Agricultural Chemical Reduction Effort (ACRE)
2025-2026 Implementation Report

April 2026

Introduction

The Agricultural Chemical Reduction Effort (ACRE) Plan is an outcome of the 2020-2030 Dakota County Groundwater Plan, which identified farm chemicals -- nitrate, crop herbicides, and chloride – as risks to drinking water in rural parts of the county. ACRE was developed in collaboration with the agricultural community and with local, regional, and state stakeholder feedback. The ACRE Plan was adopted by the Dakota County Board of Commissioners in October 2022.

The ACRE program focuses primarily on reduction of agricultural related nitrate contamination in groundwater, and addressing other agricultural contaminants where practical, through voluntary adoption of best management practices (BMPs) and alternate management tools (AMTs).

The implementation framework identifies prioritized, targeted, and measurable activities necessary to achieve the Plan goals through four main strategies (1) Collect information for decision making; (2) Increase communication and education; (3) Provide technical assistance; and (4) Provide financial incentives. ACRE Plan implementation is being conducted in partnership with the Dakota Soil and Water Conservation District (SWCD).

2025-2026 Project Highlights

Dakota County was successful in implementing strategies identified within the ACRE Plan in close collaboration with the SWCD, as well as other local, regional, and state community partners. Dakota County was awarded a Fiscal Year 2025 **$50,000 Minnesota Department of Health (MDH), Groundwater Protection - Accelerated Implementation Grant** provided through the Clean Water Land and Legacy Amendment to support Dakota County and SWCD staff time for ACRE implementation activities. Below is a summary of progress toward ACRE objectives from April 2025 – April 2026.

Collect information for Decision Making (Strategy 1)

Dakota County collaborated with several organizations to monitor, model, and collect information to better understand agricultural practices and groundwater conditions in Dakota County. The following is a summary of activities conducted:

Conservation Practice Implementation Tracking (ACRE 1A).

Dakota County conducted the third annual cover crop transect survey to verify conservation practices adopted in the county. The purpose is to collect information on water quality conservation practices being implemented and maintained in rural parts of Dakota County - specifically cover crops.

The cover crop transect survey was the primary method to gather cover crop data. Similar to 2024, a pre-determined route was followed and over 400 field observations were documented, tracking whether fields were left fallow or planted as cover crops. The survey in 2025 was the first year that the methodology was consistent with the year prior, as the survey methodology changed slightly from 2023 to 2024 by increasing stops. Data was used to compare to 2024 data and determine whether adoption is increasing or decreasing in each township. Results indicate that some areas of the county have upwards of 30 percent of fields in cover crops (Figure 1a). It was estimated that seven townships decreased cover crop adoption rates, and eight townships increased cover crops adoption rates in comparison to 2024 (Figure 1b, Table 1).

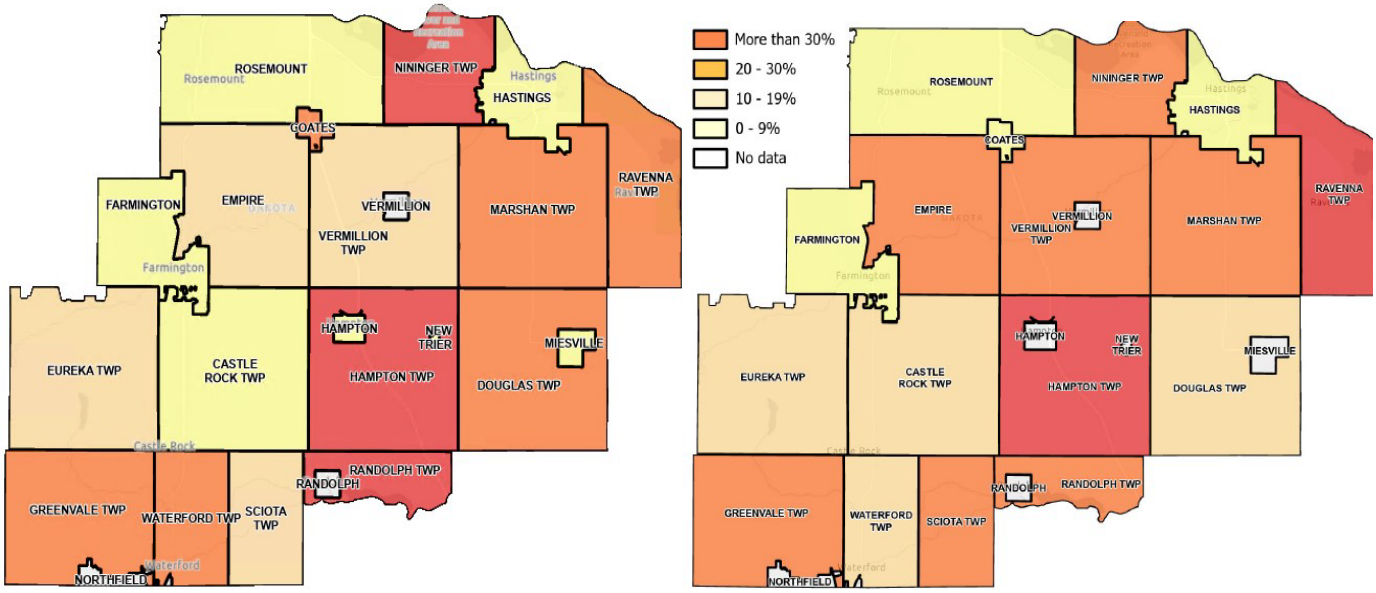


Figure 1. (a) Percent of fields planted as cover crops in 2024; and (b) percent of fields planted as cover crops in 2025.

City/Township	2024 results	2025 results	2024 to 2025 change
Castle Rock TWP	6%	11%	Increase
Coates	25%	0%	Decrease
Douglas TWP	22%	16%	Decrease
Empire	15%	26%	Increase
Eureka TWP	14%	12%	Decrease
Farmington	0%	0%	No change
Greenvale TWP	23%	28%	Increase
Hampton	0%	0%	No change
Hampton TWP	32%	45%	Increase
Hastings	0%	0%	No change
Marshan TWP	26%	23%	Decrease
Nininger TWP	38%	25%	Decrease
Ravenna TWP	22%	33%	Increase
Randolph TWP	46%	25%	Decrease
Rosemount	6%	9%	Increase
Sciota TWP	12%	29%	Increase
Vermillion TWP	19%	26%	Increase
Waterford TWP	21%	18%	Decrease

Table 2. Change in percentage of stops as cover crops per township/city from 2024 to 2025.

This analysis provides a good estimate of how many fields are planted with cover crops, regardless of funding sources or program enrollment, and will facilitate where targeted outreach is needed to achieve adoption rate goals. The full results were summarized in the 2025 Baseline Practice Assessment.

Long-Term Monitoring Network Sampling (ACRE 1B). Dakota County installed 15 shallow groundwater monitoring wells in 2021-2022. The county monitoring well network is meant to complement the MDA monitoring network established within the Hastings' drinking water supply management area (DWSMA). All 15 wells were sampled three times in 2025 (spring, summer, and fall) for water levels, nitrate, chloride, and other general chemistry parameters. After this year's sampling, there was sufficient data to conduct statistical analysis to determine nitrate trends. A Mann-Kendall test was done on each well. The annual ACRE Monitoring Well Network 2022-2025 and the ACRE Well Results Dashboard are updated on the website. Four wells are showing a decreasing trend in nitrate concentration, two wells are showing an increasing trend in nitrate concentration. There were no observable changes in the other wells (Figure 2).

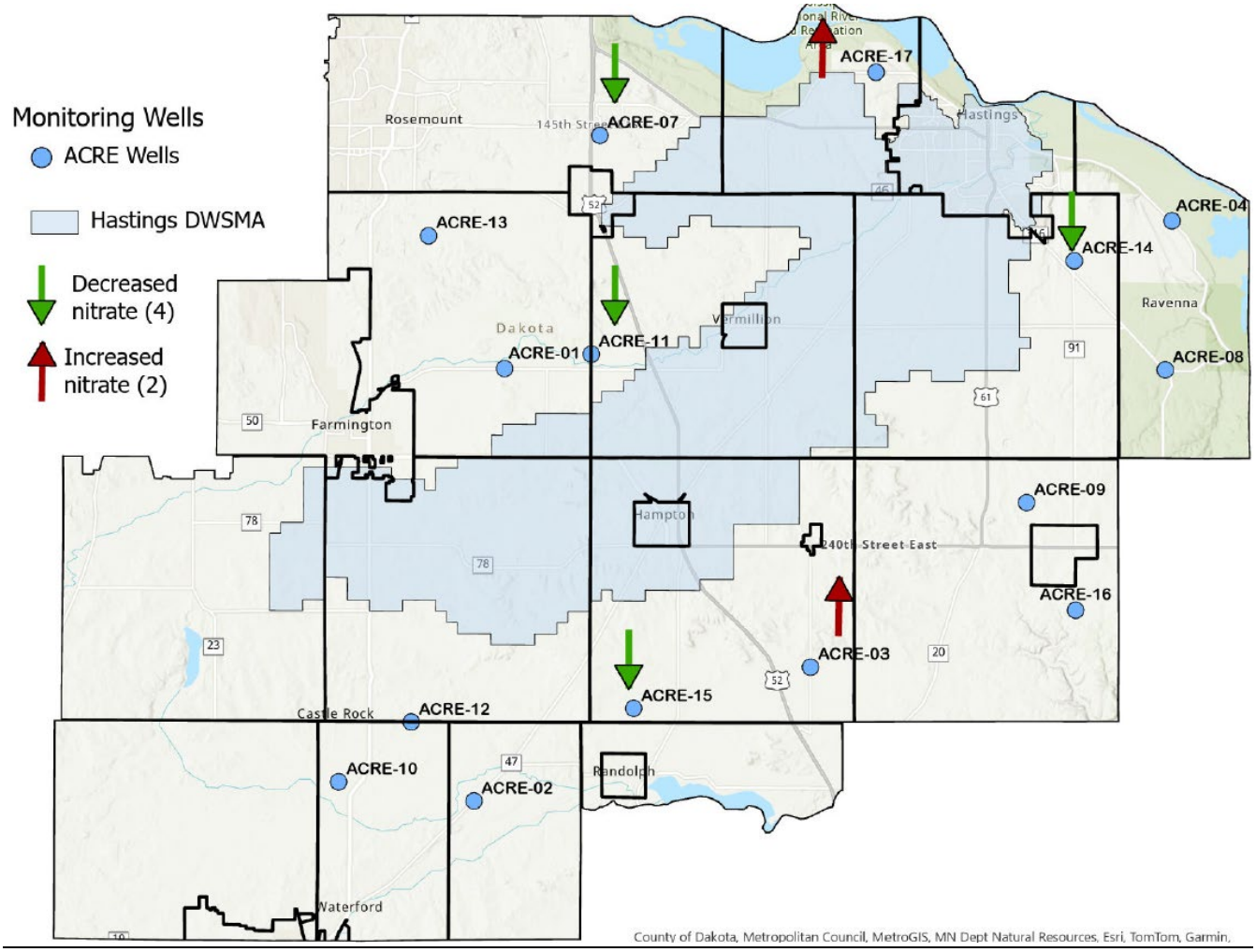
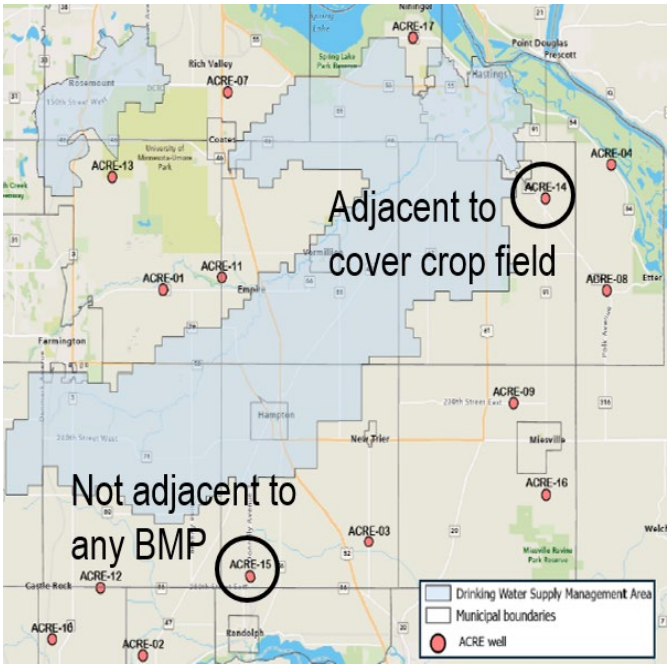


Figure 3.Statistical trends of nitrate concentration for the ACRE monitoring well network.

Dakota County purchased two continuous nitrate sensors in 2024. One sensor was installed downgradient from a field planted with conventional crop management, while the other was installed downgradient from a field enrolled in cover crop programming (Figure 3a). The sensor in ACRE-14 was malfunctioning and was being serviced for much of 2025. The sensor in ACRE-15 worked well throughout the year, and data was collected (Figure 3b).



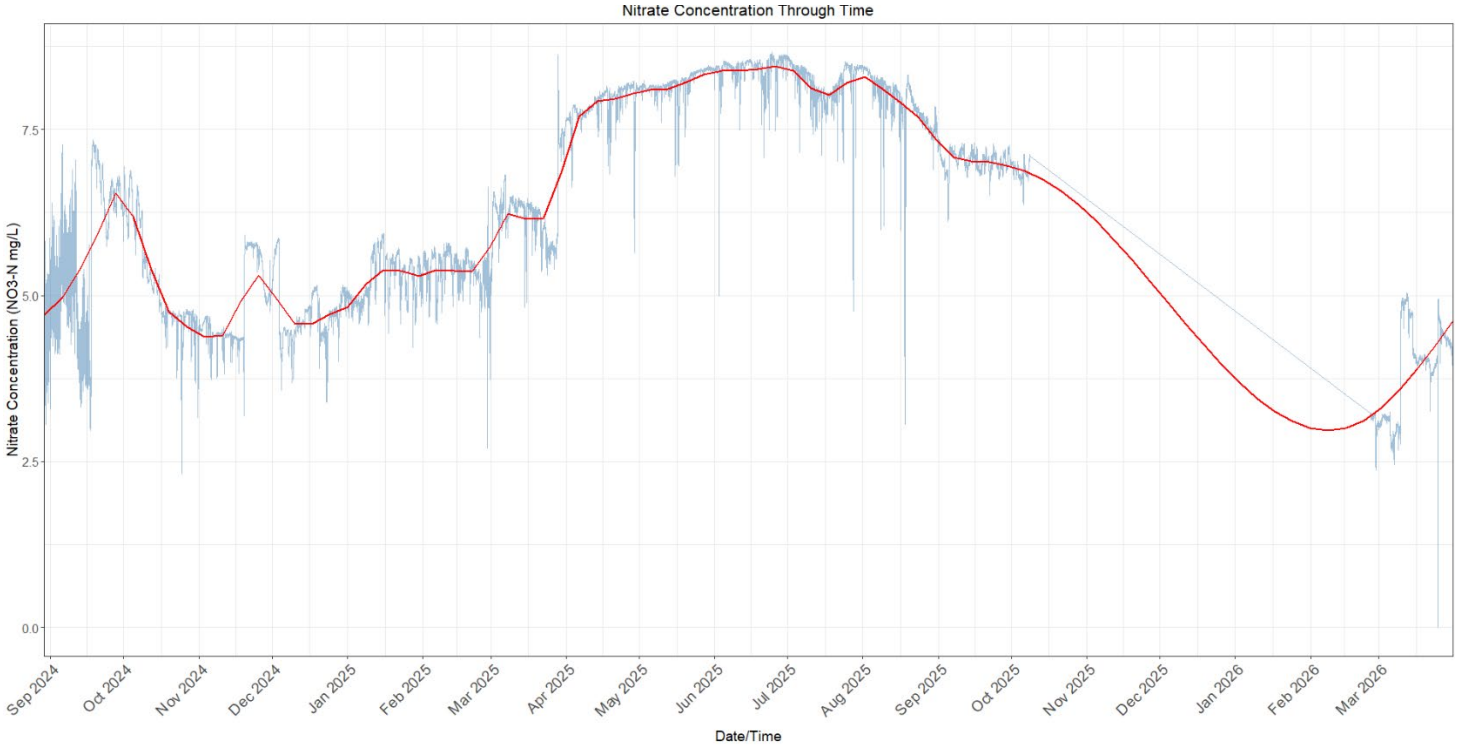


Figure 3. (a) ACRE wells with nitrate probes. (b) example data from ACRE-15 nitrate probe from Sept 2024 through March 2026.

Community Focused Sampling (ACRE 1C & 1F). Dakota County continued to provide no-cost water testing to private well owners for nitrate, manganese, arsenic, chloride, and lead through the Community Focused Sampling Program. In 2025, water sample kits were offered to 1,687 private well owners in Rosemount, Coates, Empire, New Trier, Vermillion, and Hampton, of which 228 households participated. A full summary of results by community is available on the Community Sampling Results Website.

Collect and Evaluate Information on Ongoing Basis (ACRE 1H). Staff maintained the map of biosolid application data to understand how it has been distributed on farm fields in Dakota County (Figure 4). The biosolid application program was paused and is no longer accepting requests for applications at this time, so there were no additional applications to map

in 2025. Mapping biosolid applications in conjunction with groundwater monitoring will provide information of potential nutrient impacts to groundwater over time.

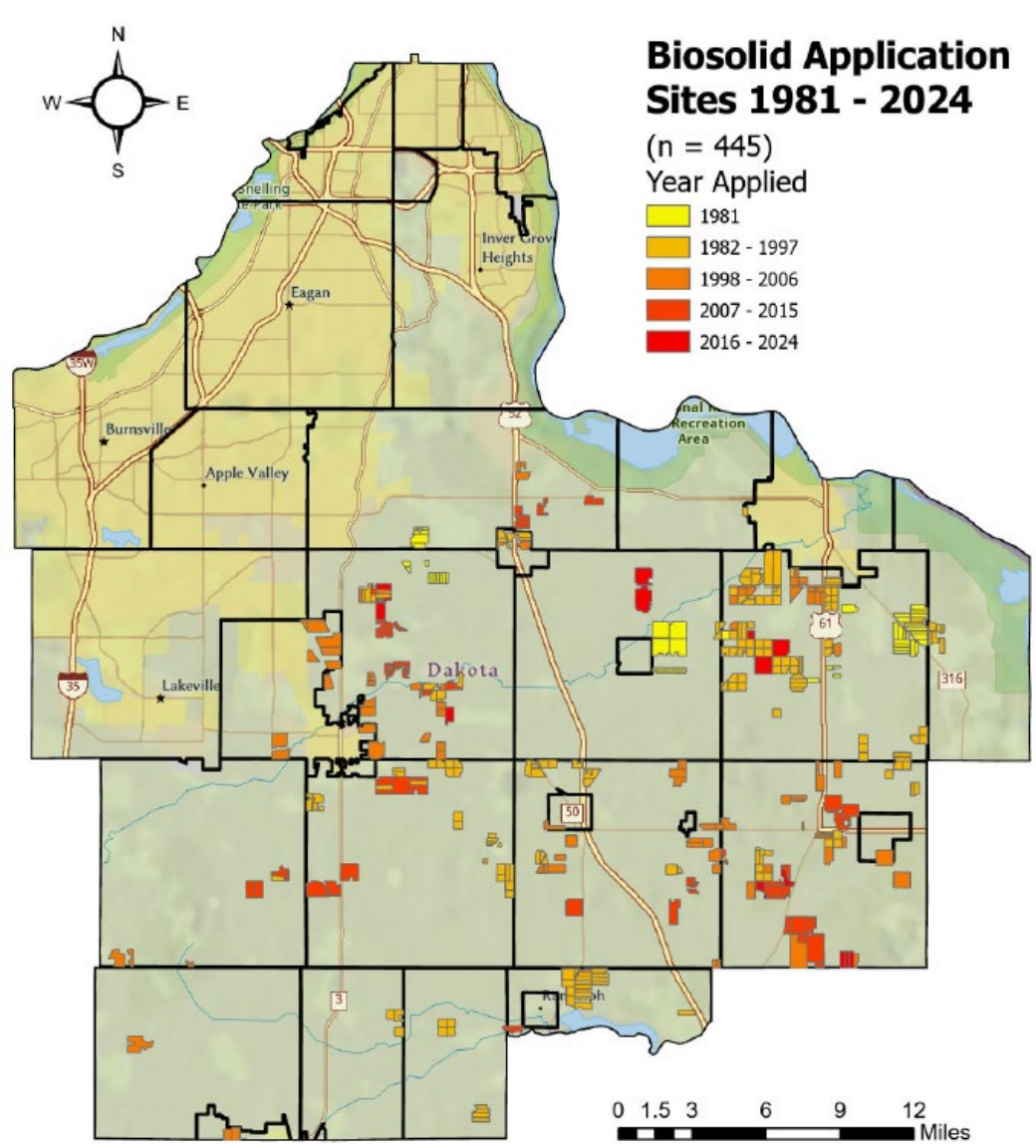


Figure 4. Biosolid application sites

Communicate and Educate (Strategy 2)

Environmental Resources staff continued to collaborate with the SWCD, Vermillion River Watershed Joint Powers Organization (VRWJPO), MDA, and the Dakota County Communications Department to promote practices to improve water quality and raise awareness of educational and cost-share opportunities. Activities included:

Annual ACRE Update (ACRE 2A): In collaboration with the SWCD, VRWJPO, and other Environmental Resources Department units, staff developed an Annual Healthy Living Rural Newsletter. The Newsletter provided information and tips on recycling, waste reduction and conservation practices to help build a healthier rural environment. ACRE related articles focused on promotion of agricultural conservation practices, the ACRE Leave a Legacy campaign, and information for private well and septic system owners (Figure 5). The Newsletter was mailed to over 6,300 rural residents in December 2025. The Newsletter is available Healthy Rural Living Newsletter.

Reshape your lawn

The Dakota County Soil & Water Conservation District has two programs that can help residents bring color and water savings to their yard. The Landscaping for Clean Water program offers free classes on the importance of raingardens, native gardens and shoreline habitat restorations. These efforts can beautify a yard while improving water quality, benefiting pollinators and protecting shorelines.

The Lawns Re-Imagined program shows residents how "lawning differently" will transform traditional lawns into low-maintenance, water-efficient fine fescue lawns that are visually appealing and meet city ordinance requirements.

To learn more, visit www.dakotaswcd.org, click *classes* or contact swcd@co.dakota.mn.us or 651-480-7777.

Native Prairie Restoration Program

Planting native prairie plants can improve soil health, trap carbon and promote infiltration of water and require fewer inputs and labor over time compared to regular grass. They also provide food and habitat for birds, pollinators and other wildlife.

Project funding and technical assistance is available through the Dakota County Soil & Water Conservation District's Native Prairie Restoration Program. Landowners can receive cost-share funding for up to 85 percent of total project costs for the installation or enhancement of native prairie vegetation.

For more information, visit www.dakotaswcd.org, click *services, land & water* or contact swcd@co.dakota.mn.us, 651-480-7777.

10

Septic system savvy

Many homes in rural Dakota County use septic systems to treat and get rid of household wastewater. These systems use soil and natural bacteria to clean the water by removing harmful pathogens and other pollutants. Once treated, the water safely returns to the natural groundwater system.

Septic systems are specially designed and installed by licensed professionals to fit each home and property. But once installed, it's the homeowner's job to keep the system working properly through regular care and maintenance.

Tips for taking care of your septic system:

Use water wisely. Too much water at once can overwhelm the system and cause it to fail early.

Avoid flushing harmful chemicals. Cleaners, paints and oils can kill the helpful bacteria that break down waste.

Skip septic tank additives. These products are often unnecessary and may harm your system.

Pump and inspect your tank regularly. This helps prevent clogs, bad smells and expensive repairs. Most systems should be pumped every one to three years.

Take care of pumps and filters. Keeping them in good shape helps move and treat waste efficiently.

Protect your drain field. Don't park or build over it and keep it free of trees and deep roots to allow proper drainage.

For more information on septic systems, visit www.dakotacounty.us, search *septic systems*.

2026 native tree sale

Dakota County residents can purchase high-quality bare root seedlings at a low cost from the Dakota County Soil & Water Conservation District. Trees can be used for urban and rural conservation purposes such as windbreaks, living fences, reforestation, erosion control and food and cover for wildlife.

The tree species are native to Minnesota including conifers, deciduous trees and shrubs. To be notified of the sale, visit www.dakotaswcd.org, click *tree sale* or contact swcd@co.dakota.mn.us, 651-480-7777.

11

LEAVE A LEGACY

Agricultural conservation practices on rented land

Using conservation practices on farmland benefits soil health and water quality and ensures the long-term success of your land. If you lease your land to be farmed, start the conversation with your renter. The Dakota County Conservation Toolkit provides resources to both landowners and renters to learn how to include conservation practices in leased farmland.

To view the digital Conservation Toolkit, go to www.dakotacounty.us and search *ACRE*.

For more information, contact the Dakota County Soil & Water Conservation District at swcd@co.dakota.mn.us or 651-480-7777.

Figure 5. Healthy Rural Living Newsletter clips

Promote participation in conservation programs and distribute information through a variety of platforms (ACRE 2B & 2C): Dakota County worked with partners to promote programs through multiple different platforms. A social media campaign was conducted through Facebook. This was done to make producers aware of the financial and technical assistance available with the Dakota County Soil and Water Conservation District (Figure 6)

The Leave a Legacy factsheet highlights five conservation practices for groundwater quality with information on financial and technical assistance opportunities (Dakota County, Leave a Legacy). Factsheets were handed out at Township Board meetings, the MDA's Local Advisory Team Meeting, the Dakota County Fair and other farmer focused outreach events.

Dakota County, along with the SWCD, and VRWJPO, began planning the Leave a Legacy campaign with Trust In Foods, the Farm Journal, and Environmental Initiative with the $50,000 Watershed Based Implementation Funding (WBIF) grant. This included developing a Human Dimensions of Change Analysis for Dakota County that shows that producers are ready to make changes but need support to feel capable. This reinforces that past communication and relationship-building efforts have been effective, and that continued, multi-touch engagement is important to moving producers from awareness to action. Activities also included a professional "Reach Farmers Faster" training to review Dakota County farmer demographic data and learn how to reach the target audience. The workgroup also began planning and filming a video marketing campaign to encourage farmers to connect with agencies to adopt conservation practices such as cover crops, perennial crops, and nutrient management planning.

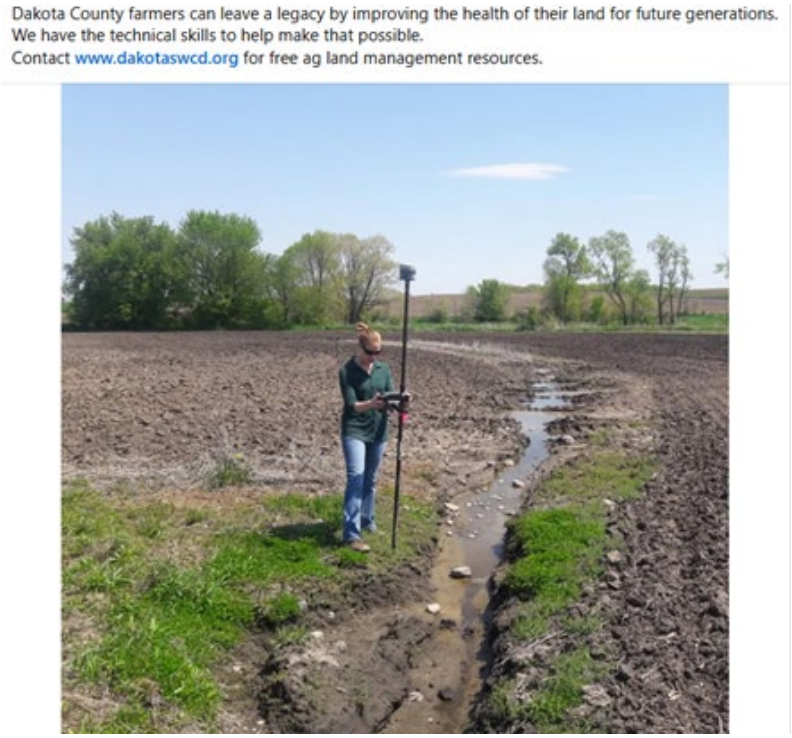


Figure 6. Social media post from ACRE social media campaign

Conduct annual Agricultural Advisory Group meeting (ACRE 2E): Hosted the annual Agricultural Advisory Group (AAG) meeting on December 11, 2025. The attendees included local farmers, an agronomist from River Country Co-op, and a representative from Bailey's Nursery. The meeting included updates on 2025 ACRE activities and receiving feedback on the 2026 planned activities including outreach strategies, irrigation water testing, trainings, and demonstration projects. The AAG provided valuable feedback on how to continue to improve our irrigation water testing program to remove barriers for participation.

Provide in-person updates to townships and cities (ACRE 2F): In 2025, staff conducted in-person presentations to all 12 Dakota County Township Boards and the Empire City Council. Information presented included private well water quality data, the long-term monitoring network, and updates on ACRE implementation to include promotion of the ACRE Campaign.

Host field days and demonstrations (ACRE 2I): Dakota County partnered with the University of Minnesota Forever Green Initiative (FGI), Minnesota Department of Agriculture (MDA), and Dakota Soil and Water Conservation District (SWCD) to host an educational field day as a farm field in Hastings planted with low nitrogen input perennial crops including Kernza and alfalfa. This event was focused on farmers interested in planting low nitrogen input crops and have their questions answered by staff from a multiple agencies.

Dakota County partnered with the same organizations to host an educational field day about winter camelina at the Rosemount research and Outreach Center. The winter camelina field event was farmer focused and included talks from a number of experienced growers as well as a field walk to see the crop.

Dakota County SWCD also hosted a soil health field event with information on small grains and diversifying rotations at a local farm in Hampton Township on September 10th, 2025. This event educated local farmers on how to incorporate winter wheat, how to enroll for the MN Ag Water Quality Certification Program (MAWQCP), and reduced tillage.

Figure 7. 2025 Winter Camelina field day

Hold free nitrate clinics (ACRE 2H): Conducted private well nitrate clinics in conjunction with the water irrigation testing (See ACRE 3A).

Technical Assistance (Strategy 3)

Implementation of Technical Assistance was led by the SWCD, SWCD provides hands-on assistance to farmers with implementing water quality practices. In addition, Dakota County and SWCD collaborated with the University of Minnesota (UMN) – Forever Green Initiative, UMN – Extension, UMN – Water Resources Center, Metropolitan Council, and other local organizations to increase participation in conservation programs. Below is a summary of activities:

Partner to provide nutrient management and irrigation management education (ACRE 3A):

Dakota County developed and coordinated Irrigation Water Testing events in collaboration with the Minnesota Agricultural Water Resources Center, Dakota SWCD, and MDA. The number of nitrate screening drop in events was expanded from four events in 2024 to seven events in 2025 and spread out from June to September. This was done to allow a larger window for participants to attend. Local farmers with water irrigation systems could test their water for nitrates at no cost. Farmers then worked with the SWCD to learn how they can properly credit nitrogen in their irrigation water in their nutrient management plan. The drop-in events were also open to private well owners for free nitrate screening.

The event was promoted through direct mailings to approximately 266 landowners with known irrigation systems, social media, newspapers, Farm Service Agencies, and Irrigator Associations. A total of 47 private well owners had their drinking water well tested; and 4 irrigation wells were tested. Two irrigators exceeded guidelines, but all irrigators were connected to the SWCD to learn about irrigation management cost share opportunities and learn about nitrate crediting and the Irrigation Management Assistant Tool (IMA) tool.

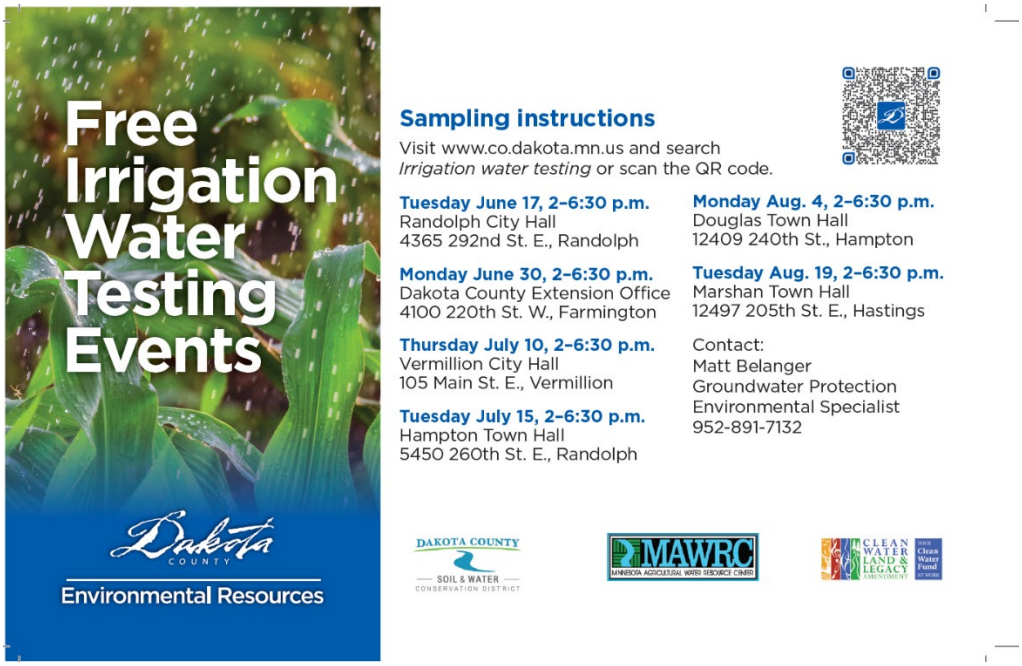


Figure 8. Irrigation nitrate testing postcards

Assist landlords and renters to implement water quality practices on rented lands (ACRE 3D): In early 2025, staff developed materials for a Conservation Toolkit to support transition to conservation agriculture practices on rented land. Materials include a Farmland Lease Agreements Informative Document to provide guidance on how to include conservation agriculture in lease agreements, a Conservation Practice Benefits Chart to help landowners/renters identify which practices will meet their conservation goals, and a How to Start a Dialogue document to guide landowners/renters on how to start talking about conservation agriculture. See the Conservation Toolkit. This resource was promoted in 2025 by handing out at a variety of events and programs where local farmers attended including Crops Day, the Dakota County Fair, Township visits, and more.

Host Nitrogen Smart and other training (ACRE 3E): Dakota County staff attended several events to present water quality updates. On March 18, 2026, UMN-Extension and SWCD hosted their annual Crops Day. Dakota County staff attended to present water quality updates, an annual ACRE update, and private well testing opportunities.

Financial Incentives (Strategy 4)

Dakota County partnered with SWCD to promote and fund voluntary BMP and AMT adoption. Implementation of Financial Incentives is led by the SWCD based upon annual Board of Supervisor approved policy programs, with funding assistance from Dakota County and state grants. SWCD secured funding for practices through a variety of grants, including Watershed Based Implementation Funding, Drinking Water Protection, and Competitive Clean Water Fund grants. SWCD also continues to pursue ways to increase staff capacity, such as the Board of Water and Soil Resources (BWSR) Soil Health Staffing grant.

Provide cost-share through SWCD for adoption of water quality practices (ACRE 4B): In 2025, Dakota County provided $350,000 in cost-share funding to the SWCD to support technical assistance and installation of water quality best management practices. Cost-share grants supported 8,225 acres of cover crops on 90 fields, and 179 acres of harvestable cover (perennial crops) resulting in 56,284 pounds of nitrate reduction per year (Figure 9). Participation in SWCD conservation programs significantly increased from 2024 to 2025, specifically cover crops (Figure 10).

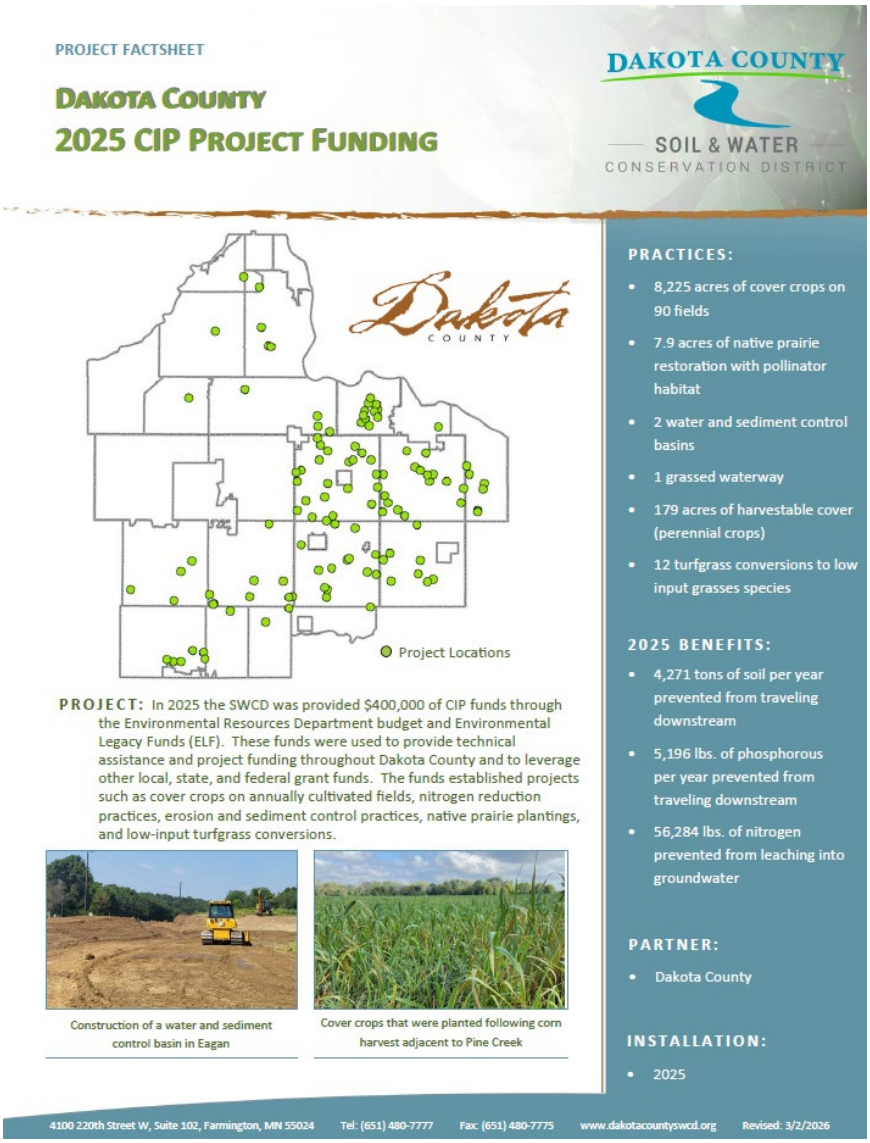


Figure 9. 2025 SWCD Water Quality Practice Implementation

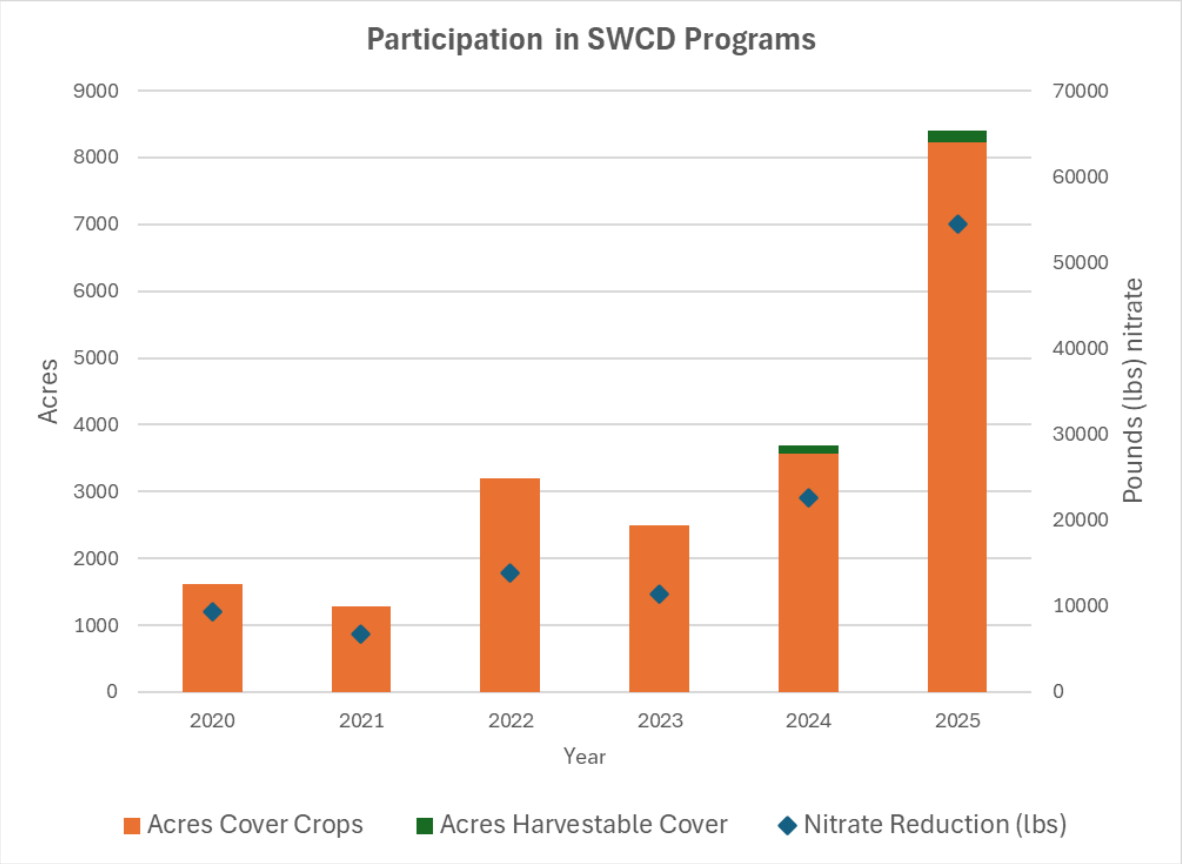


Figure 10. 5-year participation in Soil and Water Conservation District conservation programs

2025-2026 Projected Efforts

ACRE Plan implementation will focus on the following components in 2025-2026:

1) Continue to collect information for decision making purposes, especially in the early years of ACRE implementation to verify baseline conditions.
    - Continue to verify farming practices being implemented and maintained on existing acreage throughout the County (ACRE tactic 1A).
    - Conduct annual sampling of the long-term monitoring network and review land use changes surrounding ACRE wells to determine causes for statistical trends (ACRE tactic 1B).
2) Increase communication and outreach efforts to the farming and rural communities.
    - Create and distribute an annual ACRE update through Health Rural Living Newsletter (ACRE tactic 2A).
    - Begin marketing campaign for the Dakota County Leave a Legacy Campaign with the Trust in Foods and Farm Journal teams (ACRE tactic 2C). **Dakota County received a $50,000 Watershed Based Implementation Funding (WBIF) Grant to support development of the Leave a Legacy Marketing Campaign. The short form videos will be promoted on multiple platforms throughout the summer of 2026 to increase participation in conservation programs.**
    - Host annual Agricultural Advisory Group meeting to provide guidance to Dakota County and SWCD staff (ACRE tactic 2E).
    - Provide in-person updates to cities and townships on ACRE progress (ACRE tactic 2F).

3) Increase Technical Assistance
    - Collaborate with MN Agricultural Water Resources Center and Agricultural co-ops to offer irrigation water nitrate testing in a different style than in previous years with drop-in sessions. (ACRE 3A)
    - Collaborate with the SWCD on ways to expand the availability and awareness of one-on-one technical assistance to farmers for water quality improvement practices (ACRE tactic 3B).
4) Work with the County Board and/or the SWCD to identify resources and expand incentive programs as necessary to achieve ACRE Plan adoption rate goals (ACRE tactics 4A-J).

For questions on the Groundwater Plan or annual report please contact groundwater@co.dakota.mn.us, or 952-891-7000.

Thank you to the Dakota SWCD and other Dakota County partners for your assistance in implementing the ACRE and Groundwater Plan