The flow of the Teche...

Is it's beauty only surface deep?

Story by Betsy Cook

The muddy waters of the Mississippi River once flowed through this Acadiana heartland, down the course of Bayou Teche, into the Gulf waters. This was thousands of years before civilization was born. When the Mississippi River changed its course, as it has done many times before, its waters flowed slowly but confidently past the oaks and cypress to empty into the Atchafalaya River.

When towns and cities and industries slowly collected along the banks of Bayou Teche, man saw fit to regulate the bayou. At the same time, human and industrial wastes were pumped into the ancient waterway, reducing the oxygen and choking the life of the bayou.

The flow of the bayou was no longer swift enough to carry the impurities into the Atchafalaya River where they would empty harmlessly into the gulf. The result was water that was stagnating and oxygen that was being depleted.

This problem has gone unnoticed. The Army Corps of Engineers has developed a plan to pump water from the Atchafalaya Basin into the Teche to reduce those adverse effects caused by low flow. According to Chuck Metoyer of the Corps, the structure, which is presently being constructed three miles above Krotz Springs on the Atchafalaya River, is scheduled for completion sometime in September. The flow in the Teche should increase to reduce oxygen depletion.

The series of diversion structures will pump water from the Atchafalaya River near Krotz Springs into the Bayou Teche and from there into the Vermilion River by way of the Ruth Canal and Bayou Fusilier. "This project was designed to improve water quality in the Vermilion and Teche during summer low flow conditions and to provide additional water for irrigation of the area's farms," the study reported.

"At the present time the Teche is recognized by the state as one of the streams with severe quality problems," said Dugan Sabins, an environmental program specialist with the state Water Pollution Control Division. He went on to say that this project is not the answer to the polluted waters of the Teche, but merely one way to countered effects of industrial discharges.

What are the sources of industrial discharges and oxygen depletion in the Teche? Water Resources Engineers, an Austin, Texas firm, conducted an extensive study of the Vermilion-Teche Basin for the Department of Natural Resources. The study was conducted to formulate a water quality management plan for that basin. This study, completed in 1980, attempted to examine and identify sources of pollution in those three rivers, and ways to alleviate the pollution as well as to keep the flow of the Teche and Vermilion River.

According to the study, the critical low stream flows generally occur during warm weather in September and October. Bayou Fusilier carries water from the Teche to the Vermilion River during periods of high flow. The Ruth Canal also removes water from the Teche for irrigation purposes. The result is low flow velocity and oxygen depletion.

The major source of pollution of the Teche, as identified by the study, are industrial discharges. The study broke each river into several segments characterized by different pollution problems. Segments 0525, 27, 29, 31 and 33 deal with the Teche.

With the exception of segment 5033, the segments are characterized by low levels of dissolved oxygen and high fecal coliform concentrations. The source of pollution, according to the studies, are sugar processors and municipal wastewater discharges. These segments stretch from the beginning of the Teche, in St. Landry Parish through Baldwin to the Wax Lake Outlet.

Segment 5027 and 5029, which run from Breaux Bridge to Baldwin, are characterized by the study as Water Quality Limited Segments, which in terms of pollution is the most serious classification.

The study points out that even if the sugar processors achieved their discharge treatment level, which is the highest available level for conventional pollutants using current technology, the industries would still be discharging "significant levels of pollutants."

"Industrial discharges would probably have to be eliminated to prevent water quality violations," the study determined. The study went on to suggest that since Iberia Sugar Co-Op, Inc. and Cajun Sugar Co-op, major sources of pollution for the Teche, are located relatively near each other in New Iberia, a joint treatment of waste waters by the two industries is feasible.

Carlos Toea, plant manager for Cajun Co-op, reported that the company has spent $4 million in the last eight years on its waste treatment system. "We use what is called a Natural Oxidation Stabilization Pond. Water is recycled during grinding, and then left to stand in the ponds while oxygen is restored by rainfall and sunlight and the solids settle.

Some of the water is released into the bayou in the summertime after it is analyzed. "Our water is better than the water in Bayou Teche after we finish with it," Toea asserted.

The study characterized segment 5031, which is the Teche from Baldwin to Shadyside, as having significant problems with low levels of dissolved oxygen due to discharges by Sterling Sugars, Inc. into the Teche.

However, in 1981, a year after the study was conducted, Sterling Sugars began using a 200 acre oxidation pond, similar to the system used by Cajun Co-op. During the summer, after treatment, the water is discharged into the swamps.

"Even before this oxidation pond, water we put back into the bayou was better than the water we took out," said Fred Clark, vice president of Sterling Sugars.