

Targeting the Chisago Chain of Lakes: Improved Lakes, Improved Communities

June 2017 Snapshot



A pretreatment chamber and a rock-lined chute were installed to capture sediment and stabilize an urban gully as part of a Chisago Lakes Chain of Lakes Watershed project.

Photo Credit: Chisago County SWCD

The priority was simple: Keep the Chisago Chain of Lakes swimmable and fishable.

Several of those lakes are impaired because of excess nutrients such as phosphorus. Many others within the Chisago Lakes Chain of Lakes Watershed show increasing phosphorus levels, which could lead to impairment.

The Chisago Chain of Lakes is itself an attraction. But this project has larger ramifications. It drains into the Sunrise River, which empties into the St Croix River.

The plan -- devised by the Chisago Soil & Water Conservation District and made possible through two grants -- leveraged partnerships with the cities of Lindstrom, Center City, and Chisago City; Chisago County; the Chisago Lakes Lake Improvement District (CLLID); agricultural landowners and city residents.

Using GIS analyses and water quality models, SWCD staff systematically completed stormwater assessments for all urban and rural areas within the Chain of Lakes Watershed. Field verifications and meetings with landowners followed. The assessments yielded lists of specific best management practices (BMPs) and projects, ranked by cost effectiveness.

Armed with that data, SWCD staff applied for and was awarded an \$887,632 Targeted Watershed grant in 2015 to address urban and agricultural runoff, and

gully/ravine erosion. The grant period runs through 2020. The Targeted Watershed Program allows local government units to employ a variety of concentrated management actions not limited to structural BMPs. Implementation of the Chisago Chain of Lakes project includes the following:

- Managing urban stormwater runoff through 40 projects such as rain gardens, iron-enhanced sand filters, catch basins retrofitted with filters, and rock-lined channels.
- Installing 25 agricultural projects such as water and sediment control structures, filter strips, waterways, and gully stabilizations.
- Using incentive payments to initiate cover crops and permanent vegetative plantings, plus more targeted and more frequent city street sweeping.



Left: A curb-cut rain garden and a pretreatment chamber were installed to capture and filter urban stormwater runoff. The plan devised by the Chisago Soil & Water Conservation District leveraged partnerships with three cities, one county, a lake association and rural and urban landowners.

Below: A grassed waterway was installed to correct an infield erosion problem in the Chisago Lakes Chain of Lakes Watershed. The project, which aims for a result of more swimmable and fishable lakes, ties in with Gov. Mark Dayton's Year of Water.

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- Bolstering cities' stormwater management ordinances (Minimum Impact Design Standards) under new and re-development scenarios.
- Other minor components of the work involve wetland restorations and livestock waste management.



Two partners in particular stepped up to help make this grant a success. Chisago County and the Chisago Lakes Lake Improvement District committed \$180,000 in local funds as a match toward this Targeted Watershed grant.

Additionally, the U.S. Department of Agriculture's Natural Resources Conservation Service awarded

a \$460,000 Mississippi River Basin Initiative grant to supplement the Targeted Watershed grant. Both of these local and federal funds are available for the duration of the Targeted Watershed grant.

"At the midpoint of the grant, the interest by both the rural and urban landowners to implement BMPs has exceeded our goals. It has definitely been a team approach by the SWCD, NRCS, CLLID, and cooperating cities and landowners to promote and implement conservation practices in the watershed," said Craig Mell, Chisago SWCD district manager.

Overall the project will reduce at least 690 pounds of total phosphorus, which is 11 percent of the Total Maximum Daily Load goal. The SWCD is gaining momentum as it positions itself for the next phases of the project.

Simply stated: Improved lakes, improved communities.