

# Martin County Projects Update



## Rivers Coalition Meeting

July 28, 2016 at 11 a.m., City of Stuart Commission Chambers

(Update provided by Dianne Hughes, Senior Ecosystem Specialist,  
Ecosystem Restoration & Management Division)

### LAKE OKEECHOBEE CURRENT CONDITIONS

- Lake Okeechobee at 14.69 feet
  - (1 week ago = 14.69 feet; 1 year ago = 12.08 feet)
- Inflows to the Lake= ~3510 cubic feet/second
- Outflows from the Lake=~2070 cubic feet/second
- Current inflows to St. Lucie from the Lake averaging 650 cubic feet / second weekly
- Salinities up to 20 ppt when no flows from Lake (previously 14 ppt max at 1170 cfs)
- Temperatures ranging from 88-91 degrees (F)

### AIR QUALITY TESTING AT BLUE-GREEN ALGAE LOCATIONS

- Martin County contracted for air quality testing with Enviro Team North America
- 4 sites (2 residential in Rio and North River Shores; 2 commercial at Outboards Only and Central Marine)
- Tested for hydrogen sulfide, species of algae, toxin levels present, and respirable particles (whether algae could be inhaled)
- Took water quality sample at 2 sites (algae species and toxin levels)
- Received direction from Florida Department of Health and Center for Disease Control regarding sampling protocols
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### AIR QUALITY TESTING RESULTS

- **Hydrogen Sulfide** - Levels were discernable at levels which may be intolerable for individuals with respiratory conditions and asthmatics.
- **Water Toxins** – Microcystin levels in the algal water samples present a significant health threat upon direct exposure or ingestion.
- **Airborne Toxins** -Microcystin levels in the air were identified, indicating that toxins can become aerosolized when agitated. It should be noted that there are no set standards for inhalation risk by any federal, state or local regulatory agency. We defer to our public health authorities for inhalation avoidance or inhalation risk concerns.
- **Particulates** – Measured respirable particle concentrations are within an expected range for an outdoor environment, however, increased particle concentrations measured by water pump discharge associated with algae removal technologies suggest that further study should be performed to determine what impact this may have on human, animal exposure and/or the environment.
- **Volatile Organic Compounds**- The total volatile organic compounds (TVOC's) were not detectable.

## **TO PROTECT YOURSELF, YOUR FAMILY, AND YOUR PETS FROM EXPOSURE TO CYANOBACTERIAL HARMFUL ALGAL BLOOMS (CYANOHABS):**

- Avoid areas with visible algal concentrations and/or algal scums in the sea as well as on the shore. Direct contact and swallowing appreciable amounts are associated with the highest health risk.
- Don't swim, water ski, or boat in areas where the water is discolored or where you see foam, scum, or mats of algae on the water. If you do swim in water that might have a CyanoHAB, rinse off with fresh water as soon as possible.
- On the beach, avoid sitting downwind of any and of the material drying on the shore, which could form an aerosol that can be inhaled.
- Don't let pets or livestock swim in or drink from areas where the water is discolored or where you see foam, scum, or mats of algae on the water. If pets (especially dogs) swim in scummy water, rinse them off immediately—do not let them lick the algae (and toxins) off their fur.
- Respect any water-body closures announced by local public health authorities.
- If any health effects are subsequently experienced in whatever the nature of the exposure, seek medical advice.

## **AIR QUALITY TESTING NEXT STEPS**

- We have provided the report to the Florida Department of Environmental Protection and the Florida Department of Health (FDOH)
- We have requested their review and determination on health risks and notices
- FDOH indicated it will take several weeks for their review
- In the meantime, best for public to avoid contact with areas with blue-green algae
- Continuing to identify monitoring needs to assist in better managing blue green algae blooms in the future

## **LAKE OKEECHOBEE WATERSHED (LOW) PROJECT – CERP**

- Kick Off Meeting of Project Delivery Team on Monday, July 25
- Day 1 of 3-year planning process
- Public Meeting tonight at 6 p.m.
- Accepting comments on project for this initial phase (aka “scoping period”) until August 12, 2016
- <http://bit.ly/LakeOWatershed>

## **LOW PROJECT OBJECTIVES**

- Reduce undesirable discharges from Lake O to the Caloosahatchee and St. Lucie estuaries
- Improve the quality, quantity, timing, and distribution of water entering Lake O
- Improve system-wide operational flexibility
- Restore isolated wetlands in the watershed

## **LOW PROJECT CONSTRAINTS**

- Maintain existing levels of flood protection and water supply
- Cultural, historical, and archaeological resources
- Environmental Justice
- Applicable laws, regulations, and standards
- Navigation
- Lake Okeechobee Regulation Schedule (LORS08)