



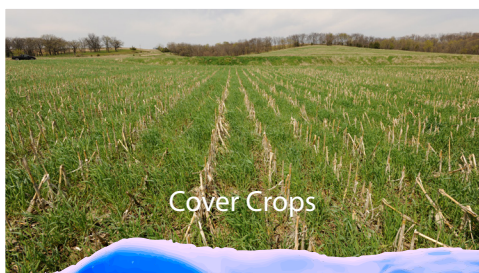
United States Department of Agriculture



Cedar Lake Watershed

National Water Quality Initiative Source Water Protection

Cedar Lake Watershed is one of eight Iowa watersheds selected to participate in USDA's National Water Quality Initiative (NWQI). Through NWQI, USDA's Natural Resources Conservation Service (NRCS) works with farmers in priority watersheds to improve water quality and aquatic habitats in impaired lakes and streams. NRCS and our conservation partners work with producers to implement conservation and management practices - through a systems approach - to control and trap sediment and nutrients. Qualified producers can receive assistance for installing conservation practices such as no-till, cover crops, terraces, denitrifying bioreactors, and water and sediment control basins.



Cover Crops



Nutrient Management



Terraces

Natural Resources
Conservation Service
www.ia.nrcs.usda.gov

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Cedar Lake Watershed History

Winterset's Water Supply Since 1940

Cedar Lake was built in 1939, became a water supply in 1940, and has been Winterset's only water supply since 1995. Through the decades, siltation has caused the lake's storage capacity to decrease.

The lake was originally built to hold 350 million gallons of water and cover 90 acres of surface area. However, the watershed is located amongst some of the most productive agricultural areas in the country.

Erosion and runoff from agricultural land and urban areas within the Cedar Lake watershed have added to sediment deposition in the lake. Extra sediment has contributed to the lake's storage capacity decreasing year by year.

A 1989 survey showed Cedar Lake's storage volume at 258 million gallons, almost 100 million gallons less than its original storage capacity.

In 2014, the City of Winterset began a dredging project to reclaim the lake's original water storage capacity.

Finding a Water Solution

The water quality of Cedar Lake needs improvement — nitrate levels in recent years have exceeded federal and state limits, placing the lake on the state's impaired waters list. Taking the entire Cedar Lake watershed into account is an important part of improving the lake's water quality.

The Cedar Lake watershed covers more than 10,000 acres (or 17 square miles) and includes a number of streams, farm fields and residential areas. Because water drains from these areas into the lake, both positive and negative actions throughout the watershed determine the lake's water quality. We are all part of the watershed, and local community support is essential in improving Cedar Lake's water quality.

Source Water Protection (SWP)

With the completion of the dredging project, there has been a renewed effort to protect Cedar Lake as a drinking water source by preventing further siltation, limiting nutrients, and improving water quality.

As a first step, the Iowa Department of Natural Resources contracted Tetra Tech to develop a Source Water Protection Plan, which was completed in February 2018.



Cedar Lake Watershed

National Water Quality Initiative
Source Water Protection

Source water is a term used to define drinking water in its original environment, either as surface water (rivers, streams, reservoirs, lakes) or as groundwater, before being withdrawn, treated, and distributed by a water system.

Source Water Protection (SWP) is the act of preventing contaminants from entering public drinking water sources. Natural and human activities can influence the source water quality.

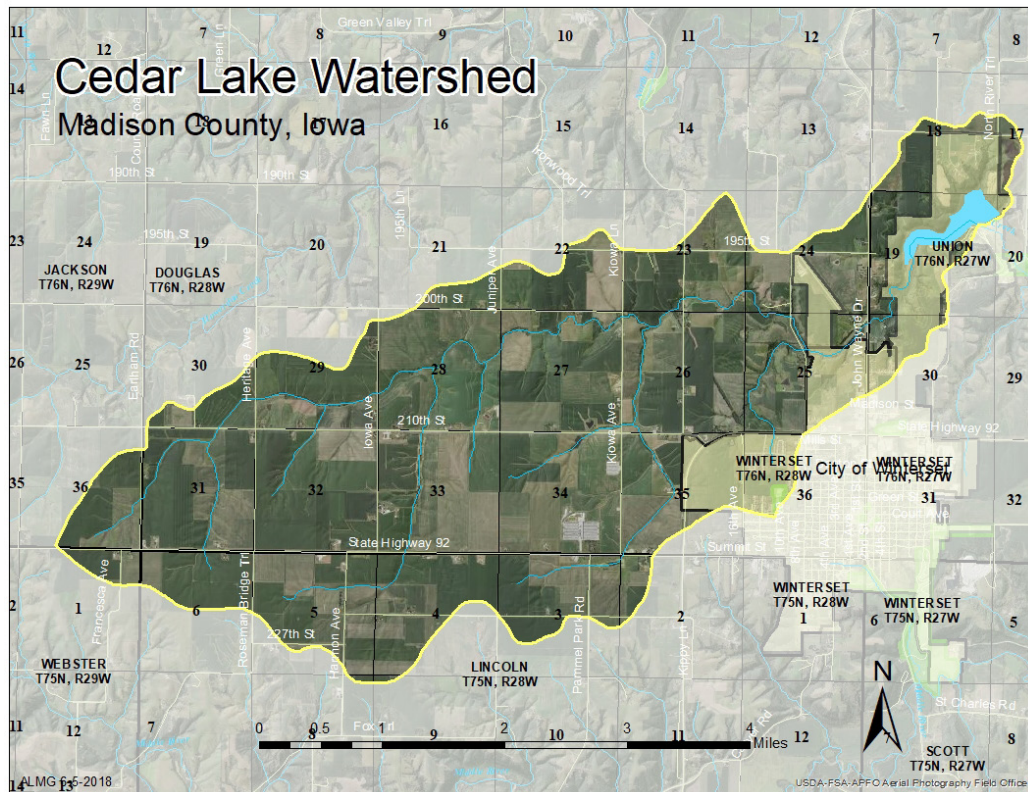
SWP means managing the areas through which water travels and the activities that occur on the land to protect water quality. These protection efforts save the community money through less water treatment and increasing the lifespan or improving conditions of the source water.

NWQI Information

NRCS conservation professionals will provide technical assistance and planning tools to determine which conservation actions will provide the best results to improve water quality on your land and in the watershed. To help install these practices, financial assistance to share in the cost of these conservation practices is available through the Environmental Quality Incentives Program (EQIP).



Photo by Anna Golightly, Madison SWCD



NWQI Information Cont...

Partnerships

NRCS identified the needs of the Cedar Lake Watershed through the help of the City of Winterset and the Winterset Water Utility Board. NRCS will also coordinate with local and state agencies, conservation districts, non-governmental organizations and others to implement this initiative. This strategic approach will leverage funds and provide streamlined assistance to help individual agricultural producers take needed actions to reduce the flow of sediment, nutrients and other runoff into Cedar Lake.

Producer Benefits

Water quality conservation practices benefit agricultural producers by lowering input costs and enhancing the productivity of working lands. Well-managed farms limit pollution from runoff, produce food and fiber, sustain rural economies, and provide food security to the Nation.

Public Benefits

NRCS is proud to be involved in a nationwide effort with landowners and communities to improve and protect our water resources. The landowners and farmers participating in the initiative will receive conservation payments to work on the land in a sustainable way which provides cleaner water. In addition to the financial assistance, the land will remain productive into the future. Communities benefit by having clean waterways, safer drinking water, and healthy habitat for fish and wildlife.

Through NWQI, higher than normal EQIP financial assistance payment rates may be available for the following conservation practices:

Core Practices:

- » Contour Buffer Strips
- » Cover Crops
- » No-Till
- » Nutrient Management
- » Terraces
- » Water and Sediment Control Basin
- » Wetland Restoration



Cedar Lake Watershed Landowners:



HELP PROTECT OUR DRINKING WATER SOURCE!

The city of Winterset and other rural landowners use about **515,000 gallons of water** from Cedar Lake on an average day. Help improve the quality of water in our drinking water source by implementing conservation practices that protect Cedar Lake.

USDA recently selected the Cedar Lake Watershed as a National Water Quality Initiative (NWQI) watershed. Eligible program applicants will receive higher than normal payment rates on conservation practices that control and trap nutrients, and reduce soil erosion. Example practices include cover crops, no-till, terraces, saturated buffers and water and sediment control basins.

To apply or learn more about this initiative, visit the NRCS office in Winterset at 815 East Highway 92, or call 515-462-2961, x3.

Additional NWQI information is available on the Iowa NRCS website at <http://bit.ly/NWQI2019>.



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