FISH KILLS IN THE INDIAN RIVER LAGOON - OVERVIEW

Many people ask why the Lagoon continues to experience fish-kills. Large quantities of marine life die-offs, more commonly referred to as fish kills, occur when the lagoon experiences extremely low oxygen concentrations for extended periods of time.

During daylight, algae produce oxygen through photosynthesis, *replenishing* oxygen levels in the water. But at night, the algae *consume* oxygen. Coupled with the normal demand for oxygen from fish, crabs and other marine life, this can cause dips in dissolved oxygen in the lagoon, with the lowest levels just before dawn.

When dense clusters of fish die and rot, bacteria increase, further diminishing the available oxygen in the water. Quick removal of dead fish from a fish-kill is recommended whenever possible.

Although fish kills are most commonly triggered by nutrient run-off from pesticides, herbicides and other chemicals, accidental sewage spills and illegal sewage disposal can incite a fish kill as well.

Algal blooms were a normal part of the Indian River Lagoon's ecosystem, but as population growth continues to steadily grow the blooms' frequency and intensity also appear to be growing. Additional septic tanks, fertilizer use and stormwater run-off add further nutrient loads to an already struggling ecosystem.

The solution is to dramatically lower the amount of nutrients (nitrogen compounds) in the Lagoon by removing those that exist (in muck, for example) and preventing pollutants from entering our waterways. These solutions are the focus of the many Brevard County Save Our Indian River Lagoon projects completed and underway. We must all do our part to stop the flow of nutrients into the Lagoon, especially due to stormwater runoff.

Sources: Florida Wildlife Commission, Virginia Tech. *Updated:* 2021