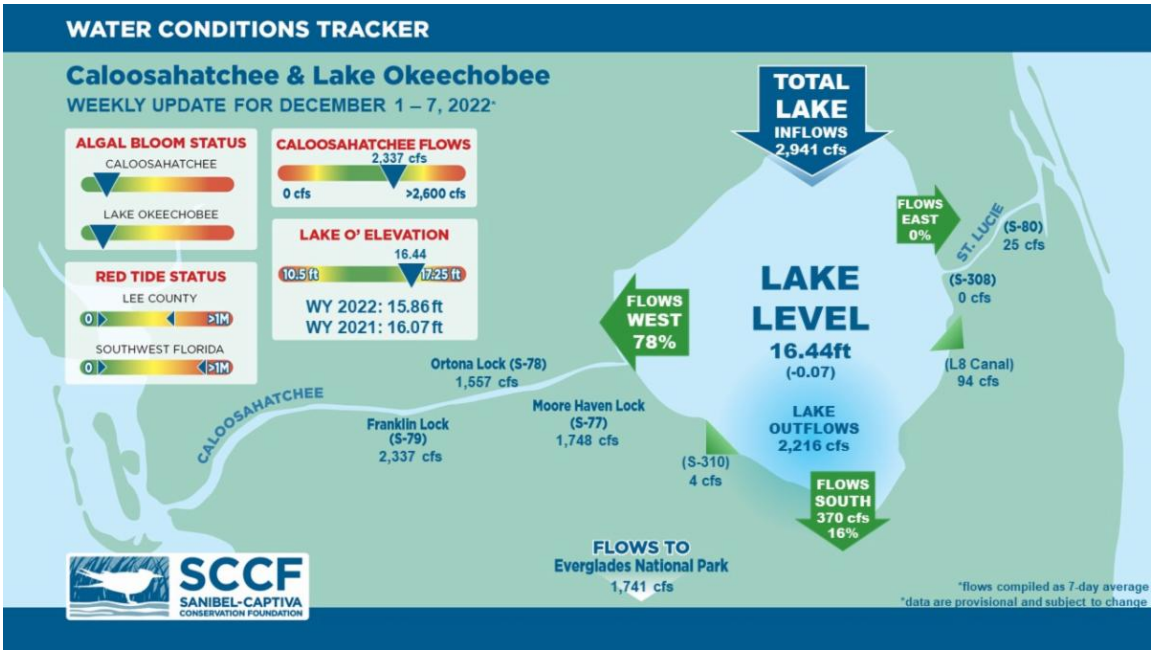
This Week's Water Conditions Update

December 9, 2022

Water Conditions Tracker



Lake Okeechobee Levels & Caloosahatchee Flow Impacts

On 12/8/22 Lake Okeechobee was at 16.44 feet, decreasing by 0.07 feet in the past week. The weekly average flow at S-79 was 2,337 cfs (cubic feet per second) and flow from the Lake at S-77 was an average of 1,748 cfs. The 14-day average flow at S-79 was **1,734 cfs** and has been in the **optimal** flow envelope (750-2,100cfs) for 42 days.

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

Red Tide Counts Down; Lake O Too High

Over the past couple of weeks, water quality has been improving with fewer fish kills, increased water clarity, and a reduction of red tide concentrations around Sanibel.

Flows to the Caloosahatchee Estuary from S-79 have been in the optimal flow envelope

for 41 days and releases from Lake Okeechobee have begun to supplement flows from the watershed as the dry season progress. The current Lake regulation schedule (LORS08) currently recommends up to 4,000 cfs from S-79.

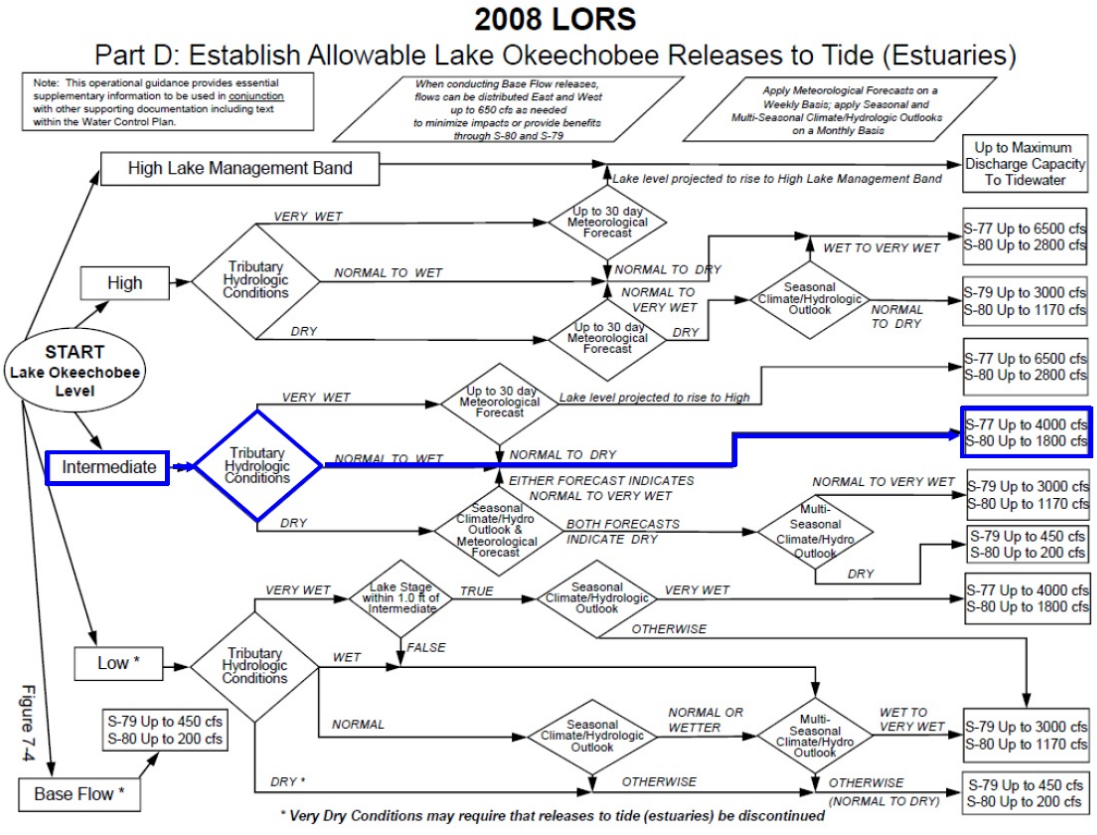
"However, there is concern that high flows could result in excess nutrient loading which could fuel red tide," said SCCF Policy Associate Leah Reidenbach, who produces the weekly Caloosahatchee Conditions Report for water managers and policymakers.

On Dec. 3, the US Army Corps of Engineers increased the flow at S-79 to a seven-day average of 2,000 cfs from 1,200 cfs. Lake Okeechobee is high for this time of year after Hurricanes Ian and Nicole so releases, combine with decreased inflow, and increased evaporation can help lower the lake. To decrease flows from the LORS08 guidance, the Corps is utilizing a water banking tool which allows them to reduce flows now and “save” them for beneficial releases (up to 2,800 cfs) later in the dry season when LORS08 guidance falls below 2,800 cfs.

"This will benefit us now by preventing excess nutrient flows and by providing beneficial flows in the dry season," said Reidenbach. "The drawback to this plan is the Lake is currently too high which is bad for its ecology and fewer outflows lead to a slower rate of decline of lake levels. When Lake Okeechobee is too high during this time of year it can cause the nutrient-rich sediment on the bottom of the Lake to get stirred up, making phosphorous available to blue-green algae."

The sediment can get washed into the marshes where cattails can take over and outcompete native species. High lake levels also reduce light availability for submerged aquatic vegetation and reduce habitat availability for millions of migratory birds that need shallow water for feeding. There are often many tradeoffs to consider when managing a large system with a diversity of needs.

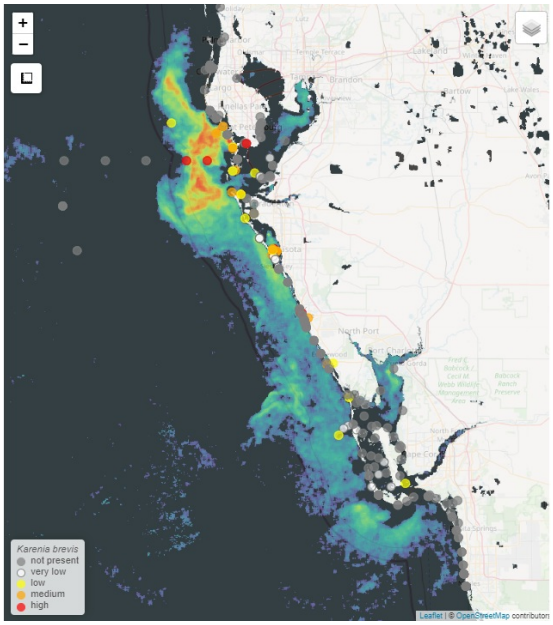
"We will continue to monitor this dynamic system, which can change rapidly from week to week during these times when tough decisions need to be made," she said. "The science and data that is generated from the SCCF Marine Lab, our Policy team’s dedication to monitoring and advocating for the Estuary, and our collaboration with stakeholders allow us to give conditions updates and recommendations to the Corps every week in our Caloosahatchee Conditions Report."



Virtual Water Quality Tour from Lighthouse Beach

Click here or on the image above to take a virtual tour from above Lighthouse Beach Park to see how the water looked this week.

Photo was taken on 12/6/22 at 11:53 PM on a rising tide (High tide @ 12:41 PM (1.7 ft)).



Red Tide

Satellite imagery over the past week has detected low to high concentrations of chlorophyll of the coast of Southwest Florida, with high concentrations primarily near Tampa Bay.

On 12/2/22, the FWC reported that over the past week the red tide organism, *Karenia brevis*, was observed in 72 samples. Bloom concentrations (>100,000 cells/liter) were present in 40 samples: one in Manatee County, 31 in Sarasota County, one in Charlotte County, **five in and offshore of Lee County**, and two in and offshore of Collier County. *K. brevis* was observed at background to low concentrations in Pinellas County, very low to medium concentrations in Manatee County, low to high concentrations in Sarasota County, very low to medium concentrations in and offshore of Charlotte County, **background to medium concentrations in and offshore of Lee County**, and background to high concentrations in and offshore of Collier County

The Clinic for the Rehabilitation of Wildlife (CROW) (currently displaced off island) received 5 birds with toxicosis symptoms (from red tide or blue-green algae) from 11/29/22 - 12/5/22.

Beach Conditions

The City of Sanibel reported that there were no new deposits of dead fish during beach inspections but did find a dead double crested cormorant at Bowman's Beach on 12/5/22 with no obvious signs of trauma, so it may have been impacted by red tide. SCCF staff reported a dead large tarpon (>4ft long) at Tarpon Bay Beach on 12/2/22.The town of Fort Myers Beach reported that water quality was improving, and birds are coming back, but there were still a few new fish kills.

The FWC Fish Kill Hotline continued to receive reports of multi-taxa kills and respiratory irritation at South Creek, Naples Beach, Naples Pier, Ainger Creek, Kite Cove, Moorings Bay, Pine Island Sound, and offshore. Affected species: snook, red drum, gag grouper, goliath grouper, jack crevalle, pinfish, spotted seatrout, grunt, scaled sardine, sand perch, bluefish, permit, bonnethead shark, mullet, catfish, pufferfish, eel, horseshoe crab, unidentified crab, other unidentified fish.

Blue-Green Algae

On 12/5/22 sampling for cyanobacteria by the Lee County Environmental Lab reported the presence of *Microcystis* at the **Alva Boat Ramp** as visible specks with no accumulation and at the **Davis Boat Ramp** as wind driven tan/green scum along the seawall.

On 12/8/22, satellite imagery from Lake Okeechobee showed no bloom potential in the lake.

Become a Citizen Scientist and Get the Algae Reporting App Today!

SCCF wants to know when and where all types of algae sightings occur to monitor conditions around the islands and to investigate algae bloom occurrence with patterns in seasonal weather changes and Lake Okeechobee water management practices.

Download the algae reporting app on your phone by **clicking here** or by searching for the ArcGIS Survey123 app in the app store. Once installed, give the app permission to access your phone's location to receive GPS coordinates of your sighting and camera/media to capture and attach pictures. When you open the app, click "Continue Without Signing In."

Next, download the algae reporting survey by scanning the QR code above or **clicking here** on your phone. Once the survey is downloaded, fill out the required fields and click the check mark in the lower right corner to submit your sighting. Note: If you do not have cellular coverage, you can still fill out the survey and save it in the outbox to be sent later. **Click here** to download instructions.

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.

Caloosahatchee River Virtual Tour

Red Tide Resources

NOAA HAB Monitoring System - Lake Okeechobee

Algae Reporting App.

Click here to subscribe to ***Connecting You to SCCF*** and other SCCF mailing lists.

DONATE TO SCCF

Stay Connected!

SCCF (Sanibel-Captiva Conservation Foundation) | PO BOX 839, Sanibel, FL 33957