

Iron County Land & Water Conservation Department

2023 Annual Report



The Kaari Creek Watershed project is a large-scale project that was accomplished through partnerships. This project included restoring ~800 linear feet of stream to its historic stream channel and reconnecting the stream to its floodplain.



The mission of the Iron County Land Conservation Department is to provide leadership and promote sound land and water stewardship through education, technical support and consistent program delivery.

2023 Year in Review

Iron County Land & Water Conservation Department

Iron County is small by many standards. The population is about 6,178 people, as a result, we have a smaller county staff in comparison to many other counties. That doesn't mean we don't have big obstacles. We have proven that over and over again in the last 6-8 years, Saxon Harbor, roads washing out, oh I can go on and on. The bottom line is, that we are resilient in this county, we find a way. This year, the Land & Water Conservation Department proved that resiliency once again, with help, of course, a lot of it.

About 3 years ago, the Town of Kimball approached me about a road project. Stateline Road had erosion issues that the town wanted to address. Kaari Creek traveled down the ditch line of the road and with the larger rain events over the years, kept eroding the roadside. It was costing the town time, materials, and money. It needed to be fixed, so they came to the LWCD. While in the design process, the DNR expressed the need to restore the stream to its historical stream channel, including two culvert crossings under the road. We also found there were severe flooding issues throughout the watershed with residents having issues with their driveways washing out, flooded yards, and more. At some point the stream had been relocated to the ditch line of Stateline Road, disconnecting it from the floodplain and the storage capacity associated with it creating the flooding issues within the watershed.

To address all the issues this would be a big job. It would require 7 culvert replacements, 2 new culvert crossings, and constructing ~800 linear feet of stream with a floodplain attached. It took a few years, but we were able to find funding, complete a design, get permits, and complete all but one stream crossing. The LWCD secured \$400,000.00 between two separate grants for this project and took on the project coordination duties. The last crossing in the system was left out of the 2023 project over concern there wouldn't be enough funding to address it.

This project was able to be accomplished through partnerships. Without the collaboration of private landowners, Town of Kimball, Iron Co Highway Dept, Iron Co Forestry Dept, WDNR Fisheries and permitting staff, DATCP Engineer, private contractors, Town of Saxon, City of Hurley, and Iron County LWCD there would have been no project. This group worked together seamlessly and accomplished this project in a timeline that we were told was impossible.

After construction was completed, in the fall DATCP and Wisconsin Wetlands asked to tour the project to promote hydrologic restoration practices. Agency staff from DATCP, DNR along with WI Wetland staff attended a project tour to see all that was accomplished. The attendees were very surprised by the size of this project and all that was accomplished in the compressed timeframe.

The project came in under budget and the remaining funds were extended to allow us to complete the final stream crossing in 2024. This project proves big things come in small packages. Iron County though small, can tackle big problems and do a great job!

Sincerely dedicated to conservation,

Heather Palmquist
County Conservationist/ Department Head

Iron County Land & Water Conservation

The mission of the Iron County Land & Water Conservation Department is to provide leadership and promote sound land and water stewardship through education, technical support, and consistent program delivery.

<u>LCC Committee</u>		<u>LWCD Staff & Support</u>	
Roy Haeger	Chairman	Heather Palmquist	Conservationist/Dept Head
Karl Krall	Vice-Chairman	Zach Wilson	Conservation Specialist
William Thomas		Matthew Bolen	Wildlife Damage/Ag Tech
Kurt Wolff		<u>Natural Resource Conservation Service</u>	
Dale Wehmas*	Citizen Representative	Michael Blount	District Conservationist
		Todd Norwood	Soil Conservationist
		Jill Malecki	Soil Conservation Tech

* Denotes Non-County Board Member

Land Conservation Committees were created under Chapter 92.06(1)(a), Wis. Stats. and have local responsibility for natural resource issues related to erosion control, sedimentation and nonpoint source pollution, and other duties as directed by the county board.

Administrative Activities

- Administered **\$133,256** in DATCP staff and support funding for the department in 2023.
- Administered **\$49,210** of DATCP conservation project cost-share funding.
- Administered **\$29,542** in funds for the Wildlife Damage Program.
- Administered **\$328,369** in funds for the Kaari Creek Watershed Project and coordinated project.
- Coordinated the Native plant sale including **\$14,539** in sales.
- Administered a **\$16,268** DNR Surface Water LMPN Grant.
- Developed & administered the department's budget.
- Filed all reimbursement requests and grant reports.
- Served on Youth Education Committee.
- Served on Great Lakes Committee.
- Served as the NW Land & Water Conservation Association Coordinator.
- Served on the Area Interagency Training Committee (AITCOM).
- Assisted in coordinating 2 stream crossing workshops for townships and county road crews.
- Attended the WI Land+Water Conservation Association annual conference.
- Attended County Conservationist meetings.
- Provide conservation technical planning for IC Forestry, 3 townships, and 3 private landowners.
- Projects designed totaled **\$387,260** for the year.
- Attended Wisconsin Land+Water Conference.
- Conducted 22 site visits for landowners.
- Designed, administered, and served as project manager for Kaari Creek Watershed Project.
- Completed 6 past project checks.
- Supervised staff.

Budget Summary *(includes actual expenses & approximate revenues)*

	2023	2022	2021	2020	2019
DATCP Salary Grant	\$133,256	\$128,565	\$111,729	\$108,529	\$102,925
DATCP Cost-Share	\$19,884 <small>(\$29,326 extended)</small>	\$46,642	\$76,305	\$55,215	\$49,509
Wildlife Damage	\$29,542	\$28,721	\$20,688	\$18,528	\$13,530
Native Plant Sale	\$14,539	\$9,478	\$3,472	\$4,886	\$6,172
Marten Project	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Natural Resource Found.	----	----	----	\$5,000	\$4,875
U.S. Fish & Wildlife	----	----	----	\$30,500	----
DNR AIS Grant & Xcel	\$25,523	\$25,087	\$24,597	\$8,232	\$8,071
DNR Lake Grants/Misc.	----	----	\$27,557	----	----
FPP/Coastal Management	----	----	----	----	\$12,995
DATCP/Trout Stamp Kaari Creek Project	\$328,369 <small>(\$69,701 extended)</small>	----	----	----	-----
Other	\$4,085	\$7,001	\$2,641	\$3,140	\$9,516
TOTAL Revenue:	\$563,198	\$253,494	\$274,987	\$242,030	\$215,593
Dept Expenses:	\$588,582	\$272,062	\$325,796	\$269,543	\$260,098
County Cost:	\$25,384	\$18,568	\$50,809	\$27,513	\$44,505

The County Cost line in this chart shows the total amount the county contributed to the department's budget.

*****In 2023, the county's cost was approximately 4% of the total LWCD's operating budget.**

Water Resource Management (LWRM) Plan

Chapter 92 of the Wisconsin Statutes grants authority to Land Conservation Committees (LCC) to set policies for local soil & water resource management. Their policies are administered through the LWCD.

The purpose of the Land & Water Resource Management Plans is for the counties to assess their individual resources, concerns, and plans for addressing concerns. These plans are approved for a 10-year period, with a review 5 years into the plan. These mandatory plans are reviewed by the WI Land & Water Board in order for counties to receive their funding from DATCP.

Implementation of the plan is driven by the annual work plan, which includes goals, and activities identified by the LCC and the public.

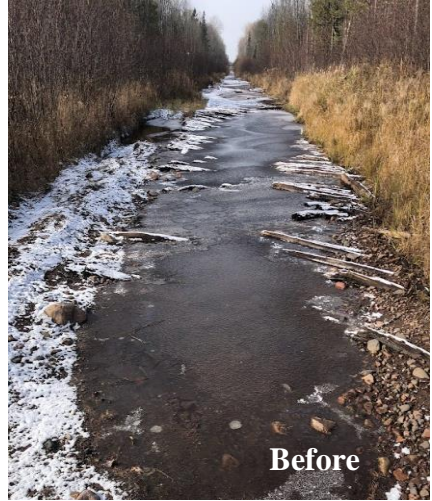
Agricultural practices, streambank stabilization, riparian habitat restoration, and technical assistance to Towns continue to drive the conservation practice workload of the department. In 2023, we fielded more than 22 site visits and numerous responses to technical requests.

The LWCD works cooperatively with agencies and county departments as opportunities arise including the Forestry, Highway, and Zoning Departments. The department is committed to a strong partnership with youth and adults through lake groups, Hurley & Mercer Schools, Fe University, and more.

The table below summarizes the projects funded in 2023 through the Cost-Share Program.

Completed LWRM Cost Share Projects – 2023 (pictures start on page 5)						
Project Type	Name	Total Cost	DATCP CS \$	Other \$	Source	Landowner
Stream Crossing - 2022 C/O	Kaari Creek Watershed	\$328,368.43	\$50,000.00	\$278,368.43	Trout Stamp	\$0
Stream Crossing	Iron County Forestry	\$25,526.00	\$12,763.00	NA	NA	\$12,763.00
Critical Area Planting	Melink – Trude Lake	\$10,173.00	\$7,121.50	NA	NA	\$3,051.50
TOTAL:		\$364,067.43	\$69,884.50	\$278,368.43		\$15,814.50

2023 DATCP Funded Conservation Practices



The culvert on this unnamed stream was undersized and had failed. The road often flooded depositing sediment in the stream. We installed a large pipe and built the road up around the stream crossing.

Stream Crossing Iron Co Forestry – Camp 7 Rd

DATCP CS:	\$12,763.00
Landowner:	\$12,763.00
Total:	\$25,526.00



Critical Area Planting Melink – Trude Lake



Before

This property owner had a failing sea wall made of cedar posts, last year we replaced that with riprap and this year we restored the shoreland buffer area with native plants to help hold the shoreline in place and add wildlife and pollinator habitat.

DATCP CS:	\$7,121.50
Landowner:	\$3,051.50
Total:	\$10,173.00



2023 DATCP & Trout Stamp Funded Conservation Project – Kaari Creek Watershed



This project included 4 culvert replacements on town roads, 2 new culvert crossings on town roads, and 2 culvert replacements on private driveways where Kaari Creek flowed.



Clearing the new stream corridor area.



Harvesting material for the stream habitat construction.



Installing a spider log for brook trout habitat in the new stream channel.



Spider logs installed on an outside bend in the new stream channel, brook trout will seek shelter under the new stream habitat.

Kaari Creek Watershed Project Continued



New stream channel completed, seeded, and erosion blanket installed.



Laying timber matting for stream work in a wetland area.



Flushing the new stream section to wash away sediment and get to a harder structure.



City of Hurley's vac-truck removed the water flushed through the new stream section to remove the sediment and water before connecting the stream.



Vegetation growing and stream connected after project was completed.



Two brook trout below a culvert downstream of the project. This crossing was done by LWCD in 2018.

Land & Water Resource Management (LWRM) Plan

Promoting land and water conservation outreach is the number one priority of Iron County's LWCD. The department dedicates a vast amount of time, energy, and funding to promote stewardship and resource protection to students, farmers, municipalities, elected officials, landowners, and the general public. This is the only department in the county that fills the niche.

Iron County participates in the state and regional Conservation Poster & Speaking Contest sponsored through the WI Land & Water Conservation Association. The 2023 poster theme was "One Water". There were 41 participants from Hurley and Mercer's Art, Science, and English classes. At the county level, elementary and junior division poster and speech winners were 7th-Grade student Emma Galloway, who won 1st place in the junior division, and Mercer's 5th Grade student Zoie Babcock. Zoie received 1st place at the local competition and 3rd place at the regional speaking competition.



Mercer School -Conservation Posters

Wisconsin Conservation Camp

June 19-22, 2023, 20 kids participated in WI Land+Water Conservation Camp for high school students. Campers came from across the state to participate in Iron County's Loon Project learning about loon ecology, water quality, shoreland development practices, and native plants. They also enjoyed paddling on Trude Lake learning about shoreland stabilization practices that the LWCD had installed with landowners. Students visited the Little Turtle flowage and assisted in bird banding which was another highlight of camp!



Campers participated in bird banding on the Little Turtle Flowage.



Campers concluded their Loon Project Day with a photo in front of the famous loon.

Land & Water Resource Management (LWRM) Plan (cont.)

Total Outreach & Education:

Field days, workshops, education programs: 109 programs

Student & adult program attendees: 916 youth and 871 adults

Native Plant Sale brochures distributed: 400

Total Participants: 1787

Misc. Education Activities - (number of events); # participants

- **Woods & Water (49); 70 students**
- **School programs (55); 916 students**
- **Lake Association talks (11); 163 participants**
- **AIS education programs (49); 628 attendees**
- **CLMN Water Quality (6); 11 participants**
- **Terrestrial Invasive (7); 135 participants**
- **Conservation poster contest; 27 students**
- **Conservation speaking contest; 14 students**



Curly leaf pondweed hand pulling event- Pike Lake.



Hurley 7th grade students once again helped pull garlic mustard at a private landowner's property along the Montreal River.

Invasive Species Program

Iron County's Aquatic Invasive Species (AIS) program is strong and successful and is now in its 16th year. The program has proven to be essential, educating the public, providing resources, and helping fight invasives throughout Iron County. This year we hired 3 summer interns/LTE, through the Xcel FERC licensing agreement, and the DNR - Lake Monitoring and Protection Network grant. The positions were designed as conservation field technicians to work alongside the Conservation Specialist. Together, the crew conducted surveys, created education fliers, controlled, and managed both aquatic and terrestrial invasive species, and conducted the Clean Boats Clean Waters watercraft inspections program.

In addition, the LTE's helped the department improve education and outreach materials, developed educational flyers, and worked on additional invasive species projects. AIS monitoring surveys were done on the following lakes (10 lakes): Turtle Flambeau and Gile Flowage, Saxon Harbor, Montreal River, Lake Michelle, Sandy Beach, Fisher, Catherine, Cedar, and Pike Lake.

Purple loosestrife continues to be a focus on the Turtle Flambeau Flowage. Each year a large workday is organized with volunteers from the lake association, WDNR, and LWCD staff. Based on data collected through the last 10 years, populations of this invasive plant seem to be somewhat under control, but not eradicated. Continued monitoring and management are advised. Three new verified AIS were detected in 2023. Eurasian water milfoil was verified at Saxon harbor and on the Turtle Flambeau Flowage and Rusty Crayfish was vouchered in the Montreal River.



Turtle Flambeau Flowage Purple Loosestrife Workday-WDNR, TFFTL-Assoc. & Iron County Land and Water Conservation Dept.

Education Accomplishments

- Assisted Pike & Rice Lake to help fulfill activities highlighted in the Surface water grant.
- Trained & organized volunteers to hand pull invasives on the Turtle River, Pike, Rice, and Spider Lakes.
- Conducted educational trainings, workshops, and field trips.
- Increased online presence via educational pamphlets, flyers, social media, and Instagram.
- Attended and hosted large educational events: Earth Day, Loon Days, and the Turtle River Watershed forum - 383 participants.

Technical Assistance / Management/ Monitoring

- Treatment of Japanese knotweed, Purple loosestrife, Wild parsnip, Giant hogweed, Garlic mustard, European Marsh Thistle, Yellow iris & Curly leaf pondweed
- Coordinate water quality monitoring volunteers on 35 lakes in Iron County
- Conducted Point Intercept Surveys for Lake Michelle. This will aid in the development of a lake management plan
- Full meandering survey was completed for the Gile Flowage

Woods & Waters Project

Since 1999, Hurley and Mercer students have gained first-hand experience in conducting field research by studying the link between Iron County Forest types, soils, wildlife, and water quality through the Woods & Waters Project. This unique program draws students into the field to study water quality and loons during summer and to study the American marten and the Iron County Forest in the fall/winter.

In April and May, Hurley and Mercer students participated in the Loon Project. In total, 40 students assisted in placing nesting platforms on Lake Michelle, Deer, and Fox Lakes. These students learned how to test water quality, learned about loon ecology, and how shoreline development can impact water quality and loon reproduction.

During the fall of 2023, we started the project off with an introduction to the county forest. Students met Eric Peterson (County Forest Supervisor) at Corrigan's Lookout, where they learned about George A. Corrigan and the county forest. Students also ventured into the forest and out to Saxon Harbor where they learned about invasive forest worms and Lake Superior. Throughout the rest of the year, students learned about forest ecology from soils to forest cover types. Students in Hurley participated in the Wisconsin Trapper Education program, where they went through an intense month-long course, learning about conservation and trapping. The remainder of the year focused on identifying trees and cruising timber for forest management assessments. Students learned about the three ecological landscapes in Iron County, how to conduct tracking surveys, age deer, and survey with game cameras to monitor American marten populations. Lessons occurred each week from October through March.



Students learning about Invasive Forest Worms



Mercer Students Learning about Iron County Forest



Hurley Students Constructing Artificial Loon Nest Platform



Native Plant Sale



The 2023 Native Plant Sale was successful once again. This sale provides an opportunity for landowners to purchase small quantities of native seedlings, grasses, and wildflowers at a low cost. All the plants in the sale are native to northern Wisconsin!

There are many environmental and social values in promoting native species. This supports local nurseries and ensures greater survival because the plants are adapted to northern Wisconsin's climate. Once established, they require less maintenance because they do not need water, fertilizer, or pesticides.

Multiple layers of native plants (groundcovers, shrubs, and trees) provide the essential food, shelter, and space for a diversity of wildlife. These plants have broad and often deep roots, thus reducing soil erosion and promoting water percolation into the soil. As water percolates into the ground, nutrients are absorbed that would otherwise run off into nearby lakes or streams.

The benefits and uses of these seedlings include wildlife value, timber, windbreaks, shoreland habitat restoration, and more.

Proceeds from the Native Plant Sale funded scholarships for Iron County students to attend Youth Conservation Camps, conservation education for teachers, and community conservation projects.

2023 Native Plant Sale:

- ❖ 825 trees & shrubs
- ❖ 32 ferns
- ❖ 3,632 grasses/wildflowers

❖ **4,489** Total Plants Distributed

2022 Native Plant Sale:

- ❖ 775 trees & shrubs
- ❖ 69 ferns
- ❖ 1,504 grasses/wildflowers

❖ **2,348** Total Plants Distributed

❖ Sent 1 Iron County student to the High School Conservation camp.

Wildlife Damage Abatement Program

The Wildlife Damage Abatement & Claims Program (WDACP) was created by the Wisconsin Legislature in 1983 and has been implemented in Ashland, Bayfield, Douglas, and Iron Counties since 1987. Iron County's program is administered out of the Ashland County LWCD office.

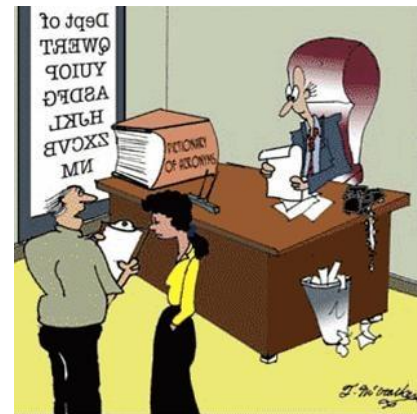
The emphasis of the WDACP is on abatement (alleviation) of damage from deer, bear, turkey, and geese through techniques such as modification of agricultural practices, fencing, live trapping and relocation of bear, repellents, scare devices, and wildlife population control through managed hunting. In the 4-county area, there are a variety of commercial crops being damaged by wildlife including corn, sunflowers, soybeans, buckwheat, forage, apples, cherries, plums, strawberries, blueberries; carrots, beets, beans, and other garden vegetables, cut flowers, honey, and livestock.

ABATEMENT: The wildlife damage program responds to dozens of program inquiries and damage complaints annually. For those people who meet program eligibility requirements, some choose to enroll and implement abatement measures when damage is first reported.

CLAIMS: Matt Bolen, the WDACP Specialist, started managing the claims program in 2022. Program participants must call for damage appraisals at least 10 days prior to harvest to remain eligible for damage reimbursements. They must comply with program requirements and have properly implemented the recommended abatement measures to have their claims approved by the Land Conservation Committees and the WDNR. Iron County had one bear trapping and relocation program participant in 2023, in which, 24 bear were trapped and relocated. In addition, there were 12 additional bears listed as harvested. The 926.76 acres appraised had a determined loss of 526.93 bushels of corn.

List of Acronyms

APHIS	Animal & Plant Health Inspection Service (part of USDA)
BMP	Best Management Practice
CSA	Cost Share Agreement
DATCP	Wisconsin Department of Agriculture, Trade, and Consumer Protection
FPP	Farmland Preservation Plan
FSA	Farm Service Agency
GIS	Geographical Information System
GLIFWC	Great Lakes Indian Fish & Wildlife Service
LCC	Land Conservation Committee
LWCB	Land & Water Conservation Board
LWCD	Land & Water Conservation Department
LWRM	Land & Water Resource Management
NCWMA	Northwoods Cooperative Weed Management Area
NRCS	Natural Resource Conservation Service (part of USDA)
NWLWCA	Northwest Wisconsin Land & Water Conservation Association
SRWA	Superior Rivers Watershed Association
USFWS	United States Fish & Wildlife Service
USDA	United States Department of Agriculture
UWEX	University of Wisconsin Extension
WDACP	Wildlife Damage Abatement and Claims Program
WDNR	Wisconsin Department of Natural Resources
WI Land+Water	Wisconsin Land and Water Conservation Association



"It's time for McWit to leave.
He's learned all the acronyms we use."

Cooperating Agencies

This Department extends an appreciative Thank You for your contributions in our outstanding accomplishments and success in soil & water conservation.

Federal

United States Fish & Wildlife Service (USFWS)

- Ted Koehler, Wildlife Biologist

USDA Natural Resource Conservation Service (NRCS)

- Michel Blount, District Conservationist
- Todd Norwood, Soil Conservationist
- Jill Malecki, Soil Conservation Technician

State

Department of Agriculture, Trade and Consumer Protection (DATCP)

- Kim Carlson, County Liaison
- Stacy Dehne, Engineer

Wisconsin Department of Natural Resources (DNR)

- Zach Lawson, Fisheries Biologist
- Jenna Malinowski, Wildlife Biologist
- Beth Feind, TFF Property Manager
- Nichole Hays, Water Management Specialist
- Jon Simonsen, DOT Liaison

Superior Rivers Watershed Association

- Kevin Brewster, Program Manager

County

Iron County Board & Board Chairman

Iron County Forestry Department

- Eric Peterson, County Forestry Administrator

Iron County Zoning Department

- Erika Roeder, Zoning Administrator

Iron County Highway Department

- Mike Swartz, Highway Commissioner
- Kasey Krall, Highway Commissioner