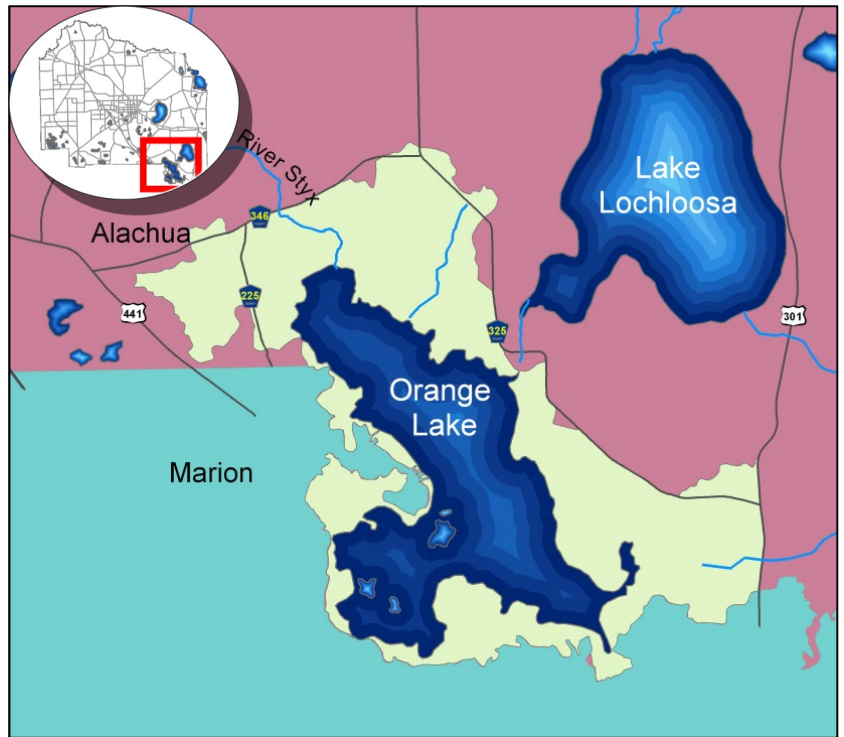




Orange Lake Fact Sheet

The Watershed

- The lake ranges from 5,000 to 14,700 acres depending on rainfall. It averages 5.5 feet deep with a maximum depth of 12 feet.
- The lake is well-known to fishermen and bird watchers.
- Floating tree and vegetative islands, known as tussocks, are common on this lake.
- The lake drains into the Floridan aquifer through sinkholes in the southwest portion of the lake.



Map of Orange Lake watershed (green).

Potential Pollution

- Tributaries to the lake contribute much of the pollution. Tributaries convey water and pollution from Newnans Lake via River Styx, Prairie Creek and Camps Canal, and from Lochloosa Lake via Cross Creek.
- Historical agriculture practices in the watershed contribute to nutrient loading. The watershed is transitioning to residential use.
- Internal nutrient cycling within the lake is also problematic.



Orange Lake, 2012.

Water Quality

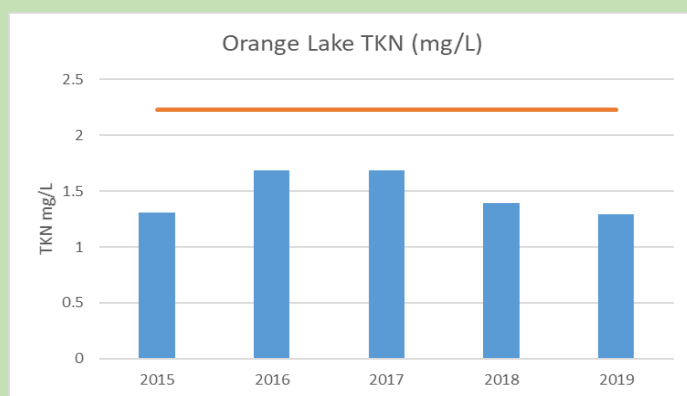
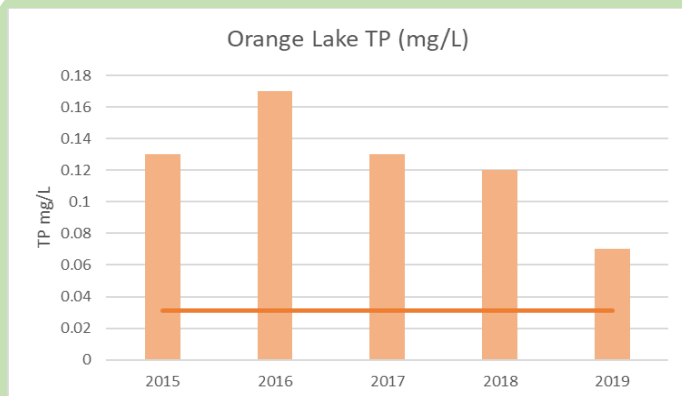


Figure 1. Annual Geometric Mean of A) total phosphorus (TP) and B) total Kjeldahl nitrogen (TKN) with TMDL denoted by orange line.

Nutrients: A Total Maximum Daily Load (TMDL) was adopted in 2003 to address nutrient pollution in Orange Lake. The TMDL was determined for phosphorus (45% TP reduction) in order to reduce the abundance of algae. The lake was included in the Orange Creek Surface Water Improvement and Management Plan (SWIM Plan) in 2011, which describes nutrient reduction efforts within the lake's watershed to reduce pollutant inputs to the lake. Major sources of phosphorus are fertilizers in stormwater runoff from residential areas and agricultural activities.

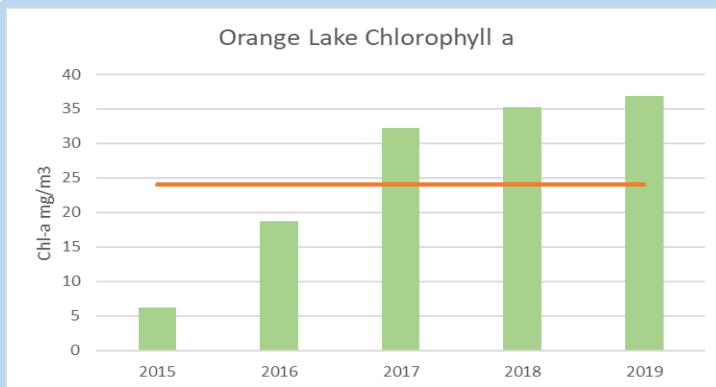


Figure 2. Annual Geometric Mean Chlorophyll- α .

Chlorophyll- α :

Algal abundance is commonly measured in the amount of chlorophyll- α in water. The high nutrient concentrations have led to the elevated chlorophyll- α concentrations in the past. As nutrient levels decrease, the chlorophyll- α concentrations are also decreasing, though levels have risen since 2016. Chlorophyll- α can be affected by rainfall.

Current Human Impacts

- Orange Lake was designated an Outstanding Florida Water or OFW in 1987, giving it special protection.
- Historical agriculture is suspected as a major source of nutrients within the watershed.
- Positive impacts on water quality result from preservation within the watershed at the Orange Creek Conservation Area and SJRWMD Longleaf Flatwoods Reserve.



Orange Lake, at MK Rawlings Park and boat ramp.