake – fishing, hiking, horse riding, cross country skiing, snowmobiling – Reid Lake area covers over 3,000 acres
- Sprinkler Lake – 60 acre lake for fishing – site of Sprinkler Lake Education Center which provides environmental education classes for grade school students
- Pine River Campground – camping, hiking, fishing, hunting, mushroom gathering, bird watching, berry picking

RIVER KEEPERS' UPDATE - WE WANT YOU!

The River Keepers program is aimed at establishing a better monitoring system to cover the large area encompassed within the watershed. Individuals volunteering for this program are being asked to watch out for things that could be problematic or might require some action to be taken, but also to report back natural occurrences like animal sightings or quality of fishing/hunting.

Thank you to all of our current volunteers – your efforts are greatly appreciated and essential to keeping abreast of conditions within the watershed.

Please consider being a River Keeper and contact Carole Plunkey at *caroleplunkey@charter.net* or 739-8717 for more details.

Conserve the Pine River Watershed with Buffers

Submitted by Kurt Dalman, District Conservationist

The word "buffer" may evoke a safety net, a filter or an area of shrubs and trees. In the landscape context, that's pretty much what it is. A buffer, when referred to by a conservationist at the USDA's Natural Resources Conservation Service, is a narrow strip of trees, shrubs and other plants. This strip provides protection from things like wind or pollutants entering surface water and plays a crucial role as a safety net for the environment.

Conservation buffers trap sediment, fertilizers, pesticides, pathogens and heavy metals. To do this, buffers act like natural filters, removing nutrients or sediment, keeping them from entering the Pine River Watershed. If properly used, buffers remove more than 50 percent of nutrients and pesticides, 60 percent of some pathogens and 75 percent of sediment.

In addition to trapping pollutants, buffers slow water runoff and increase the amount of water that enters the ground, recharging our aquifers and protecting communities downstream from flooding. During the winter buffers help trap snow and cut down on soil erosion in areas with strong winds. They also can protect buildings, livestock and wildlife from harsh weather.

Buffers also give many benefits for local wildlife. They provide food and shelter for many wildlife species like quail, rabbit and other fun-to-watch species while serving as corridor connectors that enable wildlife to move safely from one habitat area to another.

A conservation buffer's trees and shrubs shade streams and cool the water, making the water a better home for plants and critters. Without trees and shade, streams become warmer, lowering populations of aquatic species. Also, buffer trees and shrubs stabilize streambanks and lakeshores by holding the earth in place with their roots. In addition to their vital services, buffers simply beautify the landscape, enhancing the natural aesthetics.

Whether you live in the country or a city, buffers will help improve the environment near you. Equip your property with buffers if you can, and encourage your local officials to do the same, protecting streams, lakes and other key landscapes. Stop by your local NRCS office to learn how to get started.

Kurt Dalman is the District Conservationist with the USDA's Natural Resources Conservation Service. He works in the Tawas City Service Center which services Alcona and Iosco counties. He can be contacted at (989)362-3842 ext. 3 or *kurt.dalman@mi.usda.gov*

About NRCS:

USDA's Natural Resources Conservation Service helps America's private landowners conserve the nation's soil, water, air and other natural resources. All programs are voluntary and offer science-based solutions that benefit both the landowner and the environment. Learn more at www.mi.nrcs.usda.gov.

Watershed Wildlife Watch
Muskrats

Muskrats are semi-aquatic rodents named for their musky smell and rat-like appearance. Their average size is 16-25" long and and weight is approximately 2--5 pounds. They live 1-3 years in the wild, preferring wetlands, ponds, lakes, and marshes to make their homes. Identifying features include dense, brown fur, a long hairless black tail, webbed hind feet for swimming, and smaller front feet for digging. For shelter, they will either dig tunnels or construct lodges made out of vegetation and mud. They enjoy a plant based diet, but also eat insects, fish, and amphibians. They are one of the most commonly trapped animals for their fur and are very prolific, producing up to 3 litters a year, each with 6-7 young.

Considered a nuisance animal for damage done to shorelines due to their burrowing activity, they also defecate in water, and their droppings can cause a flu-like infection. In addition, they have been known to chew wiring on docked boats and even make their homes inside exhaust pipes.

You're Invited to Celebrate

A New Pine River: Buhl Dam Removed

Project Partners:

Huron Pines

Pine River-Van Etten Lake Watershed

Michigan Department of Natural Resources

National Fish & Wildlife Foundation-Sustain

US Fish & Wildlife Service

US Forest Service

Michigan Department of Environmental

Join us to celebrate this historic dam removal & river restoration success story!

Thursday, September 21

We will begin gathering with light refreshments at 11:30am, the program will begin promptly at 12:00pm and will last until approximately 1:00pm. Come enjoy this celebratory gathering complete with speakers, media & more!

RSVP by September 14 to:

PRVEL Coalition Board

Chair - Carole Plunkey	caroleplunkey@charter.net
Treasurer - Dan Stock	dstock4239@charter.net
Susan Malski	smallard3@yahoo.com
Scott Lingo	scott@targetrealestate.com
Arnie Leriche	aleriche526@gmail.com

Non-Voting Advisors

US Forest Service	Huron Pines RC&D
USDA-NRCS	DNR/Fisheries
US Fish & Wildlife	DEQ/Water Quality

How Can I Volunteer for PRVEL?

Our conservation group is comprised totally of volunteers, all working together to make things happen for the benefit of the watershed. Please step forward and make 2017 the year you help us make a difference in your neck of the woods.

Ways you can volunteer:	Contact via email as shown above
• Macro invertebrate sampling program – Spring and Fall	– Arnie Leriche
• Monitoring fishery – place temp loggers	– Scott Lingo
• River Keepers/monitor watershed out in the field	– Carole Plunkey
• Write articles for the newsletter	– Dan Stock
• Serve on the watershed board of directors	– Carole Plunkey
• Project workers – out in the field (seasonal)	– Carole Plunkey
• Fund raising – bring ideas to attention of	– any board member

Yes! I wish to support the water resource improvement efforts in the Pine River Van Etten Lake Watershed with my tax deductible contribution.

Please make your check payable to PRVEL Watershed Coalition and send to:

PRVEL Watershed Coalition
PO Box 680
Oscoda, MI 48750

Name _____

Street _____

City _____

State/Zip_____

Phone _____

E-mail _____