

# Tyler Water Utilities

## Water Sources

The primary water source for the City is surface water obtained from Lake Tyler, Lake Tyler East, and Lake Bellwood. To date, the City has not diverted any water from Lake Palestine. The City has studies underway with respect to timing and sizing of treatment and transmission facilities from Lake Palestine.

### **Lake Bellwood**

Lake Bellwood has a surface area of 170 acres and served as the primary water supply for the City until Lake Tyler was constructed in 1949. In 1965, the water treatment facilities of the City, located at Lake Bellwood, were retired. The only current diversion of water from Lake Bellwood, is by three users of raw water. Briarwood Country Club and Bellwood Golf Course purchase water in place and pump it with their own facilities for irrigation. The third and major user is Kelly Springfield Tire and Rubber Company. This facility is provided raw water service via water pumping station and pipeline owned and operated by the City. Lake Bellwood is located on Indian Creek and lies in the Neches River watershed. It and 185 acres of marginal lands owned by the City are presently used principally for limited recreational uses.

### **Lake Tyler**

Lake Tyler was constructed in 1949, and covers approximately 2,400 surface acres. This lake has served as the major source of water supply since its construction. Lake Tyler also serves as a major recreation center for this area, under strict sanitary controls. The Water and Sewer Utilities Department maintains six park areas adjacent to the lake. Lake Tyler is located on Prairie Creek, a tributary of Mud Creek, and lies in the Angelina River watershed. It has storage capacity of over 15 billion gallons (43,500 acre feet) at spillway elevation and has an average depth of 17.6 feet. It has a watershed area of 42 square miles (27,000 acres).

### **Lake Tyler East**

Lake Tyler East was completed and the dam closed in 1967. The lake filled to capacity in 1968, and was connected to Lake Tyler by a connecting channel. This channel, in effect, formed one lake from the standpoint of water supply. Lake Tyler East has a surface area approximately 2,500 acres, a watershed area of 65 square miles and an average depth of 16.5 feet. The lake has slightly less storage area than Lake Tyler. The two lakes have a combined safe yield of approximately 30 million gallons per day. Lake Tyler East is located on Mud Creek and lies in the Angelina River watershed. Recreational use of this lake is the same as for Lake Tyler.

## **Lake Palestine**

Lake Palestine became a part of the City's water supply in 1965, when the City entered into a water supply contract with the Upper Neches River Municipal Water Authority (the "Authority") for the purchase of 67,200 acre feet of water per annum in place. The contract also provided that the Authority would construct and maintain an intake tower for the City capable of diverting 120 million gallons per day, which is twice the City's average daily entitlement of 60 million gallons. Lake Palestine lies in the Neches River watershed. It is anticipated that Tyler will be using water from Lake Palestine by the year 2003.

## **Deep Water Wells**

Twelve deep water wells are presently available to provide ground water supplies of approximately 9 million gallons per day. The wells produce from the Carrizo Wilcox sand group at depths ranging from 600 feet to 1100 feet. The wells were completed as needed to supplement the surface water supply beginning in the late 1930's through 1996.