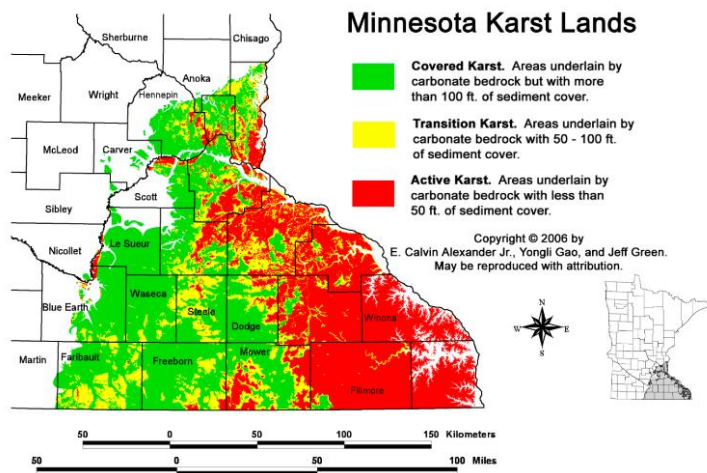


Southeast Regional Groundwater Protection and Soil Health Initiative

Southeast Minnesota counties are working together to protect groundwater and improve soil health. Collectively, these counties urge the legislature to support funding for the southeast regional groundwater protection and soil health initiative in 11 southeast Minnesota counties. This program implements a long-term strategy to reduce nitrate in drinking water in Southeast Minnesota's karst region where groundwater is susceptible to contamination.

Background



Map of Southeast Minnesota Karst lands.

Source: https://stormwater.pca.state.mn.us/images/f/fb/Minnesota_karst_lands.

Program details

The southeast regional groundwater protection and soil health initiative aims to promote a variety of management practices that will help reduce nitrate leaching on agricultural land. Converting traditional row crop systems to alternative crops, small grains, and utilizing cover crops, reduces nitrate leaching, increases nitrogen retention, limits soil erosion, and protects our water resources. The following southeast Minnesota soil and water conservation districts (SWCDs) are interested in participating in the program: Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, and Winona.

The initiative promotes practices and program requirements that are new and different from traditional conservation programs in the following ways:

- It is a results-based cost share program in which a producer would only be paid if requirements of the program were met (i.e. growing a cover crop to a specific minimum height requirement).
- It includes a menu of add-on financial incentives to maximize groundwater protection and soil health impacts and provide producers with a variety of options to select what would work best with their agricultural systems.
- The web-based certification process can be easily and conveniently completed by the producer at home.



Photo of green cover crop in the spring.

Results and monitoring

The program has demonstrated success and adoption by producers in the region. In Olmsted County, where the project has been piloted since 2023, the program continues to grow from one year to the next. In 2024, nearly 25% of producers in the county certified and reported more than 19,000 acres in the program which is estimated to have prevented nearly 405,000 pounds of nitrogen from entering groundwater. Over the last two certification years, this equates to 23.8 semi-loads of urea fertilizer. By expanding this program to the region, we could positively impact nearly 220,000 acres and prevent even more nitrogen from entering groundwater.

The Olmsted County Soil and Water Conservation District (SWCD) in cooperation with other agencies has utilized data collected through the on-going monitoring of in-field shallow groundwater monitors (lysimeters), natural springs, tile line outlets, shallow wells, and cave drips. The data compares conventional agriculture practices with conservation and soil health practices and has shown there is less nitrate leaching with the use of soil health practices.

2025 legislative priority

Southeast Minnesota counties urge the legislature to support funding for the southeast regional groundwater protection and soil health initiative. This program implements a long-term strategy to reduce nitrate in drinking water in Southeast Minnesota's karst region where groundwater is susceptible to contamination.

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