

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 Water Resources

DATE: April 9, 2015

SUBJECT: Monthly Governing Board Update for March 2015

WildPine Ecological Laboratory

Project RiverKeeper

March was a busy month for the Laboratory staff collecting and analyzing water quality samples from more than 40 sites. Sample collection occurred one and two weeks following the heavy rain events in late February, and while river and tributary flows were still substantial (over 150 cfs at Lainhart Dam).



Mike collecting water quality data at Station #75
Jones Creek

Most sites showed low bacteria levels except for five stations at the “caution” level for fecal coliform, and one site (Jones Creek) at the “poor” level for enterococcus bacteria. Total Phosphorus was elevated at 11 sites. Jones Creek, two sites in River’s Edge slough, and the Papaya Village outfall site had elevated bacteria, phosphorus and chlorophyll. Despite the heavy rains in late February, there was no flow from our site #88, the pending Lakewood development undergoing remediation to reduce the historically high nitrogen values.

IQ Water Research Project

We expanded our ongoing research on the assimilation of nutrients in our IQ water as it moves through the distribution system by sampling a new site - the IQ receiving lake at Jupiter Country Club (pictured). This new site complements the data collected at IQ water storage lakes at three other golf courses.



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Hydrologic/Datasonde Monitoring

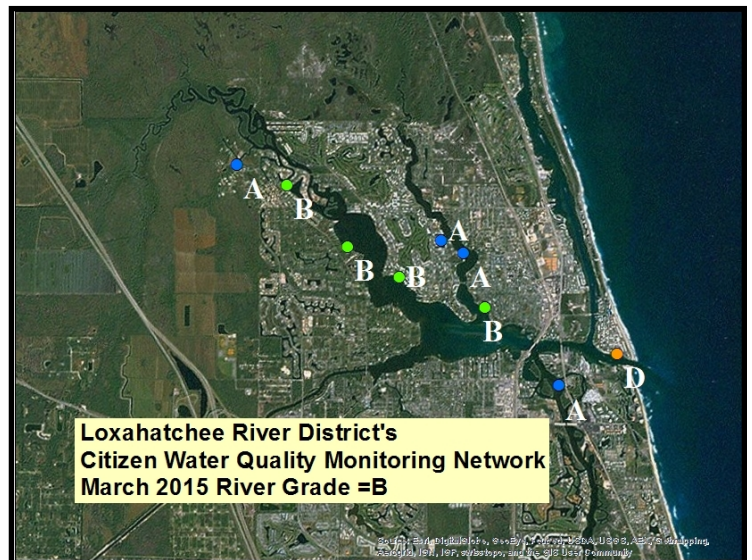
The rain gauge at the District recorded only 2.2 inches in March, with the majority of that rain falling on March 26 and 27. The heavy rains in late February resulted in 3 days of flow in March through the S-46 flood control structure, and river flows gradually subsided until mid-month, and then increased again with the rain in late March. These highly variable river flows were evident in our datasonde salinity data that showed a few peaks in salinity at our Kitching Creek station upstream, and a dip in salinity in the estuary at our North Bay station when S-46 was flowing. The lab staff removed our instrument at our dry-season salinity monitoring station (#66) in the Northwest Fork following heavy rains and flow in late February, but then redeployed the instrument in late March when flows diminished.

Oyster Recruitment Monitoring

In anticipation of the spring oyster spawning, staff deployed the recruitment monitoring shells and tiles during March in the Northwest and Southwest Forks of the river. Despite the mild water temperatures for this time of year, there was very little oyster recruitment. This monitoring provides another round of testing for an in-house research project, developed by Jerry Metz, to evaluate the efficacy of using limestone floor tiles instead of oyster shells for a more standardized, reusable, and efficient way to monitor oyster recruitment.

Volunteer Water Quality Monitoring

Increased river flows following heavy rain in late February caused salinity in many areas of the watershed to drop below historical levels. Rough ocean conditions at the start of March resulted in poor water clarity at the Inlet site and the “D” grade. As flows diminished throughout the month, conditions returned to normal, ultimately resulting to an overall grade of “B” for the month. We welcome our new volunteer, Chris Echezebal, who began monitoring at a site in the Northwest Fork.



Information Technology

Network Security Appliance

Staff installed our new network security appliance provided by Palo Alto Networks. Staff and our Palo Alto project manager are systematically configuring the appliance as we gradually decommission our existing firewall. Our new system provides state of the art network security and monitoring services.

Computerized Maintenance Management System (CMMS)

The IT Team continues to work with our consultant and staff on system testing, configuration, and issue tracking and resolution for our new maintenance management system. March was our best month of progress closing nearly 60 issues and adding 27 new, leaving a total of 60 open issues remaining.