



LAKE ANSLEY

Community ...

Lake Ansley originally was part of Mud Creek, which flows through the northwest corner of town. In the 1890s and early 1900s the creek powered a water wheel and later steam engines to make electricity. These generating plants were among the earliest of their kind in Nebraska. In the 1960s, part of Mud Creek was dammed to form a four-acre lake. The lake has been a popular fishing spot and, since it is next to Highway 2, it is also an attraction for travelers. A surrounding park features a baseball diamond and picnic shelters, as well as facilities for camping, tennis and basketball.

Challenges ...

Forty years of sediment and organic material accumulated on the lake bottom, decreasing the lake's maximum depths by eight to nine feet. High nutrient concentrations led to frequent algae blooms, causing the water to become turbid (or cloudy). In addition to stormwater runoff impacts, natural spring activity had decreased and there was seepage in one corner of the lake, which made maintaining water levels difficult.

Solutions ...

In 2002, Ansley received funding from the CLEAR program. Village and grant funds were used to accomplish several objectives including stormwater diversion, lake deepening, shoreline stabilization and bottom sealing. Runoff problems from Highway 2 were addressed by installing a culvert pipe and two drop inlets that completely diverted stormwater around the lake. An earthen berm was constructed at the upper end of the lake for addi-

tional stormwater protection. About 35,000 cubic yards of sediment were removed from the lake, yielding depths of 10 to 12 feet across 25 percent of the lake. A compacted soil liner was installed to reduce seepage to less than a quarter inch per day. The applied science class at Ansley High School helped with water quality monitoring. Other project activities included handicap access enhancements, removing an old siphon tube and building an emergency spillway.

Results ...

Significant water quality improvements resulted from this project, the largest being in clarity, which increased from 18 inches to 89 inches. In addition, phosphorus decreased by 73 percent, nitrogen by 56 percent and turbidity by 90 percent. The lake has been restocked with large-mouth bass, bluegill and channel catfish. Lake Ansley has returned as the focal point of the park and will continue to provide community members a place to enjoy a quality outdoor experience. The two-year project cost approximately \$257,000, with \$223,000 coming from CLEAR and \$34,000 coming from the village. Consulting services were provided by Tagge Engineering Consultants.

