

District Notes & News



**South Indian River
Water Control District™**

Established 1923

Winter 2017-2018

SUPERVISORS

Stephen Hinkle
President

Thomas H. Powell
Vice-President

Michael Howard

John Jones

John Meyer

STAFF

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Manager of Operations

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Office Hours:

8:00 a.m. - 4:30 p.m.
Monday-Friday

*The Board of Supervisors
meets the third Thursday of
each month at
Jupiter High School
at 7:00 p.m.
Contact the District Office
for an agenda.*

Manager of Operations Annual Report (October 2016-September 2017)



Michael Dillon

South Indian River Water Control District (The District) is a special Taxing District established in 1923 and serves Jupiter Farms, Palm Beach Country Estates, Egret Landing and Jupiter Commerce Park. Within the

District's 12,600 acres, there are 189 miles of roads, 378 miles of drainage swales, and 60 miles of canals. The District provides both water control and road maintenance for landowners and operates under limitations imposed by Chapter 298 of the Florida Statutes.

The District's day to day operations focus on road maintenance, drainage, culvert replacement, and mowing. Other areas of maintenance that are subcontracted include aquatic weed control, repair and restoration of paved roads, canal construction projects, tree removal, and park maintenance.

The District currently has 15 employees; 14 full-time and one part-time.

Office staff includes the Manager of Operations, Office Administrator, and Office Assistant. Our field crew includes one Superintendent, one Field Supervisor, one mechanic, and nine operators. This year, long-time operator Matt Wood was promoted to Superintendent, and a new mechanic, two operators, and one laborer were hired.

The District's equipment includes two motor graders, two combination backhoes, three tractors with 10-foot batwing mowers, three side-boom mowers, one trackhoe with multiple attachments, one loader, three dump trucks, and four fleet trucks. This year, we replaced our 2006 boom mower with a new John Deere 6110M mower. We also purchased a used dump truck, a mechanic's truck, and added another new Kubota mini-excavator. These excavators have allowed us to access confined areas and have enabled us to make significant improvements to our drainage.

The District has over 100 miles of dirt roads that are graded once a week, on average. Throughout the year, roads are monitored and when needed, material is

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*(Left to Right) - Front row: Jim Powell, Carol Wise, Supervisor John Meyer, Andy Billy, Alan Watson, Holly Rigsby
Back row: JP Rivera, CJ Wilbur, Ryan Reeves, Arie Raz, Matt Wood, Clay Key, George McGarry, Mike Dillon*

spread to restore road surfaces. “Crowning” the road is a method we use to provide proper stormwater runoff and minimize standing water, which can create ponding and deterioration. During this process, the shoulders of the road are pulled into the center, and then the material is mixed, regraded, and resloped for proper runoff.

There are approximately 53 miles of District roads that are paved with Asphalt or Open-Graded Emulsion Mix (OGEM), which is a cold-mix asphalt base. Once paved, these roads are inspected each year, and when needed, resurfaced with Asphalt or Micro Overlay. The District does not pave roads unless initiated by landowners.

The District’s stormwater discharge system functions as a dual basin system with Palm Beach Country Estates, Jupiter Commerce Park, and Egret Landing east of South Florida Water Management District’s (SFWMD) Canal 18, and Jupiter Farms, which is west of Canal 18. East of Canal 18, there are 15 miles of canals that drain west to east through four set weirs prior to entering the Florida Turnpike’s East Borrow Canal system. Waters are then routed towards the SW fork of the Loxahatchee River. West of Canal 18, there are 45 miles of canals that also drain west to east through five water control structures into the District’s Canal 14, then north to the NW fork of the Loxahatchee River. During heavy rainfall events, we receive assistance from SFWMD to drain excess water from Jupiter Farms through Canal 18 by way of the SFWMD G-92 structure, and in Palm Beach Country Estates by way of SFWMD PC8-A Riser Culvert located at the west end of Canal C.

This year, our focus has been clearing and recontouring outfall drainage swales, as well as making improvements to roadside swales. Roadside swales are part of

our secondary drainage system. Their three main functions are stormwater runoff, retention and percolation. The outfall swales are swales that run between two properties and connect with one of our main canal systems. They were designed to shorten the distance stormwater has to travel and are located in some of the lowest areas of the District. Over the past couple of years, we have made significant improvements to outfalls that were inaccessible due to heavy vegetation and erosion. The landowners who live by these

outfalls have been very cooperative and understanding to the needs of the District, and we have been able to move forward with no complications or delays.

With the economy back on its feet, we have noticed an increase in new construction within the District. Vacant lots, which for years, acted as water retention and drainage for other properties, are now being filled in and built upon, therefore changing the topography of the land and the way the water flows. By doing this, the roadside swales now play a more prominent role for drainage than ever before. To compound the issue, some residents fill their swale in for the convenience of mowing, or to eliminate standing water in front of their property. Together, these situations have created drainage concerns for some residents and for the District. The recontouring of swales, combined with our Driveway Culvert Replacement Program has helped minimize these concerns and provides the most effective drainage possible. Keep in mind that during heavy rainfall events, the drainage

system could get overwhelmed and some flooding may occur, but with culverts and swales that are properly designed, I feel the drainage will be much improved. It is the combined efforts of the District and the landowners that will make all the difference.

Our Driveway Culvert Replacement Program has been very productive. To date, we have installed 207 culverts and have 59 on schedule. This program allows the District to replace culverts at a cost of \$300.00 for a standard install.



South Indian River Water Control District has added a new Kubota M6S Tractor to their fleet of vehicles

This fee includes an 18" x 20' culvert, rip-rap headwalls, and sod along the culvert ends. We also install driveway culverts on County roads at a cost of \$750.00. This fee includes a County-approved 24" diameter mitered end culvert with poured concrete endwalls. Keep in mind, that culvert maintenance is still the responsibility of the landowner. Landowners are responsible for removing sediment buildup in culverts and to regularly inspect for erosion or any type of damage. We have seen improvements in many areas of the District where driveway culverts have been replaced, and as a result, receive fewer calls related to drainage issues. If you have questions regarding the condition of your culvert, please contact our office and we can set up an inspection. Please see the District’s website at www.sirwcd.org/culverts.html for additional information.

With 378 miles of drainage swales and 60 miles of canals, our mowing program can be challenging at times. It takes an average of 6-8 weeks to complete our mowing schedule, with June through October being the busiest months. A few years back, the District created a “Do Not Mow” list for landowners who choose to mow their easements. This list is checked by the operators each day to ensure that these properties are bypassed. However, if someone on the list is not maintaining the easement, the District will mow, and then try to contact the landowner for updated information. We also have a maintenance agreement with Palm Beach County to mow county roads in Jupiter Farms and Palm Beach Country Estates.

From October 2016 to August 2017, 51.57 inches of rain was recorded at the District Work Center. Here is a breakdown of the monthly totals and the ten year average:



Canal 3 rip rap stabilization

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Manager of Operations Annual Report

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2016-2017 Monthly Total (first column) 10-Year Average by Month (second)

September	4.2 in.	6.87 in.
October	4.71 in.	3.82 in.
November	.21 in.	2.25 in.
December	2.48 in.	3.42 in.
January	2.25 in.	3.37 in.
February	3.19 in.	3.65 in.
March	1.32 in.	4.54 in.
April	6.64 in.	2.95 in.
May	4.22 in.	6.23 in.
June	11.26 in.	7.71 in.
July	11.04 in.	7.46 in.
August	2.48 in.	9.55 in.

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.

In addition to the District's day to day operations, we interact with agencies and municipalities who also serve the community. These are listed below. The District also participates as committee members with the Florida Association of Special Districts, The Loxahatchee River Coordinating Council, The Loxahatchee River Preservation Initiative, and The Safety Council of Palm Beach County. These interactions ensure good relationships with governmental department heads to provide service and information within the District.

One agency that has provided much needed support has been the Wildland Taskforce. This Taskforce helps monitor for unauthorized motor vehicles which are prohibited on District canal right-of-ways.

Use of any unauthorized vehicle on a District canal has the potential for property damage, injuries or even fatalities. The operators are subject to citations and vehicles will be confiscated if apprehended. If you notice any type of vehicle on canals, please call the Palm Beach County Sheriff's Office.

In May of this year, operator Jeff Borus completed the Stormwater Erosion and Sediment Control Inspector Training Program sponsored by the Florida Department of Environmental Protection. This course is logged as a part of our annual report for the National Pollutant Discharge Elimination System (NPDES). The NPDES report also includes inspections of illicit discharge in the District's drainage system, structural inspections of canal culverts, flood control structures, weir structures, and field reports for construction projects.

Safety is of utmost importance and I am happy to report that this year there were no reported work-related accidents at the District. As a result, the District received awards from the Safety Council of Palm Beach County for Outstanding Achievements in Driver and Employee safety. This marks the 20th year in a row that the District has received these awards. Employees regularly participate in safety-related seminars presented by the Safety Council, such as First Aid, CPR, and equipment safety. In addition, safety meetings are held throughout the year at the District Work Center for all employees.

In July, the Palm Beach County Sheriff's Office Crime Prevention Unit performed a safety assessment of the District Work Center. As a result, security cameras were installed. More preventative measures are planned in the future to ensure the safety of all District employees.

Throughout the year, the District receives numerous calls requesting services that we do not provide. One of more frequent requests is the removal of landscape debris. Solid Waste Authority is responsible for debris pick-up. The debris needs to be properly cut and placed in front of your property before they will pick it up, they do not pick up debris in front of vacant lots, and they do not transport tree stumps. It is illegal to dump any kind of trash onto District right-of-ways, or any type of illicit discharge that could enter the District's drainage system. If you notice any of these illegal activities, please call our office at 561-747-0550.

The District office is open Monday-Friday between the hours of 8:00 am to 4:30 pm. Please call or stop by if you have a question or concern regarding District related issues. We will do our best to assist you within the realm of our responsibility.

ILLICIT DISCHARGE

It is illegal to dump trash or other materials into the District swales or canal system, or Palm Beach County catch basins. Landowners should report any infractions regarding illicit discharges to the District Office at 747-0550.

UNAUTHORIZED VEHICLES

Unauthorized motor vehicles are prohibited on District canal right-of-ways per Florida Statutes. Please contact the Sheriff's Office if you see any vehicles trespassing on canal right-of-ways.

SIRWCD AND REGULATORY AGENCIES

Each year, a summary of regulatory agencies affecting SIRWCD is listed in the Annual Report to help landowners be aware of the number of regulatory agencies and cooperative associations the District deals with and their potential impact on District capital improvements, operations, and maintenance:

- United States Environmental Protection Agency
- United States Army Corps of Engineers
- Jupiter Inlet District
- United States Fish and Wildlife Services
- Florida Department of Environmental Protection
- U.S. Geological Survey
- Florida Department of Transportation
- South Florida Water Management District
- Palm Beach County
- Palm Beach County's Sheriff's Office

- Palm Beach County Fire Rescue
- Florida Fish and Wildlife Conservation Commission
- Loxahatchee River Management Coordinating Council
- Town of Jupiter
- Loxahatchee River Ecosystem Management Area Committee
- Martin County
- Florida Department of Economic Opportunity
- City of West Palm Beach
- Loxahatchee River Environmental Control District
- Loxahatchee River Preservation Initiative
- Northern Palm Beach County Improvement District
- Indian Trail Improvement District
- United States Geological Survey
- City of Palm Beach Gardens
- Solid Waste Authority of Palm Beach County (SWA)
- Numerous Citizen Interest Groups & Committees

District Engineer's Annual Report (October 2016-September 2017)



Amy Eason, P.E.

South Indian River Water Control District (SIRWCD or the District) was formed in 1923 pursuant to Chapter 298, Florida Statutes to provide flood

control and drainage canals in a mostly focused agricultural area. Since 1923, the land use has changed from a primary agricultural use to more of a residential use with approximately 7,052 landowners in the District. As the land use has changed, the District's duties have evolved to not only provide drainage and flood control, but also maintain and improve roads, bridges, and even a park, to serve its landowners. SIRWCD continues serving its landowners with ongoing operation and maintenance plans, as well as implementing capital improvement projects and landowner initiated improvements, where required.

With approximately 90% of the District developed, operation and maintenance activities are the main focus. The District continues activities involving site specific drainage improvements that impact landowners, canal and culvert maintenance, and replacement or renewal of facilities that affect the works of the District. The District also continues to operate and maintain roadways and a park, as well as plan new capital and landowner initiated improvements. The staff investigates whether improvements should be made to other existing infrastructure, such as canals, bridges, or drainage structures, and throughout the year, landowner initiated roadway improvement petitions for the application of Palm Beach County Standard Asphalt were received and reviewed by District staff.



South Indian River Water Control District encompasses over 12,500 acres and is responsible for maintenance of canals, swales and roadways

In addition to operating and maintaining its public infrastructure for the benefit of its landowners, the District is involved in several intergovernmental activities due to its location within Palm Beach County and the Loxahatchee River watershed. SIRWCD is positioned in Northern Palm Beach County as a strategic entity in the planning and management of water resources to the surrounding area. Approximately 12,500 acres of SIRWCD discharges to the Loxahatchee River Basin, and therefore, as plans are being developed and implemented, the geographic area of the District is an element in any water management plan for the Loxahatchee River Basin.

Due to the District's location, the potential impacts from development, such as water quantity and quality, are being monitored by agencies and/or individuals that have a focused interest on maintaining a healthy ecosystem within the Loxahatchee River Basin and, specifically, the Northwest Fork of the Loxahatchee River. The Board of Supervisors and staff actively engage in the many external dealings that are influencing the District from a water supply, flood control, water quality, and ecosystem management perspective. The Board of Supervisors and staff are focused on making sure that the goals and expectations of these external activities do not conflict with the District's best interests with regard to the functioning of SIRWCD's system and the ability to deliver an appropriate level of service.

Each year, it is appropriately restated and recognized in the engineering report that the SIRWCD Board of Supervisors, through its policies and procedures, is responsible for formulating direction regarding District operations and inter-governmental issues. This is accomplished

through a respected structure in which the District is managed through its Board of Supervisors and supporting staff. The Board of Supervisors establishes policy and provides direction to staff concerning budget, priorities, relationship with other public entities, and landowner issues. Staff is responsible for implementing Board policy. Accordingly, staff responds pursuant to the Board's direction.

Engineering tasks continue to be formulated to respond to the Board of Supervisors by implementing their policies and directives, as well as supporting the Manager of Operations in resolving various landowner issues. The relationship between the Board and District staff has been extremely effective in both the delivery of services to the residents and landowners within the District, and prospective management in response to requirements that are imposed upon the District by other governmental entities.

With regard to the current status of the District, to the best of my knowledge and belief, the District is in compliance with all regulatory requirements that affect works of the District and their operation, and the works of the District continue to be operated and maintained in a manner that achieves the available level of service. A separate report prepared by the District's Operations Manager discussing operation and maintenance of District facilities is included in the report.

CAPITAL IMPROVEMENTS 18th Plan of Improvement

Based on a landowner initiative, a referendum was prepared by SIRWCD and verified by the Palm Beach County Supervisor of Elections to implement the application of Palm Beach County Standard asphalt on the petitioners' roadway surfaces as a roadway improvement project. On May 14, 2015, the Board of Supervisors authorized staff to develop the *Eighteenth (18th) Plan of Improvement*. A public hearing was held August 20, 2015 where the plan was approved and the Board authorized the Engineer's Report for the *18th Plan of Improvement*. The public hearing for the Engineer's Report was held October 15, 2015 and the plan was approved. This plan includes the Unit of Development RI-18, which consists of the application of Palm Beach County Standard asphalt on approximately 3.8 miles of roadway within Palm Beach County Estates.

- 64th Way N between 146th Road N and 149th Place N
- 67th Trail N between 146th Road N and 149th Place N
- 68th Drive N between 146th Road N and 149th Place N
- 74th Avenue N between 155th Place N and 159th Court N

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- 75th Way N between 150th Court N and 154th Court N
- 77th Trail N between 150th Court N and 154th Court N
- 78th Drive N between 155th Place N and 159th Court N
- 81st Terrace N between 150th Court and 154th Court N
- 149th Place between 69th Drive N and 64th Way N
- 163rd Court N between 75th Avenue N and 79th Terrace N
- 163rd Court N between 75th Avenue N to East End

On May 20, 2016, an advertisement for bid on the project was published in the Palm Beach Post and the bids were due on June 27, 2016. After negotiations with the low bidder, contract documents were finalized, and the notice to proceed was issued October 1, 2016. Construction was completed in April 2017 with a final construction cost of \$1,333,650.55.

19th Plan of Improvement

Based on a landowner initiative, a referendum was prepared by SIRWCD and verified by the Palm Beach County Supervisor of Elections to implement the application of Palm Beach County Standard asphalt on the petitioners' roadway surfaces as a roadway improvement project. On February 16, 2017, the Board of Supervisors authorized staff to develop the *Nineteenth (19th) Plan of Improvement*. A public hearing was held May 18, 2017 where the resolution was approved and the Board authorized the Engineer's Report for the *19th Plan of Improvement*. The public hearing for the Engineer's Report and the Plan of Improvement was held June 29, 2017 and the plan was approved. This plan includes the Unit of Development RI-19, which consists of the application of Palm Beach County Standard asphalt on approximately 2.3 miles of roadway within the District. The roads are listed as follows:

- 76th Trail N. between 160th Lane N and 162nd Court N
- 76th Trail N between 163rd Court N and 165th Street N
- 78th Drive N between 165th Street N and 167th Court N
- 154th Court N between 75th Avenue N and 81st Terrace N
- 159th Court N between 78th Drive N and 83rd Way N
- 160th Street N between 72nd Drive N and 75th Avenue N and 72nd Drive N from 160th Street N to 160th Lane N
- 175th Road N between Jupiter Farms Road and West End

The plan was submitted to South Florida Water Management District (SFWMD) for review and approval and has been approved. The next steps are to prepare a topographic survey and construction documents for bidding. The preliminary estimate of probable construction cost for the plan is \$1,081,000.

Please see updated information on this Plan of Improvement project on page 10.

Resource Regulation

■ National Pollutant Discharge Elimination System (NPDES)

The current Palm Beach County Municipal NPDES Permit was issued by the Florida Department of Environmental Protection (FDEP) on September 8, 2016. SIRWCD is a co-permittee along with 34 municipalities, the Department of Transportation, Palm Beach County, and four special districts. In order to complete the permit-related activities that are performed collectively by the co-permittees, an NPDES Steering Committee was formed. The Steering Committee meets on a regular basis to evaluate the program, to provide training and resources to the co-permittees, and to assist with the preparation of the annual reports. Staff continues to attend the Committee Meetings as a Steering Committee Board member. After the Cycle 4 Permit was issued last September, a new Interlocal Agreement, which reflects the current permit conditions, was executed with Northern Palm Beach County Improvement District, the lead co-permittee.

This past year the meetings included discussions on Total Maximum Daily Loads (TMDLs), public education, the Annual Reports and Joint Report, and required refresher training videos on spill prevention, illicit discharges and sediment and erosion control. The sixth year Annual Reports were submitted to FDEP in January. In addition, FDEP presented their comments on the previous year's Annual Report and presented a slightly revised Annual Report Form in June. Lastly, a Water Quality Assessment Program, as required in the Cycle 4 Permit, was submitted on September 7, 2017, for FDEP review.

■ Waters of the United States Rule

On April 21, 2014, the EPA and the Army Corps of Engineers proposed draft rules revising the definitions of Water of the United States or "WOTUS". The stated intent of the changes is to clarify what is

and what is not a WOTUS. After many agency comments on the proposed rule, the rule was revised and the EPA and the Army Corps of Engineers published final rules revising the definitions of WOTUS that became effective on August 28, 2015. However if implemented as adopted, the new regulations will result in significant impacts on the NPDES program and municipal separate storm sewer system (MS4) permit holders because most ditches, stormwater conveyances, and certain flood control devices will be considered to be "WOTUS" and subject to permit conditions and numeric nutrient criteria.

On August 27, 2015, a federal judge in North Dakota granted a petition filed by 13 western states to enjoin implementation of the rules – making implementation and application of the rules throughout the rest of the country even less certain. In addition, other states including Florida filed lawsuits challenging the rule. On October 9, 2015, the Sixth Judicial Circuit Court of Appeals issued a nationwide injunction stopping the WOTUS rule from being implemented. On February 28, 2017, the President of the United States issued as Executive Order directing EPA and Department of the Army to review and rescind or revise the proposed rule. EPA, Department of Army, and the Army Corps of Engineers are in the process of reviewing the proposed rule and considering a revised definition of "waters of the United States" consistent with the Executive Order. To meet the objectives of the Executive Order, federal agencies are following a two-step process that will provide as much certainty as possible, as quickly as possible, to the regulated community and the public during the development of the replacement rule.

The first step is to revise the Code of Federal Regulations to recodify the definition of "Waters of the United States," which currently governs administration of the Clean Water Act, in light of a decision by the U.S. Court of Appeals for the Sixth Circuit staying a definition of "Waters of the United States" promulgated by the agencies in 2015. This action will simply make the text of the Code of Federal Regulations reflect the definition currently in effect under the Sixth Circuit stay. This action, when final, will not change current practice with respect to the how the definition applies, which is consistent with Supreme Court decisions, agency guidance documents, and longstanding practice. The proposed rule was published in the Federal Register on July 27, 2017, and will be open for public comment until September 27, 2017.

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The second step is a public notice-and-comment rulemaking involving a substantive reevaluation and revision of the definition of "Waters of the U.S." in accordance with the executive order. On April 19, 2017, EPA initiated a formal process known as Federalism consultation, which requires agencies to conduct pre-proposal discussions with elected state and local officials and their associations where a rule may have implications for the distribution of power and responsibilities among federal, state, and local governments. On April 20, 2017, EPA, with the participation of Department of Army and the Army Corps of Engineers, initiated the consultation process with tribal leaders. Like the Federalism consultation, this process assures that the agencies consider tribal concerns and interests whenever EPA's actions and/or decisions may affect tribes, and it enables the agencies to coordinate with tribes and get their input before proposing a rule. The written comment periods for these consultation periods have now closed. The agencies will consider all comments received under these formal processes before submitting a proposed step two rule to the Office of Management and Budget under Executive Order 12866. The public will have an opportunity to provide comments once the step two proposed rule is published in the Federal Register. Staff will continue to monitor the proposed rule and provide updates.

Public Facilities Report/Water Control Plan

Chapter 189 of the Florida Statutes, the Uniform Special District Accountability Act, requires the preparation and submission of a Public Facilities Report to governmental jurisdictions in which the District resides such as Palm Beach County, the Town of Jupiter, and South Florida Water Management District. Special Districts are required to submit an update to this report every five years and, at a minimum, the report must contain information as to the status of the District's public facilities and changes or revisions to those facilities that have occurred in the past year.

Since 1991, when the District filed its first Public Facilities Report, data collection has been an ongoing process to provide for better and more accurate mapping of the works of the District. The Public Facilities Report is continually modified as each Plan of Improvement is added to the District's facilities. The current modification includes the 19th Plan of Improvements. In accordance with Chapter 298.225 Florida Statutes, the Water Control

Plan has been amended consistent with the preparation of the proposed Plan of Improvements during the last year.

Intergovernmental Coordination

Loxahatchee River Management Coordinating Council

SIRWCD continues to participate as an active member of the Loxahatchee River Management Coordinating Council. This Council was established by Chapter 83-358, F.S. The Council is comprised of federal, state, and regional agencies and local representatives. It advises the FDEP and SFWMD on matters that affect administration of the Loxahatchee River, to identify and resolve intergovernmental coordination problems and to enhance communications. The Council is also responsible for the development of the Loxahatchee River Management Plan, which contains the principal goals to preserve and enhance the river's unique natural values, restore the river's historic hydrology and reverse the deleterious impacts of saltwater intrusion on the River's ecosystems.

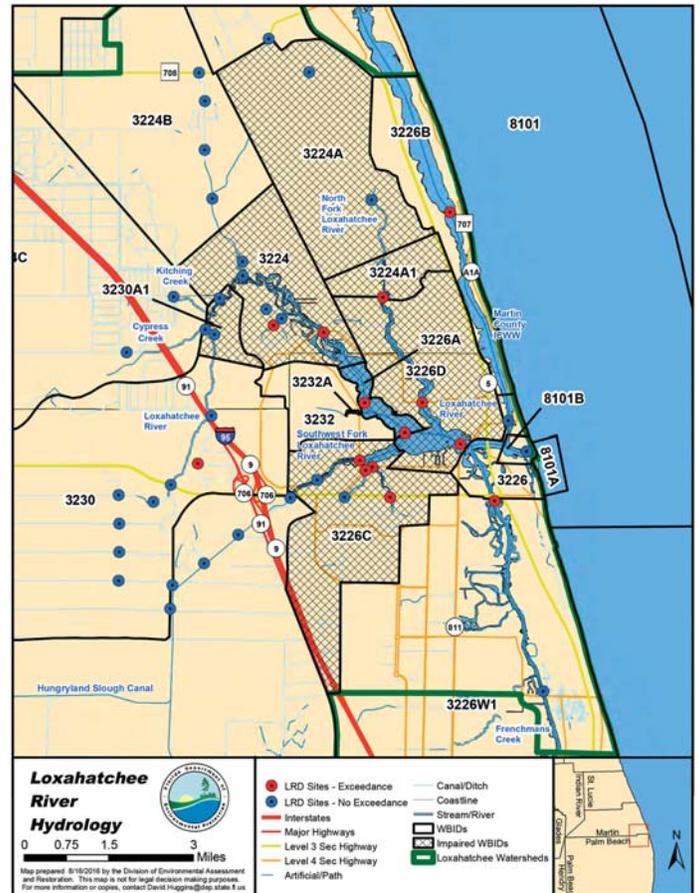
SIRWCD participates as a member of the Coordinating Council due to the fact that the Northwest Fork of the Loxahatchee River is the primary stormwater outfall for the entire portion of SIRWCD lying west of the SFWMD C-18 Canal, and the area east of the SFWMD C-18 discharges into the middle of the Loxahatchee River. SIRWCD and LRMCC also have several mutual issues and interests.

Over the past year, the LRMCC has been actively monitoring projects that could affect the Loxahatchee River. These projects include the Lainhart and Masten Dam Refurbishment Projects, an assessment of implementation of the 2010 LRMCC Plan Objectives, the George MacNeil Request for Pavilion at Jonathan Dickinson State Park, and the development of a Reasonable Assurance Plan (RAP) for the Loxahatchee River.

Reasonable Assurance Plan (RAP)

On March 28, 2016, FDEP approached the LRMCC on the proposed development of a Total Maximum Daily Load (TMDL) within some waterbody identification units (WBID) within the Loxahatchee River that have shown impairments in Chlorophyll a (nutrients) and Fecal Coliform. FDEP suggested that instead of development of a TMDL through the state process, LRMCC could take the lead on developing a Reasonable Assurance Plan (RAP), which would replace the TMDL and subsequent Basin Action Management Plan. The RAP is a stakeholder driven plan that examines the impairments and prepares solutions to aid in restoring the Loxahatchee River from impairment. FDEP is developing a TMDL concurrently with the RAP process until the RAP process has been finalized by the stakeholders.

This year, stakeholders defined the RAP boundaries and FDEP began preliminary modeling to determine allocations and reductions to restore the Loxahatchee River. Review of the model is ongoing and initial allocations and reductions have not been determined by FDEP and the LRMCC. Staff continues to participate in the development of this plan.



Impaired Waterbody Identification Units (WBIDs)

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Division of Community Development, assists with educational programs for board members and the annual conference by partnering with FASD.

The FASD holds regular meetings throughout the year where information from other water control districts, improvement districts, community development districts, and special taxing districts can be shared with regard to policies, procedures, operation, and maintenance issues. In addition, FASD members are “watchdogs” for codes, ordinances, rules, and/or legislation that can either help or hinder the activities of Special Districts. To this end, a significant effort is put forward during the annual legislative session. FASD members continue to benefit from each other’s experiences. The FASD will continue to follow this order and represent the interests of its members and provide information on pertinent legal requirements, sunshine laws, economic challenges, environmental, emergency management, and homeland security issues.

Operations and Maintenance

■ Driveway Culvert Replacement Program

Culverts under driveways have been aging over the years. These culverts are the landowner’s responsibility to maintain and to replace them when their life span has ended. These culverts, when not maintained, are collapsing and blocking the secondary drainage system of the District. The District has instituted a culvert replacement program which allows the landowners to pay the District for the replacement of their culverts. This year, the District installed 207 culverts.



154th Street reclaimed outfall swale

In addition to driveway culverts, the District inspects the outfall culverts to the canals, cross-drain culverts under roadways, and other culverts that the District operates and maintains. The District assesses the condition of these culverts and replaces them as needed.

■ Culvert Installations in Canal 6 and Canal 8

The District has been investigating options for the potential of reducing its operation and maintenance costs. One way those costs are reduced is to add additional access points to the canal system. The first location is across Canal 6 just west of 129th Place N and the second location is across Canal 8 just east of Canal 10. The project included the installation of approximately 60 feet of 72-inch diameter pipe across Canal 6, approximately 60 feet of 48-inch diameter pipe across Canal 8, fill material, rip rap, and sod. The construction cost for the project was \$78,000.

■ Canal Clearing & Maintenance

The District’s canal network consists of over 60 miles of canals which are continuously in need of being maintained, restored, and enhanced. The canal clearing and maintenance program’s objective is to keep the canal sections easily accessible and, to the best extent possible, free from trees and other vegetation that may potentially enter the canal during a major storm event and thereby create a restriction that would aggravate flooding. The canal clearing and maintenance program provides services that include clearing, grading and shaping of the canals as well as restoring, replacing or enhancing structural improvements. The program is an ongoing effort and the District has continued to work to maintain and achieve the desired goals. The Board has authorized an on-going swale maintenance program which allows

the District Engineer and Manager of Operations to identify areas within SIRWCD that could be improved for conveyance and storage. District staff will continue to work toward the desired goals of the District in the swale maintenance program.

■ Secondary Ditch Reclamation

Over the years, landowners have been filling in their swales and

ditches that are used for our secondary drainage system or they do not realize that they have an outfall swale on their property. The District has been examining the outfall swales throughout the District to determine the need for vegetation removal and/or outfall pipe replacements. The District has also been conducting title searches to determine whether the outfall swales are under a drainage easement so the maintenance can be conducted. Several outfalls have been reclaimed this year.

■ Policies & Procedures Manual

In accordance with the provisions of the Florida Statutes, the District maintains a Policies and Procedures Manual that is available to the public. The Manual presents and discusses items including: District organization, agenda formulation and execution, processing of permits that affect works of the District, the budget process, etc. Periodic revisions including deletions, additions, and amendments are made to maintain consistency with Florida Statutes and other codes and rules. The entire manual is being updated to include new policies that have been added throughout the year. The update will continue through next year and includes the new Enhanced Stabilization Policy that was approved in April 2017.

■ Roadways

There are approximately 189 miles of roads within SIRWCD. These roads give access to each subdivided parcel of land. Currently there are 93.7 miles of improved roads (paved and OGEM) and 94.3 miles of unpaved roads in SIRWCD. The improved roads include roads that are operated and maintained by Palm Beach County, the Town of Jupiter, and private entities or owners, which consist of approximately 42 miles of roadway.

■ Aquatic Weed Control Program

SIRWCD implements an Aquatic Weed Control Program in order to maintain the primary canals throughout the District. This program is an ongoing process aimed at reducing and managing the amount of weeds in the canal network to allow unobstructed drainage following rain events. The Aquatic Weed Control Program is necessary to prevent canals from becoming overgrown and to provide a clean channel through the canal system to the outfall. The program controls emergent vegetation growth through the use of herbicides approved in permits obtained from the State of Florida as well as mechanical removal of dead or accumu-

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lated vegetation that may present potential for impeding the flow of stormwater through the primary canal system. In the future, greater emphasis may be needed for this program as a result of NPDES water quality programs, the FDEP and EPA proposed storm water criteria, the Loxahatchee River Management Plan, and other intergovernmental coordinating activities.

■ Water Quality Monitoring

Due to the many ecological and regulatory pressures being exerted over the Loxahatchee River Basin area, it was recommended that the District sample and monitor water quality within and adjacent to its boundaries. SIRWCD had historically taken samples through a co-operative agreement with the United States Geological Survey (USGS), but due to reduced funding by the federal government, the program was abandoned. The Loxahatchee River Environmental Control District (LRD) has been obtaining water quality samples in recent years. Due to the new water quality legislation, the Board of Supervisors instructed staff to implement a water quality monitoring program that augments and expands the current LRD program.

In July 2011, SIRWCD entered into a contract with a water sampling and testing firm. The samples are tested to analyze the surface water and groundwater for various metal, organic and inorganic contaminants as well as water quality criteria. Staff monitors these locations on a monthly basis. Samples are only taken when the District discharges outside its boundaries. This information is being used to monitor the District's discharge and will be used in future analysis as needed for the NPDES permit and the RAP.

■ Rainfall Totals

The SIRWCD work center monitors and records the total rainfall the District receives throughout the year. For the twelve month period from September 2016 through August 2017 the District received 54.05 inches of rainfall. The average annual rainfall for SIRWCD is 64.85 inches. The 2016-2017 year rainfall was more than ten (10) inches lower than the historical rainfall average within the District. Detailed tables are available in the full Engineer's Annual Report on the District's website.

General Operation and Maintenance

The District's Manager of Operations Annual Report is included in this newsletter. It offers a summary of significant events and issues that have been identified by the Manager of Operations (MOP). The MOP and District staff are the agents for day to day activities. They are primarily focused on maintaining the primary and secondary elements of the surface water management system and the graded roadways throughout the District. Further, the MOP facilitates interagency coordination with other public entities that operate and maintain assets within the District such as Palm Beach County Road and Bridge Division, Palm Beach County Parks and Recreation, Palm Beach County Fire Control, School District of Palm Beach County, Florida Department of Transportation, South Florida Water Management District, Town of Jupiter, the Loxahatchee River Environmental Control District, and others.

Each year, a portion of this report is utilized to state that the District's surface water management system is designed, operated, and maintained for a mostly rural residential community with some commercial, industrial, and urban residential areas. Accordingly, certain low-lying areas within the District will experience ponding and storage of water during the wet season and following significant storms. Swales will have standing water, and many areas will be saturated for extended periods of time during the wet season. The continued development of low-lying areas in the District will result in a commensurate consumption of storage within the District's watershed. Where ponds are excavated on individual lots to supply the fill for house pads and related improvements, the consumption of available storage is not as severe because the pond serves as a compensating factor.

These factors are regularly discussed by the Board of Supervisors and District staff at the monthly meetings, with individual landowners, in forums and meetings within the District, and in the District's newsletter and other publications distributed throughout the District. The District's Board of Supervisors and staff work to assure that the surface water management system functions to the extent of its permitted capacity while recognizing

the regulatory requirements imposed on the District by other agencies. All of the District work must be implemented within the adopted budget and utilization of existing manpower, equipment and any other resources available to accomplish the tasks.

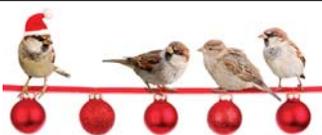
General Comments

SIRWCD is almost fully developed. It has the unique identity as a significant residential estate community that is virtually surrounded by premiere natural systems such as the Loxahatchee Slough and the Wild and Scenic Northwest Fork of the Loxahatchee River. These environmental assets guarantee limited growth in the area and offer special recreational opportunities. The District and its landowners have the responsibility of being good stewards in maintaining compatibility with these ecological systems.

To that end, the District is exploring how it can improve its surface water management system, while also contributing to the enhancement of the Loxahatchee Slough and Loxahatchee River. The goals and objectives of SIRWCD are not inconsistent with those being discussed for the Loxahatchee River Watershed Restoration Project Delivery Team, the Loxahatchee River Management Coordinating Council, Department of Environmental Protection, Corps of Engineers, and South Florida Water Management District. However, the necessary ingredient is that all of these entities, including the District, must identify and implement action plans that merge the goals of each agency into a functional and affordable outcome.

SIRWCD will continue to serve its landowners by providing support during emergency situations, maintaining and operating the surface water management system at optimal levels, and providing services that coincide with the system capabilities, board policies, and the community.

AECOM appreciates the opportunity to continue serving as your District Engineer, and we look forward to working with the Board of Supervisors, landowners, and staff in the coming year.



***The Board of Supervisors & Staff Wish Everyone
Happy Holidays, Merry Christmas & A Happy New Year!***



Tom Powell (left) was re-elected and John Jones was elected to the South Indian River Water Control District Board of Supervisors

Board of Supervisors Election Results and Election of Officers

On June 29, 2017, Michael Ryan resigned from the South Indian River Water Control District (SIRWCD) Board of Supervisors. At an abbreviated Board meeting on July 20, 2017, the Board appointed John Jones, a resident of Palm Beach Country Estates, to fill Mr. Ryan's seat until the 2017 Board of Supervisors' election was conducted.

Originally, one Supervisor was to be elected for a term of three years. That candidate could not reside in the District, but must own land in the District and must be a resident of Palm Beach County. Tom Powell, who has served on the Board since 1981, ran for re-election for this seat. Due to the resignation of Mr. Ryan, a second seat was also on the ballot. That candidate must reside in the area of the District East of the South Florida Water Management District Canal 18 (C-18) and own land in the District. That term is for a period of two years, the remainder of Mr. Ryan's term. John Jones and Robert Berman, a former Supervisor, filed to run for this seat. Both are residents of Palm Beach Country Estates.

Official ballots were sent out August 11 with ballots to be received at the District office no later than 4:30 pm on September 21, 2017 or cast in person at the start of the Annual Landowners Meeting that evening. The certified results from the Supervisor of Elections are as follows:

Tom Powell - Unopposed Non-Resident Seat - Winner

Bob Berman - Eastside Resident Seat - 714

John Jones - Eastside Resident Seat - 1,717 - Winner

John Jones was sworn in at the October 19, 2017 Board of Supervisors Meeting. Mr. Powell, who was not in attendance, was sworn in at the November 30 Board of Supervisors Meeting.

Stephen Hinkle was named president for the 2017-18 fiscal year and Tom Powell, as vice president. John Meyer and Michael Howard were named as chairs for the Policies and Procedures Committee, John Jones and Tom Powell as Budget Committee chairs, and John Jones as Parks Committee Chair.

19th Plan of Improvement Update

Pursuant to Board direction after petitioners met the minimum requirements, staff prepared a referendum for a landowner proposed project that was mailed October 17, 2016 with responses due by December 9, 2016. On December 14, 2016 and on April 14, 2017, staff received the certification from the Supervisor of Elections on the results of the referenda. The majority of the landowners on the following roadways were "in favor" of the proposed project for asphalt in Palm Beach Country Estates (approximately 2.4 miles):

- 76th Trail N between 160th Lane N and 162nd Court N
- 76th Trail N between 163rd Court N and 165th Street N
- 78th Drive N between 165th Street N and 167th Court N
- 154th Court N. between 75th Avenue N and 81st Terrace N
- 159th Court N between 78th Drive N and 84th Avenue N*
- 160th Street N between 72nd Drive N and 75th Avenue N and 72nd Drive N from 160th Street N to 160th Lane N
- 175th Road N between Jupiter Farms Road and West End

At the February 2017 Board Meeting, staff received approval to prepare the *19th Plan of Improvement*. The first public hearing on the project was held May 18, 2017, where the Board authorized staff to prepare the Engineer's Report and draft *Plan of Improvement*. The Engineer's Report was filed on May 26, 2017. A final hearing to consider approval of the report and proposed water control plan amendment was held June 29, 2017. During the public hearing, the Board heard landowner comments and discussed the project. *After discussion during the Board Meeting, Supervisors voted three to one to approve the District Engineer's Report with an amendment to the plan to remove the section from 159th Court N between 83rd Way N to 84th Avenue N and authorized the District Engineer to submit the proposed water control plan amendment to South Florida Water Control District.

The District Engineer announced at the Annual Landowner Meeting on September 21, 2017 that the District had received the approval for the water control plan amendment from the South Florida Water Management District. Due to extreme weather in District during September and October of 2017, the time line for the *19th Plan of Improvement* has changed. Preparation work on the swales and culverts for the *19th Plan* has been finalized and survey work has begun. The District Engineer estimates design work for the project will commence in January/February of 2018.

As a result, the previously announced deadline for landowners who are interested in prepayment for this project was extended until January 15, 2018. Affected landowners were notified by letter and received updated costs for financing the project based upon estimated costs in the Engineer's Report. The estimated annual per parcel assessment for debt service beginning next year and prepayment amounts are as follows:

- For standard parcels - \$1,880.00 for a period of 10 years - prepayment amount - \$13,350.00
- For corner parcels - \$940.00 for a period of 10 years - prepayment amount - \$6,675.00

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- For parcels subject to standard parcel and corner parcel assessment - \$2,820.00 for a period of 10 years - prepayment amount - \$20,025.00

As detailed in the District's legislation, prior to placing this assessment on tax bills, landowners have the option of prepaying this assessment. The prepayment amount is based upon the estimated per parcel construction cost of the project. If the actual cost is less than the estimated cost, the District will refund the excess amount to you. Likewise, if the actual cost is in excess of the estimated cost, you will be billed for that amount.

As noted in the letter sent to affected landowners, those interested in taking advantage of this option, were to inform the District's office of their intention no later than January 6, 2018, with full payment to be received by the District no later than January 15, 2018.

Palm Beach Country Estates Potable Water Update

An amendment to the South Indian River Water Control District's agreement with the Town of Jupiter to provide potable water to Palm Beach Country Estates (PBCE) was approved by the Board of Supervisors in October 2015 to revise the number of remaining water hook-up reservations. From June 21, 2017 to June 20, 2018, the final year of the agreement, the remaining number of reservations was set at 80.

Any landowners who are planning to hook up to the potable water system should do so in a timely manner to ensure receiving the District's discounted connection rates. After June 20, 2018, the rates for hooking up to the system will be the Town of Jupiter's prevailing rates, which are substantially higher than the District's negotiated rates.

As of December 7, 2017, there have been 1,194 connections to the potable water system and there are 56 remaining connection reservations. For more information, contact the District office or visit our website at www.sirwcd.org for the latest updates.

27th Annual Landowners Family Day March 17, 2018



Mark your calendars and plan to join us for South Indian River Water Control District's 27th Annual Landowners Family Day to be held on Saturday, March 17, 2018. There will be live entertainment, as well as free barbecue, drinks and a petting zoo, pony rides and face painting for the kids! Community organizations and state and local agencies will be on hand with free give-a-ways and information. Watch for the next newsletter with event information – we hope to see you there!

District Work Center from 11:30 am to 2:30 pm

Hurricane Irma Visits the District

In an already wet season, Hurricane Irma fortunately did not impact the local area as badly as originally forecast. Hurricane-force winds were recorded in the 90 mile-per-hour range and the winds affected the area for many hours, however, damage was mostly limited to downed trees and power lines. Rainfall was fairly low for a hurricane with nearly 8 inches recorded at the District's office. Manager of Operations Michael Dillon worked closely with the South



Florida Water Management District to monitor canal levels in South Indian River Water Control District's service area to help minimize any localized flooding.



As soon as the winds died down and it was safe to do so, District work crews began helping Palm Beach County to clear downed trees from roadways, as well as start to remove numerous trees from the District's canal system.

The Board of Supervisors thanks Mr. Dillon and his staff for all their efforts during the storm.



South Indian River Water Control District™

15600 Jupiter Farms Road
Jupiter, FL 33478

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and District Engineer
Annual Reports**

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Improvement Project**

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Unwelcome Visit to the
District**

*Visit www.sirwcd.org
for news updates!*

Florida Stormwater Education Corner Protecting Florida's Water

It's been a rainy few months here in the District and that included a visit by Hurricane Irma and one extreme event that exceeded 5 inches of rain in a couple of hours. As of November 30, 2017, the South Indian River Water Control District's three month rainfall total has exceeded 38 inches. Manager of Operations Michael Dillon said "In my 22 years working for the District and 27 years working in the Farms, I have never seen rain events like these." The South Florida Water Management's (SFWMD) webpage states that this has been the wettest five-month stretch since 1947. So what happens to drainage districts like ours when we receive so much rain? First a reminder that the District's drainage system has three main functions:

- 1) Manage Stormwater Runoff
- 2) Provide Retention
- 3) Percolation of Rainfall

When the District receives consistent and heavy rains like we have had this year, the ground becomes saturated to a point where the water doesn't percolate, so there is more visible water in the swales, yards, and even roads. Also, where you live in the District will determine how much standing water you will have, either due to lower elevations or more development. The District is over 90% built out, which means the retention or storage in formerly vacant lots has now been filled, resulting in more flow to the secondary swale system or roadside swales.

Realizing these issues, the District has taken positive steps to improve drainage and create more storage. The Driveway Culvert Replacement Program, which began in March 2016 is helping to address these issues. Since then, then District has installed over 250 culverts and 95 more are scheduled for replacement. The land-owner is responsible for keeping the culvert clear of sediments and debris and must notify the District if they see any signs of culvert failure to have it scheduled for replacement. When replacing the culvert, the District will recontour the swale for proper runoff and retention if needed. Maintenance of the culverts and swales helps ensure maximum flow during heavy rainfall events. However, SFWMD notes that while custodial maintenance to provide design capacity is necessary, it should be limited as such to preclude erosion and subsequent turbidity that may result from a disturbed drainage network. SFWMD notes that the long-term benefits of water retention, as opposed to short-term benefits of convenience and appearance, is to be taken into consideration.

Having water in the swales is not a bad thing, in fact, retention in the swales allows the water to percolate into the ground, thereby filtering out pollutants through the soils and replenishing the groundwater and aquifer system. It's specifically designed to be part of the stormwater management system for the District.

For more information on stormwater, swales and the District's drainage system, visit our website at www.sirwcd.org.