A plume of sediment-laden river water is slowly spreading along the southern reaches of Lake Pontchartrain and working its way toward the Gulf of Mexico as the Bonnet Carre Spillway throws 186,000 cubic feet per second of fresh river water into the salty lake.

The potential effects of the continuing operation of the spillway, which relieves flooding pressure downriver, are a mixed bag.

In addition to sediment, the colder and fresher river water also carries nutrients from upriver agricultural practices, carries the possibility of invasive species and has at least the temporary effect of moving out certain species of fish that want more-brackish water.

At the same time, the additional nutrients can provide a base for better growth of other species, the cold water may mean the impact on oysters will be lessened and nutrient blooms apparent in previous spillway operations may be delayed, if they happen at all.

Only time will tell, because a January opening of the spillway hasn't happened since 1937. Although not unprecedented, the early opening could mean different effects will be seen in the coming months.

Harry Blanchet, fisheries biologist with the state Department of Wildlife and Fisheries, said the influx of fresh water will move fish around and mostly out of the system as they look for saltier...
FLOW
Continued from page 1A

Motorists travel down Interstate 10, right, as it crosses between the Bonnet Carre Spillway, left, and Lake Pontchartrain on Wednesday.

Advocate staff photo by HILARY SCHENUK

"There are more shrimp in the water if water temperatures are colder than they are now. The state is monitoring water conditions to determine if emergency actions are needed to relocate oysters, but so far, that doesn't appear to be necessary," Blanchet said.

In fact, the fresh water may help, as parts of the Mississippi Sound are closed for oysters because of a red tide algae bloom. Red tide, he said, doesn't do well in fresh water, so the extra flow from the Bonnet Carre could help mitigate that problem.

Continuing water-quality monitoring is being done by a number of agencies, including the Lake Pontchartrain Basin Foundation, the Department of Wildlife and Fisheries and the state Department of Environmental Quality.

Tom Kilee, administrator with the DEQ inspection division, said they are monitoring water characteristics every two weeks and taking water samples to analyze for nutrients and chemicals every month throughout the high-water event.

The first round of testing was done Jan. 8 before the spillway was opened, and another round was conducted Jan. 13 although the river water hadn't yet reached the Causeway, where the water monitors are located.

The next tests will be conducted Jan. 27, Kilee said.

"I expect that we will see a slight elevation in the nutrient parameters," Kilee said. "But it will be temporary." At the opening of the Bonnet Carre Spillway, although dead zones of low oxygen and algae blooms did appear in the Mississippi River, Lopez said.

As monitoring continues this year, the foundation is looking for how the nutrients flow through the system and watching for any algae blooms. However, with the cold water temperatures, it's possible that any algae growth could be stunted, he said, unless warm weather continues and springlike conditions arrive early.