

2016

Regular Coalition Meetings

October 27

2017

January 26

At 10:00 AM

Greenbush Township Hall



Working Together to Restore and Protect Our Natural Resources

### Stream Temperature Monitoring Project Update

(in cooperation with Michigan DNR, Tim Cwalinski)

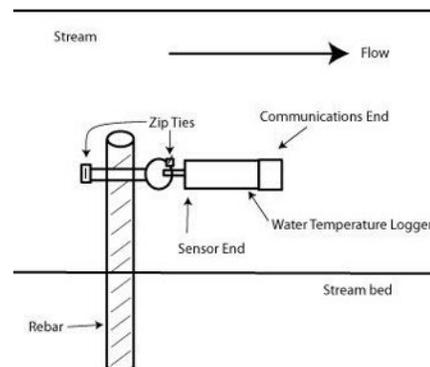


With a goal to sustain the Pine River fishery, PRVEL has been working with the DNR to monitor streams for temperature changes.

grant awarded to PRVEL by the Norcross Wildlife Foundation. Information downloaded from the devices will be collected at the end of the season in August and recorded in a statewide database for DNR use.

Long term monitoring helps to determine the suitability of the river for a variety of fish (e.g. brown trout) and other aquatic species. If problems are noted or negative trends are seen, it then becomes possible to take appropriate measures before there is damage to the ecosystem.

This spring, temperature loggers were placed at nine locations throughout the watershed. Purchase of these data collecting devices was made possible by a



A Typical Logger Installation

### Wrap up of Au Sable River Restoration Grant Project

Funding toward conservation projects within the greater AuSable Watershed and including the “sub-watershed” of the Pine River has all been utilized, with just a few replacements of undersized culverts yet to be completed this season. Projected road stream crossing restoration and soil erosion projects within PRVEL's watershed have been put on hold for the present time, due to cost issues and/or planning strategies (see related article Buhl Dam Removal on page 6).

The invasive species monitoring segment of this proposal, as it pertained to PRVEL's watershed, is a joint effort between Michigan DNR and PRVEL volunteers and led to the current ongoing program for PRVEL, whereby volunteers monitor an 80 acre parcel of state land just north of Van Etten Lake (see related article on page 3). AmeriCorps members provide assistance when needed as far as identification and/or training of volunteers.

## PRVEL LAUNCHES NEW PROGRAM CROWDHYDROLOGY

The CrowdHydrology mission is to create freely available data on stream stage in a simple and inexpensive way. This is done through the use of “crowd sourcing”, by which the data is gathered on stream stage (water levels) from anyone willing to send a text message of the water levels at their local stream to [www.crowdhydrology.com](http://www.crowdhydrology.com). The results are then available for anyone to use.

A measuring point is created by mounting a measuring staff on a fence post in the stream or on a bridge structure, along with instructions explaining how committed volunteers or passersby can contribute to CrowdHydrology by texting the water level and stream location (identified by a station number) to researchers.

Besides benefiting PRVEL in its stream monitoring efforts, the data also provides useful information to scientists and benefits sportsmen such as local fishermen. Participating in CrowdHydrology could also be a fun way for students to learn about local streams and how waterways respond to rain and dry spells.

The PRVEL monitoring sites are at six locations in the Pine River watershed as shown on the map and as

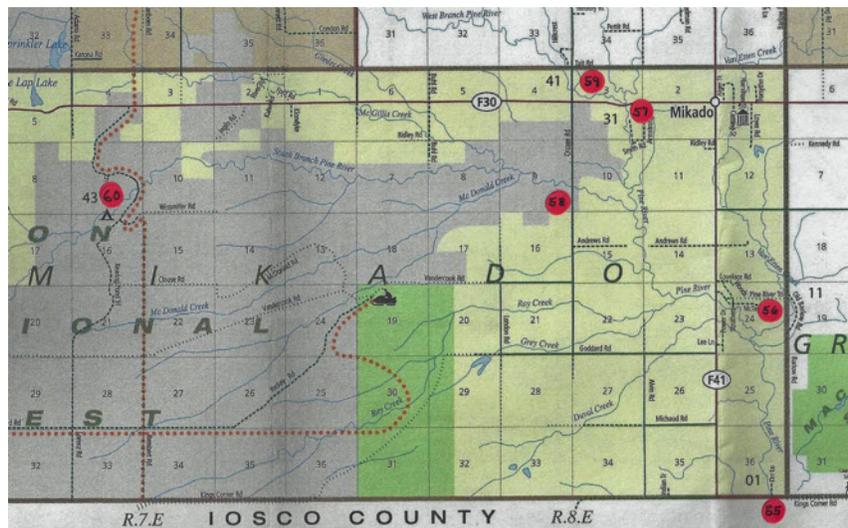
follows:

Location	Gauge No.
Pine River at Kings Corner Rd	(MI1055)
Van Etten Creek at Barlow Rd and Pine River Trail	(MI1056)
East/West Branch of the Pine at F-30	(MI1057)
South Branch of the Pine at Cruzen Road	(MI1058)
West Branch of the Pine at Cruzen Road	(MI1059)
South Branch of the Pine at the Pine River Campground	(MI1060)

While out enjoying our beautiful watershed, you are encouraged to stop at any of the gauge sites and take a reading to send in. Because the gauges have been installed on larger streams, binoculars will be very helpful when readings are being taken. It is recommended that readers do not climb down to the edge of the river to take a reading as the footing is sometimes treacherous. If there is not a good signal at the site, the reading can be taken along with the telephone number (616-951-3218), the gauge number and the level reading and texted in from a location with a good signal.



The MI1060 Gauge at the Pine River Campground



CrowdHydrology Sties MI1055 thru MI1060

Invasive Species Issues

Interest in Eradicating Invasive Plants in Michigan a Priority

GO NATIVE!

In support of the NE Mich Cooperative Weed Management program, PRVEL has been working with Huron Pines Resource Conservation and Development (Gaylord) to bring about a new program for this side of the state, directed toward nurseries, landscapers, and master gardener programs, to stop the sale of non-native, invasive species (IS) plants to consumers. IS have the potential to spread uncontrolled, taking over farm land, damaging forests and shorelines, and choking out native food sources for wildlife.

Slated to be called "Project NATIVE" (Northeast Alliance Targeting Invasive Exotics), local sellers will be contacted and trained if needed, in identifying targeted plants. They will be welcomed as partners in providing education to buyers regarding the benefit of choosing native plants/shrubs/trees for their landscaping needs. Brochures will give full details of the program and list various alternatives to non-natives that are beautiful, hardy, disease-resistant, and provide healthy food and cover for birds, butterflies, frogs, and more.



Japanese Barberry



Dame's Rocket



Burning Bush



Baby's Breath

Examples of invasive species for sale - DO NOT BUY

STATE LAND INVASIVES MONITORING

80 Acre Ecological Reference Area

Work continues on the Department of Natural Resources (DNR) land just north of the mouth of the river as it flows into VanEtten Lake to monitor and remove invasive species (IS) plants. Volunteers accompany the team leader via boat from the lake about 1/4 mile up the river to the site and learn about the program while they assist in looking for and/or removing unwanted IS. At last report, indications are that previous treatment has worked well as no new IS are emerging where they had previously been found;

however, some purple vetch was recently discovered and removed (see picture on page 4). Each season brings new potential for growth and so monitoring will always be needed and this site will provide the "watchdogs" at DNR and PRVEL to evaluate what treatment works best, what IS seem to be resistant, and how well annual monitoring is able to keep plants in check. Contact team leader Doug Jager at [dj62852@charter.net](mailto:dj62852@charter.net) to volunteer and/or to request more information.

Continued on page 4

Invasive Species Issues continued from page 3



Spotted Knapweed



Purple Loosestrife



Crown Vetch

The above are examples of the typical invasive species

### KAYAK MONITORING

In cooperation with USFS AmeriCorps members and PRVEL volunteers will be taking a kayak trip on August 27 on a section of the Pine River not yet explored to learn about and look for invasive species (IS). As a matter of practicality, they will also be making other assessments of water and shoreline conditions, but the main effort will be regarding IS. Following the Management Plan goal

to monitor IS, it is imperative that a baseline be established to know exactly where problem areas within the watershed might exist, and evaluate the best approach to managing those areas. Mapping will prove helpful and repeated trips will be necessary to establish a solid program and develop treatment strategies. Volunteers are welcome and may contact any board member if interested in signing on.

### 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](mailto:caroleplunkey@charter.net) or 739-8717 for more details.

## NEW BROCHURE PROMOTES THE MACRO SAMPLING PROGRAM

PRVEL's macro-invertebrate sampling program has become an essential part of the group's efforts to monitor and protect the water quality of the streams. PRVEL has the chance to actually explore aquatic insects that can be found and how they impact water quality.

“the relative health of the river can be determined by evaluating the number and type of insects collected”

watershed over the years through studying the that flow through it. Team members get a the streams while learning more about what and how they

In hopes of recruiting more volunteers for the bi-annual program, a brochure is now available for anyone interested in knowing more about stream sampling and aquatic insects. These can be obtained at our quarterly meetings or they may be requested by email – [carole.prvel@gmail.com](mailto:carole.prvel@gmail.com)

Water sampling is done in the spring and fall, with the next proposed dates set tentatively for Wednesday, September 28 and Saturday, October 1, weather permitting. Contact Arnie Leriche to sign up - [aleriche526@gmail.com](mailto:aleriche526@gmail.com)



Mayfly Nymph



Caddisfly Larvae with case

Examples of desired macro-invertebrates

## Watershed Wildlife Watch Coyotes



Coyotes look a lot like medium sized German Shepherd dogs from a distance. Generally, their upper body is yellowish gray, with an off-white underside and black-tipped bushy tail. They measure from 15-20 inches high at the shoulder and weigh between 18-30 pounds. They live 6-8 years in the wild, but 30-50% annually die early due to

disease, predation, vehicle collisions, and starvation. They eat almost anything (small mammals, insects, fruit, berries, birds, frogs, snakes) including carrion, and generally feed at night. In urban areas, they are attracted to garbage, garden vegetables, and pet foods. Coyotes are found throughout Michigan but are extremely good at hiding from humans. Their dens are found in roots of old trees, woody thickets, under hollow logs, or dug into streambanks. Mated pairs produce 4-7 pups in spring and feed them until 6-9 months when the offspring venture off on their own. Hunting these animals is now allowed year round in Michigan due to an increase in population to an all time high.

### Water Quality Sampling Update

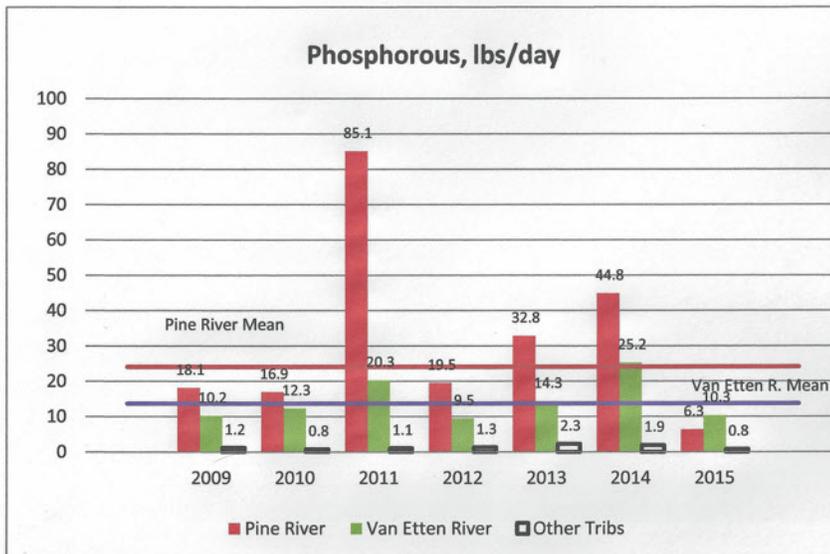
by Dan Stock, Water Quality Monitor

In contrast to the heavy spring rains which contributed large amounts of phosphorous (P) and suspended solids (TSS) to the lake in 2011, relatively dry conditions prevailed over the summer of 2015. The estimated amount of P (1.15 tons) for the year were about 72 percent less than the estimated six year mean amount. This reduction in the P load was not unexpected. For an unknown reason the estimated amount of TSS (4,854 tons) entering the lake exceeded the six year mean by 56 percent. This was totally unexpected in a dry year and is suspected to be related to a change in laboratory performing the analyses. This is further supported by the reported TSS leaving the lake in a dry year being higher than that entering and also

being over 10 times the six year mean. Either a new laboratory will be used in 2016 or some samples will be sent to two laboratories for comparative analyses.

The data suggests the following:

1. The Pine River is by far the major contributor of P and TSS to the lake. Preliminary indications are that the bulk of P and TSS are carried to the lake during spring melt runoff.
2. The rating curves are in need of refinement, particularly at higher flow periods, through the collection of additional stage/flow measurements using an accurate flow meter and standard procedures. In addition a rating curve needs to be created for the So. Branch at Cruzen Rd.
3. The high variability from year to year as a result of differences in rainfall and runoff makes it very difficult to determine if the erosion reduction efforts are having a measureable effect in reducing amount of P and TSS reaching Van Etten Lake from the Pine River watershed. However, continued implementation of projects and long-term sampling should eventually show a trend toward reduction in loading.



### BUHL DAM REMOVAL UPDATE

Plans to remove the old Buhl Rd dam in Mikado township on the South Branch of the Pine River are still progressing. According to Huron Pines (HP) staff, the engineer has completed the survey work and preliminary design work has begun. After review,

Huron Pines will start the process of putting the construction contractor bid packages together. Additional funding has been sought through grant applications and work is projected to be completed in 2017.

PRVEL Coalition Board

Chair - Carole Plunkey	<a href="mailto:caroleplunkey@charter.net">caroleplunkey@charter.net</a>
Treasurer - Dan Stock	<a href="mailto:dstock4239@charter.net">dstock4239@charter.net</a>
Susan Malski	<a href="mailto:smallard3@yahoo.com">smallard3@yahoo.com</a>
Scott Lingo	<a href="mailto:scott@targetrealestate.com">scott@targetrealestate.com</a>
Arnie Leriche	<a href="mailto:aleriche526@gmail.com">aleriche526@gmail.com</a>

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 2016 the year you help us make a difference in your neck of the woods.

Ways you can volunteer:

- Macro invertebrate sampling program – Spring and Fall
- Monitoring fishery – place temp loggers
- River Keepers/monitor watershed out in the field
- Write articles for the newsletter
- Serve on the watershed board of directors
- Project workers – out in the field (seasonal)
- Fund raising – bring ideas to attention of

Contact via email as shown above

- Arnie Leriche
- Scott Lingo
- Carole Plunkey
- Dan Stock
- Carole Plunkey
- Carole Plunkey
- 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** \_\_\_\_\_