Toxic substances found in bayou

By BOB ANDERSON
Environmental editor

High levels of toxic and cancer-causing substances have been found in fish and sediments of Bayou D’Inde near Lake Charles, federal documents show.

The sediments of the bayou are so contaminated that the U.S. Fish and Wildlife Service said any material dredged should be incinerated or removed to an approved, properly lined landfill.

“Any dredging of Bayou D’Inde should include special handling which would treat the resultant spoil for what it is — extremely toxic and carcinogenic material, Dave Fruge, head of the wildlife service’s area office, said in a letter to the U.S. Army Corps of Engineers. The corps is considering a dredging project in the bayou.

The adjacent marshlands are important fish and wildlife resources, and the bayou would be too, if it weren’t for the pollution, Fruge said in a telephone interview. He also expressed concern over the possibility that contaminated fish may be found over a broader area, since the bayou is connected to other important waterways in the southwestern part of the state.

Neither Fruge nor officials with the Department of Environmental Quality would point a finger at a specific industry at this time.

“Some of the major facilities in the Lake Charles complex are located on that bayou,” said Mike Shurtz of DEQ’s water division. He said there are six major industrial dischargers on the bayou.

Dale Givens, head of DEQ’s water division, said DEQ will conduct tests on the bayou and in adjacent waters to determine the extent of the problem.

Fruge said his office talked with a representative of the U.S. Food and Drug Administration who was very concerned about the levels of contaminants found in fish from the bayou, but the FDA representative wanted more details.

Concentrations of polycyclic aromatic hydrocarbons of more than 20 parts per million were found in sediments and 120 ppm in catfish, according to data collected by the U.S. Geological Survey.

Fruge said the tests were on the fatty portion of fish only and FDA wants to see tests on edible portions before it
would consider any action such as closing the water body to fishing.

Monocyclic aromatic hydrocarbons, which include such items as hexachlorobenzene, were found at levels above 50 ppm in sediments and at 41 ppm in blue crab. The FDA action level on hexachlorobenzene is 5 ppm in edible portions.

Hydrocarbons containing the compounds found in the Bayou D'Inde fish and sediments have been shown to cause impaired reproduction, slower growth and physiological disfunction.

Benzene — a monocyclic aromatic hydrocarbon — has a propensity for accumulation by fish, causing lesions in the gills, retinas and eye lenses of fish, and certain polycyclic aromatic hydrocarbons cause cancer-like lesions in some species.

A high rate of tumors in catfish has been found in an Ohio stream receiving several polycyclic aromatic hydrocarbons.

"Cursory sampling of the benthos from portions of Bayou D'Inde have indicated that benthic (bottom living) populations are almost non-existent, due in all likelihood to the bayou's contaminated sediments," Fruge said in the letter.

Givens said he wants more information on how the tests were conducted and plans to meet with representatives of the Geological Survey, wildlife service, state health department and Louisiana Department of Wildlife and Fisheries to discuss the matter.

If the proposed drainage project is approved and dredging spoil piled in the area, it could result in "periodic re-introduction of large doses of contaminants into Bayou D'Inde and adjacent waters and wetlands" from rain runoff and erosion of the spoil, Fruge said in his letter.

The materials could reach consumers who eat animals that feed on vegetation which has taken up the contaminants. The contaminants, Fruge said, also could reach the food web through small organisms, such as fiddler crabs, which inhabit spoil areas.

In addition to the proper disposal of any spoil, the wildlife service says the corps should use screens to minimize the re-introduction of contaminated sediment into the water during dredging.

Givens said no spoil should be piled by the corps until further testing is done and the matter resolved.