

June 2020

FLORIDA WATER: THE NUMBERS TELL A STORY

46,000,000

gallons of water could be saved every day if Floridians watered their lawns more efficiently.

40,000

acres of seagrass died in Florida Bay in 2015 due to drought and decreasing freshwater flows from the Everglades.

200

linear miles of reef in the Florida Coral Reef Tract experienced an outbreak of tissue killing disease.

Research recently identified the disease as a new species of *Sphingomonas*.

53

percent of total water supply withdrawals for the state came from Florida water aquifers, which serve about 8.1 million people.

21

unprovoked shark attacks reported in Florida in 2019.

15

inches of sea level rise will occur in the Florida Keys by 2045, according to the U.S. Army Corps of Engineers. This will cause severe and permanent flooding and loss of homes and businesses.

Naples Area Board of REALTORS®

Water Quality Advisory



As the voice of REALTORS® in the Naples area, NABOR® has and will always advocate for action to reduce or eliminate any man-made or environmental threats to home ownership, property values and the living standards in Florida.

NEW EFFORTS MAY LEAD TO BLOOM PREDICTIONS

As reported by the News Press in the article “Researchers Hope to Predict Toxic Algae,” by reporter Chad Gillis, a second set of air quality sensors were recently installed near canals in Cape Coral to monitor air quality conditions. The data captured by the sensors will help scientific efforts to predict future toxic blue-green algae blooms.

The first set of sensors were installed in SW Florida in 2018 just after the tragic summer algae blooms that created a national stir. The objective is to gather data on algae levels in the air so that it can be studied and compared to health data collected from residents near exposure sites.

The study is a collaborative effort by members of the Blue-Green Algae Task Force including Dr. Michael Parsons, a marine science professor in the Water School at Florida Gulf Coast University (FGCU) Florida Gulf Coast University; and Adam Schaefer, an epidemiologist and program manager of the Harbor Branch Oceanographic Institute at Florida Atlantic University.

Another study conducted at Schaefer’s Institute, and in partnership with the Centers for Disease Control, has identified a possible standard of measurement that can be used as a diagnostic screening tool to monitor and measure human exposure to cyanobacteria. Using this standard of measurement, researchers will be able to detect and evaluate the levels of toxins in the body using blood, urine and nasal swab samples.

The ultimate goal of all this collaborative work

STOP NOW
June 1 - Sept 30

**Fertilizers Containing
Nitrogen are banned
from use in the
City of Naples**

continued, Bloom Predictions

is to understand the potential health effects of exposure to harmful algal blooms. The sensors will track air quality during periods of low and high cyanobacteria blooms. This data can then be used to predict future blooms and help the state prepare for or prevent dangerous blooms.

The Florida Department of Health allocated \$650,000 in legislatively appropriated funds within the 2020 state budget to four Florida universities (Florida Atlantic University, University of Florida, University of Miami, and Florida Gulf Coast University) to support researchers' efforts to improve our understanding of the potential long-term human-health impacts of harmful algal blooms like blue-green algae and red tide.

Their research priorities are:

- **Prevention:** Focus on preventing exposure impacts from toxins associated with harmful algal blooms.
- **Treatment:** Improved treatment for those exposed to toxins.
- **Health disparities:** Research the varying impacts from toxin exposure that result from health disparities due to race, ethnicity or income.
- **Screening:** Improve screening accuracy and detection of high-risk subgroups, and/or an improved HAB-toxin screening program that boosts early detection and prevention of HAB-related illness.



Naples Area Board of REALTORS®

H2O SAVING TIPS

Help new homeowners become caring Florida naturalists. Share these smart water conservation tips to encourage good behaviors.

- Only operate the dishwasher when it's full.
- Thaw frozen foods in the fridge or microwave instead of using running water.
- Take 5 minute showers.
- Turn off the water while brushing your teeth.
- Operate the washer with full loads only, if a load size can't be set.
- Only water your lawn when it needs it and follow local restrictions.
- Add micro-irrigation around plant beds for more efficient watering.
- Use a broom, not a hose, to clean driveways and sidewalks.
- Install drought-tolerant plants.
- Use a shutoff nozzle on your garden hose.

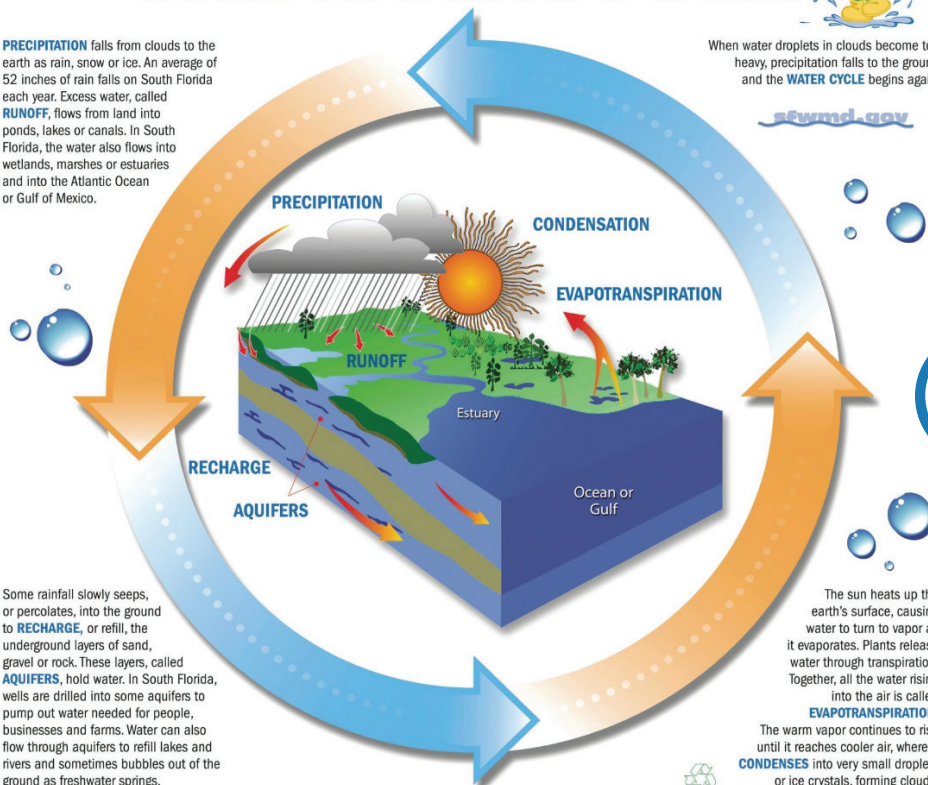
SOURCE: SW FLORIDA WATER MANAGEMENT DISTRICT
swfwmd.state.fl.us

Water makes many stops as it travels in a great circle called... THE WATERCYCLE



When water droplets in clouds become too heavy, precipitation falls to the ground and the WATER CYCLE begins again.

PRECIPITATION falls from clouds to the earth as rain, snow or ice. An average of 52 inches of rain falls on South Florida each year. Excess water, called **RUNOFF**, flows from land into ponds, lakes or canals. In South Florida, the water also flows into wetlands, marshes or estuaries and into the Atlantic Ocean or Gulf of Mexico.



Some rainfall slowly seeps, or percolates, into the ground to **RECHARGE**, or refill, the underground layers of sand, gravel or rock. These layers, called **AQUIFERS**, hold water. In South Florida, wells are drilled into some aquifers to pump out water needed for people, businesses and farms. Water can also flow through aquifers to refill lakes and rivers and sometimes bubbles out of the ground as freshwater springs.

The sun heats up the earth's surface, causing water to turn to vapor as it evaporates. Plants release water through transpiration. Together, all the water rising into the air is called **EVAPOTRANSPIRATION**. The warm vapor continues to rise until it reaches cooler air, where it **CONDENSES** into very small droplets or ice crystals, forming clouds.

SOURCE: SOUTH FLORIDA WATER MANAGEMENT DISTRICT / swfwmd.gov

RESOURCES

[Calusa WaterKeeper](#)

[Captains for Clean Water](#)

[Collier County WaterKeeper](#)

[Collier County Watershed Management Plan](#)

[Daily Red Tide Reports](#)

[protectingfloridatogether.gov](#)