



## GRAND ISLAND

### SUCKS LAKE

#### Community ...

**G**rand Island's Sucks Lake was developed in the early 1950s from a sand and gravel operation owned by August A. Suck. In 1966, Sucks Lake and surrounding property were deeded to the City of Grand Island. Rainfall in the 296-acre watershed provides the only inflow to the lake, which has a surface area of about 3.3 acres.

Over time, Grand Island became more interested in the lake's recreational potential, leading the city to stock it with fish and build trails and park areas around it. Trails around the lake connect with the city's trail system, and the park area is used for picnicking and other family activities. The lake was used for fishing when it was productive.

#### Challenges ...

Over the years, sediment carried with stormwater runoff entered the lake, impairing water quality and decreasing depths. As a result, fish populations declined, winter fish kills occurred and the lake experienced algae blooms. The lake's shoreline also eroded, making the banks in many areas too steep for anglers to reach the shoreline. In other areas, the slope was too gradual for anglers to access the deeper water.

#### Solutions ...

In 2003, Grand Island received funding through the CLEAR program to restore the lake. The first phase of construction was to install storm sewer pipe, construct a dam, and build a detention cell at the east end of the lake. To prevent future runoff from impairing the lake, stormwater runoff was diverted to this detention cell and then directly into

the storm sewer system. The lake was dredged to remove accumulated sediment and organic material, which also restored depth. About 25,000 cubic yards of sediment were removed, increasing depth in shallow areas from two feet to 15 feet. There are 2,400 feet of shoreline around Sucks Lake; 300 feet was stabilized using vinyl sheet piling. The remainder was reshaped and seeded to reduce slope and decrease future erosion.

### Results ...

This project expanded lake uses to include education via an outdoor classroom setting, ice-skating and improved fishing. The Nebraska Game and Parks Commission stocked the lake with largemouth bass, bluegill, rainbow trout and channel catfish. In conjunction with lake quality improvements, the city made many improvements to the surrounding park, including new playgrounds, picnic shelters, parking lots, a handicap-accessible fishing pier and restrooms. A decrease in turbidity and algae has resulted in outstanding water clarity, which allows for aquatic vegetation.

The 18-month project cost approximately \$373,318 with \$300,000 provided through the CLEAR program and \$73,318 contributed by the community. Project partners included the Central Platte Natural Resources District and Olsson Associates Consulting.



*The restored lake is ready for a variety of recreational activities.*