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W: http://crwd.org

# **Stormwater Treatment Project for Watkins Area**

In early 2017, the Clearwater River Watershed District (CRWD) awarded bids to construct a major water

quality improvement project in the watershed: the Watkins Area Stormwater Treatment Project.

Targeting treatment of the 1.25 inch rain event, the project is estimated to provide 796 lbs. of annual phosphorus reduction to the Clearwater River and downstream waterbodies. This represents a 10% reduction of the current phosphorus load to Lake Betsy. The project provides treatment for 6,500 acres in and around the city of Watkins.

The project is made up of three components: first, a sheetpile weir provides the necessary head to divert a portion of stream flows through the treatment system. Next, a sedimentation basin allows particulate matter from diverted stream



flows to settle out. Finally, a limestone filter removes dissolved phosphorus from diverted stream flows. The cleaner water is then discharged back into the stream just below the weir.

Construction is slated to begin this spring, and should be completed by the fall. This project is funded by a Clean Water Land and Legacy Amendment grant via the MN Board of Water and Soil Resources and assessments and taxes from property owners in the CRWD. Learn more about the project at http://crwd/org.

# [Completed] Cedar Watershed Protection & Improvement Project

In 2013, the CRWD was petitioned by citizens to undertake additional water quality improvements in the Cedar Lake Subwatershed. From this petition, the Cedar Lake Watershed Protection & Improvement Project was born.

Completed in 2016, a limestone filter berm and iron-enhanced sand filter were installed to remove dissolved phosphorus currently exported from both degraded wetlands and impaired shallow lakes in the Cedar Lake Subwatershed. The filters are designed to treat baseflows and up to the 1.25" rain event. This translates into 1,280 lbs. annual phosphorus removal.





This project was funded by a

Clean Water Land and Legacy Amendment grant via the MN Board of Water and Soil Resources, a contribution from the Cedar Lake Conservation Club and assessments and taxes from property owners in the CRWD. The MN Department of Natural Resources allowed construction of one of the filters on the Swartout Wildlife Management Area. Learn more about the project at http://crwd/org.

### Other activities:

<u>Alternative Tile Intake Program:</u> Cost-share & technical assistance partnership with local SWCDs to replace open intakes with alternatives that maintain existing drainage while mitigating transport of sediment and nutrients from farm field runoff

<u>Aquatic Invasive Species:</u> Partner with lake associations to implement treatment activities and serve in advisory roles to counties implementing AIS programs

<u>Civic Engagement:</u> Implement educational, outreach, and public information programming to increase capacity, build support, and empower citizens to promote, protect and preserve our water resources





[In Progress] Clearwater River Restoration & Protection Ph II: Prioritize and implement targeted best management activities in the western portion of the District to minimize sediment & nutrient runoff

<u>Incentive Programs:</u> Cost-share & technical assistance to install best management practices in agriculture and lakeshore area that result in treatment of nutrient & sediment runoff

<u>Performance Monitoring:</u> Conduct various water quality monitoring methodologies to establish and track trends, provide data for improvement efforts and track progress to meet goals

Rough Fish Management: Control rough fish populations in

various lakes to minimize negative water quality effects using removal and migration blocking techniques

[Completed] Targeted Fertilizer Project: Assisted farmers with optimizing fertilizer application, resulting in less opportunities for fertilizer runoff to CRWD waters. Learn more at http://crwd.org

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## **Fast Facts**

Several lakes in the watershed have improving water quality trends over time

Aquatic invasive species are costly; not just for our waters, but also for our economies

Internal loading (the process by which nutrients in lake sediment releases to the water column) remains a large problem in several watershed lakes

The CRWD is one of many entities working in the watershed to improve our waters? Are you one of them? Go online and search "ways to improve water quality" to get started