Project Factsheet

City of Apple Valley
Long Lake Stormwater Retrofit

Project:

Two bioretention cells totaling 8,600 square feet fitted with iron enhanced sand filters were constructed between an existing stormwater pond and Long Lake to create a three step stormwater treatment system. First coarse sediment is removed in the wet pond, then bioinfiltration reduces volume and finally the iron filings in the sand filter removes dissolved phosphorous before the runoff reaches Long Lake.

West Cell

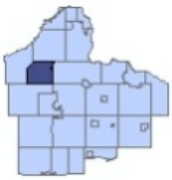
East Cell

Funding:

Total Project Cost:	$136,284
State Clean Water Fund:	$ 20,000
Vermillion River Watershed JPO	$ 40,000
City of Apple Valley:	$ 76,284

Location:

Apple Valley



Practice:

Bioretention with Iron Enhanced Sand Filter Outlet

Project Benefits:

Runoff Volume Reduction

Reduction in Total Suspended Solids and Phosphorus

Improved Water Quality

Opportunity for Public Outreach and Education

Partner:

Vermillion River Watershed Joint Powers Organization

Minnesota Board of Water and Soil Resources

Watershed:

Vermillion River

Installation:

2012

Clean Water Fund: Protecting and restoring Minnesota's waters for generations to come.

Dakota County Soil and Water Conservation District
4100 220th St. W., Suite 102, Farmington, MN 55024 651-480-7777 www.dakotaswcd.org

Revised 4/01/2013

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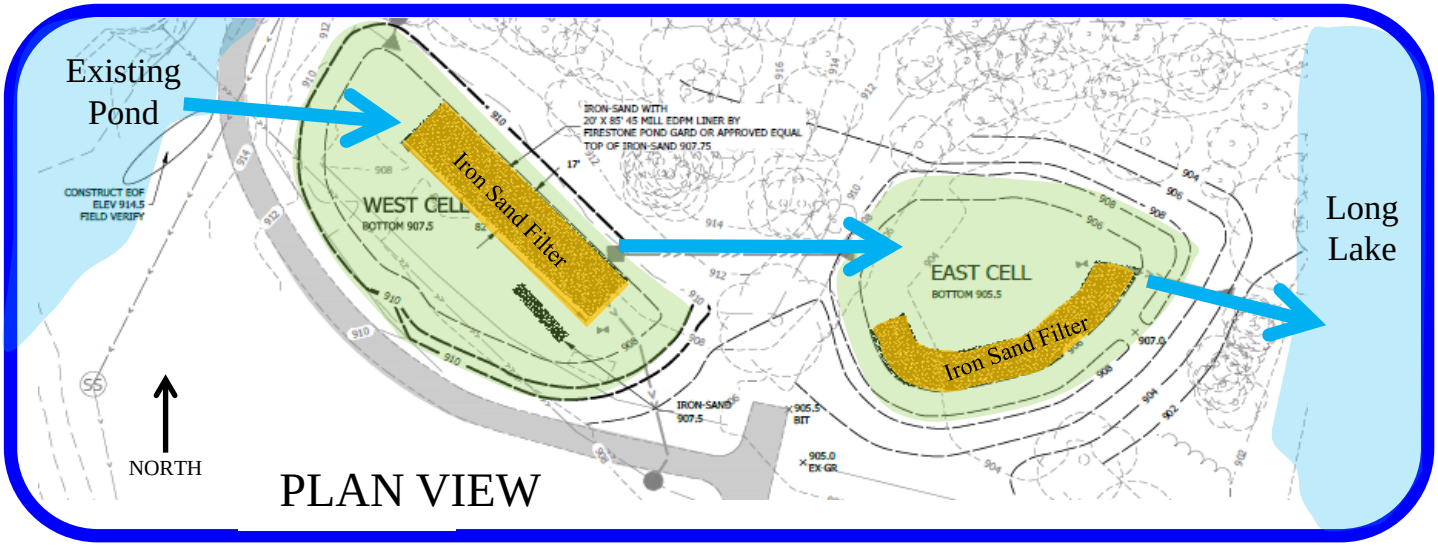

After excavating to grade, plywood forms were used to hold the rubber liner which separates the infiltration area from the filtration area.

Perforated underdrains with a flow controlling valve were installed and covered with an 18 inch depth of iron enhanced sand filter material.

The iron sand mixture in the filtration area contained 5% iron filings by weight. The infiltration areas outside of the forms contained 70% coarse washed sand, 15% compost and 15% sphagnum peat.

A native seed mix was covered by erosion control blanket and highlighted with shrub plantings. The cells will remain off-line until 2014 to allow the native seed to establish.

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