



Upper Watershed Volume Reduction



Clean Water Funds: 2011

Clean Water Grant	\$101,582
Leveraged Funds*	\$227,062
Total Project Budget	\$328,644

* Leveraged Funds include required 25% local match

Targeted Water:
County/Watershed Wide

Project Sponsor:
Prior Lake-Spring Lake Watershed District

Partners:
Scott County SWCD

Grant Period:
January 2011 - December 2014

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Project Narrative

The management of water quality and water levels in the Spring and Prior chain of lakes has been a top priority for the Prior Lake-Spring Lake Watershed District (PLSLWD) and local partners. Fluctuating water levels affect recreational use and shoreline stability. Both lakes have poor water quality conditions and are impaired due to excessive nutrients. In 2004, the PLSLWD conducted a study that identified areas draining to Spring Lake that have potential for stormwater storage and infiltration. A recent project narrowed down which opportunities would provide the most cost effective benefits to the downstream lakes.

The reconstruction of County Road 12 and Sunset Avenue in the city of Prior Lake afforded the District with an opportunity to improve and increase a wetland with marginal resource benefit which included an agricultural drainage ditch. The project enhances flood control and captures phosphorus and sediment before they reach Spring Lake and other downstream water bodies. It treats runoff from two highways, city roads as well as an upstream 60 acre agricultural area.

Actual Outcomes

Three wetland and treatment basins and an iron sand filter system were installed in addition to a small trail system. The project stores approximately 62 ac-ft of stormwater per year. In 2014, extensive rains in the Spring caused regional flooding and the wetlands provided much-needed stormwater storage. In addition, the settling of particulates in the wetland as well as removal of phosphorus from the iron sand filters results in approximately 60 lb/year of TP reduction. The three Agri Drain Outlet structures are retrofitted with vertical bar grates to limit the access of common carp into the project area.

Wetlands at Work!

ENVIRONMENTAL STEWARDSHIP AWARD
In 2014, the Minnesota Chapter of the American Public Works Association presented Scott County, the City of Prior Lake, and Station & Mank, Inc., with the Environmental Stewardship Award for their work on the County State Aid Highway (CSAH) 12 Improvements Project for including:

- an award which recognizes a contribution to a project, initiative or organization to environmental conservation or protection;
- a focus on the community and its environment;
- collaboration of Public Works entities, including cost effectiveness and long-term operation and maintenance.

ABOUT THE PROJECT
This innovative stormwater treatment and wetland restoration project is a collaborative effort of the City of Prior Lake, Prior Lake-Spring Lake Watershed District and Scott County to manage a stormwater and improve water quality in Spring Lake. The project's wetland basins treat runoff from roadway & agricultural drainage areas.

The project successfully achieves three goals:

1. **Stores Excess Water by Restoring Wetlands**
By using wetland basins to store excess stormwater, wetland basins provide additional storage capacity for runoff.
2. **Stores the Stormwater Longer**
The longer the stormwater stays in the wetland basins, the more time it has to infiltrate the ground and recharge the water table, in turn helping to recharge the water table in the area to be recharged or to infiltrate the ground.
3. **Reduces Phosphorus Entering Spring Lake**
The project's wetland basins and iron sand filter system capture phosphorus and sediment before they reach Spring Lake, reducing the amount of phosphorus entering the lake.

PROJECT PARTNERS:
Scott County, Prior Lake-Spring Lake Watershed District, Station & Mank, Inc., EPA, Scott County, and others.