

CRYSTAL SPRING LAKE

Community ...

Crystal Spring Lakes, near Fairbury, were built in 1934 in Crystal Spring Park. The lakes comprise a series of three borrow pits totaling about 18 surface acres. Though they do receive some surface runoff, the primary water source is groundwater; the springs are also the source of Fairbury's drinking water. Owned by the city, Crystal Spring Park has camping pads with electrical hookups, restrooms and showers, picnic shelters and playground equipment.

Challenges ...

Before 1978, external sources of sediment and nutrients to the lakes included overland runoff from adjacent pasture ground and floodwater from the Little Blue River. That year the city and the Little Blue Natural Resources District (LBNRD) shared costs to build a levy to protect the lakes, park area, and city wells from runoff and river floodwaters. With sediment and nutrient sources under control, Fairbury needed help restoring the lakes. During a water quality monitoring program in 1994, it was determined accumulated sediments had made the lakes too shallow, reduced water clarity and rendered the water too high in nutrients. Past floods had also damaged shorelines and these areas needed stabilizing to correct past erosion issues and prevent future shore damage.

Solutions ...

From 1994 to 2002, Fairbury received several grants to restore and renovate the lakes. Major contributors were Nebraska Environmental Trust Fund (NETF), Nebraska

Department of Environmental Quality (NDEQ), Little Blue NRD (LBNRD) and Nebraska Game and Parks Commission (NGPC). Renovation essentially occurred in three phases with the three lakes being rehabilitated one after another. They were dredged and reshaped, shorelines were seeded or stabilized with riprap, more than 280 trees were planted in the surrounding park, an aeration system was installed, and the lakes were stocked with channel catfish, largemouth bass and rainbow trout.

Results ...

In removing about 22,000 cubic yards of sediment from each lake, depths of at least 10 feet were achieved. Water clarity increased from eight inches before the project, to 36 inches afterward, a 350 percent improvement. Crystal Spring Lakes are now the site of youth fishing classes, fishing tournaments and camping. The entire project took about eight years and was funded through grants by the NETF (\$224,000) and NDEQ (\$30,000). Additional funding was provided by the NGPC, LBNRD and City of Fairbury.





