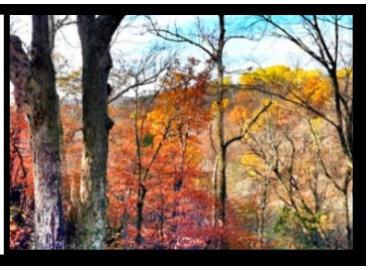
CONSERVATION TODAY

Sibley Soil and Water Conservation District & USDA

Summer 2020



One Watershed, One Plan—Comprehensive Planning to Begin in the Lower Minnesota River Watershed

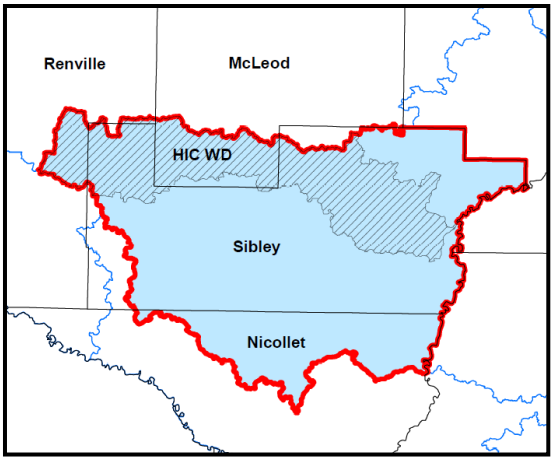
By Jack Bushman, Conservation Technician

Water management by local governments in Minnesota is going through changes and the Lower Minnesota River West watershed is about to get involved. In 2019, Sibley County, in partnership with Sibley Soil and Water Conservation District, received a One Watershed, One Plan (1W1P) planning grant from the Board of Water and Soil Resources (BWSR). This means water planning will be transitioning from traditional water plans drawn along county boundaries, to comprehensive watershed management plans (CWMP) that follow watershed boundaries.

Moving across jurisdictional boundaries will require a strong regional partnership. Luckily, the counties of Sibley, Nicollet, McLeod and Renville, along with High Island Creek Watershed District, are used to working together, having previously worked together on Clean Water Partnerships (CWP), and Section 319 Clean Water Act (CWA) projects. These projects helped to mitigate the effects of non-point source pollution (NPS) on water quality within and downstream of the Lower Minnesota River watershed. By writing a CWMP through the 1W1P program, local water planners will seek to continuously improve upon the work done in previous partnerships. Looking beyond individual water management projects and taking a comprehensive approach will help local governments demonstrate targeted and measured goals and seek out diverse funding sources.

By planning on a major watershed scale, local governments within the watershed will be able to work together to align local priorities with state strategies. Throughout the process, the public, along with state and federal agencies, will have opportunities to provide comment on what should be considered priorities within the plan. It will be the job of the policy committee, a group of elected officials representing the local governments within the boundary, to sort through these comments and find common ground. Having a plan that emphasizes shared visions and goals will be the key to success.

There is no one silver bullet in the fight against NPS pollution and this plan will not solve all the problems. However, trends in water quality are often best viewed over a long period of time and small improvements upstream often have lasting positive impacts on downstream neighbors. It is the hopes of us at Sibley SWCD that the next step in the evolution of water planning provides measured progress we can be proud of.



Lower MN River—West CWMP Boundary

Sibley Soil & Water Conservation District

Sibley SWCD

Joel Wurscher,
District Manager

Jeremy Buckentin,
District Technician

Jack Bushman,
Conservation Technician

Eric Miller,
Farm Bill Technician

SWCD Board

Kathleen Thies - District 1

Paul Wiemann - District 2

Loren Evenson - District 3

Wayne Grams - District 4

Robert Nielsen - District 5

Board Meetings

Second Tuesday of
Each Month
4 p.m., SWCD Office

USDA - NRCS

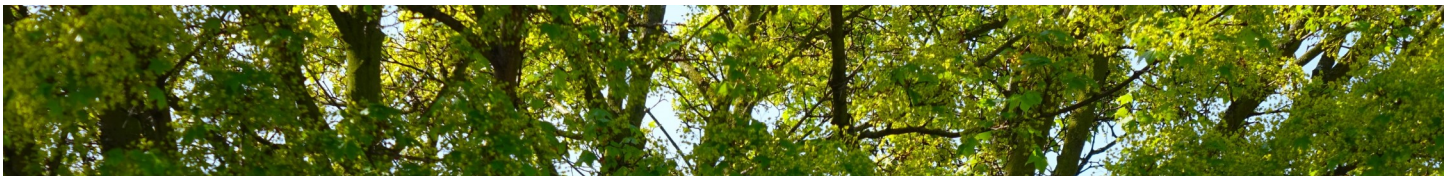
April Sullivan,
District Conservationist

Katelyn Mattila,
Soil Conservationist

USDA

Office Hours

Monday - Friday
8 a.m. - 4:30 p.m.



NRCS: What we have been up to…..

By: April Sullivan, District Conservationist

2020 already has been a year that we will not soon forget in many ways. We have been busy learning and implementing new changes to programs from the 2018 Farm Bill. Not a lot of major changes, but ones that change how we are doing business. This year we got a new software program to process our conservation planning. With all things new, there is a learning curve. Shortly after rolling out that new program, we were hit with COVID-19 and yet another change to how we operate. We have adapted and found other ways of conducting business with our producers. It has not stopped us, as we have been keeping busy.

EQIP (Environmental Quality Incentives Program) had a successful sign up for numerous practices. We worked through conservation planning with 38 producers to help fix a resource concern on their operation or help to transition into more conservation practices. Practices we worked on are 329- No-till/Strip-till, 340-Cover Crop, 316-Animal Mortality Facility, 360 Waste Facility Closure, 412-Grassed Waterway, 410-Grade Stabilization Structure, 638-Water & Sediment Control Basin; 528 Prescribed Grazing; CAP-Conservation Activity Plan; 325-Seasonal High Tunnel; 600-Terrace.

CSP (Conservation Stewardship Program) also held a sign up with 13 producers taking the leap to further their conservation efforts. This program provides a small payment for conservation you are already completing on your operation as well as requiring you to step up and try something new. This program has been popular in the 2 counties for quite some time. Lots of conservation efforts being taken to the next step.

CRP (Conservation Reserve Program) has been busy as well. With a general signup held last fall and the on-going Continuous sign-up that runs through August we have been completing site visits for current stand evaluations and writing conservation plans.

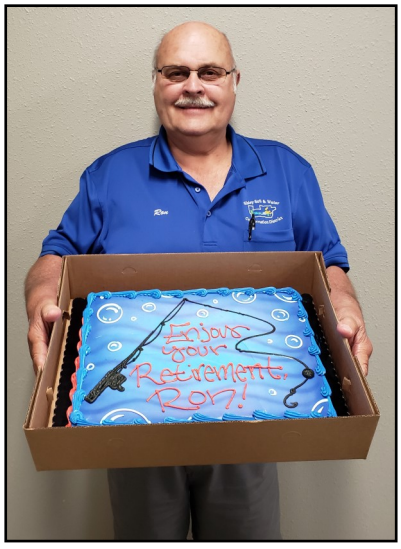
If you have any resource concerns on your operation, don't hesitate to give us a call and see what we can help you with. Don't wait too long, we need some planning time in order to apply for program assistance. Our office continues to be closed to the public, so a phone call or email works best. You can reach us at 507-237-5435 ext. 3 or by email at april.sullivan@usda.gov

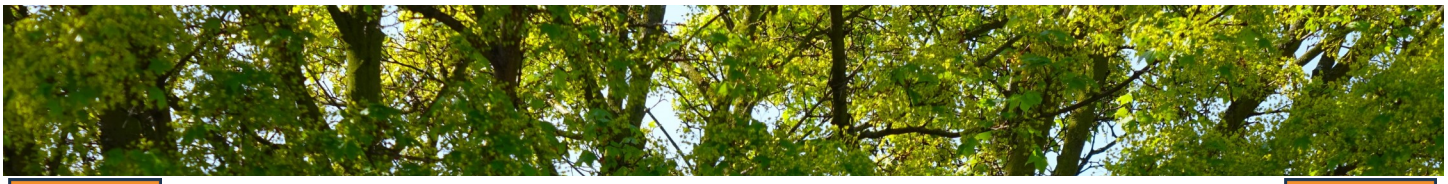
Ron Otto Retires From the District

Ron Otto retired as of June 30th from his position as the Water Planner with the Sibley Soil and Water Conservation District. Ron Otto has been an integral part of the conservation world in Sibley County for many years and his contributions will always be valued and remembered.

Ron stated that his most memorable accomplishment was his involvement with the Subsurface Sewage Treatment Systems (SSTS) program. Throughout Ron's career, he worked on 272 loans valuing over $3.2 million spread out around the county and within the Rush River and High Island Creek Watersheds.

Ron plans on catching up on some time with the grandkids and fishing, but intends on keeping busy during his retirement. On behalf of every one with the Sibley Soil and Water Conservation District, we would like to wish Ron the best of luck with his next chapter in life!





CREP in Sibley County

By Eric Miller, Farm Bill Technician

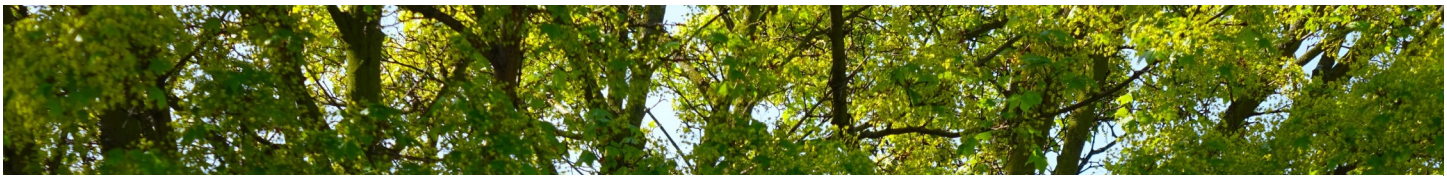
The Minnesota River bottom contains some of the most fertile – and flood-prone – crop land in Sibley County, where landowners are seeing the advantages of the Minnesota Conservation Reserve Enhancement Program (MN CREP). Since the most recent MN CREP sign-up, Sibley Soil and Water Conservation District (SWCD) staff has assisted 19 landowners in enrolling a total of 494 acres. Of those landowners, 9 of them enrolled 148 acres along the Minnesota River bottom. This voluntary program targets the highest priority areas across 54 counties in southern and western Minnesota. Landowners enroll up to 15-years of federal Conservation Reserve Program contract simultaneously with a perpetual Reinvest in Minnesota (RIM) conservation easement with the state.

MN CREP aims to permanently protect land, restores hydrology, increases infiltration, provides flood mitigation, wildlife habitat, and reduces nitrate-loading in drinking water supplies. According to the Minnesota River- Mankato Watershed Total Maximum Daily Load Study, causes of impairments include high levels of Escherichia coli (E. coli), total suspended solids (TSS), nitrate, and total phosphorus (TP). All of which affect aquatic life (macroinvertebrate and fish communities), aquatic recreation (suitable for swimming and other forms or recreation), drinking water, and limit resource values designated uses. Protection and restoration of land within the Minnesota River not only makes a difference for the river, it also makes a difference in the Mississippi River (as it converges). The Minnesota River bottom plays a key part in conservation in Sibley County. The interaction between the soil, hydrology, and biotic communities within the river bottom serves many important physical, biological, and ecological functions. Deep roots and vegetation slow down the process. The river will always cut, but vegetation helps hold soil and mitigate impacts. During floods, permanent vegetation slows down the flow, allowing sediment depositions outside the river channel, trapping more sediment in the floodplain areas. During regular flow, more sediment is held in the uplands and heavy water flowing off the bluffs is lessened. This results in reductions of sediment transportation and nitrate loading along with improved habitat for fish and macroinvertebrates communities. Although the river bottom produces some of the most fertile land in the county, increased rainfall events, both heavier and more frequent, make it more subject to flooding. For landowners, this results in loss of crops and/or inability to plant.

Of the 379,600 total acres in Sibley County, there are around 30 miles of river and 9,247 acres within the Minnesota River floodplain (100 and 500 yr.). Sibley County contains an estimated 2,668 acres of crop ground potentially eligible for enrollment within the floodplain. MN CREP gives landowners options, rather than fighting the unknown question of what the river will do, or debating if they will get a crop in. It also provides a piece of mind for what will happen to crop insurance prices if they get flooded out again. By removing the "what if's," enrolling in the program tends to make sense for landowners. In total there are 670 acres of easements held by the Board of Water and Soil Resources through the Reinvest in Minnesota program (not including the 148 acres in the most recent MN CREP signup) and 297acres of other state and federal easements in the floodplain.

Since MN CREP enrollment opened in May of 2017, nearly 480 applications have been funded on over 25,000 acres. MN CREP will continue to accept applications until the funds are exhausted or the acreage goals in the CREP agreement are reached.

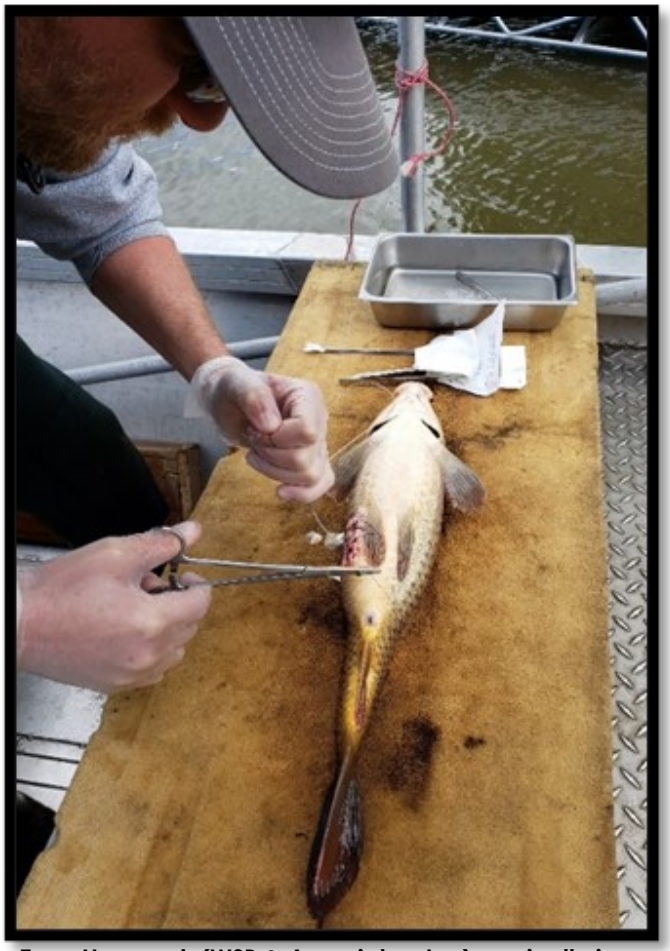
If you are interested in enrolling your land in the MN CREP program. Please reach out to the Eric Miller, Farm Bill Technician, at the Sibley SWCD office at 507-702-7077.



Carp Management on Clear Lake

By Joel Wurscher, District Manager

In 2014, a tax bill was passed that provides funds for aquatic invasive species (AIS) prevention. Each year, around $10 million is provided to Minnesota counties to support AIS prevention programs. Locally, these funds have led the District to developing several exciting new programs including common carp management on Clear Lake.

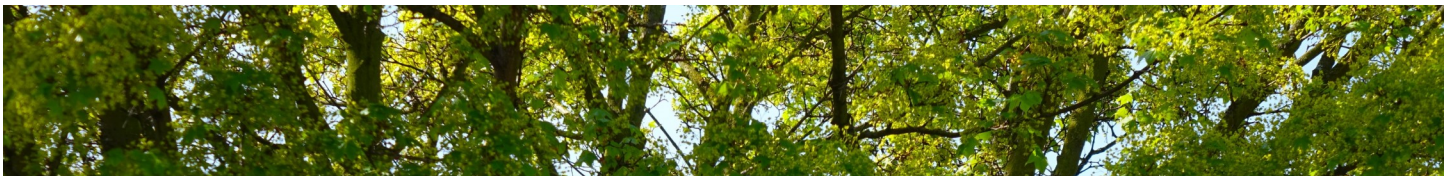


Tony Havranek (WSB & Associates, Inc) surgically implants a radio transmitter into a female common carp.

Clear Lake is located South of Gibbon on the Sibley/Nicollet County Line. Clear Lake consists of approximately 526 acres; 289 acres of which reside in Sibley County. Frequent low dissolved oxygen events have led to common carp thriving with little to no competition. Clear Lake is considered a hyper-eutrophic lake exhibiting low density and low species richness of aquatic vegetation. In 2019, to facilitate and guide through the carp management process, the District hired WSB & Associates, Inc. The first step taken was to complete an assessment of the population and biomass levels of common carp. Those results determined that additional carp management would be necessary and that an integrated pest management (IPM) approach, should be used moving forward.

Common carp (Cyprinus carpio), are indigenous to Eastern Europe and Western Asia. They were first introduced in the United States in the late 1800's. Since introduction, common carp spread quickly across the United States. In Minnesota, common carp are widespread and often found in high abundance. Common carp can negatively impact native ecosystems, fish populations, and water quality by their feeding and spawning behavior. When carp are abundant, the abundance and distribution of native plants decline, nutrients (phosphorus) and chlorophyll-a (algae) increase, and water clarity decreases. Carp root in lake sediments, destroying native vegetation that would otherwise stabilize lake sediments. Their rooting behavior also disturbs and entrains lake sediments, which carries phosphorus into the water column. By these mechanisms, carp behavior directly increases phosphorus loading, which fuels algae blooms.

In the Fall of 2019, WSB and the District completed initial carp population estimates using an electrofishing catch per unit effort model. This model used the number of carp caught per unit of time to calculate the number of individual carp per acre. The average weights of captured fish were then used to calculate a carp density estimate. Carp captured have been marked with a clipped pelvic fin. Over three survey periods and 14 separate transects, it was determined that carp density in Clear Lake was around 289 lbs./acre. The ecological tipping point for carp density in shallow lakes is 89 lbs./acre; meaning Clear Lake is roughly three times the ecological tipping point value. ***Continued on pg. 5***



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PIT Monitoring Station Setup at the Clear Lake Outlet.

Then, this past spring, the District moved into Phase II of the Clear Lake project with the intentions of collecting fish movement identifying commonly used migration routes and locating spawning sites. This movement data is collected using a two prone approach utilizing radio-telemetry and passive integrated transponders or PIT tag monitoring.

WSB again captured carp while electrofishing and surgically implanted five of them with high frequency radio tags. Five more carp are to be tagged later this fall. The radio tagged fish have been and will be located during the spring and summer carp spawning season to determine where the spawning locations are. In addition to locating spawning/nursery sites and migration routes, telemetry data could aid in locating carp aggregation areas in open water and during ice conditions. This opens up the possibility of being used to guide large scale removal efforts.

WSB and the District also constructed PIT monitoring stations near the inlet of Mud Lake and the outlet located within the County Park. These stations include long-range multi-antennae readers that span the width of the two waterways. While being constructed, WSB implanted 100 common carp with PIT tags. Any time a PIT tagged carp passes through the antennas, it will trigger giving us data showing movement and timing of that movement. This will help determine if a barrier or reconstructed barrier at the two locations would be helpful in restricting carp movement reducing recruitment.

Continued data collection will occur throughout 2020, but time will tell which direction we will take this project. Future phases of the project may include forms of physical or chemical removal, suppression of carp recruitment with the use of barriers, predator species enhancement, and habitat restoration.

More information about AIS and the funds used towards AIS prevention can be found at:
https://www.dnr.state.mn.us/invasives/ais/prevention/index.html

Natural Resources Conservation Service

Conservation Financial Assistance Programs:

CRP (Conservation Reserve Program)
Sign-up runs through August 21, 2020

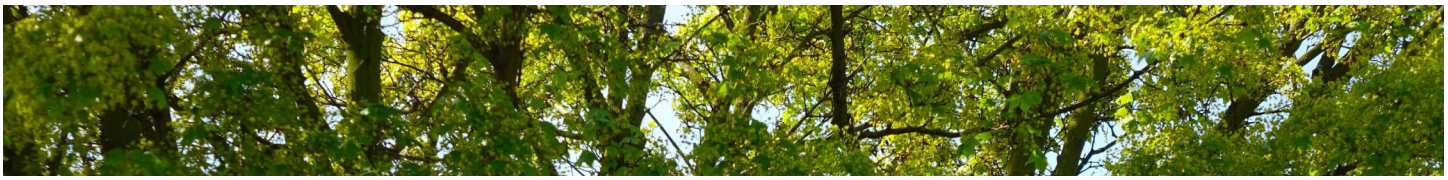
CSP (Conservation Stewardship Program)
Continuous Sign-up
Now Accepting Applications for FY2021 Funds

EQIP (Environmental Quality Incentive Program)
2021 applications are currently being accepted

WRE (Wetland Reserve Easements)
Continuous Sign-up

For more information,
contact the Sibley/Nicollet NRCS Office in Gaylord:

(507) 237-5435 ext. 3



Invasive Plants Update

By Jeremy Buckentin, District Technician

Recently, a collaborative statewide plan to combat invasive plants has been developed with tools to help land managers identify, prioritize, and plan invasive plant management. The Tactical Invasive Plant Management Plan was developed through partnerships between the state of Minnesota, University of MN – Extension, and the Environment and Natural Resources Trust Fund. The primary goals of this plan are:

- Improve access for counties, townships and municipalities to shared invasive plant data and decisions tools.
- Improve coordination of state and local management efforts.

The plan utilizes online databases and tools such as EDDMapS, ISMTRACK, and INaturalist that provides land managers tools to locate and manage existing infestations in their area, as well as report and identify any new areas of infestation when found. Before a newly reported infestation is registered within the tracking database, the plant species is verified by a professional using photos submitted with the location report. Currently, the tactical plan has prioritized 13 species of invasive plants for tracking and managing throughout Minnesota, they include:

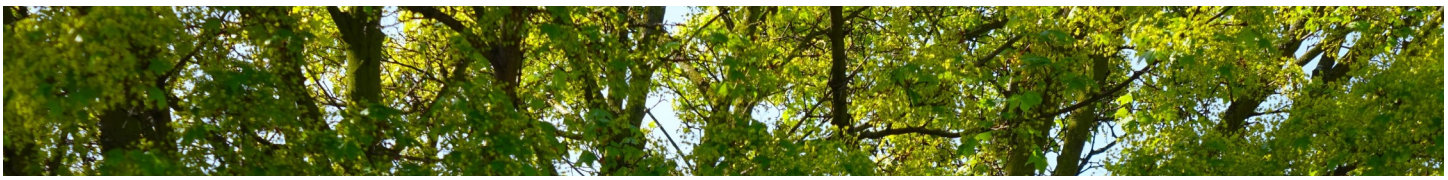
Invasive Species	Associated Impacts
Canada Thistle	Spreads quickly, outcompetes and diminishes native plant diversity
Common Buckthorn	Eliminates plant diversity in forest understory - hosts soybean aphid
Garlic Mustard	Inhibits beneficial fungi causing decline in herbaceous vegetation in 5-7 years
Glossy Buckthorn	Eliminates plant diversity in forest understory - hosts soybean aphid
Knotweeds	Forms dense thickets suppressing native plants in riparian/wet areas
Leafy Spurge	Can be very aggressive in moist to dry areas and displaces native plants
Multiflora Rose	Forms dense thickets that crowd out native grasses, forbs and trees
Narrowleaf Bittercress	Relatively new to MN - outcompetes native vegetation in forest/river areas
Plumeless Thistle	Spreads quickly, replaces native thistle, reduces desirable livestock forage
Purple Loosestrife	Invades wetland type areas, forms dense stands that crowd out native plants
Spotted Knapweed	It is allelopathic, meaning it can stop the germination/growth of other plants
Wild Parsnip	Invades quickly, causes skin blisters/burns if touched and exposed to the sun
Common Tansy	Forms dense stands that degrade wildlife habitat and livestock forage

For more information on the lifecycle and best management strategies of these plants please visit:

- MN Tactical Plant Prioritization https://arcg.is/0ma4zq
- Invasive Plant Control Database https://mipncontroldatabase.wisc.edu

If you would like to become more involved with identifying and reporting invasive plants in your community visit these websites or download their apps:

- EDDMapS tracking database https://www.eddmaps.org
- INaturalist identification tools https://www.inaturalist.org



Monarch Migration, Habitat Plantings and Best Management

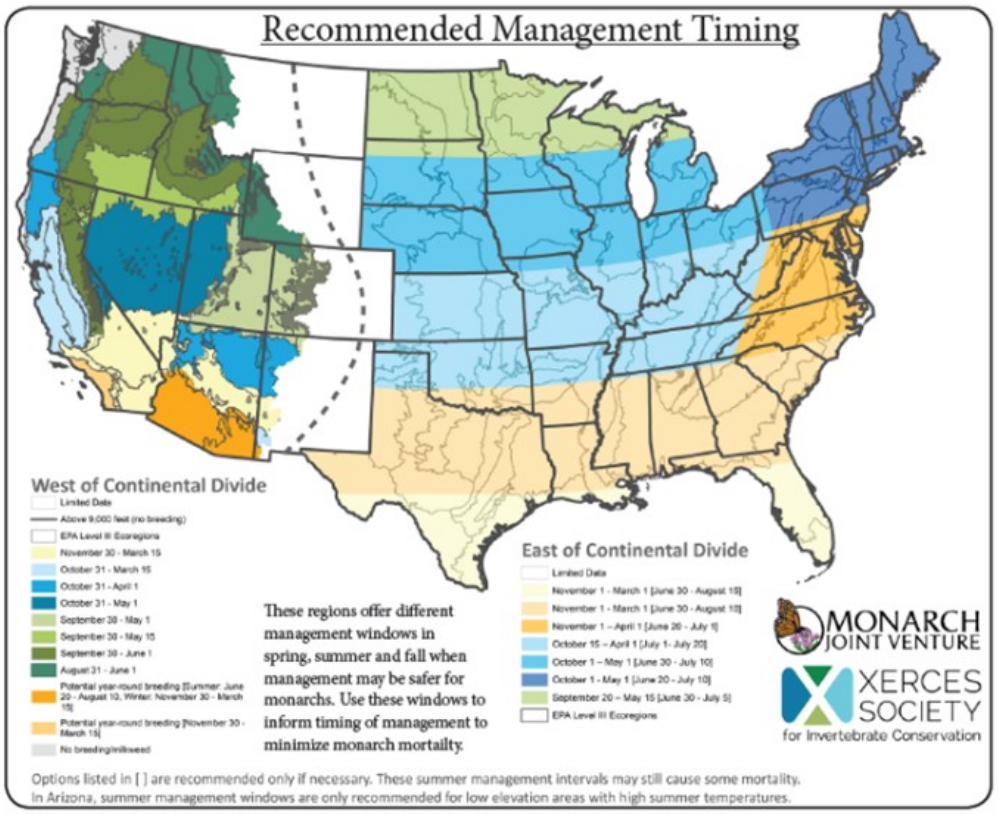
By Jack Bushman, Conservation Technician

A recent visit to the grounds of the new Sibley East Elementary school to check up on our pollinator plantings done with the help of the 3rd grade class revealed one of the first signs of the changing seasons: the monarch migration is beginning!

Monarch Butterflies (Danaus plexippus) on Meadow blazing star (Liatris ligulistylis) at the Sibley East Elementary School.

Until roughly the end of September, Monarch Butterflies from all over the upper Midwest will be traveling through southern Minnesota on their way to the annual overwintering grounds in the mountains of Mexico. This truly awe-inspiring journey by such a small creature can be made easier with a few simple habitat management techniques.

Pollinator plantings like the one done at Sibley East Elementary are a great way to help the Monarch Butterfly. It is no secret that the success of Monarch reproduction is linked to the various milkweed species (https://monarchjointventure.org/images/uploads/documents/MilkweedFactSheetFINAL.pdf), but it is also important to native species that bloom in the fall when planning a pollinator planting. Consider including a species like Meadow Blazing Star, which has been given the nickname "Monarch Magnet", since it blooms later in the year than other species and provides a nectar source for monarchs during an important time.



Another way to help out monarchs as they migrate is by adjusting the way we manage roadsides, drainage ditch buffers, and hay ground. These are common places for monarchs to be found in a landscape that otherwise consists of commodity crops. While these areas are often mowed or hayed, delaying land management until after October 1st, as well as practicing other best management practices, can help give monarchs the resources they need to make their migration successful!

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SIBLEY SOIL AND WATER CONSERVATION DISTRICT

Upcoming Dates:

Monday, Sept. 7, 2020..... Labor Day (Office Closed)
Monday, Oct. 12, 2020..... Columbus Day (Office Closed)
Wednesday, Nov. 11, 2020.....Veterans Day (Office Closed)
Thursday, Nov. 26, 2020..... Thanksgiving (Office Closed)

Conservation Today *is published by the Sibley Soil and Water Conservation District and USDA NRCS*
112 5th St, Gaylord MN 55334. For more information regarding this newsletter, contact (507) 702-7077.