## Shingle Creek Twin Oak Pond

Watershed Management Commission



City of Crystal



Location: Bass Lake Road between Regent and Toledo Avenues N in Twin Oak Park, Crystal

The Shingle Creek Watershed Management Commission contributed \$77,500 to this project, and obtained a \$73,080 Clean Water Legacy Grant for the City. The City of Crystal funded the balance of the project.

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This 2010 project constructed a regional storm water pond in Twin Oak Park in the City of Crystal to treat runoff from a 500+ acre drainage area. A 66" trunk storm sewer in Bass Lake Road collects runoff from a wide area of Crystal and Hew Hope, and conveys it Upper Twin Lake in Crystal. A manhole on that storm sewer was modified to divert the "first flush" of stormwater into the new Twin Oak Pond for detention and treatment. Small rainfalls and the first one inch of larger rainfalls from the urban landscape carry a high concentration of pollutants such as sediment and phosphorus, carrying the majority of the annual load of pollutants to receiving waters. For larger rainfalls the first flush is diverted into the pond and higher flows overtop the weir and stay in the storm sewer to Upper Twin Lake.

Storm water holding ponds allow sediment and phosphorus to settle out of the storm water before being discharged back into storm sewers. The Upper Twin Lake contains too much phosphorus, and has been declared an "Impaired Water." To meet state lake water quality standards the amount, or load, of phosphorus to Upper Twin Lake must be reduced by approximately 800 pounds per year. This new pond will reduce the amount of phosphorus going to upper Twin Lake by an estimated I20 pounds per year. The City of Crystal and other cities that drain to the lake are undertaking projects like Twin Oak Pond to work towards that load reduction goal.