

# Scientists, river advocates worry there will be more toxic algae blooms this summer in Florida

It just won't go down.

Lake Okeechobee has been at or above 15 feet above sea level since the past rainy season, and the next wet cycle starts in a matter of weeks.

The U.S. Army Corps of Engineers has in recent years worked to keep lake levels between 12.5 feet and 15.5 feet to provide flood protection and water supply for agriculture, urban areas and what's left of the historic Everglades.

In some years the lake drops to 11 feet or lower, but this past dry season started off all wet.

The lake was at 15.18 feet Monday, nearly 3 feet higher than it's been in recent years.

"This fall we had the never-ending wet season," said Paul Gray, a biologist and Lake Okeechobee expert for Audubon Florida. "In the next 11 weeks or so that we have in the dry season, we could take another foot off the water (once levels

get down to 14 feet) and get down to 13 feet. That's what they're trying to do."

Heavy rains in October (the end of the rainy season) and November (the beginning of the dry season) caused lake levels to surge late into the year.

January and February were relatively dry — according to the South Florida Water Management District — but there's been a somewhat wet start to March, with an inch or more reported in localized areas.

All that rain and all the lake water are causing some to fear there will be another toxic algae bloom this summer, that devastating blooms will return.

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"There's a good chance for algal blooms this summer," Gray said. "The lake now doesn't have much harmful algal blooms, and you get the releases and you deal with it so they aren't releasing algae later. Do you take it now or hope nothing bad happens in future?"

Water and nutrients from the Kissimmee River basin and Lake Okeechobee have fueled harmful algal bloom in three of the past five years, on both the east and west coasts.

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Current conditions may already be feeding a red tide that's lingered along the Lee County coast for several months, Gray and others worry.

"It's carrying a bunch of nutrients offshore, and we think it may be feeding the tide offshore," Gray said. "(And) we're taking our lumps now for the greater good."

Lake levels are managed by the U.S. Army Corps of Engineers, which started conducting releases to the St. Lucie river and its estuary last Friday.

## **'The problem is the water is so horribly nutrient-enriched'**

Historically, the Caloosahatchee River likely had some connection to Lake Okeechobee during heavy rain years, but most of the freshwater that fed the brackish estuary came from the river's basin.

But the connection was expanded by developers and farmers decades ago, and now the Caloosahatchee River is often dependent on Lake Okeechobee water during the dry

season to help balance salinity levels.

Flows in recent weeks have been 2,000 cubic feet per second or slightly higher at the W.P. Franklin Lock and Dam, the de facto eastern border of the Caloosahatchee estuary.

"(The releases) are not a problem in the context of the salinity envelope for the Caloosahatchee estuary," said Calusa Waterkeeper John Cassani. "The problem is the water is so horribly nutrient-enriched. We need to maintain the salinity envelope (with lake water) but on the other hand it's putting some fairly polluted water in the estuaries, and we have a red tide event that doesn't seem to want to go away. And stakeholders are asking me if it's going to feed this red tide event. People are pretty angry about it."

**Who put the Karen in *Karenia brevis* (red tide)?** [She did.](#)  
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Cassani said a recent passing cold front dropped about an inch of rain on his property near the upstream portion of the river.

But drier times may be ahead.

## **Impact between now and rainy season**

The National Oceanic and Atmospheric Administration, or NOAA, is calling for less-than-average rainfall between now

and the coming rainy season, which should start in mid-May.

Cassani said more rain over the northern part of the 16-county district would only add to management challenges.

"If the rain occurs over the Kissimmee basin and the fronts come through, it's going to be hard to get the lake down," Cassani said. "It's rainfall driven. (But) it's becoming more evident that the Corps isn't going to get the lake down to the 11 or 12 feet by the end of May. It's not looking good at this point."

The Army Corps says there is no specific target elevation for the lake, but that more flow to the Caloosahatchee may be necessary.

"As wet season approaches, we would rather be in the lower end of that preferred range, but the regulation schedule doesn't mandate a specific target," said Army Corps spokesman John Campbell. "It is possible that guidance from the (lake management guidance) could recommend larger flows if the water level doesn't recede in a timely fashion," Campbell said. "Significant rain in the dry season would be a factor that could slow or stop the recession such that larger flows would be needed."

Both estuaries have been flooded with releases, nutrients

and algae in recent years.

"We are still tracking that the lake is going to be higher than we want at the start of rainy season which directly equates to a higher risk of high-volume releases in the fall — and nobody wants that," said Army Corps Col. Andrew Kelly. "We remain on plan, we executed our February strategy, and it is now time to make the first adjustment."

Water in the lake has also been murky, blocking out what little sunlight gets to the submerged aquatic vegetation that in turn filters the water to make it clearer.

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A deeper lake also produces larger waves, Gray said, driving silted and nutrient-laden waters into areas that are typically much drier at this time of year.

"It's deep water and it's also dirty," Gray said of the lake. "The (recent) fronts brought 15 or 20 mile per hour winds, and that makes the waves go into the marsh and it carries mud into the marshes. It's a negative feedback loop."

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