



HOUSE MAJORITY OFFICE

FLORIDA HOUSE OF REPRESENTATIVES

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Reality Check: Florida's Water Quality Issues

Florida red tide and blue-green algal blooms are affecting coastal communities on Florida's east and west coasts.

What Are They?

Red Tide

- Florida red tide algal bloom is a higher-than-normal concentration of a microscopic alga, which has been documented along Florida's Gulf Coast since the 1840s. At high concentrations, it can discolor water to a red or brown hue. Additionally, Florida red tide produces toxic chemicals that are hazardous to humans and can result in the deaths of aquatic species.
- Florida's red tide develops at least 9 miles offshore in the Gulf of Mexico and is transported by currents to Florida's west coast. Once formed, red tide needs the right physical and chemical factors to prolong its growth.
- Hurricane Irma, and other favorable conditions for the blooms may be contributing factors to this year's more severe and prolonged red tide.
- Red tide can last as little as a few weeks or longer than a year. The current bloom has lasted 10 months and the driving factors that fuel the growth and duration of red tide continue to be sunlight, water temperature, water currents, wind speed and direction, salinity, and nutrients (food source for bacteria growth).

Blue-Green Algal Blooms

- Blue-green algal blooms occur in freshwater lakes, reservoirs, rivers, and estuaries located throughout the state.
- These blooms tend to develop in Lake Okeechobee beginning in the spring and lasting through early fall each year. The blooms in the Caloosahatchee and St. Lucie Rivers and Estuaries are not only caused by freshwater discharges from Lake Okeechobee, but also from a multitude of nutrient sources in the coastal watersheds, including wastewater treatment plant discharges, leaking and inadequate septic systems, and urban and agricultural runoff. Additionally, high temperatures and abundant sunlight contribute to the development of algal blooms in the summer and fall.
- Blue-green algal blooms can produce toxins that may have detrimental effects. Not only can these blooms be harmful, their sight and smell can deter tourism to the affected areas. This year's blooms have been more severe due to ideal environmental conditions. For example, this year there have been warmer waters, low wind, an abundance of sunlight, and local contributors that have aided in the severity of the blooms.
- This year's blooms have not only been rampant in the Caloosahatchee and St. Lucie Rivers, but in other parts of the state, including the St. Johns River and waterbodies in Alachua County and Indian River County.

Bottom Line: The red tide bloom and blue-green algal blooms are naturally occurring phenomena that are fueled by a variety of influences such as sunlight, salinity, water temperature, and water currents. While human-generated nutrient loads aggravate these conditions, they are not the singular causal factor.

AREAS AFFECTED BY ALGAL BLOOMS

