

# Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

2500 Jupiter Park Drive, Jupiter, Florida 33458-8964

Telephone (561) 747-5700 • Fax (561) 747-9929 • [www.loxahatcheeriver.org](http://www.loxahatcheeriver.org)



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

## MEMORANDUM

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

FROM: Bud Howard, Director of Water Resources

DATE: January 8, 2015

SUBJECT: Monthly Governing Board Update for December 2014

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## WildPine Ecological Laboratory



### Project RiverKeeper

In December, the Laboratory staff collected and analyzed water quality samples from 17 sites, including the 10 monthly sites, the Jupiter Country Club outfalls into the C-18, and the Jupiter Farms water control structures. Only one site (#10 at the Inlet) had slightly elevated chlorophyll, relative to the very stringent EPA/FDEP numeric nutrient criteria of 1.8  $\mu\text{g/L}$ . All sites showed low bacteria levels except for water control structure #5 in Jupiter Farms where counts were at the “caution” level of 308 CFU/100 ml. There was little rain the week preceding sample collection and the S-46 flood control structure has been closed since early November.

### JERFSA Environmental Service

On December 2<sup>nd</sup> the laboratory staff assisted Jupiter High School teachers from the Jupiter Environmental Research and Field Studies Academy (JERFSA) program to train students in fish collection, documentation and live release. The students also gain hands-on experience with an introduction to water quality assessment using the laboratory’s state of the art field equipment.



Gordon M. Boggie  
Board Member

Stephen B. Rockoff  
Board Member

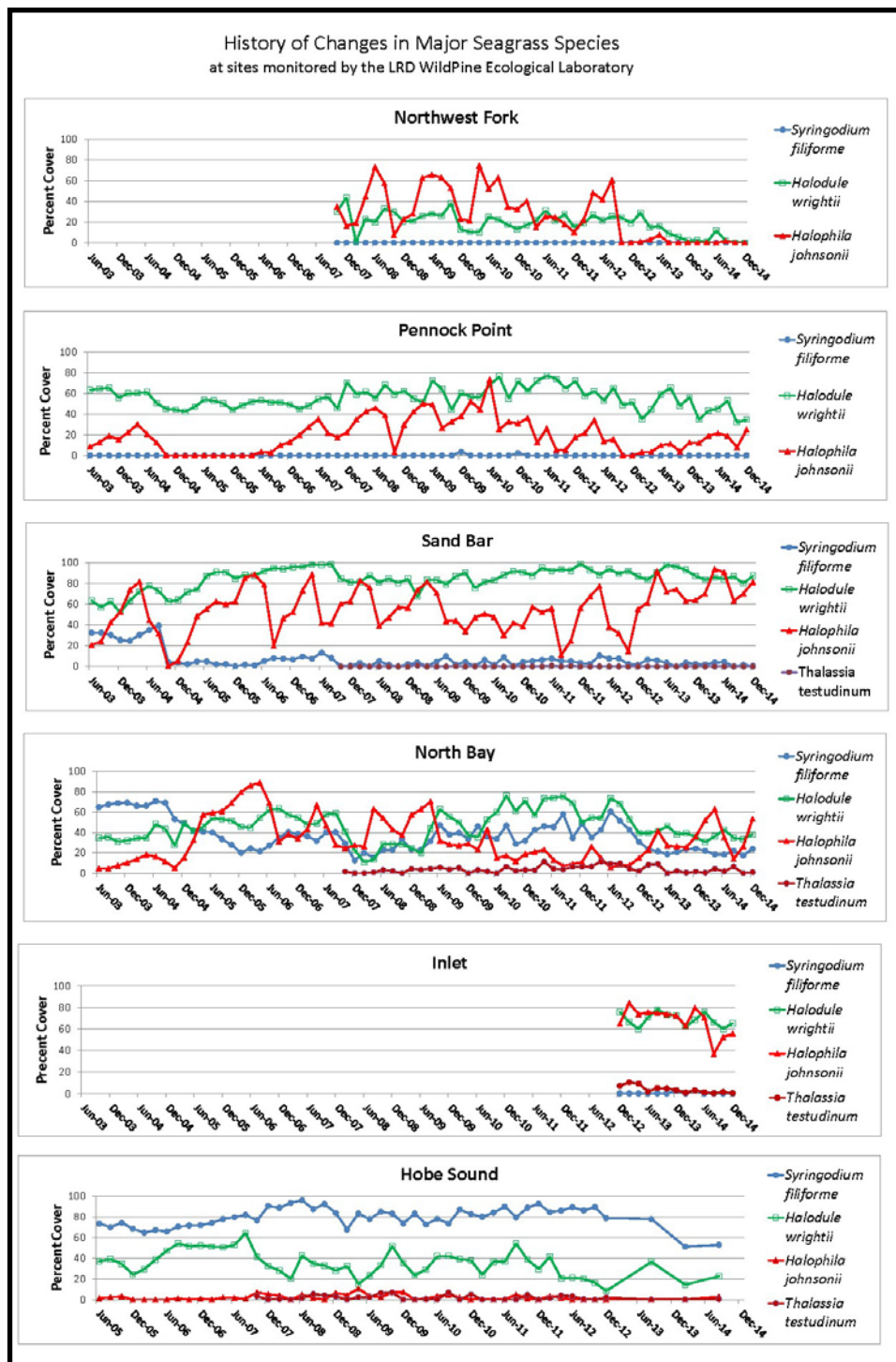
Dr. Matt H. Rostock  
Chairman

Harvey M. Silverman  
Board Member

James D. Snyder  
Board Member

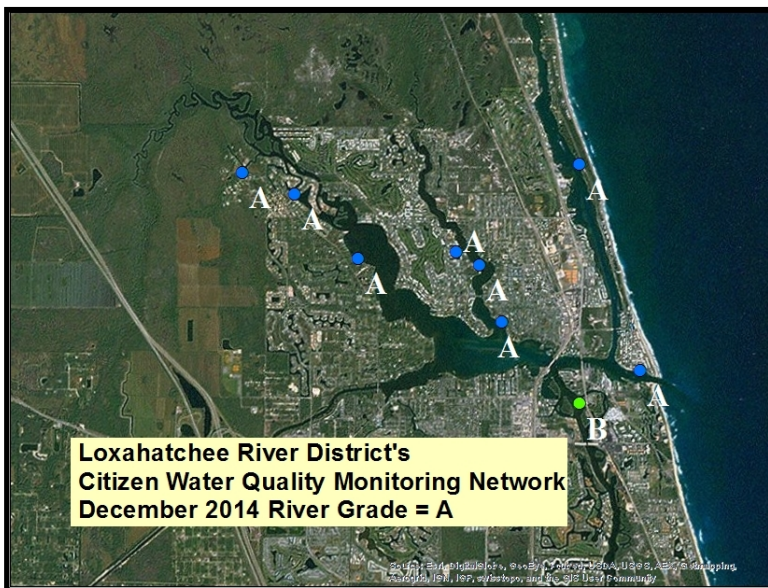
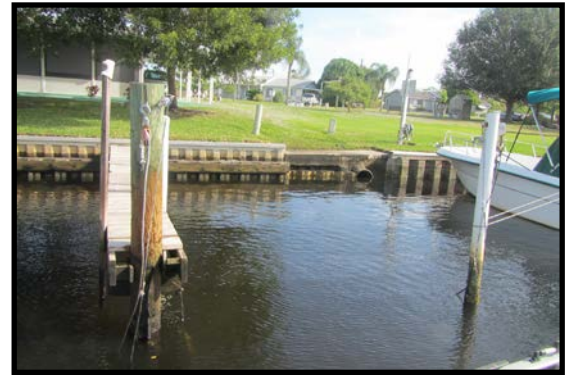
## Seagrass Monitoring

Staff have begun working on our annual summaries for each of the monitoring areas – RiverKeeper and datasonde water quality, seagrasses, and oyster monitoring. December's seagrass monitoring work marks our 11<sup>th</sup> year of monitoring several sites throughout the estuary and we have documented a number of interesting observations. This year, Johnson seagrass showed good coverage at the middle estuary sites, but not yet at the upstream site Northwest Fork. Shoal grass (*Halodule wrightii*) had generally less coverage at all the sites except the Sand Bar. Manatee grass (*Syringodium filiforme*) has not recovered to the levels observed prior to the 2004 hurricanes, and cover at our reference site in Hobe Sound was lower this year.



### Hydrologic/Datasonde Monitoring

With only 1.4 inches of rain recorded at the District in December, the watershed is steadily drying. River flows measured at Lainhart Dam are diminishing to an average of 46 cfs for the month. Measurable flows at G-160 and G-161 indicate that the SFWMD has begun routing water to the river. The lower river flows are reflected in the salinity data from our datasonde instruments. The estuary and tributaries (such as Jones Creek pictured) are showing higher salinities, and the upstream sites (such as Kitching Creek) are now seeing pulses of saline waters at high tide. We have deployed an instrument at site 66 to monitor saltwater intrusion into the cypress swamp.



### Volunteer Water Quality Monitoring

The lower river flows this month again produced an “A” river grade. Aside from some rough ocean conditions contributing to “fair” visibilities, and some higher than historically optimal salinities, the water quality was very good. We welcome two new volunteers who completed their training in December. Mrs. Sylvia Camp will monitor water quality on the west side of the Northwest Fork. Mr. Chris Echezabal, along with his daughter Zia, will also monitor on the Northwest fork, but on the east side.

## Information Technology

### *Fleet Tracking*

Staff and contractors completed the installation GPS receivers on all of the District’s vehicles and activated our fleet tracking system. The fleet tracking system increases safety, improves service, and results in savings. Our provider (Synovia Solutions) provided two training seminars on the feature-rich software system that provides real-time tracking and comprehensive reporting on location and usage of our fleet.

### *Computerized Maintenance Management System (CMMS)*

The IT Team continues to work through system testing, configuration, and issue tracking and resolution on our new maintenance management system. Over the past two months we have made good progress with our system provider, and we hope to be in a position to “go live” in April.

### *Water Quality Maps*

Staff developed the database analysis, integration, workflow and instructions for the efficient creation of monthly water quality maps that are now available on the District website, and were featured at last month’s Board meeting.