# **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

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

## MEMORANDUM

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

FROM: Bud Howard, Director of Water Resources

DATE: May 14, 2015

SUBJECT: Monthly Governing Board Update for April 2015



#### **Lorene Bachman Retirement Announcement**

After 34 years of dedicated service to the District, Lorene Bachman, the Manager of the WildPine Lab has announced her retirement. Lorene was instrumental in building the lab's highly successful monitoring and analysis programs that support our compliance monitoring for the treatment plant, and our extensive knowledge about the health of the river. We will certainly miss her dedication, vast institutional knowledge, watchful eye, and easy going demeanor. We wish her great joy and happiness with her upcoming endeavors!



RONMENTAL

#### **Project RiverKeeper**

April was a busy month for the laboratory collecting and analyzing water quality samples for two projects this month – the monthly RiverKeeper sampling and our dry-season microbial source project sampling (explained below). On April 13 staff sampled 18 RiverKeeper sites throughout the watershed. Bacteria levels were in the "good" range at all sites except for "poor" conditions at River's Edge Road (Site 107). Nutrient results (Total Nitrogen and Phosphorus) were generally good with only one site, #72 at the Loxahatchee River Road Bridge over the SW Fork, just over the DEP/EPA criteria for total Phosphorus. Chlorophyll results were also high at Site 72 and at the Island Way Bridge in the NW Fork. There was no water flow, and therefore no sampling, at two stations in Jupiter Farms (WCS3 and WCS5) and the outfall at the proposed Lakewood Project (#88).

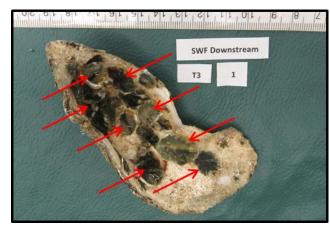
#### **Hydrologic/Datasonde Monitoring**

The District rain gauge recorded 5.25 inches in April, with all of that rain falling in the second half of the month. There was no flow from S-46 flood control structure, and flows over Lainhart Dam gradually decreased until mid-month and then leveled off. Operators from the SFMWD have been routing supplemental water to the river to keep flows above minimum target of 35 cubic feet per second for all

but two days in April (based on preliminary data from the SFWMD). River flows were evident in our datasonde salinity data that recorded only fresh water conditions at our upstream, dry-season monitoring station (#66) in the Northwest Fork. Typical for the dry season, the moderate flows resulted in more saline conditions in the estuary, with a minimum salinity at North Bay of 31 ppt, and the Kitching Creek station reaching a maximum of 7.5 ppt.

#### **Oyster Recruitment Monitoring**

April was a banner month for oyster recruitment in the Northwest and Southwest Forks of the river, with record numbers of new, fast growing, oysters. This monitoring also provided 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.



One of the shells from the oyster recruitment monitoring in the Southwest Fork showing more than a dozen new oysters, with some growing to nearly 0.5 inch in diameter after only 28 days of deployment.



#### **Volunteer Water Quality Monitoring**

The weekly volunteer water quality data was good and consistent with historical observations despite some periods of heavy rain in the latter half of the month, and the apparent early start to the wet season. The water quality results scored an overall grade of "A" for April. We welcome our newest volunteer, Karen Cook, who will resume monitoring at an established site on the south side of the central embayment.

# Information Technology

#### **Network Security Conference**

Staff member Joe Chung attended the international network security conference organized by Palo Alto Networks. The conference featured presentations and training on topics such as Intrusion Prevention/Detection, Network Threat Management and Securing Industrial Control Systems. Joe gained a better understanding of the current threats as well as insight into where threat prevention is likely heading in the future. Our new, cutting edge network security equipment from Palo Alto

Networks addresses the challenges that come with managing threat prevention, and provides the tools for visibility and control that the District requires.

### **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. April was a productive month with 54 issues resolved. But, unfortunately, we added the same number of new/reopened issues so we still stand at roughly 60 high priority issues remaining.

#### Geographic Information System (GIS) Users Group

In April the District hosted the quarterly meeting of the area GIS Users Group. This group consists of GIS managers and staff from local governments, utilities, and consultants. As always, these meetings provided a great exchange of information and ideas.