



Manager's Report for October 2017 through September 2018

From Hurricane Irma to one of the wettest summers in history, South Indian River Water Control District has truly earned the title of "Water Control District". Despite the rains, we have seen the benefits related to our drainage projects and maintenance programs that have been implemented over the past couple of years. The wet weather has also exposed areas that are still in need of improvement.

For those who are new property owners in the District, here is an overview of the drainage system. South Indian River Water Control District (SIRWCD) is a gravity fed storm water discharge system that functions as a dual basin system. Palm Beach Country Estates, Jupiter Park of Commerce, and Egret Landing are east of South Florida Water Management District's (SFWMD) Canal 18 and Jupiter Farms is west of Canal 18. In the system on the east side of the C-18, there are 15 miles of canals that drain west to east through 4 set elevation weirs prior to entering the Florida Turnpike's east borrow canal. Waters are then routed towards the southwest fork of the Loxahatchee River. On the west side of the C-18, there are 45 miles of canals that drain west to east through 5 water control structures to SIRWCD's Canal 14 then north the NW Fork of the Loxahatchee River. During heavy rainfall events, we receive assistance from SFWMD by way of the G-92 structure west of the C-18 and the PC8-A riser culvert in Palm Beach Country Estates.

On September 10, 2017, Hurricane Irma made landfall as a Category 3 storm in Key West. The storm dumped 8" of rain throughout the District and toppled numerous trees along the canals and roadway's. Despite the amount of rainfall, there were no reports of street flooding or any major drainage concerns. You might ask, "What limited the standing water?" Well, in addition to having the swales and canals for drainage, we also rely on the land for percolation. August was a very dry month. In fact, we only received 2" of rain when we average 10". The landscape was able to absorb most of the rainfall from the hurricane and keep the standing water to a minimum. Within 24 hours, the canals were back at operating levels.

That was not the case with the storm event of October 5, 2017, when 6" of rain fell in just over 2 hours, in the Jupiter Farms area. The persistent rain that followed after Hurricane Irma kept the ground saturated. Then that 6" of rain was more than the landscape could handle and the drainage system was overwhelmed. It took 72 hours for the canals to return to operating levels. What occurred on that October day is very difficult to prepare for; in fact, it is easier to prepare for a Hurricane.

The rainy season has been one for the record books. From May through August we recorded 55.26" of rain with some of the western sections of the District recording over 60". We received 85% of our annual rainfall in 4 months! Needless to say, this year's weather has delayed our day to day maintenance operations as well as District projects throughout the summer.

The Districts maintenance operations include road grading, mowing, swale and canal restoration, and culvert installation. Other areas that are subcontracted include aquatic weed control, water quality testing, and park maintenance. The District also interacts with other agencies and municipalities to provide service and information within the community. They include Palm Beach County Sheriff's Office, Fire Rescue, Road and Bridge, Engineering, and Code Enforcement. South Florida Water Management District, Solid Waste Authority, Safety Council of Palm Beach, Florida Association of Special Districts, The Loxahatchee River Preservation Initiative, The Loxahatchee River Coordinating Council, and The Department of Environmental Protection.

The District has approximately 100 miles of dirt roads and 87 miles of paved roads. The dirt roads are graded on average once a week and when needed, material is brought in to re-stabilize the road surface. The saturated conditions throughout the summer made it challenging to keep the roads in good condition and we received numerous calls related to "potholes" in the road. Wet roads are notorious for potholes and grading provides limited benefits. Grading destabilizes the road surface until local traffic can compact the material. The problem is, if the material is still wet, rather than compaction, the traffic will "push" the material which results in potholes. Over the past few years, "Best Management Practices" have been put into place to crown roads for storm water runoff. This procedure minimizes erosion and standing water which can contribute to the development of potholes within the roadway. Potholes are generally not an issue in the dry season, but we do receive calls for "ripples". Ripples develop when the surface of the road lacks moisture and becomes destabilized. Traffic moves the loose material back and forth until tiny waves or ripples develop. Again grading the road offers temporary relief. It takes the right amount of moisture to create significant compaction and extend the quality of the road. In addition to the weather, landscape debris that is placed out in the roadway affects our grading operations. We cannot properly grade roads that are overrun with debris. (FYI - SIRWCD does not pick up debris. That is the responsibility of the Solid Waste Authority.)

Paved roads are inspected annually and when needed, resurfaced with asphalt or micro-overlay. All road paving projects are landowner initiated.

The District's mowing operations have also been affected by the wet conditions. The District has 60 miles of canals and approximately 360 miles of roadside and outfall drainage swales. Normally, it takes 6-8 weeks to complete the schedule, but the wet conditions extended this by 3-4 weeks. The District has a "Do Not Mow List" for those landowners who choose to mow their own easements. You can contact our office for more information.

In March of 2016, The Board of Supervisors passed the driveway culvert replacement program. To date, the District has installed over 400 driveway culverts in Jupiter Farms and Palm Beach Country Estates. This program was created to replace inoperable culverts and ensure proper elevation. This program has been so successful that we now have a crew with equipment and materials to increase our installs from 4 to 8 per week. Though the District will install the culvert, it's still the responsibility of the landowner to maintain the culvert and keep it free of sediment buildup. To find out whether your culvert is in need of replacement or not, call our office for an inspection.

Along with culvert replacements, we are also focusing our attention on cleaning out and re-contouring roadside and drainage outfall swales, both a part of the District's secondary drainage system. Swales are designed for stormwater runoff, retention, and percolation and are also used to move stormwater to the main canals. If not properly constructed, they could create negative impacts to the drainage system. By clearing and widening the existing ditches and regulating the outfalls, stormwater can be effectively collected, treated and conveyed to surrounding District canals. These improvements to the secondary drainage system are more important than ever, now that the District is over 90% capacity. Opportunities for water retention are lost when vacant lots are developed and filled in. Widening the swales will help with retention and percolation. Water quality is also improved when swales are cleaned and vegetation is removed, by reducing the amount of decaying oxygen-consuming organic matter in the stormwater.

We regularly inspect our major canal and outfall systems for District culvert replacements and vegetation removal. The work is performed in-house or subcontracted, depending on the scope of work. These projects ensure maximum performance of the drainage system and create total access to our canal and outfall Rights-of-Ways and Easements. We also interact with Palm Beach County Road and Bridge to relay information related to the condition of numerous County culverts that are located in the District.

The District continues to apply regulated and permitted herbicides in the canal and outfall systems for the control of aquatic weeds. These systems are checked regularly and sprayed on an as needed basis.

Each year, operators are trained to identify any illicit discharge that enters the drainage system. When an illicit discharge is identified, the DEP is contacted and the discharge is logged as part of our Annual National Pollutant Discharge Elimination System (NPDES) report. If you witness any activity involving illicit discharge or illegal dumping, please call our office immediately.

Safety is an important part of our operations. This year operators participated in the Florida Underground Storage Tank Class C Operator Training. Each operator was trained to identify and respond to emergency fuel spill situations. The District also conducts safety meetings for its employees on a quarterly basis to discuss concerns and learn how to implement safety related practices to the day to day operations. Employees can also attend seminars sponsored by the Safety Council of Palm Beach County. These training seminars keep safety at the forefront of our operations. In fact, for the 20th consecutive year, the District has received awards in vehicle and employee safety from the Safety Council.

This year, Operations Superintendent, Matt Wood, completed the Certified District Manager training program sponsored by the Florida Association of Special Districts. This educational program ensures that District Managers comply with the Florida Statutes governing Special Districts.

For more information about SIRWCD, you can visit our website at www.sirwcd.org, call us at 561-747-0550 or feel free to come by our office at 15600 Jupiter Farms Rd. We are open Monday through Friday, 8:00am-4:30pm.