

# Water quality crisis: Local solutions available

The situation is bad, with red tide on our beaches and blue-green algae reaching nearby back bays. Experts tell us it is going to get worse unless we change our ways.

The mess surrounding Lake Okeechobee and the flow of its water is a large part of the problem. But what happens there is beyond our direct control, so let's focus on what should be done locally where we can act with our own hands. After all, our pristine lifestyle here is threatened and we are guilty of contributing to the excess nutrients and global warming that have worsened this crisis.

Action must focus on nutrients and rising temperatures. Red tide (*Karenia brevis*) and the neon green paint-like algae (cyanobacteria) are naturally occurring, so we cannot hope to eliminate their emergence. But both types of algae blooms are fueled by nutrient pollution from agricultural and urban runoff. Since algae like

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to bloom in warmer months, global warming is providing more opportunities. Climate change also tends to produce more rain which can wash more nutrients into waterways and fuel the blooms.

Water quality is about the estuary. We often focus on our beaches, but without a healthy estuary, our beaches – and all our livelihoods — are doomed. The estuary is where freshwater and saltwater mix. Charlotte Harbor, the tidal Myakka and Peace rivers, and Lemon Bay are a valuable habitat for nursery fisheries. They also provide the economic and lifestyle basis for our communities. We count on the estuary for our recreational fishing, seafood, boating, birding and the aesthetics of our lives here.

Eliminating runoff from our homes and

businesses is the best thing we can do as individuals. Every drop of rain either goes into the ground (that's good) or becomes runoff to carry nutrients – fertilizers and dog poop — to our waterways directly or through stormwater drains (this is bad).

Native landscapes don't use fertilizers (nutrients) or irrigation (which becomes runoff). Rain barrels and permeable walkways/driveways/parking areas can prevent water from becoming runoff. All this can be achieved with the free help from the county Extension Office's Florida Friendly Landscape program. Florida Friendly landscapes also take carbon from the air and store it in the soil – which fights global warming.

• Without a viable water monitoring and evaluation program, we cannot tell if our estuary is up to snuff, or if our efforts at corrective action are having a positive effect. With the state environmental and water

management budgets slashed, and the county not fully engaged, we don't have the means to manage our local water quality. A solution is to have the county assume full responsibility for the monitoring, evaluation and public reporting of water quality in our estuary and adjoining waterways.

• Septic tanks must become history. Because of our soils and geography, septic tanks don't belong in Florida. They cause about two-thirds of our water quality issues. We must replace all septic systems located anywhere near a waterway. Because we will all benefit, funding should be provided by all residents and businesses. Increased taxes will be more than repaid by the economic benefits of avoiding future crises.

• Eliminate untreated agricultural runoff. We must require farmers to capture, store and clean their runoff, just as urban areas must also do.

• Better urban runoff.

As the county develops, our planning and design must allow more space to capture and treat water. The idea is to use low-impact design to filter water in the ground before discharging it to the canals, rivers, lakes and ultimately the estuary. Also, our codes should require the use of Florida Friendly Landscapes.

• Upgrade reclaimed water. Using water more than once is an important conservation concept. But reclaimed water retains high levels of nutrients. These nutrients can be absorbed by lawns and gardens, but if it runs off into canals and adjacent waters it contributes to the nutrient problem. We need advanced wastewater treatment to remove all nutrients.

• Mitigate climate change. The state has mandated that counties have comprehensive plans by 2021 that account for sea level

rise. This is a great opportunity to fight the warming that causes rising seas and makes algae blooms worse. The Beaches and Shores Advisory Committee has presented an "adaptive mitigation" plan. The idea is to draw down excess carbon in the atmosphere while also helping our residents adapt to a changing climate. We need to adopt this plan.

We all contribute to the excess nutrients and global warming that have caused this mess. To prevent worse crises in the future, we all must all work towards solutions at our own homes and businesses and demand action by our local government.

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