

# Opinion: The blue green algae crisis: Believe it or not, there's hope

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These days, it seems like everyone is weighing in about Florida's blue green algae crisis. The crescendo is hitting notes on everything from blame and finger-pointing, to doomsday predictions and "kick the can down the road" advocacies for more research and study.

So today, I would like to offer a song from a different sheet of music. Hope.

To date, with the exception of the grossly expensive, environmentally destructive and Army Corps-approved plan for water impoundment at Lake Okeechobee, there have been very few, if any, discussions about real, viable solutions to prevent harmful algal blooms.



**Dr Thomas Waite** (Photo: Submitted)

In fact, the proposed EAA impoundment alone may not even be considered viable at all as it is still receiving substantial pushback from the scientific community, including most recently from Dr. William Mitsch, of the Everglades Wetland Research Park at Florida Gulf Coast University. This month, he published his opinion that the proposed impoundment acreage will not be enough to adequately treat the contaminated water coming from Lake Okeechobee. I agree with that opinion, and in fact there is no impoundment volume that will work (look at the water quality leaving Lake O).

Will impoundment be the answer to all of our state's future and current water contamination problems? It's difficult to fathom the amount of land that would need to be dug up from Pensacola to Key West, to hold our nutrient waste. In fact, it's entirely unrealistic. It is time for new technologies.

Unfortunately for everyone, many of the so-called technologies that have been discussed in the media, are not really technologies at all. They are merely a re-introduction of biological processes that nature has already given us, like sand filtration, grass beds, trees and oysters. While each of these may remove small amounts of the dreaded phosphorus and nitrogen from our waters, the removal amounts are nearly impossible to quantify and the estimated costs are exorbitant. The commitment in land alone is astonishing. In the end, it is simply ludicrous to believe that the amount of human-injected contamination into our waters, which has been rolling on without limit for at least a half century, can somehow be rectified by using the same, natural systems that Mother Earth gave us. And we all know, those systems too are failing.

We need new technologies that can quantifiably, predictably, safely and affordably remove massive amounts of phosphorus, and nitrogen (especially ammonia) from our wastewaters. That is the only way to stop harmful algal blooms. Our team of researchers has been perfecting such a technology that uses a "green" iron compound, Ferrate. It has been tested, it works, it is safe and affordable. It does not require anywhere near the kind of land that impoundment would require. And because we know this, we have hope.

My hat is off to the Blue Green Algae Task force and the state's Department of Environmental Protection as they wrestle with the onslaught of "good ideas" and "new technologies" that are now at their fingertips. Wouldn't it be amazing if other researchers, engineers and scientists also hold viable, measurable, affordable and environmentally safe technologies in their hands, and that the state's recent request for information, yielded real options? That would be truly amazing indeed. But one thing at least is certain – Ferrate will work, and so there is hope. It's time to move forward.

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