



### HOSPITAL LAKE

#### Community ...

**H**ospital Lake was created from a borrow pit that was the result of the construction of a new healthcare campus for Columbus Community Hospital that broke ground in May 2000. The main feature of that project is a four-story, 153,000-square-foot building that was occupied in August 2002. The new lake became a home to migratory waterfowl and had gamefish in it, but the Nebraska Game and Parks Commission determined that they would not survive normal Nebraska winters due to the lake's shallowness.

#### Challenges ...

Because of its shallow depth, the lake didn't support much aquatic habitat and a lake management and education plan didn't exist. Lake access also was inadequate. Early on, its ownership was rededicated from the nonprofit Columbus Community Hospital to a public agency to make it more accessible for public fishing and recreation. Early problems with the lake included dense growth of nuisance vegetation and susceptibility to algae blooms because of depths ranging from one to seven feet. The lake is primarily supported by groundwater, as very little overland runoff reaches the lake.

#### Solutions ...

The lake's reconstruction under the CLEAR program began with excavating about 60,000 cubic yards of sediment to increase lake depth to as much as 12 feet. Much of that sediment was distributed along the lake's shoreline. The lakebed was sculpted to an irregular shape to provide

diverse aquatic habitat and the shoreline was shaped and sloped for vegetation and access. Existing rubble and trash were removed and the lake's inlet was reconstructed with corrugated metal pipes and a low flow liner. A handicap-accessible fishing deck was built into the south-east corner of the lake. Trails, connecting the park and lake to residential areas south and east of the lake were constructed and the Lower Loup NRD provided and planted small trees at the site to begin a landscaping program.

### **Results ...**

Water quality monitoring of the lake in 2007 and 2009 indicated the reconstructed lake had good water clarity with low concentrations of nitrogen, phosphorus and algae. Largemouth bass and bluegill, which were in the lake before the reconstruction project began, have flourished since its completion; there are no carp or other rough fish in the lake. This two-year project was completed at a cost of \$296,120. Project contributions come through the CLEAR program (\$244,000) and community match (\$52,120). Project partners included the City of Columbus, Lower Loup Natural Resources District, Columbus School District, Columbus Community Hospital and Kirkham Michael Consultants.

