

<http://save-our-farms.com/algae/>

We welcome open dialogue on these important issues. Please note that we have never advocated using as much land as US Sugar was willing to sell to the State (187,000 acres).

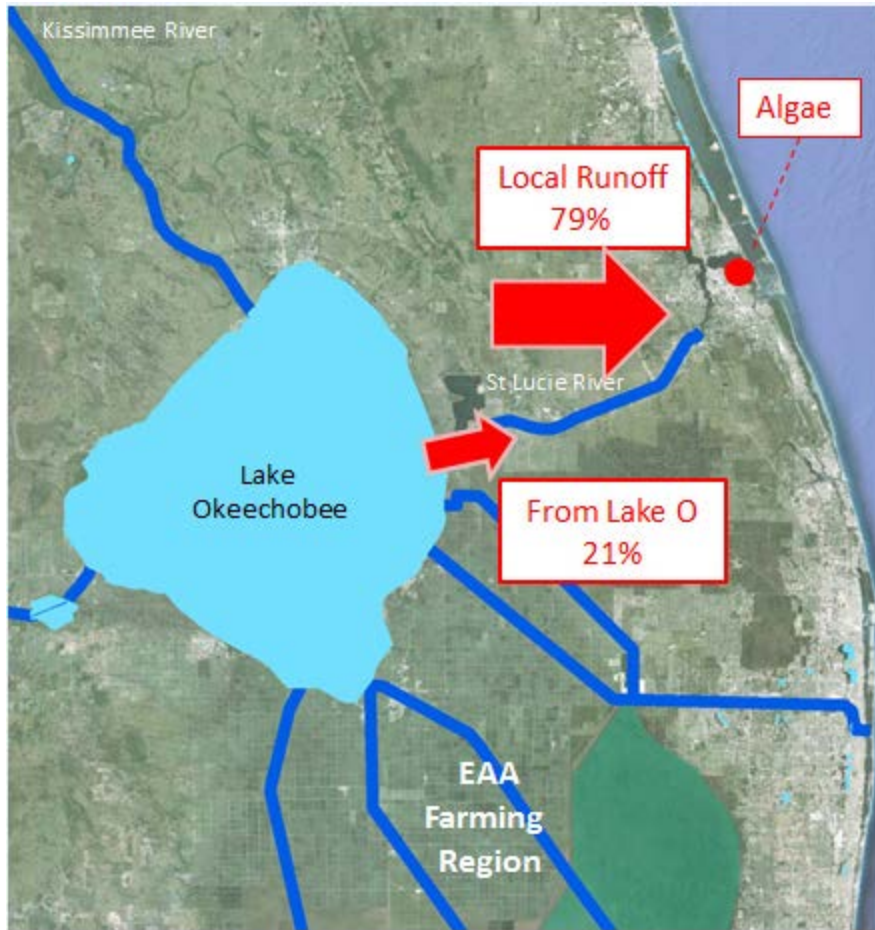
Farms south of Lake Okeechobee are not responsible for the algae that has bloomed on the Treasure Coast. We would like to take a moment to share the facts with you.

Farms south of Lake Okeechobee are not directly responsible for the toxic algae that have bloomed in the St. Lucie and Caloosahatchee estuaries, however, the agricultural area south of the Lake shares indirect responsibility for these toxic algae blooms.

- **Due to agricultural, rural and urban development south of Lake Okeechobee, the historical flow of Lake water south to the Everglades has been restricted, and now the majority of Lake water does not flow south, but rather, to the east and west estuaries. Without additional storage, treatment and conveyance south of the Lake, destructive Lake discharges will continue to be sent untreated to the estuaries.**
- **The type of algae that is causing significant environmental and economic harm in the estuary – microcystis - does not bloom in salt water. Since all of the Lake overflow cannot be sent south as it did historically, polluted Lake water is sent untreated into the estuaries. This polluted Lake water has turned the normally brackish estuaries into freshwater bodies of water which can then support the growth of microcystis algae. The Lake water also carries tons of nutrients – nitrogen and phosphorus – that feed the algae bloom.**
- **Farms south of the Lake are responsible for a portion of the legacy nutrients in the Lake. Runoff from the farms south of the Lake used to contribute tons of nutrients into Lake Okeechobee, a practice that was curtailed around 1980. Prior to that, the EAA Basin contributed approximately 15 percent of the phosphorus and 35% of the nitrogen to the Lake (SFWMD 1978 report).**

The algae is blooming in the St. Lucie River and Estuary, northeast of the Everglades Agricultural Area (EAA). Water flows south in Florida.

“Water flows south in Florida.” Ironic, isn't it – water flows south in most of Florida – but because the historical southerly flow from Lake Okeechobee is restricted due to agricultural, rural and urban development, polluted Lake water is sent untreated to the coastal estuaries. For the 5-yr period ending April 2015, less than half of the Lake discharges flowed south, while 57 percent flowed east and west.



Martin County's water contributions

The water allocation represented in the above figure is inaccurate. Other areas beside Martin County contribute to the St. Lucie River and Estuary, including St. Lucie County.

Growth of algae is a terrible, but common, occurrence during Florida's hot and sunny summers, and nutrients in the water will worsen the blooms. The water flowing to the St. Lucie River and Estuary does not come from the EAA. It is from Martin County's local runoff.

The predominant land use in Martin County, and in the St. Lucie Watershed, is agriculture, and FDEP estimated that 66% of the runoff and 76% of nutrient loads entering the estuary from the watershed are from agricultural land use (FDEP 2013). Only 16% of the watershed is communities and associated land uses. Less Lake water would flow to the estuaries if there was more storage, treatment and conveyance south of the Lake. In addition, most of the area that is now "local waterways" did not flow into the St. Lucie River until after the major agricultural drainage canals (C-23, C-24, C-25 and C-44) were dug, connecting more than 250,000 acres to the St. Lucie River.

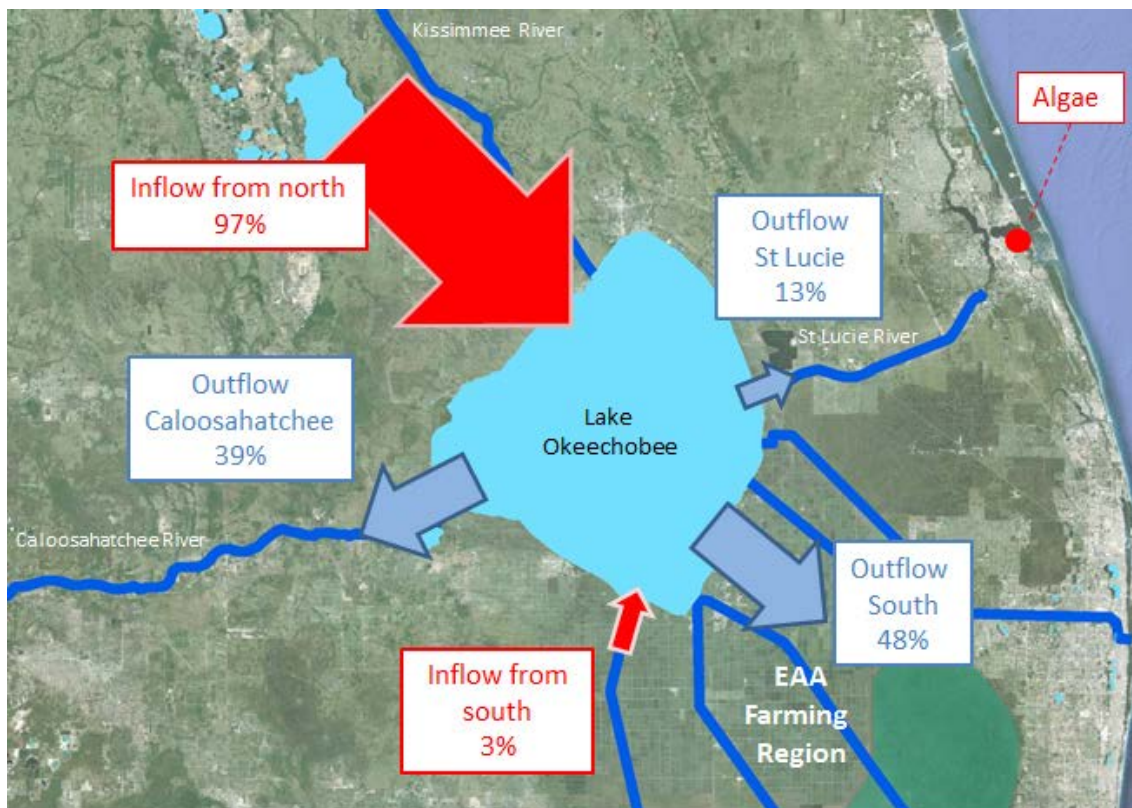
From 2011-2015, Martin County's local basin runoff contributed 79 percent of the water entering the St. Lucie River. The other inflow comes from Lake Okeechobee when the Army Corps of Engineers releases water for flood-control purposes.

It bears repeating - the predominant land use in Martin County, and in the St. Lucie Watershed, is agriculture, and FDEP estimated that 66% of the runoff and 76% of nutrient loads entering the estuary from the watershed is from agricultural land use (FDEP 2013). While the majority of agricultural landowners have reportedly signed up for best management practices, the State has not been able to confirm these have been implemented, and no farm-level water quality data are available to assess their effectiveness.

Almost all of the water, 97 percent, in Lake Okeechobee comes from the Kissimmee basin north of the lake.

This is a false statement. The District reported that for the 5-yr period ending April 2015, 50%, not 97%, of the inflow came from the Upper and Lower Kissimmee Basins (Van Horn 2015).

Over the past 5 years, only 3 percent of the water in Lake Okeechobee came from the basin south of the lake, which came during flood-control efforts for the Glades communities.



Where Lake O's water comes from and where it goes

The distribution of flow contained in the above figure is an inaccurate misrepresentation of a November 2015 District presentation. For the 5 years ending April 2015, Lake discharges to the estuaries totaled 57%, while only 43% of Lake discharges flowed to the south.

Compounding Martin County's problem, more than 200,000 septic tanks line its waterways.

This is a false statement. The Florida Department of Health estimated there are approximately 16,170 known septic tanks in Martin County (FDOH 2015), and most of these do not line the waterways.

A 2015 study by Florida Atlantic University's Harbor Branch Oceanographic Institute said these septic tanks are the primary source of the pollution in the St. Lucie River.

This is a false statement. The pollution in the St. Lucie River includes sediment, low salinity water (often called "freshwater"), nitrogen and phosphorus. The FAU study did not evaluate sediment pollution or "freshwater" pollution. (Note: more than 90% of the sediment load comes from Lake Okeechobee.) To date, Martin County has removed 70 wastewater package plants, and converted more than 1,700 septic tanks to centralized sewers, resulting in an estimated reduction of more than 500,000 pounds per year of nitrogen to the estuary. Nutrient loads from septic tanks along the St. Lucie River and Estuary need to continue to be addressed in cost-effective ways based on good science. Nevertheless, nutrient and sediment loading from Lake Okeechobee and agricultural runoff constitute a far greater threat to the health of the St. Lucie Estuary than does loading from Martin County septic tanks. Loading estimates contained in the FAU study are three times similar estimates prepared for the Florida Department of Environmental Protection. The FAU study used a loading rate from a study in Wisconsin that is more than twice the rates reported in Florida studies (IFAS 2011). The FAU study did not present comprehensive pollution loading estimates (including sediment, "freshwater" and nutrients) to the estuary from other sources, so there is no scientific basis for the statement that "septic tanks are the primary source of the pollution in the St. Lucie River."

Rain washes waste from the septic tank drain fields' into the river. Testing by Florida's Department of Environmental Protection (DEP) and the Health Department has shown that the nutrients in the waterways come from humans not farms.

This is a false statement. FDEP reports state that the majority of nutrients (approximately 75%) entering the River during years with no Lake discharges is from agricultural lands (FDEP 2013). The FDEP recently sampled 14 sites in the South Fork of the St. Lucie River in 2014 and 2015 (FDEP 2015). Eleven of the sites did not exhibit the presence of a human

biological marker during the wet season sampling, and nine did not indicate the presence during the dry season.

These nutrients exacerbate the growth of algae, causing widespread blooms.

Media reports have also blamed Lake Okeechobee discharges for the blooms, but the South Florida Water Management District has noted there were no Lake Okeechobee discharges in 2014 when algae blooms similarly occurred on the Treasure Coast.

This is a false statement. There were no toxic algae blooms in 2014 similar in extent and magnitude of environmental and economic impact. The FAU report (2015) indicated that the St Lucie Estuary experienced two toxic blooms of microcystis: one in 2005 and the other in 2013 – both years that had massive Lake Okeechobee discharges.

The EAA is regulated and monitored by the South Florida Water Management District and the Florida Department of Environmental Protection as part of the Everglades Forever Act. Our water quality meets the strictest standards in the nation. We have a proven track record for the past 20 years.

The EAA basin has done very well in complying with Rule 40E-63. The majority of EAA runoff is treated in the Stormwater Treatment Areas (STAs). It is estimated that EAA landowners have paid 22% of the costs of the STAs, with the balance being paid by taxpayers, primarily along the coast. Since 1995, less than 20% of the inflow to the STAs is from Lake Okeechobee, the rest from the EAA and adjacent basins. This inequity in funding exists despite the Florida Constitutional amendment that states that those who cause pollution in the Everglades Agricultural Area must be primarily responsible for paying the cost of cleaning it up.