



Wirth Lake Outlet Modifications



Clean Water Funds: 2011

Clean Water Grant	\$75,000
Leveraged Funds*	\$175,000
Total Project Budget	\$250,000

* Leveraged Funds include required 25% local match

Targeted Water:
Wirth Lake

Project Sponsor:
Bassett Creek Watershed Management Commission

Grant Period:
January 2011 - December 2012

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Project Narrative

Wirth Lake is located in Theodore Wirth Regional Park in the City of Golden Valley. The lake was listed as Impaired due to excessive phosphorus levels. In recent years water quality goals were met except during instances where seasonal overflows from Bassett Creek into Wirth Lake occurred.

With one relatively simple project, the Bassett Creek Watershed Management Commission anticipates that the excess phosphorus problem will be resolved once and for all. The Implementation Plan for the Wirth Lake TMDL includes modifying the outlet structure to prevent flow from the creek to the lake during flood periods. Based on an analysis of historical data, the modification of the Wirth Lake outlet will achieve reductions in phosphorus sufficient to meet water quality goals.

The modifications include replacing the existing bulkhead in the outlet structure with a fabricated steel lift gate. The lift gate would be operated with an electric motor and controls that would operate based on water levels in the creek. The gate would close during periods when water levels in the creek would result in backflows to Wirth Lake.

The estimated cost of the steel lift gate is \$80,000 and the cost of the controls is estimated to be \$70,000. The total estimated capital construction cost to modify the Wirth Lake outlet and install the gate and controls is \$250,000 including administration, permitting, and installation. With the \$75,000 Clean Water fund grant, Wirth Lake will meet water quality goals and park users will see increased water clarity.



Wirth Lake Outlet Modifications



Wirth lake at dusk with a view of the fishing dock



Wirth lake outlet on upstream side. Bassett Creek can backflow into the lake.



Wirth lake downstream outlet connecting with Bassett Creek