



# SWWD Water Re-Use and Lake Restoration



## Clean Water Funds: 2013

Clean Water Grant	\$566,500
Leveraged Funds*	\$403,417
Total Project Budget	\$969,917

\* Leveraged Funds include required 25% local match

### Targeted Water:

Colby and Bailey Lakes

### Project Sponsor:

South Washington Watershed District (SWWD)

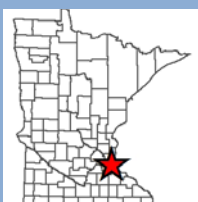


### Grant Period:

January 2013—December 2015

### Project Contact:

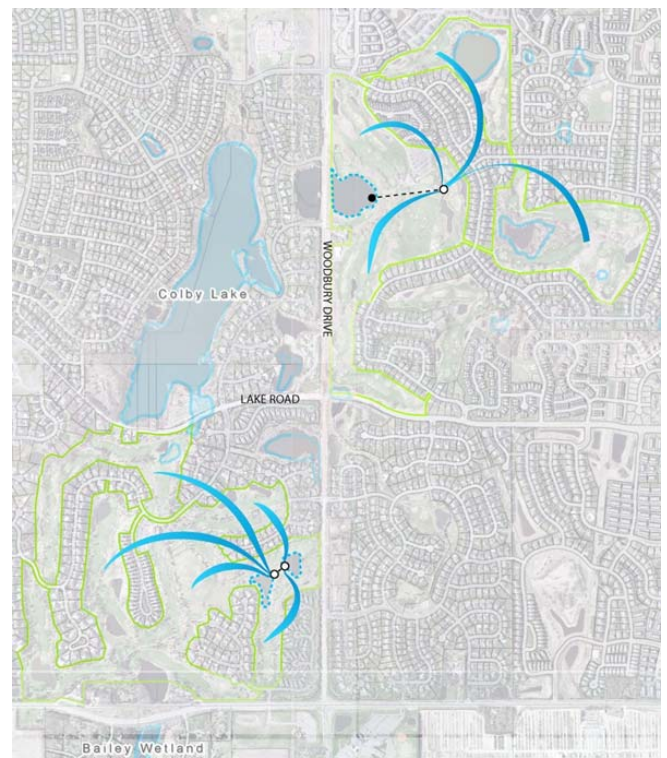
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CWF13-146 - Clean Water Assistance

## Project Narrative

SWWD and its partners continue restoration of the Colby Lake watershed and prevent continued degradation of Bailey Lake through installation and operation of two large scale water re-use irrigation systems. The two systems at Eagle Valley and Prestwick Golf Courses capture urban runoff and excess nutrients that would otherwise flow into Colby and Bailey Lakes and use it for irrigation in place of pumped groundwater. These re-use systems will help reverse decades of pollution in Colby and Bailey Lakes, improve sustainability of local water supplies, and reduce the need for use of chemical fertilizers at the two area golf courses. With completion of this project nearly all of the immediate watershed load reduction necessary to restore Colby Lake is complete. Additional upstream and in lake treatment will still be required.



### Proposed Outcomes:

Construction of two stormwater re-use irrigation systems at area golf courses. The first, at Eagle Valley Golf Course would reduce phosphorus loading to Colby Lake by 56 lbs/yr. The second, at Prestwick Golf Course would reduce phosphorus loading to Bailey Lake by 44 lbs/yr. Together, the two systems should reduce irrigation demand on area aquifers by nearly 36 million gallons/yr.

### Actual Outcomes:

Both systems were constructed as planned and are fully operational. Because the two systems were installed as part of a larger road reconstruction project, and largely utilized existing irrigation networks they were much less costly than similar systems. The total cost for both systems was just short of \$816,000, including \$566,500 in CWF grant funds.





New pump stations were established along with intake connections into existing stormwater ponds at each golf course. The pump stations feed into pre-existing irrigation systems. When available, stormwater is the primary irrigation source. Both courses maintain their groundwater wells as a backup irrigation source.



In addition to connecting to the pre-existing irrigation system at Eagle Valley golf course a new dry creek bed was constructed. When water is not needed for irrigation, stormwater is still pumped into the holding pond which feeds the irrigation system, but then overflows into the dry creek. Circulation through the creek bed promotes infiltration while also providing an additional water feature for the golfcourse.