

# Lake Hancock project under way

By **GREG MARTIN**  
STAFF WRITER

BARTOW, FLA. — Despite more than \$120 million in budget cuts within the past two years, the Southwest Florida Water Management District is proceeding full steam toward building a \$150 million project to raise the level of Lake Hancock and build a marsh to filter its algae-choked water, in a bid to restore a minimum flow to the now-dried upper Peace River.

Environmental scientists, however, are at odds over the value of the project.

"I look at that \$150 million dollars and say they're just going to treat the symptoms and not fix the problem," said Dr. Tom Fraser, a fish habitat biologist who has spent a 30-year career as an environmental consultant in the Charlotte Harbor region.

He pointed out the Lake Hancock project does nothing to clean up the pollution in Lake Hancock or restore aquifer levels in a section of karst limestone under the upper Peace River. The levels have dropped some 50 feet since the 1950s. As a result, artesian springs that once pumped 20 million gallons per day into the upper Peace River now drain the river's entire flow during most dry seasons.

Lake Hancock became choked with algae because people dumped raw sewage, agricultural runoff and waste clay slime from phosphate mining into it decades ago, before environmental awareness prompted reforms.

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Given warm temperatures and plenty of nutrients, algae has bloomed to the point it now draws its own nitrogen out of the atmosphere and "fixes" it in the water. That water, which has been described as "like pea soup," is so rich in algae and nutrients the Peace River Water Plant located some 80 miles south must either gear up its treatment process or shut down whenever the lake discharges.

"It's just like a big 'ole sewage lagoon," said Fraser, who has examined the conditions on the lake by boat. "It's just green, it's just loaded with stuff — algae, high nutrients and low oxygen — and it's just a mess."

Fraser said he submitted a letter to the district recommending other approaches: dredge the sludge of organic material from the lake's bottom during a dry season, or take out the lake's existing discharge control structure, which was installed in response to Hurricane Donna in 1960.

That structure caused the lake to get deeper. If it was removed, it would eventually turn back into a stream. Vegetation would grow on much of the lake bottom and nutrients would get flushed out, Fraser contends.

## Progress on Lake Hancock

The district, however,

has already:

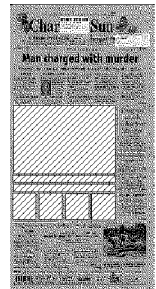
- Spent \$130 million through Florida Forever buying 8,000 acres surrounding most of the 4,500-acre lake in order to provide space for raising the lake's level. The land was purchased from the Old Florida Plantation development. Much of the land will be declared surplus and sold back to development.

- Built the first 30 percent of a bigger dam with garage-door sized flow-control gates. The structure will enable the district to raise the lake's level 1.5 feet. The levels will be controlled from a remote operations center at district headquarters in Brooksville.

Although the district has used such remote-control technology at flood-control structures in the past, this is the district's first use of it for a project solely designed to restore a minimum flow, said Randy Smith, district environmental scientist on the project.

- Completed some 30 percent of a \$20 million project to convert an abandoned phosphate clay settling area into the 1,000-acre filter marsh. A pump station is under construction to pump water from the lake to the marsh. The consolidated clay will be planted with wetlands vegetation, including spike rush, fire flag, pickerel weed and cattails.

After it gets completed by July 2013, the system



will cost \$600,000 per year in maintenance and operations.

The upper Peace River now meets its minimum flow of 17 cubic feet per second only 70 percent of the time. A 1972 state law requires rivers meet their minimums 95 percent of the time.

The minimum flow is the rate below which environmental harm results. The Peace essentially becomes so shallow fish can't pass through it.

By raising the lake's level and discharging that water during dry seasons, the district estimates the river will meet its minimum some 85 percent of the time.

Another proposed project to build berms around the crevices and sinkholes that are now draining the upper Peace River has been put on hold, said Smith. Once the lake project is established, the district hopes to employ a combination of additional projects and better management practices to make up the extra water needed, he said.

District engineers estimate the filter marsh

will remove 27 percent of the nitrogen load flowing down the river, Smith said.

"If we can efficiently manage these (Lake Hancock) levels appropriately, then we can use that to meet minimum flows," said Scott Letasi of the district's water resources bureau. "It's a whole watershed approach."

## Differing philosophies

The district was able to move forward with the project despite the budget cuts because the funds, which had been amassed during better economic times and banked in reserve accounts, were already encumbered, said Scott Letasi, water resources bureau.

"We wouldn't be able to take on another project like this," he said.

Ralph Montgomery, another long-time area environmental consultant, said he considers the Lake Hancock project "a good idea," at least to restore the upper Peace River. It will restore fish habitat and canoeing

opportunities, he said.

"Whether we're going to see a major change down (at the lower Peace) is questionable," he said.

Fraser, however, said any water retained unnaturally has an impact on the productivity of the Charlotte Harbor estuary. Fraser also warns that the manmade marsh poses its own impacts. It will likely discharge organic material, and that will deplete oxygen downstream, he said. Also, the plants will take up nitrogen for decades, but, eventually, the marsh will become saturated with nitrogen from decaying plants, he said.

Man has been drying out the estuary for some time, said Fraser. To reverse that trend, the district will back off slightly on well water withdrawals, just enough to raise aquifers under the Peace River over a 40-year period.

"Whatever the consequences of the Lake Hancock project are, they won't become known for a long time," he said.

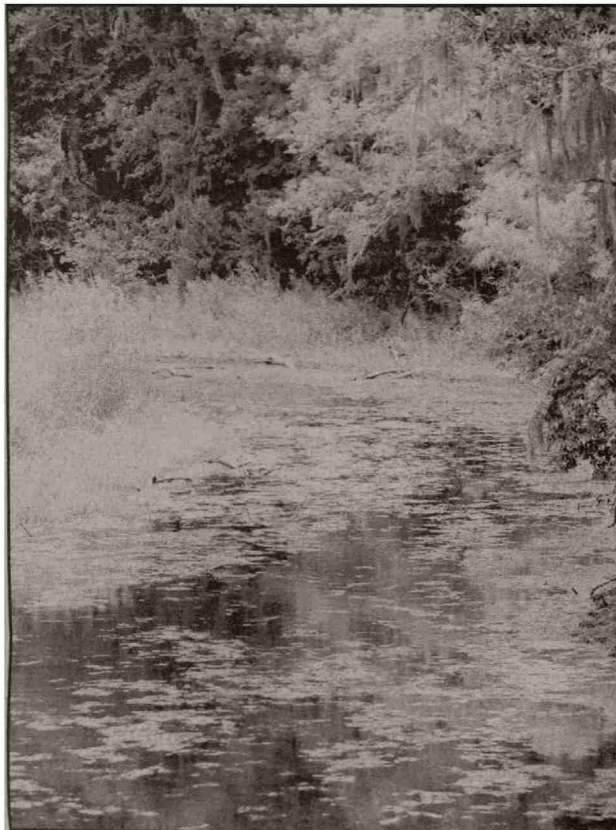
*Email: [gmartin@sun-herald.com](mailto:gmartin@sun-herald.com)*



Scott Letasi of the Southwest Florida Water Management District explains how Saddle Creek, a tributary to the upper Peace River, has been rerouted to make way for a dam project.

SUN PHOTOS BY GREG MARTIN, [gmartin@sun-herald.com](mailto:gmartin@sun-herald.com)

**A tractor tows "pans" to convert a 1,000-acre former clay settling area into a filter marsh as part of the Southwest Florida Water Management District's Lake Hancock project. The marsh will be designed to hold one foot of water that can be discharged to the upper Peace River.**



SUN PHOTO BY GREG MARTIN

**The flow of the upper Peace River, photographed at Homestead last week, has dwindled and is choked with algae. The Lake Hancock project is under way to augment this dry season flow.**