



Helping People Help the Land

# Conservation Notes

USDA - Natural Resources Conservation Service - Michigan

March/April 2017

## Coalition Battles Invasive Phragmites in U.P.

There's a battle going on in the Upper Peninsula against a tenacious foreign invader. Invasive non-native Phragmites australis has established a beachhead along the U.P.'s Lake Michigan shoreline and conservation organizations are conducting a counter attack.

The U.P. Phragmites Coalition, led by the Upper Peninsula Resource Conservation and Development Council, estimates there are at least 2,000 acres of non-native phragmites in the U.P. with Delta and Menominee counties having the greatest infestations. The Coalition has mounted a campaign that includes educating the public along with mapping and removing phragmites.

"The goal is to get phragmites under control in the U.P. to the point where individual landowners can control it on their own property," said U.P. Phragmites Coalition project manager Darcy Rutkowski.

Phragmites is a perennial reed that grows in wetlands and has two subspecies present in Michigan, a native variety and the non-native Phragmites australis. The non-native plant can reach 20 feet in height while the native species typically reaches only about 6.5 feet. According to the Michigan Natural Features Inventory, the non-native variety reached the east coast in the late 18th century and has been moving west ever since. It out competes native plants, dominates the landscape and displaces native species.

Coalition partners, which include conservation



*A marsh master machine mows down phragmites, previously treated with herbicide, along the Lake Michigan shoreline in Menominee County.*

*-photo provided by the Upper Peninsula RC&D Council*

districts bordering Lake Michigan, began mapping areas with phragmites along 200 miles of shoreline. NRCS assisted with the early mapping efforts in Delta County. Mapping and removal of phragmites began in 2013 utilizing state, federal and landowner funding.

The Coalition funds their public outreach and phragmites removal in the U.P. through a Great Lakes Restoration Initiative grant from the Environmental Protection Agency and also a grant from the Michigan Invasive Species Grant Program. The conservation district also has a Michigan

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## State Conservationist's Message

On April 25, Sonny Perdue was sworn in as the 31st U.S. Secretary of Agriculture. The agency's announcement included the four principles that will guide Secretary Perdue as he leads the USDA.

"First, he will maximize the ability of the men and women of America's agriculture and agribusiness sector to create jobs, to produce and sell the foods and fiber that feed and clothe the world, and to reap the earned reward of their labor. It should be the aim of the American government to remove every obstacle and give farmers, ranchers, and producers every opportunity to prosper. Second, he will prioritize customer service every day for American taxpayers and consumers. They will expect, and have every right to demand, that their government conduct the people's business efficiently, effectively, and with the utmost integrity. Third, as Americans expect a safe and secure food supply, USDA will continue to serve in the critical role of ensuring the food we put on the table to feed our families meets the strict safety standards we've established. Food security is a key component of national security, because hunger and peace do not long coexist. And fourth, Perdue will always remember that America's agricultural bounty comes directly from the land. And today, those land resources sustain more than 320 million Americans and countless millions more around the globe. Perdue's father's words still ring true: We're all stewards of the land, owned or rented, and our responsibility is to leave it better than we found it."

At NRCS we share these principles as we serve Michigan's farmers, ranchers and private forest owners.

~

Every year during April we celebrate National Volunteer Week by recognizing our NRCS Earth Team volunteers. NRCS created the Earth Team Program in 1985, to supplement the work of the agency with local volunteers. Anyone who is at least 14 years in age can assist conservation in their community by serving as an Earth Team volunteer.



*State Conservationist  
Garry Lee*



**"We're all stewards of the land, owned or rented, and our responsibility is to leave it better than we found it"**

*- Agriculture Secretary Sonny Perdue*

Joining the Earth Team is a great way for environmentally-minded citizens to make a difference, it is also a great opportunity to explore a possible career in conservation. There are many ways for volunteers to contribute to the conservation efforts. Some of these include assisting conservationists in the field, documenting the work of NRCS through photos, video or articles for local publications, assisting with clerical work, or helping out at public events.

If you or someone you know has an interest in conservation work please look into Earth Team opportunities at your local NRCS field office.

Most importantly, thank you to all of the current and past Earth Team volunteers in Michigan!

~

More and more producers are utilizing the convenience of Conservation Client Gateway. The online service that allows NRCS clients to access services, apply for programs and track their conservation contracts online. Entities such as LLCs can now use Client Gateway in addition to individuals. As of April 18, 248 Michigan farmers and farm entities have signed up to use Client Gateway.

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## Coalition Battles Invasive Phragmites in U.P.

Invasive Species Grant for treating phragmites within the county. In Delta County, the shoreline was divided in half between the Coalition and the Delta Conservation District. The district was responsible for the southern portion of the shoreline along with a couple of small islands, said District Manager Lori Mathews.

Before the removal process could begin public meetings were held to inform people about what the project entailed and why it was being done. Landowners had to grant permission before removal work could take place on their property. Most landowners didn't take much convincing to support the project. The plant blocks homeowners' views of the lake and can make it difficult to access the water and launch boats. About 86 percent of landowners granted permission while a small number denied permission or couldn't be contacted.

"To me it's a pretty ambitious program, education is a huge part of it," said recently-retired NRCS District Conservationist Tom Tauzer. "People are pretty interested, this conservation district is good at getting people to meetings."

Delta County has exceeded its goal of treating 1,100 acres of phragmites, Mathews said. The Delta Conservation District hired a contractor with a specialized machine called a marsh master to reach the infested areas. The machine has caterpillar treads along with pontoons that enable it to move on saturated shorelines and through open water.

The ideal time to treat them is from mid-August until the first frost, said Mathews. The dead reeds are mowed early in the year making it easier to spot and remove any new plants in the spring. New plants are much easier to remove than after they are established.

Along the Lake Michigan shoreline, phragmites in all identified areas where the landowner has granted permission were treated with herbicide,

said Rutkowski. Infested areas need to be treated at least twice to be effective, she said. The Coalition has funding for two more years of treatments. To stretch out their funding, landowners will be asked to contribute a small portion of the cost. Contractors are paid between \$150 and \$350 an acre through a competitive bidding process.

Areas on the fringes of the infestation are prioritized for treatment to keep the phragmites range from expanding. This includes interior areas from Lake Michigan which are harder to spot, said Rutkowski.

Once identified areas of phragmites are treated local conservation agencies, with the assistance of landowners, will need to monitor for any new outbreaks to keep the plant at bay. With phragmites firmly established in the Green Bay area, there will always be a risk of it moving north, said Rutkowski.



*Delta Conservation District Manager Lori Mathews (above) stand in a stand of invasive phragmites growing on the Lake Michigan shoreline near Gladstone. Phragmites is most prevalent in Upper Peninsula along the Lake Michigan shoreline adjacent to Wisconsin (map provided by UP RC&D).*



### Information about Invasive Phragmites

UP Phragmites Coalition - [www.phragmitesintheup.org](http://www.phragmitesintheup.org)

Phragmites Michigan Natural Features Inventory - <https://mnfi.nr.msu.edu/phragmites/native-or-not.cfm>

## Conservation Volunteers Honored During National Volunteer Week

The Natural Resources Conservation Service is celebrating National Volunteer Week April 23-29, by thanking and honoring its Earth Team volunteers for their service to conservation.

Earth Team is the agency's volunteer workforce, and nationally, in fiscal year 2016, more than 28,500 people donated 3,012,219 hours of service to NRCS valued at over \$7.1 million.

Through the first half of fiscal year 2017, 10 volunteers in Michigan have donated over 327 hours of service to their communities. Our Earth Team volunteers include retired and active NRCS employees, students exploring a career in conservation and others who are also passionate about protecting our natural resources.

Earth Team is a program that partners volunteers with NRCS employees. It was created in 1985 and offers many opportunities to individuals 14 and older who are interested in volunteering to improve the nation's natural resources. Earth Team volunteers help NRCS conservationists provide private landowners and others a range of services from conservation technical assistance to teaching and generating awareness about conservation through community projects.

Earth Team Volunteers allow NRCS to stretch available resources and help put additional conservation practices on the ground. Volunteer



efforts help improve land and wildlife habitat and contribute to cleaner water and air for everyone.

With offices throughout the state, there is opportunity for anyone in Michigan to become an Earth Team volunteer. There are many ways to serve as a volunteer depending on a person's abilities and interests. For example, a volunteer may document conservation efforts utilizing photos or video. Depending on the needs of the field office, work may include helping in the office or assisting with field work or public events. There are many ways volunteers can support conservation.

Learn more about the Earth Team Volunteer Program online at: [www.nrcs.usda.gov/earthteam](http://www.nrcs.usda.gov/earthteam) or by calling 888-526-3227.



## Michigan Earth Team Volunteer Joe Calus

Following a 35-year career as an NRCS soil scientist, Joe Calus is now serving as an Earth Team volunteer.

As a volunteer, Calus put his experience to work assisting with updating land form maps of northern Michigan. The work involves examining maps compiled by geologic researchers, usually from public universities. The map data is used to more accurately map geographic land forms. Calus completed work on landform maps for Ogemaw and Oscoda counties.

Volunteering can be a good way to make the transition to retirement. Many retired NRCS employees have served as Earth Team volunteers.

Just as volunteering can be a good transition for retirees, it can also be a good introduction to conservation careers for students. Earth Team volunteers can "job shadow" NRCS employees who work in a field they are interested in such as engineering.

*Earth Team volunteer Joe Calus*



# New Tool to Help with Planning Manure Applications

by Shelby Burlew, Michigan State University Extension

When is the best time to spread manure for optimal crop production and minimize environmental losses? The simple answer is it depends on many factors. While not exactly a satisfying answer to a complex scenario, it truly depends on the manure handling system, cropping system, field conditions, weather forecasts, time and labor available, volume of manure in the pit and many more factors. What is the right decision when there are so many factors out of our control? The best answer is to know the risk factors during the time of manure application and minimize those risks while optimizing crop production with those additional manure nutrients.

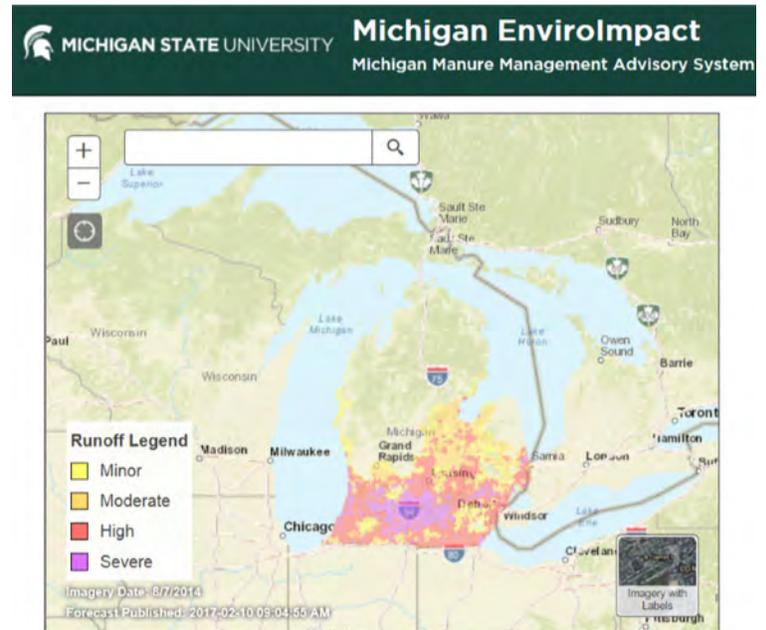
To help solve this complex scenario, a new tool is available for Michigan livestock producers to use when making decisions on when and where to spread manure. The Michigan State University EnviroImpact Tool is part of the Michigan Manure Management Advisory System that was been developed through a partnership between National Weather Service/NOAA, Michigan Department of Agriculture and Rural Development (MDARD), Michigan Agriculture Environmental Assurance Program (MAEAP), Michigan State University (MSU) Institute of Water Research, Michigan Sea Grant and Michigan State University Extension. The MSU EnviroImpact Tool provides maps showing short-term runoff risks for daily manure application planning purposes; taking into account factors including precipitation, temperature, soil moisture and landscape characteristics. Anyone handling and applying livestock manure in Michigan can use this tool to determine how risky it will be spread manure on their fields.

Key features of this tool include:

- Ability to sign up for e-mail or text message alerts specific to your field locations for high-risk runoff days.
- Easy visualization of the short-term risk of manure runoff.
- Ability to zoom in on the map to your field(s) and click on the location to determine the potential risk of runoff from manure application.
- Capability to login to the tool to draw and save your fields on the map to determine risk of runoff at

any time.

- Automatic daily runoff risk forecast updates from the National Weather Service.
- Access to additional resources on manure management.



While the purpose of these maps are to help reduce the risk of applied manure leaving the fields, it is very important to follow your farm’s Manure Management Plan and to assess the risk for each field prior to manure applications. Always apply your own knowledge of your fields and landscapes when assessing the risk of runoff from manure applications. Remember this tool is just one of many in your own toolbox.

Additional Manure Application Considerations:

Risk increases with soil moisture. If you know that your fields are particularly wet, you should know that the risk of runoff from your fields would be higher than what is shown on the risk map. The opposite may hold true if you estimate that your soil moisture values are lower.

Even if the map shows low risk of runoff, your fields may not be dry enough to spread manure. Applying liquid manure (typically equivalent to 1/3 to 1 inch or more of rainfall) to wet fields could lead to a direct manure runoff, even if the field is otherwise

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## MSU to Host Michigan Envirothon

Michigan State University will host the Michigan Envirothon state competition from May 17 to 19.

Teams of high school students from throughout Michigan will compete in the three-day outdoor environmental competition. The top finishing team will represent Michigan in the North American Envirothon competition set for July 23 to 29, at Mount St. Mary's University in Emmitsburg, Md.

Teams qualified for the state competition by participating in regional competitions held across the state. During the competitions, teams are tested on their environmental knowledge in skills on a variety of topics such as aquatic ecology, forestry, wildlife and soils and geology. For the state competition, teams will give presentations on community projects they have undertaken to address a resource concern in their community.



## Cover Crop Survey

The USDA's Sustainable Agriculture Research and Education Agency is seeking producers to participate in the 2017 Cover Crop Survey.

SARE wants both producers who are using cover crops and producers who are not using cover crops to take the survey. The [online survey](#) takes only a few of minutes to complete. Perspectives are sought from producers who are currently using cover crops, have stopped using them or have never utilized cover crops.

SARE has been conducting a cover crop survey since 2012. A summary of past survey results is available on the Conservation Technology Information Center [website](#). In 2016, 2,020 farmers took the survey. The results show that the poll respondents planted an average of 298 acres of cover crops in 2015, projected to grow to 339 acres in 2016.

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## New Tool to Help with Planning Manure Applications

a low risk site due to low slope, etc. Make sure your fields are dry enough to accept additional moisture. Additionally, operating field equipment on wet fields could lead to soil compaction.

Liquid manure applications increase soil moisture. An application of 27,000 gallons per acre of liquid manure is the equivalent of adding approximately 1 inch of water to your fields. A liquid manure application effectively increases your soil moisture, and therefore the risk of runoff from fields receiving liquid manure could be higher than what is shown on the risk map.

Snow-covered and frozen fields are high risk. If you have snow on your fields, the risk of runoff from your fields could be higher especially if spreading manure in the later winter months of February or March (due to snowmelt or rainfall).

Some fields are always higher risk areas. These are areas of concern on your farm, and might include fields with higher slopes, tighter soils (clay), poor drainage or close to sensitive areas such as surface waters, etc. Many of these areas should be identified in your Manure Management Plan and/or sensitive area maps. Use caution when applying manure

in these areas, regardless of what the risk map indicates.

Livestock producers and manure applicators should contact their local Conservation District MAEAP technician (pdf) for help in developing a Manure Management Plan that takes into account a manure-spreading plan, sensitive area field maps and alternatives to spreading if necessary. Another great resource for making manure application decisions is MDARD's Right to Farm Generally Accepted Agricultural Management Practices (GAAMPs) specific to Manure Management and Utilization.

The MSU EnviroImpact Tool is currently under development and will be available soon. Livestock producers, manure applicators and others are encouraged to preview the tool and provide feedback. If you interested in accessing the tool and providing feedback, please contact either Shelby Burlew, MSU Extension, at [bollwah1@anr.msu.edu](mailto:bollwah1@anr.msu.edu) or Jason Piwarski, MSU Institute of Water Research, at [piwarsk1@msu.edu](mailto:piwarsk1@msu.edu) for access to the tool's website.

*This article was published by Michigan State University Extension. For more information, visit [www.msue.msu.edu](http://www.msue.msu.edu).*

## Upcoming Events - Upcoming Events

### May

- 9 Game Species Workshop, 7 p.m. to 9 p.m., Bay De Noc Community College - Escanaba, for more information contact the Delta Conservation District at 906/553-7700
- 13 Invasive Species and Site Preparation Workshop, 9 a.m. to 4 p.m., Fin and Feather Club - Scottsville, for more information and to register email [joshua.sheilds@macd.org](mailto:joshua.sheilds@macd.org)
- 26 Allegan Conservation District Native Plant Sale - Order Pick-Up, 9 a.m. to 3 p.m., orders due by May 19, Saugatuck Center for Arts - Saugatuck, for more information go to [www.allegancd.org](http://www.allegancd.org)

### June

- 5-6 Michigan Association of Conservation Districts Summer Conference, Doubletree Hotel - Bay City, for more information go to [www.macd.org](http://www.macd.org)
- 9 Michigan Environmental Education Curriculum Support Water Quality Certification Workshop, 10 a.m. to 3 p.m., Michigan Fisheries Visitor Center - Oden, for more information call 231/838-4913
- 17-19 Michigan Envirothon State Competition, Michigan State University - East Lansing, for more information go to [www.macd.org](http://www.macd.org)
- 23 Managing your Forest for Timber and Wildlife, 10 a.m. to 4 p.m., Sweetwater Township Hall - Branch, register before June 19, call the Manistee Conservation District at 231/889-9666



## Intertribal Food Summit

NRCS participated in the 2017 Great Lakes Intertribal Food Summit hosted by the Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians.

District Conservationist Bruce VanDenBosch talked with tribal representatives from Michigan, Minnesota and Wisconsin about conservation planning and other NRCS resources available to American Indian tribes. The event was held from April 19 to 23, at the tribe's Jijak Camp in Hopkins.



The summit included presentations by American Indian chefs (above). District Conservationist Bruce VanDenBosch, NRCS tribal representative for the Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians, presented a session on conservation planning and USDA conservation programs. He also staffed the NRCS information table.



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