EARTHJUSTICE

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The Lake Okeechobee Pollution Crisis and the St. Lucie River and Estuary

Pollution of Lake Okeechobee is contaminating drinking water supplies and destroying the St. Lucie River and Estuary.

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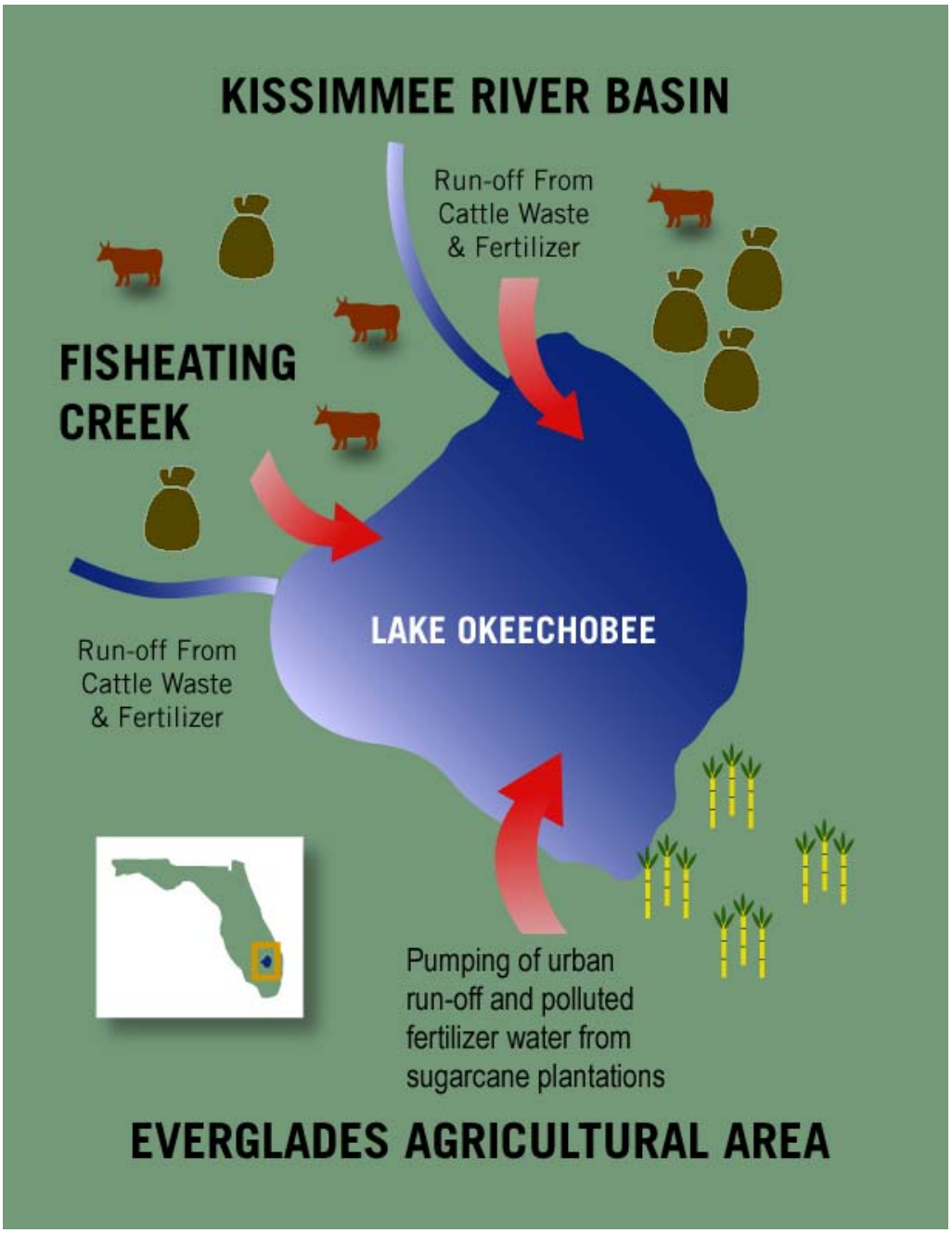


Lake Okeechobee pollution sources.

Lake Okeechobee has a surface area of nearly 730 square miles and is the second largest freshwater lake wholly within the United States. The Florida Department of Environmental Protection has classified the Lake as a Class I Drinking Water Source, requiring strict standards that allow only small amounts of pollution.

The region south of Lake Okeechobee, known as the Everglades Agricultural Area (EAA), contains over half a million acres of former Everglades that have been diked and drained to make them suitable for development. Most of this land is in sugar cane cultivation. To the north and east of the Lake are cattle farms that apply hundreds of thousands of pounds of fertilizer annually. This fertilizer often leaches into the Kissimmee River Basin and Fisheating Creek, both of which feed directly into Lake Okeechobee.

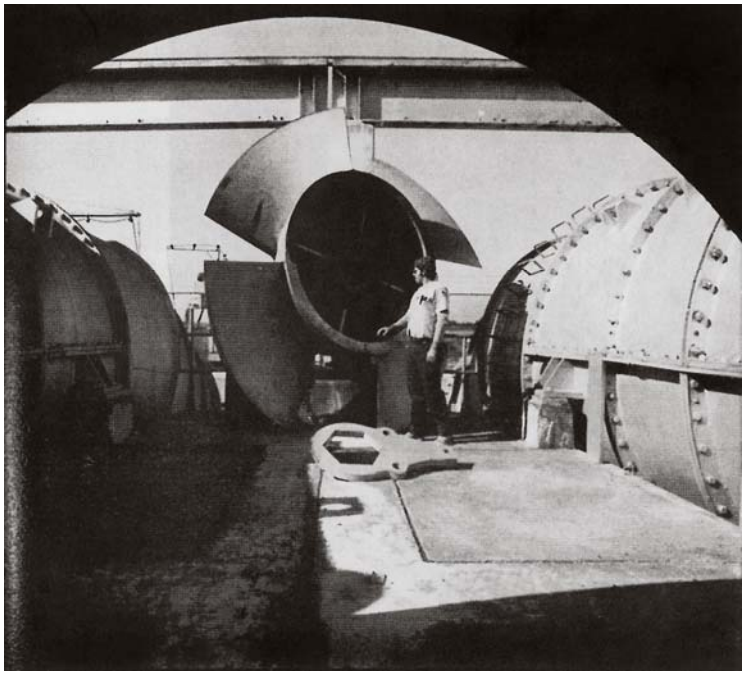
Water polluted with fertilizer being pumped from sugarcane plantations.

Billions of gallons of polluted water are pumped off the sugar cane fields and collected in large canals owned by the South Florida Water Management District. The District also owns and operates three pumping stations that are built into the Herbert Hoover Dike on the south shore of Lake Okeechobee. When all the pumps in a pumping station are operating, the discharge is equivalent to the flow of a medium-sized Florida river.

The flow from the pumping station creates a highly visible "plume" of dark, black water that can reach up to nine miles out into Lake Okeechobee. This plume contains high levels of phosphorous and nitrogen along with high levels of dissolved organic materials that come from agricultural and urban wastes. On average, three of the largest pumping stations – S-2, S-3, and S-4 – discharge 32 billion gallons of water into Lake Okeechobee each year.

Massive S-3 pumping station that conveys polluted water into Lake Okeechobee.

Each one of these pumping stations (S-3 is shown above), has either three or four very large pumps, each powered by a diesel engine about four times the size of a semi-trailer engine. Today, on average, the pumping stations pollute Lake Okeechobee with the equivalent of about 60,000 one-hundred-pound bags of phosphorous each year.



12-foot diameter propeller used to pull water into the pumping station from the canal. The propeller shown has been removed with the aid of a supersized wrench, resting in the foreground.

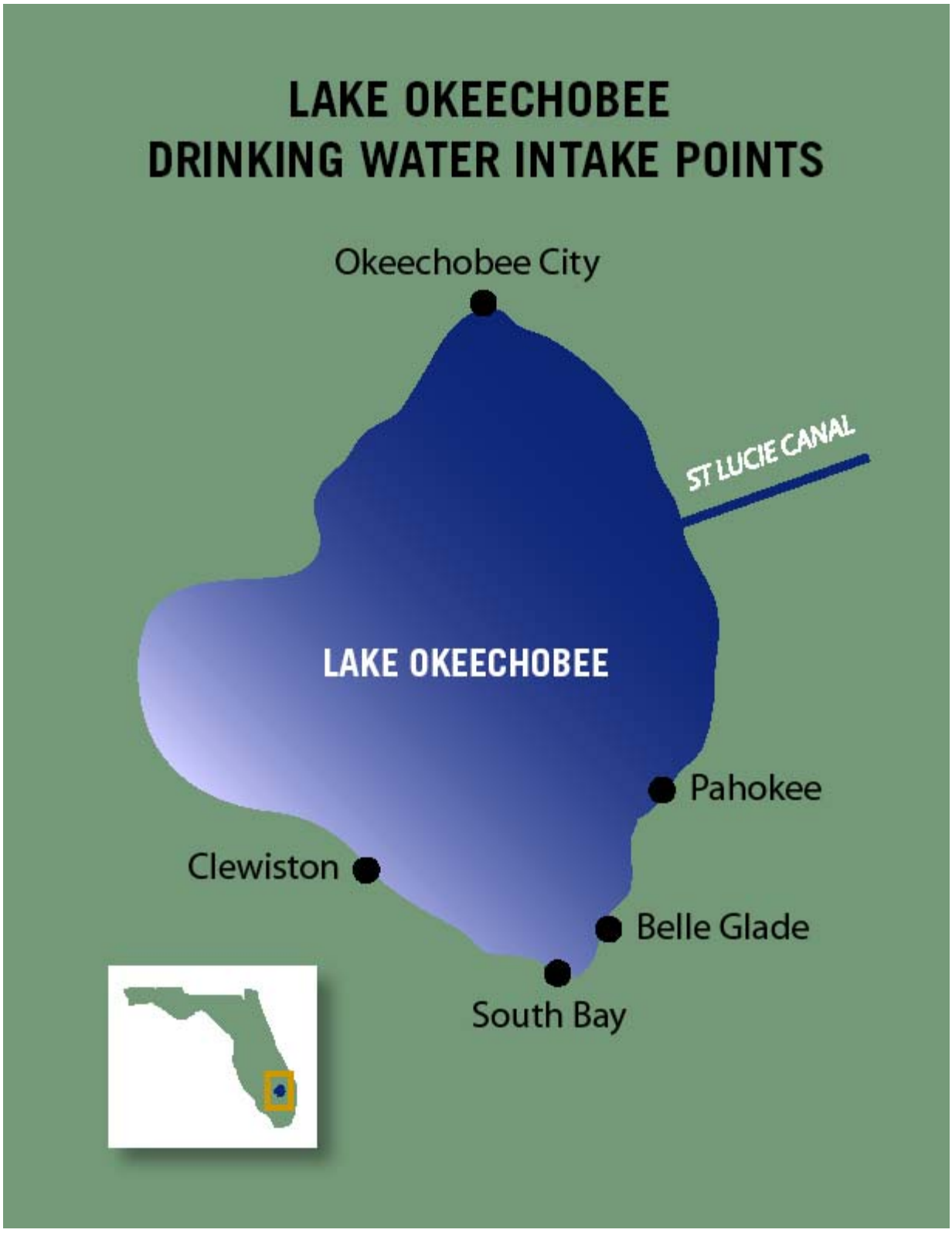
Pahokee Water Treatment Plant.

Lake Okeechobee is the sole source of drinking water for several small towns on the south rim of the Lake, and one of the sources of drinking water for West Palm Beach, Fort Myers, and the entire Lower East Coast metropolitan area. One of the largest pumping stations, S-2, is within 2.5 miles of the drinking water intake of South Bay, one of the smallest towns on the south rim of the Lake that uses treated lake water for drinking.

Because of this excessive fertilization, the Lake now chronically suffers from toxic blue-green algae blooms, including one in 2005 that generated toxin levels in Lake Okeechobee 65 times greater than the World Health Organization's safe drinking water guidelines.

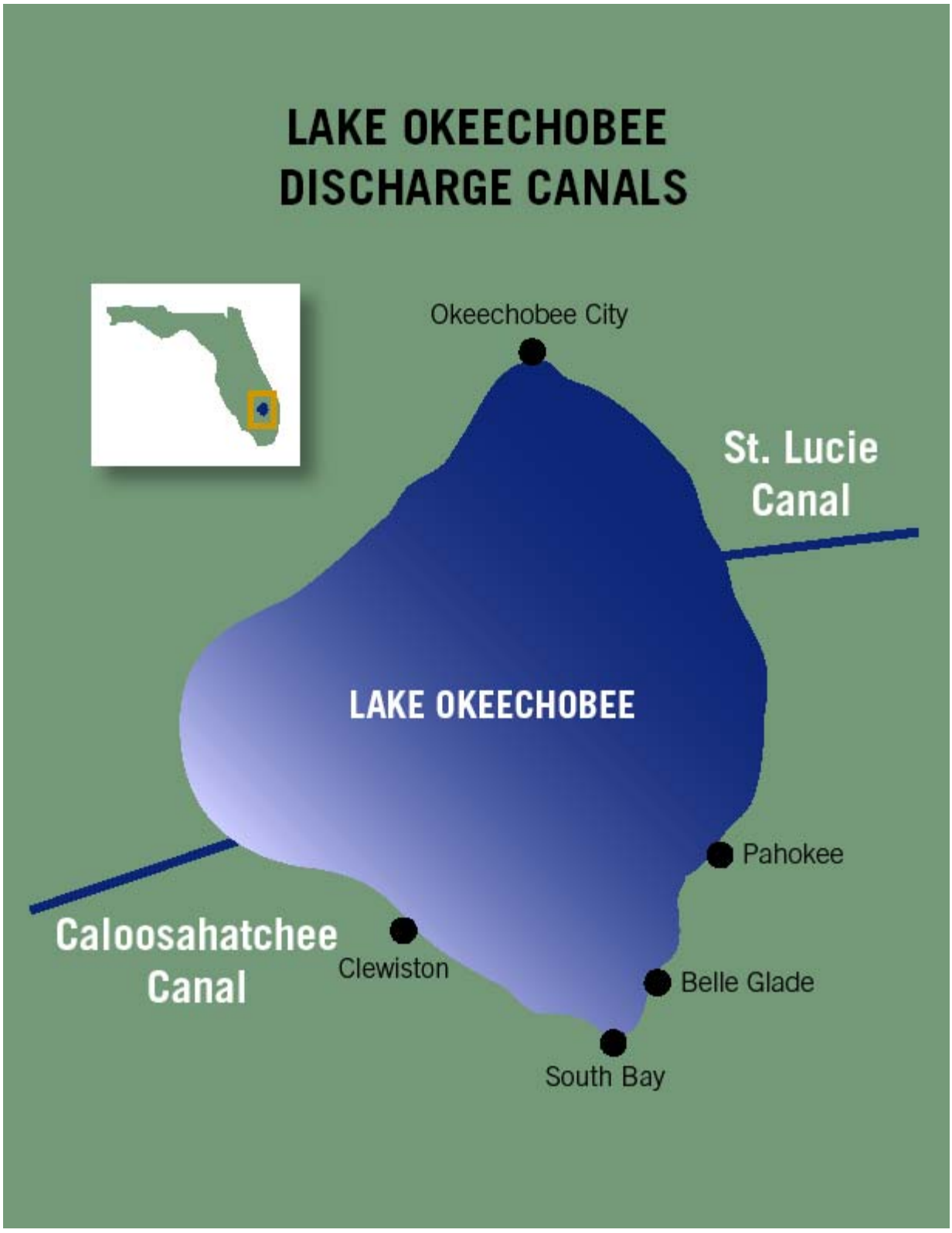
Blue-green algae toxins can affect the liver, nervous system, and skin, and have been linked to increases in liver cancer, chronic fatigue illness, skin rashes, abdominal cramps, nausea, diarrhea and vomiting. Numerous dog and cattle deaths have been attributed to exposure to toxic algae.

The toxins are not removed by chlorination or boiling the water prior to drinking; algaecides (which kill the algae) result in the release of the toxins into the environment.



Cities on the lake depend on Lake Okeechobee for their drinking water supplies.

The water intake points pictured above provide drinking water for Clewiston, South Bay, Belle Glade, Pahokee and Okeechobee City.



The Corps of Engineers releases polluted Lake Okeechobee water into the St. Lucie and Caloosahatchee canals.

The Caloosahatchee and St. Lucie canals are the two major discharge canals from Lake Okeechobee.

Profoundly polluted water being released from S-80 into the St. Lucie River by the Corps of Engineers.

Structure S-80, operated by the U.S. Army Corps of Engineers, releases polluted water down the St. Lucie Canal to the St. Lucie River with peak flows reaching 120 million gallons of water per hour. In some years, vast toxic algae blooms are released from Lake Okeechobee into the St. Lucie River.

Phosphorous pollution levels in the Lake have risen continuously from about 40 parts-per-billion in 1960 to 240 parts-per-billion last year, an all time high. Phosphorous is a main ingredient in fertilizer and is an important component of animal waste and sewage.

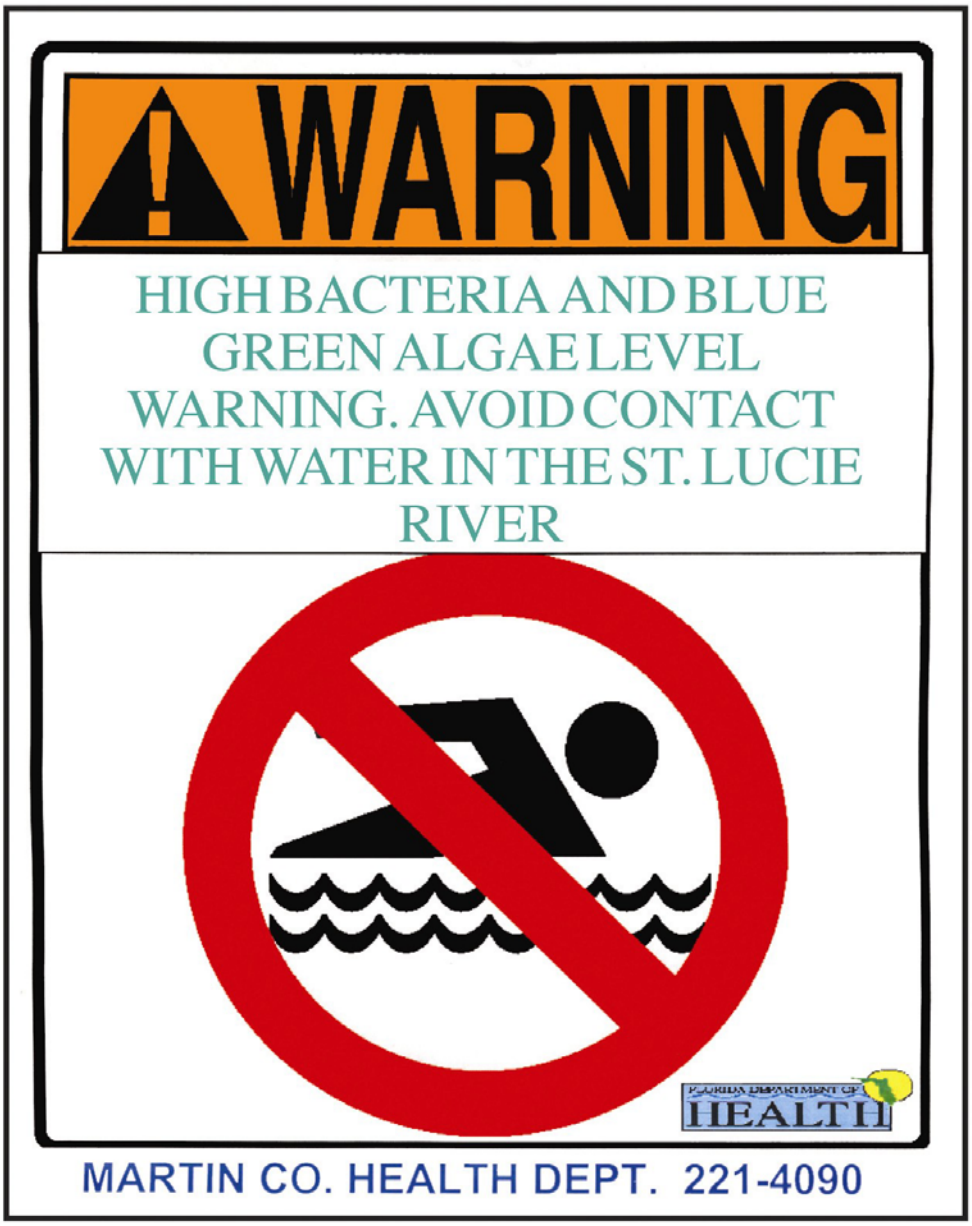
The government has scientifically determined that the maximum allowable level of phosphorous pollution to prevent toxic algae blooms in Lake Okeechobee is 40 parts-per-billion.

Toxic algae blooms along the St. Lucie and Caloosahatchee rivers are causing extensive public health and environmental problems for residents living near and on the river. Residents have been warned to avoid contact with the water when the algae blooms are at their peak. The government has the authority and responsibility to reduce pollution levels in Lake Okeechobee to a safe limit.

As a result of Corps discharges, toxic blue-green algae ends up in the Caloosahatchee and St. Lucie estuaries.

In 2002, Earthjustice, on behalf of the Florida Wildlife Federation, filed a lawsuit against the South Florida Water Management District. The case is a Clean Water Act "citizen suit" which seeks a declaration from the court that the District must obtain federal Clean Water Act "point source" permits for its pumping stations. As "point sources," the discharges from Lake Okeechobee must meet pollution limits applicable to the Lake. The Miccosukee Tribe of Indians entered the lawsuit in support of the environmental groups. The United States Sugar Corporation entered the case in support of the South Florida Water Management District.

In early 2005, the Federal Environmental Protection Agency and the U.S. Army Corps of Engineers entered the case on the side of the polluters – the Water District and U.S. Sugar Corp. This was the first occasion in the 33-year history of the Federal EPA that it entered a water pollution case on the side of the polluter.



The algae is so toxic that human contact is dangerous.

The case went to trial this January, lasting until early March. Earthjustice attorneys David Guest and Monica Reimer presented evidence and expert testimony showing that Lake Okeechobee is dangerously polluted. Environmentalists argued that when the Water District collects and then moves water in a way that harms the receiving water body (in this case, Lake Okeechobee) it is responsible for cleaning up the pollution in the same way a city is responsible for cleaning up sewage it collects in its sewage system before it discharges its wastewater.