2024

WISCONSIN ANNUAL REPORT ON SOIL AND WATER CONSERVATION

DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION
FORWARD
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DEPT. OF NATURAL RESOURCES

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Cover image: Cow grazing in a field in Sauk County. Photo courtesy of Alex Elias.

SOIL AND WATER CONSERVATION ON AGRICULTURAL LANDS

Conservation on agriculture lands involves balancing agricultural productivity with the preservation of natural resources and wildlife habitat. This is often achieved through voluntary conservation programs that provide incentives and technical assistance to landowners, creating a win-win approach where both people and the environment benefit.

THE JOINT ALLOCATION PLAN

Wisconsin statute ch. 92 and 281 outline how the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) and the Wisconsin Department of Natural Resources (DNR) shall protect Wisconsin's soil and water resources from erosion and nonpoint source pollution. DATCP allocates grants to county land conservation committees (counties) and other project cooperators through the Soil and Water Resource Management (SWRM) Program. DNR allocates grants to counties through the Targeted Runoff Management (TRM), Notice of Discharge (NOD), Urban Nonpoint Source and Storm Water Management Construction Grant (UNPS Construction), and Urban Nonpoint Source and Storm Water Management Planning Grant (UNPS Planning) programs.

In 2024, Wisconsin awarded $21,724,708. DATCP awarded $18,437,300 and DNR awarded $3,287,408. The Joint Allocation Plan outlines where the funds are allocated and the needs of the various programs. All of the funded practices are on pages 8 and 9.

Stream restoration. Photo courtesy of Monroe County.

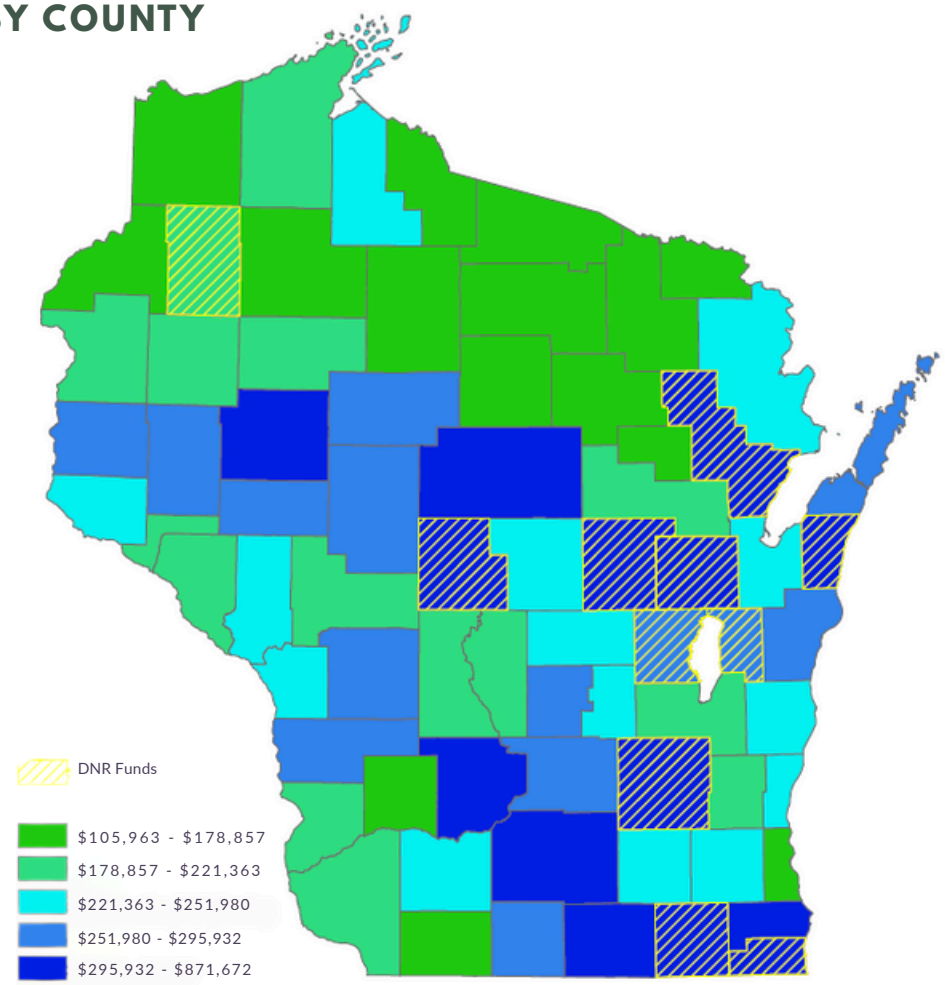
DATCP - AWARDED $18,437,300

The Soil and Water Resource Management (SWRM) program awards grants to county conservation committees and other cooperators. These grants assist in funding county conservation staff and cost-share conservation practices installed by producers with assistance through their county. The funds also can be used to support other project cooperators to carry out special statewide activities that support soil and water conservation.

DNR - AWARDED $3,287,408

The Targeted Runoff Management (TRM) Grant Program offers grants to local governments for the control of pollution from nonpoint sources. TRM Grants reimburse costs for agricultural or urban runoff management practices in targeted, critical geographic areas with surface water or groundwater quality concerns. The Notice of Discharge Grant Program offers grants to local governments to address pollutant discharges to state waters at eligible farms. The Urban Nonpoint Source & Storm Water Planning Grant Program offers competitive grants to local governments for the control of pollution from urban sources.

JOINT ALLOCATION PLAN: TOTAL DOLLARS AWARDED IN 2024 BY COUNTY



STAFF AND SUPPORT GRANTS

In 2024, DATCP awarded $10,962,300 for 117.5 FTE county staff across the state. DATCP awards grants for a county's first position only if the staff is actively engaged in qualified conservation activities. In addition to preparing a 10-year Land and Water Resource Management Plan, DATCP also requires annual work planning and reporting in order to qualify for funding. These requirements build county conservation capacity and better account for the performance of conservation activities using state funds.

As per s. 92.14(6)(b), DATCP "shall attempt to provide funding… for an average of three staff persons per county with full funding for the first staff person, 70 percent funding for the second staff person and 50 percent funding for any additional staff persons." DATCP allocates staffing and support dollars using a formula. Allocated funds are divided into tiers, and a base award of $75,000 is given to each county. In 2024, DATCP fully funded county requests for eligible first positions at the 100% rate and was able to fund 85% of the county requests for the second staffing position at the 70% rate. DATCP had no funding to make awards in round three to fund a county's third position. In 2024, DATCP would have needed $14,000,991 to reach the statutory funding goals – an increase of $3,038,691. Historically, there has been no underspending for staffing grant awards.

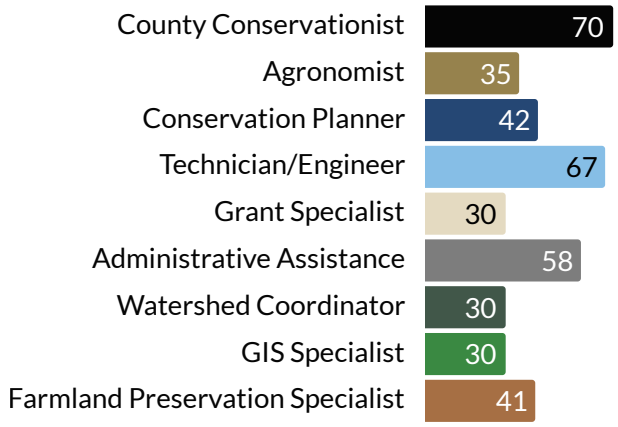
Sheri Denowski, Marinette County Conservationist, teaching students about different soils. Photo courtesy of Marinette County.

Marathon County staff conducting stream testing. Photo courtesy of Marathon County.

The 72 conservation departments across the state work to achieve local and state conservation, and natural resource protection objectives based on the needs of their county. Some top activities include conservation practice planning, design, and installation; invasive species management; cover crop installation; NR 151 implementation; Farmland Preservation Program management; and soil health education.

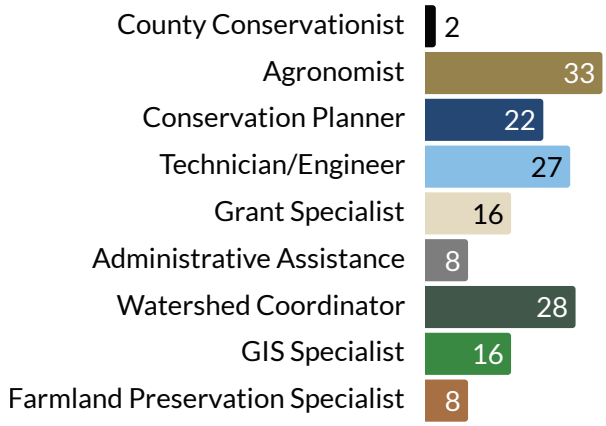
STAFF AND SUPPORT GRANTS

EXISTING COUNTY STAFF EXPERTISE



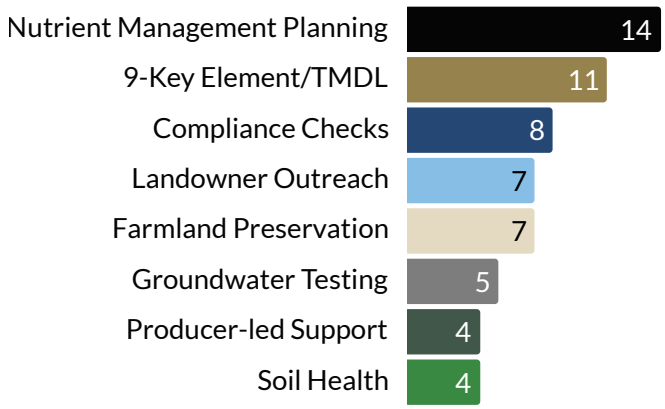
In early 2025, DATCP surveyed all counties to learn more about the trends and realities of staffing in county conservation departments in 2024. The graphs on the left highlight existing staff expertise and areas where counties need additional staff expertise. The majority of counties have a county conservationist and technician/engineer on staff, which are the most common first positions funded via SWRM's staffing grants.

COUNTY STAFF EXPERTISE NEEDS



The biggest expertise need is with agronomists. Soil health is a popular subject landowners are looking to learn more about, and existing county staff may not have the time to answer all of the public's questions. Landowners are interested in reducing nitrogen and phosphorus runoff and reducing soil erosion. An agronomist would be able to support a county soil health program.

WHAT COUNTIES WOULD PRIORITIZE WITH ADDITIONAL STATE FUNDING



The third graph highlights what counties would prioritize if they received the full staffing funding described in statute. Nutrient management planning is the top response from counties. More information on the program is available in DATCP's 2024 Nutrient Management Program Annual Report.

COST-SHARE GRANTS

DATCP awarded **$5,912,384** and DNR awarded **$3,056,965** for cost-share grants:

- $3,500,000 in structural SWRM funds and $300,000 in competitive Engineering Reserve Funds were awarded to counties for cost-share practices to resolve discharges on farms, address priority non-point runoff projects, and provide counties grants for landowner cost-sharing.
- Cost-share dollars are not keeping pace with increased costs for conservation practices. Funding to install structural conservation practices has stayed the same since 2009, but costs have increased.
- $2,112,384 of SEG SWRM funds were awarded to counties for landowner cost-sharing nutrient management and cropping practices to support nutrient management implementation.
- $2,722,307 of TRM funds were awarded to units of local government including cities, villages, towns, Tribal government, and lake districts for the control of pollution that comes from diffuse nonpoint sources of pollution. Grants from the TRM Program reimburse costs for agricultural or urban runoff management practices in targeted, critical geographic areas with surface water or groundwater quality concerns.
- $942,219 of UNPS funds offers competitive grants to local governments including cities, villages, towns, Tribal government, and lake districts for the control of pollution from diffuse urban sources that is carried by storm water runoff. Grants from the UNPS & SW Program reimburse costs of planning or construction projects controlling urban nonpoint source and storm water runoff pollution.
- $1,781,842 was allocated to four NOD projects in calendar year 2024. Grants from the NOD program address pollutant discharges to state waters.

Producer testing soil. DATCP reimbursed $1,254,362 for nutrient management in 2024. Photo courtesy of Andrea Topper.

Cover crops. DATCP reimbursed $805,947 for cover and green manure crops in 2024. Photo courtesy of Dane County.

Grassed waterway. DATCP reimbursed $475,321 for waterway systems in 2024. Photo courtesy of Shawano County.

PRACTICES FUNDED WITH DATCP COST-SHARE DOLLARS

Conservation Practices		Practices Installed	
		Quanitity	Unit
Soil Erosion control	Animal trails and walkways	1,285	feet
	Cover and green manure crop	18,496	acres
	Critical area stabilization	28	number
	Diversions	3,357	feet
	Field windbreaks	24,617	feet
	Filter strips	934	acres
	Grade stabilization structures	45	number
	Riparian buffers	<1	acres
	Sinkhole treatment	1	number
	Streambank crossing	1,688	feet
	Streambank and shoreline protection	10,386	feet
	Subsurface drains	9	number
	Terrace systems	200	feet
	Underground outlet	15	number
	Water and sediment control basins	10	number
	Waterway systems	2,073	acres
Manure management	Manure storage closure	50	number
	Manure storage systems	7	number
	Access roads	1,915	feet
	Banyard runoff control systems	10	number
	Livestock fencing	33,299	feet
	Livestock watering facilities	25	number
	Nutrient management	31,962	acres
	Residue management	1,081	acres
	Roofs	1	number
	Roof runoff systems	7	number
	Waste transfer systems	2	number
Other practices	Hydrologic restoration	3	acres
	Prescribed grazing; permanent fencing	83,707	feet
	Prescribed grazing; establishing permanent pasture	174	acres
	Engineering services	1	number
	Well decomissioning	96	number
	Wetland development or restoration	20	acres

Rotational grazing field in Sauk County. Photo courtesy of Alex Elias.

PRACTICES FUNDED WITH DNR COST-SHARE DOLLARS

Conservation Practices		Practices Installed	
		Quanitity	Unit
Agricultural Best Management Practices	Animal trails and walkways	150	feet
	Barnyard runoff control systems	2	number
	Cover and green manure crop	6,464	acres
	Critical area stabilization	3	acres
	Grade stabilization	6	number
	Lake sediment treatment	674	acres
	Livestock fencing	1,370	feet
	Manure storage closure	6	number
	Manure storage systems	5	number
	Milking center waste control systems	1	number
	Nutrient management	210	acres
	Relocating or abandoning animal feeding operations	1	number
	Residue management	2,280	acres
	Stream crossing	50	feet
	Subsurface drains	1,006	feet
	Underground outlets	5,827	feet
	Waste transfer systems	2	number
	Water and sediment control basins	5	number
	Waterway systems	12	acres
	Wetland development or restoration	3	acres
Urban Best Management Practices	Accelerated or high efficiency street sweeper	2	number
	Bioretention for infiltration	2	number
	Information and educational program	1	number
	Land aquisition	1	acres
	Non-proprietary storm water sedimentation devices	19	number
	Storm sewer rerouting	1	number
	Storm water/erosion control ordinance	3	number
	Urban stormwater utility formation	1	number
	Urban stormwater/erosion plan	5	number
	Wet detention pond	3	number

Completed waterway project. Photo courtesy of Barron County.

NUTRIENT MANAGEMENT FARMER EDUCATION (NMFE) & OTHER PROJECT COOPERATOR (OPC) GRANTS

NMFE TRAINING GRANTS

For 2024, DATCP awarded $377,053, which covered all of the Nutrient Management Farmer Education Grant requests. All grant recipients must sign a contract with DATCP that incorporates the requirements of Ch. ATCP 50.35 and commits the project to developing nutrient management plans that meet the 2015 NRCS 590 standards.

EMPOWERING GRAZIERS

In 2024, Glacierland RC&D, in partnership with the UW Extension Nutrient and Pest Management Team, hosted its first-ever Nutrient Management Planning for Graziers course in Jefferson County. The training welcomed graziers from across the region—representing beef, goats, chickens, and other livestock—to focus on pasture-based nutrient management practices tailored specifically to their operations.

The course emphasized practical strategies for managing fertility in pasture systems, identifying nutrient gaps, and applying only what is necessary to maintain soil and water health. Participants received hands-on guidance on soil sampling techniques, identified optimal overwintering sites, and completed their nutrient management plans with on-site support from NPM and DATCP staff.

Organization	Award
Ashland, Bayfield, Douglas, and Iron counties	$26,940
Columbia County	$14,950
Chippewa Valley Technical College	$30,000
Dane County	$14,600
Eau Claire County	$19,250
Glacierland RC&D	$23,000
Green Lake County	$12,628
Kewaunee County	$23,700
Lafayette County	$9,750
Manitowoc County	$14,100
Marathon County	$1,350
Marathon, Taylor, Clark, Lincoln, Portage, and Wood counties	$42,890
Marquette County	$22,000
Northeast Wisconsin Technical College	$14,297
Ozaukee County	$3,000
Sauk County - MATC Reedsburg	$21,500
Sawyer County	$18,936
Southwest Wisconsin Technical College	$20,000
Trempealeau County	$20,262
Vernon County	$20,900
Washington County	$3,000

NUTRIENT MANAGEMENT FARMER EDUCATION (NMFE) & OTHER PROJECT COOPERATOR (OPC) GRANTS

OTHER PROJECT COOPERATOR GRANTS

In 2024, DATCP awarded $1,002,913 to organizations that support statewide conservation goals. ATCP 50.30(3) outlines priorities for this funding - cost-effective activities that address and resolve high priority problems, projects that build a systematic and comprehensive approach to soil erosion and water quality problems, and projects that contribute to a coordinated soil and water resource management project without duplication of effort.

UW- MADISON COLLEGE OF AGRICULTURAL AND LIFE SCIENCES

In 2024, UW CALS received $596,000 from DATCP for nutrient management education and training and SnapPlus maintenance and development.

WI LAND + WATER

In 2024, WI Land + Water received $260,732 from DATCP to build capacity to deliver and coordinate conservation training statewide, including implementation of recommendations from the statewide interagency training committee (SITCOM). Funds were also awarded for costs related to Conservation Observance Day.

The Standards Oversight Council (SOC) was awarded $42,000 to support statewide capacity to develop and maintain technical standards for conservation programs.

UW-SOIL AND FORAGE ANALYSIS LAB

In 2024, UW SFAL received $18,005 from DATCP to support the nutrient management soil lab certification program.

COMMERCIAL NITROGEN OPTIMIZATION PILOT PROGRAM SUPPORT

In 2024, UW Extension received $86,176 from DATCP to fund a position focused on program outreach for the Commercial Nitrogen Optimization Pilot Program.

SUCCESS STORIES

ASHLAND COUNTY - NATURE-BASED SOLUTIONS TACKLE FLOODING

The Marengo River Watershed in Ashland County faced escalating flood risks from steep terrain, erodible soils, and increasingly severe storms. Repetitive flood damages plagued vulnerable road crossings and farmlands as degraded headwaters lost their natural capacity to store and slow floodwater.

Through Wisconsin Act 157's pilot program, Ashland County received $150,000 to implement three demonstration projects showcasing nature-based flood reduction from the DNR. The project team leveraged this funding to secure an additional $325,000 for complete project implementation. Ashland County's Land and Water Conservation Department led the Act 157 project in collaboration with engineering staff from the Wisconsin Department of Agriculture, Trade, and Consumer Protection; WI Wetlands Association; and other collaborators.

The solutions included installing post-assisted log structures at Tody Ravine to reconnect streams with floodplains, creating wetland scrapes at Fischbach Wetland to capture and slow runoff, and constructing Zuni Bowls and grassed waterways at Berweger Farm to stabilize severe gullying.

The combined results of these projects are impressive: 644 tons of annual sediment reduction, 401 pounds of phosphorus capture, and over one million gallons of stormwater managed per rain event, while restoring natural flood storage capacity across the watershed.

Before and after drone photos of the wetland restoration project. Photos courtesy of Ashland County.

SUCCESS STORIES

BROWN COUNTY - TAKING ON DISSOLVED PHOSPHORUS

When Brown County LWCD identified field sites with existing tile drainage systems and soils testing high in phosphorus, they recognized the need for innovative solutions to address dissolved phosphorus—a pollutant with limited conservation treatment options.

In 2024, Brown County completed construction of two phosphorus removal system (PRS) projects designed to NRCS CPS 782 standards. These top-down systems direct tile drainage into concrete holding tanks containing upper and lower distribution manifolds with Activated Alumina filter media between them. Water control structures regulate flow to achieve proper retention time through the filtering system.

DATCP provided engineering approval and design review while USGS contributes ongoing water testing and monitoring to measure effectiveness. USDA Research Soil Scientist Chad Penn offered critical design expertise and developed the P-trap software used for system design.

Funded through an EPA/GLRI grant, the two systems are designed to capture approximately 205 pounds of phosphorus and remove 30-40% of dissolved phosphorus over their 15-year lifespan. These pioneering projects may help answer crucial questions about the effectiveness of these systems in agricultural settings.

The phosphorus removal system being installed.

Completed project. Photos courtesy of Brown County.

SUCCESS STORIES

JUNEAU COUNTY - MAXIMIZING CONSERVATION IMPACT

Juneau County successfully allocated all available DATCP Structural and SEG cost-share funding in 2024 across 10 diverse projects, including grazing, well abandonments, a small wetland restoration project, and a large manure storage facility.

The county's ongoing project list was robust, which provided flexibility when unexpected delays occurred. When weather conditions pushed one manure pit project two and a half months behind schedule, the county redirected remaining multi-discharger variance funds to ensure project completion without losing allocated resources.

While structural funding is typically spent more easily than the SEG allocation, Juneau County maximized their SEG investment by developing a nutrient management plan covering over 1,400 acres. Staff also collaborated with a neighboring county to secure additional SEG resources, ensuring full cost-share coverage for the landowner.

The county's partnership with NRCS also exemplified their collaborative approach. When NRCS identified streambank restoration opportunities, Juneau County contributed funding for critical area stabilization components, maximizing total financial support available to participating landowners while leveraging multiple funding sources for greater conservation impact.

Seeded waterway with corn in the background.

Completed manure pit. Photos courtesy of Juneau County.

SUCCESS STORIES

LA CROSSE COUNTY - INNOVATION DRIVES SWRM SUCCESS

La Crosse County demonstrated exceptional utilization of DATCP SWRM funding in 2024, supporting nearly 1,700 acres of cover crops at $25 per acre. Of this substantial investment, 1,600 acres were funded directly through SWRM resources, showcasing the program's vital role in local conservation efforts.

Another part of the county's success stemmed from embracing innovative approaches to traditional conservation practices. For the first time, La Crosse County partnered with a producer using drone technology for cover crop seeding. This cutting-edge method allows efficient planting even in hard-to-reach areas while improving soil structure, nutrient retention, and erosion control.

The drone seeding project strategically targeted land enrolled in the Farmland Preservation Program, maximizing conservation impact by combining tax credit incentives with SWRM funding support. County staff will monitor the site throughout the growing season to document results.

Building on this success, the producer has requested additional technical assistance for marking contour strips this spring. These alternating strips will follow the land's natural contours, further reducing erosion and improving soil health while demonstrating how SWRM investments can lead to broader conservation adoption.

Sue Sheehan, Conservation Specialist with La Crosse County, pictured with a drone.

Drone operator (right) and landowner (left). Photos courtesy of La Crosse County.

SUCCESS STORIES

MANITOWOC COUNTY - ENGINEERING SOLUTIONS PROTECT HARTLAUB LAKE FROM EROSION

When severe gully erosion began threatening Hartlaub Lake in Manitowoc County, local conservation staff recognized the urgent need for intervention. Manitowoc County Soil and Water Conservation Department responded with a comprehensive grade stabilizing solution. The project featured a 440-foot rock-lined waterway paired with repairs to a 600-foot grassed waterway section, including a Hickenbottom riser and drainage tile system.

DATCP provided essential support through project cost-share funding and technical expertise from DATCP's engineering team Drew Zelle and Travis Buckley. Additional funding came from DNR's Multi Discharge Variance Program while cooperating landowners Scott Ruthmansdorfer and Clyde Satori contributed crucial local support.

The project significantly reduced runoff from the contributing 120-acre watershed, which now delivers cleaner water to Hartlaub Lake. Annual reductions include 12.42 pounds of phosphorus, 26.3 tons of sediment, and 26.26 pounds of nitrogen, enhancing both water quality and the surrounding ecosystem for years to come.

Downstream photo of the site taken in 2021.

Finished project. Photos courtesy of Manitowoc County.

SUCCESS STORIES

MARATHON COUNTY - REGIONAL NUTRIENT MANAGEMENT FARMER EDUCATION TRAINING PROGRAM: A RECIPE FOR SUCCESS

When the land and water conservation departments in Marathon, Clark, and Taylor counties realized they were individually providing similar nutrient management farmer education training, they recognized an opportunity for collaboration. Nutrient management planning protects water quality and soil health while maintaining farm profitability—and it's required by Wisconsin agricultural performance standards for all farms applying nutrients to cropland. In 2009, these counties united to create the Regional Nutrient Management Farmer Education Training Program.

The program has expanded over time to include the Lincoln, Wood, and Portage County conservation departments, partnering with Northcentral Technical College, Mid-State Technical College, UW Division of Extension, and the UW Nutrient and Pest Management Program. This collaborative approach standardized training across north-central Wisconsin while enhancing resources and expertise.

DATCP provided crucial support through Nutrient Management Farmer Education grants, initially $15,000-$20,000 annually, later increased to $28,850-$53,350 based on program size and success. DATCP staff have also taken increasing roles in program delivery.
The unified effort now trains an average of 55-60 farmers annually, covering approximately 21,000 acres. This collaboration ensures farmers receive consistent, high-quality nutrient management planning education while maintaining farm profitability and improving water quality protection.

Producers attending nutrient management planning training. Photos courtesy of Marathon County.

SUCCESS STORIES

OUTAGAMIE COUNTY - A MANURE STORAGE MAKEOVER

When soil investigations revealed that an aging earthen manure storage system no longer met current NRCS-313 standards, Outagamie County Land Conservation Engineering Technician Quint Krueger knew an upgrade was required. Built years earlier in silty soils, the facility was experiencing sluffing and high groundwater intrusion—creating both environmental and operational risks.

The comprehensive solution began with cleaning out and properly abandoning the earthen pits according to NRCS-360 Waste Closure Standards. Engineers brought in additional clay fill to raise the floor elevation, ensuring proper separation distance from groundwater, while foundry sand reinforced the dikes. A liquid-tight concrete sloped pit with an access ramp designed and installed for efficient sand removal.

DATCP Engineer Travis Buckley provided the technical review of the plans, and the project was implemented with funding from DATCP Engineering Funds along with a DNR TRM Grant. NRCS contributed through Area Engineer Jae Sutherland's technical expertise and EQIP funding assistance.

The transformation delivered immediate benefits by eliminating groundwater discharge risk while providing full-year storage capacity. This eliminates manure hauling or spreading during adverse weather conditions. The concrete liner streamlines maintenance operations for long-term efficiency, making it more manageable to empty the sand bedding after pumping out the liquids.

Concrete liner being poured.

Finished pit. Photos courtesy of Outagamie County.

SUCCESS STORIES

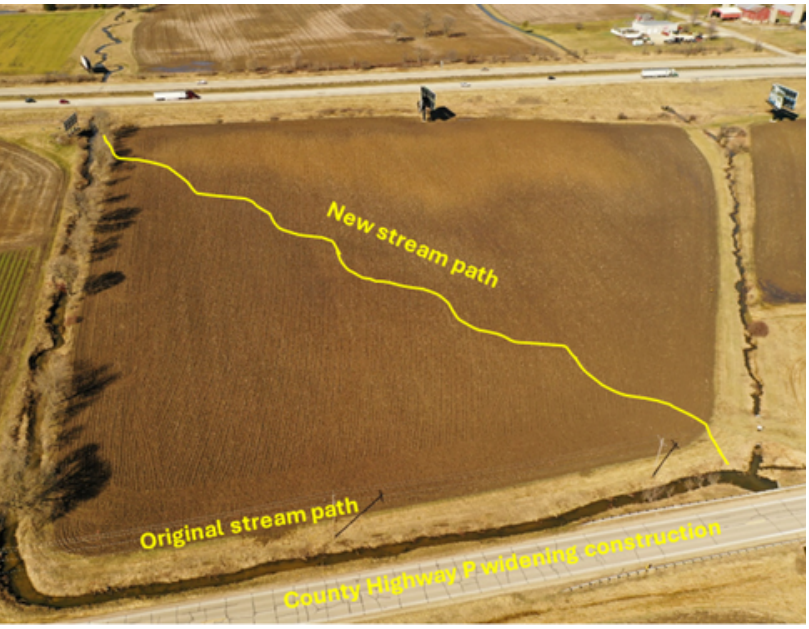
WASHINGTON COUNTY - FROM HIGHWAY HAZARD TO HEALTHY HABITAT: POLK SPRINGS CREEK TRANSFORMATION

When severe erosion along a 1,400-foot section of Polk Springs Creek began threatening County Highway P in Washington County, local officials knew they needed to act. The stream, ditched before 1941, had seen minimal erosion until 2018, when banks began collapsing — some reaching heights of 6 feet.

Washington County Land Resources Division developed an innovative solution: relocating the stream to its historical meandering path through adjacent farmland. The project included wider banks, a natural gravel streambed, and grass buffers on both sides to manage floodwater naturally.

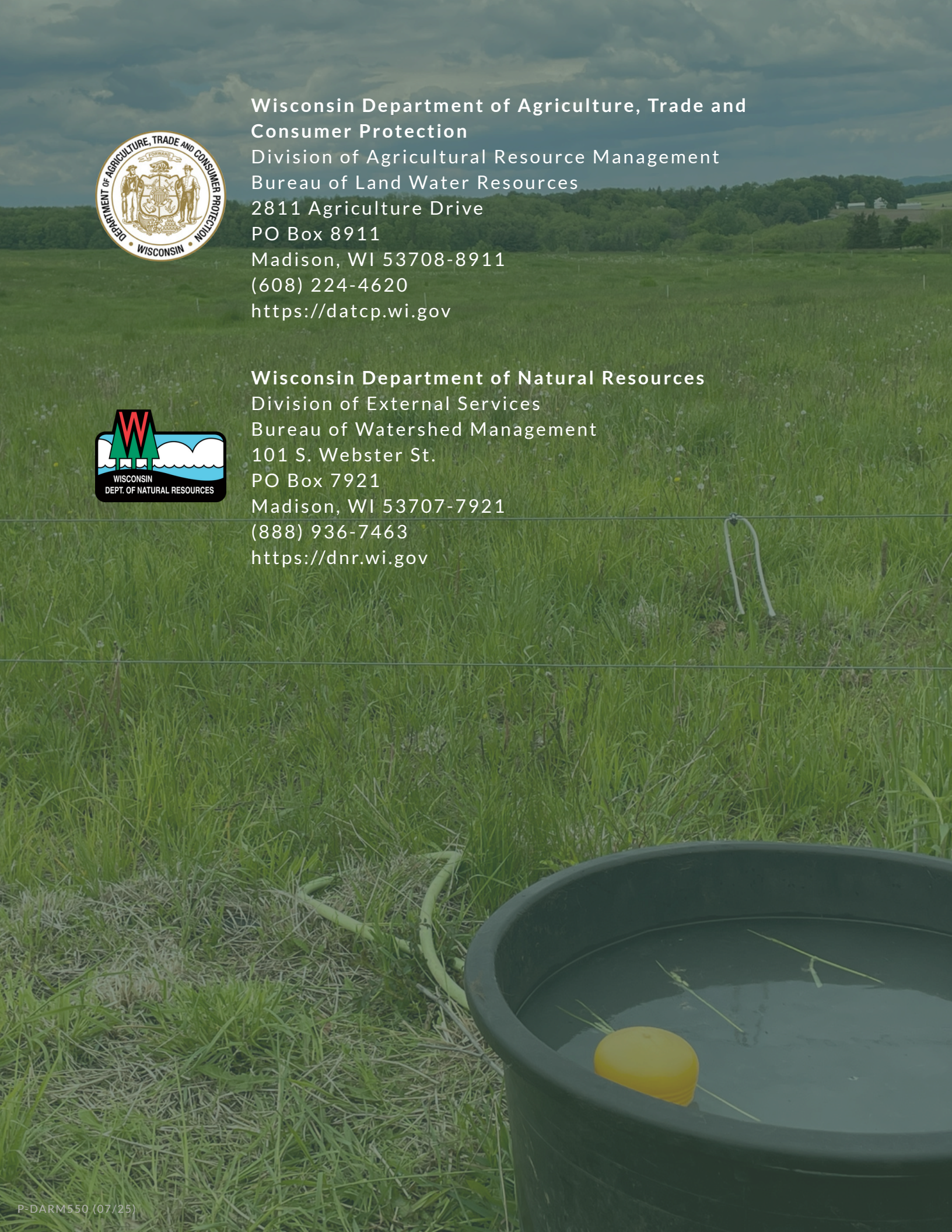
DATCP and NRCS engineers provided critical technical expertise, recommending restoration to pre-ditched conditions. When funding became urgent due to upcoming Highway P reconstruction, the Fund for Lake Michigan stepped in with crucial support, complemented by state and county resources.

Beyond solving the immediate safety concerns, the restoration delivered multiple environmental benefits: improved water quality, enhanced flood management, filtered agricultural runoff, and restored wildlife habitat. Most promising of all, these improvements may eventually welcome trout back to Polk Springs Creek after decades of absence.



Drone photo showing the stream before the project began.

Path of the stream relocation once complete. Photos courtesy of Washington County.



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