



MICHIGAN NATURAL SHORELINE PARTNERSHIP

Promoting Natural Shoreline Landscaping to Protect Michigan's Inland Lakes

Volume IV, Issue 1

The Michigan Natural Shoreline Partnership Newsletter

January 1, 2014

News and Notes...

Compiled by Julia Kirkwood, MNSP Chair

Happy New Year! This year the MNSP is moving into its 6th year. It is full of possibilities for connecting with people who are interested in protecting inland lakes. In the upcoming year the MNSP will continue to strengthen relationships and build knowledge on protecting inland lake shorelines. To start the year off, a new Michigan State University Extension Bulletin titled [“Rebuilding an Eroding Bank on an Inland Lake”](#) available for free download through the MSU Bookstore. It offers a comparison of traditional and prefabricated encapsulated soil lifts.

Additionally, through a couple of small grants we are working to get natural shoreline protection resources to interested lake association leaders and local decision makers. This includes developing a lake ordinance tool kit that will provide different options of ordinances to protect inland lakes.



Rebuilding an Eroding Bank on an Inland Lake
A Comparison of Traditional and Prefabricated Encapsulated Soil Lifts

Background

Every year, more people buy or build homes, cabins or recreation spaces on one of Michigan's inland lakes. In most part, if these structures do not experience significant wave, wind and ice action, many shoreline protection methods such as "berms" (shores with rock riprap or vertical walls) or the construction of berms have resulted in the transformation of the shoreline and shallow water habitats on Michigan inland lakes. (O'Neill & Hollister, 2006.)

Using a more natural erosion control measure, such as a encapsulated soil lift (ESL), will create a more natural, more gentle sloped, lake-friendly shoreline.

ESLs (sometimes referred to as "segmented geogrid") are negative longitudinal structures that are built on a rock base. They are useful in rebuilding eroding naturally faced banks. Soil lifts are "recycled soil" made from soil taken from the lake to form the lift. Each new course, or tier, of the soil lift is built on top of the preceding course but stepped back to a height of 4 feet. They are planted or seeded to long rooted native plants that help to stabilize the soil lifts.

ESLs on a rock base are especially useful on lakes where exposure to moderate to high wind wave and wave overwash are significant soil loss factors (Fisher, Schueler, & Kerec, 2003; Maka, Bolding, & Tropp, 2010). They may also reduce shoreline tailing wavelets. Once established, these vegetated soil lifts can withstand the wave slope with root structures that can withstand the waves and ice (Feldkamp & Meadows, 2002). ESLs have been used on both on site, but in recent years prefabricated (Geotextile) versions called "one piece block systems" have become available.

In 2011, a 1 year study began at the Shoreline Management Demonstration Area (lens shoreline near Lake Huron) in Lake at the W.K. Kellogg Biological Station (KBS). The study was designed to compare the effectiveness of two types of ESLs that are used to stabilize shorelines.

Abbreviations	Definitions
CNSP	Certified Natural Shoreline Professional
ESL	Encapsulated control blanket
KBS	Kellogg Biological Station
MNSP	Michigan Natural Shoreline Partnership
MSU	Michigan State University
O'Neill	Michigan High Water mark

The MNSP Partners have an activity scheduled for 5 out of 12 months in 2014! Help us continue to get the word out and make connections by scheduling a natural shoreline event in a month you do not see below to see if all 12 months can have a shoreline message. Remember to get your event posted on the MNSP website and Facebook page too!

January

- Stewardship Network Conference: Jane Herbert, MNSP Vice-Chair, will be speaking about natural shoreline restoration at the Stewardship Network's Annual *The Science, Practice and Art of Restoring Native Ecosystems* Conference
- Great Lakes Trade Expo in Grand Rapids. Once again the MNSP will have a booth at this trade expo. If you attend this event, look for booth #515.

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News and Notes...

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February

- Certified Natural Shoreline Professional Training Classroom component. This will be held in Traverse City Feb 18th-20th

May

- **Michigan Inland Lakes Convention:** The MNSP is partnering with other organizations to offer two and one half days of inland lakes focused open sessions, workshops and a wide array of topic specific breakout sessions designed to appeal to a wide range of personal and professional interests. This convention is taking the place of the MNSP's Annual Shoreline and Shallows Conference this year. MNSP partners are planning sessions for CEUs for contractors and also a natural shoreline session for homeowners. Save the Dates! Thursday, Friday and Saturday, May 1 - 3, 2014, Boyne Mountain Resort, Boyne Falls, Michigan.

June

- Certified Natural Shoreline Professional Training Exam and Field Day Component. This will be held near Petoskey on June 11

November/December

- "Shoreline Educator Training (SEN)": Planning will begin soon for a 2014 SEN Training to be held in conjunction with the Michigan Association of Conservation Districts fall conference.

Van Buren Conservation District Offers Free Informational Packets on Natural Shorelines



As a lake association member and lakefront property owner, you recognize the importance of keeping your lake clean. Michigan has more than 23,500 miles of inland lake shoreline, and the condition of that shoreline has a large impact on the health of our lakes. Intense development and conventional landscaping practices contribute to shoreline erosion, polluted runoff and loss of habitat. The Michigan Natural Shoreline Partnership has tools and tips to keep your lake cleaner by landscaping lakefront properties in a way that mimics natural shorelines. This will help preserve the things you love most about your lake – clean water, abundant wildlife and good fishing. We have partnered with the Van Buren Conservation District to distribute packets to lake associations in Michigan to provide you with information about natural shoreline landscaping. In return, we ask that you take a short survey (10 questions) that will help focus our efforts in the future.

To take this brief survey, please visit www.tinyurl.com/ShorelineSurveyMI. We have a limited number of packets, and will distribute them on a first come, first served basis.

For more information on the Michigan Natural Shoreline Partnership, visit www.mishorelinepartnership.org. If you have any further questions, contact Erin Fuller at the Van Buren Conservation District at erin.fuller@mi.nacdnet.net or (269) 657-4030 x112.

Michigan Certified Natural Shoreline Professional Update

by Jane Herbert, MNSP Vice-Chair, Michigan State University Extension

Welcome 2013 Certified Natural Shoreline Professionals!

A total of 31 professional contractors became CNSPs during 2013 (including one from Wisconsin and one from Indiana). The 2013 group brings the total number of CNSPs to 178 since the training began in 2010.



Certified Natural Shoreline Professional 2014

The MNSP is pleased to announce CNSP will be offered in northern Lower Michigan this year. The 3-day classroom component will be held in Traverse City, February 18-20. The 1-day exam and field construction experience will be held near Petoskey on June 11. Attendance all day long at each of the four days, plus a passing grade on the exam, is required for certification.

Please note there will be only ONE offering of CNSP in 2014. If you know you would like to send employees or know of colleagues interested in becoming Certified Natural Shoreline Professionals, more information and a link to a downloadable

registration form is available on the [CNSP Training page](#). Or contact Jane Herbert at jherberrt@anr.msu.edu or by telephone at 269-383-8852.

Re-mark your calendars! No Shoreline and Shallows Conference in 2014, but CEUs pending for the Michigan Inland Lakes Convention this May

The MNSP's Shoreline and Shallow Conference during ANR Week is cancelled for 2014. The MNSP has joined forces with other statewide lake organizations to be part of the first ever ***Michigan Inland Lakes Convention*** scheduled for Thursday, Friday and Saturday, May 1-3 at the Boyne Mountain Resort in Boyne Falls near Gaylord. We're organizing two breakout sessions for Saturday morning May 3 -- continuing education units (CEUs) are pending for both sessions. Other sessions on the previous two days may also qualify for CEUs. Registration opens in early January and you'll be able to register for one, two or three days. Lodging and meals are not included in the registration fee. The convention website is located at <http://michiganlakes.msue.msu.edu/convention> so check in and stay tuned! (Continued on p. 4)

CNSP Update

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Mark your calendar for a hands-on CNSP continuing education (CEU) opportunity June 13, 2014.

Six CEUs are pending for a one-day field session scheduled for Friday, June 13. This will be an opportunity to rebuild an eroded stream bank using a prefabricated, encapsulated soil lift product known as BioD-Block.

The site is on the Jordan River in Antrim County. The session is being coordinated and hosted by the Antrim Conservation District and taught by Tip of the Mitt Watershed Council. Watch your email and the [CNSP Training page](#) for registration info. Space is limited.



New, free-for-download publication gives results of a 3-year study comparing performance of BioD-Block lifts to traditionally-built encapsulated soil lifts. (Read on.)



Encapsulated soil lifts (sometimes referred to as “vegetated geo-grids”) are vegetative bioengineered structures that are usually built on a rock base. They are useful in rebuilding eroded, vertically-faced banks. Soil layers are “encapsulated” inside of biodegradable fabric to form the lift. Each new course, or layer, of lift is placed on the preceding course but stepped back to create the desired slope. Lifts may be continued up to a height of 8 feet. They are planted or seeded to long-rooted native plants that help to stabilize the soil layers.

[Michigan State University Extension](#) publication (E3198), “[Rebuilding an Eroding Bank on an Inland Lake](#),” highlights findings of a three-year study during which two types of encapsulated soil lifts were compared. The study was funded by [Project GREEEN](#).

Michigan Inland Lake Partnership Convention Offers Ways to Learn About Inland Lakes

Natural shoreline workshop for those living on lakes is just one educational opportunity planned to protect Michigan's priceless natural assets

by Bindu Bhakta, Michigan State University Extension, Water/Natural Resources Educator

Michigan is widely known as the Great Lakes state. It is nearly impossible to overlook these enormous lakes, Huron, Ontario, Michigan, Erie, Superior, which make up the largest freshwater system on the planet and contains about 20% of the world's freshwater supply.

Michigan also has more than 11,000 inland lakes and 23,500 miles of inland lake shoreline. Clean water, beautiful views, habitat that supports a variety of fish and wildlife species and access to endless recreational opportunities such as boating, fishing and swimming are just some of the reasons that so many people like to live on inland lakes across the state. A soft approach to landscaping at the shoreline helps safeguard your waterfront property investment and allows lake residents to continue to enjoy all of the things that attracted them in the first place.

Over time, increased development along lakes has led to removal of native vegetation at the shoreline which has been replaced by lawns down to the water's edge, beach areas and seawalls. All of these can negatively impact lake ecosystems. One way to encourage healthy lake ecosystems is through the implementation of alternative landscaping technologies, such as bioengineered erosion control and naturalized landscape design. These practices can create a stable shoreline that is protected from waves and erosion, serve as a natural filter to prevent runoff and provide suitable habitat for fish and wildlife.

Regardless of whether you know a little or a lot about inland lake management, consider attending the inaugural **Michigan Inland Lakes Convention**, May 1-3, 2014 at Boyne Mountain Resort in Boyne Falls, Michigan. The Convention presents an opportunity for lake enthusiasts, lake professionals, researchers, local government officials and anyone else interested in protecting our water resources to participate in three days of educational presentations and discussion, in-depth workshops, tours, exhibits and much more focused on Michigan's 11,000 inland lakes.

The 2014 Michigan Inland Lakes Convention is brought to you by the [Michigan Inland Lakes Partnership](#), launched in 2008 to promote collaboration to advance stewardship of Michigan's inland lakes. The Convention is a cooperative effort between several public and private organizations including the [Michigan Chapter of the North American Lake Management Society](#), [Michigan Lake and Stream Associations, Inc.](#), [Michigan State University Extension](#), [Michigan Natural Shoreline Partnership](#), [Michigan Department of Natural Resources](#), [Michigan Department of Environmental Quality](#), and the [Michigan State University Institute of Water Research](#).

Convention sessions will cover a wide variety of topics, including aquatic invasive species management and control, natural shoreline management, Cooperative Lakes Monitoring Program training, the latest in lake research, riparian rights and water law, and much more.

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Michigan Inland Lake Partnership Convention offers ways to learn about inland lakes

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One workshop scheduled on **May 1, 2014** from 1:30-4:30 pm, is designed to educate interested lakefront property owners on the importance of natural shoreline landscaping and the use of bioengineering techniques to provide erosion control. Workshop topics will include: Components of a healthy lake ecosystem; understanding the shoreline; planning a natural shoreline landscape; design ideas for a natural shoreline landscape; plant selection, planting stock and site preparation; Michigan rules and regulations; and tips for natural shoreline success. This workshop will be coordinated by [MSUE](#), [Tip of the Mitt Watershed Council](#) and [MDEQ](#). Cost of attending this workshop and/or other educational offerings on May 1 is \$20, paid through conference registration fees.

An excellent resource available for sale at the workshop is the MSUE Bulletin (E-3145), Natural Shoreline Landscapes on Michigan's Inland Lakes: Guidebook for Property Owners, also available through the [MSUE Bookstore](#).

Registration for the conference will open on **January 6, 2014**. For the latest information on the Michigan Inland Lakes Convention, visit michiganlakes.msue.msu.edu/convention

Michigan Natural Shoreline Partnership

Promoting natural shoreline landscaping to protect Michigan's inland lakes

www.mishorelinepartnership.org

www.facebook.com/MNSP1



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