



# Phosphorus Reduction Enhancements



## Clean Water Funds: 2013

Clean Water Grant	\$158,214
Leveraged Funds*	\$55,000
Total Project Budget	\$213,214

\* Leveraged Funds include

### Targeted Water:

Long and Farquar Lakes

### Project Sponsor:

City of Apple Valley

### Grant Period:

January 2013—December 2015

### Project Contact:

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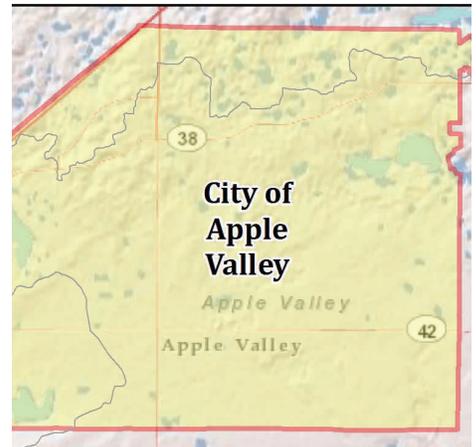
CWF13-84 - Clean Water Assistance

## Project Narrative

In 2002, Farquar and Long Lakes were placed on the impaired waters list due to high phosphorus levels that caused algal blooms and reduced water clarity. The City of Apple Valley is proposing a combination of two enhancements to achieve a 61 pound reduction in phosphorus.

First is the installation of an iron enhanced sand filter to the banks of the pond. When water levels increase after rain events, water will flow through the filter before leaving the pond. Particulate phosphorus will be removed as water passes through the sand and dissolved phosphorus would chemically bind to the iron in the filter.

The second enhancement is a phased application of aluminum sulfate (alum) to the pond. The alum application will be distributed over three years to maintain healthy pH levels in the pond. Sediments in the pond bottom store phosphorus that is periodically released into the water column when certain conditions occur throughout the year. Alum chemically binds and locks phosphorus in the pond sediments. Water clarity will improve after application of alum and promote growth of aquatic plants, improving wildlife habitat and aesthetics.



### Proposed Outcomes:

Reduce Phosphorus by 61 pounds/year.

### Actual Outcomes:

Project in Progress