



Agricultural Chemical Reduction Effort (ACRE)

Background

Most drinking water in Dakota County comes from groundwater. ACRE is an outcome of the 2020-2030 Dakota County Groundwater Plan, which identified farm chemicals -- nitrate, crop herbicides and breakdown products, and chloride – as risks to drinking water in rural parts of the county. ACRE will use voluntary actions to reduce these chemicals in groundwater to levels that no longer pose a threat to human or environmental health.

The ACRE Plan is available online

The County Board of Commissioners adopted the ACRE Plan in October 2022. **To view the ACRE Plan, go to www.dakotacounty.us and search ACRE.**

Outcome-based goals

With input from stakeholders, Dakota County staff developed ACRE to achieve measurable progress within the next 10 years. Dakota County will work with the Soil and Water Conservation District and partners to achieve the goals listed below; more intended outcomes are listed within the ACRE Plan.

- Five percent or fewer of the households that use private drinking water wells exceed the drinking water guideline for nitrate-N
- No public water supply well will exceed the nitrate drinking water guideline or be projected to exceed it in the next 10 years
- Private well owners understand their well water quality and test their wells appropriately
- Local farmers implement practices to reduce or eliminate agricultural chemicals reaching groundwater
- Farmers who live or work in Dakota County have opportunities to thrive while protecting the environment for future generations

Plan strategies

The plan has four main strategies:

Information for Decision Making

- Provide private well sampling
- Sample monitoring well network
- Update groundwater models

Provide Financial Incentives for:

- Adopting new water quality practices
- Maintaining water quality practices
- MN Ag Water Quality Certification
- *Funding sought from external sources*

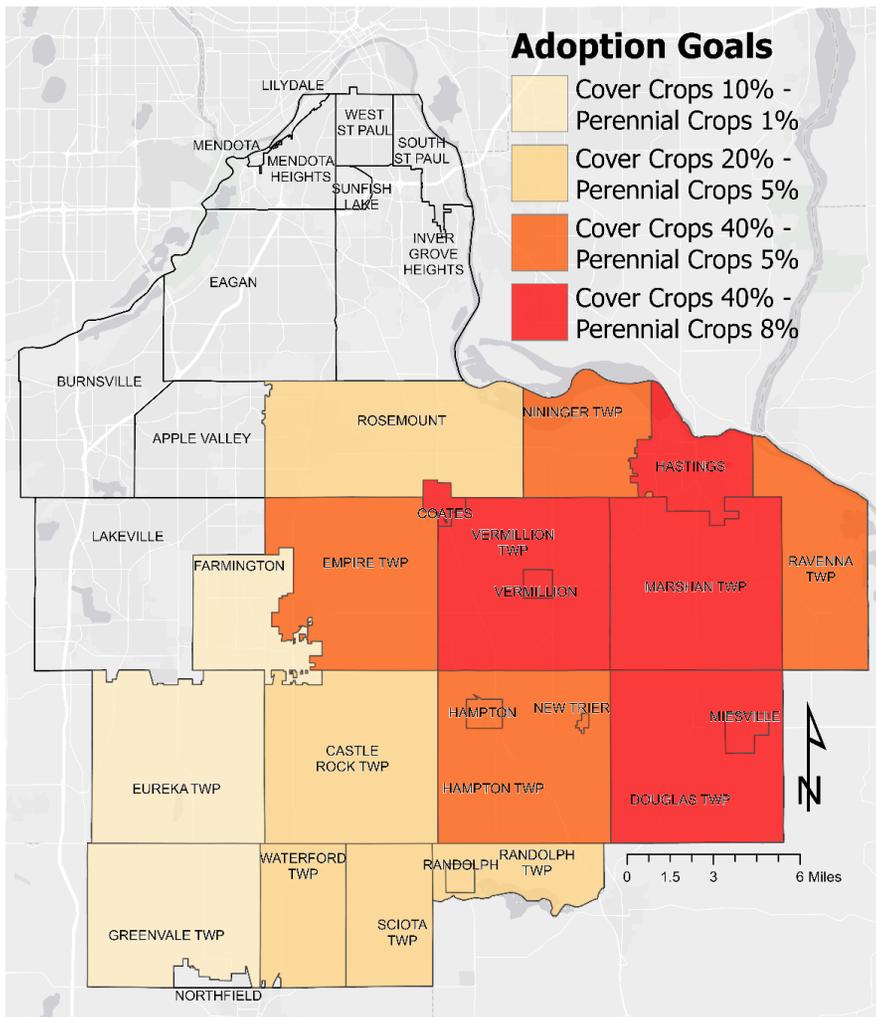


Communicate & Educate

- Create Ag. Advisory Group
- Increase community communication
- Promote assistance programs
- Provide educational opportunities
- Advocate for improved internet access

Technical Assistance

- Partner on certification programs
- Increase assistance at farm level
- Work with landlords & renters
- Assist beginning/emerging farmers



There are more new proposed activities than listed above. Some practices local farmers are using have reduced pollution levels and will just need to be expanded. If voluntary measures do not reduce pollution to safe levels, regulations may be considered in the future. However, no regulations are proposed at this time.

The figure on the left is an example of the kinds of changes Dakota County crop farmers will need to make to meet the ACRE goals – for example, much greater use of cover crops, year-round plantings, conservation crop rotation, prescribed grazing, or wetland restoration. More changes will be needed where groundwater conditions are currently worse (eastern county) than where the conditions are already close to meeting the ACRE objectives (western county).

Dakota County Soil and Water Conservation (SWCD) staff are available to provide technical assistance and financial incentives for improving soil health and water quality. They can assist farmers with practices such as:

- Establishing cover crops, including harvestable covers
- Nutrient management and limiting nutrient loss
- Conservation tillage
- Irrigation water management

ACRE Monitoring Well Network Dashboard

Dakota County installed 15 monitoring wells in 2021 and 2022 which will be sampled three times a year (spring, summer, and fall) for nitrate-N, chloride, depth to water, and other measurements.

Results from past sampling events can be viewed online with an interactive web-based dashboard. This tool allows users to select specific monitoring wells and dates to see results of all measurements at the time of sampling. **To view the ACRE Monitoring Well Dashboard, go to www.dakotacounty.us and search ACRE.**

Contact Information

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