This Week's Water Conditions Update

September 17, 2021

Water Conditions Tracker

Lake Okeechobee Levels & Caloosahatchee Flow Impacts

On September 15, 2021 Lake Okeechobee was at 14.92 feet (+0.19 feet in the past week). The average volume of water reaching the Caloosahatchee from the watershed was 2,663 cfs (cubic feet per second) this week. The 14-day average flow on 9/15/21 was 2,262 cfs which is in the stress flow envelope for the Caloosahatchee estuary. This volume is measured at the Franklin Lock and Dam (S-79) in Alva. As of 9/15/21 flows from S-79 have been in the stress flow envelope for 7 days. We are still not receiving any
flows from Lake Okeechobee.

In the previous week (9/1/21 - 9/8/21) water clarity had begun improving due to relatively low precipitation in the watershed and 14-day average flows had been in the optimum range for 12 days. In the picture on the left, taken on 9/9/21 near the lighthouse, a manatee can be seen swimming at the beach. The water was teal and somewhat turbid. Now, increased precipitation has resulted in increased flows and brown water within a matter of 5 days with flows > 2,100 cfs. In the virtual tour of Lighthouse Beach Park below, you can see that brown water has pushed out beyond the estuary and into the Gulf of Mexico. Water color and flow are correlated: the greater the flow from the watershed (and Lake Okeechobee) the darker the water.

For more information on Lake Okeechobee and estuary conditions go to the latest Caloosahatchee Conditions Report

Virtual Water Quality Tour from Lighthouse Beach

With no flows from Lake Okeechobee, water clarity and quality is only being affected by the watershed and stormwater runoff from rain. Tropical Storm Nicholas will bring rainfall to Southwest Florida this week (9/15/21 - 9/18/21) resulting in more stormwater runoff.
Red Tide

Satellite imagery over the past week has shown low to medium levels of chlorophyll off of the coast of Southwest Florida, with high chlorophyll patches in Gasparilla Sound and off the coast of Sarasota. *Karenia brevis* and/or other algal species may be contributing to the high chlorophyll concentrations. The FWC Fish Kill Hotline has been receiving numerous reports of fish kills associate with red tide in Pinellas (13 reports), Sarasota (3 reports), and Lee (1 report) counties.

In Lee County, FWC reported not present/background levels of *Karenia brevis* in all samples in the past week except in one sample with a low concentration in northern Pine Island Sound near Cayo Costa. The Clinic for the Rehabilitation of Wildlife (CROW) on Sanibel received 7 patients with toxicosis symptoms (from red tide or blue-green algae) from 9/5/21 - 9/13/21.

Blue-Green Algae

Cyanobacteria was present downstream of S-77 in Moore Haven on 9/10/21. On 9/15/21 algal blooms covered about 180 square miles of Lake Okeechobee. There is presently a 20 - 30% bloom-potential on Lake Okeechobee based on the most recent satellite imagery.

Resources To Follow:

To learn more about our current water conditions, click on the following links:

**Caloosahatchee Conditions Report**
A collaborative, weekly analysis, including recommendations for water managers regarding Lake Okeechobee flows.

**RECON**
SCCF's River, Estuary, and Coastal Observing Network is a network of eight optical water quality sensors deployed throughout the Caloosahatchee and the Pine Island Sound estuary to provide real-time water quality data.

**Red Tide Resources**

**NOAA HAB Monitoring System - Lake Okeechobee**

**Algae Reporting App**
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