

2010 SUCCESS: The Summer of *Phragmites*

The “word” along the Lake Michigan shoreline of Emmet County this summer was:

- a) Sunscreen?
- b) Camping?
- c) Sailing?
- d) ***Phragmites!!***

So, what’s the buzz about? Although a native variety exists in our region, an invasive type of the reed *Phragmites* is popping up here, particularly along Great Lakes shorelines and roadside ditches. This summer, Tip of the Mitt Watershed Council teamed up with Emmet County, the Emmet County Lakeshore Association (ECLA), and the Michigan Department of Natural Resources and Environment (MDNRE) to take action!

This aggressive plant grows densely and up to 15’ tall, posing a danger to native ecosystems. Habitat and food for native organisms is diminished by this invasive species, and it can even block views and impede access to water bodies. Areas such as Saginaw Bay and Detroit were invaded years ago, where *Phragmites* spread rapidly and reached levels that are nearly impossible to control. To avoid a similar scenario in Emmet County, we implemented steps from our state and federally approved Little Traverse Bay Watershed Management Plan.

In January 2010, MDNRE announced that federal grant money was available to treat *Phragmites* this year, at no cost to property owners or local governments. During the spring Watershed Management Plan committee meeting, we organized stakeholders and shoreline governments in Emmet County to discuss how to take advantage of this grant. The consensus was for the County to take the lead, so we worked closely with them to figure out exactly how to proceed.

In June, the Emmet County Board of Commissioners passed a *Phragmites* Control Ordinance and approved a one year Pilot Implementation Program, designed by the

Watershed Council. The Pilot included voluntary participation, based on this “teachable moment.” The concept was to educate the public about *Phragmites* and give people a chance to participate this year at no cost to them, demonstrating one creative approach to public policy.



(Far right) Jennifer Gelb, Restoration Ecologist for the Watershed Council, helped conduct an educational workshop about *Phragmites* on the Emmet County shoreline. The workshop was held this past spring.

In July, letters went out to explain the problem, asking property owners for permission to treat invasive *Phragmites* on their land, and respecting any desire to opt out of the program and deny permission. After the letters went out, an effective task force of volunteers from ECLA followed up with phone calls to property owners, urging them to return permission slips. ECLA also posted fliers and created the “buzz” by talking to their neighbors.

Our survey of the county’s Lake Michigan shoreline found 297 invasive stands. That translated into 231 individual permission slips needed, and of those, only 14 denied permission! Treatment was completed on September 15, 2010. This was a great success and we truly appreciate the hard work of our project partners!

We continue our work to ensure that *Phragmites* is well understood, and that management options are clearly spelled out. Through collaboration, intensive surveys, and persistence, Tip of the Mitt Watershed Council is making great strides toward protecting our shorelines from the invasion of this non-native species. Northern Michigan’s waters are still relatively pristine and invasive free – we want to keep it this way!



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 and Earth Share of Michigan



Gail Gruenwald
 Executive Director

Reflections From Our Director

Wow, what a summer! The field season was filled to the brim with survey work, educational and networking events, shoreline restoration projects, and issues and policy initiatives. This work kept our staff and volunteers extremely busy – productive and excited – but busy. Our summer was successful on many fronts. We reached many residents and visitors with essential information regarding their shorelines, invasive plants and animals, oil and gas drilling, clean boating practices, and much more. We are proud of our successes and are happy to share them in this newsletter issue.

The autumn and winter are not down times for the Tip of the Mitt Watershed Council. While we are out on the lakes and streams less, we are active completing final reports of our field work, working locally, in Washington and in Lansing on significant policies, planning our fall and winter events, and preparing much needed grant proposals to fund our work. The winter goes by quickly for us and then once again we are back outside and in meeting rooms with you, our members.

I am excited to bring you this report of our work and hope you will feel comfortable calling me or another staff member to learn more about our efforts and get involved if you are interested. There is plenty to do, from volunteer stream and lake monitoring, to working on local planning and zoning efforts. Please feel free to join us. You will enjoy the satisfaction of successfully working to protect the resources you love. I look forward to hearing from you.

Jellyfish in Northern Michigan?

Perhaps rife with danger, snorkeling amidst a throng of jellyfish floating in a tropical coral reef is an exhilarating experience; watching their shimmering, translucent bodies undulate as they navigate through salty seas. Surprisingly, you can enjoy this magical experience much closer to home and without the danger of painful stings. This summer, freshwater jellyfish were found in our backyard, in the South Arm of Lake Charlevoix to be precise.



Photo courtesy of USGS

Native to China, freshwater jellyfish (*Craspedacusta sowerbyi*) have moved around the world and are reported in 43 of 50 states. In general, freshwater jellyfish are found in calm waters, such as reservoirs, quarries, ponds, or in quiet, protected areas of larger lakes. The visible “hydromedusa” form of the freshwater jellyfish usually occurs in summer

months from July to September. Occurrence over time is sporadic, so do not expect to find them in the same place from year to year; they may appear again in a few years

UPDATE: Bay Harbor

After years of data gathering and interim response actions, it looks as though final decisions will be made next year regarding the CKD contamination and leachate at Bay Harbor Properties and East Park.

The U.S. Environmental Protection Agency (EPA) and the Michigan Department of Natural Resources and Environment (MDRNE) are expected to approve the Remedial Investigation and Alternatives Evaluation documents outlining the results of data collection and potential final remedies. The Watershed Council has been reviewing and providing feedback and comments on these documents and the potential final remedies throughout the entire remediation effort.

Additionally, there will be public hearings late fall or early winter regarding disposal options for the collected leachate.

CMS has applied to the MDNRE for National Pollutant Discharge Elimination System (NPDES) permits to discharge leachate to the surface waters of Lake Michigan. The NPDES application for the Bay Harbor Properties, what is known as the Development area, includes treatment of leachate that can significantly reduce the quantities of chemicals of concern and heavy metals such as mercury. However, it is unable to lower concentrations enough to meet current surface water quality standards and, therefore, CMS is proposing to treat the leachate and then dilute down to the 1.3 parts per trillion (ppt) water quality standard for mercury. The NPDES

application for East Park does not include treatment. Rather, in order to meet the surface water quality standards, CMS is simply proposing to dilute the leachate with uncontaminated water.

The Watershed Council would support a NPDES permit for onsite direct discharge to Little Traverse Bay IF the permit included special conditions such as treating the leachate at East Park prior to discharge, requiring further reduction of mercury levels using other improved treatment technologies as they become available, and long-term financial assurances, among others conditions.

CMS has also submitted a permit application to the MDNRE and EPA for a deep injection well in Emmet County. With regard to leachate disposal into Little Traverse Bay, deep injection could avoid discharges into the lake ecosystem where mercury can accumulate through ecological processes. Therefore, we believe CMS should drill a well onsite, and if through drilling the geology is shown to support a well, we will support this option as a primary or secondary disposal option. Our support of this option will be based upon the science and the results of the drilling. We also will be reviewing and commenting upon the specifics contained in the permit to ensure potential adverse impacts are minimized.

For more information, including information on the upcoming hearings once available, visit www.watershedcouncil.org.

or... not at all. Even though this is an exotic species we have not seen any evidence of their becoming invasive to date.

If you are lucky enough to encounter a freshwater jellyfish, do not expect the large, colorful varieties found in oceans. The freshwater hydromedusa is small, about the size of a quarter, and translucent, though may appear white or green. Similar to their saltwater counterparts, freshwater jellyfish possess nematocysts which are stinging cells, but their nematocysts are unable to penetrate human skin, thus ruling out the danger of a painful sting. These nematocysts however do work on smaller organisms such as microscopic animals called zooplankton, upon which jellyfish prey.

Freshwater jellyfish are a rarity in Michigan, never seen by most water resource professionals. We now know that they



Photo courtesy of Winston County Natural Resource Council

do occur in our waters, so keep your eyes peeled and maybe you will do what few have done: swim among jellyfish in one of the many beautiful lakes of Northern Michigan.

The Bear Invaded and Defended

Year after year, day after day, second by second, the Bear River delivers more water to Little Traverse Bay than any other tributary. Additionally, year after year the Watershed Council works relentlessly in the Bear River Watershed to protect and improve the quality of water flowing into the Bay. From streambank restoration to river clean-ups, we have carried out more projects on the Bear than any other stream in Northern Michigan. This year, our focus has been on biological pollution: documenting the spread of invasive species in the Bear River Watershed with the end goal of controlling these biological invaders to preserve the native ecosystem.

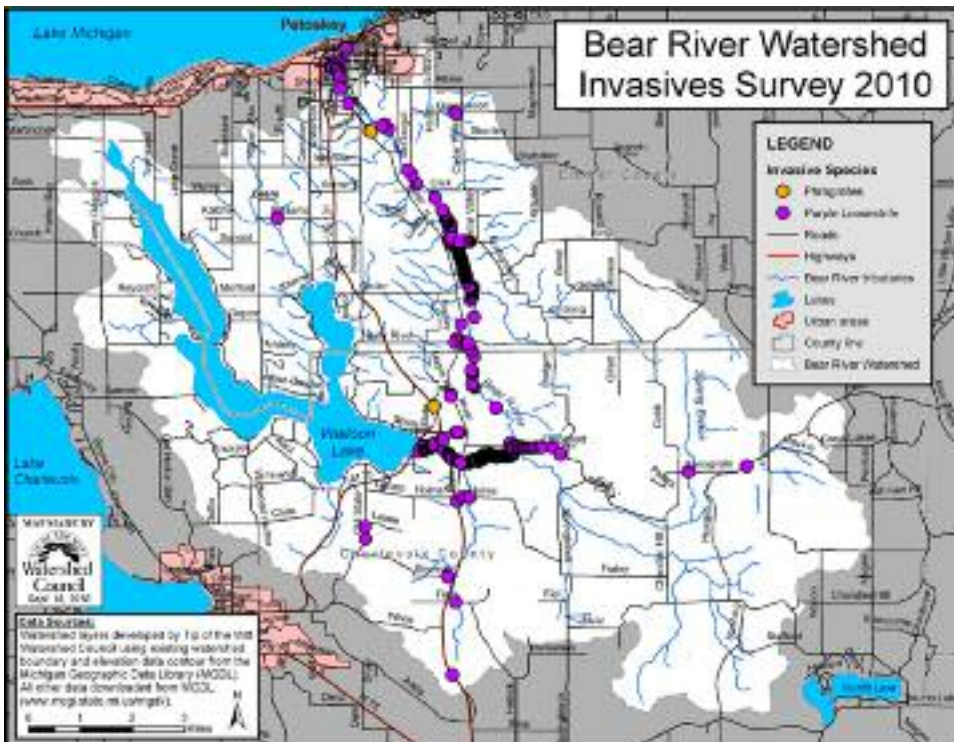
The Petoskey-Harbor Springs Area Community Foundation provided funding for a comprehensive inventory of the Bear River Watershed for two problematic invasive species: Purple loosestrife (*Lythrum salicaria*) and *Phragmites* (*Phragmites australis*). Both invasive species grow densely in wet areas, such as swamps and shorelines, outcompeting and displacing native species. Watershed Council staff and interns documented the presence and extent of these invasive species; by boat down the entire main branch of the river as well as Walloon Lake, and by car throughout the network of roads in the Bear River Watershed.

Only two invasive *Phragmites* stands were found, but purple loosestrife infestations were found in well over 100 locations.



The *Phragmites* was found in roadside ditches whereas most of the purple loosestrife occurred along the banks of the Bear River's main channel. The biggest purple loosestrife infestation spread intermittently along a mile of the river's banks.

Considering the number of infestations found, this was a very important and timely survey. Managing and controlling these invasive species is equally as important. Using survey data, a management plan will be developed and implemented to address the purple loosestrife and *Phragmites* infestations and limit their spread. Next year, the Watershed Council will continue invasive species inventory and control efforts in the Bear River Watershed in collaboration with the Little Traverse Bay Bands of Odawa Indians Environmental Services Division and we will, of course, keep you tuned in!



Top: A stand of non-native *Phragmites* growing on the shoreline of Little Traverse Bay near Bayfront Park. **Below:** Purple loosestrife at the mouth of the Bear River at the roadside park in Walloon Lake Village.





Current hydraulic fracturing site, Petoskey Pioneer #1-3 well, is located in Missaukee County.

Hydraulic Fracturing or “Fracking”

Aquavists all across our 4-county service area of Antrim, Charlevoix, Emmet, and Cheboygan counties are interested in this issue. Tip of the Mitt Watershed Council is working directly with the Michigan Department of Natural Resources and Environment (MDNRE) to answer questions about this new technique to extract natural gas. Our state has a long tradition of drilling, but “fracking” proposals being submitted today require vast amounts of fresh ground water, and are much larger in scope than traditional drilling. There is a new well in Cheboygan County and we are working to address site-specific questions about this operation and its potential impacts. Stay tuned.

Wetlands Advisory Council Update:

Aquavists helped save the state Wetland Program in 2009, and that work created the Wetland Advisory Council (WAC). Governor Granholm appointed Tip of the Mitt Watershed Council to serve on the WAC, which submitted its first report to the legislature on October 1. A complete copy can be found online at: http://www.michigan.gov/documents/deq/WAC_Legislative_Report_Final_333492_7.pdf

The WAC also worked with the legislature to prevent a “sunset” from taking effect. A statutory provision would have expired October 1. This provision established procedures for citizens to request pre-application meetings with MDNRE to review wetland permit applications. The Council worked

successfully to prevent this, because these meetings are very beneficial for both applicants and the agency.

Candidate Education Efforts:

Aquavists appreciate the need to have relationships with elected officials. These officials make important policy decisions that will impact water resources and the environment. They also represent us, and we are responsible for letting them know about the vital (and often complex) issues we are concerned about.

Taking this responsibility seriously, Tip of the Mitt Watershed Council met with every single candidate, except one, running for state and federal offices this year. The meetings were intended to educate each candidate about the hottest water issues. We provided them with a packet of detailed information to use as companion pieces for the conversations. Key topics of discussion were Invasive Species, including Asian Carp; Hydraulic Fracturing to access natural gas; the Bay Harbor Remediation; and various interesting local efforts, such as shoreline protection tools, and boater education and outreach.

Phosphates in Dish Soap Banned; Lawn Fertilizers Next?

On July 1, after a two-year phase-in period, the ban on phosphorus in automatic dishwasher detergents took effect. Similar bans for laundry and hand-dishwashing detergents took effect in the 1970s. In the decades since, widespread use of dishwashers created the need for additional protection. Too much phosphorus in our waters can have negative impacts on ecosystems and recreational pursuits.

We are now working with the Michigan Environmental Council and the Huron River Watershed Council to get a ban in place for lawn fertilizers, as well. HB 5368 passed the Michigan House of Representatives on September 23, and it has been referred to the Senate Committee on Natural Resources. We don't anticipate major opposition, so we hope to have it passed by the end of this year. Again...stay tuned!

Want to join the Aquavists or add a resource to our website?

Contact Grenetta Thomassey at (231) 347-1181 ext. 118 or by email at grenetta@watershedcouncil.org.

Top Ten Shoreline Tips

- 1. Grow A Greenbelt:** Establish a greenbelt or expand an existing one by adding more native plants. Encourage your neighbors to do the same!
- 2. Fertilizer Smart:** If you fertilize, refrain from fertilizing within 30' of the shoreline and use no-phosphorus fertilizer.
- 3. Leave Trees:** If a tree falls into the water: leave it! They provide great habitat and contribute to the important carbon budget of the ecosystem.
- 4. Maintain Septic Systems:** Failing septic systems can leach nutrients, which cause nuisance algae and plant growth.
- 5. Control Erosion:** Stabilize shoreline erosion with bioengineering methods. Consult the Watershed Council to learn more.
- 6. Join Forces:** Support your local lake or river association; they implement important resource protection projects and programs.
- 7. Stow Away:** Store boats, boat hoists, docks and other equipment away from the shoreline; they can harm shoreline plants and compact soils.
- 8. Flow Away:** Stormwater from driveways, roof tops, and other surfaces carries harmful pollutants. Direct stormwater away from the lake and allow it to infiltrate into the ground.
- 9. Appreciate Aquatic Plants:** Nearshore aquatic plants (growing in the water) are an important part of the lake ecosystem. They offer valuable habitat and buffer wave energy.
- 10. Know the Law:** Familiarize yourself with local, state, and federal regulations. Permits are needed for some shoreline activities; be aware if any of your future plans require one. Also, check to see if your township has a greenbelt ordinance.

WILLOWS: Our Allies in Protecting the Great Lakes Shoreline



The fluctuation of water levels brings dramatic change to the Great Lakes shoreline. In fact, water levels are principally responsible for the ever-changing composition of coastal vegetation. The relationship is, simply put, as water levels drop, more shoreline is exposed and as a result, coastal vegetation moves waterward. Conversely, as water levels rise, vegetation unable to survive the wetter conditions moves landward. This important dynamic is critical to maintaining the diversity of our coastal habitats. With Lakes Michigan and Huron currently at 577.82 feet above sea level, which is 16" below the long-term monthly average, it isn't surprising to find the once sparsely vegetated shoreline colonized with herbaceous and woody plants. Some of the more abundant shrubs to colonize this zone are the shrub willows (*Salix spp.*). There are 21 species of native shrub-type willows in Michigan. Typically fast growing and common to areas with wetter soils, shrub willows have extensive root systems. Their roots not only keep them well anchored, they also prevent erosion of coastal sands and soils. In fact, willows are so effective at controlling erosion many bioengineering techniques use willow cuttings to sprout new willows on eroding shorelines and streambanks. Willows are adapted to withstand the powerful and destructive, and often branch-breaking, forces of ice; a well-rooted shrub will resprout new stems in the spring even if heavily damaged by ice. Willows protect water quality by absorbing nutrients and trapping debris and other solids carried in stormwater. They also provide valuable habitat for wildlife and help protect the shoreline against invasion of non-native species, such as *Phragmites* and purple loosestrife (*Lythrum salicaria*). Low water levels are anticipated to persist into the near future and willows and other vegetation will surely continue to colonize the Great Lakes shoreline until water levels return. In the meantime, recognize willows and their native counterparts as our allies in protecting the health of the Great Lakes.

Shoreline Surveys in the Inland Waterway

Shoreline surveys are front and center these days in the Inland Waterway. Mullett Lake was surveyed in 2008, Burt Lake in 2009, and Pickerel and Crooked Lakes will likely be surveyed in the near future. Shoreline surveys are conducted by paddling around the entire perimeter of the lake and noting shoreline conditions that can impact water quality. These include indicators of nutrient pollution such as algae, shoreline erosion, greenbelt health, and alterations like seawalls.

After completing the survey, lake associations have a variety of options for follow-up. Most opt to send summary reports out to all shoreline residents as well as confidential letters to those where problems were noted. Property owners are encouraged to work with the Watershed Council and lake associations to address problems on their shorelines.

Last summer, we worked with the Mullett Lake Area Preservation Society and the Burt Lake Preservation Association to get survey results out to property owners and encourage follow-up. If there was evidence of problems,

property owners were asked to fill out and send in a questionnaire regarding shoreline management practices. The response has been incredible! We have received many calls from interested, engaged property owners who truly care about the lakes and want to do the right thing. And, we've already received hundreds of completed questionnaires!

We expect these activities will continue well into next year and likely beyond. During the fall and winter, Watershed Council staff will respond individually and confidentially to every questionnaire sent in to provide feedback and recommendations. Several property owners have already contracted with Watershed Council staff to perform site assessments and we expect many more in the coming year.

Decades of performing shore surveys has made one thing clear to the Watershed Council: people living on Northern Michigan lakes are willing to go the extra mile to protect the lakes that they cherish.

Larks Lake Fisheries Enhancement: PROGRESS

Larks Lake is a scenic 600-acre jewel in Emmet County that remains relatively undiscovered. It is commonly overlooked by tourists and locals alike, which preserves both its tranquility and water quality. However, this charming lake has not been overlooked by the Watershed Council. We have worked with residents around Larks Lake to develop a Watershed Management Plan, perform a Shoreline Survey, and an Aquatic Plant Survey. Most recently, we formed a Fisheries Enhancement Committee to assess all available information and develop a plan to improve the lake's fisheries.

The Fisheries Enhancement Committee, composed of representatives from the Watershed Council, Department of Natural Resources and Environment, the Little Traverse Bay Bands of Odawa Indians, and the Larks Lake Association, met to discuss various approaches to fisheries enhancement. One option, transplanting aquatic plants into the lake to improve fish habitat, was ruled out because of the potential to introduce invasive species. Another option, augmenting fish habitat using large woody debris, was preferred by the committee because it would create localized conditions conducive to plant growth and provide more habitat for fish.

After learning of the committee's findings, the Larks Lake Association immediately looked into options for adding large woody debris and stocking the lake with fish. The Watershed Council will be working with the Association to carry out the Committee's recommendations.

Larks Lake needs your help

We are currently seeking funding for Larks Lake Fisheries Enhancement. If you are willing to donate time, money, or resources to this project, please contact Tip of the Mitt Watershed Council at 231-347-1181.



Success in Otsego County Chandler Dam Removed

In the picture at right, concrete rubble and other remnants of the Chandler Dam sit on the streambank of the Upper Black River, as Elsholz Contracting removes the remaining sections of the structure during the project. The removal of the dam, located within the Pigeon River Country State Forest, will enhance the aquatic habitat of this exceptional blue-ribbon trout stream. The Michigan Department of Natural Resources and Environment and the U.S. Fish and Wildlife Service provided funding to the Tip of the Mitt Watershed Council to complete this project.



Can Zebra Mussels Finally Be Controlled?

It seems too good to be true, but there may finally be a cure for the invasive zebra mussels that have caused so many problems in the lakes and streams of Northern Michigan. Research by the New York State Museum (www.nysm.nysed.gov) has found that a bacterial species, *Pseudomonas fluorescens*, is a natural enemy and very lethal to zebra mussels. Tests to date using these bacteria have been limited to small areas (water intake pipes), but have shown an impressive kill rate (>95%). Based on control of other problematic species using similar bacteria-based products, researchers believe that the bacteria will effectively control the invasive mussels in larger water bodies. In addition, these bacteria do not appear to affect non-target species, such as fish and other bivalves.

Currently, work is under way to make this product commercially available. It should be available in the near future and the Watershed Council will be watching closely to see if this “miracle cure” for zebra mussels is the real deal. If the product is indeed effective at controlling zebra mussels in lakes and streams, then we will certainly be looking into local application to reduce invasive mussel populations and return our lakes to pre-zebra mussel quality. Good news becomes better: apparently this bacterial treatment can also be used to control the zebra’s notorious cousin, the quagga mussel!



Stream Monitoring Continues to Flow

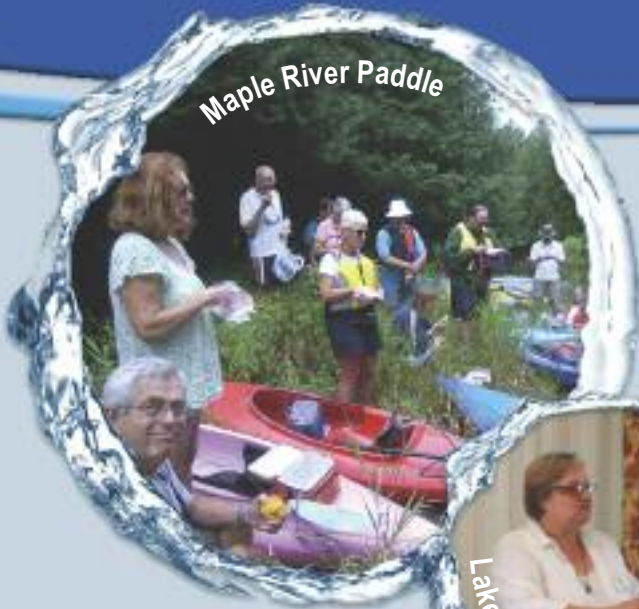
Volunteers continue to keep tabs on our rivers and streams, monitoring 23 sites in September as part of the Watershed Council’s Volunteer Stream Monitoring Program. Most streams remain very healthy and we’re looking into causes and remedies for the few impaired streams discovered through volunteer monitoring.

Although events are finished for 2010, you can get a jump on stream monitoring in 2011 by joining us for our annual Winter Volunteer Monitoring Potluck Expedition. Every February, volunteers get together for a bit of adventure and camaraderie. We go out and explore one of the region’s incredible streams, followed by a delicious potluck, and delightful conversation.

Another option for getting involved with stream monitoring this winter is to sign up for the aquatic macroinvertebrate identification course that will again be offered through North Central Michigan College. Our Volunteer Stream Monitoring Program is always in need of more expert “bugologists”, so consider a new branch of knowledge that will expand your horizons and help protect Northern Michigan’s streams and rivers.

For more information regarding the Winter Potluck Expedition, the Macroinvertebrate Identification Course, or the Volunteer Stream Monitoring program in general, please contact Kevin at 231-347-1181, extension 109.

Maple River Paddle



Lake Association Summit



Summer Events Recap

Summer is an incredibly busy time of year for Tip of the Mitt Watershed Council and this year was no different. As you can see from the list of events that were hosted over the last six months, we've been quite busy. Interestingly, this is just our education, outreach and fundraising efforts. The list doesn't include the many monitoring, surveying, and restoration projects that are highlighted in this newsletter. It is only with the help of our dedicated volunteers and the many partners that we work with that we are able to accomplish so much in just one short season. As we take a moment to exhale, we remember those friendly faces and look forward to a busy and productive winter of crunching data, Ice Breakers, and planning for next summer.

The Summer of Successful Events

- 🌀 Beetle Collection Day
- 🌀 Deep Injection Well Education Workshop
- 🌀 Great Lakes Coastal Plant Walk
- 🌀 Lake Association Summit
- 🌀 Smart Commute Week
- 🌀 Pigeon River Paddle
- 🌀 Hanley Cove/Intermediate Lake Pontoon Tour
- 🌀 Douglas Lake Paddle and Biological Station Tour
- 🌀 31st Annual Meeting
- 🌀 Whale of a Sale - Fundraiser
- 🌀 Lake Michigan Summit in Harbor Springs and Charlevoix
- 🌀 Thumb Lake Paddle
- 🌀 Maple River Paddle
- 🌀 Volunteer Stream Monitoring - Training Day, Field Day and Indoor Identification Day
- 🌀 Volunteer Lake Monitoring Training Session
- 🌀 Rain Barrel Sale
- 🌀 Pharmaceutical Collection Days (3 in Emmet County and 1 in Charlevoix County)

Pharmaceutical Drop-off Day - Charlevoix Co.



Pigeon River Paddle



31st Annual Meeting



Indoor ID Day



WELCOME New Members

June 8, 2010 - September 29, 2010

The future of our waters and our quality of life ultimately depend on what we do today to protect them. In order to continue to protect and enhance water quality in our region, the Watershed Council depends upon individual members like you, for strength and financial support. We would like to thank all of our members for your continued support and extend a special welcome to our new members.

Mr. and Mrs. Thomas S. Adams
Sandra J. Arnold
Mr. and Mrs. Thomas C. Arnold
Mr. and Mrs. Ronald P. Babcock
Dr. and Mrs. Edward Bahr
Mr. Raymond C. Barget
Thomas Beauvais
Mr. and Mrs. William V. Borland
Mr. and Mrs. Brian J. Bosgraaf
Kim Buntin
Sue and Rich Causley
Mr. and Mrs. Emerson S. Colaw
Gerald and Beth Coulter
Patrick and Nancy DeCastro
Mr. and Mrs. Don Delia
Mr. and Mrs. Kent Dupont
Elk Rapids Hydroelectric Power LLC
Mr. and Mrs. Jon M. Fast
Mr. Harry R. Fruehauf, III
Mrs. Rita Gay
Tom Renkes and Christine Gebhard
Ms. Gayle T. Gennett
Catherine Hill
Richard and Tracy Hirrel
Bonnie Miller and Donald Homan
Mr. and Mrs. John Huston
Mr. and Mrs. C. James Hyslop
Mr. and Mrs. William J. Kerscher, III
Mr. Raymond R. Khan
Mr. and Mrs. Ken Kirchner
Mr. and Mrs. John Klenczar

Mr. and Mrs. John Kowalczyk
Mr. and Mrs. Frank Lamesfield
Mr. and Mrs. John W. Lorenger
Mrs. Carmen McGrae
Todd Figgins and R.J. McKay
Mr. William A. McWhirter
Mr. and Mrs. Michael Medors
Mr. and Mrs. Eric Milhizer
Ms. Cindy Mom
Mr. and Mrs. Ronald Moore
Mr. and Mrs. Robert Mueller
Mr. Ted Myers
Christopher and Leslie Nyland
Mr. and Mrs. Randall J. Pasko
Mr. and Mrs. Christopher T. Payne
Dr. and Ms. Richard Persiani
Mr. and Mrs. Ed Quant
Dr. and Mrs. Michael G. Raab
Mr. and Mrs. Michael Santi
David Spieser
Mr. Howard Soldan, II
Mr. and Mrs. Robert D. Stillman
Mrs. Joseph Stump
Martin P. and Lisa W. Sutter
Mr. Ed Wagar
Mr. and Mrs. Gregory C. Warner
James Whitmore
Mrs. Margaret M. Winslow
Mr. and Mrs. Todd Wiseley
Mr. and Mrs. Paul J. Wolf, Jr.
Ms. Anne Woudenberg

THANK YOU Volunteers

June 8, 2010 - September 29, 2010

We could not accomplish the many tasks and projects that need to be done without the help of our volunteers!

RSVP Volunteers

Gretchen Brown	Betty Luebke	Sharon Brown	Marjorie E. May
Janis Cole	Paula Perttu	Tillie Cone	Bev Warner
Sue Gullede			

Other Volunteers

Lakeview Academy Sally Kraegel Claire Rassmussen
North By Nature Ecological Landscapes

Memorials & Honorariums

June 8, 2010 - September 29, 2010

Memorials and Honorariums are a meaningful way to celebrate the memory of a loved one or pay tribute to someone who cares about the preservation of our beautiful water resources.

In Memory of:

Betty Fritz
Birchwood Association of Mullett Lake
Mary Lee Neff
Howard and Margaret Gilbertson
Ned and Mary Lee Neff
William and Treva Breuch
Carolyn Ross
Mr. and Mrs. Paul Witting
Levi Sikkema
Mr. and Mrs. Jeffrey R. Austin
Ms. Carolyn Belknap
John and Nona Carr
Mr. and Mrs. Donald L. Cohen
Tom and Beth Cooper
James W. and Laurie Ford
Mark and JoEllen Gilbert
Wil Cwikiel and Gail Gruenwald
Lorraine Johnson
Larry and Amy Ketten
Mr. and Mrs. Mark Lancaster
Litzenburger Landscape Ltd.
Mr. and Mrs. Donald McCarty
Mr. and Mrs. James P. Nuffer
Betty Young
Howard and Margaret Gilbertson

In Honor of:

Jennifer Gelb
Dr. Mary L Butterfield
Bill Rudolph
Mr. William H. Klingbeil

Wish List

- ☞ Hot Water Attachment for Sink
- ☞ New (not used) Computers
- ☞ Redesign & Install Lab

If can help make our wishes come true, please contact Gail Gruenwald at 231-347-1181 or e-mail gail@watershedcouncil.org

THANK YOU

Volunteer lake monitors for another summer of hard work and dedication.

Stream volunteers for continuing to collect bugs, rain or shine, in the spring and fall of every year.

Emmet County Lakeshore Association (ECLA) for their pivotal role in coordinating *Phragmites* control efforts. Most notably **Gary Rentrop, Catherine Reindel, and Lucy Somes.**

For their hard work on this summer's *Phragmites* treatment project we are grateful to **Brian Piccolo, (MDNRE); Emmet County Board of Commissioners; County Clerk and Staff; Kathleen Abbot, Emmet County Civil Counsel; and the Emmet County treatment team from JFNew.**

Emmet County Commissioner Dan Placencia for taking the lead on *Phragmites* control for the county.

All the **residents on Mullett and Burt Lakes** who voluntarily completed shoreline survey follow-up questionnaires to identify and take care of any problems on their shorelines.

Wayne Blomberg and Tim Calloway for their assistance with aquatic field trips on the Pigeon River, Maple River and Thumb Lake.

Trish Woollcott for being such an avid water resource protection warrior and coming up with and following through on so many project ideas for protecting/improving water bodies throughout the area.

Scott Zimmerman, President of the Intermediate Lake Association and Dr. Dale Wagman for providing pontoons and a wonderful tour of Intermediate Lake during our Wednesdays on the Water series.

To everyone who made Charlevoix County Prescription and Over-the-Counter Drug Drop-Off a huge success, especially our volunteer pharmacists **Steve Czerkes, Ed Strzelinski, and John Ochs; and Deputy Sheriff Jake Wasylewski, Kelly Martin, Larry Levensgood, Michael Buttigieg, and Shirley Roloff.**

To the following guest presenters for providing expertise and knowledge at our Lake Michigan Summits: **Marc Gaden, PhD, Great Lakes Fishery Commission, Dr. Leon Carl, U.S. Geological Survey, Jackie Pilette, Little Traverse Bay Bands of Odawa Indians, Dan Mishler, Lake Charlevoix Association, Gary Rentrop, Emmet County Lakeshore Association and Senator Debbie Stabenow** for providing an insightful video on her efforts to keep Northern Michigan's waters healthy.

INTERNally Grateful!



(Above, left to right) Elliot Jackson, Megan Smith, and Dan Myers, (Right) Mitch Johannsen-Knez

Our summer interns, Elliot Jackson, Megan Smith, Dan Myers, Mitch Johannsen-Knez, Emily Marx, and Ben McMurray, played a key role in the success of our monitoring programs this year. We can't thank them enough for all of their hard work this past summer.



You're Invited
to join us for
Whitefish & Hush Puppies
from The Fishin' Hole during
**Petoskey's Downtown
Holiday Open House**
Friday, December 3
6:00 - 9:00pm
Food available while supplies last.

Ask us about
Gift Memberships
Luckily, one size fits all.



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Freshwater Center Showcases PERMEABLE PAVERS

Tip of the Mitt Watershed Council recently installed a section of permeable pavers at the Freshwater Center as a demonstration of a stormwater Best Management Practice (BMP). Permeable pavers are designed to reduce or eliminate stormwater runoff and improve water quality by infiltrating water through gravel-filled openings between the individual pavers. Permeable pavers can be used in commercial and residential settings. Uni Eco-Stone pavers were donated by Emmet Brick and Block of Petoskey; Maxwell Paving Stone of Harbor Springs donated the installation.

Do you have a shoreline or streambank in need of repair?

Tip of the Mitt Watershed Council is seeking shoreline and streambank restoration sites to feature in our video “Bioengineering on Northern Michigan’s Inland Lakes and Streams.”

Eligible sites must be:

- Experiencing moderate to severe erosion
- Appropriate for bioengineering techniques

Potential project sites will be selected at the discretion of the Watershed Council.

Property owners of selected sites will:

- Provide permission to Watershed Council to video installation of the restoration project.
- Agree to the use of bioengineering techniques on their shoreline.
- Cover costs of materials, contractors, and permit fees.

In exchange:

- Watershed Council will provide bioengineering design and permit application services, and coordinate installation of project with contractor. These services have an approximate value of \$1,000.

Interested in scheduling your FREE site assessment?

Call Jen Gelb at (231) 347-1181 x 112 or email @jen@watershedcouncil.org

