



SUTTON

CLARK'S POND

Community ...

Originally known as Glen Lake, Clark's Pond in Sutton was already there when the area was settled in 1870. In 1948, the lake and surrounding area was granted to the city and renamed. A condition of the grant called for the pond to be used as a free, public recreational facility, and it has since been widely used for picnicking, fishing and ice-skating. The pond's watershed is approximately 187 acres, consisting mainly of farmland. Precipitation is the pond's only water source.

Challenges ...

In 2000, the maximum depth of Clark's Pond was three feet. Upstream erosion and poorly stabilized shorelines were decreasing pond depth by more than seven inches per year. This left the pond too shallow to support fish, and made the pond more susceptible to algae blooms and poor water clarity.

Solutions ...

In 2001, funding to restore the pond was received from CLEAR. The project's initial construction phase included a sediment basin built upstream of Clark's Pond. This sediment "trap" intercepts much of the sediment and nutrients before they reach the pond and helps control downstream flooding of the city's storm sewer system. A quarter-acre wetland was constructed north of the pond for further sediment and nutrient removal. The project's second phase involved restoring the pond itself. It was drained and approximately 5,000 cubic yards of

sediment were removed, increasing maximum depths to over 12 feet for 25 percent of its surface area. Vinyl sheet piling was used along half of the shoreline for stabilization and to obtain 12-foot depths. Shoreline on the west side of the pond was expanded about 10 feet, increasing the pond's surface area about 10 percent.

Results ...

This project resulted in significant improvements in water quality. Total phosphorus and total nitrogen were decreased by 89 percent and 56 percent respectively. This led to a 53 percent reduction in the amount of algae in the pond, which increased water clarity from only 2 inches to 20 inches. The sediment basin that was created is expected to reduce sediment loading from approximately 800 tons per year to 200 tons per year. Having this diversion will increase the life expectancy of the pond by as much as 28 years. The local schools are now using this area as an outdoor classroom. The total cost of the 19-month project was approximately \$408,000. Of this amount, \$210,000 was provided through CLEAR, \$145,000 was provided by the city, and \$52,000 by the Upper Big Blue Natural Resources District.

