

# TAINTED WATERS

THREATS TO PUBLIC HEALTH AND THE PEOPLE'S RIGHT TO KNOW



By John Lantigua, Investigative Reporter



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**In the wake of the 2016 outbreak of toxic algae** in the St. Lucie River and Estuary and along Florida’s Treasure Coast, the ACLU of Florida was asked by members in the region and several environmental organizations to investigate the state’s record of transparency with regard to the dissemination of information about the potential grave danger to the public health posed by the algae flow. Specific concern was expressed about the state’s performance in delivering needed information evenly to all citizens in affected areas, and whether the state understate scientific evidence of dangers to public health.

The following report was researched with the help of local residents, scientists, media sources, and those state employees who cooperated with an ACLU of Florida investigator.

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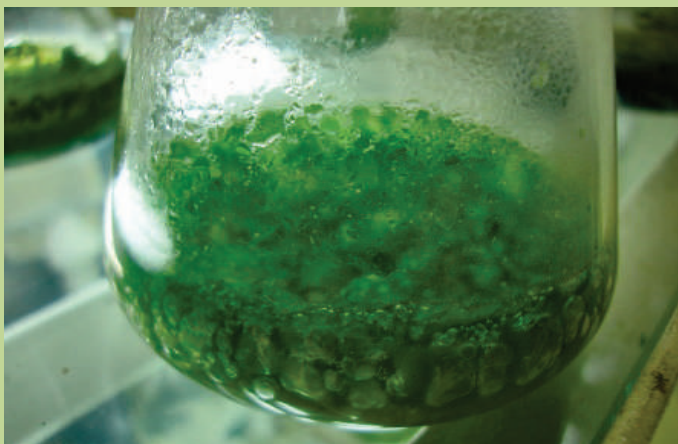
## Introduction: The 2016 algae bloom and public health

In summer 2016, when blue green algae scum clogged the waters of the St. Lucie River and its estuary the air turned toxic. The infestation caused an overpowering, noxious smell, burning eyes, headaches, flu-like symptoms, respiratory problems, rashes. The local hospital weathered a spike in emergency room patients. People were forced to evacuate waterside properties and escape to more distant lodgings. Tourists fled and businesses closed; some of them never re-opened. There were locals who locked themselves indoors for much of the next two weeks. Others went out, but wore breathing masks.

Hardest hit was Martin County. Scientists and concerned citizens there say the toxic algae blights come whenever Lake Okeechobee, 35 miles to the west, becomes too full and, in order to protect its aged dike, the Army Corps of Engineers releases water that eventually makes its way into the St. Lucie River. The lake water has been contaminated over decades, largely with fertilizers and other nutrients used in agriculture, runoff from pasture lands and, to a lesser degree, by inland homeowners. The fertilizers feed massive growths of algae in the lake, which end up contaminating waters and communities downstream.

Scientists have cited various concerns with algae outbreaks. In cases of acute exposure, toxins released by the algae are known to cause liver damage. A 2015 study by Ohio State scientists identified Martin and neighboring counties – St. Lucie, Indian River and Okeechobee -- as one of the hotspots in the U.S. for the coincidence of algae infestations and non-alcoholic liver damage. Those findings need further research, but critics say the state has so far failed to act.

The threat of cancers has also been raised in connection with the algae, including in a 2009 report published by researchers working for the state of Florida.



Blue-green algae (aka “cyanobacteria”) grown in a laboratory setting. Scientists are studying the link between toxins released by the algae and liver, respiratory, and neurological diseases.

Scientists worldwide are also studying the possible connection between toxic algae and neurological afflictions such as Lou Gehrig’s Disease, Parkinson’s and Alzheimer’s. That latter risk is still not established science, but when your county has been ground zero for a release of bacteria fumes that cause illness, a phenomenon that has not been well studied, that speculation is taken seriously.

Despite those concerns, scientists and residents in Martin County - both Republicans and Democrats- say state agencies were slow to respond to the outbreak last summer and to release

information and warnings to citizens.

They also say once the state did respond, the methodology used to measure the toxicity of the water in the St. Lucie River and Estuary was questionable and the results untrustworthy.

In addition, they complain that although a 1999 state statute dictates that state agencies, local officials and interested citizens come together to monitor and try to mitigate the effects of algae infestations, the task force created by that statute has not been funded since 2001. In other words, they have been left without a valuable vehicle to hold the state agencies accountable.

Critics say the failures of the state agencies stem from policy priorities originating in Tallahassee. Namely, that protecting the environment and public health has increasingly taken a back seat to economic interests, restraining and compromising the work of state scientists.

Gary Goforth, a Martin County resident, holds a doctorate in environmental engineering, and was once chief consulting engineer for the South Florida Water Management District, traditionally the state agency in charge of protecting water quality in South Florida. In January, he testified before a Florida legislative committee about the threats presented by the algae plagues.

"This scares me to death," Goforth told the lawmakers. "You have to take this seriously." He said the state should begin human health testing in communities affected by potentially toxic algae contamination. That didn't happen.

## The effect of global warming

In early May, after years of struggle, the angry residents achieved at least part of the relief they had been pleading for: the Florida Legislature passed Senate Bill 10 –sponsored by Senate President Joe Negrón of Martin County. GOP Governor Rick Scott signed it into law May 12. The measure calls for the building of a reservoir south of Lake Okeechobee that will allow some of the tainted water to flow in that direction to be treated. After treatment, the water will be released into the Everglades where it is badly needed. It also means, when that project is completed, less of the algae-fouled lake water will be flushed east into the St. Lucie River – and west down the Caloosahatchee River toward Fort Myers in Lee County.

Less but not all. Everyone concurs that the agreement on the southern reservoir is important, but it doesn't end the threat to the public and the need for increased attention from the state, the scientists say.



**"This scares me to death."**

-- Dr. Gary Goforth, former director of project management, South Florida Water Management District

Tom Van Lent, an engineer and vice president of the Everglades Foundation, says the reservoir is still several years down the road and, even then, about 40 percent of the tainted water from the lake will continue to flow to the coasts. Until the entirety of the Comprehensive Everglades Restoration Plan (CERP) is completed, even more years down the line -- including various reservoirs and treatment areas around the lake -- Martin and Lee counties will continue to suffer algae contamination. And the residents will continue to be confronted with potentially dangerous health effects.

Toxic algae appear in many parts of the world, including other regions in Florida. But South Florida's warm, wet climate is a particularly hospitable breeding ground for the infestations. In addition, the Centers for Disease Control (CDC) say algae outbreaks are increasing, likely being spurred by global warming, which means they may well grow more virulent.

Florida will face other challenges from climate change in coming years--rising coastal waters and threats to drinking water supplies being only the most obvious. It will be increasingly important that Floridians have state scientists in whom they can place their trust, scientists who are free to report on dangers to public health and not be constrained by administrations with competing priorities. In that sense, the issue of toxic algae serves as a cautionary tale.

## **No warnings from state agencies**

Since the Florida Legislature has in many instances pre-empted the ability of local governments to make environmental policy, local citizens are at the mercy of federal and state administrations to protect their health. But even as the concerns grow, government protection is eroding.

In Washington, President Trump has proposed eliminating monies for the South Florida Geographic Initiative, the federal body that monitors the threat of phosphorous, mercury and other pollutants seeping into the Everglades and other regional waters. The proposed cut is part of the president's wholesale downsizing of the U.S. Environmental Protection Agency, based on a belief that environmental regulation undermines economic growth. Whether Congress will go along with the elimination of the program is still in question.

But it is the state that has the more immediate, hands-on role to play in protecting Florida's natural resources. Any discussion of possible long-term effects requires a balance between overreaction and a commitment to gather accurate, relevant information that provides what the public needs to know about those threats. Scientists interviewed said it was precisely the state's failure in recent years to address the potential dangers of algae contamination that has heightened their concerns.

Martin County had suffered a serious algae outbreak in 2013 and, in 2016, some residents saw another one coming. One of those watchdogs was Mark Perry, executive director of the Florida Oceanographic Society, based in Stuart. He is also co-chairman of the Rivers Coalition -- a consortium of local environmental groups, homeowners' associations, business owners and fishing clubs.

Perry recounts how the crisis unfolded. He says in the second week of May, 2016, a scientist for the South Florida Water Management District identified an algae mat 33 square miles in area floating in

Lake Okeechobee. At the same time, the Army Corps of Engineers was forced to continue releasing the rising waters into the St. Lucie Canal which leads to the St. Lucie River.



Blue-green algae clings to the foot of a bather. The algae, which produces a toxic substance called microcystin, was so thick in Florida waters in summer of 2016 that locals referred to the water as “guacamole.”

By May 13, the tainted water had reached the St. Lucie lock and dam, about 15 miles inland. Four days later, algae were spotted on the South Fork of the St. Lucie River. Perry said the scum had all the earmarks of toxic algae, which secrete a substance called microcystin, a potential cause of liver damage and tumor promotion leading to liver cancer.

“There was no official warning from the Florida Department of Environmental Protection or from the South Florida Water Management District,” he said. “There was also no public health advisory. People were exposed to it long before there was any warning.”

Hundreds of millions of gallons of tainted lake water continued to be flushed into the St. Lucie River every day. Perry said over the next several weeks, he participated in weekly conference calls hosted by the Army Corps of Engineers, which included state agencies. On May 19, scientists from the Florida Department of Environmental Protection took water samples and reported that they found only low levels of the microcystin that posed no health threat.

Perry questioned the methodology used to take the samples, said microcystin levels can change from day to day and should be constantly monitored. He says state scientists were asked what they were doing to take more samples, measure the toxicity of the water, and, if necessary, warn the public.

“They said they didn’t have enough staff to do what we were asking,” Perry says.

During his six years in office, Governor Rick Scott has slashed the number of employees at the Department of Environmental Protection from 3,551 to 2900, according to state figures – a reduction of 18 percent. The number of cases enforced by environmental investigators plummeted even more, from more than 1600 to fewer than 400. Fines assessed for violations fell by 90 percent.

At the same time, Scott reduced the ad valorem taxes used to fund Florida’s five Water Management Districts. The South Florida Water Management District reduced its payroll from 1828 employees in 2009 to 1475 in 2016, according to District budget figures.

So, there were fewer experts for the Martin County residents to turn to when they needed help.

"Meanwhile, people were asking, 'Is it safe to swim?'" says Perry. "And a lot of concerned citizens were asking, 'When are they going to post it? It was really frustrating."

Jacqui Thurlow Lippisch, another leader of the Rivers Coalition, also participated in the calls and remembers them the same way.

"We were complaining that they were not enough involved," she said. "They got on it too late. The algae was pouring in."

Lippisch is a Republican and the former mayor of Sewall's Point in Martin County. Lippisch and other county activists say the failure to publicly assess the gravity of the contamination at that point can only be attributed to an attempt to protect economic interests. Those would include the local tourism economy but also the politically powerful agricultural, cattle and dairy interests inland that have historically contributed much of the pollution now found in the lake.

## Local health officials told to step aside



**"In the emergency room of Martin Medical Center, when anyone came in with stomach problems, respiratory problems, the first question they were asked was, 'Have you come in contact with any of the water?'"**

-- Kimberley Mitchell, executive director of the Everglades Trust

On May 26, state scientists sampled water in Lake Okeechobee and found levels of microcystin that were considered dangerous. Nonetheless, releases of lake water increased dramatically from 420 million gallons per day to 1.2 billion.

Neither the state nor local health departments responded to calls for this report, but according to local press accounts it was May 31 that the scourge reached the main channel of the river, in Stuart, and that was also the day signs were first posted to warn people about the dangers of the water.

That same day, state scientists took more samples. Three days later they reported they had found no toxins, but many locals didn't believe it.

The Martin County residents say a major aggravation was that the local health department employees were ordered by their superiors in Tallahassee not to do or say anything without word from above. The response was taken out of their hands.

Lippisch remembers a call she received during the crisis. It came from a frightened mother.

"Should I let my children go outside?' she asked me. I said, 'Don't do it until we know more about this.' No one warned

us it was coming. During those weeks, there was panic. It was like a house being on fire but there was no warning and suddenly the fire was everywhere.”

According to local news reports, it wasn't until June 24 that Florida Department of Health, through its local office, contacted local media and issued a health warning.

“Test results today and in recent weeks from the Florida Department of Environmental Protection (DEP) have confirmed the presence of the toxin, microcystin,” the press release said. “Exposure to water containing algae toxins may cause gastrointestinal effects if swallowed and rash if touched or inhaled.”

Why did the Department of Health wait to issue the warning despite finding microcystin “in recent weeks”?

“That’s the question we had,” Lippisch says. “They waited until weeks after the bloom to warn people. They are not doing their jobs. They are certainly not doing their jobs with the tenacity they should.”

## **The toxic algae spreads**

The algae scum became thicker and more odorous. Residents referred to it as “guacamole.”

“It was so thick the birds were walking on it,” says local resident Darrell Brand.

The algae mats reached all the way downriver to the ocean, befouling county beaches, driving away visitors, and scorching the Martin economy. The county lost almost \$5 million in tourism receipts last year, much of it due to water releases from the lake. The toxic growths also invaded Palm Beach County to the south and St. Lucie County to the north, but not as badly as Martin was hit.

YouTube videos emerged of the sludge contamination at boat ramps, marinas, inlets. Network camera crews descended on Stuart.

It wasn't until June 29, that Governor Scott declared a state of emergency in Martin and St. Lucie counties, allowing water to be redirected in order to mitigate the contamination.

Kimberly Mitchell, executive director of the Everglades Trust, says it was the worst algae infestation ever on the Treasure Coast.

“In the emergency room of Martin Medical Center, when anyone came in with stomach problems, respiratory problems, the first question they were asked was, ‘Have you come in contact with any of the water?’” says Mitchell.

On July 2, Lippisch flew over the lake in a private plane. By that time, the toxic algae mat had grown to 239 square miles.

Dr. Paul Alan Cox, a Harvard-trained biologist, heads a consortium of 50 scientists around the world studying the potential dangers of the steadily growing algae growths, a form of toxic cyanobacteria. He



went to Martin County in July to take water samples during the algae scourge and found families fishing on and picnicking near the tainted water on the western reaches of the river. He saw no sign near where the families were. Cox said he was "appalled."

"We don't go near it without gloves, goggles and protective clothing," he said. "You come to Florida and you hear about the agricultural interests on the one hand and the value of real estate on the coast on the other. But at the core of this issue is something more important. It is the health of children. We know cyanobacteria produce extraordinarily toxic compounds. We were stunned that the Florida Department of Health had not issued warnings to those mothers and children on that river near Lake Okeechobee to stay away from there."



Men fishing at a lock on Lake Okeechobee. Despite the prevalence of fishing in the area where the county abuts the lake, which includes three of the state's poorest cities, no state warning signs explained the danger of eating fish from algae-tainted waters.

Signs warning about the dangers of the water had been posted at public access points to the river. Since many fewer such access points exist the farther west one goes toward the lake, fewer signs were posted in that area.

Cox said he spoke to four African-American men fishing in the tainted water. Many residents in the western Palm Beach County towns of Pahokee, Belle Glade and South Bay fish on and around the lake. Those towns are all majority African American and three of the four poorest cities in Florida.

On its website, the Florida Department of Health warns that fish taken from algae tainted waters should not be

eaten, but no signs issuing that warning are posted around the lake and warning signs posted on the river last summer didn't warn of that either. Cox said he cautioned the men not to eat the fish because it could be dangerous.

"And they told me, 'But we have to feed our kids,'" Cox recalls.

## State toxicity measurements questioned

Deborah Drum is the director of ecosystem restoration for the Martin County Engineering Department. She is a former Water Management District employee, and holds a master's degree from the Rosenstiel School of Marine and Atmospheric Science at the University of Miami.

Drum says toxic algae mats have now infested the river and the St. Lucie Estuary three times since 2005 and are only getting worse. During the algae infestation in 2016 she came into contact with Florida

Department of Environmental Protection scientists measuring the toxicity in the water. She found that those scientists did not take their readings where the algae were the thickest and closest to shore. They went toward the center of the river and estuary where water was clear. They reported the water there was not dangerous.

"Based on their data, you would have thought we didn't have a problem here," Drum says

She asked them why they sampled in that fashion.

"They said since they warn people not to go near the algae, they don't have to do samples there. They sample where the water is clear because people may think that water is safe there and it might not be."

Drum agrees that clearer water should be sampled. But she says algae tend to clot near the shore, in inlets, near piers, and in marinas. Drum says those are spots where people may fall into the water, getting into or out of a boat, or otherwise. People should know just how toxic the water is and what the danger is.

Even more worrisome, Drum says, is the fact that a person does not have to drink or fall into that water for it to pose a threat. The microcystin can be aerosolized and breathed in. Cox and Brand agree. But Drum says the state did no testing for airborne microcystin in the heavily affected areas during the algae infestation last year despite the fact that many residents were exposed.

"We're looking at the potential for liver cancer clusters 10 or 15 years down the road," she says.

## Lack of transparency in public information

Drum is not the only South Florida scientist who finds the sampling methodologies of state scientists worrisome.

Interviews with scientists around South Florida who are not employed by the state reveal a pattern: They say that state scientists don't find problems with water quality because their superiors don't want them found. They say water management bureaucracy put in place by Tallahassee over the years has compromised the science Florida citizens depend on to know when public health is in danger.

"They go out of their way not to find things," says Van Lent of the Everglades Foundation.



**"We don't go near it without gloves, goggles and protective clothing."**

**"We were stunned that the Florida Department of Health had not issued warnings to those mothers and children..."**

-- Dr. Paul Alan Cox, Harvard-trained expert on toxic algae

It started before the Scott administration, but has grown worse during his tenure, the scientists say.

Larry Brand, marine biologist at the Rosenstiel School and a veteran Everglades researcher, remembers an algae infestation in Florida Bay in 1997, caused by an infusion of water from agricultural areas to the north, the same sort of infusion that caused last summer's algae contamination in Martin County. He says scientists working for the Water Management District took readings in various areas of the bay, including where the algae scum was the heaviest. But when they did their analysis of the contamination they did not use readings from where the algae were the thickest, they used figures from areas relatively untouched and not affected by the tainted water from the north, Brand says.

"They measured exactly where the scum didn't exist so, of course, there was no correlation with the scum and that water coming into the bay," he says. How does Brand explain it?

"They're state scientists. They do what they're told."

The Miccosukee Indians have long accused the state of similar finagling of toxicity measurements, while tainted waters continue to wash down from the north to contaminate their tribal Everglades habitats.

In February, the Water Management District petitioned the U.S. Department of Justice to end court oversight of its monitoring of the Miccosukee waters, a legal decree that had been in place some 25 years. The District claimed that that after years of cleanup, healthy phosphorous levels had been achieved almost universally throughout the waters being monitored and the problem no longer existed. Phosphorous is the major active ingredient in many fertilizers and a historic despoiler of the Everglades.



A person drives a watercraft through water thick with blue-green algae. State scientists reportedly tested for toxins at the center of bodies of water where algae is thinnest, as opposed to along shores and inlets where algae accumulates and more people interact with the water.

But according to the Miccosukees that was because Water Management District scientists had avoided including samples near canals in the heart of the reservation where pollution is seven to 10 times higher than the legal limit. The District insisted it was following a complex system of average readings approved years ago by the state and federal government. But the tribe stuck by its accusation that the District rigs the numbers and endangers them and their environment.

"Even if they take the samples in the more polluted areas they don't include them in their results," says "Truman" "Gene" Duncan, the tribe's water resource director. "They call those

higher numbers 'outliers,' don't average them in with the other readings, and that allows them to bring the numbers down. They use statistics to say what they want, to deliver the public relations message, but the raw data tells a different story.

"The claim that we don't need continued federal oversight is just false," Duncan says. "They know there's a problem. They can't claim there's not."

In November, the Water Management District issued a press release saying 90 percent of the waters in other specifically protected areas of the Everglades were very clean and had met the established limit of 10 parts per billion, or less, of phosphorous.

But Dr. Melodie Naja, chief scientist at the Everglades Foundation, said in reaching its conclusion the Water District did not follow rules set down by statute for measuring toxicity.

"They made up their own criteria for measuring," she said. "They wanted to show that the job is almost done." But she said the true numbers don't demonstrate that.

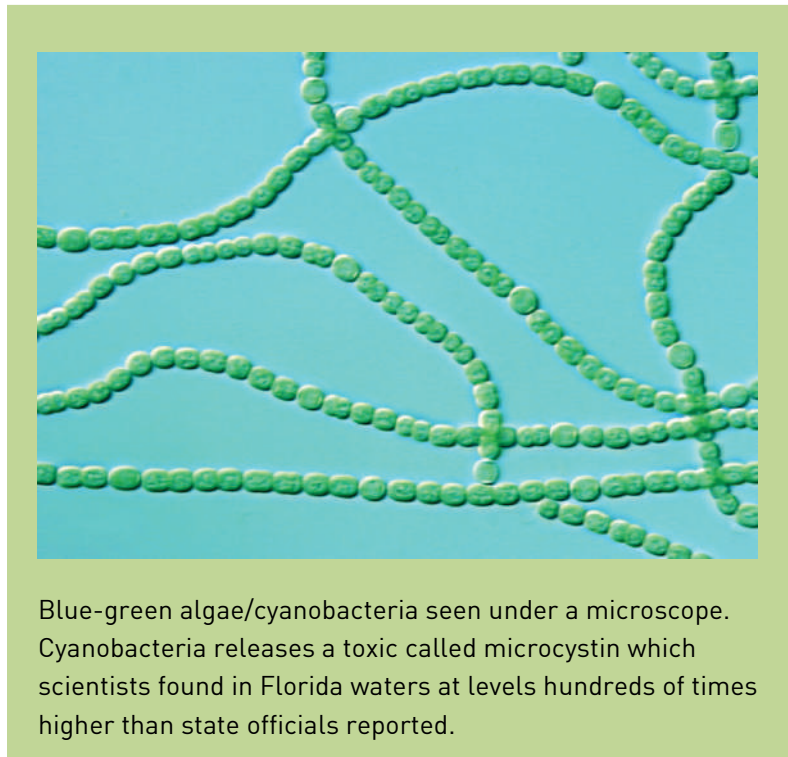
## Readings much higher than state scientists report

In Martin County, Deborah Drum eventually took her own samples. She found a density of microcystin at 33,000 milligrams per liter, hundreds of times higher than any reading state scientists reported. It is also a rate that Cox and his international consortium of scientists say makes water dangerous even to boat on or fish from.

The Centers for Disease Control have also warned that recreational activities in areas affected by thick algae scum are dangerous. Some parts of the world set numerical limits for microcystin levels after which water is considered unsafe for recreation. Florida does not.

David Whiting, deputy director of Florida Department of Environmental

Protection (FDEP) Laboratory and Water Quality Standards, does not dispute Drum's account of how and why his scientists sample water during algae plagues. They do not sample near algae mats.



Blue-green algae/cyanobacteria seen under a microscope. Cyanobacteria releases a toxic called microcystin which scientists found in Florida waters at levels hundreds of times higher than state officials reported.

"If you see bloom conditions, stay out," he says as a warning to the public. "We can't change an algae bloom by measuring it. And we don't use toxin levels to decide anything." He says he believes state agencies are doing a good job monitoring the algae incursions.

But Anne Scott, a Republican and former Martin County commissioner, vehemently disagrees. She says the state does not publish results of the toxicity of thick algae sludge because it doesn't want to publicize numbers that would inflame the public and cause greater action on the parts of the state and federal government to end a health hazard—actions that could affect the interests of the monied agricultural holdings to the west.

"This is a cover up of a public safety issue," she says. "It is a concerted failure to warn the public of the dangers." She compared the state's inaction to that exposed in the Flint, Michigan water crisis. State and local officials in Michigan initially denied Flint's water had been poisoned by lead and belittled those who claimed it was. Some of those officials have subsequently been indicted.

Kimberly Mitchell of the Everglades Trust wonders if Florida officials aren't risking the same sort of fallout down the line.

"They've been warned and they haven't done anything," she says.

## **Water Management Districts gutted by Scott administration**

Much of the anger in Martin County is directed at leadership of the South Florida Water Management District, appointed by Scott soon after he took office in 2011. As the new executive director, Scott chose not a scientist or engineer, but Peter Antonacci, a lawyer, lobbyist and Scott's former general counsel in Tallahassee, who brought almost no previous experience in water management. Scott also appointed a new nine-member board of directors to support his business-first policies.

Martin County residents, pleading for the fast tracking of a southern reservoir and relief from the dangerous algae contamination, say they met only dismissive –and sometimes aggressive --opposition from the Water Management District.

"Scott fired a lot of scientists, threw out old people on the board, and put his own people in," says Larry Brand, of the Rosenstiel School. "There are no environmentalists on that board."

Keith Rizzardi resigned as managing attorney for the Water Management District in 2011 shortly after Scott took office. Rizzardi says, starting with Governor Jeb Bush, 1999-2007, environmental policy has been wrested from local and regional hands and controlled by the governor's office. He says the Water Management Districts around Florida now report to the state bureaucrats in Tallahassee. And under Scott policies have only grown more dangerous to the local environment.

"I realized I was going to be asked to undo everything I had helped accomplish during the early years of my career," Rizzardi says. "Back then the District was involved in the idealistic pursuit of environmental restoration. That's no longer true."

## Report: Treasure Coast a hotspot for liver concern



**“We’re looking at the potential for liver cancer clusters 10 or 15 years down the road.”**

-- Deborah Drum, director of ecosystem restoration for Martin County

The lack of urgency on the part of state scientists has not changed despite increased cause for concern.

The report written by Ohio State University scientists two years ago, identifying Martin and neighboring counties as a hotspot for both algae contamination and non-alcoholic liver disease, was not publicized in South Florida until this year, after it was dug up by a journalist. It is the only such hotspot in Florida. The scientists established the connection by studying Centers for Disease Control reports in which liver damage was among the causes of death of persons who died in the counties.

Drum was alarmed by the study and brought it to the attention of scientists of both relevant state agencies, environmental protection and health.

“But they just said that those kinds of reports are always coming out,” she recalled. “They said you need to take those studies with a grain of salt because here is no causation.” In other words, the presence of the festering algae and its fumes couldn’t be proved to be the cause of the liver damage -- at least not at this time. Drum was left frustrated and worried.

“We should be concerned if we don’t know,” she says. “These things aren’t going away any time soon. We need to know what the human impact can be.”

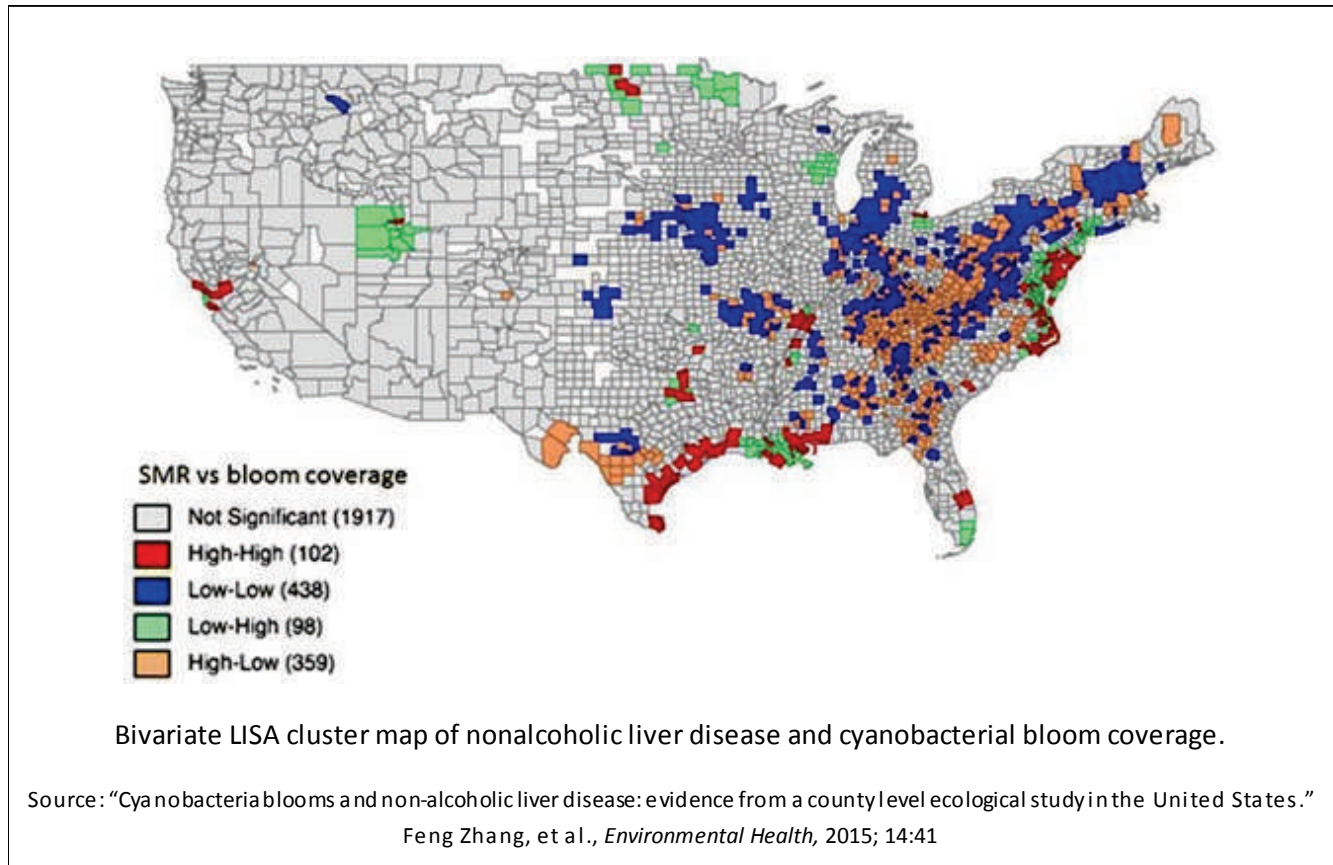
The website for the Florida Department of Health states that “blue-green algae toxins can affect the liver, nervous system and skin.” But it then goes on to minimize the dangers to the human neurological system presented by the bacteria, stating that no large scale epidemiological studies have been done establishing those dangers.

Independent scientists say that is precisely the problem. They also make it clear that scientists working for an administration that has consistently minimized environmental dangers can’t be trusted to make the call to determine if those studies are needed.

“They say there are a lot different possible causes for those neurological diseases,” says Larry Brand of the Rosenstiel School. “That’s like saying there are millions of things that might cause lung cancer, so don’t worry about cigarettes.”

Brand says the possible health effects need to be studied now.

“It will be 20 years before you develop ALS or Parkinson’s or Alzheimer’s. And it may be after 10 or 20 years that you come down with liver cancer too. Then what?”



GOP Congressman Brian Mast of Palm City is introducing legislation in Washington to make jurisdictions afflicted with algae infestations eligible for disaster relief from the Federal Emergency Management Agency –FEMA—for the first time.

But that won’t address the health risks.

### Key task force goes unfunded

Drum – who says her statements are her own and not that of her county commissioners --emphasizes that she doesn’t want to cause a panic. But she says the appearance of dangerously toxic microcystin in the river and estuary in recent years demands a response right now from state health and environmental protection officials. State law already provides a vehicle to do just that.

In 1999, the Florida Legislature established by statute the Florida Harmful Algal Blooms Task Force. It was founded in response to serious outbreaks of red tide, the related organism that regularly attacks the west coast of Florida. The statute called for scientists, engineers, government representatives and

members of citizens' organizations to monitor, study and try to mitigate the damaging bacteria. It was to be headed by the Florida Fish and Wildlife Research Institute, a state agency.

It has not been funded since 2001.

Kate Hubbard, the chief of the Fish and Wildlife Research Institute's Harmful Algal Bloom subsection, says her group has continued to operate within the Institute despite the lapsing of the task force funding. But she admits because of its origins and its home base –St. Petersburg--her group has paid much more attention to the red tide in the west than the algae crisis in the east—even though Florida taxpayers all over the state fund their work.

She says hers and other state agencies have divvied up the work that is done to respond to algae breakouts in other parts of the state. But she says she knows of no state research being done on the possible long-term health effects of the cyanobacteria.

## **Research needed on long-term health effects**

The last report issued on harmful algae in Florida by the Institute is dated 2009. The report stated that research on toxicity in the Florida ecosystem and studies on lab animals had shown the need to “assess the potential of algal toxin exposures to cause acute and long-term health effects.”

The report warned that microcystin had been proved to promote tumors in lab animals. It warned that chronic exposure could lead to “genotoxic outcomes,” in humans, which means the possibility of cancers.

The report also stressed that very few studies have been done on the effects of toxic algae on humans. That has not changed in eight years.

While neither the Florida Department of Health nor the Water Management District responded to request for interviews made by the ACLU, Mike Tompkins, a staff scientist at the District, did answer his phone.

“Not a whole lot of Florida specific research has been done into harmful algae blooms,” Tompkins says. He says he hopes the District will join any effort to increase study of the harmful algae.

Whiting, of the state environmental protection agency, again defends the work he and other state scientists have done to keep abreast of the algae growths.

“But as to the long-term health effects, we really don't know,” he admits.

Not only has research stalled, but the citizen participation outlined in the statute no longer exists.

“That ticks me off,” says Jacqui Lippisch of the Rivers Coalition.

She, Perry and other members of the Rivers Coalition and the scientists interviewed want the task force revived. They want the health effects of the algae scourge studied and they want to be involved.



J.P. Sasser, a Democrat and former mayor of Pahokee on the shores of Lake Okeechobee, and a political activist in that region, has expressed anger at some of the rhetoric used by coastal residents about inland agricultural interests. He rigorously opposed a larger southern reservoir. But with lake-area residents living near the algae even more of the year than people on the coasts, he also wants more research into long-term health effects.

"That's something we can agree on," he said.

Deborah Drum is hoping a resuscitated task force will do serious research.

"Cyanobacteria blooms have emerged as a major issue that has dire consequences for public health and for state and local economies," she says. "Legislators have already laid out in a statute what needs to be done. What is missing is funding and research to understand the potential human health impact. This is serious. None of us should rest until we have that understanding."

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## The Florida Harmful Algal Blooms Task Force

The Florida Harmful Algal Blooms Task Force, created by statute in 1999, (see below) has not been funded since 2001. It provides for participation of government officials, scientists and members of citizens groups to cooperate in the study and mitigation of toxic algae contamination.

Greater interaction between the public and state scientists monitoring threats to public health is crucial. To that end, the statute calls for the task force to: "Review the status and adequacy of information for monitoring physical, chemical, biological, economic, and public health factors affecting harmful algal blooms in Florida."

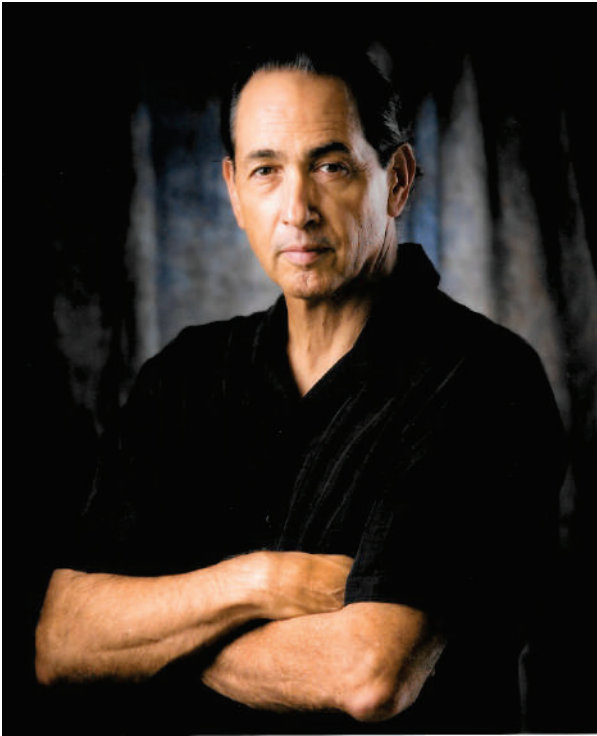
Given the concerns for public health and the lack of confidence in current state monitoring expressed by independent scientists and local citizens, greater transparency is necessary. Political concerns cannot be allowed to restrain or taint the scientific information provided to the citizenry when it involves threats to public health.

The state should consider the reactivation of the task force as a solution to mounting public concern, with the hope that public participation will result in greater urgency and transparency on the part of the state. Also, given the challenges Florida can expect to face in the future due to global warming, the task force might serve as a model to provide the public with accurate information with which to assess any future environmental threats.

### **Florida statute 379.2271 Harmful-Algal-Bloom Task Force.—**

- (1) There is established a Harmful-Algal-Bloom Task Force for the purpose of determining research, monitoring, control, and mitigation strategies for red tide and other harmful algal blooms in Florida waters. The Fish and Wildlife Research Institute shall appoint to the task force scientists, engineers, economists, members of citizen groups, and members of government. The task force shall determine research and monitoring priorities and control and mitigation strategies and make recommendations to the Fish and Wildlife Research Institute for using funds as provided in this act.
- (2) The Harmful-Algal-Bloom Task Force shall:
  - (a) Review the status and adequacy of information for monitoring physical, chemical, biological, economic, and public health factors affecting harmful algal blooms in Florida;
  - (b) Develop research and monitoring priorities for harmful algal blooms in Florida, including detection, prediction, mitigation, and control;
  - (c) Develop recommendations that can be implemented by state and local governments to develop a response plan and to predict, mitigate, and control the effects of harmful algal blooms; and
  - (d) Make recommendations to the Fish and Wildlife Research Institute for research, detection, monitoring, prediction, mitigation, and control of harmful algal blooms in Florida.

## About the author



**John Lantigua** is a veteran journalist who has reported both in the U.S. and from many foreign countries, especially Latin America. Based in Central America in the 1980s – predominantly in Nicaragua - he reported for United Press International, The Washington Post and Newsweek. He came to Florida in 1993 and wrote for The Miami Herald from 1993-98 as a general assignment reporter, specializing in coverage of minority communities.

From 1999-2002, he freelanced for national magazines, covering the Elian Gonzalez saga for Salon, the Bush-Gore election for The Nation, and the presence of the 9/11 terrorists in South Florida for Newsweek. From 2002-15, he was a reporter for The Palm Beach Post based in Miami, covering national and international issues. Immigration has been a major focus of his reporting, but he has also written about voting rights, LGBT rights and criminal justice.

While at The Miami Herald, he shared the Pulitzer Prize for Investigative Reporting for work on the contested Miami mayoral election of 1997. At The Palm Beach Post, he shared the Robert Kennedy Journalism Award and the National Association of Hispanic Journalists Prize for Investigative Reporting in both 2004 and 2006, the first for articles on the immigration issue and the second for reporting on the connection between pesticides and birth defects. He also won the World Hunger Year Harry Chapin Media Award in 2004 for his work on immigration.

Since February, John has been the Investigative Reporter for the American Civil Liberties Union of Florida.

He lives in Miami Beach.

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