



STEADFAST ENVIRONMENTAL

From the Steadfast Water, Algae and Trash (SWAT) Rapid Response Team



An example of the difference between conditions with frequent rain (algae free); and the current dry conditions (algae city)

SPRING CONDITION REPORT

Sporadic algae blooms and explosive growth during dry spring conditions.

With Spring in full swing, and as we approach Summer, increasingly warm temperatures are on the way. Most daily high temperatures this week were in the high 80's. Meanwhile, rainfall has been minimal to none which contributes to decreased water levels and increased water temperatures. Residents may notice sporadic algae blooms and explosive growth during this time. This is a direct result of lack of rain and increased ambient temperatures. A stark contrast to the relatively stable conditions of the previous rainy months.

Contributions to algal activity include excess nutrients from fertilizers & grass clippings, stormwater runoff, and lack of water movement between rainfall events. These nutrients, in addition to the abundant Florida sunshine, increased humidity, and high daytime temperatures, allow algae to rapidly take over suitable water bodies.

Blooms may take the form of water tinted green with cloudy planktonic algae, rough patches of surface filamentous algae, or paint-like cyanobacterial slicks on the water's surface.

Algal blooms are unique to each pond and are dependent on several factors. Aspects such as a pond's dimensions, the volume of flow entering the pond, and the proximity of adjacent wetlands for water to drain into. All these factors affect a pond's nutrient density; the fuel for algal blooms.

Full spectrum Copper Sulfate treatments are in effect in response to these seasonal algal blooms. Under normal conditions, most species of algae decompose fully in 7-10 days following a treatment date. However, in drier conditions (like those we are experiencing now) with no wind or rain to assist in breakup

of the algae as it dissolves, decay times will be extended.

Across the majority of ponds, we are seeing signs of having intercepted blooms, curtailing them before they get out of hand. In other ponds whose construction lends to high nutrient retention, this will be a cyclical battle against the algal growth until fresh rains once again bring relief, or until we see a reduction in growth rates during the onset of Fall, where many nutrients will have time to settle and get locked away.

While regular follow up treatments are administered to combat fresh growth, it can be difficult to prevent algae from flaring up between visits. Routine treatments will continue to dispel them as they establish.