



WEEPING WATER

WEEPING WATER PARK LAKES

Community ...

Near downtown Weeping Water are two water bodies called Weeping Water Park Lakes. East and West ponds are each about 2.5 acres in size and about four and 10 feet deep, respectively. Both were originally limestone quarries that were developed into recreational ponds in the 1960s. Historically, they were used as natural filters and containment for city drinking water. The park is a community centerpiece, and annual events such as Limestone Days, Country Pickin' Festival and more are held there. Park facilities include campsites, picnic tables, covered shelters, restrooms, grills and playground equipment.

Challenges ...

Over the years, water quality degraded to the point it hindered use of the ponds. Water clarity was only 1.1 feet and algae blooms were frequent. East pond was only three to four feet deep, not enough to support aquatic habitat and fish. West pond had a maximum depth of 10 feet, but much of it was only 2.5 feet deep. Steep, uniform shorelines limited aquatic habitat diversity and made lake access difficult.

Solutions ...

In 2004, funding to restore the lakes was received through the CLEAR program. Restoration began by removing 33,000 cubic yards of sediment from both ponds. Depth of each increased from four to eight feet, with deep pools between 10 and 15 feet. Pond beds were sculpted into irregular shapes with shoals, submerged islands and undulations. A deep-water channel was

dredged connecting the two. Iron pilings were removed from West pond, and an abandoned water supply intake was removed from East pond. Both were re-shaped and jetties, protrusions and other irregularities were added to enhance aquatic habitat and provide better access. Shorelines were sloped and graded to maximize vegetation, and were protected from erosion with biodegradable fabric. Rock was added to high activity areas and around jetties. Rock piles, anchored trees and gravel were put on pond bottoms for habitat and fish spawning. An aeration system was installed to maintain dissolved oxygen and control algae. A water control system was added, as well as a gate valve and discharge pipe for draining overflows to Weeping Water Creek. To help keep sediment and nutrients from entering the ponds, a sediment trap/wetland was built upstream from the park.



Results ...

The former rectangular lakes have been reshaped and deepened to more natural and suitable aquatic habitat. Shoreline grading has provided better access to the water's edge for fishing, and the shorelines have been protected against erosion. A management and education plan was developed for the ponds for local students doing water quality sampling, pond bed surveys and monitoring plant growth. The 18-month project cost \$329,000. CLEAR provided \$278,000 with \$51,000 coming from the city. Partners were City of Weeping Water, Lower Platte South NRD, Day Foundation, Weeping Water Junior/Senior High School, Weeping Water Elementary School and Jacobson Helgoth Consultants.

