

Calumet Conservator

Protecting, Promoting & Enhancing the Natural Resources of Calumet County

DEMONSTRATION FARM PROJECT: NEW NETWORK FORMING IN CALUMET, FOND DU LAC, MANITOWOC & SHEBOYGAN COUNTIES

Calumet, Fond du Lac, Manitowoc and Sheboygan Counties in collaboration with the USDA Natural Resources Conservation Service have started the development of a Demonstration Farm Network. Funding has been secured through the NRCS via the Great Lakes Restoration Initiative. The network will act as an education and outreach tool to producers and will support the phosphorus and sediment reduction effort taking place in the Great Lakes region. The project will focus on showcasing the effectiveness and adaptability of conservation practices. Practices will likely include cover crops and reduced tillage practices among others but can also demonstrate innovative field technologies such as low disturbance manure application. In addition, the environmental and economic benefits of

conservation practices will be evaluated and information will be provided during field day events, tours, in yearly publications, and on a demonstration farm network website. Outreach and invitations to events will be provided to not only producers but also interested citizens and elected officials. Stay tuned as more information becomes available in 2020.

The project will closely mimic other demonstration farm networks located in the Lower Fox River Basin <https://fyi.extension.wisc.edu/fox-demofarms/>, The Upper Fox/Wolf River Basin <http://www.co.waupaca.wi.us/ufwdfarmsnetwork/> and the Ozaukee County Demonstration Farm Network <https://www.ozaukeedemofarms.com/>.

PHRAGMITES TREATMENT EXPANDS INTO CALUMET CO.

Calumet County is partnering with Lakeshore Natural Resource Partnership (LNRP) and Glacierland Resource Conservation and Development Council (Glacierland RC&D) to map invasive species across the county. Grant funding was obtained from the Wisconsin Department of Natural Resources to conduct roadside mapping of invasive Phragmites and Japanese knotweed in January 2020. The purpose of mapping is to better understand the distribution of these invasive species across the county, and to support grant funding applications for control efforts.

Invasive Phragmites is a tall, colony-forming grass, introduced from Europe, that is invading both urban and rural areas. It can form dense, impenetrable stands that choke our wetlands, streams, beaches, and shores. Japanese knotweed is an Asian forb that can form dense thickets

[see Phragmites pg 3]



TARGETED PERFORMANCE STANDARDS: NEW RULES AIM AT REDUCING RISKS IN KARST AREAS

Revisions to NR 151 went into effect in 2018, adding a set of targeted agricultural performance standards to address groundwater contamination from agricultural sources in karst areas. These targeted performance standards apply to areas of Calumet County, and are incorporated into current “ag runoff rules” outlined in NR 151 and County Ordinance.

Why the changes?

Private wells in Northeast Wisconsin exceed the statewide averages for bacteria and nitrate contamination and experience “brown water events.”¹ Parts of Door, Dodge, Kewaunee, Brown, Manitowoc, Fond du Lac and Calumet counties are highly susceptible to groundwater contamination from the land surface. The shallow soils, along with sinkholes and bedrock fractures at the surface, can cause polluted runoff to enter the groundwater aquifer without any natural filtration.

The changes to NR 151 focus on reducing bacteria and other pathogens from reaching groundwater in the karst areas of Northeast Wisconsin.

Manure application prohibitions on shallow soil.

The most significant change in the rule is the prohibition of all manure mechanically applied to soils that are less than 24 inches to bedrock.

Restrictions also include manure application rates and timing on varying soil depths between 2-20 feet and are detailed throughout rule (www.calumetcounty.org/KarstResources). Application strategies vary between liquid and solid manure. Emerging technologies are also acknowledged in the rule, such as treated manure.

Application of manure on areas with less than 20 feet of soil must be incorporated within 24 hours of application.² Incorporation depths are limited to 4-6 inches.

Karst Mapping Resources

DATCP developed restriction maps, referred to as “SnapMaps” for farmers and crop advisors, which are available online (<https://snapmaps19.snapplus.wisc.edu/>) Currently, Calumet County has 2900 acres of cropland that are mapped less than 40 inches over bedrock, which is 2.5% of the county’s 117,000 cropland acres.

Verification of Depth to Bedrock

Current maps need to be updated to better reflect soil depths and karst features. DATCP formed a committee of farmers,

Pictures of different types of Karst Features found in Calumet County.

Top Photo: Sinkhole opened up in a field. Middle Photo: Fracture traces evident under drought-like conditions on an alfalfa field. Bottom Photo: Exposed bedrock in a field.

1 Groundwater Collaboration Workgroup Report 2017

2 Exception for long term no-till systems

conservation staff, and private consultants to develop technical standards for use in verifying and documenting karst features and soil depths. The committee worked together to develop effective and efficient ways to identify where bedrock is close to the surface, matching the varying depth to bedrock restrictions that are outlined in the rule. Publication of draft rules are anticipated this spring. More information can be found at <https://socwisconsin.org/current-work/full-process/01-verification-of-land-features/>

Acres may be added or removed to the manure prohibitions as sinkholes, surface fractures and other direct conduits to groundwater are

identified and mapped. Application setbacks on such features are 100 - 300 feet depending on the feature or location.

For more information and progress on implementation of these rules, please visit the department website under the Karst Resources for Farmer Tab. www.calumetcounty.org/KarstResources or search "Calumet County Karst Resources" in your internet search engine. Contact Tony Reali at 920.849.1493 ext 2406 if you have any questions.

PHRAGMITES [FROM COVER PAGE]

of bamboo-like vegetation that aggressively outcompete native plants, and negatively impact wetland and riparian areas. This species quickly spreads and forms dense colonies by extensive underground stems that can damage infrastructure such as roads, walkways and foundations. The need for control is urgent to stop the aggressive expansion of these species and the mapping results will help inform where treatment is needed. Based on preliminary mapping results, approximately 83 acres of invasive Phragmites and 3 acres of Japanese knotweed are known to occur in the county. A public link is available (<http://bit.ly/InvasiveWebMap>) to view the mapping data.

LNRP and Glacierland RC&D applied for grant funding to initiate education and outreach efforts and treatments for the target species across the county. Grant funds would allow up to three years of control on participating parcels. Pending grant funding, control efforts would be free for all residents and performed by trained/certified contractors using herbicide from July – October each year. If you have any questions or have populations

on your land, please contact Melissa Curran with Stantec at 920-841-1072 or melissa.curran@stantec.com; or Danielle Santry from Calumet County at (920) 849-1442 or Danielle.Santry@calumetcounty.org.



Phragmites in a wetland. Photo credit: LNRP

WINNEBAGO WATERWAYS LAKE MANAGEMENT PLAN

A four year planning effort nears its completion. As we wait for final approval, implementation has already begun.

If you've been following the Winnebago Waterways Project, you know that the planning process is nearing completion. Eight topics have been researched, drafted, sent out to technical

teams, vetted by public focus groups, and have been sent to the DNR for approval. The goal of the lake management planning project is to develop a regional framework for cooperation to restore and protect the health of the Winnebago Lakes, by reducing algal blooms,

addressing polluted runoff, and preventing further introductions of aquatic invasive species.

Although the official "plan" is nearing approval, The Winnebago Waterways Lake Management Plan will be a dynamic, living document that serves as a guide for strategic management of the lakes. Nothing is "final," and the plan will evolve as implementation progresses. The plan is not regulatory either; rather its intent is to help focus coordinated efforts from multiple agencies, organizations, and individuals for effective and efficient lake management. The plan sets goals for lake improvements and opens the door for funding opportunities for improvement projects.

The plan is made up of eight sections ranging from in-lake habitat restoration and aquatic plant management, to watershed management on the land. Each section details the current status of the lakes, what is needed to improve the health of the lakes (goals), and recommendations on how to obtain those goals.

If you find something interesting, you may "dive into the weeds" of a section; much work has gone into this plan to make it a plan for all stakeholders of the system. You may find the plan, broken down into its sections and appendices at <https://fwwa.org/lake-management-planning-2/>.

What's next? Well, implementation has already begun. Grants are getting funded. Breakwalls are going in. Localized aquatic plant management plans are advancing. AIS and water quality monitoring programs are recruiting volunteers. Lakeshore owners are restoring shorelines to reduce erosion. Farm groups and municipalities are getting together to reduce runoff. If you are looking to become involved in a project of interest, or just want to keep up-to-date with all the projects going on in the system, visit <https://fwwa.org/winnebago-waterways/> or sign up for the monthly newsletter.

Photo credit: FWWA



Now Recruiting: Water Quality Monitoring Volunteers

The Winnebago Waterways program is now seeking volunteers to help monitor water quality. Monitoring stations have been strategically spread across the four lakes and their tributaries to help better understand current pollutant loadings & document any improvements as lake plan efforts progress. If you are interested in "adopting" a station, or want to learn more about how you can help, contact Korin Doering at korin@fwwa.org or 920.851.0948.



SOIL CONSERVATION SPOTLIGHT: WHAT'S A WASCOB?

Keeping soil in its place is critical to improving water quality in local streams and lakes, as well as maintaining healthy, productive soils. When soil washes off a field, it carries with it nutrients which then feed plants and algae downstream. One strategy to prevent soil loss is to slow down the flow and keep soil in the field. A Water and Sediment Control Basin, or WASCOB can do just that.

A WASCOB consists of a depression area with a built-up berm on the downslope side. Rain or snowmelt typically flows over the cropland towards the WASCOB, where it slows down the water as it tries to leave the field. The berm holds the water back, allowing the soil to settle out before it makes its way through a narrow outlet. Slowing down the water also prevents gullies downstream.

Ideal locations for WASCOBS include minor watercourses, area where gullies start to form, or in depression areas receiving runoff from cropland.

WASCOBS are engineered to hold water behind the berm for less than 24 hours, making this an ideal practice to treat erosion without taking too much cropland out of production. A well designed WASCOB can continue to be cropped. The pictured WASCOB was built in the Plum Creek watershed. Fifteen acres of active cropland drain towards this WASCOB. The field was experiencing a bad gully that was cutting the cropland in half. The farmer had to stay back 10 feet on each side of the gully to prevent damage to his equipment. The engineered plan was to excavate a "flood area" which would take on rainwater from the 15 acres, allowing water to be held back and contained safely. A 3.5 foot tall embankment (berm) was built and two 6" PVC pipes were installed.

The farmer is still able to farm the back half of this particular WASCOB safely because the side slopes are flat and stable. This WASCOB blends into the cropland very well, uses less space than a grassed waterway, and reduces nutrients and sediments from leaving the field to make their way to Plum Creek. Annually, this WASCOB alone will prevent 67 lbs of phosphorus and 94.5

tons of sediment per year from leaving the field.

Some maintenance is required. In most cases, the farmer should make sure the inlet is not blocked, prevent the occasional burrowing animal from making a home in the berm, and to clean out any sediment that has built up in the basin (which becomes less frequent when adopted with a reduced tillage strategy).

Visible erosion at project site before practice installation



WASCOB seeded down. Berm and tile inlet visible. Slopes graded to maintain productive cropland.

WASCOB shortly after rain event. Water is held back for less than 24 hours, allowing for sediment and other pollutants to settle out.



Contact Jonathon Lisowe at 920.849.1493 ext 2407 for more information.

PRIVATE WELL TESTING PROGRAM 2020 DATES

Calumet County LWCD, in partnership with the Calumet Groundwater Guardians, will host the annual Private Well Testing Program in April. The program is open to all Calumet County Private well owners. Registration is REQUIRED to ensure you get a kit.



Tests Available:

HOMEOWNER'S PACKAGE - includes Bacteria, Nitrate, pH, Alkalinity, Hardness, Chloride, Conductivity, Corrosivity Index

METALS PACKAGE - includes 11 metals, including an arsenic screen

DACT SCREEN - tests for Atrazine and its byproducts

REGISTER BY APRIL 6.

Online registration is easy and preferred!

www.calumetcounty.org/2020PrivateWellProgram

Town of Chilton wells, please use this link for free kit:

www.calumetcounty.org/TownChiltonWellTest

Phone: 920.849.1493 x2402

Email: danielle.santry@calumetcounty.org

In Person: Land & Water Conservation Office, Room 227

PICK UP SAMPLE KITS WEEK OF APRIL 14

DAYTIME LOCATION: Thursday, April 16 - Calumet Co. Courthouse, Room 222 from 9:00am - 4:30pm

EVENING LOCATIONS:

- Tuesday, April 14 - Charlestown Town Hall, 6:00pm - 8:00pm
- Wednesday, April 15 - Stockbridge Fire Station, 6:00pm - 8:00pm
- Thursday, April 16 - Chilton Town Hall, 6:00pm - 8:00pm

SAMPLE YOUR WELL ON MONDAY, APRIL 20.

Return full bottles to one of the following locations.

- DAYTIME - 9:00am - 4:30pm at the Calumet County Courthouse, Room 227
- EVENING - 6:00pm - 8:00pm at one of three locations
 - Charlestown Town Hall - N3685 County T (Hayton)
 - Stockbridge Community Hall - 175 S. Military Rd (Stockbridge)
 - Chilton Town Hall - N4569 County BB



PRODUCER LED WATERSHED PROTECTION GROUP FORMS IN CALUMET COUNTY

The Calumet County Agricultural Stewardship Alliance (CCASA) started meeting in late 2018, and has been meeting monthly ever since. In 2019, the group applied for and has received a DATCP Producer Led Watershed Protection Grant to jumpstart their effort with hosting a field day on proper nutrient handling techniques, developing a well testing program and promoting the use of nutrient management plans. Calumet County Land & Water Conservation has been working with the newly formed group in an advisory role and will continue in that role for the foreseeable future. Look for more information in 2020 as the group ramps up their efforts and starts to schedule events.

SOAK IT IN TO PROTECT LOCAL WATERWAYS

The more rooftop, concrete or blacktop your property has, the more water will run off the property. The increased water running off can pick up more pollutants, damage drainage ways, and can cause flood issues on downstream properties.

Developers on large properties can collect stormwater runoff in ponds. The ponds then release the water at the same rate or slower than undeveloped land would. This is good for two reasons, 1) it helps reduce flood issues downstream, and 2) it allows the pollutants to settle in the pond rather than make it to a stream or lake.

Landowners developing smaller properties, such as homeowners, can reduce the amount of stormwater running off properties with some simple practices. By directing water from rooftops to a lawn, water is allowed to soak in rather than go down the ditch or drain. This simple practice helps to keep waterways clean and reduces flooding issues downstream.

Sometimes landowners do not have the yard to do this. Lakeshore property owners in particular may not have enough land to address the runoff from their roof, driveway, and accessory building combined. This is one of the reasons why shoreland ordinances state-wide have limits to the amount of impervious surface they can add on their property unless they can address, or mitigate, the runoff somehow.

In these situations, landowners can use alternate methods such as rain gardens. Rain gardens are

shallow flat depressions that are planted with deeply rooted vegetation to help infiltrate runoff. The size of the rain garden is based on the area of impervious surface (such as the section of roof or the area of driveway) that drains to the garden. For homeowners, each rain garden could be designed to handle the water from a downspout that drains a section of the roof. The plants in a rain garden are typically native grasses and wildflowers with deep roots that help the water soak in while still being an attractive part of the landscaping.

Once the plants are established there is very little maintenance needed to keep the rain garden in good working order. There are no requirements for individual homeowners to install rain gardens but, they can be helpful in reducing stress on existing waterways. For new construction, rain gardens can also be used to mitigate the additional storm water runoff caused by a new building, concrete patio, or driveway.

More information on installing rain gardens can be obtained from the Calumet County LWCD or online from the Wisconsin Department of Natural Resources at: dnr.wi.gov/topic/Stormwater/raingarden.



Turf Grass Roots typically are as long as the grass blade length maintained on your lawn. (Plant on left side of figure)



Deeper Roots of native plants allow water to soak in.



Land and Water Conservation

206 Court Street
Chilton, WI 53014

LAND & WATER CONSERVATION COMMITTEE:

Mike Hofberger - Chair
Patrick Laughrin - Vice Chair
Merlin Gentz
Judith Hartl
Dave LaShay
Amy Shiplett - FSA Representative

DEPARTMENT STAFF:

Tony Reali - County Conservationist
Jared Grunewald - Conservation Project Technician
Jonathon Lisowe - Conservation Project Technician
Brent Jalonen - Erosion Control / Stormwater Specialist
Amanda Kleiber - Land Resource Specialist
Danielle Santry - Water Resource Specialist
Rose Faust - Secretary

INSIDE THE CONSERVATOR:

Demo Farm Network	Cover
Phragmites Project	Cover
Targeted Performance Standards	pg 2
Phragmites continued	pg 3
Winnebago Lakes Plan	pg 4
Volunteer Opportunity	pg 4
What's a WASCOD	pg 5
Well Testing Program Dates	pg 6
Producer-Led Group Forms	pg 6
Soak it in to Project Waterways	pg 7