

# CHISAGO LAKES WATERSHED BMP IMPLEMENTATION

The Total Maximum Daily Load Study (TMDL) that was completed in 2013 quantified the amount of phosphorus entering the lakes and the amount that would need to be reduced in order to meet the State water quality standards. The Chisago Lakes Watershed Restoration and Protection Plan (WRAPS) was completed to identify hundreds of Best Management Practices (BMPs) that can be done in the watersheds to meet the standards. Lake restoration activities can be grouped into two main categories: those practices aimed at reducing external nutrient loads, and those practices aimed at reducing internal loads. A Stormwater Retrofit Assessment (SRA) has also been completed for all urban areas within the watershed – one was completed for each City identifying hundreds of projects along with locations, pollution reductions, and a cost-benefit analysis to choose the best projects to start working toward completing. The rural sections of the watershed are being analyzed currently in a rural SRA for the best bang for the buck projects. From these studies we have thousands of projects ready to be implemented on willing landowners' property.

Since the completion of the SRAs, TMDL, and WRAPS, the SWCD, Chisago County, and the LID have been working together to implement projects identified in the studies.

## Total Phosphorus (TP) Reductions by Lake

Lake	Watershed TP Reduction Goal (lbs.)	TP Reduction Achieved to Date (lbs.)	TP Reduction Still Needed (lbs.)	% Achieved	Total Suspended Solids Reduction to Date (lbs.)
Kroon	42	0	42	0.0 %	0
Little Green	58	0	58	0.0 %	0
North Lindstrom	99	9	90	9.2 %	7,577
South Lindstrom	262	35	227	13.4 %	22,215
Chisago	433	7	426	1.6 %	2,848
Green	563	0	563	0.0 %	0
North Center	595	16	579	2.7 %	20,134
South Center	842	32	810	3.8 %	33,950
Wallmark	1,052	0	1,052	0.0 %	0
Little	1,562	2	1,560	0.1 %	4,000
<b>TOTAL</b>	<b>8,453</b>	<b>101</b>	<b>8,362</b>	<b>1.1 %</b>	<b>90,724</b>

Lakes listed in black are Impaired, lakes listed in blue are not impaired.

## Restoration/Protection Activities

Load reduction restoration/ protection activities consist of watershed projects, in-lake projects, and point source best management practices, and were identified for each impaired and protection lake. More projects are ready to be implemented in 2015!



## Partners:

- Chisago Soil & Water Conservation District
- Chisago Lakes Lake Improvement District
- Minnesota Pollution Control Agency
- Emmons & Olivier Resources, Inc.
- Metro Conservation Districts

## Targeted Water Bodies:

Chisago Lakes Chain of Lakes Watershed (All Lakes)

## Can I read it?

The TMDL and Restoration and Protection Plan are available here: <http://www.pca.state.mn.us/wfhy0a>

The Stormwater Retrofit Assessments are available from the Chisago SWCD.

