

# Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

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D. Albrey Arrington, Ph.D., Executive Director

## MEMORANDUM

TO: D. Albrey Arrington, Ph.D., Executive Director

FROM: Bud Howard, Director of Information Services

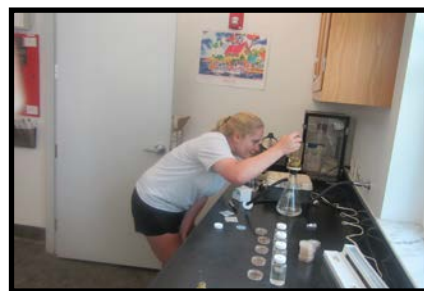
DATE: August 13, 2015

SUBJECT: Monthly Governing Board Update for June 2015

## WildPine Ecological Laboratory

### New Weekly Bacteria Testing Project

The lab staff and our summer interns implemented a new weekly water quality sampling project to test for bacteria in popular recreation areas in the Loxahatchee River estuary. We are often asked “Is the water safe for swimming/paddle boarding/wakeboarding?”. These questions are especially common during the summer months when more people are out on the water and we have increased tannin stained freshwater entering the estuary. Our interns collect weekly samples at 10 locations during the outgoing tide and then work with staff to perform the microbiology tests in the lab. We then report the results on our Maps and Apps page of the District’s website. We typically post the results Thursday so that people can be informed of conditions before the weekend. Over the past month we reported only one “Poor” result on June 29 at the Tequesta Country Club boat ramp.



Left: Intern Wellsley collects a water sample at Jupiter Plantation. Right: Intern Amanda then analyzes the water for enterococcus bacteria.

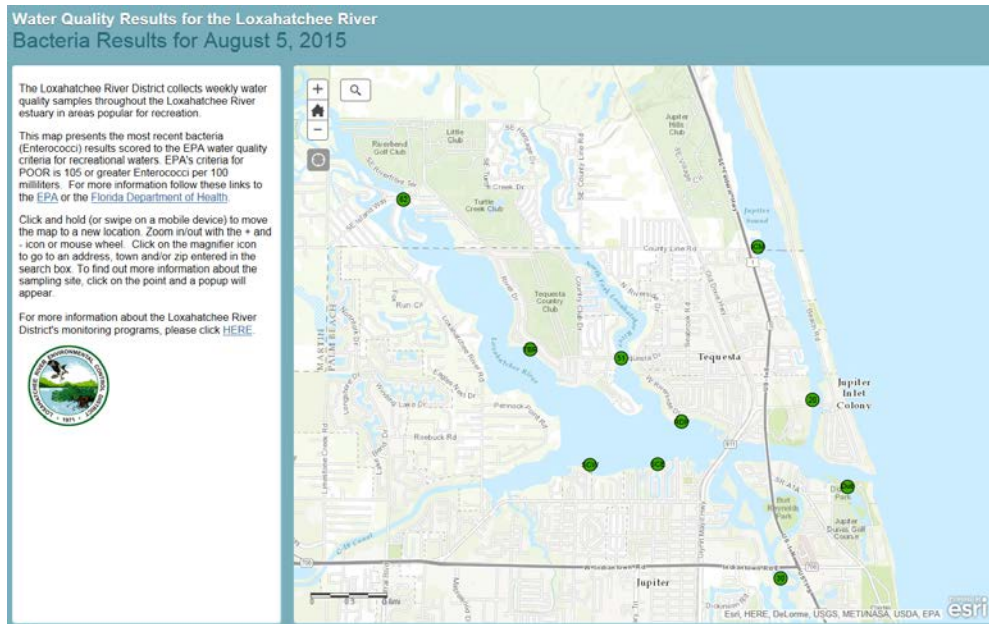
Gordon M. Boggie  
Board Member

Dr. Matt H. Rostock  
Board Member

Stephen B. Rockoff  
Chairman

Harvey M. Silverman  
Board Member

James D. Snyder  
Board Member



Weekly Bacteria Results map from the Maps & Apps section of the District's Website ([www.loxahatcheeriver.org](http://www.loxahatcheeriver.org), Map & Apps on the left menu buttons, Map #3 Weekly Bacteria Results)

## Project Riverkeeper

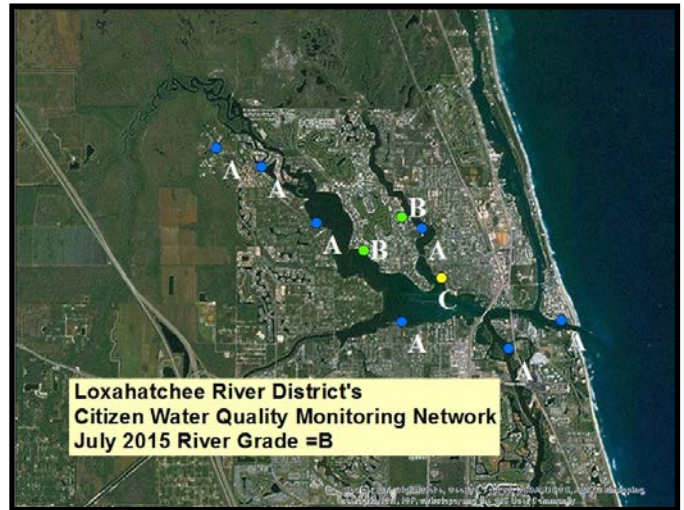
Staff sampled and performed water quality analysis for thirty-eight sites throughout the watershed in July. Conditions are still looking good this summer which is a stark contrast to the July 2014 maps (see [www.loxahatcheeriver.org/wqresults.php](http://www.loxahatcheeriver.org/wqresults.php)). Only 3 sites had poor bacteria levels last month (Jones Creek, River's Edge, and Kitching Creek) compared to 13 sites in July 2014. Rainfall measurements were essentially the same in July 2014 and 2015 but freshwater flows this year are less than half the volume they were last year! (details below)! July 2015 phosphorus results were similarly good with only 7 sites showing "poor" quality above the DEP/EPA Numeric Nutrient Criteria (NNC), versus 13 sites in July 2014. Station 88, at the proposed Lakewood Property, again posted much lower results than observed in the past, albeit slightly higher than the NNC. Nitrogen levels for July 2015 are comparable to previous months with 2 sites above the NNC criteria (both in JD Park), and better than 2014 which at high levels at 5 sites.

## Hydrologic and Datasonde Monitoring

In July we measured 8.6" of rain which is right in line with historical averages. The monthly average flow at Lainhart Dam was 53 cfs, well below the July historical average of 130 cfs. The lower flows resulted in elevated salinities throughout the month. Despite 2.1" of rainfall on July 17 salinities at Kitching Creek remained well above the historical average until the last couple days of the month. The daily average salinity at the surface of Kitching Creek was above 1ppt for all but 4 days in July. The USGS datasonde at river mile 9.1 even shows a daily mean of 1ppt on July 14. The slow start to the wet season, with low rainfall amounts in May and June, likely contributed to these low flows and higher salinities as the watershed gradually becomes saturated.

## Volunteer Water Quality Monitoring

The rainy season and increased freshwater flows are bringing reduced water clarity and salinity to the river and affecting water quality grades. July scored a high “B” grade. Although there was tannic water flowing out of the North and NW Forks during the ebb tide, there was essentially no flow from the S-46 flood control structure and very clear water moving into the upper reaches of the estuary during flood tide.



## Information Technology

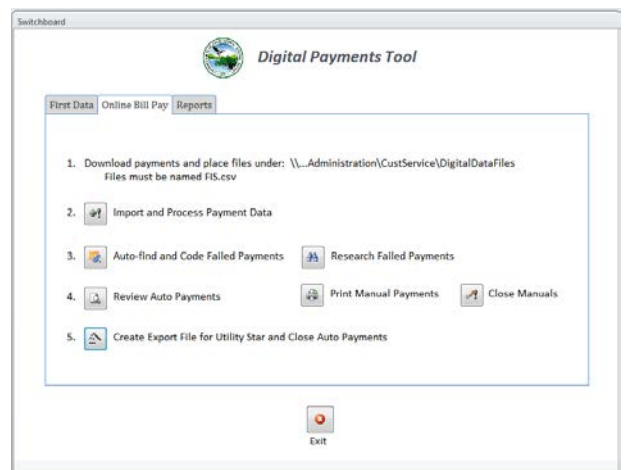
### New Server Setup & Configuration

Staff has been making good progress on the installation and configuration of the new server, storage and network equipment. The new equipment is installed in the newly renovated, climate controlled room in the Electrical Building (near the Operations), which is served by our backup generators. The new equipment provides a significant number of enhancements that will simplify management and maintenance, and provide exceptional performance and redundancy.

## Customer Service

### Digital Payments Processing Tool

On July 10 we went “Live” with our new digital processing tool that we developed in-house to process digital payments such as credit cards and online bill pay, rather than manually verifying and entering each payment. For the month we processed 1,728 payments totaling over \$204,000 with the new tool. At this point we are processing data from two of the “big three” payment processing companies and we are waiting for our turn with the implementation team from the 3<sup>rd</sup> processing company.



Screenshot from our new Digital Payments Tool

### Payment Processing

Our July billing brought a flood of payments totaling more than \$1.7M. Our new customer service staff are doing an excellent job processing huge numbers of payments and helping to develop the new digital processing tool.