A Partnership for Cleaner Water

by Stephanie Stein

In response to a steady decline in the water quality of Lake Okeechobee, the University of Florida’s Institute of Food and Agricultural Sciences has formed a partnership with state and federal agencies to save the state’s largest lake.

The group is collaborating to create strategies to reduce the phosphorous loading to Lake Okeechobee.

Wendy Graham, coordinator of the UF research program for Lake Okeechobee said that stormwater runoff from nearby dairies, cattle ranches, farms and private homes all contribute to the problem.

“Soil in some areas is so saturated with phosphorus that it may continue to be released for years. Also, sediment on the lake bottom contains phosphorus, so it’s not enough to reduce the loss of submerged plants, and past algae blooms have discouraged recreation, killed fish and caused taste and odor problems in drinking water pumped from the lake,” said Alan Steinman, director of restoration on Lake Okeechobee for the South Florida Water Management District.

Steinman said that he doubts the quality of the water could get as bad as the situation in Lake Apopka, but it’s clearly time for action.

According to the South Florida Water Management District the lake stands threatened
by excessive phosphorus loading. Between 1973 and 2001, the phosphorous load to the lake averaged approximately 500 metric tons a year, higher than the 120 to 160 metric tons a year total maximum daily load goal being set by the Florida Department of Environmental Protection.

High phosphorus loading to the lake has increased the phosphorus concentration in the lake from about 40 to 100 parts per billion. This has resulted in algal blooms, which harmfully affect drinking water, the natural ecology of the lake and recreational activities.

Steinman said that given the extent of the problem, the size of the lake and its surrounding watershed, restoration could be a 20-year effort.

“Cynics say this project can’t stay on track for long, but I disagree,” Steinman said. “We’ve got interagency cooperation, public concern and a state mandate to get the job done.”

Mitch Flinchum, a UF professor of forest and water resources, is working with Graham to help coordinate UF work. UF will focus on research and education soil and water science, agricultural and biological engineering, horticultural science and animal science.

“There’s a wide range of environmental and economic issues that must be addressed,” Flinchum said. “Our main goal is to develop a series of best management practices for farmers, businesses and residents, to encourage voluntary compliance.”

Flinchum said that once best management practices are exercised the UF research team would monitor their effectiveness in improving water quality.

He said the program’s success will depend on cooperation from residents of the seven counties around the lake.

Flinchum said that Lake Okeechobee is crucial to South Florida’s environment and water resources.

“I believe that best management practices can help if people have the determination to use them,” Flinchum said.

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