

Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

2500 Jupiter Park Drive, Jupiter, Florida 33458

Telephone (561) 747-5700 • Fax (561) 747-9929 • www.loxahatcheeriver.org



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

REVISED

AGENDA REGULAR MEETING #11-2019 August 15, 2019 – 7:00 PM AT DISTRICT OFFICES ALL MEETINGS ARE OPEN TO THE PUBLIC

1. Call to Order & Pledge of Allegiance
2. Administrative Matters
 - A. Roll Call
 - B. Previous Meeting Minutes **Page 3**
 - C. Additions and Deletions to the Agenda
3. Comments from the Public
4. Status Updates
 - A. Loxahatchee River Watershed **Page 9**
 - B. Loxahatchee River District Dashboard **Page 10**
5. Consent Agenda (see next page) **Page 11**
6. Regular Agenda
 - A. Consent Agenda Items Pulled for Discussion
 - B. Draft Budget - Fiscal Year 2020 **Page 33**
 - C. Chapter 31-16 - River Enhancement Rule **Page 67**
 - D. Clemons Street and Saturn Street Drainage Improvements (S1809) Interlocal with Town of Jupiter **Page 125**
7. Reports (see next page) Pulled for Discussion
8. Future Business **Page 171**
9. Board Comments
10. Adjournment

“...if a person decides to appeal any decision made by the Board, with respect to any matter considered at such meeting or hearing, he/she will need a record of the proceedings, and that, for such purpose, he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.”

Submitted by:
Date: August 6, 2019

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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

5. CONSENT AGENDA

All items listed in this portion of the agenda are considered routine and will be enacted by one motion. There will be no separate discussion of these items unless requested by a Board member or citizen; in which event, the item will be removed and considered under the regular agenda.

- A. Fixed Asset Disposal – to approve disposal **Page 12**
- B. Manual of Minimum Construction Standards and Technical Specifications Section 30 Revisions – to approve revisions **Page 13**
- C. Audit Services Contract – to approve contract renewal **Page 18**
- D. Change Orders - to approve modifications **Page 27**

7. REPORTS

- A. Neighborhood Sewering **Page 132**
- B. Legal Counsel's Report **Page 134**
- C. Engineer's Report **Page 137**
- D. Busch Wildlife Sanctuary **Page 141**
- E. Director's Report **Page 142**

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

MEMORANDUM

TO: Governing Board

FROM: Recording Secretary

DATE: August 8, 2019

RE: Approval of Meeting Minutes

Attached herewith are the minutes of the Public Hearings and Regular Meeting of July 18, 2019. As such, the following motion is presented for your consideration.

“THAT THE GOVERNING BOARD approve the minutes of the July 18, 2019 Public Hearings and Regular Meeting as submitted.”

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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

Ref. 8-2019

LOXAHATCHEE RIVER ENVIRONMENTAL CONTROL DISTRICT
PUBLIC HEARING – MINUTES
July 18, 2019

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Chairman Rostock called the Public Hearing of July 18, 2019 to order at 6:55 P.M.

2. ROLL CALL

The following Board Members were in attendance:

Mr. Boggie
Mr. Rockoff
Mr. Snyder
Mr. Silverman

3. TO RECEIVE PUBLIC COMMENTS PERTAINING TO FINAL ASSESSMENT ROLL FOR
TURTLE CREEK SUBSYSTEM 2.

No comments from the public were received.

4. COMMENTS FROM THE BOARD

No comments from the Board were received.

5. ADJOURNMENT

Vice Chairman Rockoff adjourned the Public Hearing at 6:56 P.M.

BOARD CHAIRMAN

BOARD SECRETARY

RECORDING SECRETARY

Ref. 9-2019

LOXAHATCHEE RIVER ENVIRONMENTAL CONTROL DISTRICT
PUBLIC HEARING – MINUTES
July 18, 2019

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Chairman Rostock called the Public Hearing of July 18, 2019 to order at 6:57 P.M.

2. ROLL CALL

The following Board Members were in attendance:

Mr. Boggie
Mr. Rockoff
Mr. Snyder
Mr. Silverman

3. TO RECEIVE PUBLIC COMMENTS PERTAINING TO FINAL ASSESSMENT ROLL FOR
TURTLE CREEK SUBSYSTEM 3.

No comments from the public were received.

4. COMMENTS FROM THE BOARD

No comments from the Board were received.

5. ADJOURNMENT

Vice Chairman Rockoff adjourned the Public Hearing at 6:57 P.M.

BOARD CHAIRMAN

BOARD SECRETARY

RECORDING SECRETARY

Ref: #10-2019

LOXAHATCHEE RIVER ENVIRONMENTAL CONTROL DISTRICT
REGULAR MEETING - MINUTES
July 18, 2019

1. CALL TO ORDER

Vice Chairman Rockoff called the Regular Meeting of July 18, 2019 to order at 7:00 PM.

2. ADMINISTRATIVE MATTERS

A. ROLL CALL

The following Board Members were in attendance.

Mr. Boggie
Mr. Rockoff
Mr. Silverman
Mr. Snyder

Staff Members in attendance were Dr. Arrington, Mr. Dean, Mr. Howard, Ms. Fraraccio, and Mr. Campbell.

Consultants in attendance were Ms. Miranda from Holtz Consulting and Mr. Shenkman with Smith, Gaskill & Shenkman.

Ms. Wynne from Busch Wildlife Sanctuary was also in attendance.

B. PREVIOUS MEETING MINUTES

The minutes of the Regular Meeting of June 27, 2019 were presented for approval and the following motion was made.

MOTION: Made by Mr. Silverman, Seconded by Mr. Snyder,
Passed Unanimously.

“THAT THE GOVERNING BOARD approve the minutes of the June 27, 2019 Regular Meeting as submitted.”

C. ADDITIONS & DELETIONS TO THE AGENDA

A Change Order was added to item 5C and it was moved to the Regular Agenda.

3. COMMENTS FROM THE PUBLIC

No comments were received.

4. STATUS UPDATES

A. LOXAHATCHEE WATERSHED STATUS

Mr. Howard gave an update on Florida Department of Environmental Protection's Reasonable Assurance Plan for the Loxahatchee River.

B. LOXAHATCHEE RIVER DISTRICT DASHBOARD

Dr. Arrington reviewed the District Dashboard.

5. CONSENT AGENDA

MOTION: Made by Mr. Silverman, Seconded by Mr. Boggie,
Passed unanimously.

"THAT THE GOVERNING BOARD approve the Consent Agenda of July 18, 2019 as presented, excluding Item 5C."

The following motions were approved as a result of the Board's adoption of the Consent Agenda:

A. Turtle Creek Subsystem 2 Final Assessment – Resolution 2019-07

"THAT THE GOVERNING BOARD approve Resolution 2019-07 adopting the TURTLE CREEK SUBSYSTEM 2 Final Assessment Roll and Exhibits."

B. Turtle Creek Subsystem 3 Final Assessment – Resolution 2019-08

"THAT THE GOVERNING BOARD approve Resolution 2019-08 adopting the TURTLE CREEK SUBSYSTEM 3 Final Assessment Roll and Exhibits."

6. REGULAR AGENDA

A. CONSENT AGENDA ITEMS PULLED FOR DISCUSSION

5C. Change Orders to Current Contracts – to approve modifications

MOTION: Made by Mr. Silverman, Seconded by Mr. Snyder,
Passed unanimously.

"THAT THE GOVERNING BOARD authorize Change Order 1 to Holtz Consulting Engineer's contract for Imperial Woods Low Pressure Force Main in the amount of \$2,415.00."

B. Budget Assumptions – Fiscal Year 2020

Dr. Arrington reviewed his memo on the Fiscal Year 2020 Budget Assumptions.
No action was taken.

C. Chapter 31-16 – River Enhancement Rule

Dr. Arrington reviewed his memo on Chapter 31-16, River Enhancement Rule.
No action was taken.

7. REPORTS

D. BUSCH WILDLIFE SANCTUARY

Ms. Wynne reviewed the Busch Quarterly Dashboard.

The following reports stood as written.

A. NEIGHBORHOOD SEWERING

B. LEGAL COUNSEL’S REPORT

C. ENGINEER’S REPORTS

E. DIRECTOR’S REPORT

8. FUTURE BUSINESS

Dr. Arrington reviewed the Future Business.

9. COMMENTS FROM THE BOARD

No comments were received.

10. ADJOURNMENT

MOTION: Made by Mr. Silverman, Seconded by Mr. Snyder,
Passed Unanimously.

“That the regular meeting of July 18, 2019 adjourns at 8:36 PM.”

BOARD CHAIRMAN

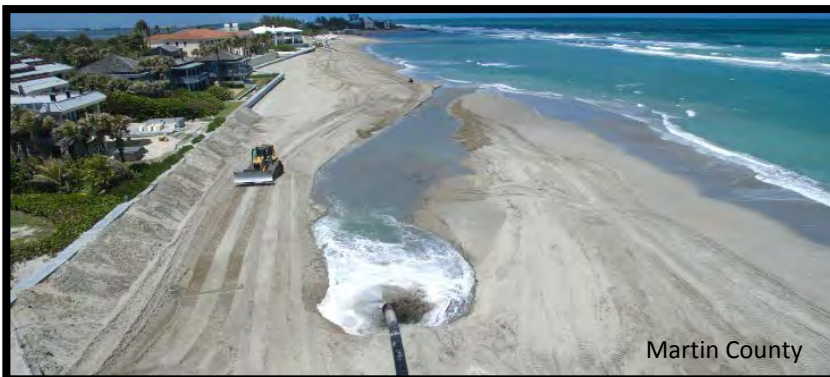
BOARD SECRETARY

RECORDING SECRETARY



Loxahatchee River Watershed Status Update on Area Restoration Projects

There are a several restoration projects underway, or forthcoming, by our sister agencies including Jonathan Dickinson State Park, Jupiter Inlet District, and Palm Beach County. At our meeting we will provide you with a summary and status update on these beneficial projects.



LOXAHATCHEE RIVER DISTRICT'S EXECUTIVE DASHBOARD



		Stewardship	Wastewater						Engineering	General Business					EHS	River Health		
		# People educated at RC	Mean Daily Incoming Flow	Delivery of Reclaimed Water	Customer Service	Sewer Overflow	Permit exceedance	NANO Blend to Reuse (@ 511)	Grease Interceptor Inspections	Cash Available	Revenue (excluding assessment & capital contrib.)	Operating Expenses	Capital Projects		Employee Safety	Minimum Flow Compliance	Salinity @ NB seagrass beds	River Water Quality
Benchmark / Customer Expectation		% of Target	million gallons/day	# days demand not met	# blockages with damage in home	# occurrences	# occurrences	Max Specific Conductance (umhos/cm)	% requiring pump out	\$	% of Budget	% of Budget	% within budget	% on time	# of OSHA recordable injuries	# Days MFL Violation	%	Fecal Coliform Bacteria (cfu/100ml)
Green Level		≥ 90%	< 7.7	<2	Zero	Zero	Zero	<1542	≤ 15	≥ \$9,894,657	≥ 95%	≥ 85% but ≤ 105%	≥80%	≥80%	Zero	0	min ≥ 20 ‰	90% of sites ≤ 200
Yellow		< 90%	< 8.8	≥ 2	1	1	1	≤1875	≤ 25	< \$9,894,657	≥ 90%	≥ 80%	≥60%	≥60%	-	1	min ≥ 10 ‰	2 or more sites >200 but ≤ 400
Red		<75%	≥ 8.8	≥ 9	≥ 2	≥ 2	≥ 2	>1875	> 25	< \$5,557,057	< 90%	< 80% or > 105%	< 60%	< 60%	≥ 1	≥ 2	min < 10 ‰	≥ 2 sites > 400
2016 Baseline		2,169	6.7	0	0	1	0	1,063	12	\$ 33,223,653	96%	90%	100%	85%	0	not avail	18	1 > 200
2017 Baseline		104%	6.6	1	0	2	0	1,127	9	\$ 30,425,084	95%	85%	98%	85%	0	not avail	23	1 > 200
2018 Baseline		112%	6.8	1	0	2	0	1,216	8	\$ 33,683,858	99%	85%	95%	56%	0	42	23	1 > 200
2018	July	102%	6.5	0	0	3	0	987	5	\$ 36,393,890	100%	88%	93%	27%	1	0	11.0	0 > 200
	Aug	106%	6.6	2	0	0	0	1,039	7	\$ 36,911,972	99%	89%	93%	27%	1	0	15.8	7 > 200
	Sept	96%	6.3	3	0	5	0	1,219	8	\$ 35,472,108	100%	87%	93%	27%	0	0	17.6	1 > 200
	Oct	120%	6.4	1	0	2	0	1,296	7	\$ 35,973,349	96%	73%	100%	100%	0	0	29.1	1 > 200
	Nov	120%	6.6	0	0	3	0	1,226	8	\$ 37,075,977	95%	82%	100%	100%	0	0	29.2	1 > 400
	Dec	131%	6.8	0	0	1	0	1,310	5	\$ 37,311,234	103%	84%	100%	67%	1	14	33.3	0 > 200
2019	Jan	105%	7.2	0	0	6	0	1,399	8	\$ 37,478,367	101%	84%	100%	67%	1	17	29.9	1 > 200
	Feb	106%	7.6	0	1	0	0	1,262	7	\$ 39,498,968	101%	86%	100%	83%	0	3	24.5	1 > 400
	Mar	119%	7.2	0	0	2	0	1,170	0	\$ 38,046,365	99%	88%	100%	75%	0	0	30.4	0 > 200
	Apr	79%	6.9	0	0	4	0	1,176	2	\$ 38,021,490	99%	89%	100%	73%	0	0	31.2	0 > 200
	May	113%	6.7	0	0	0	0	1,125	5	\$ 36,569,040	98%	90%	92%	50%	0	0	25.7	0 > 200
	June	98%	6.6	0	0	5	0	1,233	17	\$ 34,111,378	98%	89%	92%	42%	0	0	23.5	1 > 200
	July	85%	6.2	0	0	1	0	1,279	6	\$ 34,005,523	98%	88%	92%	42%	1	0	28.8	0 > 200
Consecutive Months at Green		0	122	10	5	0	72	107	1	121	85	7	46	0	0	5	10	11
Metric Owner		O'Neill	Campbell	Dean	Dean	Dean	Campbell	Campbell	Dean	Fraraccio	Fraraccio	Fraraccio	Dean	Dean	Campbell	Howard	Howard	Howard

Metric

Environmental Education
Sewer Overflow

Capital Projects: On-time

Employee Safety

Explanation

Cancellations by a number of summer camp programs that visit the River Center directly impacted the number of people we educated this month (i.e., reduced our visitors by 225 individuals).

A blockage in a clay service lateral in Lift Station 27's collection system caused a minor sewer overflow.

Just over half (7 of 12) of our large capital projects are behind schedule: Jupiter Ocean Racket Club force main; installation of permanent generators at Lift Station 43 and 62; Island Country Estates neighborhood sewerage; Alt. A1A force main replacement; Master Lift Station rehabilitation; and Olympus force main replacement. We are working to bring these projects to a successful completion. See Kris' engineering report for additional details.

An employee hurt his hand while assisting the Vac-Con with cleaning the Master Lift Station wet well. See Travis' Safety Report for additional information.

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

MEMORANDUM

TO: Governing Board
FROM: Administration Staff
DATE: August 8, 2019
SUBJECT: Consent Agenda

All items listed below are considered routine and will be enacted by one motion. There will be no separate discussion of these items unless requested by a Board Member or citizen, in which event, the item will be removed and considered under the regular agenda.

This month's consent agenda consists of the following items:

- A. Fixed Asset Disposal – to approve disposal
- B. Manual of Minimum Construction Standards and Technical Specifications Section 30 Revisions – to approve revisions
- C. Audit Services Contract – to approve contract renewal
- D. Change Orders - to approve modifications

Should you have any questions regarding these items, I would be pleased to discuss them further with you.

The following Motion is provided for Board consideration:

“THAT THE GOVERNING BOARD approve the Consent Agenda of August 15, 2019 as presented.”

Signed,

D. Albrey Arrington, Ph.D.
Executive Director

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

To: Governing Board
From: Kara Fraraccio, Director of Finance and Administration
Date: August 9, 2019
Subject: Disposal of Fixed Assets

Whenever the District disposes of tangible personal property of a non-consumable nature we are required by Florida Statutes to bring the matter to the attention of the governing body. Therefore, consistent with our procedures, I request your authorization to dispose of the items listed below:

Tag #	F/A #	Description	Date Recorded	Acquired Value	Book Value
1985	ME263	Lincoln SP125 MigWelder	09/30/97	\$ 769	\$ -
N/A	TDE202-1	Deep Well Pump # 2 Motor - Y04X2580145R-2	09/30/07	3,117	
N/A	TDE211-1	Pump Repair #2 250 HP Motor	09/30/08	4,930	
N/A	TDE183-1	Deep Well Pump #3 Motor Repaired	09/30/05	5,910	
Total Assets to be Disposed				\$ 14,726	\$ -

These items are no longer of use to the District and will be sold or scrapped.

If you have any questions, please feel free to contact me.

I offer the following motion for your consideration:

“THAT THE GOVERNING BOARD authorize the Executive Director to dispose of tangible personal property including fixed asset numbers ME263, TDE202-1, TDE211-1 and TDE183-1 in the schedule above.”

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

MEMORANDUM

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

FROM: Kris Dean, P.E.
Deputy Executive Director/Director of Engineering Services

DATE: August 5, 2019

SUBJECT: Manual of Minimum Construction Standards and Technical Specifications – August 2019 Update

In April of 1983 the Governing Board approved the District's first "Manual of Minimum Construction Standards and Technical Specifications". Since the initial adoption, this document has been updated from time to time as codes, rules, materials and methods have changed and improved over time. These changes were most recently approved by the Board in June 2019.

This August, Engineering Services is updating the Manual of Minimum Construction Standards and Technical Specifications as summarized below has been reviewed and approved by counsel. Detailed updates can be reviewed in the Manual of Minimum Construction Standards and Technical Specifications, Section 30, as attached

1. Section 30
 - a. Revised reference for service lines from buildings to lots to resolve conflict with Florida Building Code.
 - b. Added paragraphs to explain the use of Implied Grant of Way of Necessity and Statutory Way of Necessity.

The following motion is offered for your consideration:

“THAT THE DISTRICT GOVERNING BOARD ratify and approve the Loxahatchee River Environmental Control District's “Manual of Minimum Construction Standards and Technical Specifications”, as of August 15, 2019, and authorize the District Engineer and Executive Director to update the Construction Standards and Technical Specifications from time to time, and periodically present it to the Governing Board for ratification and approval.”

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

SECTION 30

MISCELLANEOUS REQUIREMENTS

3.01 Lines, Grades and Measurements

Alignment and grade of all pipe, tunnels and borings shall be continuously controlled by use of lasers or other acceptable method. Laser alignment and grade through the pipeline is the preferred method. The District Engineer shall be permitted at any time to check the lines, elevations, reference marks, laser, etc., set by the Contractor or the Design Engineer.

3.02 Work to Conform

The maximum allowed vertical deviation of any single gravity pipe, tunnel or boring from plan grade shall be three percent (3%) of inside diameter. No single gravity pipe shall vary in horizontal alignment right or left, from the pipe centerline by more than five percent (5%) of inside diameter. Force main joint deflections shall be limited by AWWA Standards and manufacturer's recommendation.

3.03 Pipeline location

Pipelines shall not be located closer to an existing or proposed structure than the horizontal distance obtained when drawing a 45-degree angle from the proposed invert of the pipeline to bottom outside face of the footing. In no case shall this distance be less than ten (10) feet. Pipelines shall be located as indicated on the drawings, but the Design Engineer is responsible to make such modifications in location as may be found desirable to avoid interference with existing structures or for other reasons, which are not material to the interest of the District and which do not otherwise conflict with any other statement or criteria set forth in this manual. The District should be notified of such changes in a timely fashion and such changes shall be recorded on Record Drawings.

3.04 Pipe Adapters

When joining pipes of different types, District approved transition sleeves, adapters, and couplings shall be used.

3.05 Fittings and Stoppers

Branches, stub-outs and fittings shall be laid as indicated in the Standard Details and shown on the approved drawings. Open ends of pipe and branches shall be closed with nonmetallic "wing nut" expansion stoppers secured in place in an acceptable manner. Stoppers shall be designed to remain in place and watertight during infiltration tests.

3.06 Service Lines

a. General

Service lines shall be as shown on the Standard Details. Service lines for a single ~~building-structure~~lot shall be a minimum of 4 inches in diameter; for two ~~lots building-structures~~, a minimum of 6-inches in diameter. Where three or more ~~lots building-structures~~ are connected to a single service line, the service line shall be considered a gravity sewer, shall be a minimum of 8-inches in diameter, and shall be in accordance with the criteria covering District maintained gravity sewers. Exceptions to these requirements may be made in specific instances where constructability, environmental impacts or excessive costs require an alternate to these criteria. These exceptions shall be considered non-conforming connections and subject to correction to District Standards if and when criteria used in determining constructability, environmental impacts or excessive costs are no longer valid.

b. Easements, Implied Grant of Way of Necessity and Statutory Way of Necessity

If a residential property requires an easement across another residential property to gain access to District ~~sewers~~ ~~theis~~ easement shall be conveyed to the District using the District's Standard Easement Agreement. ~~—This shall only be allowed when agreed to in writing by the District engineer.~~ Easements shall only be allowed when no District maintained sanitary sewer is available for connection in public right of way or existing easements adjacent to the property and constructability, environmental impacts or excessive costs render construction of new sewer facilities in public right of way or existing easements adjacent to the property non-viable.

The District recognizes Florida Statutes 704.01, (1) Implied grant of way of necessity, and (2) Statutory way of necessity, may be applicable in providing sanitary sewer service to a property.

In the case of Implied Grant of Way of Necessity there may be instances where a sanitary sewer service existed to a property and that property was then divided into multiple properties each using the existing sanitary sewer service. In these instances the District recognizes the Implied Grant of Way of Necessity for each property's use of the sanitary sewer service under a "grandfather" clause but considers the connection/s non-conforming in that properties may be served by facilities not owned and maintained by the District and/or properties may be served by facilities that may be inadequately sized and/or one property may be served by facilities that cross another property and are not in a District Standard Easement. In these instances, the District shall require the sanitary sewer connections using an Implied Grant of Way of Necessity for sewer service be corrected to current District Standards when renovation or redevelopment of any of the affected properties occurs.

In the case of Statutory Way of Necessity there may be instances where a property is shut off or hemmed in from access to sanitary sewer service by lands, fencing or other improvements. In these instances the District, with agreement from the shut off or hemmed in property, may act on behalf of the shut off or hemmed in property and use and maintain an easement over, under, through and upon the lands which lie between the said shut-off or hemmed-in lands and public right of way or existing easements to supply sanitary sewer service to the shut-off or hemmed-in land granted the shut-off or hemmed-in land is using the lands that lie between for personal ingress and egress. The District considers sanitary sewer connections using Statutory Way of Necessity to be non-conforming in that properties are served by facilities that cross another property and are not in a District Standard Easement. In these instances the District shall require the sanitary sewer connections using a Statutory Way of Necessity for sewer service be corrected to current District Standards when renovation or redevelopment of the property over which a Statutory Way of Necessity is used occurs, or when a public right of way or utility easement becomes accessible to the shut-off or hemmed in property.

cb. Maintenance Responsibility

The service line (lateral) cleanout will usually delineate the point of responsibility between the District and the property owner; however, the following variations do exist:

1. Multi-family Units - Public right-of-way - Owner's responsibility to the right-of-way line.
2. Multi-family Units - Non-Public right-of-way - Owner's responsibility to the main line connection.
3. Commercial Buildings - Owner's responsibility to the main line.
4. Condominium with Common Areas - Non-Public right-of-way Owner's responsibility to the main line connection.
5. Condominium with Common Areas Adjacent to Public right-of-way - District assumes responsibility within the public right-of-way.

3.07 Service Line Markers

A service line marker shall be installed 12-inches {minimum} above the service wye adjacent to the cleanout of each service line. The service line markers shall be Electronic System, Sanitary Marker 1258, as manufactured by 3M.

3.08 Bolts, Anchor Bolts, and Nuts

Anchor bolts shall have suitable washers and, where so required, their nuts shall be hexagonal. All anchor bolts, nuts, washers, plates, and bolt sleeves shall be galvanized unless otherwise indicated or specified.

Expansion bolts shall have malleable iron and lead composition elements or the required number of units and sizes.

Bolts, anchor bolts, nuts and washers specified to be stainless steel shall be type 316 stainless steel.

Anchor bolts and expansion bolts shall be set accurately. If anchor bolts are set before the concrete has been placed, they shall be carefully held in suitable templates of approved design. If anchor or expansion bolts are set after the concrete has been placed, all necessary drilling and grouting or caulking shall be done, and care shall be taken not to damage the structure or finish by cracking, chipping, spalling, or otherwise during the drilling and caulking.

3.09 Concrete Inserts

Concrete inserts shall be designed to safely support the maximum load that can be imposed by the bolts used in the inserts. Inserts shall be of a type which will permit locking of the bolt head or nut. All inserts shall be galvanized.

3.10 Protection against Electrolysis

Where dissimilar metals are used in conjunction with each other, suitable insulation shall be provided between adjoining surfaces so as to eliminate direct contact with any resultant electrolysis. The insulation shall be bituminous impregnated felt, heavy bituminous coatings, nonmetallic separators or washers, or other approved materials.

END OF SECTION 30

Loxahatchee River District

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

TO: Governing Board
FROM: Kara Peterson
DATE: August 9, 2019
SUBJECT: Audit Contract for Fiscal Year 2019

In June 2017, the District's Governing Board entered into an agreement with Nowlen, Holt & Miner, P.A. The term of the agreement is for an initial period of three (3) years to cover the fiscal years 2017 through 2019. The agreement also provided, by sole option of the District, that the District's Governing Board may extend the agreement for up to three (3) additional one year periods. The audit of the fiscal year 2019 will be the third year of the initial three-year engagement.

It is the opinion of staff that Nowlen, Holt & Miner, P.A. has done a satisfactory job, and we support continuing our contract for the fiscal year 2019 audit. The attached engagement letter has been prepared to provide audit services for the fiscal year 2019. This document is consistent in form with the prior agreements and is for the previously agreed upon fee for audit services.

Staff recommends the contract be approved and executed by the Board. I offer the following motion for your consideration:

“THAT THE GOVERNING BOARD authorize the Executive Director and Chairman to execute the Nowlen, Holt & Miner, P.A. Engagement Letter dated August 6, 2019 for the provision of Audit Services for the fiscal year 2019.”

Thank you for your consideration of this matter.



NOWLEN, HOLT & MINER, P.A.

CERTIFIED PUBLIC ACCOUNTANTS

WEST PALM BEACH OFFICE
NORTHBRIDGE CENTRE
515 N. FLAGLER DRIVE, SUITE 1700
POST OFFICE BOX 347
WEST PALM BEACH, FLORIDA 33402-0347
TELEPHONE (561) 659-3060
FAX (561) 835-0628
WWW.NHMCPA.COM

EVERETT B. NOWLEN (1930-1984), CPA
EDWARD T. HOLT, CPA
WILLIAM B. MINER, RETIRED
ROBERT W. HENDRIX, JR., CPA
JANET R. BARICEVICH, RETIRED, CPA
TERRY L. MORTON, JR., CPA
N. RONALD BENNETT, CVA, ABV, CFF, CPA
ALEXIA G. VARGA, CFE, CPA
EDWARD T. HOLT, JR., PFS, CPA
BRIAN J. BRESCIA, CFP®, CPA

MARK J. BYMASTER, CFE, CPA
RYAN M. SHORE, CFP®, CPA
WEI PAN, CPA
WILLIAM C. KISKER, CPA
RICHARD E. BOTTIS, CPA

August 6, 2019

The Loxahatchee River Environmental Control District
2500 Jupiter Park Drive
Jupiter, FL 33458

BELLE GLADE OFFICE
333 S.E. 2nd STREET
POST OFFICE BOX 338
BELLE GLADE, FLORIDA 33430-0338
TELEPHONE (561) 996-5612
FAX (561) 996-6248

We are pleased to confirm our understanding of the services we are to provide Loxahatchee River Environmental Control District for the year ended September 30, 2019. We will audit the basic financial statements of the Loxahatchee River Environmental Control District as of and for the year ended September 30, 2019. Accounting standards generally accepted in the United States of America provide for certain required supplementary information (RSI), such as management's discussion and analysis (MD&A), to supplement the Loxahatchee River Environmental Control District's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the Loxahatchee River Environmental Control District's RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by U.S. generally accepted accounting principles and will be subjected to certain limited procedures, but will not be audited:

1) Management's Discussion and Analysis.

We have also been engaged to report on supplementary information other than RSI that accompanies the Loxahatchee River Environmental Control District's financial statements. We will subject the following supplementary information to the auditing procedures applied in our audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America, and we will provide an opinion on it in relation to the financial statements as a whole, in a report combined with our auditor's report on the financial statements.

1) Schedule of Expenditures of Federal Awards and State Financial Assistance, if applicable.

The following other information accompanying the financial statements will not be subjected to the auditing procedures applied in our audit of the financial statements, and our auditor's report will not provide an opinion or any assurance on that other information.

1) Introductory Section

2) Statistical Section

Audit Objectives

The objective of our audit is the expression of opinions as to whether your financial statements are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles and to report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. The objective also includes reporting on—

- Internal control over financial reporting and compliance with provisions of laws, regulations, contracts, and award agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards*.
- Internal control over compliance related to major programs and state projects and an opinion (or disclaimer of opinion) on compliance with federal and state statutes, regulations, and the terms and conditions of federal awards and state projects that could have a direct and material effect on each major program in accordance with the Single Audit Act Amendments of 1996 and Title 2 U.S. *Code of Federal Regulations* (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and each major state project in accordance with Chapter 10.550 Rules of the Auditor General. (Single Audit Report)

The *Government Auditing Standards* report on internal control over financial reporting and on compliance and other matters will include a paragraph that states that (1) the purpose of the report is solely to describe the scope of testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance, and (2) the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. The Uniform Guidance report on internal control over compliance will include a paragraph that states that the purpose of the report on internal control over compliance is solely to describe the scope of testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance and Chapter 10.550 Rules of the Auditor General. Both reports will state that the report is not suitable for any other purpose.

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America; the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; the Single Audit Act Amendments of 1996; the provisions of the Uniform Guidance; and Chapter 10.550 Rules of the Auditor General, and will include tests of accounting records, a determination of major program(s) in accordance with the Uniform Guidance and major state project(s) in accordance with Chapter 10.550 Rules of the Auditor General, and other procedures we consider necessary to enable us to express such opinions. We will issue written reports upon completion of our Single Audit. Our reports will be addressed to the Board of Commissioners of the Loxahatchee River Environmental Control District. We cannot provide assurance that unmodified opinions will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions or add emphasis-of-matter or other-matter paragraphs. If our opinions are other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or issue reports, or we may withdraw from this engagement.

Audit Procedures—General

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the government or to acts by management or employees acting on behalf of the government. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements or noncompliance may exist and not be detected by us, even though the audit is properly planned and performed in accordance with U.S. generally accepted auditing standards and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements or on major programs and projects. However, we will inform the appropriate level of management of any material errors, any fraudulent financial reporting, or misappropriation of assets that come to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential, and of any material abuse that comes to our attention. We will include such matters in the reports required for a Single Audit. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and may include tests of the physical existence of inventories, and direct confirmation of receivables and certain other assets and liabilities by correspondence with selected individuals, funding sources, creditors, and financial institutions. We will request written representations from your attorneys as part of the engagement, and they may bill you for responding to this inquiry. At the conclusion of our audit, we will require certain written representations from you about your responsibilities for the financial statements; schedule of expenditures of federal awards and state financial assistance; federal and state award programs; compliance with laws, regulations, contracts, and grant agreements; and other responsibilities required by generally accepted auditing standards.

Audit Procedures—Internal Control

Our audit will include obtaining an understanding of the government and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

As required by the Uniform Guidance and Chapter 10.550 Rules of the Auditor General, we will perform tests of controls over compliance to evaluate the effectiveness of the design and operation of controls that we consider relevant to preventing or detecting material noncompliance with compliance requirements

applicable to each major federal award program and state project. However, our tests will be less in scope than would be necessary to render an opinion on those controls and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to the Uniform Guidance and Chapter 10.550 Rules of the Auditor General.

An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. Accordingly, we will express no such opinion. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards, *Government Auditing Standards*, the Uniform Guidance, and Chapter 10.550 Rules of the Auditor General.

Audit Procedures—Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the Loxahatchee River Environmental Control District's compliance with provisions of applicable laws, regulations, contracts, and agreements, including grant agreements. However, the objective of those procedures will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

The Uniform Guidance and Chapter 10.550 Rules of the Auditor General require that we also plan and perform the audit to obtain reasonable assurance about whether the auditee has complied with federal and state statutes, regulations, and the terms and conditions of federal awards and state financial assistance applicable to major programs and state projects. Our procedures will consist of tests of transactions and other applicable procedures described in the *OMB Compliance Supplement* and the Department of Financial Services' *State Projects Compliance Supplement* for the types of compliance requirements that could have a direct and material effect on each of the Loxahatchee River Environmental Control District's major programs and state projects. The purpose of these procedures will be to express an opinion on the Loxahatchee River Environmental Control District's compliance with requirements applicable to each of its major programs and state projects in our report on compliance issued pursuant to the Uniform Guidance and Chapter 10.550 Rules of the Auditor General.

Other Services

We will also assist in preparing the financial statements, schedule of expenditures of federal awards and state financial assistance, and related notes of the Loxahatchee River Environmental Control District in conformity with U.S. generally accepted accounting principles, the Uniform Guidance, Chapter 10.550 Rules of the Auditor General, and the preparation of Annual Financial Report filed with the Florida Department of Financial Services based on information provided by you. These nonaudit services do not constitute an audit under *Government Auditing Standards* and such services will not be conducted in accordance with *Government Auditing Standards*. We will perform the services in accordance with applicable professional standards. The other services are limited to the financial statements, schedule of expenditures of federal awards and state financial assistance, and related notes services previously defined. We, in our sole professional judgment, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming management responsibilities.

Management Responsibilities

Management is responsible for (1) designing, implementing, establishing, and maintaining effective internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, including internal controls over federal awards and state financial assistance, and for evaluating and monitoring ongoing activities, to help ensure that appropriate goals and objectives are met; (2) following laws and regulations; (3) ensuring that there is

reasonable assurance that government programs are administered in compliance with compliance requirements; and (4) ensuring that management and financial information is reliable and properly reported. Management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements. You are also responsible for the selection and application of accounting principles; for the preparation and fair presentation of the financial statements, schedule of expenditures of federal awards and state financial assistance, and all accompanying information in conformity with U.S. generally accepted accounting principles; and for compliance with applicable laws and regulations (including federal statutes) and the provisions of contracts and grant agreements (including award agreements). Your responsibilities also include identifying significant contractor relationships in which the contractor has responsibility for program compliance and for the accuracy and completeness of that information.

Management is also responsible for making all financial records and related information available to us and for the accuracy and completeness of that information. You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, (2) access to personnel, accounts, books, records, supporting documentation, and other information as needed to perform an audit under the Uniform Guidance and Chapter 10.550 Rules of the Auditor General, (3) additional information that we may request for the purpose of the audit, and (4) unrestricted access to persons within the government from whom we determine it necessary to obtain audit evidence.

Your responsibilities include adjusting the financial statements to correct material misstatements and confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the government complies with applicable laws, regulations, contracts, agreements, and grants. Management is also responsible for taking timely and appropriate steps to remedy fraud and noncompliance with provisions of laws, regulations, contracts, and grant agreements, or abuse that we report. Additionally, as required by the Uniform Guidance and Chapter 10.550 Rules of the Auditor General, it is management's responsibility to evaluate and monitor noncompliance with federal and state statutes, regulations, and the terms and conditions of federal awards and state financial assistance; take prompt action when instances of noncompliance are identified including noncompliance identified in audit findings; promptly follow up and take corrective action on reported audit findings; and prepare a summary schedule of prior audit findings and a separate corrective action plan.

You are responsible for identifying all federal and state awards received and understanding and complying with the compliance requirements and for the preparation of the schedule of expenditures of federal awards and state financial assistance (including notes and noncash assistance received) in conformity with the Uniform Guidance and Chapter 10.550 Rules of the Auditor General. You agree to include our report on the schedule of expenditures of federal awards and state financial assistance in any document that contains and indicates that we have reported on the schedule of expenditures of federal awards and state financial assistance. You also agree to include the audited financial statements with any presentation of the schedule of expenditures of federal awards and state financial assistance that includes our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible

for presentation of the schedule of expenditures of federal awards and state financial assistance in accordance with the Uniform Guidance and Chapter 10.550 Rules of the Auditor General; (2) you believe the schedule of expenditures of federal awards and state financial assistance, including its form and content, is stated fairly in accordance with the Uniform Guidance and Chapter 10.550 Rules of the Auditor General; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the schedule of expenditures of federal awards and state financial assistance.

You are also responsible for the preparation of the other supplementary information, which we have been engaged to report on, in conformity with U.S. generally accepted accounting principles. You agree to include our report on the supplementary information in any document that contains, and indicates that we have reported on, the supplementary information. You also agree to include the audited financial statements with any presentation of the supplementary information that includes our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the supplementary information in accordance with GAAP; (2) you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits, or other studies related to the objectives discussed in the Audit Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

You agree to assume all management responsibilities relating to the financial statements, schedule of expenditures of federal awards and state financial assistance, and related notes, the Annual Financial Report filed with the Florida Department of Financial Services and any other nonaudit services we provide. You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements, schedule of expenditures of federal awards and state financial assistance, and related notes and that you have reviewed and approved the results of the services, the financial statements, schedule of expenditures of federal awards and state financial assistance, and related notes prior to their issuance and have accepted responsibility for them. Further, you agree to oversee the nonaudit services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of those services; and accept responsibility for them.

Engagement Administration, Fees, and Other

We will schedule the engagement based in part on deadlines, working conditions, and the availability of your key personnel. We will plan the engagement based on the assumption that your personnel will cooperate and provide assistance by performing tasks such as preparing requested schedules, retrieving supporting documents, and preparing confirmations. If for whatever reason your personnel are unable to provide the necessary assistance in a timely manner, it may affect our ability to complete the engagement within the established deadlines.

At the conclusion of the engagement, we will complete the appropriate sections of the Data Collection Form that summarizes our audit findings. It is management's responsibility to electronically submit the reporting package (including financial statements, schedule of expenditures of federal awards, summary schedule of prior audit findings, auditor's reports, and corrective action plan) along with the Data Collection Form to the federal audit clearinghouse. We will coordinate with you the electronic submission and certification. The Data Collection Form and the reporting package must be submitted within the earlier of 30 calendar days after receipt of the auditor's reports or nine months after the end of the audit period.

We will provide copies of our reports to the Loxahatchee River Environmental Control District; however, management is responsible for distribution of the reports and the financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

The audit documentation for this engagement is the property of Nowlen, Holt & Miner, P.A. and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to a regulatory agency or its designee, a federal or state agency providing direct or indirect funding, or the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Nowlen, Holt & Miner, P.A. personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of five years after the report release date or for any additional period requested by a federal or state awarding agency, oversight agency, or pass-through entity. If we are aware that a federal or state awarding agency, pass-through entity, or auditee is contesting an audit finding, we will contact the party(ies) contesting the audit finding for guidance prior to destroying the audit documentation.

The obligations of Nowlen, Holt & Miner, P.A. are solely obligations of Nowlen, Holt & Miner, P.A. No officer, owner, director, employee, agent, contractor, shareholder, or controlling person shall be subject to any personal liability whatsoever to any person, nor will any such claim be asserted by or on behalf of any other party to this agreement or any person relying on this report.

We expect to begin our audit in August and to have a draft report for the December board meeting with the final report issued in January 2019. Terry L. Morton, Jr. is the engagement partner and is responsible for supervising the engagement and signing the reports or authorizing another individual to sign them.

Our fees for the fiscal year ending September 30, 2019 will be \$34,800 for the financial statement audit, which includes a review of the Information Technology system. If a Federal Single Audit or a State Single Audit is required, the fee will be \$4,500 per major program or state project. Our invoices for these fees will be rendered each month as work progresses and are payable on presentation. In accordance with our firm policies, work may be suspended if your account becomes overdue and may not be resumed until your account is paid in full. If we elect to terminate our services for nonpayment, our engagement will be deemed to have been completed upon written notification of termination, even if we have not completed our report(s). You will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket costs through the date of termination. The above fee is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs.

This engagement letter incorporates the Audit Services Agreement between the Loxahatchee River Environmental Control District and Nowlen, Holt & Miner, P.A., the Loxahatchee River Environmental Control District Financial Audit Services RFP #17-002 and our proposal dated April 19, 2017. Any conflict between these documents will be controlled by the Agreement, then RFP #17-002, and then our proposal dated April 19, 2017.

We appreciate the opportunity to be of service to the Loxahatchee River Environmental Control District and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Very truly yours,



Nowlen, Holt & Miner, P.A.

RESPONSE:

This letter correctly sets forth the understanding of the Loxahatchee River Environmental Control District.

Management:

Signature: _____

Title: _____

Date: _____

Governance:

Signature: _____

Title: _____

Date: _____

Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

2500 Jupiter Park Drive, Jupiter, Florida 33458

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: Kris Dean, P.E.,
Deputy Executive Director/Director of Engineering Services

DATE: August 5, 2019

SUBJECT: Penn Park Lateral Lining Services: Change Order 1

During the course of the project it was determined that the existing 60' right of way in Penn Park required liners on approximately 70 services that exceed the base contract length of 25'. This change order uses an existing pay item in the Manatee County contract that we are piggy backing and allows us to line the excess length on these laterals to ensure we completely line the vitrified clay pipe in the ground and terminate the liner on schedule 40 PVC installed at the right-of-way cleanout. The original contract was for \$545,150.00, the increased cost due to this change order is \$64,837.50

The following motion is offered for the Governing Board's consideration:

“THAT THE GOVERNING BOARD authorize Change Order 1 to BLD Services, Inc. contract for Penn Park Lateral Lining Services in the amount of \$64,837.50.”



July 25, 2019

Proposal# BLD-19206

Joseph Jesteadt
Construction Coordinator
Loxahatchee River District
2500 Jupiter Park Drive
Jupiter, FL 33458-8964

RE: Proposal for change order request due changes to the scope of work for laterals in Penn Park.

BLD Services, LLC proposes to furnish all necessary materials, labor, tools, equipment, supplies and the supervision necessary to perform the work outlined in the DESCRIPTION and the SCOPE OF WORK with the exception of those items that have been specifically addressed in this proposal. Pricing terms and conditions from the existing Manatee County Contact.

Scope of Work: This work shall be performed in conjunction with the "PRICING SCHEDULE" and "TERMS & CONDITIONS" as outlined within this proposal

In response to your request we hereby submit subcontract pricing for the above referenced project as follow:

Item #	Description	QTY	Unit	Unit \$	Total \$
5	Trenchless lateral cleaning up to 30 linear ft	8	EA	\$325.00	\$2,600.00
6	Trenchless lateral cleaning over 30 linear ft	70	EA	\$50.00	\$3,500.00
7	Full wrap at main+36" into lateral up to 25'	8	EA	\$2,925.00	\$23,400.00
7a	Full wrap at main+36" into lateral in excess of 25'	430	LF	\$75.00	\$32,250.00
27	Mobilization / Demobilization (projects in excess of \$100,000), including Performance and Payment Bond NOTE: not to exceed 5%	1	5.0%	\$3,087.50	\$3,087.50
				Total	\$64,837.50

Proposal Inclusions:

- Certificate of Insurance with standard coverage
- Post-Installation video of scheduled repairs and mainlines

Proposal Exclusions:

- Premiums for special insurance coverage requirements
- Reinstatement / re-brushing of service connections
- **CLEAN-OUT INSTALLATION**

Proposal Terms:

- All Items quoted are to be considered inclusive of this proposal, no separation of any one pay item should be assumed, i.e., TV inspection and cleaning item will be provided by BLD Services, LLC as part of the CIPP Lateral Lining portion of this project.
- Payment due within 30 days of completion of BLD's portion of the project
- Partial monthly payments may be requested
- Proposal valid for 60 days

Special Conditions:

- General Contractor will be required to provide access to all manholes
- General Contractor will be required to provide post videos of CIPP lining prior to mobilization for lateral identification
- General Contractor will provide notification / flyers if required by owner – BLD will distribute
- General Contractor provide all traffic control devices and permits beyond typical traffic cones and signs carried by crew
- General Contractor will provide water meter if water requires metering at no cost for deposit or water to BLD

Mutual Release of Consequential Damages:

Neither party shall be liable to the other for consequential damages relating to or arising out of this Contract.

We appreciate the opportunity of submitting this proposal. If you have any questions, please do not hesitate to contact me.

Sincerely,

Mark Dalmau

Mark Dalmau
Project Manager
BLD Services, LLC

Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

2500 Jupiter Park Drive, Jupiter, Florida 33458

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: Kris Dean, P.E.,
Deputy Executive Director/Director of Engineering Services

DATE: August 8, 2019

SUBJECT: Island Country Estates Low Pressure Force Main System Engineering Services: Change Order 1

During the bidding process Island Country engaged with the District to evaluate and repair their existing drainage system as part of their neighborhood sewerage project. After an initial site visit and review it was determined that numerous structures were in need of repair.

The attached proposal incorporates the additional engineering design, bid and construction services required to incorporate the additional work into the project and revisions to paving requirements as determined by a revised paving assessment.

Staff recommend the following motion:

“THAT THE GOVERNING BOARD authorize Change Order 1 to Holtz Consulting Engineers, Inc. contract for Island Country Estates Low Pressure Force Main System in the amount of \$13,860.00.”

Attachment A - Island Country Estates - Low Pressure Force Main System Supplement for Additional Roadway and Drainage Improvements

		Principal	Project Manager	Project Engineer (PE)	Designer	Construction Inspector	Administrative Support	Subconsultant	Item Cost (Note Subconsultant fee is marked up 5%)	Task Cost
Task	Rate	\$180	\$165	\$125	\$90	\$90	\$58	-		
	Item	Hours						Fees		
Engineering Design Services	Site Visits to Inspect Drainage Structures (22 total structures)		16			16			\$2,640.00	\$9,120.00
	Stormwater Modifications to Existing Contract Documents (Plans, Specifications, Cost Estimates)		4	16	16				\$4,100.00	
	Paving Modifications to Existing Contract Documents (Plans, Specifications, Cost Estimates)		4	8	8				\$2,380.00	
									\$0.00	
									\$0.00	
Engineering Services During Construction	Site Visits (12 weeks @ additional 3 Hours per Week for Inspector and 1 Hour per Week			12		36			\$4,740.00	\$4,740.00
									\$0.00	
									\$0.00	
		0	24	36	24	52	0	Sub \$0.00 HCE \$13,860	Total Engineering Fee	\$13,860.00

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Loxahatchee River District

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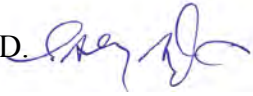
2500 Jupiter Park Drive, Jupiter, Florida 33458-8964

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

MEMORANDUM

TO: GOVERNING BOARD
FROM: D. ALBREY ARRINGTON, Ph.D. 
DATE: AUGUST 8, 2019
SUBJECT: FISCAL YEAR 2019-2020 – BUDGET ASSUMPTIONS

We began our discussions on the FY2019 budget in June when we presented our budget assumptions memo. In July we reviewed the draft matrix and overview of capital projects. This month we provide a comparison of the draft budget to our rate study predictions and to last year's budget. Our goal is to arrive at your September meeting with a well thought out draft budget that meets our needs in FY2020.

The table below compares Draft Budget figures against Rate Study projections, which we reviewed in February and March. Operating expenses in the draft budget are **\$783,979 (-4.7%)** below Rate Study projections, while the entire budget is \$4,099,571 (16.6%) over Rate Study projections. There are two main factors that explain why Operating Expenses are less than expected in the Rate Study: (1) investments of time and money in improving operating efficiencies are paying off, and (2) the Rate Study anticipated an additional cost of \$375,000 due to renewal of our IQ Agreement with Seacoast. At this time, staff are not prepared to recommend a specific path forward to offset the potential loss of Seacoast IQ water, so we have not included anticipated costs. Staff are working on multiple potential solutions and hope to have a potential cost estimate by next month (before we finalize the budget). Budgeted amounts for Capital and Renewal & Replacement projects exceed what was anticipated in the Rate Study. These discrepancies are explained by the following major factors: (1) the largest driver of this variance is addition of nearly \$2 million for neighborhood sewerage of BLM (Coast Guard) property and Rolling Hills – these projects have been accelerated through new and encouraging collaborations; (2) carry-over of over a million dollars of capital and renewal and replacement projects (e.g., completion of Whispering Trails gravity sewers, Alternate A1A force main connections, Jupiter Farms Elementary force main, Island Country Estates low pressure sewers); (3) fast-tracking of \$750,000 to address fall protection at lift stations and similar structures; and (4) addition of \$650,000 for cleaning, inspection, and potential repairs of Alternate A1A subaqueous force main.

Rate Study vs Draft FY2019 Budget:

	Operating Expenses	Capital Collection & Transmission	Capital Treatment & Disposal	R&R Collection & Transmission	R&R Treatment & Disposal	Total
RateStudy	\$16,528,000	\$3,553,000	\$ 620,000	\$2,568,000	\$1,500,000	\$24,768,000
Budget	\$15,744,021	\$5,620,000	\$ 1,536,600	\$4,004,500	\$1,962,450	\$28,867,571

The draft Operating Expense Budget (i.e., excluding capital projects) results in no increase relative to last year's budget (see table below), which is significantly less than the U.S. Department of Labor Statistics' Water and Sewerage Maintenance Index (June WSMI = 3.3%). I am pleased with the budget as it stands, and look forward to answering any questions you may have before we finalize the budget for approval in September.

FY2019 Budget vs FY2020 Draft Budget:

FY2019 (\$)	FY2020 (\$)	Change	Budget Category
\$ 5,868,771	\$ 6,161,197	5.0%	Admin., Legal, Accounting, Information Services, and Engineering
\$ 9,875,250	\$ 9,582,824	(3.0%)	System Operation, Maintenance, and Construction
<i>\$ 15,744,021</i>	<i>\$ 15,744,021</i>	<i>0%</i>	<i>Operating Expense Sub-Total</i>
\$ 11,113,500	\$ 7,156,600	(35.6%)	Capital Improvements
\$ 7,478,500	\$ 5,966,950	(20.2%)	Renewal & Replacement
<i>\$ 18,592,000</i>	<i>\$ 13,123,550</i>	<i>(29.4%)</i>	<i>Capital & R&R Sub-Total</i>
\$ 34,336,021	\$ 28,867,571	(15.9%)	Grand Total

Revenue – Total revenue is expected to **decrease** from \$24,314,620 in FY2019 to \$24,275,686 in FY2020; a 0.2% decrease. This decrease is driven by an anticipated slowdown in development (plant charges). Operating revenue is projected to increase by 1.8% due primarily to new connections.

Salary & Wages – An increase of \$164,300 (2.9%) is shown in the matrix. This increase is driven by the addition of a new employee, COLA, potential merit increases, promotions and overtime.

1. Number of Employees: Presently, the District has 81 full time positions budgeted. I propose adding one new full-time position to improve our institutional performance with asset management and the associated strategic objectives (i.e., Operational Excellence, Increase system reliability, refine preventative maintenance/rehabilitation/replacement program to include all assets with effort based on industry standards, failure analysis, and cost considerations).
2. Proposed Cost of Living Adjustment: The June consumer price index (CPI-U) was 1.6%; therefore, I have included a 1.6% cost of living adjustment (COLA) for our employees to maintain their purchasing power given the present rate of inflation.
3. Proposed Merit Increase: I recommend the budget include 3.0% to be disbursed to employees exhibiting meritorious performance during their annual performance review.

Payroll Tax – An increase of \$9,100 (2.2%) is budgeted.

Retirement – An increase of \$19,900 (2.8%) is budgeted based on an assessment of vested employees.

Employee Health Insurance – A **decrease** of **\$31,000 (-2.3%)** is budgeted for health insurance. While we expect health insurance costs to rise, we are able to decrease this budget line because our health insurance renewal in January included a 6% premium decrease. We will continue to look at this budget category, but at this time we are confident in the amount we are budgeting for FY2020.

Workers' Compensation Insurance – A **decrease** of **\$15,200 (-13.3%)** is budgeted based on the favorable renewal rate we received this year and the expectation that our performance has been much better than in the past.

General Insurance – An increase of \$17,391 (5%) is budgeted for our Property, General Liability, Automobile Liability and Physical Damage, Workers Compensation, and Fiduciary Liability insurance policies. While we recently renewed these policies with a 2-year rate lock. A portion of this increase is to address the larger than expected increase during our recent renewal as well as the increase anticipated in our next renewal based on the increasing value of insured assets.

Supplies & Expenses – A **decrease** of **\$3,485 (-0.3%)** is budgeted. I am pleased with the efforts of our staff to work efficiently and cost-effectively.

Utilities – A **decrease** of **\$14,500 (-1.0%)** is budgeted. This decrease is driven by the rate reduction we received this past year.

Chemicals – A **decrease** of **\$195,570 (-29.1%)** is budgeted. Kris and Tony appear to have identified a \$235,000 savings opportunity regarding our chemical costs. We are excited about this potential savings and hope to have more details next month.

Repair & Maintenance – A decrease of \$16,186 (-0.9%) is budgeted. We believe the budgeted amount will allow staff to continue our proactive efforts to effectively maintain our assets.

Outside Services – An increase of \$65,250 (3.5%) is budgeted.

Contingency – Our Operating Expense contingency remains unchanged.

Capital – is projected to decrease by \$3,956,900 (-36%). In FY2020 neighborhood sewerage is nearing the end of major projects and will decrease by nearly \$3 million, and the Alternate A1A force main will be completed. A significant new project for FY2020 will be a comprehensive effort to install fall protection at all of our lift stations (\$1 million).

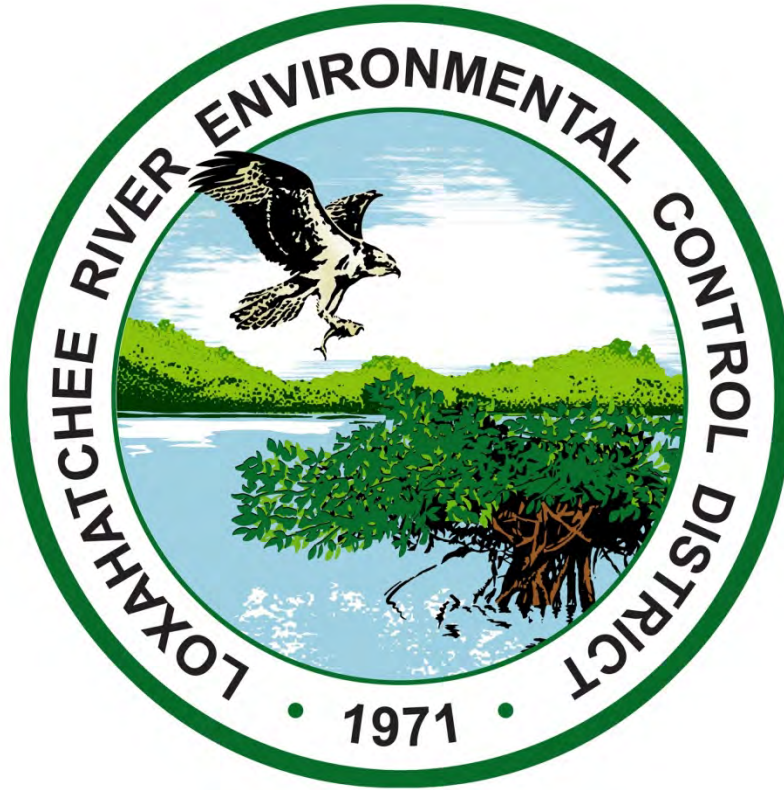
Capital Accounts	FY2019	FY2020	% Increase
Equipment	\$ 955,000	\$ 320,000	-66%
Information Services	\$ 30,000	\$ 5,000	-83%
Sub-Regional Collection & Transmission System	\$ 7,398,000	\$ 3,500,000	-53%
Regional Collection & Transmission System	\$ 2,270,000	\$ 1,795,000	-21%
Treatment System	\$ 350,500	\$ 820,000	134%
Reclamation & Disposal System	\$ 75,000	\$ 56,000	-25%
Expansion	\$ 10,000	\$ 10,000	0%
Contingency	\$ 25,000	\$ 650,600	2,502%
Total	\$ 11,113,500	\$ 7,156,600	-36%

Renewal & Replacement – is projected to decrease by \$1,511,550 (-20%). The largest decreases are in Transmission System and Treatment System. The Transmission System decrease is due to completion of the Master Lift Station rehabilitation project and the Treatment System decrease is due primarily to completion of the deep bed filter project. While this category has decreased, we continue to budget adequately to allow systematic evaluate and rehabilitate our aging assets.

Renewal & Replacement Accounts	FY2019	FY2020	% Increase
Collection System	\$1,400,000	\$1,535,000	10%
Transmission System	\$3,770,000	\$2,469,500	-34%
Treatment System	\$1,439,000	\$686,000	-52%
Reclamation & Disposal System	\$367,000	\$219,000	-40%
Vehicles & Equipment	\$302,500	\$515,000	70%
Contingency	\$200,000	\$542,450	171%
Total	\$7,478,500	\$5,966,950	-20%

On the following pages, I am pleased to present the complete draft budget for your review. The draft budget includes the full accounting structure you have grown accustomed to seeing (pages 1-21). On pages 22-27 Kara has provided our capital budget using a new capital account structure that is more consistent with Florida's established Uniform Accounting System. Our intention is to use only the new capital accounting structure in next month's final budget.

Budgeting is an important process, and we look forward to receiving your input. Staff have invested significant effort into developing this budget, and we are pleased with our progress to date. I look forward to discussing our budgeting efforts with you and answering any questions you may have.



Loxahatchee River Environmental Control District

Annual Budget **For the Fiscal Year Ending September 30, 2020**

Governing Board

Dr. Matt H. Rostock
Stephen B. Rockoff
Gordon M. Boggie
Harvey M. Silverman
James D. Snyder

Chairman
Vice Chairman
Treasurer
Secretary
Asst. Secretary/Treasurer



Executive Director

D. Albrey Arrington, Ph.D.

Deputy Executive Director

Kris Dean, P.E.

DRAFT Resolution No. 2019-XX DRAFT

WHEREAS, under the provisions of Section 189.016, Florida Statutes, the proposed annual budget for the Loxahatchee River Environmental Control District has been submitted this 19st day of September, 2019.

WHEREAS, under the provisions of Section 189.015, Florida Statutes, a public hearing on the proposed budget has been held and notice thereof having been published in one issue of the Palm Beach Post, a newspaper of general circulation in the District, more than five days before such hearing; and

WHEREAS, all necessary changes have been made as to revenue estimates and expenditures.

NOW, THEREFORE, BE IT RESOLVED by the Governing Board of the Loxahatchee River Environmental Control District that the budget for fiscal year ending September 30, 2020, a copy of which is hereto attached and made a part of this resolution as fully as if set forth verbatim herein, is hereby approved and adopted:

REVENUES

Operating Revenue	\$ 20,069,525
Capital Revenue	3,078,961
Nonoperating Revenue	1,127,200
Carryforward of Surplus from Prior Years	4,591,885
TOTAL REVENUES	<u><u>\$ 28,867,571</u></u>

EXPENSES

Operating Expenses	\$ 15,744,021
Capital Improvements	7,156,600
Renewal and Replacement	5,966,950
TOTAL EXPENSES	<u><u>\$ 28,867,571</u></u>

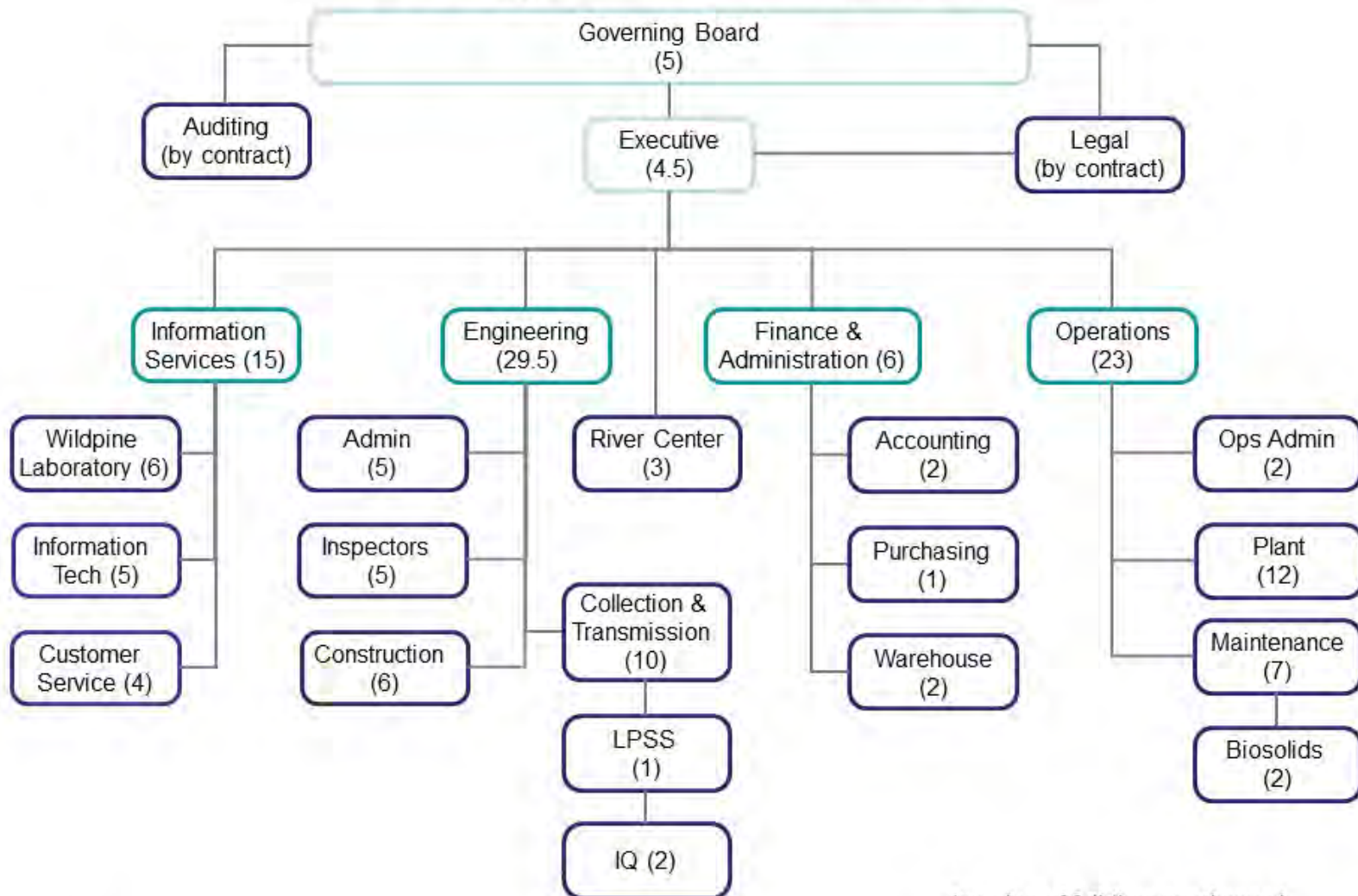
This Resolution adopted by the Governing Board of the Loxahatchee River Environmental Control District on this 19st day of September, 2019.

_____	Vote:_____	_____	Vote:_____
Dr. Matt Rostock, Chairman		Stephen Rockoff, Vice Chairman	

_____	Vote:_____	_____	Vote:_____
Gordon Boggie, Treasurer		Harvey Silverman, Secretary	

_____	Vote:_____
James Snyder, Assistant Secretary/Treasurer	

LRD Organizational Chart



(number of full-time employees)
Total full-time employees = 82

2019-08-08

Budget Summary

	FY 2019 Budget	FY 2020 Budget	Percent Change
Revenues			
<i>Operating Revenues</i>			
Regional Sewer Service	\$ 17,067,530	\$ 17,324,020	1.50%
IQ Water Charges	2,264,000	2,304,752	1.80%
Standby Sewer Service	157,550	98,458	-37.51%
Administration and Engineering Fees	48,865	42,295	-13.45%
Other Revenue	183,000	300,000	63.93%
<i>Subtotal Operating Revenues</i>	19,720,945	20,069,525	1.77%
<i>Capital Revenues</i>			
Line Charges	232,575	201,337	-13.43%
Assessments	824,000	864,897	4.96%
Plant Charges	1,402,600	1,012,727	-27.80%
Capital Contributions	917,000	1,000,000	9.05%
<i>Subtotal Capital Revenues</i>	3,376,175	3,078,961	-8.80%
<i>Other Revenues</i>			
Interest Income	1,217,500	1,127,200	-7.42%
Carryforward of Surplus from Prior Years	10,021,401	4,591,885	-54.18%
Total Revenues	\$ 34,336,021	\$ 28,867,571	-15.93%
Expenses			
<i>Operating Expenses (by category)</i>			
Salaries and Wages	\$ 5,687,700	\$ 5,852,000	2.89%
Payroll Taxes	416,500	425,600	2.18%
Retirement Contributions	710,900	730,800	2.80%
Employee Health Insurance	1,339,800	1,308,800	-2.31%
Workers' Compensation Insurance	114,600	99,400	-13.26%
General Insurance	346,716	364,107	5.02%
Supplies and Expenses	1,138,160	1,134,675	-0.31%
Utilities	1,409,350	1,394,850	-1.03%
Chemicals	672,570	477,000	-29.08%
Repairs and Maintenance	1,830,615	1,814,429	-0.88%
Outside Services	1,852,110	1,917,360	3.52%
Contingency	225,000	225,000	0.00%
<i>Subtotal Operating Expenses</i>	15,744,021	15,744,021	0.00%
<i>Capital</i>			
Capital Improvements	11,113,500	7,156,600	-35.60%
Renewal and Replacement	7,478,500	5,966,950	-20.21%
<i>Subtotal Capital</i>	18,592,000	13,123,550	-29.41%
Total Expenses	\$ 34,336,021	\$ 28,867,571	-15.93%
Excess Revenues Over (Under) Expenses	\$ -	\$ -	

Executive Department**40-10**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5110 Special Pay - Governing Board	\$ 6,500
5120 Salaries and Wages	552,100
5140 Overtime	4,000
5210 Payroll Taxes	36,200
5220 Retirement Contributions	68,200
5230 Life, Health, and Dental Insurance	90,700
5240 Workers Compensation Insurance	1,600
<i>Subtotal</i>	\$ 759,300
<i>Operating Expenses</i>	
5340 Other Contractual Services	\$ 48,500
5400 Travel and Per Diem	16,200
5410 Communications	37,600
5420 Freight and Postage	10,000
5430 Utility Services	1,000
5450 Insurance	22,330
5460 Repair and Maintenance - General	65,800
5461 Repair and Maintenance - Vehicles	1,000
5510 Office Supplies	2,500
5520 Operating Supplies	35,020
5522 Fuel, Diesel, Oil	3,250
5540 Books, Publications, Memberships, and Subscriptions	24,025
5550 Training and Education	9,520
<i>Subtotal</i>	\$ 276,745
Total	\$ 1,036,045

Personnel Schedule	FY 2020 FTE
Executive Director	1.0
Deputy Executive Director	1.0
Executive Secretary	1.0
Human Resource Generalist	1.0
Safety Officer	1.0
Total	5.0

Professional Services Department**40-20**

Account Description		FY 2020 Budget
<i>Operating Expenses</i>		
5311	Engineering	\$ 20,000
5312	Engineering Support Services	60,000
5313	Legal Expense - Non-Litigation	75,000
5314	Legal Expense - Litigation	60,000
5315	Legal Expense - Collections	5,000
5316	Pension Advisor	10,000
5317	Human Resource Law	10,800
5321	Audit Services	34,800
<i>Subtotal</i>		\$ 275,600
Total		\$ 275,600
Personnel Schedule		FY 2020 FTE

Finance Department**40-30**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 462,000
5140 Overtime	5,000
5210 Payroll Taxes	34,500
5220 Retirement Contributions	61,500
5230 Life, Health, and Dental Insurance	121,200
5240 Workers Compensation Insurance	1,100
<i>Subtotal</i>	\$ 685,300
<i>Operating Expenses</i>	
5340 Other Contractual Services	\$ 33,500
5460 Repair and Maintenance - General	5,000
5461 Repair and Maintenance - Vehicles	1,000
5495 Tax Collector Fees and Discounts	70,000
5510 Office Supplies	2,500
5520 Operating Supplies	29,580
5522 Fuel, Diesel, Oil	500
5540 Books, Publications, Subscriptions, and Memberships	2,070
5550 Training and Education	3,840
<i>Subtotal</i>	\$ 147,990
Total	\$ 833,290

Personnel Schedule	FY 2020 FTE
Director of Finance and Administration	1.0
Accountant II	1.0
Accountant I	1.0
Purchasing Agent	1.0
Warehouse Coordinator	2.0
Total	6.0

Public Education Department**40-40**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 168,700
5130 Other Salaries and Wages	69,600
5140 Overtime	10,000
5210 Payroll Taxes	15,400
5220 Retirement Contributions	24,000
5230 Life, Health, and Dental Insurance	43,600
5240 Workers Compensation Insurance	400
<i>Subtotal</i>	\$ 331,700
<i>Operating Expenses</i>	
5310 Professional Services	\$ 5,000
5340 Other Contractual Services	9,000
5430 Utility Services	25,000
5450 Insurance	4,450
5460 Repair and Maintenance - General	53,675
5461 Repair and Maintenance - Vehicles	7,000
5470 Printing and Publications	8,950
5520 Operating Supplies	97,660
5522 Fuel, Diesel, Oil	750
5525 Gift Shop	-
5550 Training and Education	5,600
<i>Subtotal</i>	\$ 217,085
Total	\$ 548,785
Personnel Schedule	FY 2020 FTE
Environmental Education Manager	1.0
Environmental Education Coordinator	1.0
Community Outreach Coordinator	1.0
Total	3.0

WildPine Lab Department**40-41**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 542,200
5130 Other Salaries and Wages	20,000
5140 Overtime	10,000
5210 Payroll Taxes	42,500
5220 Retirement Contributions	72,800
5230 Life, Health, and Dental Insurance	86,500
5240 Workers Compensation Insurance	11,300
<i>Subtotal</i>	\$ 785,300
<i>Operating Expenses</i>	
5310 Professional Services	\$ 51,000
5340 Other Contractual Services	3,000
5450 Insurance	3,327
5460 Repair and Maintenance - General	1,000
5461 Repair and Maintenance - Vehicles	8,500
5462 Repair and Maintenance - Equipment	18,000
5520 Operating Supplies	66,500
5522 Fuel, Diesel, Oil	4,000
<i>Subtotal</i>	\$ 155,327
Total	\$ 940,627

Personnel Schedule	FY 2020 FTE
Director of Information Services	1.0
Lab Manager	1.0
Senior Scientist	1.0
Lab Technician II	3.0
Lab Technician I	1.0
Total	7.0

Customer Service Department**40-42**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 199,700
5140 Overtime	2,500
5210 Payroll Taxes	15,000
5220 Retirement Contributions	27,100
5230 Life, Health, and Dental Insurance	48,400
5240 Workers Compensation Insurance	400
<i>Subtotal</i>	\$ 293,100
<i>Operating Expenses</i>	
5340 Other Contractual Services	\$ 107,000
5420 Freight and Postage	65,000
5460 Repairs and Maintenance - General	24,000
5520 Operating Supplies	6,500
<i>Subtotal</i>	\$ 202,500
Total	\$ 495,600

Personnel Schedule	FY 2020 FTE
Customer Service Coordinator	1.0
Customer Service Rep II	3.0
Total	4.0

Information Technology Department**40-43**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 363,700
5140 Overtime	500
5210 Payroll Taxes	26,700
5220 Retirement Contributions	40,600
5230 Life, Health, and Dental Insurance	114,800
5240 Workers Compensation Insurance	700
<i>Subtotal</i>	\$ 547,000
<i>Operating Expenses</i>	
5310 Professional Services	\$ 90,000
5340 Other Contractual Services	1,000
5460 Repair and Maintenance - General	3,000
5520 Operating Supplies	11,000
5540 Books, Publications, Memberships, and Subscriptions	8,000
5550 Training and Education	10,000
<i>Subtotal</i>	\$ 123,000
Total	\$ 670,000
<i>Personnel Schedule</i>	FY 2020 FTE
IT Manager	1.0
System Specialist II	2.0
Asset Management Coordinator	1.0
IT Help Desk	1.0
Total	5.0

Engineering and Inspection Department**40-50**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 683,800
5140 Overtime	7,500
5210 Payroll Taxes	50,800
5220 Retirement Contributions	89,400
5230 Life, Health, and Dental Insurance	196,700
5240 Workers Compensation Insurance	13,900
<i>Subtotal</i>	\$ 1,042,100
<i>Operating Expenses</i>	
5400 Travel and Per Diem	\$ 3,000
5460 Repair and Maintenance - General	5,000
5461 Repair and Maintenance - Vehicles	10,000
5462 Repair and Maintenance - Equipment	10,000
5520 Operating Supplies	45,000
5522 Fuel, Diesel, Oil	16,150
5550 Training and Education	5,000
<i>Subtotal</i>	\$ 94,150
Total	\$ 1,136,250

Personnel Schedule	FY 2020 FTE
Engineering Supervisor	1.0
Chief Construction Inspector	1.0
Construction Coordinator	1.0
Construction Inspector	2.0
Utility Locate and Compliance Technician	2.0
Engineering/GIS Tech	1.0
Engineering Assistant	1.0
Projects Coordinator	1.0
Total	10.0

Construction Department**40-51**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 344,400
5140 Overtime	15,000
5210 Payroll Taxes	26,700
5220 Retirement Contributions	44,200
5230 Life, Health, and Dental Insurance	86,100
5240 Workers Compensation Insurance	9,500
<i>Subtotal</i>	\$ 525,900
<i>Operating Expenses</i>	
5460 Repair and Maintenance - General	\$ 5,000
5461 Repair and Maintenance - Vehicles	50,000
5462 Repair and Maintenance - Equipment	5,000
5520 Operating Supplies	31,000
5522 Fuel, Diesel, Oil	16,500
5550 Training and Education	5,000
<i>Subtotal</i>	\$ 112,500
Total	\$ 638,400

Personnel Schedule	FY 2020 FTE
Construction System Foreman	1.0
Construction System Operator A	2.0
Construction System Operator B	1.0
Construction System Operator C	2.0
Total	6.0

Operations Administrative Department**50-10**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 150,700
5140 Overtime	1,000
5210 Payroll Taxes	11,200
5220 Retirement Contributions	18,200
5230 Life, Health, and Dental Insurance	39,500
5240 Workers Compensation Insurance	2,900
<i>Subtotal</i>	\$ 223,500
<i>Operating Expenses</i>	
5310 Professional Services	\$ 30,000
5340 Other Contractual Services	7,500
5400 Travel and Per Diem	5,000
5410 Communications	44,400
5420 Freight and Postage	5,000
5450 Insurance	334,000
5460 Repair and Maintenance - General	92,260
5510 Office Supplies	6,000
5520 Operating Supplies	39,350
5521 Operating Supplies - Safety	28,000
5540 Books, Publications, Memberships, and Subscriptions	34,525
5550 Training and Education	5,750
<i>Subtotal</i>	\$ 631,785
Total	\$ 855,285
	FY 2020 FTE
<i>Personnel Schedule</i>	
Director of Operations	1.0
Administrative Assistant	1.0
Total	2.0

Collection and Transmission Department**50-40**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 664,900
5140 Overtime	85,000
5210 Payroll Taxes	55,900
5220 Retirement Contributions	96,700
5230 Life, Health, and Dental Insurance	170,200
5240 Workers Compensation Insurance	19,200
<i>Subtotal</i>	\$ 1,091,900
<i>Operating Expenses</i>	
5430 Utility Services	\$ 340,850
5440 Rentals and Leases	35,000
5460 Repair and Maintenance - General	145,500
5461 Repair and Maintenance - Vehicles	60,000
5462 Repair and Maintenance - Equipment	250,000
5463 Repair and Maintenance - Structures and Grounds	50,000
5520 Operating Supplies	65,000
5521 Operating Supplies - Chemicals	240,000
5522 Fuel, Diesel, Oil	35,000
5523 Fuel, Diesel, Oil - Generators	10,000
5550 Training and Education	3,800
<i>Subtotal</i>	\$ 1,235,150
Total	\$ 2,327,050
Personnel Schedule	FY 2020 FTE
Collections System Superintendent	1.0
Collection and Distribution Foreman	1.0
Collection and Distribution Operator A	5.0
Collection and Distribution Operator B	0.0
Collection and Distribution Operator C	4.0
Total	11.0

Treatment and Disposal Department**50-50**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 1,087,700
5140 Overtime	125,000
5210 Payroll Taxes	90,400
5220 Retirement Contributions	151,800
5230 Life, Health, and Dental Insurance	261,300
5240 Workers Compensation Insurance	31,200
<i>Subtotal</i>	\$ 1,747,400
<i>Operating Expenses</i>	
5340 Other Contractual Services	\$ 6,110
5430 Utility Services	543,000
5440 Rentals and Leases	51,500
5460 Repair and Maintenance - General	10,000
5461 Repair and Maintenance - Vehicles	17,000
5462 Repair and Maintenance - Equipment	442,094
5463 Repair and Maintenance - Structures and Grounds	186,000
5466 Repair and Maintenance - Outside Services	80,600
5520 Operating Supplies	266,410
5521 Operating Supplies - Chemicals	2,000
5522 Fuel, Diesel, Oil	25,000
5523 Fuel, Diesel, Oil - Generators	100,000
5550 Training and Education	13,700
<i>Subtotal</i>	\$ 1,743,414
Total	\$ 3,490,814

Personnel Schedule	FY 2020 FTE
Plant Chief Operator	1.0
Plant Maintenance Foreman	1.0
Plant Electrician	3.0
Waste Water Treatment Plant Operator A	2.0
Waste Water Treatment Plant Operator B	4.0
Waste Water Treatment Plant Operator C	5.0
Plant Maintenance Operator II	1.0
Plant Maintenance Operator I	2.0
Total	19.0

Reuse Department**50-60**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 127,600
5140 Overtime	7,500
5210 Payroll Taxes	10,000
5220 Retirement Contributions	18,100
5230 Life, Health, and Dental Insurance	35,100
5240 Workers Compensation Insurance	3,600
<i>Subtotal</i>	\$ 201,900
<i>Operating Expenses</i>	
5410 Communications	\$ 10,500
5430 Utility Services	312,500
5460 Repair and Maintenance - General	5,000
5461 Repair and Maintenance - Vehicles	5,000
5462 Repair and Maintenance - Equipment	95,000
5463 Repair and Maintenance - Structures and Grounds	40,000
5490 Other Current Charges and Obligations	221,500
5520 Operating Supplies	12,500
5521 Operating Supplies - Chemicals	80,000
5522 Fuel, Diesel, Oil	5,100
5550 Training and Education	2,000
<i>Subtotal</i>	\$ 789,100
Total	\$ 991,000
Personnel Schedule	FY 2020 FTE
Reuse System Operator A	2.0
Total	2.0

Bio-Solids Department**50-80**

Account Description	FY 2020 Budget
<i>Personal Services</i>	
5120 Salaries and Wages	\$ 124,400
5140 Overtime	11,000
5210 Payroll Taxes	10,300
5220 Retirement Contributions	18,200
5230 Life, Health, and Dental Insurance	14,700
5240 Workers Compensation Insurance	3,600
<i>Subtotal</i>	\$ 182,200
<i>Operating Expenses</i>	
5440 Rentals and Leases	\$ 23,900
5460 Repair and Maintenance - General	2,000
5461 Repair and Maintenance - Vehicles	4,500
5462 Repair and Maintenance - Equipment	43,500
5463 Repair and Maintenance - Structures and Grounds	13,000
5490 Other Current Charges and Obligations	848,250
5520 Operating Supplies	3,500
5521 Operating Supplies - Chemicals	155,000
5522 Fuel, Diesel, Oil	1,500
5550 Training and Education	2,925
<i>Subtotal</i>	\$ 1,098,075
Total	\$ 1,280,275
Personnel Schedule	FY 2020 FTE
Waste Water Treatment Plant Operator A	1.0
Plant Maintenance Operator II	1.0
Total	2.0

Contingency

Account Description	FY 2020 Budget
<i>Contingency</i>	
5990 Contingency	\$ 225,000
Total	\$ 225,000
Total Operating Budget	\$ 15,744,021

Capital Improvement Summary

Description	FY 2019 Budget	FY 2020 Budget	Change
Account			
Capital Equipment	\$ 955,000	\$ 320,000	\$ (635,000)
Water Resources - Structures and Equipment	30,000	5,000	(25,000)
Sub-Regional C&T System	7,398,000	3,500,000	(3,898,000)
Regional C&T System	2,270,000	1,795,000	(475,000)
Treatment System	350,500	820,000	469,500
Reclamation and Disposal System	75,000	56,000	(19,000)
Expansion	10,000	10,000	-
Contingency	25,000	650,600	625,600
Total	\$11,113,500	\$ 7,156,600	\$ (3,956,900)

Renewal and Replacement Summary

Description	FY 2019 Budget	FY 2020 Budget	Change
Account			
Collection System	\$ 1,400,000	\$ 1,535,000	\$ 135,000
Transmission System	3,770,000	2,469,500	(1,300,500)
Treatment System	1,439,000	686,000	(753,000)
Reclamation and Disposal System	367,000	219,000	(148,000)
Vehicles and Equipment	302,500	515,000	212,500
Contingency	200,000	542,450	342,450
Total	\$ 7,478,500	\$ 5,966,950	\$ (1,511,550)

Capital Improvement Detail

Account	Job Number	Description	FY 2020 Budget
61-5640		Capital Equipment	
	10	Monitor and Control Equipment	\$ -
	20	Major Tools and Equipment	320,000
	30	Communications	-
	40	Office Furniture and Equipment	-
	50	Computers	-
	60	Security System	-
	70	Vehicles	-
		Subtotal	\$ 320,000
62-5640		Water Resources - Structures and Equipment	
	10	Lab Equipment	\$ 5,000
	20	River Center	-
		Subtotal	\$ 5,000
63-5630		Sub-Regional C&T System	
	10	Gravity Extensions and Services	\$ 10,000
	20	Lift Station Improvements	10,000
	30	Force Main Improvements	10,000
	31	Jupiter Farms Elementary Force Main	200,000
	04	Neighborhood Sewering	3,270,000
	06	Low Pressure Sewer System Pumps	250,000
		Subtotal	\$ 3,750,000
64-5630		Regional C&T System	
	10	Lift Station Telemetry/Communication	\$ 250,000
	20	Land and Land Rights	10,000
	30	LS #1 Improvements	85,000
	50	Whispering Trails Force Main 4"	-
	51	Alt A1A Bridge Force Main	150,000
	52	Lift Station #57 and #58 Force Main Tie-In	45,000
	60	Prelim Engineering Reports	-
	80	Lift Station Improvements	-
	81	Stationary Generator Installs	170,000
	82	Lift Station Fall Protection	1,000,000
	90	Force Main Improvements	10,000
	99	Spare Pumps	75,000

Capital Improvement Detail (continued)

Account	Job Number	Description	FY 2020 Budget
65-5630		Treatment System	
	01	Plant Equipment	\$ 510,000
	03	Electrical Improvements	-
	04	Site Improvements	50,000
	05	Structures	260,000
		Subtotal	<u>\$ 820,000</u>
66-5630		Reclamation and Disposal System	
	10	IQ Water Improvements	\$ 56,000
	20	Sludge System Improvements	-
	30	Deep Well	-
	40	Nano System	-
		Subtotal	<u>\$ 56,000</u>
67-5630		Expansion	
	01	Stormwater	\$ 10,000
		Subtotal	<u>\$ 10,000</u>
68-5630		Contingency	
	65	Contingency	\$ 650,600
		Subtotal	<u>\$ 650,600</u>
Total			<u>\$ 7,156,600</u>

Renewal and Replacement Detail

Account	Job Number	Description	FY 2020 Budget
73-5630		Collection System	
	10	Gravity Renewal and Replacement	\$ 595,000
	20	Manhole Renewal and Replacement	90,000
	40	Service Lateral Renewal or Replacement	750,000
	50	TV Inspection	100,000
		Subtotal	\$ 1,535,000
74-5630		Transmission System	
	10	Lift Station Conversions	\$ 650,000
	20	Lift Station Rehabs	500,000
	21	Lift Station #114 Rehab	-
	22	Lift Station #1 Rehab	100,000
	24	Lift Station Roofing #1 and #200	9,500
	30	Lift Station Piping	-
	40	Equipment Renewal	-
	50	Force Main Renewal and Relocations	-
	51	JORC Force Main Replacement	-
	52	Olympus Dr. Force Main	400,000
	53	Old Loxahatchee River Crossing Subaquifer	-
	54	Country Club Drive Cascade Conversion	25,000
	55	Loxahatchee River Subaquifer Inspection	650,000
	60	Telemetry	-
	70	Structures	-
	80	Electrical	-
	90	Pump Replacement	95,000
	99	Low Pressure Sewer System	40,000
		Subtotal	\$ 2,469,500
75-5630		Treatment System	
	01	Equipment Renewal	\$ 668,000
	02	Deep Bed Filters/Switchgear	-
	03	Site and Building Rehab	-
	04	Structures	18,000
	05	Pump Renewal and Replacements	-
		Subtotal	\$ 686,000

Renewal and Replacement Detail (continued)

Account	Job Number	Description	FY 2020 Budget
76-5630		Reclamation and Disposal System	
	10	IQ System	\$ 73,000
	11	Loxahatchee River Road Creek Crossing	-
	20	Sludge Building	-
	30	Sludge System	-
	40	Deep Well	146,000
	50	Nano System	-
		Subtotal	<u>\$ 219,000</u>
77-5640		Vehicles and Equipment	
	01	Vehicles	\$ 325,000
	02	Portable Equipment	165,000
	03	Office Equipment	-
	04	River Center Equipment	-
	05	Miscellaneous Equipment	-
	06	Lab Equipment	25,000
		Subtotal	<u>\$ 515,000</u>
68-5630		Contingency	
	75	Contingency	\$ 542,450
		Subtotal	<u>\$ 542,450</u>
Total			<u>\$ 5,966,950</u>

REVISED CAPITAL ACCOUNT STRUCTURE**Capital Improvement Summary**

Description	FY 2019 Budget	FY 2020 Budget	Change
Account			
Contingency	\$ 225,000	\$ 1,193,050	\$ 968,050
Land	10,000	10,000	-
Buildings	128,000	-	(128,000)
Improvements Other than Buildings (Infrastructure)	75,000	93,000	18,000
Machinery and Equipment	1,644,000	1,693,000	49,000
Vehicles	495,000	325,000	(170,000)
Construction in Progress	1,387,000	690,000	(697,000)
Construction in Progress - Neighborhood Sewering	6,173,000	3,270,000	(2,903,000)
Construction in Progress - Lift Station	4,450,000	2,354,500	(2,095,500)
Construction in Progress - Gravity System	475,000	1,545,000	1,070,000
Construction in Progress - Force Main	3,185,000	1,490,000	(1,695,000)
Construction in Progress - LPSS	5,000	40,000	35,000
Construction in Progress - Permanent Generator	170,000	170,000	-
Construction in Progress - Telemetry	170,000	250,000	80,000
Total	\$18,592,000	\$13,123,550	\$ (5,468,450)

Executive Department**40-10**

Account	Description	FY 2020 Budget
6000	Contingency	\$ 1,193,050
6100	Land	-
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	-
6410	Vehicles	-
6500	Construction in Progress	-
Total		\$ 1,193,050

Finance Department**40-30**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	-
6410	Vehicles	-
6500	Construction in Progress	-
Total		\$ -

Public Education Department**40-40**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	-
6410	Vehicles	-
6500	Construction in Progress	-
Total		\$ -

WildPine Lab Department**40-41**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	10,000
6400	Machinery and Equipment	30,000
6410	Vehicles	-
6500	Construction in Progress	-
Total		\$ 40,000

Customer Service Department**40-42**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	-
6410	Vehicles	-
6500	Construction in Progress	-
Total		\$ -

Information Technology Department**40-43**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	-
6410	Vehicles	-
6500	Construction in Progress	-
Total		\$ -

Engineering and Inspection Department**40-50**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	-
6410	Vehicles	85,000
6500	Construction in Progress	-
Total		\$ 85,000

Construction Department**40-51**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	-
6410	Vehicles	75,000
6500	Construction in Progress	-
Total		\$ 75,000

Operations Administrative Department**50-10**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	-
6410	Vehicles	-
6500	Construction in Progress	-
Total		\$ -

Collection and Transmission Department**50-40**

Account	Description	FY 2020 Budget
6100	Land	\$ 10,000
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	25,000
6400	Machinery and Equipment	655,000
6410	Vehicles	45,000
6500	Construction in Progress	-
6510	Construction in Progress - Neighborhood Sewering	3,270,000
6520	Construction in Progress - Lift Station	2,354,500
6530	Construction in Progress - Gravity System	1,545,000
6540	Construction in Progress - Force Main	1,490,000
6550	Construction in Progress - LPSS	40,000
6560	Construction in Progress - Permanent Generator	170,000
6570	Construction in Progress - Telemetry	250,000
Total		<u>\$ 9,854,500</u>

Treatment and Disposal Department**50-50**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	58,000
6400	Machinery and Equipment	583,000
6410	Vehicles	120,000
6500	Construction in Progress	690,000
Total		<u>\$ 1,451,000</u>

Reuse Department**50-60**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	335,000
6410	Vehicles	-
6500	Construction in Progress	-
Total		\$ 335,000

Bio-Solids Department**50-80**

Account	Description	FY 2020 Budget
6100	Land	\$ -
6200	Buildings	-
6300	Improvements Other than Buildings (Infrastructure)	-
6400	Machinery and Equipment	90,000
6410	Vehicles	-
6500	Construction in Progress	-
Total		\$ 90,000

Total Capital Improvement**\$13,123,550**

Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration


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

MEMORANDUM

TO: GOVERNING BOARD
FROM: D. ALBREY ARRINGTON, Ph.D. 
DATE: AUGUST 6, 2019
SUBJECT: CHAPTER 31-16, RIVER ENHANCEMENT RULE

As part of our ongoing review of our Rules, we are in the midst of evaluating LRD Chapter 31-16, River Enhancement Rule. Last month we discussed the history of the River Enhancement Rule. This month, I wanted to provide an overview of the Loxahatchee River Management Coordinating Council (LRMCC), which was established by Chapter 83-358, F.S. The LRMCC is comprised of federal, state, and regional agencies plus local representatives, which advise the Florida Department of Environmental Protection and the South Florida Water Management District on matters that affect administration of the Loxahatchee River, to identify and resolve inter-governmental coordination problems, and to enhance communications.

The Loxahatchee River Wild and Scenic Designation, approved in 1983 by the Florida Legislature, included the following Legislative declaration *"The Legislature finds and declares ... the Loxahatchee River ... possesses outstandingly remarkable ecological, fish and wildlife, and recreational values which are unique in the United States. These values give national significance to the river as one which should be permanently preserved and enhanced, not only for the citizens of the State of Florida, but for the citizens of the United States, of present and future generations. The permanent management and administration of the river, however, involves a complex interaction of national, state, regional and local interests which require balancing, coordination of purpose and continuing participation by and access to the public, through its elected representatives. It is the intention of the Legislature to provide for the permanent preservation of the designated segment of the Loxahatchee River by way of development of a plan for permanent administration by agencies of the state and local government which will ensure the degree of protection necessary for inclusion of that segment of the river in the National Wild and Scenic Rivers System but retaining that degree of flexibility, responsiveness, and expertise which will accommodate all of the diverse interests involved in a manner best calculated to be in the public interest."*

The LRMCC's most significant role is development of the [Loxahatchee River Management Plan](#). Below, I provide select pages from the Management Plan, which specify membership (pages ii and 12-24); authority and plan management (page 11); management principles (page 58); plan objectives and implementation (pages 59-64); implementation schedule (pages 65-69); summary of progress (pages 70-90); F.S. 83-358 (page 118-122); and 1983 Florida Cabinet Resolution endorsing inclusion of the Loxahatchee River into the National Wild and Scenic Rivers System.

No action is sought this month. My hope is that your review of the Loxahatchee River Management Plan will facilitate a fruitful and informed discussion of our best opportunities to fulfill our mission to protect public health and preserve the Loxahatchee River watershed and its natural habitats through innovative wastewater solutions, research, and environmental stewardship.



Loxahatchee River National Wild and Scenic River Management Plan

Plan Update 2010

**Florida Department of Environmental Protection
South Florida Water Management District**



This document is the result of a successful partnership of the Loxahatchee River Management Coordinating Council members and many other interested stakeholders.

Loxahatchee River Management Coordinating Council Members

*Rebecca Elliott, FDACS	*Sean Sculley, SFWMD
*Chad Kennedy, FDEP	Gale English, SIRWCD
*Dianne Hughes, FDEP, Alternate	David J. Beane, SIRWCD, Alternate
*Ann Broadwell, FDOT	*Wendy Harrison, Town of Jupiter
*Lynn Kelly, FDOT, Alternate	Robert Friedman, Town of Jupiter , Alternate
Chuck Collins, FFWCC	*Peter Merritt, TCRPC
Tom Howard, JID	Michael Busha, TCRPC, Alternate
George Gentile, JID, Alternate	Bruce Dawson, DOI , Bureau of Land Management
*Albrey Arrington, LRECD	Darla Fousek, USFWS
Clinton R. Yerkes, LRECD, Alternate	Brad Rieck, USFWS, Alternate
Sarah Heard, Martin County BOCC	Vince Arena, Village of Tequesta
*Paul Millar, MC, Alternate	Susan Kennedy, VOT, Alternate
Samuel Payson, NPBID	Pat Magrogan, Gulfstream Council, Inc
Tanya Quickel, NPBID, Alternate	David Nickerson, GC, Inc., Alternate
Richard Walesky, PBC ERM	*Herb Zebuth, Florida Native Plant Society
Karen Marcus, PBC BOCC, Alternate	Cynthia Plockelman, FNPS, Alternate
Melanie Peterson, Palm Beach County Farm Bureau	*Richard Roberts, Martin County Audubon Society
David Levy, City of Palm Beach Gardens	Jim Ostrander, Palm Beach Pack & Paddle Club
Annie Marie Delgado, City of PBG, Alternate	

***Denotes LRMCC members that provided written comments to the development of the plan.**

Many thanks to other stakeholders that contributed to the plan:

John Outland, FDEP	Jennifer Gihring, FDEP	Rob Rossmanith, FPS, District 5
Paul Rice, FPS, District 5	Mark Nelson, FPS, District 5	Ernest Cowan, FPS, District 5
Tom Reinert, FWRI	Kelsey Cupples, GCI	Boyd Gunsalus, SFWMD
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Greg Braun, MC Audubon	Inger Hansen, FDEP	Paul Linton, SFWMD
Alex Perez, SFWMD	Marion Hedgepeth, SFWMD	Mark Elsner, SFWMD
David Kemp, TOJ	Geoff Shaughnessy, SFWMD	Massimo Bosso, City of PBG

Special thanks to the following individuals for their technical assistance:

Cecelia Conrad, SFWMD	Jerilyn Krug, FDEP	Mark Nelson, FPS, District 5
Robyn James, FDEP	Michael Jenkins, DOACS	

Dianne K. Hughes, FDEP, Editor

PERMITS AND RULEMAKING AUTHORITY

The Loxahatchee River Wild and Scenic Designation and Preservation Act provides for adoption of rules and for separation of regulatory authority between the FDEP and the SFWMD (FS, Chapter 83-358, Section 9.1 and 9.2):

- 9.1 *The Department shall have full and exclusive authority to adopt rules concerning and to regulate activities within the river area having a direct and substantial adverse effect on any resource value within the river area.*
- 9.2 *The Board shall have full and exclusive authority to adopt rules concerning and to regulate activities outside the river area having substantial impact on any resource values within the river area.*

In 2008, the SFWMD enacted the Loxahatchee River Regional Water Availability Rule, which will be discussed further in Chapter 5.

ROLE OF THE LOXAHATCHEE RIVER MANAGEMENT COORDINATING COUNCIL

The Act defines the role of the Council (FS, Chapter 83-358, Section 5.3[o]):

A permanent management coordinating council composed of one representative from each of the participants provided for in subsection (2). The coordinating council shall review and make recommendations, in the first instance, on all applications for permits required by this act, as well as all proposals for amendments or modifications to the permanent management plan, and render its nonbinding advisory opinion to the board [Governing Board of the SFWMD] and the department. Each participant shall appoint one member to the coordinating council. The coordinating council shall elect a chairman, vice chairman, and secretary to serve for a term of 1 year. The coordinating council shall adopt bylaws to provide for such other officers as it may deem necessary, election of officers, removal of officers for just cause, meetings quorum, procedures for the conduct of its business, and such other matters as the membership may deem advisable in the conduct of its business. Such professional staff as the coordinating council may require shall be provided by the South Florida Water Management District.

PLAN MANAGEMENT

Management of the Wild and Scenic Northwest Fork is accomplished through partnerships and cooperative actions of vested federal, state and local agencies and the interested public. The *Loxahatchee River Wild and Scenic Designation and Preservation Act* established the Council to ensure the objectives of the management plan were achieved through interagency cooperation and coordination, as well as public input.

The Council advises the FDEP and the SFWMD on activities that may affect achieving the Management Plan objectives (refer to Chapter 3) within their authority as granted in Chapter 83-358. The Council follows the process and procedures as granted in Chapter 83-358 and the approved bylaws of the Council.

The Council also oversees and approves updates to the Loxahatchee River National Wild and Scenic Management Plan. All amendments to the plan must be approved by the FDEP and the SFWMD.

LEAD AGENCIES AND AUTHORITY

The FDEP and the SFWMD are the lead agencies responsible for implementing the management program for the National Wild and Scenic Loxahatchee River. However, there are a multitude of other federal, state and local government agencies that are key to the protection, restoration and management of the Wild and Scenic River. The following section describes the agencies, authority and role in managing the river.

Florida Department of Environmental Protection

Executive authority for administration and management of the National Wild and Scenic Loxahatchee River ultimately lies with the Governor and Cabinet, serving as both the Executive Board of the FDEP and as the Board of Trustees of the Internal Improvement Trust Fund, acting through the FDEP. The FDEP's basic authority for planning and implementing a program for managing the river is found in Chapter 83-358, FS (Addendum 2). This statute authorizes the FDEP, in cooperation with the SFWMD, to develop and periodically amend a river management plan, conduct necessary resource management activities, establish a visitor capacity for recreational use on the river and adopt rules to regulate activities in the designated river corridor area.

The FDEP is authorized to manage state-owned parks and recreation areas and to adopt rules for managing these areas (Chapter 258, FS). Section 258.034 declares the policy to be, in part, to acquire typical portions of the State's original environment for public access and to manage these areas so as to conserve the natural values which derive from them. In implementing this policy, the FDEP is authorized to cooperate with county governments in park and recreation matters (Section 258.041), and to negotiate interagency agreements with water management districts to manage district lands reserved for recreational purposes (Section 258.004).

Chapter 258 also clearly establishes the proprietary overview role of the Board of Trustees of the Internal Improvement Trust Fund in the management of sovereign submerged lands. The *Florida Aquatic Preserve Act* (Sections 258.35-258.46) authorizes the FDEP to establish aquatic preserves on sovereign submerged lands and to evaluate the use of submerged lands within preserves based on the public interest and on the merits of proposed projects within the context of environmental impact. Chapter 16Q-20, Florida Administrative Code, provides for

management of sovereign lands within a preserve primarily to maintain essentially natural conditions, promote development of fish and wildlife, and provide opportunities for public recreation, including hunting, fishing and boating where deemed consistent with the overall purpose of the Aquatic Preserve Act. The Trustees have also granted management authority of certain sovereign submerged lands to the Division of Recreation and Parks (DRP) under Management Agreement MA 68-086. The management area includes a 400-foot zone from the edge of mean high water where a park boundary borders sovereign submerged lands fronting beaches, bays, estuarine areas, rivers or streams. Where emergent wetland vegetation exists, the zone extends waterward 400 feet beyond the vegetation.

Chapter 403, FS, provides for the maintenance and enhancement of water quality and wetlands protection through programs administered by the FDEP. Section 403.061 authorizes the FDEP to perform a variety of functions with regard to waters of the State. As far as protection of the National Wild and Scenic Loxahatchee River is concerned, the most important FDEP responsibilities involve the establishment of ambient water quality standards, water quality sampling, regulation of known sources of pollution and enforcement of rules pertaining to Outstanding Florida Waters. The FDEP's administrative rules concerning ambient water quality standards and Outstanding Florida Waters are contained in Chapters 17-3 and 17-4, Florida Administrative Code (FAC), respectively. Chapter 84-79, FS, *the Warren S. Henderson Wetlands Protection Act of 1984*, authorizes the FDEP to establish rules concerning water quality criteria for wetlands to enable the State to more effectively regulate use of wetlands under FDEP jurisdiction.

The *Florida Environmental Reorganization Act* of 1993 requires FDEP to develop and implement measures to "protect the functions of entire ecological systems through enhanced coordination of public land acquisition, regulatory, and planning programs." Within the FDEP, the Division of Recreation and Parks' Florida Park Service Operations Manual provides the guiding management philosophy (Chapter 10, Section 3):

Chapter 258, FS is understood to mean that, to the extent possible, the goal of natural resource management should be to protect, restore, and maintain functioning representative examples of the full diversity of natural communities within the state, while providing appropriate recreational and educational benefits. Attaining this goal not only requires acquisition and protection of representative lands within the Florida state park system, but also active restoration and maintenance of the natural processes that sustain complex and dynamic biological systems on those lands.

Against the background of climate, geology, and soils, Florida's ecosystems have evolved under and depend on the dynamic interaction of forces, or processes, associated primarily with hydrology, lightning-set fires, and competition between native species. However, human-caused disturbances have disrupted these processes. These have included large-scale drainage, lowering of water tables, disruption of sheet flow, exclusion of lightning-set fires, introduction of invasive exotic species, reduction or eradication of populations of predators and keystone species, landscape fragmentation, and large-scale habitat loss.

To the extent possible, the Division practices natural systems management, whereby the processes that shaped (and continue to shape) the structure, function, species composition, and relative species abundances of Florida's natural communities are restored and maintained. Because park units are often cornerstones of surrounding ecosystems, whenever feasible the Division adapts management practices to benefit the greater ecosystem, and encourages similar management practices and compatible land uses beyond park boundaries.

The task of the FDEP's Florida Park Service is made more challenging by the two-pronged nature of its mission statement (Operations Manual, Chapter 1, Section 3):

"Provide resource-based recreation while preserving, interpreting and restoring natural and cultural resources."

The Operations Manual goes on to say:

"Public service is the central theme of every FPS endeavor. Traditional high standards of management and service are the FPS trademark. Quality resource-based outdoor recreational experiences assure that Florida's state parks will continue to serve as major tourist destinations, thereby contributing significantly to the State's economy."

Jonathan Dickinson State Park, through which the Loxahatchee River flows, provides abundant resource-based recreation opportunities to the public. These include camping in two different full-service family campgrounds, several different primitive camping choices, hiking, canoeing and kayaking, both on-and-off-road bicycling, picnicking, fishing and swimming. The park's Elsa Kimbell Environmental Education and Research Center houses a visitor center in which the natural and cultural history of the park is presented and interpreted through a comprehensive series of interactive displays and exhibits. Two classrooms and a laboratory serve the area's schoolchildren. Interpretive programs of numerous different kinds are presented here and throughout the park, explaining the park's many storylines to visitors. Upriver, on the banks of the Loxahatchee, Park Rangers bring the story of the famous Trapper Nelson to patrons who arrive at his restored home site, either by small boat or in the park's tour boat, the *Loxahatchee Queen II*, allowing them a glimpse into life along the river as it was many years ago.

In addition to regulatory and resource management portions of the FDEP, there is also a Division of Law Enforcement which has multiple functions including emergency response, investigating environmental violations and law enforcement on FDEP managed properties, including Florida State Parks. The Florida Park Police patrols properties with the full power of arrest as sworn state law enforcement officers.

South Florida Water Management District

In 1949, the Florida Legislature created the Central and Southern Florida Flood Control District, (the predecessor to the SFWMD) to manage the Central and Southern Flood Control Project; a regional flood control and water supply project being designed and built by the U.S. Army Corps of Engineers.

In 1972, with the Florida Water Resources Act (Chapter 373 FAC), the State created five water management districts, with expanded responsibilities for regional water resource management and environmental protection. In 1976, voters approved a constitutional amendment giving the districts the authority to levy property taxes to help fund these activities.

The Florida Water Resources Act gives the SFWMD authority to provide flood protection, regulate and manage surface water and groundwater supplies, conduct environmental restoration and to acquire property for water management purposes, including the conservation and protection of water resources.

The SFWMD is authorized to participate in the management of the National Wild and Scenic Loxahatchee River by the provisions of Chapter 83-358, FS (Addendum B). Chapter 83-258 authorizes the SFWMD to have regulatory authority outside of the designated river area on those activities that may affect the Wild and Scenic River.

The SFWMD is responsible for critical water resources management activities to help achieve the protection and enhancement objectives of the management plan. In summary, relevant activities include:

- Construction, operation and maintenance of Central and Southern Florida Flood Control Project water control structures and canals;
- Regulation of discharge of surface waters and consumptive use;
- Establishment and implementation of Minimum Flows and Levels;
- Timing, quantity, and quality of water flowing into the Northwest Fork;
- Development and implementation of a Restoration Plan for the Northwest Fork;
- Development and implementation of the Lower East Coast Regional Water Supply Plan;
- Local sponsor for the U.S. Army Corps of Engineers Northern Palm Beach County Comprehensive Everglades Restoration Plan project;
- Land acquisition and management; and
- Review of proposed amendments to local governments' Comprehensive Development Plans, as a commenting agency to Florida Department of Community Affairs.

The SFWMD plays an advisory role to the Department of Community Affairs by reviewing and commenting on amendments to local comprehensive plans. Comprehensive plans are the expression of a local government's authority to designate the type, location, and intensity of development in the Loxahatchee River watershed. State oversight of local land use planning rests with the Florida Department of Community Affairs (DCA) under Chapter 163 Florida Statutes. The SFWMD is one of many resource-protection agencies providing review comments

to DCA. The SFWMD also provides technical assistance to local governments on an informal basis.

LOCAL GOVERNMENTS

Palm Beach County

Chapters 125, 162, and 163, FS, vests Palm Beach County (PBC) with the authority to regulate use and development of private property adjacent to its jurisdiction, including property within the wild and scenic river area. Specifically, Chapter 125, FS, authorizes PBC to adopt and enforce a comprehensive plan for development, zoning ordinances to implement the Comprehensive Plan and other regulations necessary for the protection of the public's health, safety and welfare. Section 125.01(f), FS, grants PBC the power to provide parks, preserves, playgrounds, recreational areas and other recreational facilities for the welfare of its citizens. It also allows for the Board of County Commissioners to promulgate rules for the use of its parks and recreational areas so as to provide for the effective utilization of such areas. Additionally, Chapter 125 empowers PBC to prescribe fines and penalties for violations of the regulations.

Chapter 162 authorizes PBC to establish a code enforcement board to enforce land development regulations. Chapter 163 (*Local Government Comprehensive Planning and Land Development Regulation Act*) expressly elaborates on the County's authority to establish and implement comprehensive plan programs to guide and control future development and growth. Rule 9J-5, FAC, provides the minimum criteria for the preparation, review and determination of compliance of comprehensive plans and plan amendments pursuant to Chapter 163, FS.

The 1989 PBC Comprehensive Plan provides for the protection and conservation of the Loxahatchee Slough area natural resources with the implementation of the land use, conservation and coastal elements. In 1992, PBC adopted the Unified Land Development Code to implement and ensure that all development orders approved in the unincorporated PBC are consistent with the comprehensive plan.

Riverbend Park is managed by the PBC Parks and Recreation Department under the authority of the Board of County Commissioners and the PBC „Parks and Recreation Ordinance' (No.89-34). This ordinance provides for rules and regulations for all recreation areas operated and maintained by PBC for control of park traffic, wildlife and recreational activity. It also defines prohibited acts, provides for sanitation and pollution control, public utility regulation, park hours, enforcement of traffic regulations, park rules, permit regulations and for penalties and the prosecution of offenders. Riverbend Park is a managing partner in the management of the National Wild and Scenic Loxahatchee River.

The PBC Comprehensive Plan identifies the Loxahatchee River as an "Area of Particular Concern" to be preserved in its natural state. County subdivision regulations provide two processes for approval of subdivision plans. The first process is applied in cases when the applicant demonstrates that the proposed activity satisfies standard subdivision requirements. The second process is utilized for evaluating applications with proposed Planned Development

Districts and other cases when an applicant seeks a Conditional Use Approval relating to use, density, drainage, or similar requirements. In the latter process, development standards may exceed code requirements based upon the conditions for approval. In these cases, PBC may require the applicant to meet certain performance criteria, such as higher-than-standard building setbacks from wetlands and other environmentally sensitive areas, as a condition of approval. This process has been effective in directing land development activities away from the river area.

Special regulatory protection is provided for the Loxahatchee Slough. Development adjacent to the Slough is subject to special performance standards and a review coordination process. The Slough is designated as a "Conservation Area" and is zoned to allow passive recreational uses. Owners of property in this area may transfer, using Palm Beach County's Transfer of Development Rights (TDR) program, a density allotment of one dwelling unit per five acres to other property within the PBC Urban Service TDR Receiving Area to compensate for the loss of the right to develop their land for residential purposes.

Martin County

The general local government statutory authorities identified for PBC also apply to Martin County (MC). In addition to these authorities, the MC Comprehensive Plan prohibits development in wetland areas (since 1982, last revised in 2006), including the Loxahatchee River, Cypress Creek and Kitching Creek. This plan also applies the requirement for a 50-foot building setback in ecotonal areas adjacent to wetlands as a performance standard for new development (Chapter 9.4.A.7.d.1.e).

Although the land use regulatory methods utilized by MC are similar in many respects to those of PBC, several important differences exist. All development is prohibited in areas with wetland soils. In addition, a requirement for a 50-foot shoreline protection zone has been established in ecotonal areas adjacent to saltwater wetlands. No site alterations, including filling, grading or dredging, are permitted upland from the mean high water line in these buffer areas. Further, when subdivision approval or zoning exceptions are sought for activities in the vicinity of Cypress Creek, Kitching Creek or the Loxahatchee River, an application review process is used to require mitigation of adverse effects on water quantity and quality. If Planned Unit Development approval is sought, county regulations provide for the transfer of up to one-half of the permitted density for that portion of the property having wetland characteristics.

Town of Jupiter

The Town of Jupiter is authorized by applicable laws to regulate the use and development of private lands for the public health, safety and welfare. The Town has adopted a comprehensive plan in accordance with Section 163.3161, FS. This plan designates areas subject to flooding as Conservation Areas and discourages development in these areas. However, there is no ordinance in effect to enforce compliance. All wetlands and environmentally sensitive areas within the Town of Jupiter, especially those subject to flooding, are classified as "Conservation Areas" in the Town's comprehensive plan.

Village of Tequesta

In addition to PBC, MC and the Town of Jupiter, which exercise direct control over portions of the river area, the Village of Tequesta exercises control over land use and development within the vicinity of the National Wild and Scenic Loxahatchee River. The Village of Tequesta Comprehensive Plan includes a number of objectives and policies that address protection of the Loxahatchee River, including specific reference to the Loxahatchee River National Wild and Scenic Management Plan.

City of Palm Beach Gardens

Sections six (6) and seven (7) of the City of Palm Beach Gardens' Comprehensive Plan detail the City's goals and objectives toward protection, management, and conservation of wetlands, recreation, and open space lands within the City. Policy 6.1.4.5 of the City's Comprehensive Plan ensures protection of environmentally sensitive areas and listed species by implementing certain criteria; furthermore, wetland habitats are set aside as preserves, and development is prohibited in wetlands except under certain circumstances consistent with the Treasure Coast Regional Planning Council Strategic Regional Policy Plan. The City currently manages Sandhill Crane Park which permits access by water or land around major conservation areas to the Loxahatchee Slough. With such connections, the City has a link with the Florida Trail System and Palm Beach County's Riverbend Park in Jupiter.

FEDERAL AGENCIES

National Park Service

This National Park Service administers the National Wild and Scenic Rivers System in accordance with the *Wild and Scenic Rivers Act* (Addendum 1). Under the broad authority of this act, the National Park Service conducts studies on the eligibility of rivers proposed for designation in the national system and coordinates with states in the development and implementation of management plans for rivers in the system. The National Park Service also reviews permits required by the U.S. Army Corps of Engineers under Section 404 of the *Clean Waters Act* of 1972 for potential environmental impacts on national wild and scenic rivers. Based on the authority of Section 7(a) of this Act, no federal agency may assist by loan, grant, license or otherwise in the construction of any water resources project that would have a direct and adverse affect on any of the resource values of the designated segment of the river.

United States Department of Interior, Bureau of Land Management

Section 202 of the Consolidated Natural Resources Act of 2008 (PL 110-229) charges the Secretary of Interior (through the Bureau of Land Management) with the management of the Jupiter Inlet Lighthouse Outstanding Natural Area (JILONA). JILONA lies within the Loxahatchee River watershed. In addition, the southern boundary of the Outstanding Natural

Area is the lower reach of the Loxahatchee River east of U.S. Highway 1. Lastly, PL 110-229 directs the Secretary to include objectives in the management of JILONA to ensure the restoration of native plant communities and estuaries in the Outstanding Natural Area, with an emphasis on the conservation and enhancement of healthy, functioning ecological systems in perpetuity.

United States Fish and Wildlife Service

Section 401 of the *Fish and Wildlife Coordination Act of 1958* (16 U.S. Code 661, as amended), authorizes the USFWS to participate in the review of dredge and fill permit applications. The USFWS's participation in this activity is based on its vested interest in the conservation of wetlands as wildlife habitat for federally protected species. In addition, the Service is authorized to administer the *Endangered Species Act* of 1973 (16 U.S. Code 1531, as amended). This Act seeks to ensure the continued existence of endangered species by requiring federal agencies to consult with the Service whenever an agency's actions may be detrimental to an identified species or its habitat.

The *Migratory Bird Treaty Act* of 1918 (16 U.S. Code 703 to 712) and subsequent amendments implemented Conventions between the United States and Canada, Japan, Mexico, and Russia for the protection of migratory birds. Birds and their parts, including eggs, nests, and feathers are protected under this law.

In addition, the *National Wildlife Refuge System Administration Act* of 1966 (16 U.S. Code 668dd-668ee, as amended) provides for the administration and management of National Wildlife Refuges. Hobe Sound National Wildlife Refuge is an example of such a refuge within the Loxahatchee River watershed.

United States Army Corps of Engineers

Section 10 of the *Rivers and Harbors Act of 1899*, (30 Statute 1131, as amended), authorizes the United States Army Corps of Engineers to regulate dredging of obstructions and review proposals for channel construction and improvements in navigable waterways including the Loxahatchee River. This Act, together with Section 404 of the *Clean Waters Act of 1972* (33 U.S. Code 1344, as amended), relating to the regulation of dredge and fill activities in wetlands, involves the Corps indirectly in the management of the National Wild and Scenic Loxahatchee River.

OTHER STATE AGENCIES

Florida Department of Community Affairs

The Florida Department of Community Affairs ensures consideration of the Northwest Fork of the Loxahatchee River in local and regional planning efforts. The Florida Department of

Community Affairs is authorized to establish resource planning and management committees, coordinate designation of areas of critical state concern, and administer the review of developments of regional impact by Chapters 380 and 163, FS. Section 163.3184 authorizes the Department to coordinate state agency review of local government comprehensive plans.

Florida Department of State

The Division of Archives, History and Records Management hold title to historical and archaeological resources and artifacts on state-owned lands by Chapter 267, FS. The statute provides the Department with the authority to locate and arrange for the protection, preservation and restoration of historical and archaeological property of other governmental agencies.

Florida Fish and Wildlife Conservation Commission

The Florida Fish and Wildlife Conservation Commission have administrative, management and enforcement authority with respect to Florida's fish and wildlife by Chapter 372, FS. Specific sections which authorize Commission activities in the river management program include Sections 372.07(2) (enforcement of freshwater fishing laws), 372.072(4) (a) (1) (research and management of freshwater/upland species), and 372.77 (implementation of wildlife restoration projects).

The Florida Fish and Wildlife Conservation Commission manage John C. and Mariana Jones Hungryland Wildlife and Environmental Area (12,215 acres) and JW Corbett Wildlife Management Area (60,228 acres), both of which are headwater areas for the various parts of the Northwest Fork of the Loxahatchee River.

The Commission also has a multi-functional Division of Law Enforcement tasked with protection of wild animal and aquatic resources of the State, providing for boater safety, general enforcement of the law, and emergency response.

Florida Department of Agriculture and Consumer Services

The *Clean Water Act* (Section 303[d] and Section 403.067[7] [c] [2]) establishes and describes the implementation of the Total Maximum Daily Load (TMDL) program to promote improvements in water quality throughout the State through the coordinated control of point and nonpoint sources of pollution. In support of the TMDL program, the Florida Department of Agriculture and Consumer Services (FDACS) is responsible for the development and adoption of best management practices (BMPs) by rule for different types of agricultural operations. The adopted BMPs are then used in the FDACS BMP Program to provide a path for agricultural lands to comply with state water quality standards, including the load reduction allocations established by the FDEP TMDL Program. Farmers can also receive technical help and financial assistance to reduce their impacts to water quality through voluntary participation in the FDACS BMP Program and advance implementation of the adopted BMPs before an FDEP TMDL is established for their farm's basin.

FDACS is required under Section 570.085, FS to promote agricultural water conservation programs to include provisions “for increased efficiencies in the use and management of water for agricultural production ...”

FDACS has the authority under Section 576.045, FS, to address fertilization-management practices that could be a source of nitrogen and phosphorus residues contamination in groundwater, surface water and drinking water in various areas throughout the State. The law requires research to promote improved fertilization-management practices as soon as practicable in a way that protects the State's water resources and preserves a viable agricultural industry.

Pursuant to the Lake Okeechobee and Estuary Recovery Plan (LOER), FDACS revised its rule on fertilizer content standards for urban settings. In cooperation with manufacturers, the University of Florida Institute of Food and Agricultural Sciences, agencies and others, FDACS modified the rule provisions to require that all fertilizer products labeled for use on urban turf or lawns and sports turf be limited to the amount of nitrogen and phosphorous available to support healthy turf maintenance. This modification will help protect water quality by reducing the amount of phosphorus and nitrogen runoff from lawns and gardens, which often enters lakes, rivers, estuaries, and other water resources. More information about the rule is located at: http://www.flaes.org/pdf/Urban_turf_fact_sheet.pdf.

Florida Department of Transportation

The mission of the Florida Department of Transportation (FDOT) is to balance natural, human, cultural and physical considerations with sound engineering principles, with the goal of preserving the quality of our environment and communities. The Florida Turnpike and Interstate 95 cross the Loxahatchee River within the boundaries of the wild and scenic designation. The Florida Department of Transportation (FDOT) is authorized to operate and maintain these facilities in a manner that provides for safety and ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities under Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.).

When considering transportation improvements to these facilities, FDOT is required to coordinate with the National Park Service – Rivers, Trails, and Conservation Assistance (RTCA) Program and follow the Wild and Scenic Rivers Assessment process. This process was established under *Presidential Directive dated August 2, 1979, "Wild and Scenic Rivers and National Trails;" Council of Environmental Quality Memorandum dated August 10, 1980, "Interagency Consultation to Avoid or Mitigate Adverse Effects of Rivers in the Nationwide Inventory;" and Federal Register, Volume 47, Number 173 dated September 7, 1982, "National Wild and Scenic Rivers System-Final Revised Guidelines for Eligibility, Classification, and Management of River Areas."* In order to understand and assess impacts that may occur to the resource, FDOT participates in the Loxahatchee River Management Coordinating Council.

Treasure Coast Regional Planning Council

Authority for the participation of the Treasure Coast Regional Planning Council in the river management program is based on Sections 380.06 and 163.3164, FS. The former provides for regional planning councils to coordinate the review of development of regional impact applications with affected governmental agencies. The latter mandates the Council to review and comment on the content of local comprehensive plans prior to their adoption by local governments. The Council reviews development proposals and planning documents for consistency with the Strategic Regional Policy Plan.

SPECIAL DISTRICTS

Two Special Districts are located within the watershed of the Northwest Fork of the Loxahatchee River.

Loxahatchee River Environmental Control District

The Loxahatchee River Environmental Control District (LRECD) provides water supply, wastewater management, storm drainage and various planning, regulatory and operational functions (Chapter 71-822, Special Acts of Florida, 1971, as amended). The jurisdictional area of the LRECD includes the majority of the developed portions of the Loxahatchee River watershed. The LRECD has active roles in wastewater management, aquatic monitoring, environmental education and public information.

LRECD's wastewater management responsibilities include operation of a regional wastewater treatment and water reuse system that serves the municipalities of Jupiter, Tequesta, Juno Beach, along with the unincorporated areas of northern Palm Beach and southern Martin Counties. The wastewater treatment facility has a permitted treatment capacity of 11 million gallons per day (MGD), which is presently sufficient to meet anticipated needs of our growing community. LRECD's reuse (water recycling) program uses reclaimed water to meet landscape irrigation needs at area golf courses, parks, and residential communities. This innovative water recycling program lowers the demands on natural water resources, and preserves untapped water to help meet the needs of the river. Since 1983, LRECD's reuse program has saved over 33 billion gallons of freshwater for the natural environment.

For more than 20 years, the LRECD has served as one of the primary agencies conducting research and monitoring on the Loxahatchee River. Wild Pine Ecological Laboratory is the LRECD's state-certified laboratory, which provides the needed scientific staff, equipment and professional analysis to conduct research and monitoring. This laboratory is available to the public and scientific community for the purpose of advancing knowledge about the river.

LRECD also operates The Loxahatchee River Environmental Center, known locally as the River Center, which opened August 23, 2008. The River Center traces the Loxahatchee River from

its headwaters in Palm Beach County through the cypress dominated floodplain in the Wild & Scenic segment, into the central embayment and finally out through Jupiter Inlet into the Atlantic Ocean and the Gulf Stream. Visitors can explore the history of the watershed, its environmental value, modifications and problems associated with ever-increasing human population and development, and programs and projects underway to help preserve and restore this valuable and unique system. LRECD also hosts on its grounds the Busch Wildlife Sanctuary, a wildlife refuge and educational facility offering animal exhibits, including American Bald eagles, deer, panthers, osprey, reptiles, as well as rehabilitation program and nature trails. The River Center and Busch Wildlife Sanctuary are used to educate our community and create better stewards of our beautiful river.

Jupiter Inlet District

The Jupiter Inlet District has broad authority to construct and maintain an inlet at the mouth of the Loxahatchee River, to deepen and maintain the river where required, and to construct any improvements needed to accomplish these purposes (Chapter 8910, Special Acts of Florida, 1921).

DRAINAGE DISTRICTS

Under Chapter 298 and various special acts and amendments, these drainage districts are authorized to levy special taxes and to provide surface water management and control in areas not served by municipal or county agencies. The districts are also authorized to construct and maintain canals, ditches, levees, dikes, pumping plants and other works and improvements. The activities of the districts are subject to state regulation by the FDEP and the SFWMD under authority of Section 403.061 and Chapter 373, Part IV, FS. Six drainage districts are located within the Loxahatchee River basin:

Hobe-St. Lucie Conservancy District

The Hobe-St. Lucie Conservancy District was created in 1972 and services primarily agricultural areas, but also residential areas (Hobe Sound Polo Club) and public lands. In total, this District provides drainage, irrigation and road services for approximately 12,000 acres, of which 9,000 acres are located in the Kitching Creek and Cypress Creek watersheds. The balance of the properties covered in this district fall within the C-44 / St. Lucie River watershed.

Indian Trail Water Control District

Indian Trail Water Control District was created in 1957, serves over 40,000 people, and is approximately located from just north of Northlake Boulevard to Southern Boulevard in the south, 110th Ave N in the east, to M2 impoundment area in the west. The District provides drainage and road improvements.

Northern Palm Beach County Improvement District

The Northern Palm Beach County Improvement District was created in 1959 and covers 128 square miles, reaching from A1A west to the L8 canal, south to the Southern Boulevard area, and north to the Palm Beach County line. General responsibilities include waterway maintenance, storm water control, drought protection, roadway construction and utilities construction.

North Palm Beach Heights Water Control District

North Palm Beach Heights Water Control District was created in the late 1950s and its primary responsibility is to maintain canals for storm runoff. The District services the Heights of Jupiter community, an area bounded on the south by Donald Ross Road, on the west by I-95, on the east by Heights Road, and on the north by Egret's Landing.

Pal-Mar Water Control District

Created in the 1960s, the Pal-Mar Water Control District serves an area of more 34 square miles (22,000 acres) in northern Palm Beach County and southern Martin County that was planned to be developed into a residential area called Rotunda. Currently, no one resides within the district, a majority of the land remains in a natural state and approximately 70 percent of the area is publicly owned while the rest remains in private lots that range in size from .25 to 1.5 acres.

South Indian River Water Control District

South Indian River Water Control District was founded in 1923 and provides road maintenance and water management for 13,000 people in Jupiter Farms, Palm Beach Country Estates, Egrets Landing and Jupiter Commerce Park. The South Indian River Water Control District covers 20 square miles and includes 60 miles of canals and 376 miles of swales.

Chapter 3

2010 LOXAHATCHEE RIVER MANAGEMENT PROGRAM

General Management Principles

Direction for the establishment and update of this management program, and the specific objectives and procedures to be implemented as a part of this program were derived from the legislative authorization and respective agency policy previously presented in this plan. In drafting this update, the FDEP researched and solicited a wide range of technical information and guidance to help in the refinement of principles. This information was obtained from state, federal and local environmental agencies and members of the Loxahatchee River Management Coordinating Council. This 2010 plan represents an updated document which reflects the original guidelines established when the river was designated as a component in the Wild and Scenic River system, as well as revisions based upon subsequent experiences in managing the Loxahatchee River corridor.

The recommendation of this plan for the day-to-day management of the river and its adjoining upland corridor are based on the general principles listed below:

1. The preservation and enhancement of the river's unique natural and cultural values are the primary purposes of the program.
2. Effective management of the river cannot take place in isolation from river basin management.
3. Management will be accomplished through a range of management tools, including but not limited to land acquisition, effective resource management activities, regulation of the corridor area, local government land use controls, and voluntary actions by citizens.
4. Management will be a continuing effort.
5. The specific management methods and the type of management provided by these methods may differ considerably from segment to segment (wild versus recreational).
6. Existing legal authorities and jurisdictions will not be curtailed or limited by any policy or action of the management program.
7. Coordination and cooperation between local, state, and federal agencies and private citizens are crucial to the success of the management program.
8. In conjunction with the above, the cooperation of the public is critical to the success of the management program.

2010 PLAN OBJECTIVES AND IMPLEMENTATION

This plan is required as a condition for designation of the Loxahatchee River as a component of the National Wild and Scenic Rivers program. The goal of this management plan is to ensure protection and enhancement of the natural and cultural values. The 2010 *Loxahatchee River National Wild and Scenic River Management Plan* objectives were developed through a series of meetings and workshops with the Loxahatchee River Water Management Coordinating Council, local and state agencies and other stakeholders:

Objective I: *Preserve and enhance the river's unique natural and cultural values*

Objective II: *Restore the river's historical hydrologic regime and reverse deleterious saltwater intrusion*

For each of the objectives the respective implementation strategies and tasks are listed below. The list includes incomplete tasks from the previous plan update and new strategies and/or tasks as a result of adaptive management.

Objective I: Preserve and enhance the river's unique natural and cultural values

The National Wild and Scenic Northwest Fork of the Loxahatchee River includes a multitude of unique natural and cultural resources. The natural resources in need of preservation, protection and enhancement include water resources, terrestrial and aquatic wildlife habitats, historical and archeological sites and the recreational value of the river.

Strategies

1. Prioritize land acquisition and acquire and manage select properties within the National Wild and Scenic Loxahatchee River watershed.
2. Develop and implement resource protection and enhancement management plans.
3. Develop and implement recreation and public use management plans.
4. Ensure relevant local, state and federal policies, regulations, plans, permits and approvals are consistent with objectives of the management plan.
5. Increase elected official, key stakeholder and public awareness of the need to protect and enhance the unique natural and cultural resources in the Wild and Scenic portion of the Northwest Fork.
6. Increase scientific understanding to improve adaptive management of the river's ecosystems.

Tasks

1. Prioritize land acquisition and acquire and manage select properties within the National Wild and Scenic Loxahatchee River watershed.

Continued land acquisition within the Loxahatchee watershed allows for increased connectivity for the purposes of hydrology, recreation and wildlife movement. Support for the land acquisition and review of land acquisition plans to local, state and federal agencies, where necessary, is deemed necessary for future improvements to the overall system.

- a) Acquire 2,200 acre parcel east of Atlantic Ridge Preserve State Park to connect to Medalist property.
- b) Acquire remaining private Pal Mar parcels through donations or acquisition of tax deeds.
- c) Apply for land acquisition/restoration grants.
- d) Partner with other stakeholders to leverage funds.

2. Develop and implement natural and cultural resource protection and enhancement management plans.

Many public land management agencies are required to have formal, publicly reviewed management plans that include an assessment of the property and desired future management activities. Obtaining stakeholder feedback in drafting these plans and during the evaluation process is necessary to maximize the utility of these plans. Specific actions for natural resource protection and restoration include, but are not limited to, non-native plant removal, prescribed fire and hydrological enhancements, elimination of adverse water quality impacts, and restoration (i.e. backfilling of agricultural ditches). Specific actions for cultural resource protections could include listing of sites with the Florida Division of Historical Resources or the U.S. Federal Register of Historic Places or general upkeep and restoration of historic sites.

- a) Update the *Loxahatchee River National Wild and Scenic Management Plan* every five years amending strategies, tasks and schedules as needed.
- b) Implement and update the restoration targets (as needed) set forth in the *Restoration Plan for Northwest Fork of the Loxahatchee River* (2006).
- c) Monitor and provide input for management plans of specific properties within Loxahatchee River and evaluate the effectiveness of actions taken by agencies and provide feedback to management agencies.
- d) Revise the watershed boundary map of the Loxahatchee River watershed.
- e) Involve key state, federal and local agencies, advisory groups, organizations and the public in management decisions.
- f) Support replacement of septic systems with sanitary sewers where demonstrated to be beneficial to the protection or enhancement of water quality in the Loxahatchee River.

3. Develop and implement recreation and public use management plans.

Many public land management agencies are required to have formal, publicly reviewed management plans that include recreational use components. Stakeholder feedback in terms of drafting these plans and evaluation are necessary parts of the process. A visitor capacity plan was included in the 1985 and 2000 versions of this plan but more specific knowledge needs to be acquired on the numbers of people using the upper part of the river before a visitor capacity plan can be implemented.

- a) Implement and update the *Jonathan Dickinson Park Unit Management Plan* every 10 years (2010).
- b) Assess current levels of recreational use on the Northwest Fork of the Loxahatchee River using methods that can be repeated.
- c) Develop and implement a recreational public use capacity and management plan.
- d) Involve key state, federal and local agencies, advisory groups, organizations, and the public in management decisions.
- e) Integrate the riparian protection with recreational demands (e.g. role of downed snag removal in river).

4. Ensure relevant local, state and federal policies, regulations, plans, permits and approvals are consistent with objectives of the management plan.

The *Loxahatchee River Wild and Scenic Designation and Preservation Act* of 1983 confers regulatory roles to the FDEP and SFWMD and an oversight role to the LRMCC that includes commenting on specific issues outlined in that Chapter 83-358 and emphasized in previous portions of this plan. Review and comment on relevant:

- a) Comprehensive plans.
- b) Water supply plans.
- c) Stormwater master plans.
- d) Park and recreation plans.
- e) Development regulations, permit applications and approvals.
- f) Existing or needed state and local regulations.
- g) North Palm Beach County CERP plan.

5. Increase elected official, key stakeholder and public awareness of the need to protect and enhance the unique natural and cultural resources in the Wild and Scenic portion of the Northwest Fork

As managers of public lands, we are responsible for informing the public and our stakeholders of park land enhancements, improvements and forward progress. Diverse efforts are underway to underscore accomplishments of specific tasks and the progress that is being made towards goals.

- a) Implement and update programs and displays in the Loxahatchee River Environmental Center, Jonathan Dickinson State Park's Elsa Kimbell Education and Research Center,

Trapper Nelson's Zoo Historic District and Riverbend Park that highlight the importance of the Wild and Scenic River and watershed.

- b) Develop and provide information on the river to recreational users and local educational institutions.
- c) Host river tours for elected officials and legislative delegation members.
- d) Encourage and support local initiatives such as Loxahatchee River Preservation Initiative (LRPI) and the Northeast Everglades Natural Area (NENA).
- e) Update the Homeowners' Guide to the Protection of the Loxahatchee River.

6. Increase scientific understanding to improve management of the river's ecosystems

Scientific knowledge has allowed managers to put together various plans to restore the river and has documented the decline of freshwater swamp vegetation on the Loxahatchee River. Increasing the knowledge base of this river will provide for continued adaptive management of hydrological operations and restoration efforts.

- a) Develop and implement a Science Plan for the river as identified in the *Restoration Plan for the Northwest Fork of the Loxahatchee River*.
- b) Support grants to fund watershed research projects.
- c) Encourage agencies to have work peer reviewed and published.

Objective II: Restore the river's historical hydrologic regime and reverse deleterious saltwater intrusion.

Restoration of the Northwest Fork's historical hydrological regime and reversal of saltwater intrusion will require a multi-agency, multi-decadal effort. The hydrology of the watershed to the Northwest Fork has been severely altered from more than a century of local and regional flood protection, inlet improvements, wetland drainage, and development and water supply projects. It is not feasible to restore the exact hydrologic regime considering the magnitude of the alterations to the watershed and current development. However, the historical hydrologic regime can be better managed using several tools including restoring key drainage basins, acquiring and restoring select properties, establishing base flows, constructing linkages to new sources of water, land use regulations, and stormwater retrofits and rules. A comprehensive description of completed and planned restoration projects can be found in Addenda 4 and 5.

Strategies

1. Improve the quality, quantity, timing and distribution of flows to the Northwest Fork.
2. Restore and/or replace natural water storage and conveyance to the Northwest Fork.

Tasks

1. Improve the quality, quantity, timing and distribution of flows to the Northwest Fork.

Over the past decade several plans have been developed to provide protection to the Northwest Fork of the Loxahatchee River. It is imperative that these plans be fully implemented to maintain the level of protection that the river deserves. Failure to do so will lead to further impacts and deleterious effects on the river's flora and fauna.

- a) Meet minimum flow and level targets set in 2003.
- b) Implement and update goals, strategies and projects within the *Restoration Plan Northwest Fork of the Loxahatchee River* (2006) by responsible agencies.
 - i) Complete and implement North Palm Beach County CERP Part 1 Project.
 - ii) Begin development of the North Palm Beach County CERP Part 2 Project.
 - iii) Complete the L-8 storage project and develop a conveyance to the Northwest Fork of the Loxahatchee River.
 - iv) Develop and implement an Operations Management Plan for L-8 and conveyance structures.
 - v) Increase flows to the NW Fork over Lainhart Dam.
 - vi) Increase tributary flows to the NW Fork.
 - vii) Develop MFL's for the tributaries, including Loxahatchee Slough, Cypress Creek, Hobe Grove Ditch and Kitching Creek.
 - viii) Develop project water reservations for North Palm Beach County CERP Part 1 and 2.
 - ix) Develop operational protocols for a proposed flow regime for NW Fork.
 - x) Continue to monitor, assess and apply adaptive management.
- c) SFWMD will implement the recommendations in the Lower East Coast Water Supply Plan.
- d) SFWMD will establish and implement a water reservation for the Northwest Fork.
- e) SFWMD will ensure that the Regional Water Availability Rule is strictly enforced.
- f) Complete the Cypress Creek East Restoration project.
- g) Complete the North Jupiter Flatwoods Restoration project.
- h) Ensure that all governmental jurisdictions pursue compliance with stormwater management regulations and best management practices with the intent of enhancing the quality of stormwater runoff.
- i) SFWMD, FDEP Parks and LRECD will continue to monitor and evaluate results on an annual basis consistent with the Loxahatchee River Science Plan.

2. Restore and/or replace natural water storage and conveyance to the Northwest Fork.

Natural water storage and conveyance of that water to the Northwest Fork is crucial to the success of the River's survival. Some lands have been acquired but still need restoration and operational plans developed and implemented. Other lands are still needed for protection of the river corridor and those parcels with the most benefit to the river should be prioritized and targeted for acquisition.

- a) Acquire and restore select properties adjacent to the Wild and Scenic River and its tributaries, including, but not limited to Cypress, Moonshine and Kitching Creeks, Pal Mar wetlands and Loxahatchee Slough.
- b) Develop hydrologic restoration and enhancement plans for acquired and existing properties.
- c) Complete the planned Hatcher/Jupiter Indiantown Venture water storage and conveyance project.
- d) Complete the stormwater plan for the Hatcher-Halparin property adjacent to Jupiter Farms.
- e) Complete the planned Mecca Farms Wetland Restoration project.
- f) Complete a survey of Jonathan Dickinson State Park's existing non-functional agricultural and drainage ditches and restore to natural hydrology within the park.
- g) Update the Atlantic Ridge Preserve State Park's survey of existing non-functional agricultural and drainage ditches and restore to natural hydrology.

Table 6 - 5-Year Implementation Schedule

	Lead Agencies	Target Completion Date
<i>Objective 1: Preserve and enhance the River's unique natural and cultural values</i>		
1. Prioritize land acquisition, acquired and manage properties within the National Wild and Scenic Loxahatchee River watershed		
a) Acquire 2,200 acre parcel east of Atlantic Ridge Preserve State Park to connect to Medalist property	MC and FDEP Parks	2020
b) Acquire remaining private Pal Mar parcels through donations or acquisition of tax deeds	MC	As available
c) Apply for land acquisition/restoration grants	All	As available
d) Partner with other stakeholders to leverage funds	All	Annually
2. Develop and implement resource protection and enhancement management plans		
a) Update the Wild and Scenic Management Plan every five years amending strategies, tasks and schedules as needed	FDEP/ SFWMD	2015
b) Implement and update restoration targets for the Northwest Fork of the Loxahatchee River Restoration Plan (2006)	SFWMD/ FDEP/ LRECD	2011
c) Monitor and provide input for management plans of specific properties within the Loxahatchee River watershed and evaluate the effectiveness of agency actions	LRMCC	Quarterly meetings and special workshops
d) Revise the watershed boundary map of the Loxahatchee River watershed.	LRMCC	2012
e) Involve key state, federal, and local agencies, advisory groups, organizations and the public in management decisions	LRMCC	Quarterly meetings and special

		workshops
f) Support replacement of septic systems with sanitary sewers where demonstrated to be beneficial to the protection or enhancement of water quality in the Loxahatchee River	LRECD	2015
3.Develop and implement recreation and public use management plans		
a) Implement and update the Jonathan Dickinson Park Unit Management Plan	FDEP Parks	2010
b) Assess current levels of recreational use on the river	FDEP	2011
c) Develop and implement a recreational public use capacity and management plan	FDEP and PBC	2012
d) Involve key state, federal and local agencies, advisory groups, organizations and the public in management decisions	LRMCC	Quarterly LRMCC meetings
e) Integrate the riparian protection with recreational demands	FDEP and PBC	2015
4.Ensure relevant local, state and federal policies, regulations, plans, permits and approvals are consistent with objectives of the management plan		
a)Review and comment on relevant local comprehensive plans	FDEP/ SFWMD/ LRMCC	As needed
b)Review and comment on relevant local water supply plans		As needed
c)Review and comment on relevant local stormwater master plans	FDEP/ SFWMD/ LRMCC	As needed
d)Review and comment on relevant local park and recreation plans	FDEP/ SFWMD/	As needed

	LRMCC	
e)Review and comment on relevant development regulations, permit applications and approvals	FDEP/ SFWMD/ LRMCC	As needed
f)Review and comment on relevant existing or needed state and local regulations	FDEP/ SFWMD/ LRMCC	As needed
g)Review and comment on North Palm Beach County CERP plan	FDEP/ SFWMD/ LRMCC/LRECD	Draft PIR Scheduled for 2010
5.Increase elected official, key stakeholder and public awareness of the need to protect and enhance the unique natural and cultural resources in the Wild and Scenic portion of the Northwest Fork		
a) Implement and update programs and displays in the Loxahatchee River Environmental and Jonathan Dickinson State Park's Elsa Kimbell Education and Research Center, Trapper Nelson's Zoo Historic District and Riverbend Park	FDEP/ SFWMD/ LRECD	As needed
b) Develop and provide information on the river to recreational users and local educational institutions	FDEP/ SFWMD/ LRECD/ LRMCC	As requested
c) Host river tours for elected officials and legislative delegation members	LRMCC	Bi-Annually
d) Encourage and support local initiatives such as Loxahatchee River Preservation Initiative (LRPI) and the Northeast Everglades Natural Area (NENA)	LRMCC	As needed
e) Update the Homeowners' Guide to the Protection of the Loxahatchee River	LRMCC	2012

6.Increase scientific and management understanding of the river's ecosystems		
a)Develop and implement a Science Plan for the river as identified in the Restoration Plan for the Northwest Fork of the Loxahatchee River	FDEP/ SFWMD/ LRECD	2010
b)Support grants to fund watershed research projects	All	As available
c)Encourage agencies to have work peer reviewed and published	All	As needed
<i>Objective 2: Restore the river's historical hydrologic regime and reverse deleterious saltwater intrusion</i>		
1.Improve the quality, quantity, timing and distribution of flows to the Northwest Fork		
a) Meet minimum flow and level targets set in 2003	SFWMD	2010
b) Implement and update the <i>Restoration Plan Northwest Fork of the Loxahatchee River</i> (2006)	SFWMD/ DEP/ LRECD	2011
c) Implement the recommendations in the Lower East Coast Water Supply Plan for the Loxahatchee Basin	SFWMD	2015
d) Establish and implement a water reservation for the Northwest Fork	SFWMD	To be determined
e)SFWMD will ensure that the Regional Water Availability Rule is strictly enforced	SFWMD	As needed
f) Complete the Cypress Creek East Restoration project	PBC	2011
g) Complete the North Jupiter Flatwoods Restoration project	PBC	2011
h)Ensure that all governmental jurisdictions pursue compliance with stormwater management regulations and best management practices with the intent of enhancing the quality of stormwater runoff	SFWMD/ FDEP/ LRECD	Annually
i) SFWMD, FDEP Parks and LRECD will continue to monitor and evaluate results on an annual basis	SFWMD, FDEP Parks, LRECD	Annually

consistent with the Loxahatchee River Science Plan		
2.Restore and or/replace natural water storage and conveyance to the Northwest Fork		
a) Acquire select properties adjacent to the Wild and Scenic River and its tributaries, including, but not limited to Cypress, Moonshine and Kitching Creeks, Pal Mar wetlands and Loxahatchee Slough as identified in the JDSP Unit Management Plan, CARL Priority One List, NPBC CERP Plan, and additional parcels as may be identified.	FDEP/ FFWCC/ MC/PBC/ SFWMD	As funds and properties become available
b)Develop hydrologic restoration plans for acquired properties	FDEP/ FFWCC/ MC/PBC/ SFWMD	Various dates
c) Complete the Hatcher/Jupiter Indiantown Venture water storage and conveyance project	PBC	2015
d) Complete a stormwater plan for the Hatcher-Halparin property adjacent to Jupiter Farms	PBC	2013
e) Complete the Mecca Farms Wetland Restoration project	PBC	2015
f) Complete a survey of Jonathan Dickinson State Park's existing non-functional agricultural and drainage ditches restore to natural hydrology within the park	FDEP Parks	2020
g) Update the Atlantic Ridge Preserve State Park's survey of existing non-functional ditches and restore to natural hydrology	FDEP Parks	2020

Chapter 4

2000 PLAN OBJECTIVES AND SUMMARY OF PROGRESS

In the preceding chapters, this plan has identified the key issues that must be addressed to effectively manage the Wild and Scenic River corridor. The plan, in Chapter 3, has also laid out key tasks that must be accomplished in the future to protect and enhance the biological and cultural values of the Northwest Fork of the Loxahatchee River. This chapter summarizes the progress made in completing tasks identified in the 2000 plan.

The 2000 *Loxahatchee River National Wild and Scenic River Management Plan* objectives were derived directly from the resolution passed by the Governor and Cabinet of the State of Florida on January 11, 1983:

Objective I: Protect and enhance natural and cultural values within the designated wild and scenic river corridor.

Objective II: Enhance the hydrologic relationship between the Wild and Scenic Northwest Fork of the Loxahatchee River and Loxahatchee Slough.

Objective III: Ensure that land use activities within the Loxahatchee drainage basins are conducive to maintaining the values of the Wild and Scenic River.

Objective IV: Facilitate public involvement in protecting the Wild and Scenic river corridor, including both planning and implementation efforts.

Objective I: Protect and enhance natural and cultural values within the designated wild and scenic corridor.

The evaluation of the Loxahatchee River for inclusion as a component of the Wild and Scenic River system identified several efforts necessary to support the designation, including public acquisition of the corridor, development of appropriate local management authorities and responsibilities, development and maintenance of this management plan and finally, periodic oversight of river conditions and management efforts. Progress to date is provided on the following strategies and tasks to reflect these obligations.

Strategy I-A: Acquire designated Wild and Scenic corridor.

Task 1: Consider adding Palm Beach County Loxahatchee River acquisition to the Wild and Scenic corridor.

The 2000 management plan proposed the possible addition of 367 acres adjacent to the river corridor to be added to the Wild and Scenic corridor. This parcel was purchased by Palm Beach County in 1995 and was formerly known as the Loxahatchee River Natural Area. Due to the existing public protections existing on this parcel, the primary management agencies, FDEP and SFWMD, have opted not to pursue this addition to the corridor.

In addition to the river corridor purchase, Table 7 identifies several properties that have been purchased for protection, restoration and public recreational use within and adjacent to the watershed.

Table 7 - Public Lands within and adjacent to the Loxahatchee River Watershed

Property Name	Initial Acquisition Date	Acres	Owner
"River Corridor" property – JDSP	1985	1,371	SFWMD
Acreage Pines Natural Area	2001	116	PBC
Atlantic Ridge Preserve State Park	1998	5,747	SFWMD
Banner Lake Conservation Area	2007	1.5	MC
C-18 Triangle Natural Area	2000	139	PBC
C-51 / L-8 Reservoir	2003	1,264	SFWMD
Cypress Creek Natural Area	1995	2,083	PBC
Delaware Scrub Natural Area	2005	16	PBC
Dupuis Reserve	1986	21,875	SFWMD
Grassy Water Preserve	1953	14,592	City of West Palm Beach
Gulfstream Groves / Cypress Creek	2003	3,547	MC and SFWMD
Halpatiokee Regional Park	1998	347	SFWMD
Hobe Sound National Wildlife Refuge	1969	1,035	USFWS
Hungryland Slough Natural Area	1997	2,896	PBC
John C. And Mariana Jones Hungryland Wildlife and Environmental Area	1994	19,349	MC and SFWMD
Jonathan Dickinson State Park	1947	10,108	Trustees of the Internal Improvement Trust Fund
JW Corbett Wildlife Management Area	1947	60,288	FFWCC
Limestone Creek Natural Area	2002	53	PBC
Loxahatchee Slough Natural Area	1996	12,836	PBC
North Jupiter Flatwoods Natural Area	2000	151	PBC
Pal Mar East		3,200	MC
Pal Mar Extension	2006	1,280	MC and SFWMD
Pine Glades Natural Area	1999	6,637	PBC
Pond Cypress Natural Area	1994	1,736	PBC
Riverbend Park	1985	888	PBC and SFWMD
Royal Palm Beach Pines Natural Area	1992	773	PBC
Winding Water Natural Area	2001	550	PBC
Total Acreage		172,878.5	

Strategy I-B: Develop and maintain corridor management plan

Task 1: Update management plan by 2005.

In late 2004, the staff of FDEP Southeast District Office, Florida Park Service – District 5 (FPS), LRECD and the SFWMD began working on a comprehensive restoration plan for the Northwest Fork of the Loxahatchee River. During this intensive effort to collect and analyze data to develop and evaluate restoration flow alternatives, all participating agencies agreed to delay the update to the Wild and Scenic River Management Plan. The *Restoration Plan for the Northwest Fork of the Loxahatchee River* was approved on April 12, 2006. The Loxahatchee River National Wild and Scenic Management Plan is scheduled for completion in 2010.

Strategy I-C: Develop detailed implementation plans in support of wild and scenic river management plan

Task 1: Develop upland vegetation management plan.

The Wild and Scenic River Management Plan has recognized the need to develop specific guidelines to achieve certain plan objectives. In support of this intent, FPS has completed plant community maps, a Fire Management Plan and an Upland Exotic Plant Management Plan. These maps and plans are contained within the encompassing Jonathan Dickinson State Park Unit Management Plan (JDSP UMP). The 2000 JDSP UMP is currently being updated and is scheduled for release in 2010.

Task 2: Develop archeological/historical survey.

Many of the archeological and historical sites within JDSP have been identified and Master site file forms have been prepared and are on file with the Division of Historical Resources (DHR). Prior to any ground disturbing activities within the river corridor or on adjacent parcels, the DHR must be consulted and guidance sought from their agency. JDSP maintains several staff members, as certified and trained “Archeological Resource Monitors,” who observe and monitor all ground disturbing activities within the river corridor and the park.

Task 3: Develop solid waste management plan.

A formal solid waste management plan has not been prepared for the river corridor. However, JDSP does remove solid waste on an ongoing basis. Park staff work with volunteer cleanup groups to collect and haul off debris during events such as National River Cleanup Day, Earth Day and International Coastal Cleanup Day. Trash receptacles are in place at Masten Dam and Trappers” interpretive site and waste is removed on a routine basis.

Task 4: Develop aquatic plant management plan.

This task needs to be updated and will be included in the updated 2010 JDSP UMP.

Strategy I-D: Develop rules and management agreements for river corridor.

Task 1: Include corridor within ecosystem management area.

In 1996, FDEP developed the Ecosystem Management Area (EMA) approach to working within watersheds. The EMA approach has enhanced the coordination of planning, acquisition and regulation within the watershed and has been afforded more attention and protection than ever before. As a result of the EMA effort the LRPI was created in 2002. This group has leveraged \$34 million from the legislature to kick start water quality enhancement projects. As discussed in Strategy I-B, the river corridor and watershed are included in the approved *Restoration Plan for Northwest Fork of the Loxahatchee River* dated April 12, 2006.

Task 2: Develop FDEP/PBC agreement for Riverbend Park.

This task has not been completed; however, there is still a desire to have this task completed. There needs to be ongoing dialogue regarding visitor capacity for the river as Riverbend Park is the “gatekeeper” and the entity responsible for managing that aspect of river usage.

Task 3: Enact corridor administrative rule.

Previously, a proposal was offered for the District to consider a “special basin rule.” The District does not believe this approach is warranted. Since the LRM was first developed, the District, Palm Beach County and Martin County have acquired more than 22,000 acres in the watershed. Only slight future development is expected that would have a potential to affect the river corridor. All watershed runoff is already subjected to increased water quality standards. The District, through adoption of its Regional Water Availability Rule, has taken a strong measure to protect the River, its tributaries and the watershed.

Task 4: Develop corridor use permit system.

The National Wild and Scenic River Corridor is intended for public use, consistent with protecting the natural resources of the river and esthetic enjoyment of the river experience. A basic premise of the river designation is that river use is to be carefully managed through the use of designated access points and facilities.

Since 1985, three Carrying Capacity surveys (now known as Visitor Capacity surveys) have been conducted to help develop a corridor use rule or permit system for the river. The 1985 plan recommended a “quiet” and a “group” period. The plan went on to state that FDEP and Palm Beach County “will develop a system for scheduling and monitoring use of the river and

enforcing the plan's carrying capacity." This system will be jointly implemented by the Department and Palm Beach County in accordance with a formal interagency agreement."

In 1995, a *Visitor Use of the Loxahatchee River National Wild and Scenic River* report was completed by Cassy Lewis, SCA intern and Richard Roberts, FPS. Questionnaires were distributed to 825 river users, of which 227 were returned. The survey was designed to measure the proposed river's carrying capacity, determine the degree of human impacts, identify recreational use levels, check on canoeist's satisfaction levels and suggest further management approaches to protecting both the river and visitor.

In preparation for the 2000 Loxahatchee River National Wild and Scenic River Management Plan, a third carrying capacity survey was conducted. This was an on-site monitoring survey, rather than a questionnaire, and was conducted from April 2, 1999, until March 21, 2000, by Caroline Causey (SCA intern). The 52 page report was completed in March 2000 and titled *Visitor Use of the Loxahatchee River National Wild and Scenic River: Results of the Loxahatchee River Daily Use Level Survey*.

During the public meetings for the 2000 plan, the most debated discussion was the carrying or visitor capacity, especially as it related to the designated "quiet" period being impacted, what could be resolved about reverse or upstream paddling during the "quiet" period and maintaining a scheduled pickup for canoe and kayak users at the park dock.

In June 2001, Greg Rubin (SCA intern) continued the Causey and Roberts survey. He also tried to consider this 12-page report as more for an operational plan. There have been draft Annual Operational Plans presented to the Loxahatchee River National Wild and Scenic River Management Coordinating Council, with much discussion of the idea. However, the Council never supported the concept.

A Visitor Capacity Study is being planned for this next management plan cycle and to a larger extent, should be expanded to encompass the following subjects:

- The Restoration Plan for the Northwest Fork of the Loxahatchee River (stage and flow relationships for user safety and river impacts).
- Protection of the natural resources (accommodation of the visitor's experience without impacting the river's environment).
- Visitor education and outreach.
- Opening of Riverbend Park.
- More research on stream restoration using large wood (restore floodplain flow and measure the impacts on river use).

- Need to improve the semi-annually integrated monitoring trips to measure the adverse impacts by river users. (Review all portage sites, exotic vegetation and changes in riverine plant life.)

Strategy I-E: Develop and maintain appropriate public use facilities within river corridor.

Task 1: Maintain Lainhart and Masten dams.

Maintenance of both dams occurs in coordination with SFWMD and JDSP. Several major repairs and portages have been completed over the years to protect, maintain and enhance safety at these structures.

Task 2: Implement JDSP unit plan.

As per Chapter 18-2, Florida Administrative Code, the FPS is mandated to prepare and update unit management plans for all state parks. JDSP is working under the current approved 2000 unit management plan which is scheduled to be revised by 2010.

Task 3: Develop quantitative and qualitative evaluation of river use.

As discussed in strategy I-D above, a visitor capacity study is planned for this management plan cycle and will include a quantitative and qualitative evaluation of river use.

Task 4: Develop and staff Riverbend Park.

Riverbend Park was made possible through the cooperative efforts of Palm Beach County and the SFWMD. Now managed by the Palm Beach County Parks and Recreation Department, Riverbend Park features five miles of waterways and 15 miles of trails and access roads in 680 acres. Currently, 485 acres are open to the public to experience the parks' natural, historic and cultural resources through recreational hiking, bicycling, horseback riding, canoeing and kayaking.

An additional 195 acres within Riverbend Park will open to the public in early 2010. The staff at Riverbend Park includes a Park Coordinator, a Park Supervisor, and three full-time and one part-time maintenance employees. Contractual and volunteer instructors also provide recreational, historical and environmental education programming from August through May.

Task 5: Adopt and implement operation plan.

This task has not been completed; however, there is still a desire to have this task completed.

Strategy I-F: Create and maintain Loxahatchee River Management Coordinating Council.

Task 1: Staff and maintain LRMCC.

The SFWMD provides support staff for all four required council meetings and the annual tour of the watershed. Support staff coordinates meeting locations and agendas, provides legal advertising of meetings in the Florida Administrative Weekly, provides audio recording for all meetings, and is responsible for all e-mail correspondence to council members. All Council minutes, records, correspondence, and other documents are retained in the offices of the SFWMD.

Strategy I-G: Maintain resource monitoring programs.

Task 1: Develop biological monitoring protocols.

As per Chapter 10 of *Restoration Plan for Northwest Fork of the Loxahatchee River*, a Northwest Fork Science Plan (NWFSP) will be developed based on scientific questions that need to be answered to manage restorative flows. In 2009, the SFWMD, LRECD and FDEP began meeting together to develop the NWFSP. The plan will include specific monitoring programs and special projects to adaptively manage restoration flows on a real-time basis and establish a database for retrospective and predictive analyses. The NWFSP will be reviewed and updated on a five year basis and is scheduled to be released in 2010.

Task 2: Provide water quality and hydrologic monitoring.

The SFWMD and LRECD both perform water quality and other monitoring within the Loxahatchee Watershed. Water quality data can be accessed at LRECD's website at <http://www.loxahatcheeriver.org>. For more information regarding ongoing monitoring efforts see Chapter 2, Water Quality in the Northwest Fork of the Loxahatchee River section.

Objective II: Enhance the hydrologic relationship between the National Wild and Scenic Northwest Fork of the Loxahatchee and the Loxahatchee Slough.

The Northwest Fork of the Loxahatchee River historically derived a substantial portion of its total flow from the Loxahatchee Slough. Construction of the SFWMD C-18 canal in 1958 diverted this flow away from the Northwest Fork to the Southwest Fork of the river, and significantly reduced groundwater levels in the Slough. As a result, prolonged reduced flows and resultant saltwater encroachment have generated undesirable changes in the biological community of the Northwest fork. Protection and restoration of biological components of the Northwest Fork requires the reconnection of the Loxahatchee Slough and river to provide historic flows, and

restoration of water levels within the Slough to provide adequate storage to sustain dry season flows down the river. An update to the following strategies and tasks is provided below.

Strategy II-A: Provide adequate baseflow from C-18 to the National Wild and Scenic Northwest Fork.

Task 1: Provide a minimum baseflow of 50 cfs to the Northwest Fork.

In April 2003, the SFWMD adopted a Minimum Flows and Levels Rule, Chapter 40E-8, Florida Administrative Code, with a minimum flow (MFL) of 35 cubic feet per second for the Northwest Fork of the Loxahatchee River. As required by legislation, a Recovery Strategy was incorporated into the MFL Rule, which included a commitment by the SFWMD to develop, in partnership with the FDEP, “a practical Restoration Plan and goal” for the Northwest Fork of the Loxahatchee River. As discussed in strategy I-B, the restoration plan was completed in 2006.

An exceedance of the MFL criteria occurs when:

1. Flows over Lainhart Dam decline below 35 cfs for more than 20 consecutive days; or
2. The average daily salinity concentration expressed as a 20-day rolling average exceeds two parts per thousand. The average daily salinity will be representative of mid-depth in the water column (average of salinities measured at 0.5 meters below the surface and 0.5 meters above the bottom) at river mile 9.2 (latitude 26.9839, longitude 80.1609).

Task 2: Evaluate the appropriateness of USGS 50 cfs minimum flow target and develop a new target as necessary.

A hydrologic evaluation of the riverine floodplain was performed during the development of the *Restoration Plan for the Northwest Fork of the Loxahatchee River*. Both controlled release and episodic field studies were performed and are discussed in Chapter 5 of the completed restoration plan.

Task 3: Define Loxahatchee Slough Hydrologic Restoration area.

The Loxahatchee Slough Natural Area is Palm Beach County’s largest natural area comprising a total of 12,836 acres. The property serves as the headwaters for the National Wild and Scenic Loxahatchee River. It lies south of Jupiter Farms and Palm Beach Country Estates, north of Northlake Blvd and west of Mirasol and PGA National.

Task 4: Acquire private lands necessary for restoration.

Since 2000, an additional 6,847 acres have been purchased by state and/or local agencies for restoration and enhancement purposes.

Palm Beach County ERM is currently in negotiations with Southpointe Palm LLC to acquire a 2.73-acre inholding within Cypress Creek Natural Area. ERM has also applied for a FCT grant

for \$6.3 million for Cypress Creek Phase V, for the property known as Hatcher/Indiantown Jupiter Venture, which was acquired in 2008.

Task 5: Develop hydrologic restoration plan for Loxahatchee Slough (including NW Fork).

Included in the overall Draft Management Plan for the Loxahatchee Slough Natural Area (currently underway) is a section addressing Hydrological Restoration and Enhancement. One of the main goals of the management plan is to restore the hydroperiod at the Loxahatchee Slough Natural Area to a level that approaches the historic hydrograph as determined by Winchester (1989). Although the natural area reaches historic water levels during periods of heavy rains, the hydroperiod at this site has been reduced by excessive amounts of surface water leaving the site via internal and adjacent drainage ditches and canals. All of these ditches and canals empty into the C-18 Canal, which has a control elevation of 14.8 feet and drops as low as 12 feet during periods of low rainfall. Winchester's research has been used as the basis to determine proposed restoration targets for the natural area. The goal of natural area hydrological restoration is to achieve as much as possible target hydrograph water levels of approximately 17.5 feet during the rainy season months of July to October, with a gradual decline to a low of 15.5 feet at the end of the dry season in May, with a quick recovery of high water levels beginning in June when the rainy season commences.

In 2002, the Northern Palm Beach County Comprehensive Water Management Plan was developed that envisioned moving Lake Okeechobee water into the WCA and then north through the C-18 Canal and the natural area to provide additional water to utilities and the Loxahatchee River. As part of this regional conveyance system, the SFWMD constructed a control structure in 2004 on the east leg of the C-18 Canal, just below its juncture with the west leg. The structure would raise water levels in the C-18 Canal, and increase storage in the adjacent Loxahatchee Slough, while making the existing project culverts and riser boards unnecessary. Operation of the structure was delayed due to concerns regarding the PGA Blvd. roadbed and opposition from SIRWCD, NPBCID and John Bills. In 2005, the SFWMD bought a flowage and conservation easement over the John Bills property. Numerous studies and modeling were conducted to demonstrate that operating the G-160 structure would not flood neighbors. The G-160 began operating on August 10, 2005 under an interim schedule as follows: the dry season (Nov. 1 to May 31) operating schedule would maintain interim headwater stage of 15.5 ft. NGVD and the wet season (June 1 to Oct. 31) operating schedule would maintain an interim optimum headwater stage of 15.0 ft. NGVD in the C-18 Canal due to concerns from SIRWMD, NPBCID and PGA National. In 2009 FDEP mandated that SFWMD comply with its permit conditions for the G-160 to incrementally raise water levels in the C-18 Canal and the Loxahatchee Slough. The dry season stage remained at 15.5 ft NGVD while the wet season stage was raised to 16.5 ft NGVD on June 1, 2009 (practically operating between 16.3 and 16.7 ft NGVD). It is anticipated that the SFWMD will raise the controlling elevation of the G-160 in 2010 if there are no problems with the 16.5 ft level in 2009.

The SFWMD replaced the three project culverts on the west side north of the C-18 Canal north of PGA Boulevard in 1997, and the new culverts were boarded up to approximately 17 feet.

The project culverts on the east side of the C-18 Canal were replaced in the mid-2000s. This goal had been somewhat frustrated by riser boards either not being installed or disappearing after installation, but the risers are now boarded up to 16 feet. The northwestern tract project culverts were replaced in 2006, and the riser boards have remained in place. The project culverts south of the G-160 and north of PGA Blvd. in the Loxahatchee Slough are currently planned to be set at 16.0 ft NGVD.

The SFWMD began replacing the group of three project culverts that drained the Gentle Ben triangle in 2007, which allowed ERM to raise water levels in that area to 17 feet when the work was completed in 2008. The only remaining original project culverts are the four culverts on the west leg of the C-18 Canal where the main north-south internal drainage canal in the western portion connects to the canal. These culverts cannot be boarded up since they have rusted-through holes that bypass the risers. Since the holes create an uncontrolled connection to the west leg of the C-18 Canal, the water level of the drainage canal and connected wetlands are quickly drawn down to the control elevation of the C-18 Canal at 14.8 feet. The County is working with the SFWMD to remove the four rusted-out culverts and replace them with no more than one new culvert with a functional riser.

The next step in hydrological restoration is to fill in and/or plug the internal drainage ditch systems. In the early 2000s, the County began the internal ditch restoration process by designating the County-owned eastern portions of the Gentle Ben triangle as the South Loxahatchee Slough regional off-site mitigation area. The focus of the restoration work funded by wetland mitigation funds was to remove heavy concentrations of melaleuca and other exotics and fill in the old MacArthur dredged canals. The exotic-dominated dredge spoil fans from the big east-west MacArthur canal were scraped down and pushed back into the canal in 2006 and 2007. Spoil ridges were also pushed back into the finger shell pits near the C-18 Canal.

In 2007, the county obtained funding from the Natural Resource Conservation Service to restore portions of the former agricultural areas in the western portion of the natural area to their historic wetland habitats. The exotic vegetation on the internal canals lying east of the main north-south canal was removed and mulched in 2008, and the spoil banks lining these canals are scheduled to be scraped down and used to fill in the canals in 2010. Additional perimeter and internal drainage ditches in the farmed areas are also scheduled for exotic removal and filling. SFWMD has already plugged many of the drainage ditches in the farmed areas of Sandhill Crane tract west of the main north-south internal canal, leaving this canal as the main barrier to restoring historic water flow pattern in the western portions of the natural area.

Additional improvements that have been made move water northward into the natural area and the C-18 Canal as part of the regional water conveyance system. The old Bee Line Highway bridge/culvert in the center of the Slough was replaced with an elevated bridge in 2006 as part of a road upgrade project. The elevated bridge spans allow better water and canoe movement between the northern portion of the WCA and the natural area. Three large culverts were placed under Northlake Boulevard in 2007 as part of the G-161 structure. This structure improves the water flow under the road from the main portion of the WCA to the beginning of

the C-18 Canal. A bridge across Northlake Boulevard that would increase water flows under this road from the southern to the northern portions of the WCA is under consideration.

The natural area's role in the regional conveyance system is as a pass-through conduit only. The natural area is not intended to be either a water storage or water supply area. Water will be discharged from the natural area only when it is above the target hydrograph for that time of the year. When discharges from the natural area are needed to supply baseflow to the Loxahatchee River, these discharges will be balanced with an equivalent amount of water entering the natural area from the regional conveyance system. The natural area itself is expected to benefit little from the regional conveyance system as the natural area can meet nearly all of its hydrological needs through normal rainfall.

Task 6: Modify S-46 Operation Schedule.

No persistent changes to the S-46 operation schedule have been made since 2000. The SFWMD has continued to divert as much water to the Northwest Fork of the Loxahatchee River using the G-92 structure while not impacting drainage within Jupiter Farms. The structure has, however, experienced upwelling on the downstream side of the structure for the past several years. The most occurrences were documented in 2003 and 2006. Additionally, the S-46 has the highest head differential across the structure among all of the coastal structures within the SFWMD boundaries. The SFWMD has implemented a feasibility study on the S-46 to review several options for repair. A stakeholder meeting was held on November 16, 2009 at the Jupiter Community Center. The feasibility study is nearly complete and one potential recommendation is to repair the rip rap protection downstream of the sill of the S-46 and to install a downstream weir.

Strategy II-B: Maintain and enhance hydrology between the Loxahatchee Slough and National Wild and Scenic Northwest Fork.

Task 1: Improve Jupiter Farms Water Management System.

The Jupiter Farms water management system improvements were completed in 2004. Five sheet pile weirs, each with an operable sluice gate, were constructed to retain stormwater runoff within the management system to improve the quality of water reaching the Northwest Fork of the Loxahatchee River. These weirs are located at the east ends of Canals 2, 3, 4 and 5 in the C-14 Canal north of its intersection with the Canal 6. The weirs were constructed with stone rubble riprap upstream and downstream of the structure for both erosion control and aeration of discharges over the weir. The operable gates are equipped with radio telemetry for remote sensing of water surface elevations and gate operations. The gates also have electric motor operations and the provision for manual operation should the electric service be disabled during a storm event. The total project cost was \$1,300,000.

Task 2: Develop and implement hydrologic restoration plan for the Reese Gildan properties.

The Palm Beach County Parks and Recreation Department has worked in partnership with South Florida Water Management District staff to develop and implement a hydrologic restoration plan for the Reese and Gildan properties that are managed by the County as part of Riverbend Park. Over the past ten years historic sheet flow patterns have been restored through the permitting and installation of a series of 4 weirs that help naturally cleanse, store and convey rain water and stormwater discharges water from the C-18 Canal as it moves north across this 400 plus acre property to where it joins the eastern slough at Indiantown Road and then flows into the Northwest Fork of the river. This restoration project has helped recreate and/or rehydrate over 115 acres of open water bodies, oxbows, marshes, sloughs and wetlands. Outfalls from the C-18 canal are controlled and operated by the SFWMD and the weirs within the park by the P&RD.

Objective III: Insure that land use activities within Loxahatchee drainage basins are conducive to maintaining the values of the National Wild and Scenic River.

The effective exercise of local government land use regulatory authority is an integral component of the river management program in two respects. First, in order for national designation to have been approved, the management plan was required to demonstrate that alterations which would degrade the natural or scenic values of the designated river corridor area would be prevented. In the short term, local land use regulations are the best management tool available for directing potentially harmful land alteration activities away from the river corridor area. Until such time as other rules to implement the management programs outlined in this plan might be promulgated by the FDEP and/or the SFWMD, local governments bear the responsibility for preventing development that would impair the natural or scenic qualities of the river.

Land use controls also play a critical role in the overall management of the river's drainage system as a hydrologic unit. Land use changes in the basin inevitably affect the quantity and quality of water in the river. Since local land use controls help direct the timing, location and character of land development activities in the basin, the application and proper coordination of such controls are of continuing importance to the long term management of the river.

During consideration of the National Wild and Scenic River designation, it was recognized that local government land use decisions for properties surrounding the river corridor could impact the attributes of the river system. Local governments (which supported the river designation), were expected to review their respective comprehensive plans to ensure consistency with river corridor management objectives. Local governments were to maintain currently allowed zoning densities in the river corridor and in other areas with a potential to generate adverse impacts upon the river area. Requests for increases in zoning density anywhere in the area should undergo careful and rigorous review. Increases should only be granted when it is shown that

such actions will not result in a reduction of water storage capacity or deleterious effects on the natural or scenic qualities of the river or adjoining upland corridor. Additionally, local governments and agencies are to ensure that stormwater management practices do not adversely affect the river corridor.

Public improvements such as drainage, utility and road facilities have a profound influence on the location, timing and extent of land development in the drainage basin. The provision of these facilities should be carefully managed to ensure that development takes place in an orderly, planned manner, and that development does not result in negative environmental impacts on the resource values of the river or the river corridor area. When new improvements such as water and sewer lines are necessary, they should be located and sized to prevent incremental connections that could result in additional demand for improvements. New major road construction, because of its potential for further fragmenting natural systems, disturbing drainage patterns, and encouraging "leapfrog" development, particularly should be avoided. When no alternative routes are available, however, the location and construction of new utility or road rights-of-way should be done in a manner that minimizes adverse effects on resource values in the river corridor.

If a land-use change is granted, every effort should be made to reduce the degradation of resources of the adjacent Jonathan Dickinson State Park and the Loxahatchee River National Wild and Scenic River. Potential impacts of newly proposed developments can include visual encroachment, noise pollution, edge effects, exotic pest plant invasions, stray dog or cat problems, interference with prescribed burns, and hydrological impacts. Whenever possible, a buffer on private lands should be established to minimize any impacts caused by the proposed development plan. This would be in keeping with the 660 foot buffer strip that Palm Beach County enacted for development adjacent to the Park and Loxahatchee River National Wild and Scenic River corridor in the land use element of their Comprehensive Plan.

Strategy III-A: Review/amend local government comprehensive plans to ensure consistency with corridor management goals.

Comprehensive plans are the expression of a local government's authority to designate the type, location, and intensity of development in the Loxahatchee River watershed. Any stakeholder in the Loxahatchee watershed may petition a local government to affect comprehensive plan policies, or the use of land, in support of the River's protection. Opportunities to amend comprehensive plans exist on an annual twice-per-year cycle under Florida's growth management statutes. Proposed amendments to local comprehensive plans must follow established procedures for public participation and adoption. DCA reviews plan amendments with input from state and regional resource protection agencies, including DEP and the SFWMD.

Local governments are also required to periodically assess the need for improvements to their comprehensive plans. The first step in the process is completion of an Evaluation and Appraisal Report (EAR), the result of which is the identification of recommendations for changes to the

local plan. As of this writing, the local governments in Palm Beach County are beginning this process. Palm Beach County is leading the way by holding public workshops to identify county-wide issues as well as the suitability of land uses in the unincorporated area. Palm Beach County's jurisdiction includes portions of the C-18 basin, including the Jupiter Farms subdivision, Riverbend Park, and the Loxahatchee Slough. Palm Beach County will take the lead in revising as necessary, policies affecting its land use planning, stormwater planning, water quality protection, land acquisition, and other management activities within its portion of the Loxahatchee River watershed. Recommendations for changes to Palm Beach County's Comprehensive Plan, which may affect adjoining local governments in the Loxahatchee watershed, will be vetted through a coordinated review known as Intergovernmental Plan Amendment Review Committee (IPARC). Jupiter, Tequesta and Palm Beach Gardens will follow Palm Beach County in completing their EARs within the next two years. Following adoption of their EARs, each local government will have 18 months to draft and publicly workshop the changes to their comprehensive plan. EAR-based amendments to local comprehensive plans are submitted to DCA for review, with input from state and regional resource-protection agencies.

Task 1: Review Palm Beach County Comprehensive Plan.

Opportunities to review amendments to the Palm Beach County Comprehensive Plan occur biannually. Opportunities to participate in the development of the Palm Beach County EAR will occur in advance of the October 2011 deadline. Public workshops are scheduled at this time. The EAR-based amendments will be proposed by April 2013. Palm Beach County's EAR-related Comprehensive Plan amendments will then go through the formal DCA review process.

Task 2: Review Martin County Comprehensive Plan.

Opportunities to review amendments to the Martin County Comprehensive Plan occur biannually. Opportunities to participate in the development of the Martin County EAR will occur in advance of the October 2015 deadline. The County's EAR-related Comprehensive Plan amendments are anticipated to be submitted for DCA review in April 2017.

Task 3: Review Town of Jupiter Comprehensive Plan.

Opportunities to review amendments to Jupiter's Comprehensive Plan occur biannually. Opportunities to participate in the development of the Town's EAR will occur in advance of the June 2013 deadline. The Town's EAR-related Comprehensive Plan amendments are anticipated to be submitted for DCA review in December 2014.

Task 4: Review Village of Tequesta Comprehensive Plan.

Opportunities to review amendments to Tequesta's Comprehensive Plan occur biannually. Opportunities to participate in the development of the Village's EAR will occur in advance of the March 2014 deadline. The Village's EAR-related Comprehensive Plan amendments are anticipated to be submitted for DCA review in August 2015.

Task 5: Review City of Palm Beach Gardens Comprehensive Plan.

Opportunities to review amendments to Palm Beach Garden's Comprehensive Plan occur biannually. Opportunities to participate in the development of the City's EAR will occur in advance of the December 2013 deadline. The City's EAR-related Comprehensive Plan amendments are anticipated to be submitted for DCA review in June 2015.

Strategy III-B: Develop stormwater management plan for areas contributing to the National Wild and Scenic corridor.

Task 1: Develop a stormwater management plan.

In 1999 the *Stormwater Management Plan for the Wild and Scenic Northwest Fork of the Loxahatchee River* (Hazen and Sawyer, June 1999) was prepared for the Loxahatchee River Environmental Control District. The report provides an inventory of existing stormwater management systems which discharge to the National Wild and Scenic River; identifies major water quality and quantity problems associated with the discharges; and development of a management strategy for reducing existing and potential future problems associated with stormwater management. The recommended management strategy also provides for a mechanism to increase the duration of freshwater deliveries to the River while improving the timing of those deliveries and reducing the pollutant loading. The strategy includes structural and non-structural recommendations.

Task 2: Encourage local stormwater planning/implementation.

The Town of Jupiter (TOJ) created a Stormwater Utility in 1994 with a dedicated funding source to enhance stormwater runoff quality. The TOJ has been implementing many community stormwater system retrofits within the past 10 years in the watershed. In addition, a Surficial Aquifer Recharge Project includes construction of the water conveyance facilities for excess stormwater runoff that otherwise would be wasted to tide, to percolate into the ground water table and maintain normal surface water elevations in times of drought to the greatest extent possible. Operation of this system acts to minimize the risk of harm to the Loxahatchee River and surrounding freshwater ecosystem. LRPI has provided grant funds for most of these projects.

The construction of Flora Avenue (a 2 lane local road that connects Bridge Road to residential and commercial sites) was identified as a significant impact to the natural surface flow patterns in the area. Martin County designed and permitted a stormwater retrofit project for the Flora Avenue area with the most significant improvement being the construction of a 3.35 acre stormwater treatment pond that flows water into the North Fork of the Loxahatchee River watershed. Construction of the project was completed in November 2007. The pond was

designed to capture and treat water to regulatory standards in a 221-acre drainage basin. Initial work suggests that the system is working well removing 96% of Total Suspended Solids and 95% of Total Phosphorus.

In 2004, three small agricultural ditches that flow into the Loxahatchee River were filled on Jonathan Dickinson State Park between Indiantown Road and the Florida Turnpike. The ditches totaled over one half mile (3,121 feet) in length and had direct outfalls into the floodplain of the river along River Miles 13.9, 13.6, and 13.3. Indian River Lagoon License Plate funds were used to complete this project.

In 2006, two large canals “Hell’s Canal” and “1 Mile Ditch” were backfilled. “Hell’s Canal” was directly adjacent to I-95 and ran east into the Loxahatchee River just downstream of River Mile 11.5. The drainage for that area now runs north into the South Fork of Cypress Creek, meets with up with Cypress Creek proper, which then flows into the Northwest Fork of the Loxahatchee River just upstream of River Mile 10.3. This canal was about 10 feet deep and was about 0.42 miles long. “1 Mile Ditch” was also about 10 feet deep and was 1 mile long and drained uplands and seasonal wetlands directly into Kitching Creek about 1.2 miles upstream of where it flowed into the Northwest Fork of the Loxahatchee River. Both these projects allow for greater retention of water in over-drained upland and seasonal wetland areas and provide for a slower release of water into the Loxahatchee River. LRPI funds were used to complete this project.

Task 3: Promulgate basin management rules (as needed).

The discharge of stormwater within the State of Florida has been subject to regulation since the early 1980s to prevent pollution of Waters of the State and to protect the designated beneficial uses of surface waters. Currently, stormwater management is regulated at the State level by the Florida Department of Environmental Protection (FDEP), at the regional level by water management districts, and at the local level by local governments.

The goals for stormwater management within the State of Florida are outlined in Chapter 62-40 of the Florida Administrative Code (FAC), titled “Water Resource Implementation Rule.” This rule establishes that stormwater design criteria adopted by FDEP and the water management districts shall achieve at least 80% reduction of the average annual load of pollutants that cause or contribute to violations of State Water Quality Standards. When the stormwater system discharges to an Outstanding Florida Water (OFW), the design and performance criteria increases to 95% reduction.

A wide range of stormwater design criteria have been implemented within the State of Florida to achieve these minimum stormwater treatment performance standards. However, recent research on the performance efficiency of current stormwater management systems indicates a high degree of variability in the pollutant removal effectiveness of commonly used systems. In addition, stormwater design criteria for the same type of stormwater management system vary widely throughout the State of Florida, which can impact the performance efficiency of stormwater management systems designed in one area compared to another.

To address growing concerns about over-enrichment of Florida's surface waters, ground waters, and springs by nutrients, the Department and the Water Management Districts are developing a statewide stormwater treatment rule. This rule represents a significant step forward in the control of nutrient loadings from stormwater discharges. Rule Development workshops are scheduled throughout the State of Florida between March and April 2010. Rule adoption is scheduled for the summer of 2010.

Strategy III-C: Acquire and manage natural systems important to protection of the Northwest Fork.

Task 1: Acquire Pal Mar wetlands.

Approximately 60% of Pal Mar is currently in public ownership. Lands have been acquired through tax sale acquisitions and donations.

Task 2: Develop management plan for Pal Mar and Cypress Creek basin.

Ongoing environmental restoration within the Pal Mar/Cypress Creek complex includes Cypress Creek, Pal Mar East (Nine Gems) and Culpepper Ranch. Cypress Creek is a cooperative effort including Martin Co., Palm Beach Co. and the SFWMD. Interim management for Cypress Creek has been developed by Martin Co. and the SFWMD. Restoration of Pal Mar East and Culpepper Ranch is a cooperative effort with Martin Co. and the SFWMD. The remaining portions of the Pal Mar complex will be addressed in the NPB-CERP plan.

Objective IV: Facilitate public involvement in protecting the National Wild and Scenic river corridor, including both planning and implementation efforts.

The designation of the Northwest Fork of the Loxahatchee River as a component of the federal Wild and Scenic river system was the result of a local grass-roots effort. Throughout the designation and plan development process, local public involvement was invaluable. Effective implementation of this management plan requires a continuing local interest and participation. Public education relative to river issues and efforts can be directed toward both users on the river, and the local community. A progress update on the following strategies and tasks is provided below.

Strategy IV-A: Provide educational information to river users.

Task 1: Develop and distribute educational materials.

One of the major functions of the former FDEP Loxahatchee River Watershed Management Planning Committee was to develop brochures, boating guides, plan guided boat tours and

organize the Loxahatchee River Science Symposium. Since 2000 there have been four science symposiums (2001, 2004, 2006 and 2008) and the fifth symposium is in the planning phase for 2011. The two day science symposiums attract over 200 scientists, consultants, government representatives and the general public per event.

In 2001, through funding from the Florida Fish and Wildlife Conservation Commission, Environmental Education Grant Program, the *Understanding the Loxahatchee River Watershed* brochure was produced. This document has been distributed at numerous events through the past several years. A reprinting of this document is needed at this time.

On June 27, 2003 the Decision Makers Forum hosted panel discussions on *Everglades Restoration: Can it Save the Loxahatchee River?* Over 125 scientists, consultants, government representatives, legislative staff, and general public attended this event.

In 2005, Elam Stoltzfus, director and cinematographer, filmed a documentary on the river entitled *Our Signature: The Wild and Scenic Loxahatchee River*. The LRPI funded this project and provided the DVD's free to public and private schools, public libraries and environmental centers throughout Martin and north Palm Beach counties. During this same timeframe, Clyde Butcher, nature photographer, was shooting pictures of the Loxahatchee River for a poster to help promote the film. Mr. Butcher signed free posters at the premiere viewing of the film on September 28, 2005.

In March 2006, Jupiter Inlet District (JID) and Florida Sea Grant produced 5000 copies of a waterproof boater's guide entitled *Navigational, Historical and Environmental Perspective of Jupiter Inlet and the Loxahatchee River*. All copies have been distributed and JID is revising the guide for a reprint during the summer of 2010.

On Saturday, May 15, 2010, local environmental leaders, managers, politicians and supporters gathered along the banks of the Loxahatchee River at Jonathan Dickinson State Park at the site of the historic dedication plaque. This year marks the 25th anniversary of the Loxahatchee River's national "Wild & Scenic" designation. The Loxahatchee River was the first river in Florida to receive this national designation, and remains one of only two National Wild & Scenic rivers in the State. The day was officially deemed "Loxahatchee River Day," including proclamations by the State of Florida, Palm Beach County, Martin County, the Town of Jupiter, Jupiter Inlet District, the Loxahatchee River District and the Village of Tequesta. Special guests for the ceremony included U.S. Congressman Tom J. Rooney, representatives for Florida Senator Joe Negron, Florida Representative Carl J. Domino, and Florida Representative William D. Snyder. In further celebration, the Loxahatchee River District is creating a time capsule to mark the anniversary event. The capsule will include environmental and historical data about the river, along with a collection of personal perspectives and experiences by local residents.

Task 2: Develop Otter Creek Environmental Learning Center.

Although no facility within the watershed is named "Otter Creek Environmental Learning Center" there are other facilities that have been developed and are dedicated to Loxahatchee River

environmental education. LRECD has developed and does distribute environmental education materials to the public through The River Center and Busch Wildlife Sanctuary and through their collaborative efforts with Friends of the Loxahatchee River. The Loxahatchee River Environmental Center (River Center) opened August 23, 2008. It traces the Loxahatchee River from its headwaters in Palm Beach County through the cypress dominated floodplain in the Wild & Scenic segment, into the central embayment and finally out through Jupiter Inlet into the Atlantic Ocean and the Gulf Stream. Visitors can explore the habitats and organisms found within the watershed, modifications and problems associated with ever-increasing human population and development, and programs and projects underway to help preserve and restore this valuable and unique system.

Busch Wildlife Sanctuary, an independent not-for-profit organization located on the LRECD grounds, operates a wildlife refuge and educational facility offering animal exhibits, including American Bald eagles, black bears, deer, panthers, osprey, reptiles, as well as rehabilitation program and nature trails. The Sanctuary provides wildlife rescue and rehabilitation through comprehensive medical care to thousands of sick, injured and orphaned wild animals each year, with the ultimate goal of returning recovered patients to their natural habitats. Rescued animals too injured to be released into the wild are maintained in one-of-a-kind opportunity to learn about Florida's wildlife and natural environments. More than just a "zoo" exhibiting caged animals, this unique refuge combines a community nature center with a wildlife rehabilitation hospital. Nature trails lead visitors through pine flatwoods, oak hammocks, and cypress wetlands. The River Center and Busch Wildlife Sanctuary are open free to the public and are offered to educate our community and create better stewards of our beautiful river.

Task 3: Develop Jonathan Dickinson State Park Visitor Center.

The Elsa Kimbell Environmental Education and Research Center opened on September 7, 2007. The center includes a 3,000 square foot exhibit hall, with a theater, and reception area that is open 7 days a week and 365 days a year. In addition to the exhibit hall the center features an 800 square foot classroom and a 650 square foot laboratory for use during special programs, such as field days for school children.

Strategy IV-B: Coordinate efforts to insure that local environmental education and public information programs include river information.

Task 1: Encourage and support local initiatives.

The Northeast Everglades Natural Area (NENA) is an amazing collection of public lands providing a wide range of nature-based outdoor recreational opportunities from bird watching in an area open only to foot traffic to hunting in an area accessible by off-road vehicles. NENA stretches from Southern Boulevard in Palm Beach County north to Bridge Road in Martin County and from the Atlantic Ocean west to Lake Okeechobee. NENA includes more than 165,000 acres of natural Florida lands and more than a dozen different activity and education

centers that provide information about the area's natural and human history. Each place in NENA is a different size, from a just a few to thousands of acres, and several different governmental and non-governmental organizations manage the individual NENA places.

Since the completion of the NENA Master Plan in 2005, NENA began connecting natural attractions by a unique shared-use trail system to create a world class destination. The Jesup Trail, one of NENA's major connector trails, is planned as an improved, alternative transportation route connecting Riverbend Park, Cypress Creek Natural Area, Cypress Creek Management Area, and Jonathan Dickinson State Park. Included in the design of this 6-mile connector will be such amenities as chickee shelters, hitching posts, bicycle racks, information kiosks and trailheads with parking facilities. This trail travels through distinctive ecosystems sustained by the Loxahatchee River and educational information about the River and its watershed will be displayed within the kiosks. Planning, design and project coordination for the trail is currently ongoing and includes respective land managing agencies and user groups.

Starting at the sandy shores of Hobe Sound Beach and ending at Lake Okeechobee at Port Mayaca, the 72-mile Ocean to Lake Trail is one of the newest spurs of the 1,400 mile Florida National Scenic Trail currently under development. Portions of the hiking-only trail are complete and open to the public in Jonathan Dickinson State Park, J.W. Corbett Wildlife Management Area, Dupuis Management Area, and Hungryland Slough and Loxahatchee Slough Natural Areas. Working in conjunction with many of the local, state, and federal agencies, volunteers from the Florida Trail Association are trail building and finalizing preferred routes within critical sections such as waterway and railroad crossings.

NENA works to connect different places not only by land, but also through areas only accessible by water. Several blueways, or water trails developed with launch points and points of interests for small boaters, are planned to encourage family recreation, environmental education and preservation of wildlife resources. Historically, the water of the Grassy Waters Preserve carried into the Loxahatchee River. One of the major designated blue-ways within NENA follows the historic flow that connects Grassy Waters Preserve and the Loxahatchee Slough Natural Area to the Loxahatchee River utilizing small water trails and the C-18 Canals.

Task 2: Provide river information to river users and local educational institutions.

The Loxahatchee River Preservation Initiative supports two boat trips on the river per year. At least one of the trips involves educating the current legislative delegation on river issues.

For the fiscal year 08-09, JDSP has provided educational outreach opportunities to Martin, Palm Beach and other county schools:

Martin County - A total of 1,578 total students, which includes five elementary and middle schools, all 7th grade students from Anderson and Murray Middle schools, one high school and various homeschooled groups.

Palm Beach County - A total of 497 total students, including nine elementary and middle schools, three high schools, the University of Florida and various homeschooled groups.

Other Counties from around the State - A total of 63 students from two schools.

Similarly, nearly 20,000 people were engaged and educated about the National Wild and Scenic Loxahatchee River at the River Center during the 2009 calendar year. Furthermore, LRECD and Friends of the Loxahatchee River produced several new brochures for public consumption that communicated relevant river data to various groups including river users as well as wastewater customers.

The Palm Beach County Parks and Recreation Department provides information brochures to park visitors who are both river users and those with the potential to be river users. More than 2,000 informational brochures are distributed annually at Riverbend Park and through special events open to the public. In addition, the canoe vendor inside the park provides river information and a map to canoe and kayak enthusiasts taking day trips. Park staff leading guided canoe programs, walking and bicycle tours and school programs also provided river information both orally and in brochure format to approximately 200 people in 2009.

Addendum 2
Chapter 83-358, Laws of Florida

CHAPTER 83-358, Laws of Florida

Committee Substitute for Senate bill No. 459

An act relating to the Loxahatchee River; creating the Loxahatchee River Wild and Scenic Designation and Preservation Act; providing legislative declarations and intent; providing definitions; designating a portion of the river as a wild and scenic river; providing for development of a management plan; providing for a coordinating council; authorizing the Governor to apply for inclusion of the designated portion of the river in the National Wild and Scenic Rivers System; providing for preservation of existing governmental authority; providing for rules; specifying regulatory and permitting authority; providing for enforcement; providing for injunctions; specifying violations and penalties; providing for repeal; providing an effective date.

Be It Enacted by the Legislature of the State of Florida.

Section 1. Short title.--Sections 1 through 12 of this act may be cited as the "Loxahatchee River Wild and Scenic Designation and Preservation Act."

Section 2. Legislative declaration.--The Legislature finds and declares that a certain segment of the Loxahatchee River in Palm Beach and Martin Counties possesses outstandingly remarkable ecological, fish and wildlife, and recreational values which are unique in the United States. These values give national significance to the river as one which should be permanently preserved and enhanced, not only for the citizens of the State of Florida, but for the citizens of the United States, of present and future generations. The permanent management and administration of the river, however, involves a complex interaction of national, state, regional, and local interests which require balancing, coordination of purpose and continuing participation by and access to the public, through its elected representatives. It is the intention of the Legislature to provide for the permanent preservation of the designated segment of the Loxahatchee River by way of development of a plan for permanent administration by agencies of the state and local government which will ensure the degree of protection necessary for inclusion of that segment of the river in the National Wild and Scenic Rivers System but retaining that degree of flexibility, responsiveness, and expertise which will accommodate all of the diverse interests involved in a manner best calculated to be in the public interest.

Section 3. Definitions.--As used in this act:

(1) "Activity" means the doing of any act or the failing to do any act, whether by a natural person or a corporation.

(2) "Board" means the governing board of the South Florida Water Management District.

(3) "Coordination Council" means the council created by s.5(3)(o).

(4) "Department" means the Division of Recreation and Parks of the Department of Natural Resources.

(5) "Division" means the Division of Recreation and Parks of the Department of Natural Resources.

(6) "Executive Board" means the Governor and Cabinet sitting as the head of the Department of Natural Resources.

(7) "Resource value" means any one or more of the specific scenic, recreational, geologic, fish and wildlife, historic, cultural, or ecological features identified by the National Park Service, Department of the Interior, in its Draft Wild and Scenic Rivers Study/Draft Environmental Impact Statement as being outstandingly remarkable or worthy of note.

(8) "River area" means that portion of the Northwest Fork of the Loxahatchee River from river mile 6 to river mile 13.5, together with such abutting uplands as determined in the permanent management plan to form the corridor having visual impact on the river user, and which may be necessary to maintain the natural and scenic appeal of the river.

Section 4. Designation of wild and scenic river.--The Northwest Fork of the Loxahatchee River between river mile 6 and river mile 13.5 is hereby designated as a wild and scenic river for the purposes of this act and subject to all of the provisions of this act. Such designated portion is more particularly described as that portion of the Northwest Fork downstream of the southern boundary of Riverbend County Park located in Palm Beach County and upstream of an east-west line passing through a point where the southern boundary of Jonathan Dickinson State Park intersects the eastern shoreline of the river.

Section 5. Development of management plan.--

(1) The department and the South Florida Water Management District shall jointly develop a proposed management plan for the designated segment of the Loxahatchee River, which management plan, subject to and consistent with the provisions of this act, will be designed to qualify the designated segment of the river for inclusion in the national Wild and Scenic rivers System.

(2) The development of the proposed management plan shall include participation by the National Park Service, by all appropriate state agencies, by all appropriate or interested local governments, including but not limited to Palm Beach County, Martin County, the Jupiter Inlet District, the Town of Jupiter, the Loxahatchee River Environmental Control District, the South Indian River Water Control District, and the Northern Palm Beach County Water Control District, the Palm Beach County Farm Bureau, and by any others deemed advisable by the department or board. To the extent not inconsistent with the provisions of this act, the plan shall include such conditions as the United State Secretary of the Interior may require.

(3) The proposed management plan shall include provision for:

(a) Permanent protection and enhancement of the ecological, fish and wildlife, and recreational values identified by the National Park Service in its draft study of the river and for which the river was chosen for inclusion in the system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of those values; primary emphasis being given to protecting esthetic, scenic, historic, archaeological, and scientific features;

(b) Continuation of land uses and developments on private lands within the river area which are in existence on the effective date of this act which are not incompatible with the purposes of designation;

(c) Periodic studies to determine the quantity and mixture of recreation and other public uses which can be permitted without adverse impact on the resource values of the river area;

(d) Regulation and distribution of public access where necessary to protect and enhance the resource values of the river area;

(e) Basic facilities to absorb user impact on the river area, including necessary toilet refuse containers, but located in order to minimize their intrusive impact;

(f) Location of major facilities such as developed campgrounds, visitor centers, and administrative headquarters outside the river area;

(g) Restriction of motorized travel by land vehicle or boat where necessary to protect the resource values in the river area;

(h) Agricultural and forestry practices similar in nature and intensity or less intensive than those present in the river area on the effective date of this act;

(i) Limitation of resource management practices to those necessary for protection, conservation, rehabilitation, or enhancement of river area resource values;

(j) Maintenance of existing water quality;

(k) Whenever alternative routes are unavailable, location and construction of new public utility or road, rights-of-way in a way which minimizes adverse effects on scenic, recreational, fish and wildlife, and other resource values in the river area;

(l) Continuance of existing drainage and water management practices, unless such existing practices will degrade or diminish existing water quality or existing practices will degrade or diminish existing water quality or existing resource values in the river area, and allowances of new water resource management practices which will not have a substantial adverse impact on resource values in the river area;

(m) Review and regulation of all activities conducted or proposed to be conducted which will or may have a substantial adverse impact on any of the resource values in the river area as provided in this act;

(n) Continuation of activities or developments below or above the designated segment which will not invade the river area or substantially diminish the scenic, recreational, and fish and wildlife resource values present in the river area on the effective date of this act; and

(o) A permanent management coordinating council composed of one representative from each of the participants provided for in subsection (2). The coordinating council shall review and make recommendations, in the first instance, on all applications for permits required by this act, as well as all proposals for amendments or modifications to the permanent management plan, and render its nonbinding advisory opinion to the board and the department. Each participant shall appoint one member to the coordinating council. The coordinating council shall elect a chairman, vice chairman, and secretary to serve for a term of one year. The coordinating council shall adopt bylaws to provide for such other officers as it may deem necessary, election of officers, removal of officers for just cause, meetings, quorum, procedures for the conduct of its business, and such other matters as the membership may deem advisable in the conduct of its business. Such professional staff as the coordinating council may require shall be provided by the South Florida Water Management District.

(4) To the extent not inconsistent with this act, the proposed management plan may also include any other provisions deemed by the department and the board to be necessary or advisable for the permanent protection of the river as a component of the National Wild and Scenic Rivers System.

Section 6. Authority for application for inclusion in National Wild and Scenic Rivers System.-- Upon completion of the development of a proposed management plan, the executive director of the department shall forward the proposed management plan to the executive board. After the executive board has received, reviewed and accepted a proposed management plan, the Governor may apply to the United States Secretary of the Interior for inclusion of the designated segment of the Loxahatchee River into the National Wild and Scenic Rivers System.

Section 7. Preservation of existing governmental authority.--

(1) Nothing contained in this act shall operate to divest any agency, water management district, municipality, county, or special district of any authority or jurisdiction in existence on the effective date of this act.

(2) Construction and maintenance of improvements at the Jupiter Inlet and in the Loxahatchee River downstream from the designator segment for purposes of navigation, waterway flushing, or upland drainage, including creation or preservation of channels, maintenance dredging, jetty improvements, riprapping, construction of groins and similar improvements, and removal of sand or dead oyster shall be undertaken when deemed to have a potential for substantial adverse impact on the resource values of the river area shall be undertaken using techniques which minimize adverse effects on scenic, recreational, fish and wildlife and other values of the river area.

Section 8. Rulemaking authority.--After approval by the Secretary of the Interior of an application by the Governor under this act for inclusion of the Loxahatchee River in the National Wild and Scenic Rivers System, the board and the department shall each have full authority under their separate jurisdictions as provided in s.9 to adopt rules deemed necessary for the discharge of the respective duties of each as provided herein, including the adoption of the proposed management plan as the permanent management plan, and including the power to adopt rules modifying or amending the management plan in accordance with the provisions of this act and rules providing for permanent management of the designated segment as a component of the National Wild and Scenic Rivers System.

Section 9. Separation of regulatory authority.--

(1) The department shall have full and exclusive authority to adopt rules concerning and to regulate activities within the river area having a direct and substantial adverse effect on any resource value within the river area.

(2) The board shall have full and exclusive authority to adopt rules concerning and to regulate activities outside the river area having substantial adverse impact on resource values within the river area.

(3) The department and the board shall coordinate all activities related to rule adoption and enforcement in order to avoid to the maximum extent possible any conflicts or duplication arising therefrom.

Section 10. Permitting authority.--

(1) No person or entity shall conduct any activity or do anything which will or may have an adverse impact on any resource value in the river area without first having received a permit from the board or the department, as appropriate.

(2) Any applicant for a permit shall file an application for a permit with the board or the department, whichever has regulatory authority, upon such forms and in such manner as the board or the department shall by rule require. The board and the department may require, with or in addition to such applications, the furnishing of any information deemed necessary or desirable for full and complete consideration of all factors relevant to informed decisions on the applications.

(3) A permit may be granted only after a finding by the board or the department, whichever has regulatory authority, that the activity for which a permit has been requested will not have a substantial adverse impact on resource values in the river area.

(4) the board and the department may adopt an application fee schedule providing for payment of reasonable fees to defray the cost of processing applications.

(5) the provisions of Chapter 120, Florida Statutes, shall apply to the board and to the department, but not to the coordinating council, in carrying out the functions and duties prescribed for each by this act.

Section 11. Enforcement.--

(1) Officers of the division shall have full authority to enforce any rule adopted under this act with the same police powers given them by law to enforce the rules of state parks.

(2) The board shall have full power to enforce this act or any rule adopted under this act by action for injunctive relief or by any other method available for enforcement of rules adopted under Chapter 373.

Section 12. Penalties.--Violation of any rule adopted under this act constitutes a misdemeanor of the second degree, punishable as provided in s.775.082 or s.775.083, Florida Statutes. Continuing violation after notice constitutes a separate violation for each day so continued.

Section 13. This act is repealed on a date two years after the effective date of this act, unless the portion of the Loxahatchee River designated by this act as a wild and scenic river is included in the National Wild and Scenic Rivers System on or before that date.

Section 14. This act shall take effect upon becoming a law.

Approved by the Governor June 24, 1983.

Filed in Office Secretary of State June 24, 1983.

Addendum 3

Resolution by Florida Cabinet - January 11, 1983

RESOLUTION

WHEREAS the Governor and Cabinet sitting as Head of the Department of Natural Resources have considered a Loxahatchee River Wild and Scenic Rivers Study and draft Environmental Impact Statement prepared by the United States Department of the Interior; and

WHEREAS the Department of the Interior has concluded that a 7.5-mile segment of the Loxahatchee River in Palm Beach and Martin Counties meets the criteria for inclusion in the National Wild and Scenic Rivers System; and

WHEREAS it would be in the best interest of the State to preserve and, to the maximum degree possible, enhance this exceptional resource:

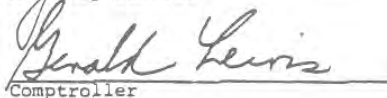
NOW, THEREFORE, BE IT RESOLVED that the Governor and Cabinet sitting as Head of the State of Florida Department of Natural Resources do hereby endorse in concept the inclusion of the identified 7.5-mile segment of the Loxahatchee River in the National Wild and Scenic Rivers System, and do direct the Department of Natural Resources staff, in concert with affected state, federal, regional, and local agencies, to develop a management plan which satisfies federal requirements for including the Loxahatchee River in the National Wild and Scenic Rivers System. The principal goals of the plan will be to preserve and enhance the river's unique natural values, restore the river's historical hydrologic regime, and reverse deleterious saltwater intrusion into the river. The staff is further directed to submit the plan to the Board for final consideration.

Adopted this 11th day of January, 1981,
by the Governor and the Cabinet of the State of Florida as
Head of the State of Florida Department of Natural Resources.


Governor

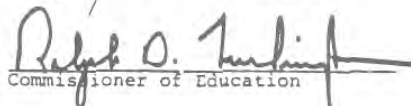

Secretary of State


Attorney General


Comptroller


Treasurer


Commissioner of Agriculture


Commissioner of Education

Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

2500 Jupiter Park Drive, Jupiter, Florida 33458

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: Kris Dean, P.E.
Deputy Executive Director/Director of Engineering Services

DATE: August 6, 2019

SUBJECT: Clemons Street and Saturn Street Drainage Improvements (S1809) Interlocal with Town of Jupiter

We have been performing renewal and replacement in Lift Station 094's collection system over the past several years. The renewal and replacement has consisted of District performed lining and coordination with developers in the area for renewal and replacement in conjunction with new development. One section we have been waiting to address is the gravity system in Clemons adjacent to what used to be Suni Sands. Our original plan was to see what development in Suni Sands would look like before addressing the gravity system in Clemons Street.

While we were waiting on formalized plans for this development the Town of Jupiter decided to perform drainage improvements on Clemons Street and Saturn Street. During the plan review we determined that the proposed drainage improvements conflicted with our existing service to the Suni Sands property and impacted the existing vitrified clay pipe gravity main in Clemons Street. As a result staff proactively engaged with the Town and their consultant to incorporate replacement of the aging vitrified clay pipe in Clemons Street into the Town's project.

Bids for the project were received on July 16, 2019 by the town, a summary of the bids is provided as Attachment A to the Interlocal Agreement. The lowest responsible, responsive bidder, D.S. Eakins, has performed work for the District in the past.

The Town will be administering the construction contract for the District. The interlocal, reviewed and approved by counsel, authorizes the Town to proceed with the District Work and the District will commit to pay \$146,092.64 in accordance with unit prices shown in Attachment A.

Staff recommend the following motion:

“THAT THE DISTRICT GOVERNING BOARD AUTHORIZE THE Executive Director to execute the Interlocal Agreement with the Town of Jupiter for the Clemons Street and Saturn Street Drainage Improvements (S1809) in the amount of \$146,092.64.”

AND

“THAT THE DISTRICT GOVERNING BOARD AUTHORIZE a contingency for the project of \$10,000.00”

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

**INTERLOCAL AGREEMENT BETWEEN THE
LOXAHATCHEE RIVER ENVIRONMENTAL CONTROL DISTRICT
AND
THE TOWN OF JUPITER
FOR
THE JOINT PROJECT PARTICIPATION IN THE CLEMONS STREET AND SATURN
STREET DRAINAGE IMPROVEMENTS PROJECT**

THIS AGREEMENT, hereinafter referred to as the AGREEMENT, made and entered into this _____ day of _____, 2019, by and between the LOXAHATCHEE RIVER ENVIRONMENTAL CONTROL DISTRICT, hereinafter referred to as “LRECD”, and the TOWN OF JUPITER, hereinafter referred to as the “TOWN”.

WITNESSETH:

WHEREAS, the LRECD and TOWN are authorized to enter into this AGREEMENT pursuant to Section 163.01, Florida Statutes, as amended, which permits local governmental units to make the most efficient use of their power by enabling them to cooperate with other agencies on a basis of mutual advantage; and

WHEREAS, the TOWN has cause to prepare plans and specifications for the Clemons Street and Saturn Street Drainage Improvements Project, herein referred to as the PROJECT; and

WHEREAS, the LRECD has requested the TOWN include replacement of aging gravity sewer infrastructure including 8-inch vitrified clay pipe and appurtenances as part of the PROJECT, and

WHEREAS, the LRECD and TOWN declare that it is in the public’s interest to incorporate this replacement as part of the PROJECT and under one contract, and

WHEREAS, the TOWN has received bids for the PROJECT, including replacement of LRECD infrastructure, the lowest of which is herein referred to and included as Attachment “A”;

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein, the receipt and sufficiency of which is hereby acknowledged, the TOWN and LRECD do hereby agree as follows:

1. The recitals set forth above are hereby adopted and incorporated herein by this reference.
2. The TOWN agrees to perform the following LRECD work:
 - A. Make recommendation to the LRECD and Jupiter Town Council for award of a construction contract for the PROJECT in accordance with the TOWN’S procurement procedures. LRECD shall provide consent by execution of this Interlocal Agreement with Attachment “A”.

B. Any Changes to Attachment "A" of this document shall be approved by LRECD prior to execution by the TOWN. Approval by LRECD shall not be unreasonably denied.

3. LRECD agrees to reimburse the TOWN for the LRECD WORK in the amount of **\$110,751.00** for Sanitary Sewer Bid Items and **17% (\$35,341.64)** for General Bid Items, based upon unit prices and calculated as shown in Attachment "A" of this document. LRECD shall have 30 days after receipt of the TOWN's reimbursement invoice to submit payment to the TOWN.
4. The LRECD shall be responsible for any and all change order costs associated with the work being performed on behalf of the LRECD. The TOWN shall obtain written approval from the LRECD in advance of any change orders issued related to any work being performed on behalf of the LRECD. The LRECD's approval of change orders shall not be unreasonably withheld.
5. The parties agree to budget sufficient funds for the PROJECT. However, once the construction contract has commenced, it shall be prosecuted to completion and the AGREEMENT shall be binding upon the parties and neither party shall have the right to terminate the subject AGREEMENT for the reason that sufficient funds are not available for the construction project.
6. TOWN shall indemnify, defend, and hold harmless the LRECD against any actions, claims, or damages arising out of TOWN'S negligence in connection with this AGREEMENT to the extent permitted by law. The foregoing indemnification shall not constitute a waiver of sovereign immunity beyond the limits set forth in Section 768.28, Florida Statutes, nor shall the same be construed to constitute agreement to indemnify the LRECD for the LRECD'S negligent acts or omissions.
7. The LRECD shall indemnify, defend, and hold harmless the TOWN against any actions, claims, or damages arising out of LRECD'S negligence in connection with this AGREEMENT to the extent permitted by law. The foregoing indemnification shall not constitute a waiver of sovereign immunity beyond the limits set forth in Section 768.28, Florida Statutes, nor shall the same be construed to constitute agreement to indemnify the TOWN for the TOWN'S negligent acts or omissions.
8. MISCELLANEOUS PROVISIONS:

Notices. All notices, requests, consents and other communications required or permitted under this AGREEMENT shall be in writing and shall be hand delivered by prepaid express overnight courier or messenger service, or mailed by registered or certified mail to the following addresses:

As to TOWN: Town of Jupiter Utilities
Attn: David L. Brown, Director of Utilities
17403 Central Boulevard
Jupiter, Florida 33458
Phone: 561-741-2273
Fax: 561-747-5634

As to LRECD: Loxahatchee River Environmental Control District
Attn: D. Albrey Arrington, Executive Director
2500 Jupiter Park Drive
Jupiter, Florida 33458
Phone: 561-747-5700
Fax: 561-747-9929

If either party changes its mailing address or designated recipient for notices, such change shall be communicated in writing to the other party within thirty (30) days of the change.

9. This AGREEMENT shall be construed by and governed by the laws of the State of Florida. Venue for any and all legal actions necessary to enforce the AGREEMENT shall be held in Palm Beach County, Florida.
10. No remedy herein conferred upon any party is intended to be exclusive of any other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.
11. This AGREEMENT constitutes the entire contract between the parties hereto and supersedes all prior understandings if any. There are no other oral or written promises, conditions, representations, understandings or term of any kind as conditions of inducement to the execution hereof, and none have been relied upon by either party. Any subsequent conditions, representations, warranties or agreement shall not be valid and binding upon the parties unless they are in writing and signed by both parties and executed in the same manner of the AGREEMENT.
12. In the event any terms or provisions of the AGREEMENT shall be held invalid, such invalid terms or provisions shall not affect the validity of any other term or provision hereof and all other terms and provisions hereof shall be enforceable to the fullest extent permitted by law as if such invalid terms or provisions had never been a part of the AGREEMENT.
13. This AGREEMENT shall become effective upon its execution by the TOWN and LRECD.
14. This AGREEMENT may be terminated in writing by either party if construction has not commenced within twelve (12) months of execution of this AGREEMENT, by the respective parties.
15. SEVERABILITY

Should any part, term or provision of this AGREEMENT be by the courts decided to be invalid, illegal or in conflict with any law of the State, the validity of the remaining portion or provision shall not be affected thereby.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals on the day, month and year first above written.

ATTEST

TOWN OF JUPITER

By: _____
Sally M. Boylan, Town Clerk

By: _____
Todd Wodraska, Mayor

TOWN SEAL

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

By: _____
Thomas J. Baird, Town Attorney

ATTEST

LOXAHATCHEE RIVER
ENVIRONMENTAL CONTROL DISTRICT

By: _____
Kris Dean, P.E.
Deputy Executive Director

By: _____
D. Albrey Arrington, Ph.D.
Executive Director

DISTRICT SEAL

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

By: _____
Curtis L. Shenkman, District Attorney

TOWN OF JUPITER
Clemons and Saturn Street Drainage Improvements
S1809
July 16, 2019, 2:00 PM Bid Opening

	Contractor			Hinterland Group, Inc.		D.S. Eakins Construction Corporation		Johnson-Davis, Inc.		CK Contractors and Development, LLC		DBF Construction, LLC	
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE
General Bid Items:													
1	General Conditions/Contract Administration	1	LS	\$15,000.00	\$15,000.00	\$33,750.00	\$33,750.00	\$18,000.00	\$18,000.00	\$4,500.00	\$4,500.00	\$30,000.00	\$30,000.00
2	Indemnification	1	LS	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
3	Mobilization/Demobilization (may not exceed 5% of Total Bid)	1	LS	\$30,000.00	\$30,000.00	\$11,963.00	\$11,963.00	\$20,000.00	\$20,000.00	\$36,500.00	\$36,500.00	\$20,000.00	\$20,000.00
4	Shop Drawings/Record Drawings/GPS Data	1	LS	\$8,500.00	\$8,500.00	\$13,228.00	\$13,228.00	\$9,500.00	\$9,500.00	\$4,850.00	\$4,850.00	\$20,000.00	\$20,000.00
5	Maintenance of Traffic	1	LS	\$4,500.00	\$4,500.00	\$14,384.00	\$14,384.00	\$14,200.00	\$14,200.00	\$13,250.00	\$13,250.00	\$20,000.00	\$20,000.00
6	Removal and Replacement of Asphalt Roadway	1,540	SY	\$62.00	\$95,480.00	\$62.10	\$95,634.00	\$85.00	\$130,900.00	\$60.00	\$92,400.00	\$43.00	\$66,220.00
7	Mill and Replace Asphalt	405	SY	\$38.00	\$15,390.00	\$24.20	\$9,801.00	\$31.00	\$12,555.00	\$40.00	\$16,200.00	\$27.00	\$10,935.00
8	Miscellaneous Restoration	1	LS	\$7,500.00	\$7,500.00	\$22,909.00	\$22,909.00	\$14,500.00	\$14,500.00	\$52,900.00	\$52,900.00	\$85,000.00	\$85,000.00
9	Erosion and Sediment Control	1	LS	\$4,500.00	\$4,500.00	\$6,123.00	\$6,123.00	\$2,200.00	\$2,200.00	\$18,000.00	\$18,000.00	\$15,000.00	\$15,000.00
Total General Bid Items: (Item Nos. 1-9)					\$180,970.00		\$207,892.00		\$221,955.00		\$238,700.00		\$267,255.00
Storm Drain Bid Items:													
10	30-Inch Slotted RCP and Exfiltration Trench Installation	145	LF	\$250.00	\$36,250.00	\$171.00	\$24,795.00	\$250.00	\$36,250.00	\$282.00	\$40,890.00	\$232.00	\$33,640.00
11	24-Inch Slotted RCP and Exfiltration Trench Installation	352	LF	\$200.00	\$70,400.00	\$153.00	\$53,856.00	\$220.00	\$77,440.00	\$232.00	\$81,664.00	\$218.00	\$76,736.00
12	30-Inch RCP Installation	308	LF	\$120.00	\$36,960.00	\$130.00	\$40,040.00	\$125.00	\$38,500.00	\$128.00	\$39,424.00	\$173.00	\$53,284.00
13	24-Inch RCP Installation	53	LF	\$90.00	\$4,770.00	\$104.00	\$5,512.00	\$130.00	\$6,890.00	\$132.00	\$6,996.00	\$141.00	\$7,473.00
14	15-Inch RCP Installation	25	LF	\$65.00	\$1,625.00	\$98.00	\$2,450.00	\$150.00	\$3,750.00	\$440.00	\$11,000.00	\$124.00	\$3,100.00
15	Stormwater Structure with Inlet, Clemons Street, S-1	1	LS	\$4,500.00	\$4,500.00	\$6,126.00	\$6,126.00	\$5,500.00	\$5,500.00	\$4,400.00	\$4,400.00	\$4,385.00	\$4,385.00
16	Stormwater Structure with Inlet, Clemons Street, S-2	1	LS	\$5,000.00	\$5,000.00	\$7,505.00	\$7,505.00	\$6,500.00	\$6,500.00	\$5,400.00	\$5,400.00	\$4,850.00	\$4,850.00
17	Stormwater Structure with Inlet, Clemons Street, S-3	1	LS	\$10,000.00	\$10,000.00	\$13,135.00	\$13,135.00	\$12,000.00	\$12,000.00	\$10,900.00	\$10,900.00	\$8,780.00	\$8,780.00
18	Stormwater Structure with Inlet, Clemons Street, S-4	1	LS	\$10,000.00	\$10,000.00	\$11,446.00	\$11,446.00	\$9,800.00	\$9,800.00	\$9,975.00	\$9,975.00	\$7,250.00	\$7,250.00
19	Stormwater Structure with Inlet, Clemons Street, S-5	1	LS	\$10,000.00	\$10,000.00	\$12,215.00	\$12,215.00	\$10,200.00	\$10,200.00	\$10,000.00	\$10,000.00	\$7,185.00	\$7,185.00
20	Stormwater Structure with Inlet, Clemons Street, S-6	1	LS	\$10,000.00	\$10,000.00	\$11,839.00	\$11,839.00	\$9,800.00	\$9,800.00	\$9,600.00	\$9,600.00	\$6,800.00	\$6,800.00
21	Stormwater Structure with Inlet, Saturn Street, S-7	1	LS	\$12,000.00	\$12,000.00	\$12,690.00	\$12,690.00	\$10,800.00	\$10,800.00	\$11,300.00	\$11,300.00	\$7,385.00	\$7,385.00
22	Stormwater Structure with Inlet, Saturn Street, S-8	1	LS	\$4,500.00	\$4,500.00	\$6,196.00	\$6,196.00	\$5,500.00	\$5,500.00	\$4,950.00	\$4,950.00	\$4,850.00	\$4,850.00
23	Modify Existing Storm Structure, Saturn Street, STA 0+00	1	LS	\$6,500.00	\$6,500.00	\$9,965.00	\$9,965.00	\$9,800.00	\$9,800.00	\$10,500.00	\$10,500.00	\$10,550.00	\$10,550.00
24	Removal of Existing 18-Inch RCP	219	LF	\$10.00	\$2,190.00	\$13.00	\$2,847.00	\$35.00	\$7,665.00	\$26.00	\$5,694.00	\$20.00	\$4,380.00
25	Removal of Existing 15-Inch RCP	25	LF	\$10.00	\$250.00	\$13.00	\$325.00	\$30.00	\$750.00	\$30.00	\$750.00	\$20.00	\$500.00
26	Abandon Existing 18-Inch RCP	48	LF	\$45.00	\$2,160.00	\$50.00	\$2,400.00	\$40.00	\$1,920.00	\$60.00	\$2,880.00	\$14.00	\$672.00
27	Removal of Existing Stormwater Structures	4	EA	\$1,200.00	\$4,800.00	\$500.00	\$2,000.00	\$1,000.00	\$4,000.00	\$750.00	\$3,000.00	\$1,625.00	\$6,500.00
28	Concrete Collar for Connection to Existing RCP	5	EA	\$800.00	\$4,000.00	\$1,750.00	\$8,750.00	\$1,000.00	\$5,000.00	\$1,350.00	\$6,750.00	\$1,600.00	\$8,000.00
29	Unforeseen Conditions Allowance	1	AL	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00
30	Install Type "F" Concrete Curb	806	LF	\$26.00	\$20,956.00	\$39.70	\$31,998.20	\$38.00	\$30,628.00	\$35.00	\$28,210.00	\$43.50	\$35,061.00
31	Remove and Replace Valley Gutter	78	LF	\$38.00	\$2,964.00	\$39.70	\$3,096.60	\$45.00	\$3,510.00	\$36.00	\$2,808.00	\$49.00	\$3,822.00
32	Install Concrete Sidewalk	92	SY	\$45.00	\$4,140.00	\$69.50	\$6,394.00	\$85.00	\$7,820.00	\$84.00	\$7,728.00	\$50.00	\$4,600.00
Total Storm Drain Bid Items: (Item Nos. 10-32)					\$313,965.00		\$325,580.80		\$354,023.00		\$364,819.00		\$349,803.00
Sanitary Sewer Bid Items:													
33	8" SDR-26 PVC Gravity Sewer Piping, 0' – 6' Deep	22	LF	\$140.00	\$3,080.00	\$96.00	\$2,112.00	\$85.00	\$1,870.00	\$132.00	\$2,904.00	\$128.00	\$2,816.00
34	8" SDR-26 PVC Gravity Sewer Piping, 6' – 8' Deep	92	LF	\$180.00	\$16,560.00	\$96.00	\$8,832.00	\$90.00	\$8,280.00	\$120.00	\$11,040.00	\$128.00	\$11,776.00
35	8" SDR-26 PVC Gravity Sewer Piping, 8' – 10' Deep	202	LF	\$220.00	\$44,440.00	\$101.00	\$20,402.00	\$105.00	\$21,210.00	\$105.00	\$21,210.00	\$128.00	\$25,856.00
36	8" SDR-26 PVC Gravity Sewer Piping, 10' – 12' Deep	133	LF	\$240.00	\$31,920.00	\$200.00	\$26,600.00	\$130.00	\$17,290.00	\$135.00	\$17,955.00	\$128.00	\$17,024.00
37	8" SDR-26 PVC Gravity Sewer Piping, 12' – 14' Deep	44	LF	\$340.00	\$14,960.00	\$600.00	\$26,400.00	\$200.00	\$8,800.00	\$600.00	\$26,400.00	\$131.00	\$5,764.00
38	Furnish and Install Sanitary Manhole in Pavement, MH-10	1	LS	\$6,500.00	\$6,500.00	\$6,766.00	\$6,766.00	\$11,200.00	\$11,200.00	\$4,900.00	\$4,900.00	\$6,400.00	\$6,400.00
39	Furnish and Install Sanitary Manhole in Pavement, MH-09	1	L	\$9,000.00	\$9,000.00	\$7,160.00	\$7,160.00	\$12,800.00	\$12,800.00	\$5,800.00	\$5,800.00	\$6,250.00	\$6,250.00
40	All Work Associated with Demolition of 8-Inch Gravity Sewer	497	LF	\$5.00	\$2,485.00	\$7.00	\$3,479.00	\$25.00	\$12,425.00	\$11.00	\$5,467.00	\$31.00	\$15,407.00
41	All Work Associated with Demolition of Gravity Sewer Manholes	2	EA	\$1,500.00	\$3,000.00	\$500.00	\$1,000.00	\$1,200.00	\$2,400.00	\$1,375.00	\$2,750.00	\$3,950.00	\$7,900.00
42	Bypass Pumping System	1	LS	\$3,500.00	\$3,500.00	\$8,000.00	\$8,000.00	\$18,000.00	\$18,000.00	\$54,535.00	\$54,535.00	\$50,000.00	\$50,000.00
Total Sanitary Sewer Bid Items: (Item Nos. 33-42)					\$135,445.00		\$110,751.00		\$114,275.00		\$152,961.00		\$149,193.00
Total Base Bid Price: (Item Nos. 1-42)					\$630,380.00		\$644,223.80		\$690,253.00		\$756,480.00		\$766,251.00

Additive Bid Item:

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE
43	Muck Removal and Replacement (Greater than 2-feet Thick)	55	CY	\$45.00	\$2,475.00	\$45.00	\$2,475.00	\$130.00	\$7,150.00	\$42.00	\$2,310.00	\$23.00	\$1,265.00
Total Bid Price: (Item Nos. 1-43)					\$632,855.00		\$646,698.80		\$697,403.00		\$758,790.00		\$767,516.00

See Note 1

	Contractor			Ferreira Construction Southern Division Co., Inc.		Man Con Incorporated		Foster Marine Contractors, Inc.		Ranger Construction Industries, Inc.		V Engineering & Consulting Corp.	
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE
General Bid Items:													
1	General Conditions/Contract Administration	1	LS	\$72,657.00	\$72,657.00	\$11,522.00	\$11,522.00	\$85,000.00	\$85,000.00	\$252,000.00	\$252,000.00	\$75,000.00	\$75,000.00
2	Indemnification	1	LS	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
3	Mobilization/Demobilization (may not exceed 5% of Total Bid)	1	LS	\$18,495.00	\$18,495.00	\$44,200.00	\$44,200.00	\$42,000.00	\$42,000.00	\$70,000.00	\$70,000.00	\$45,000.00	\$45,000.00
4	Shop Drawings/Record Drawings/GPS Data	1	LS	\$12,268.00	\$12,268.00	\$9,651.00	\$9,651.00	\$13,500.00	\$13,500.00	\$15,700.00	\$15,700.00	\$60,000.00	\$60,000.00
5	Maintenance of Traffic	1	LS	\$7,950.00	\$7,950.00	\$13,000.00	\$13,000.00	\$59,000.00	\$59,000.00	\$87,000.00	\$87,000.00	\$45,000.00	\$45,000.00
6	Removal and Replacement of Asphalt Roadway	1,540	SY	\$88.00	\$135,520.00	\$62.30	\$95,942.00	\$75.00	\$115,500.00	\$56.00	\$86,240.00	\$18.00	\$27,720.00
7	Mill and Replace Asphalt	405	SY	\$56.00	\$22,680.00	\$41.20	\$16,686.00	\$43.00	\$17,415.00	\$21.40	\$8,667.00	\$11.00	\$4,455.00
8	Miscellaneous Restoration	1	LS	\$44,021.00	\$44,021.00	\$78,260.00	\$78,260.00	\$63,000.00	\$63,000.00	\$113,000.00	\$113,000.00	\$20,000.00	\$20,000.00
9	Erosion and Sediment Control	1	LS	\$5,389.00	\$5,389.00	\$5,850.00	\$5,850.00	\$5,000.00	\$5,000.00	\$9,080.00	\$9,080.00	\$30,000.00	\$30,000.00
Total General Bid Items: (Item Nos. 1-9)					\$319,080.00		\$275,211.00		\$400,515.00		\$641,787.00		\$307,275.00
Storm Drain Bid Items:													
10	30-Inch Slotted RCP and Exfiltration Trench Installation	145	LF	\$286.00	\$41,470.00	\$323.00	\$46,835.00	\$394.00	\$57,130.00	\$330.00	\$47,850.00	\$375.00	\$54,375.00
11	24-Inch Slotted RCP and Exfiltration Trench Installation	352	LF	\$243.00	\$85,536.00	\$282.00	\$99,264.00	\$274.00	\$96,448.00	\$300.00	\$105,600.00	\$275.00	\$96,800.00
12	30-Inch RCP Installation	308	LF	\$158.00	\$48,664.00	\$225.00	\$69,300.00	\$255.00	\$78,540.00	\$130.00	\$40,040.00	\$325.00	\$100,100.00
13	24-Inch RCP Installation	53	LF	\$153.00	\$8,109.00	\$203.00	\$10,759.00	\$250.00	\$13,250.00	\$140.00	\$7,420.00	\$225.00	\$11,925.00
14	15-Inch RCP Installation	25	LF	\$192.00	\$4,800.00	\$241.00	\$6,025.00	\$230.00	\$5,750.00	\$120.00	\$3,000.00	\$200.00	\$5,000.00
15	Stormwater Structure with Inlet, Clemons Street, S-1	1	LS	\$6,690.00	\$6,690.00	\$4,828.00	\$4,828.00	\$4,400.00	\$4,400.00	\$6,160.00	\$6,160.00	\$5,000.00	\$5,000.00
16	Stormwater Structure with Inlet, Clemons Street, S-2	1	LS	\$7,493.00	\$7,493.00	\$5,761.00	\$5,761.00	\$5,300.00	\$5,300.00	\$6,710.00	\$6,710.00	\$5,250.00	\$5,250.00
17	Stormwater Structure with Inlet, Clemons Street, S-3	1	LS	\$9,766.00	\$9,766.00	\$8,952.00	\$8,952.00	\$7,100.00	\$7,100.00	\$17,400.00	\$17,400.00	\$11,000.00	\$11,000.00
18	Stormwater Structure with Inlet, Clemons Street, S-4	1	LS	\$10,614.00	\$10,614.00	\$13,053.00	\$13,053.00	\$9,700.00	\$9,700.00	\$14,600.00	\$14,600.00	\$10,000.00	\$10,000.00
19	Stormwater Structure with Inlet, Clemons Street, S-5	1	LS	\$11,662.00	\$11,662.00	\$15,337.00	\$15,337.00	\$12,000.00	\$12,000.00	\$14,600.00	\$14,600.00	\$9,700.00	\$9,700.00
20	Stormwater Structure with Inlet, Clemons Street, S-6	1	LS	\$10,687.00	\$10,687.00	\$14,495.00	\$14,495.00	\$9,200.00	\$9,200.00	\$9,420.00	\$9,420.00	\$9,500.00	\$9,500.00
21	Stormwater Structure with Inlet, Saturn Street, S-7	1	LS	\$10,104.00	\$10,104.00	\$13,858.00	\$13,858.00	\$16,600.00	\$16,600.00	\$11,500.00	\$11,500.00	\$10,000.00	\$10,000.00
22	Stormwater Structure with Inlet, Saturn Street, S-8	1	LS	\$7,313.00	\$7,313.00	\$6,967.00	\$6,967.00	\$4,800.00	\$4,800.00	\$8,410.00	\$8,410.00	\$5,500.00	\$5,500.00
23	Modify Existing Storm Structure, Saturn Street, STA 0+00	1	LS	\$6,191.00	\$6,191.00	\$13,000.00	\$13,000.00	\$19,500.00	\$19,500.00	\$17,100.00	\$17,100.00	\$7,500.00	\$7,500.00
24	Removal of Existing 18-Inch RCP	219	LF	\$26.00	\$5,694.00	\$30.00	\$6,570.00	\$25.00	\$5,475.00	\$79.00	\$17,301.00	\$200.00	\$43,800.00
25	Removal of Existing 15-Inch RCP	25	LF	\$40.00	\$1,000.00	\$20.00	\$500.00	\$25.00	\$625.00	\$120.00	\$3,000.00	\$150.00	\$3,750.00
26	Abandon Existing 18-Inch RCP	48	LF	\$34.00	\$1,632.00	\$58.00	\$2,784.00	\$13.00	\$624.00	\$79.00	\$3,792.00	\$150.00	\$7,200.00
27	Removal of Existing Stormwater Structures	4	EA	\$1,822.00	\$7,288.00	\$2,265.00	\$9,060.00	\$1,000.00	\$4,000.00	\$2,430.00	\$9,720.00	\$5,000.00	\$20,000.00
28	Concrete Collar for Connection to Existing RCP	5	EA	\$445.00	\$2,225.00	\$2,894.00	\$14,470.00	\$1,050.00	\$5,250.00	\$3,220.00	\$16,100.00	\$5,000.00	\$25,000.00
29	Unforeseen Conditions Allowance	1	AL	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00
30	Install Type "F" Concrete Curb	806	LF	\$37.00	\$29,822.00	\$49.50	\$39,897.00	\$32.00	\$25,792.00	\$38.00	\$30,628.00	\$27.00	\$21,762.00
31	Remove and Replace Valley Gutter	78	LF	\$64.00	\$4,992.00	\$49.50	\$3,861.00	\$32.00	\$2,496.00	\$53.00	\$4,134.00	\$25.00	\$1,950.00
32	Install Concrete Sidewalk	92	SY	\$86.00	\$7,912.00	\$91.00	\$8,372.00	\$81.00	\$7,452.00	\$130.00	\$11,960.00	\$65.00	\$5,980.00
Total Stom Drain Bid Items: (Item Nos. 10-32)					\$379,664.00		\$463,948.00		\$441,432.00		\$456,445.00		\$521,092.00
Sanitary Sewer Bid Items:													
33	8" SDR-26 PVC Gravity Sewer Piping, 0' – 6' Deep	22	LF	\$79.00	\$1,738.00	\$141.00	\$3,102.00	\$142.00	\$3,124.00	\$790.00	\$17,380.00	\$125.00	\$2,750.00
34	8" SDR-26 PVC Gravity Sewer Piping, 6' – 8' Deep	92	LF	\$59.00	\$5,428.00	\$158.00	\$14,536.00	\$176.00	\$16,192.00	\$370.00	\$34,040.00	\$150.00	\$13,800.00
35	8" SDR-26 PVC Gravity Sewer Piping, 8' – 10' Deep	202	LF	\$120.00	\$24,240.00	\$175.00	\$35,350.00	\$192.00	\$38,784.00	\$320.00	\$64,640.00	\$175.00	\$35,350.00
36	8" SDR-26 PVC Gravity Sewer Piping, 10' – 12' Deep	133	LF	\$128.00	\$17,024.00	\$205.00	\$27,265.00	\$235.00	\$31,255.00	\$250.00	\$33,250.00	\$200.00	\$26,600.00
37	8" SDR-26 PVC Gravity Sewer Piping, 12' – 14' Deep	44	LF	\$172.00	\$7,568.00	\$719.00	\$31,636.00	\$308.00	\$13,552.00	\$2,000.00	\$88,000.00	\$250.00	\$11,000.00
38	Furnish and Install Sanitary Manhole in Pavement, MH-10	1	LS	\$6,645.00	\$6,645.00	\$4,827.00	\$4,827.00	\$7,500.00	\$7,500.00	\$6,900.00	\$6,900.00	\$4,000.00	\$4,000.00
39	Furnish and Install Sanitary Manhole in Pavement, MH-09	1	L	\$7,075.00	\$7,075.00	\$6,158.00	\$6,158.00	\$11,500.00	\$11,500.00	\$12,700.00	\$12,700.00	\$5,500.00	\$5,500.00
40	All Work Associated with Demolition of 8-Inch Gravity Sewer	497	LF	\$53.00	\$26,341.00	\$16.00	\$7,952.00	\$5.00	\$2,485.00	\$41.00	\$20,377.00	\$40.00	\$19,880.00
41	All Work Associated with Demolition of Gravity Sewer Manholes	2	EA	\$4,402.00	\$8,804.00	\$2,976.00	\$5,952.00	\$1,000.00	\$2,000.00	\$3,220.00	\$6,440.00	\$8,500.00	\$17,000.00
42	Bypass Pumping System	1	LS	\$26,653.00	\$26,653.00	\$23,068.00	\$23,068.00	\$15,000.00	\$15,000.00	\$73,800.00	\$73,800.00	\$20,000.00	\$20,000.00
Total Sanitary Sewer Bid Items: (Item Nos. 33-42)					\$131,516.00		\$159,846.00		\$141,392.00		\$357,527.00		\$155,880.00
Total Base Bid Price: (Item Nos. 1-42)					\$830,260.00		\$899,005.00		\$983,339.00		\$1,455,759.00		\$984,247.00

Additive Bid Item:													
ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE	UNIT PRICE	VALUE
43	Muck Removal and Replacement (Greater than 2-feet Thick)	55	CY	\$93.00	\$5,115.00	\$90.00	\$4,950.00	\$120.00	\$6,600.00	\$110.00	\$6,050.00	N/A	N/A
Total Bid Price: (Item Nos. 1-43)					\$835,375.00		\$903,955.00		\$989,939.00		\$1,461,809.00		N/A

- Note 1 DBF Construction, LLC listed an incorrect Value for Bid Item No. 23 resulting in a different total for their Total Base Bid Price and Total Brid Price
- Note 2 Ranger Construction Industries, Inc. listed an incorrect Value for Bid Item No. 33 resulting in a different total for their Total Bid Base Bid Price and Total Bid Price
- Note 3 V Engineering & Consulting Corp. did not use the Bid Scheduled of Values revised by Addendum 4 which resulted in no unit price provided for Additive Bid Item No. 43 deeming their bid Non-Responsive

See Note 2

See Note 3

LOXAHATCHEE RIVER DISTRICT

Neighborhood Sewering Schedule



Rank *	Area Description	# Lots	Activity	Original Target Date	Revised Target Start Date
14	Whispering Trails	181	Notified Owners – January 2013 Notice of Intent – November 2016 Construction Started - October 2018	2017	2017
16	Limestone Creek Road-West	71	Notified Owners – January 2013	2018	2020
16	181 st St N Gravity	11	Notified Owners – January 2013 Notice of Intent to Assess – October 2018	2018	2018
20	New Palm Beach Heights	35	Notified Owners – January 2016 Notice of Intent to Assess – October 2018 Construction Started – July 2019	2019	2019
22	Bridgewater	70	In discussions with developer/engineer	2019	2019
11	Jupiter Farms (East)	708		TBD	TBD
11	PB Country Estates	1547		TBD	TBD

* Rank based upon "2010 Septic System Inventory & Assessment"

TBD = To be determined

Remnant Areas

Rank*	Area Description	Lots	Activity	Original Target Date	Revised Target Start Date
C	FDOT Turnpike Station <i>(institutional)</i>	3 ECs	Notified to Connect – February 2016 Variance requested – May 2016	2012	2020
H	Olympus Dr, Juno (LP)	2	Notified Owners – June 2013 Prelim. Design started – August 2017 Survey - 2018	2016	2018
	18870+18890 SE Country Club Dr, Cove Pt	3	Notified Owner – April + Aug 2017 Design started – August 2017	2018	2019
	US Highway 1 (13440-13500)	3	Notified Owners – August 2017	2019	2019
	Admiral's Cove West Guard House	1	Communicated with Engineer - July 2016	2019	2019
	Thelma Ave. LPSS	4	Notified Owners – September 2017	2020	2020
EE	Hobart St SE (Martin Co.)	13	Notified Owners – January 2013	2016	2020
	197 th PI N	3	Notified Owners – April 2019		2020

Private Road Areas – Page 2

Rank *	Area Description	# Lots	Activity	Original Target Date	Revised Target Start Date
AA	Peninsular Road	5	Private Road Notice of Intent – February 2010 Partial construction complete - June 2013 Soliciting easements for remainder of project	2010	AEO
BB	Rivers Edge Road (Martin Co.)	35	Notified Owners – August 2010 Private Road-Easements Solicited –May 2014 Notice of Intent – February 2014 Project Delayed	2013	AEO
CC	171 st Street (Martin Co.)	7	Private Road - In House Design Owners notified October 2012 Easement rec'd from Church – April 2017 Grant received	2014	AEO
CC	Jamaica Dr	11	Private Road Owners notified Oct 2012	2014	AEO
CC	66 th Terr+Way	19	Notified Owners – Aug 2010 *Private Roads Notice of Intent to Assess – February 2015	2014	AEO
D	Loggerhead Park <i>(institutional)</i>	6 ECs	Need Easements from Palm Beach County	2014	2017
DD	Taylor Road	38	Notified Owners – September 2011 Private Roads	2015	AEO
EE	Imperial Woods LPSS	47	Notified Owners – October 2010 Withdrew Notification – Feb 2011 Easements Obtained – Aug 2017 + June 2018 Notice of Intent to Assess – September 2017 Grant Authorized Construction Award – February 2019	2016	2018
FF	Rolling Hills	51	Notified Owners – January 2013 Private HOA	2017	2020
FF	Gardiner Lane	1	Notified Owner – July 2013 Private Road	2017	2019
FF	North A1A	3	Postponed-Town activities in area	2012	AEO
GG	815 S US 1 (Yum Yum Tree)	9 ecs	Notified Owner – November 2014	2016	AEO
GG	Rockinghorse <i>(north of Roebuck Road)</i>	10	Notified Owners – January 2013	2018	AEO
GG	Island Country Estates	47	Notified Owners – January 2013 Private HOA-Received Easement – Feb. 2018 Notice of Intent – July 2018 Engineering Award – September 2018	2018	2019
HH	Harbor Rd. S. LPSS	6	Notified Owners – January 2014 Private Road	2017	AEO
HH	SE Indian Hills	12	Notified Owners – January 2016 Easement for Road & Utilities, No Dedication	2019	AEO
19	US Coast Guard Station Offices <i>(institutional)</i> PX Commercial <i>(commercial)</i>	2 ECs 2 ECs	US Government - private roads Albrey- mtg. w/BLM & Historical 3-2011 Prelim design prepared In House 4-2011 Working with Jupiter to obtain easement Working with BLM for options to move forward	2019	2020

* Rank based upon "2010 Septic System Inventory & Assessment"

TBD = To be determined

AEO = As easements are obtained

TIMOTHY W. GASKILL*
*Business, Probate
Family Litigation*

DONALD R. SMITH +*
*Personal Injury & Wrongful Death
And Civil, Business & Real Estate
Litigation*

CURTIS L. SHENKMAN
*Board Certified
Real Estate Attorney*

BROOKE GROGAN*
Personal Injury & Litigation

BRANDON D. SMITH
Personal Injury & Litigation

+ *Member of the Florida Justice Assoc.
and the Palm Beach Co. Justice Assoc.

*Members of the U. S. Federal Court -
Southern District, Florida

SMITH, GASKILL & SHENKMAN, P.A.

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August 6, 2019

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REAL ESTATE
JUDY D. MONTEIRO
DENISE B. PAOLUCCI
MELISSA KAJEEJIT

Loxahatchee River Environmental Control District
D. Albrey Arrington, Exec. Dir. and Board Members (sent by email to DHenderson)
2500 Jupiter Park Drive
Jupiter, FL 33458

RE: PENDING LITIGATION STATUS REPORT

Dear Dr. Arrington and Board Members:

We are enclosing herewith a brief status report relating to the litigation in which the Loxahatchee River Environmental Control District is involved with our law firm as the attorney of record. This status report updates the last monthly status report previously submitted and consists of a summary of the record proceedings which have occurred in each of the pending cases since last month.

There are no analyses of the pending cases included, as the inclusion of such items might constitute a waiver of any attorney/client privilege that exists between our firm and the District. Therefore, if you would like to discuss the particulars of any specific case in more detail or would like to obtain more information concerning the strategy, status, or settlement posture of any of the individual cases, please feel free to contact me.

As always, we are available at any time to discuss any of these lawsuits with each individual Board Member by telephone or by conference, if there are any questions.

Respectfully submitted,

CURTIS L. SHENKMAN

CURTIS L. SHENKMAN

Attachments

cc: Timothy W. Gaskill, Esquire
Karen Boyden, paralegal

OTHER LITIGATION

ACTION: In Re Estate of Israel Marquez et al ...Loxahatchee River Envir Control District
Owner: Estate of Israel Marquez **Property:** 911 Hawie St.
Case No. 50-2010-CP-004006XXXXSBIY

TYPE OF ACTION: Mortgage Foreclosure by Lender, LRD named for its (possible) lien interest –

COMMENCEMENT: Service of Summons/Petition

COMMENTS: Action foreclosing mortgage– LRD named for lien interest

STATUS: Pending

11/24/14	District served with Petition re Homestead and Real Property as Estate Asset; Filed Answer and Affirmative Defenses; Hearing to be held
12/10/14-1/6/15	No change in status
2/3/15	No change in status
3/6/15-5/11/15	No change in status; monitoring probate action; monitoring for activity;
6/8/15-7/9/15	No change in status
8/7/15 – 10/12/15	No change in status, continuing to monitor probate
11/10/15	There is a pending Motion to sell real estate set for hearing in December, continue to monitor
12/7/15	No change in status
1/18/16 – 7/7/16	Last Activity in Court Docket 12/17/14 requiring a paternity test; continue to monitor ; No change in status
8/8/16 – 10/13/16	No change in status
11/9/16-12/14/16	No change in status –probate proceedings continuing
1/10/17 – 9/20/17	No change in status – Probate proceedings continuing –no activity since 11/15/16 on docket
10/6/17-12/6/17	No change in status – Probate proceedings continuing –no activity since 11/15/16 on docket
1/8/18	No change in status - Probate proceedings continuing –no activity since 11/15/16 on docket
2/5/18	No change in status - Probate proceedings continuing –no activity since 11/15/16 on docket
3/5/18 – 4/2/18	Only new filings in March were Petition to determine Paternity and Petition to Sell Property and delay Tax Deed Sale
5/10/18	No change in status
6/10/18-7/10/18	Probate still ongoing; Hearing on Per. Rep’s Petition to Delay Tax Deed Sale scheduled for 7/12/18; no other change in status
8/7/18	Hearing on Sale of Property held and Order entered authorizing sale; to monitor re sale and estoppel for any outstanding charges to LRD

9/7/18- 1/18/19	No sale reflected in public records to date, continue to monitor; Order entered in Probate declaring property to be homestead property
1/19/19- 8/11/19	No change in status

LIEN FORECLOSURES

NONE

MORTGAGE OR LIEN FORECLOSURES / LRD COUNTERCLAIMS/CROSSCLAIMS

NONE



Loxahatchee River Environmental Control District
Monthly Status Report
August 8, 2019

Submitted To: Kris Dean, P.E, Deputy Executive Director/Director of Engineering

The following is a summary of work performed by Baxter and Woodman, Inc. (B&W), on District projects for the monthly period ending August 8, 2019.

Alternate A1A 16-Inch Force Main Extension

B&W continued to coordinate with the U.S. Army Corps of Engineers to address potential impacts to mangrove plants on the south side of the bridge. B&W submitted a response to USACOE Request for Information No's. 2 and 3. Contractor previously completed all possible project work. The remaining work includes a 225-ft section of force main south of the Alternate A1A Bridge. USACOE has indicated that upon receipt of the information requested in RFI No. 3 the application should be complete. B&W is waiting on final confirmation from USACOE.

Master Lift Station No. 1 Rehabilitation

The following items were ongoing or completed during the last monthly period:

- Pump station system start-up and testing was completed
- Substantial Completion was achieved on July 11, 2019
- Final Completion is required within sixty-five (65) days of Substantial or September 14, 2019 vs. Contract Final Completion date of August 3, 2019.
- Exterior painting is complete
- Interior painting is 90% complete
- Interior mechanical, electrical & I&C is 98% complete.
- Site work ready for paving restoration. Contractor is waiting on asphalt paving subcontractor

Whispering Trails Gravity Sewer System

Below is a summary of the ongoing construction activities for the project:

- Completed all proposed gravity sewer laterals
- Completed installation of LS #180 mechanical items
- Completed installation of LS #180 electrical items
- Entire sewer system installed
- Sewer system testing underway

- Record Drawing survey underway
- Approximately 60% of the neighborhood has roadway reconstructed with 1st lift of asphalt pavement
- Completed first lift of asphalt pavement installation west of LS #180
- Began restoration of disturbed drainage swales
- Began restoration of damaged driveway aprons
- Contractor is three (3) weeks behind Substantial Completion (July 18, 2019)
- There are two (2) pending time extension requests (FPL Conflicts & PBC Drainage Repairs)
- The Contractor's goal is to complete the project within allotted Final Completion timeframe (September 14, 2019)

Jupiter Farms Elementary Sanitary Sewer System

Below is a summary of the ongoing activities for the project:

- The project is currently behind schedule. The District issued the Notice-to-Proceed on May 13, 2019. Contractor did not mobilize to the project site until August 3, 2019. Contractor is in the process of developing and implementing a recovery schedule to compress and accelerate the project task in order to meet the Contract dates
- Shop drawing preparation, submittal and approval process is ongoing

Irrigation Quality Pump Station 518 Chlorine Study

Below is a summary of the ongoing activities for the project:

- Project Notice-to-Proceed was issued on August 5, 2019
- B&W is in the process of evaluating the existing chlorine storage and feed systems
- DRAFT Chlorine Study Report is scheduled for submission on or before September 16, 2019.

Respectfully Submitted by:

BAXTER & WOODMAN, INC.



Jason A. Pugsley, P.E.
Vice President / Florida Operations Manager

MEMORANDUM

TO: Albrey Arrington, Ph.D. / Loxahatchee River District

COPY: Kris Dean / Loxahatchee River District
Tony Campbell / Loxahatchee River District

FROM: Albert Muniz / Hazen and Sawyer

DATE: August 7, 2019

FILE: 42009-034

SUBJECT: Loxahatchee River District
Engineer's Monthly Status Report through July 31, 2019

The following is a summary of work performed by Hazen and Sawyer (Hazen) on Loxahatchee River District (LRD) projects through the above referenced date.

General Operational Assistance – This project involves providing LRD with engineering assistance related to wastewater operations.

- Hazen will be submitting task orders for an odor control study and an evaluation of Green Gas Emissions. Task Orders are currently being developed for review by LRD staff.
- Hazen is routinely communicating with LRD staff to discuss plant operations.

Deep Bed Sand Filters – Final Design and Construction Management Services –The following provides a summary of tasks that have occurred during the above reporting period:

- The final Change Order and Pay Application have been processed.
- The filter sampling program to determine the effectiveness of removal of contaminants of emerging concern (CECs) and cryptosporidium/giardia filter was completed. A memorandum to discuss findings is being prepared for review and discussion with LRD staff.

Injection Well Operating Permit Renewal – The renewal operating permit application for the Class I Injection Well was submitted to FDEP on April 1, 2019. A request for additional information was received on May 24, 2019. Responses to FDEP's comments were prepared and submitted to FDEP on June 12, 2019.

BioWin™ Process Model Development and Training – Hazen has completed the DRAFT BioWin™ Technical Memorandum and training. A meeting to discuss comments on the draft memo was held in July, and a copy of the final Technical Memorandum was submitted to LRD in July. Project is complete.

As always, please feel free to contact us should you have any questions or need to discuss the progress of any of the above projects in more detail.



HOLTZ CONSULTING ENGINEERS, INC.
270 South Central Boulevard, Suite 207, Jupiter, FL 33458 (561) 575 2005

MEMORANDUM

To: Kris Dean, PE, Deputy Director/Director of Engineering, Loxahatchee River Environmental Control District

From: Christine Miranda, PE, Holtz Consulting Engineers, Inc.

Date: August 8, 2019

Subject: **Loxahatchee River Environmental Control District Monthly Status Report**

The following is a summary of work performed by Holtz Consulting Engineers, Inc. (HCE) on Loxahatchee River District projects through August 8, 2019. **Note: Any information that is historical or repeated from previous months are shown in italics. Otherwise, all information as shown below is newly reported information.**

Imperial Woods Low Pressure Sewer System

- All curbing restoration and pavement resurfacing work are completed. A walkthrough for the project occurred on July 24, 2019 and the Contractor has completed all punch list items. HCE is currently working with an arborist to develop a root pruning plan for the large oak trees at the entrance of the development. Upon completion of the development of the root pruning plan, HCE will provide this information to the Contractor for the execution of the pruning of the trees and the installation of root barrier in the island at the entrance to the development. HCE is currently working on preparing and submitting certification to the permitting agencies to closeout all permits.

Island Country Estates Low Pressure Sewer System

- The pre-bid meeting was held on July 23, 2019 at the District office. After the pre-bid meeting was held the District was provided an updated roadway assessment report from the homeowner's association that affects the current roadway design. At this time, District staff were also requested to provide design and rehabilitation of the aging and damaged stormwater structures throughout the neighborhood. HCE has issued an addendum delaying the bid opening for this project to address these roadway and stormwater issues in the current design.

Lift Station No. 082 Master Plan and Improvements

- *HCE is currently working on completing and calibrating the model. Upon completion of the model calibration, the different modeling scenarios will be completed. A technical memorandum summarizing the results of the modeling efforts will be provided to District staff by August 28, 2019.* HCE is currently developing the base plan sheets for the design of the lift station improvements.

Busch Wildlife Sanctuary

The 3rd Quarter Report will be presented at the
October 2019 Board Meeting.

Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

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



To: Governing Board
From: Kara Fraraccio, Director of Finance and Administration
Date: August 9, 2019
Subject: Monthly Financial Report

Cash and Investments

Balances as of July 31, 2019

Certificates of Deposit:

Institution	Original Term	Maturity	Rate	Book Value	Monthly Interest Earned	Market Value
US Bank	1 Year	08/01/19	2.45%	1,500,000	3,089	1,537,166
TD Bank	5 Years	09/22/19	2.09%	2,000,000	3,922	2,213,515
Bank United	18 Months	02/04/20	2.65%	1,000,000	2,274	1,012,775
Bank United	2 Years	04/02/20	2.46%	2,000,000	4,205	2,016,768
US Bank	18 Months	05/01/20	3.00%	1,507,875	3,916	1,540,830
Bank United	18 Months	06/07/20	2.88%	1,500,000	3,729	1,528,160
US Bank	2 Years	01/29/21	2.71%	1,011,450	2,278	1,024,967
Bank United	2 Years	03/11/21	2.60%	1,000,000	2,222	1,010,140
Subtotal				\$ 11,519,325	\$ 25,635	\$ 11,884,321

Money Market Accounts:

Synovus - Public Demand	2.28%	\$ 23,242	\$ 12,174,664
TD Bank - NOW	2.38%	16,207	8,136,493
Subtotal		\$ 39,449	\$ 20,311,157

Checking Account:

SunTrust-Hybrid Business Account	0.50%		\$ 1,810,201
Subtotal		\$ -	\$ 1,810,201
Total		\$ 65,084	\$ 34,005,679

Average weighted rate of return on investments is: 2.31%

As of 7/31/19:

3 month Short Term Bond: 2.08%

1 month Federal Fund Rate: 2.40%

Cash position for July 2018 was \$36,939,890. Current Cash position is **down** by \$2,388,211.

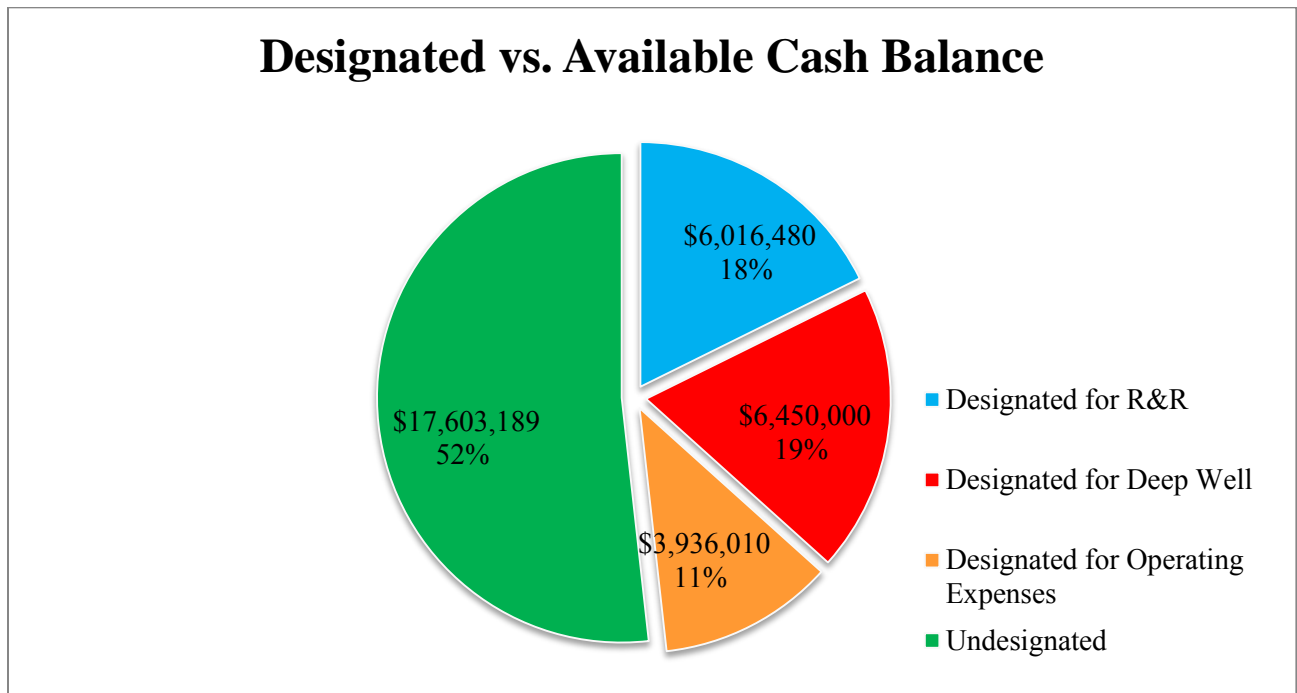
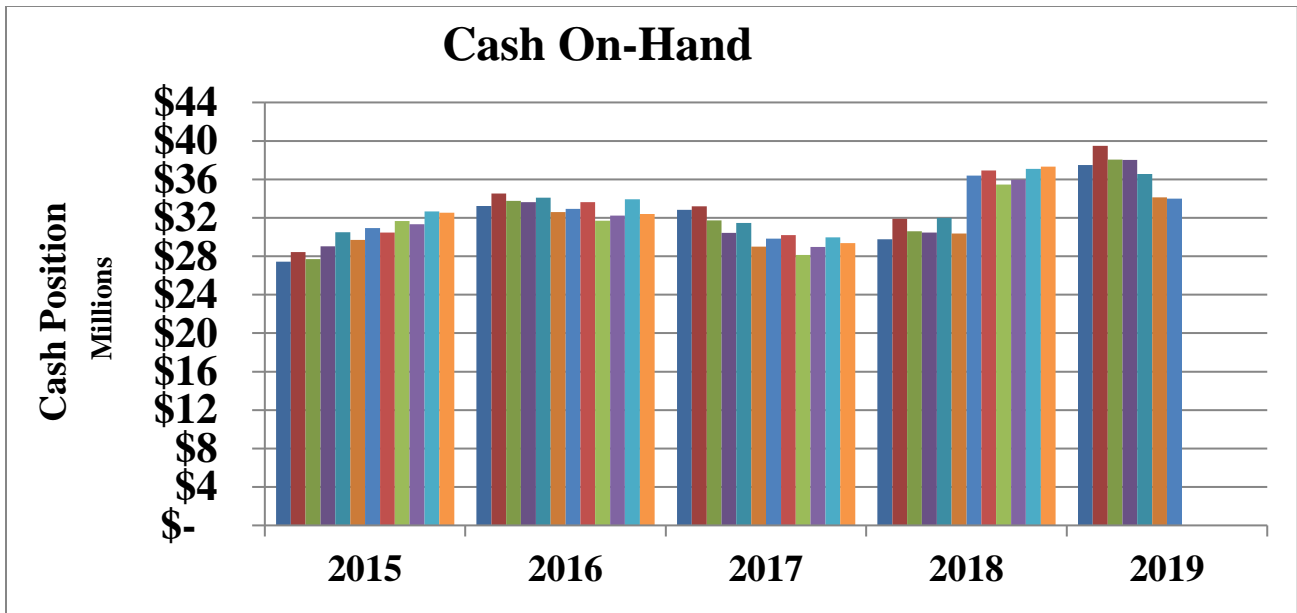
Gordon M. Boggie
Board Member

Stephen B. Rockoff
Board Member

Dr. Matt H. Rostock
Chairman

Harvey M. Silverman
Board Member

James D. Snyder
Board Member



Financial Information

- Legal fees billed for the month of July were \$23,112. The fiscal year-to-date total is \$86,542.
- Septage billing for the month of July was \$74. The fiscal year-to-date total is \$310.
- Developer's Agreement – No new Developer agreements were entered into in July.
- I.Q. Water Agreements – Abacoa POA and Island of Abacoa, are past due for June and July; Sophia and Town Center I are past due for July.
- Estoppel fees collected in July totaled \$7,250. The fiscal year-to-date total is \$75,600.

Summary of Budget vs. Actual

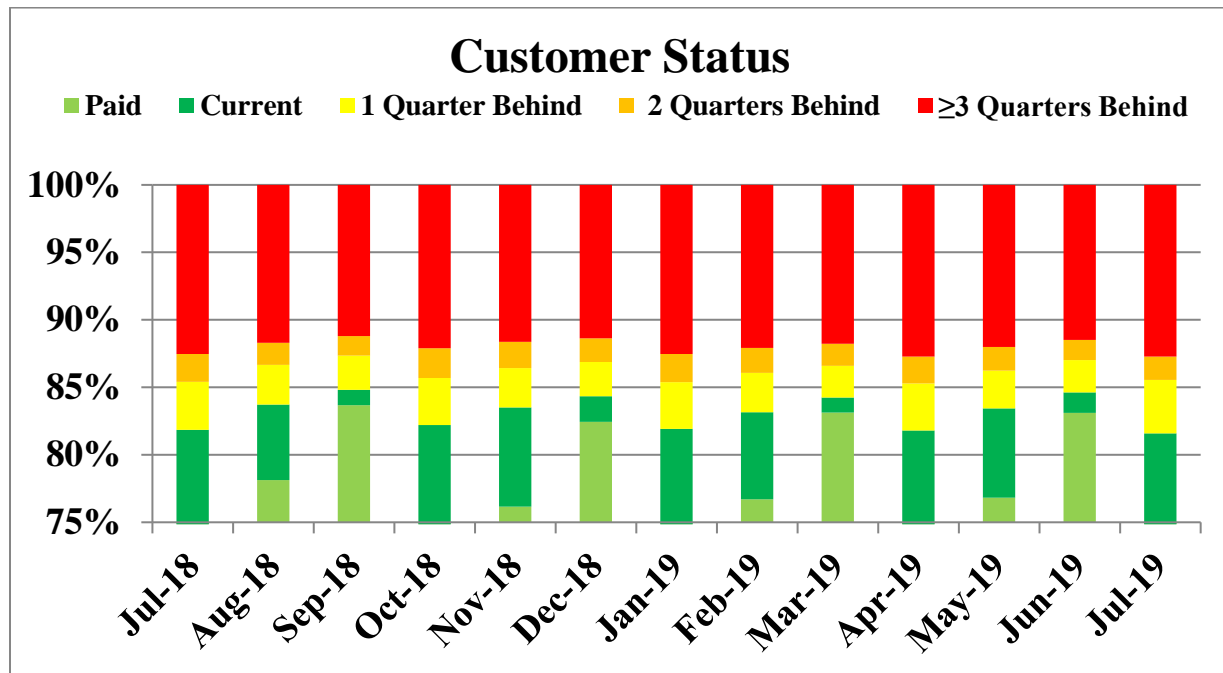
<i>Budget Benchmark</i> 83.00%	Jul-19 Actual	YTD Actual	FY 19 Budget	Favorable (Unfavorable)	Budget Expended	Jul-18 YTD
Revenues						
Operating Revenues						
Regional Sewer Service	\$1,408,732	\$13,991,617	\$ 17,067,530	\$ (3,075,913)	81.98%	\$13,952,469
Standby Sewer Service	8,328	82,430	157,550	(75,120)	52.32%	104,138
IQ Water Charges	196,205	1,969,372	2,264,000	(294,628)	86.99%	1,923,288
Admin. and Engineering Fees	3,085	38,197	48,865	(10,668)	78.17%	93,342
Other Revenue	97,495	415,668	183,000	232,668	227.14%	450,250
Subtotal Operating Revenues	1,713,845	16,497,284	19,720,945	(3,223,661)	83.65%	16,523,487
Capital Revenues						
Assessments	46,016	1,210,428	824,000	386,428	146.90%	5,306,563
Line Charges	14,684	184,601	232,575	(47,974)	79.37%	470,108
Plant Charges	49,013	417,881	1,402,600	(984,719)	29.79%	1,195,621
Capital Contributions		56,132	917,000	(860,868)	6.12%	467,434
Subtotal Capital Revenues	109,713	1,869,042	3,376,175	(1,507,133)	55.36%	7,439,726
Other Revenues						
Grants	1,197	26,766		26,766	100.00%	13,257
Interest Income	72,891	1,255,799	1,217,500	38,299	103.15%	355,341
Subtotal Other Revenues	74,088	1,282,565	1,217,500	65,065	105.34%	368,598
Total Revenues	\$ 1,897,646	\$ 19,648,891	\$ 24,314,620	\$ (4,665,729)	80.81%	\$ 24,331,811
Expenses						
Salaries and Wages	\$409,990	\$4,053,373	\$ 5,687,700	\$ 1,634,327	71.27%	\$3,927,195
Payroll Taxes	31,229	304,508	416,500	111,992	73.11%	295,299
Retirement Contributions	79,966	606,482	710,900	104,418	85.31%	624,296
Employee Health Insurance	90,006	906,543	1,339,800	433,257	67.66%	976,858
Workers Compensation Insurance		89,197	114,600	25,403	77.83%	85,488
General Insurance	1,063	339,165	346,716	7,551	97.82%	326,552
Supplies and Expenses	79,803	818,161	1,138,160	319,999	71.88%	877,119
Utilities	102,603	1,077,678	1,409,350	331,672	76.47%	1,107,878
Chemicals	26,914	431,295	672,570	241,275	64.13%	534,218
Repairs and Maintenance	166,629	1,561,994	1,830,615	268,621	85.33%	1,191,317
Outside Services	101,119	1,407,404	1,852,110	444,706	75.99%	1,447,226
Contingency			225,000	225,000	0.00%	
Subtotal Operating Expenses	1,089,322	11,595,800	15,744,021	4,148,221	73.65%	11,393,446
Capital						
Capital Improvements	950,367	6,329,019	11,088,500	4,759,481	57.08%	3,848,231
Renewal and Replacement	459,154	4,342,442	7,278,500	2,936,058	59.66%	2,639,583
Contingency			225,000	225,000	0.00%	40,495
Subtotal Capital	1,409,521	10,671,461	18,592,000	7,920,539	57.40%	6,528,309
Total Expenses	\$ 2,498,843	\$ 22,267,261	\$ 34,336,021	\$ 12,068,760	64.85%	\$ 17,921,755
Excess Revenues						
Over (Under) Expenses	\$ (601,197)	\$ (2,618,370)	\$ (10,021,401)	\$ 7,403,031		\$ 6,410,056

Pending/Threatened Litigation

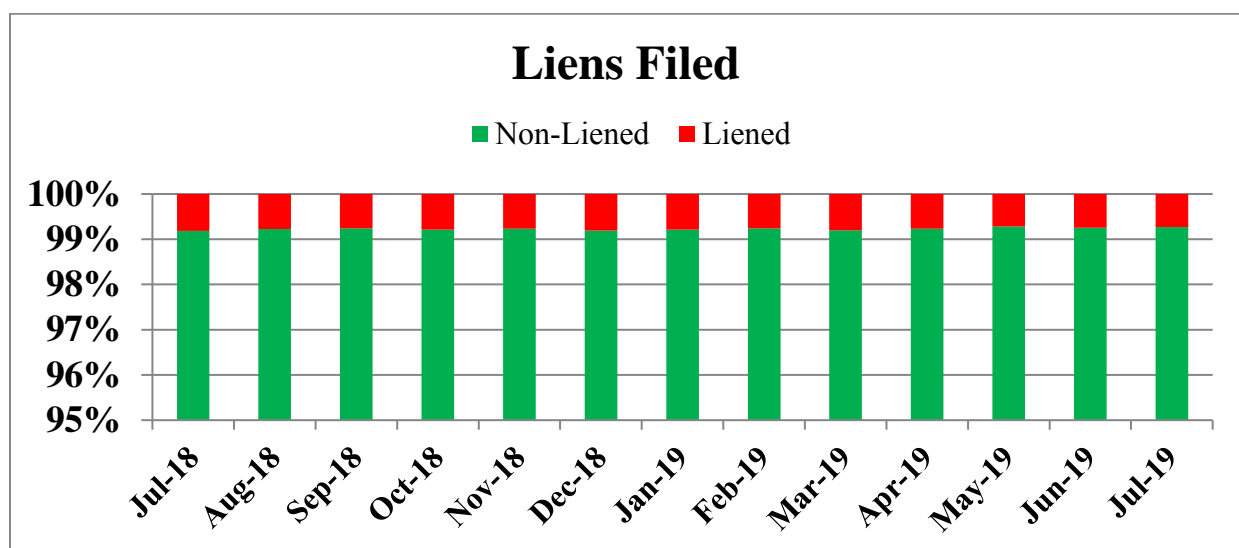
- No pending or threatened litigation.

Accounts Receivable

The chart below illustrates customers' receivable status as a percentage of quarterly sewer billing. Paid or current balances represent approximately 82% billing.



The District serves approximately 32,600 customers. Currently, the District has 238 liens filed which represent approximately 1% of our customers.



Loxahatchee River District

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

MEMORANDUM

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

FROM: Kris Dean, P.E.
Deputy Executive Director/Director of Engineering Services

DATE: August 8, 2019

SUBJECT: Engineering Services Report – August 2019 Board Meeting

ENGINEERING IN-HOUSE PROJECTS

Lift Station Fall Protection: After evaluating nets, hand rails and grates staff have agreed a retro-fitted safety grate is the preferred approach to providing fall protection at lift stations. The initial field evaluation is complete and staff are coordinating with the manufacturer to specify the preferred installation and 1-2 alternates for locations where the preferred option will not fit. Once the installation options are determined we will go out to bid and award a contract to have the fall protection installed at all lift stations.

Lift Station Rehabilitations General Construction Services: Rehabilitation requirements on three stations have been finalized and purchase orders issued for their rehabilitation. Completion of these stations is currently scheduled by the end of September 2019. Staff are working with homeowners, the Town of Jupiter and FPL on street light relocation and driveway configurations at a fourth station.

Additionally, in EAM we have been accumulating condition data on lift stations and the various assets that make up the lift station. Staff are beginning work on a new tool to evaluate and prioritize this data for future rehabilitation work.

Cellular Telemetry: IT and Engineering staff are working on a project to test cellular telemetry installation at existing stations with no telemetry. The third alternate option is online and staff will begin working on the procurement process once the viability of the options is determined. It is anticipated that we will select up to three suppliers to source telemetry units through a competitive bid process.

181st Street Gravity Sewer System: This project will serve 11 lots located just off Limestone Creek Rd. The new system will tie into an existing gravity system in Limestone Creek Rd. Design is complete. Comments from PBC Land Development have finally been resolved and permit issuance is anticipated this month, followed by the bidding process beginning in September and concluding in November of this year. Actual construction is slated for early 2020.

New Palm Beach Heights Low Pressure Sewer System: This project will serve 36 lots located just off US 1 south of Donald Ross Rd. The new system will tie into an existing gravity system serving the commercial property to the north. Construction has commenced and is expected to conclude in September, this year.

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

Olympus Drive Force Main Replacement: This project is part of our asbestos cement (AC) force main replacement program and will replace approximately 2,000 feet of AC force main in Juno Beach. Soft digs were completed but results were not conclusive. Staff are investigating further with GPR and potholing as required. This project has been significantly delayed from the original schedule but the importance of the utility locates given the nature of the proposed directional bore installation warrants the delay.

LS 43 Emergency Generator: A project to provide a permanent emergency standby generator at LS 43. This station is part of the cascading lift station system along Country Club Drive in Tequesta. This project bid on May 7, 2019. Construction is slated to commence this month and conclude in October/November, this year.

LS 62 Emergency Generator: A project to provide a permanent emergency standby generator at LS 62. This station is a significant repump station serving areas Tequesta and Jupiter Island. This project bid on May 7, 2019. Construction is slated to commence this month and conclude in October/November, this year.

Lift Station 57 and 58 Tie-in to Transmission System: Both cascading stations will be connected to an adjacent transmission force main relieving significant flow to the repump station. Final design is complete. Staff are coordinating internally for lift station panel and pump upgrades to accommodate the increased head pressures.

Lift Station 70 Emergency Generator and Power/Control Panel: This project provides a permanent emergency generator at lift station 70 and a new power and control panel including variable speed pump drives. In an effort to expedite the panel and complete this work with the emergency generator, staff included the panel as a design/build specification, with specific component and performance requirements, in the emergency standby generator project. Staff have placed the station on bypass and the new panel is installed. Start up continues into August. The station is technically online but we still have the bypass installed while we resolve some communication and telemetry issues.

Radio Telemetry System: The work is complete. We anticipate having a performance report to include in September's report.

Penn Park Lateral Lining: A PBC neighborhood repaving project. Paving has been postponed to allow the District to inspect their gravity system and perform any improvements prior to paving. Lateral lining is underway as well as final punch list items from the main lining and final cleanout installations. We anticipate this neighborhood lining project to be complete by the end of August. A change order to address actual field conditions is included in Tab 5D

Lift Station 097 Main Lining: Main lining in LS097 collection system began in June. We anticipate main lining to be complete by the end of August.

CONSTRUCTION DEPARTMENT



Staff found a broken cleanout in the Heritage Oaks subdivision that had allowed significant amounts of dirt and debris into the service lateral causing a blockage. During the repair they noted the house gutter system discharged upland of the cleanout. In heavy rains roof runoff was flowing directly into the cleanout. This repair will help prevent significant amounts of inflow and infiltration from entering our system during rain events.

COLLECTIONS/REUSE



The Master Lift Station went back online July 11, 2019 and has been running continuously since. Staff have been working on new settings for wetwell levels and various other operational parameters to streamline operation and minimize maintenance (wetwell cleaning).

Shown to the right is the Xylem MAS (Monitor and Status) Unit, which continuously monitors the pump motors for vibration, temperature, current, leakage and contaminated oil.



SANITARY SEWER OVERFLOWS

There was 1 sanitary sewer overflow in the collection/transmission system for the month of July. The overflow occurred from a gravity service in Lift Station 027's collection system. This system is an older vitrified clay pipe system, installed in 1981, and the service lateral had a bad dip (low spot) in the service. These low spots, not associated with a pipe failure, typically were a result of poor initial installation and has likely existed on this service since originally installed 38 years ago. After this much time solids finally accumulated in the low spot sufficient to block the pipe and cause the overflow. Staff are monitoring the service while permits are acquired and the correction to the service performed.

Loxahatchee River District

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

MEMORANDUM

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

FROM: Tony Campbell, Director of Operations

DATE: August 8, 2019

SUBJECT: Operations Department Monthly – Report for July 2019

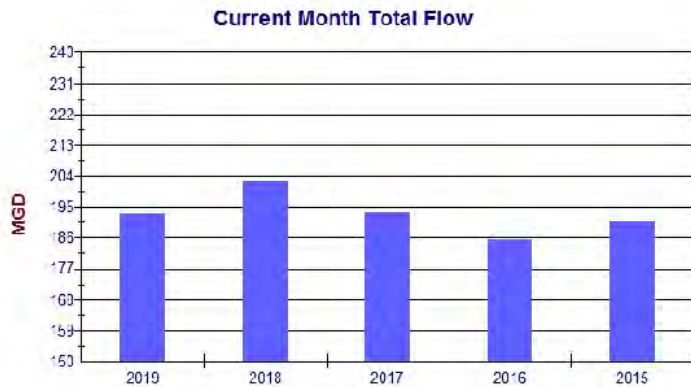
Treatment Plant Division

Strategic Plan and District Values:

In the month of July Operations implemented new procedures to improve our procedure of pumping down basins (e.g., aeration basin) to complete preventive maintenance. Over the past several months Operations suffered numerous avoidable spills while using large portable pumps to pump down these basins. By introducing a high velocity 3 phase, 2-inch submersible pump we're able to accomplish the same objective while keeping both the pump and discharge point contained inside the basin. This not only will greatly reduce the probability of a preventable spill, it also keeps the District's Strategic planning objectives in mind by following our current strategy map. This is an excellent example of Operations following Strategic Objective **2.4, improving procedures** and one of the District's Values of **Innovation**. Operations will continue toward finding additional opportunities to accomplish more of our District's strategic plan objectives and our District Core Values.



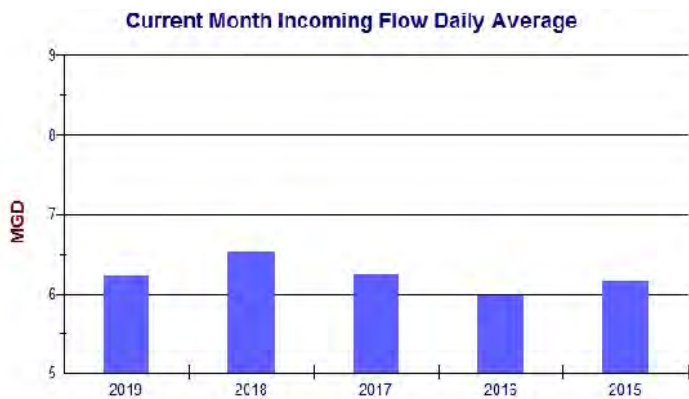
We've had another great month of no permit exceedances.



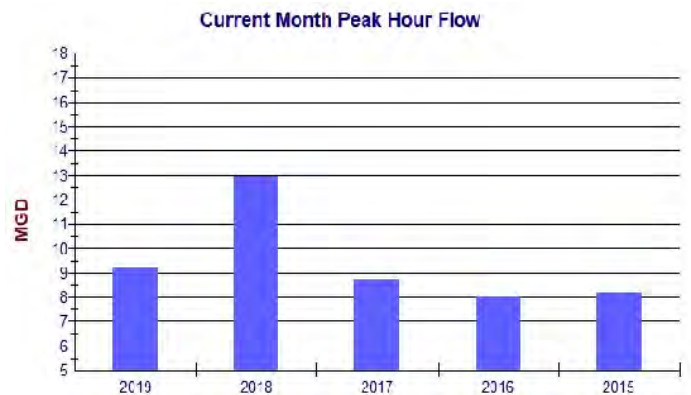
The plant total flow for the month of July was 192.87 million gallons.



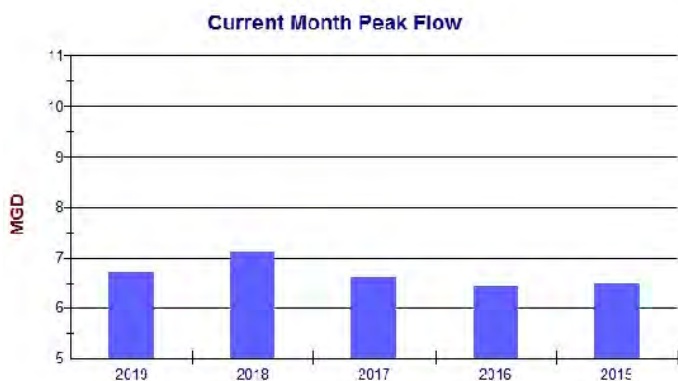
6.34 inches of rain was recorded at the plant site during the month of July.



The treatment plant incoming flow for the month of July averaged 6.22 MGD compared to 6.52 MGD one year ago, for the same month.

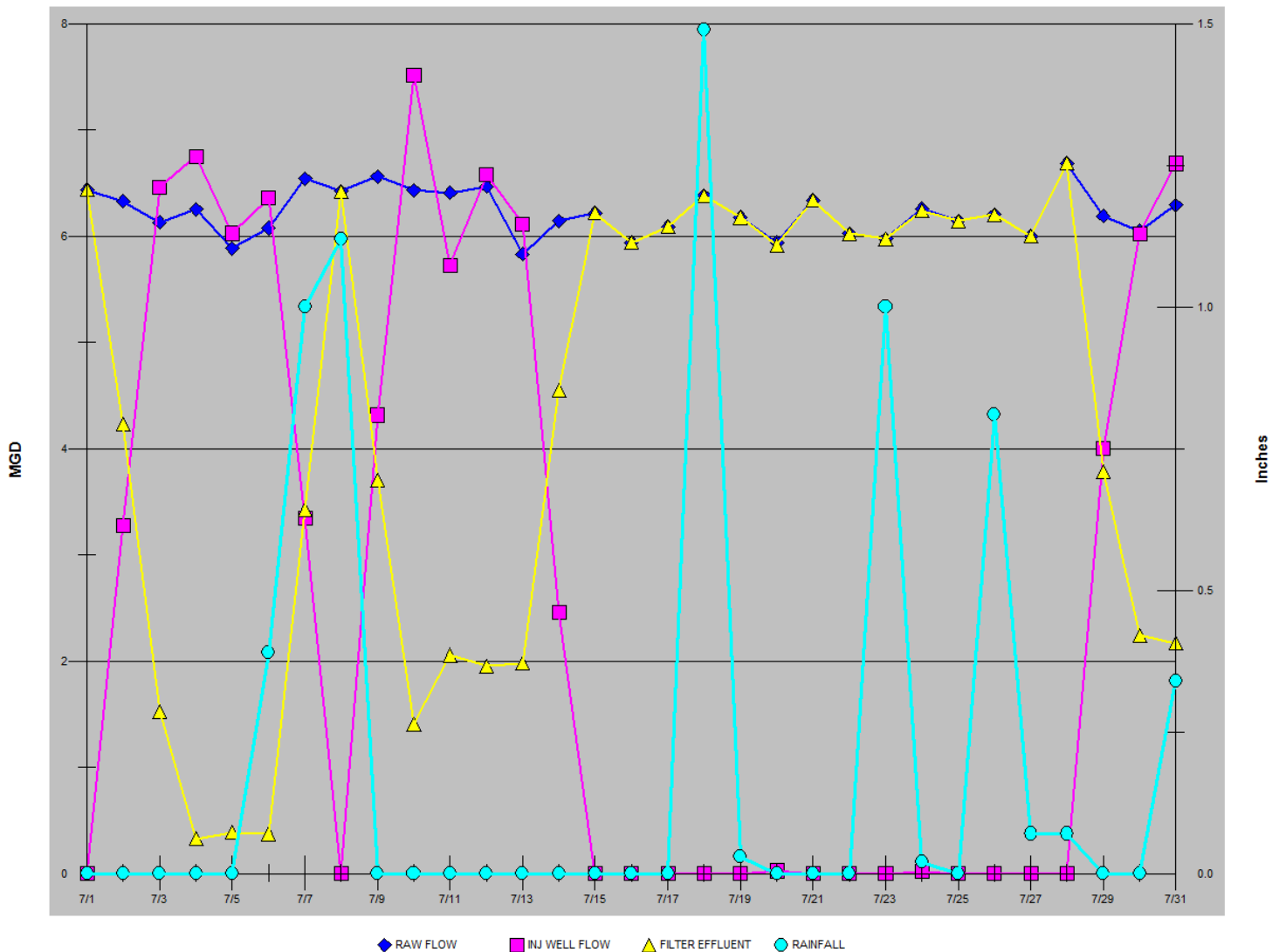


The peak hourly flow rate in July was 9.19 MG.



The greatest single day average flow in July was 6.69 MGD.

For the month of July, the plant received 192.87 MG of influent flow of which 133.34 million gallons were sent to the IQ storage system where they were dispersed as needed to the various golf courses and the Abacoa development sites. We received 6.34 inches of rain during the month and 81.71 million gallons of blended effluent was diverted to the Injection Well. Overall, 69.13% of incoming flows were recycled for IQ use and the plant delivered 168.28 million gallons of IQ water to the Reuse customers.



Year to date, the plant recycled 67.58% of all incoming flow and the total amount of IQ water delivered to reuse customers stands at 1,050.03 million gallons.

All monthly reporting has been submitted on time.

Treatment Plant:



On July 11th operations and maintenance worked together to replace a bad gasket on our aeration basin influent air header. This was no small project and required a temporary diversion of all influent and both Maintenance and Operations working side by side to complete. Due to the careful planning this shutdown was finished during the day without any flow held back in the collections system. By 7:41 A.M. operations shut the plant down and handed the plant over to our maintenance department which finished the job as scheduled. The job was finished, and the plant was brought back online at 10:13 A.M. with no detriment to plant process. It was a great showing of collaboration between both departments.

SCADA Improvements:

In the photo to the right, Operations has worked alongside IT to improve the functionality and standardizing of control functions on our SCADA system. By implementing these changes to vital controls, operators will have a more simplified process when changing pump speeds and setpoints regarding flow rates to our Deep Bed Filters. IT is continuing these upgrades throughout our SCADA system to both streamline and standardize operators control processes.



Maintenance Department:

The photo to the right depicts a new Manual disconnect switch and plug installed at the front of each of our three Aeration Basins. The purpose of this switch is to create a safe power source for our new 3-Phase submersible pump. Maintenance kept safety in mind when installing by adding a lock out tag out Manual disconnect and weather resistant plug and controls. We will eventually install this same configuration on all our clarifiers as well for means of safe and efficient way to dewater a basin.



In the photo to the left a new chemical tank was installed at our sludge holding. This double wall, 1000-gallon polyethylene tank will contain a concentration of bleach used for our chemical scrubber at Dewatering's sludge storage tank. The Maintenance department also replaced the old drain assembly, level sensor and fabricated all new PVC connections and piping.

Loxahatchee River District

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

MEMORANDUM

TO: Albrey Arrington, Ph.D., Executive Director
FROM: Bud Howard, Director of Information Services
DATE: August 8, 2019
SUBJECT: Monthly Governing Board Update for July 2019

WildPine Ecological Laboratory

Riverkeeper Project

In July, District and Town of Jupiter staff collected water quality samples from 26 monitoring stations throughout the watershed. Compared to June, bacterial concentrations improved (were lower) though nutrient concentrations worsened this month.

Fecal coliform bacteria scored “Poor” at 4 of the 26 (15%) stations when scored to DEP’s threshold of 800 MPN/100 mL, compared to 44% of the stations in June. The average bacteria counts for all stations sampled dropped from 2,509 MPN/100 mL in June, to 356 MPN/100 mL in July. The Jones Creek station (CALC), had the highest concentration of fecal coliform bacteria at 2,909 MPN/100 mL, but this was much lower than last month when it was 12,991 on June 3 and 6,488 on June 5. It is puzzling to see such dramatic shifts in bacteria concentration at the Jones Creek stations from June to July even though the precipitation, temperature, and tide cycle (ebb) were similar between sampling events.

Chlorophyll (Chla) concentrations scored “Poor” at 17 of 26 (65%) Riverkeeper stations when compared to the stringent EPA/DEP’s Numeric Nutrient Criteria (NNC) for each river segment, up from 47% of the sites in June. The Jones Creek station CALC had the highest concentration at 53 ug/L, ten times higher than the NNC (5.5 ug/L) for that basin. The average chlorophyll value for all stations was similar to June at 12 ug/L.

Total Phosphorus (TP) concentrations worsened in July with 8 out of 26 (31%) Riverkeeper stations exceeding the NNC, up from 13% in June. The Jones Creek station CALC had the highest concentration at 0.156 mg/L, twice as high as the NNC (0.075 mg/L) for that region. However, the average for all stations in July was similar to June at 0.053 mg/L TP.

Total Nitrogen (TN) concentrations in July were good with all stations meeting the NNC again. The average for all stations in July was similar to May and June at 0.8 mg/L TN.

Jones Creek Additional Monitoring

We have begun some interesting new water quality monitoring work that we will be doing in Jones Creek over the coming months.

First, we have rented two very sophisticated water quality instruments, and, with the great help of residents, we have those deployed in areas with sufficient depth to record water quality measurements throughout the tidal cycle. These instruments have a variety of sensors to measure parameters such as temperature, salinity, dissolved oxygen and pH every 15 minutes. What is special about these instruments is they also have cutting-edge sensors to also measure turbidity (the cloudiness of the water) and chlorophyll (a measure of algae in the water). We have just completed a test deployment to evaluate the performance of these sensors relative to samples collected and analyzed in the laboratory and the preliminary results suggest the sensors are performing well.

In addition, through a partnership project with the Florida Department of Environmental Protection (FDEP), we will collect samples every two weeks from August 12 through December 16 and have those samples analyzed by FDEP's Laboratory for highly technical parameters such as genetic and chemical tracers for human, dog and bird waste.

We are hopeful that the results from this new work will improve our understanding of the water quality issues in Jones Creek and, collectively, we can make more informed decisions toward improvements.

WildPine Laboratory In the News

On July 12, 2019, WildPine Lab Staff were interviewed by WPTV Channel 5's Sabirah Rayford as part of the *Protecting Paradise* news series. Jerry Metz, Rachel Harris, Danny Tomasello and Susan Noel took Sabirah and her camera man on the water for in-water filming. We talked to her about declining seagrasses in the Loxahatchee River and how this is a complex, world-wide problem.

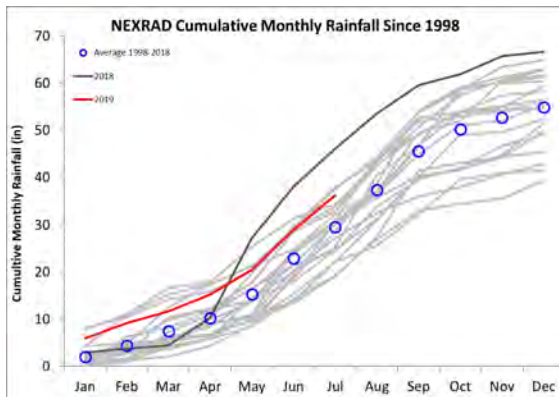
Click [HERE](#) to view the story.

A special shout-out goes to our intern, Danny Tomasello, who helped capture some great video footage for the story.



A group of scientists and researchers at the Loxahatchee River District say they're seeing dangerously low amounts of seagrass in our area.

Hydrologic Monitoring

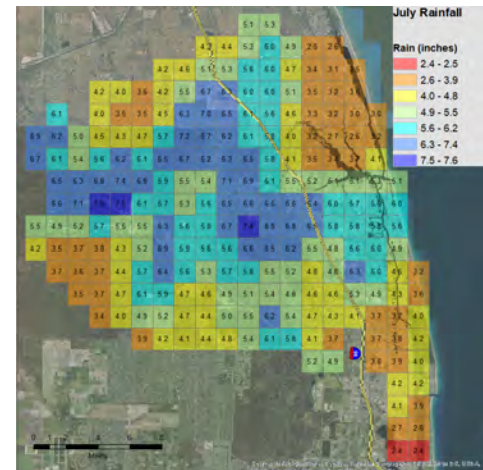


Cumulative annual rainfall using NEXRAD radar-based data. Red line indicates current 2019 cumulative rainfall total. Blue circles indicate mean cumulative rainfall since 1998. (2018 indicated as dark gray line).

July's average rainfall total across the watershed was 7.1", marginally higher than the historical average 6.7" normally measured in July. There were no major rain events during July as the highest daily rainfall was 0.9" measured on July 26, but the watershed did experience a meaningful amount of rain during 28 of the 31 days of the month. Cumulative rainfall for the year through July measures 36.2" which is 22% above the 29.6" typically observed January through July (Figure-left).

The highest portion of July's rain fell along the central and western regions of the watershed including Jupiter

Farms and Cypress Creek Natural Area as well as Hungryland Conservation Area (Figure-right). The driest regions included Jonathan Dickinson State Park, Juno, and portions of Corbett Wildlife Management Area.



Rainfall distribution across the watershed using NEXRAD data. Each pixel represents an area of 2 km x 2 km. Blue colored pixels show highest rainfall and red pixels show lowest rainfall.

Flows over Lainhart Dam during July ranged from 89 to 211 cfs with a mean flow of 133 cfs; more than twice the average flow of 55 cfs measured during June 2019. A small volume of freshwater was released from the S-46 structure during July 8-10 in response to increased regional rainfall but the daily average flow did not exceed a 57 cfs.

Oyster Spawning and Settlement Monitoring

Oyster monitoring indicates much higher than average oyster settlement in both river forks for this time of year. Average settlement density in the Northwest Fork was 8,594 spat m², nearly 50% more than the 5,817 spat m² counted during the same period in 2018 (Figure next page). Settlement activity was, once again, nearly evenly split between the upstream and downstream sites in the Northwest fork. Settlement activity in the Southwest Fork was again substantially higher than average at 9,989 spat m²; down a little from last month, but nearly 160% higher than same period in 2018, which had spat m² 3,859. Spat density observed between the two sites in the Southwest Fork was also nearly even.

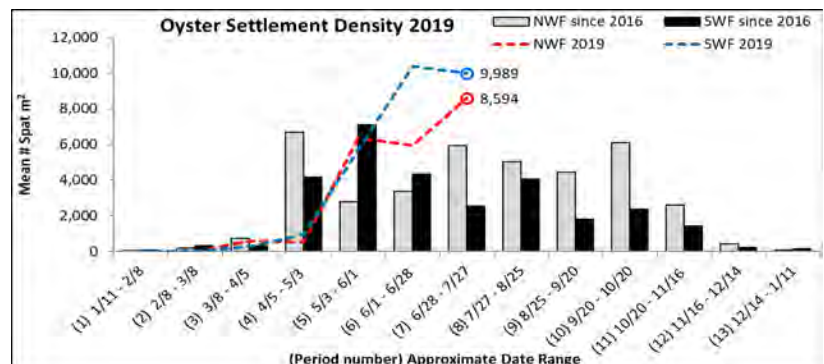


Figure shows mean oyster spat settlement for the Northwest Fork (gray bars) and the Southwest Fork (black bars) since 2016. Dashed lines

We find it very interesting that oyster settlement in recent years no longer seems to exhibit the spring and fall seasonal settlement pattern. In the past oyster settlement typically peaked during the Spring and Fall with a lull during the summer months, often with the lowest average occurring in July. This was consistent with observations in other watersheds. However, in the last few years we have noticed that the bimodal pattern has largely disappeared and settlement activity during July (monitoring period 7) is now much higher than previously observed (see figure right).

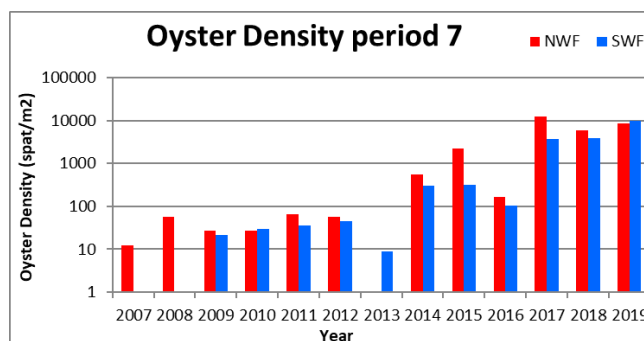
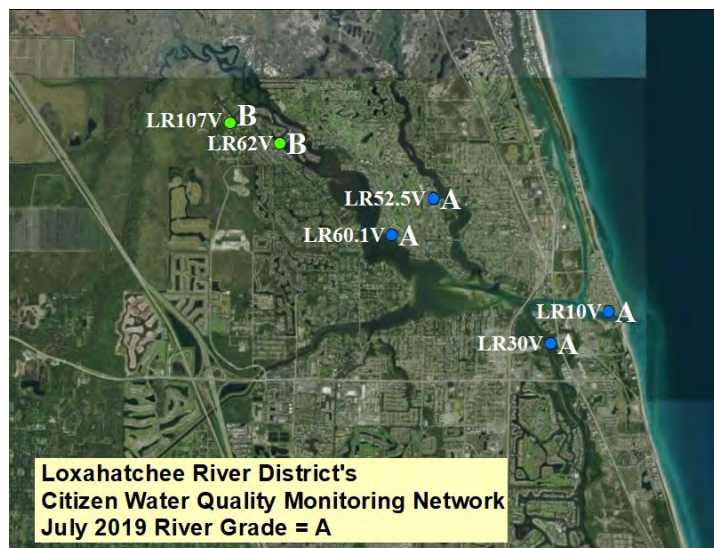


Figure shows mean oyster spat density since 2007 for period 7 which covers the approximate date range of between June 28 to July 27. Data shown are average for all sites within the northwest fork (red) and southwest fork (blue). Note logarithmic scale.

Volunteer Water Quality Monitoring Program



The Volunteer Water Quality Monitoring grade for July was again an “A”. The scores in 5 of 6 parameters were nearly all in the “Good” range, with the “Fair” scores mostly in the dissolved oxygen (DO) tests. The lower DO’s are likely a result of the higher water temperatures. Dissolved oxygen is inversely related to water temperature because warm water is less soluble, and the dissolved oxygen is released.

July-19

Site	Temp (F)	Secchi	Salinity	pH	DO	DO%	Color	Vis	Salt	pH	DO	DO%	Color	Score	Grade
LR10V	85.1	2.9	32.4	8.2	5.9	92.5	1.0	Good	Good	Good	Fair	Good	Good	91.7	A
LR30V	84.3	1.8	30.5	8.0	5.3	81.7	1.3	Good	Good	Good	Good	Good	Fair	93.8	A
LR52.5V	79.3	0.7	25.3	8.0	5.1	72.9	1.0	Good	Good	Good	Good	Good	Good	100.0	A
LR60.1V	84.2	VAB	30.0	8.0	5.0	76.0	1.0	VAB	Good	Good	Fair	Good	Good	100.0	A
LR62V	81.1	1.0	11.3	7.5	3.8	50.4	1.0	Good	Good	Good	Fair	Good	Good	89.6	B
LR107V	81.1	VAB	5.8	7.2	3.1	39.7	1.0	VAB	Good	Good	Fair	Fair	Good	80.0	B
Average	82.5													92.5	A

VAB (Visible at Bottom)
DO (Dissolved Oxygen)

scale: 0=poor 2=fair 4=good

Customer Service

Payment Processing

Distribution of the 3rd Quarter Billing started on July 12. For the remainder of July, staff were busy processing over 11,700 payments totaling nearly \$2M. These counts of payments received the first month of the quarter were right in line with historical averages, as well as the proportion of payments by paper check/cash (48%), LRD website (18%), phone (4%), online bill pay (30%). The first month of the quarter is when we see the greatest proportion of paper checks and high numbers of phone payments (550 in July).

As of August 7th, approximately 60% of our customers had satisfied their accounts, with the autopay and many online bill payments coming on, or near, the August 15 due date.

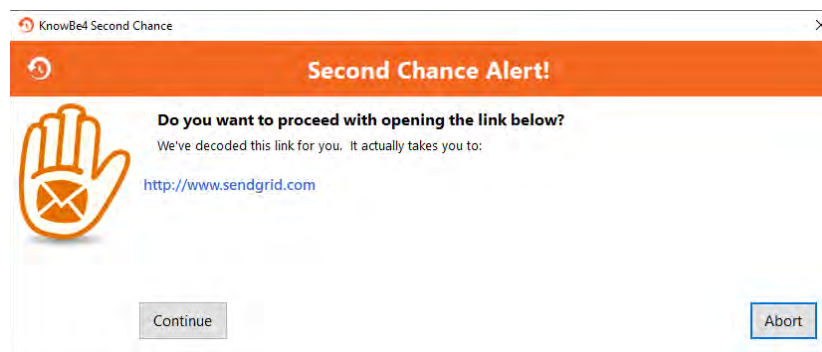
Information Technology

Enhanced Email Security

As cryptocurrencies continue price increases over the past several months, the number of ransomware attacks have also increased. Email presents our greatest vulnerability to cyber attack because of the cleverness of hackers get computer users to take action that executes spurious/harmful code. Therefore, the IT staff are concentrating their efforts to educate and notify computer users of potentially harmful actions. Our focus on end-user training has saved the District several times already from having a potentially damaging event occur.

In July, we rolled out an additional tool that provides another layer of notification when a user clicks on a link in an email. The tool checks links originated in email messages, including embedded links within attached Office Documents and PDFs. Users will see the prompt and have the option to continue or abort as shown in the figure below. This notification helps provide another layer of “are you really sure you want to do this?” to try and avoid harmful actions.

The tool also provides reporting on which URL’s users chose to abort, or continue, to help us monitor email activity making it through our various protection systems, as well as user behavior.



Loxahatchee River Environmental Center

August 2019

River Center Summary Statistics



LRD'S ENVIRONMENTAL STEWARDSHIP DASHBOARD



	Total Visitors	School & Camp Visitors	RC Offsite Programs	RC Onsite Programs	RC Staff Guest Appearances	Program Cancellations	Volunteer Engagement	1st Time Visitors	Visitor Satisfaction	Staff Assessment	Environmental Stewardship	Expenses	Program Revenue
Benchmark / Customer Expectation	% of Target	% of Target	% of Target	% of Target	% of Target	% of programs	% of Target	% of Target	Rating Average	Rating Average	Positive Responses	% within budget	% of Target
Green Level	≥ 90%	≥ 90%	≥ 90%	≥ 90%	≥ 90%	< 5%	≥ 90%	≥ 90%	≥ 4	≥ 4	≥ 90%	≥ 85% but ≤ 105%	≥ 90%
Yellow	≥ 75%	≥ 75%	≥ 75%	≥ 75%	≥ 75%	< 10%	≥ 75%	≥ 75%	≥ 3	≥ 3	≥ 80%	≥ 80%	≥ 75%
Red	< 75%	< 75%	< 75%	< 75%	< 75%	> 10%	< 75%	< 75%	< 3	< 3	< 80%	< 80% or > 105%	< 75%
2017 Baseline	103%	103%	179%	127%	141%		118%	50%	4.8	4.0	87%	102%	114%
2018 July	102%	90%	202%	114%	0%	0%	145%	78%	4.7	3.9	93%	93%	75%
Aug	106%	59%	157%	109%	0%	11%	79%	136%	4.8	3.6	97%	83%	41%
Sept	96%	95%	168%	144%	0%	24%	138%	163%	5.0	3.9	99%	87%	86%
Oct	120%	163%	120%	214%	160%	0%	150%	150%	4.8	3.9	98%	91%	78%
Nov	120%	157%	780%	206%	430%	42%	142%	45%	4.6	4.6	87%	88%	102%
Dec	131%	89%	130%	203%	0%	9%	122%	49%	4.8	3.3	93%	82%	100%
2019 Jan	105%	74%	450%	139%	70%	0%	281%	53%	4.5	4.2	83%	101%	160%
Feb	106%	142%	129%	92%	103%	9%	238%	88%	4.5	4.2	83%	101%	160%
Mar	119%	112%	268%	148%	203%	0%	119%	156%	4.9	4.4	97%	93%	62%
Apr	79%	75%	553%	77%	282%	33%	270%	99%	4.8	4.5	91%	86%	73%
May	113%	113%	960%	164%	0%	0%	250%	74%	4.7	4.1	93%	89%	66%
June	98%	84%	151%	156%	0%	18%	121%	119%	4.8	4.1	92%	97%	56%
July	85%	88%	199%	68%	0%	22%	104%	95%	4.8	4.4	91%	110%	82%
Consecutive Months at Green	0	0	13	0	0	0	11	2	13	7	5	0	0
Metric Owner	O'Neill	Harris	Harris/Duggan	Harris/Duggan	Duggan	Harris	Harris	O'Neill	O'Neill	O'Neill	O'Neill	O'Neill	O'Neill

Metric	Explanation
Total Visitors	An estimated 225 campers did not attend a program - dropping our attendance below the threshold.
School / Camp Visitors	We had several cancellations resulting in an estimated 225 campers that did not attend a program.
RC Onsite Programs	July family programs were focused more on getting people outside to offsite programs.
RC Guest Appearance	We were not invited to any outreach programs.
Program Cancellations	Nine programs cancelled or were no-shows. Total estimated campers were 225.
Program Expenses	We are over our target spending for this month but are underbudget for the year to date.
Program Revenue	We are seeing an improvement in this number with full camps and family programs. We were short an estimated \$978 from cancelled programs.

River Center General

Preparations are underway for improvements in August including: subfloor and plumbing repair in the ladies room, new tile installation in the ladies room, replacement of the deck ramp, painting the new office area, buffing the acrylic on the mangrove and oyster exhibits, and phase two of the pollinator garden to be installed by volunteers from Pratt Whitney. The River Center will be closed for one week to accommodate the major interior improvements. The other projects are scheduled during August when we anticipate a lower visitation to have a minimal impact on visitor services.



Lecture Series

Friday, August 2nd- The River Center's August lecture featured Florida Fish and Wildlife Biologist, Sarah Peltier. Her presentation focused on Florida Black Bears, highlighting their anatomy, behavior and how we can be more bearwise. After the presentation, a few ladies from Busch Wildlife Sanctuary spoke about the Florida Black Bear residents currently living at the sanctuary. It was an amazing presentation about a florida native that we don't normally get to see. We had 65 guests participate in this lecture.

Special Programs

Family Fun – Week of July 4th

The week of July 4th brought opportunities for families to participate in numerous programs at the River Center. Although we did not hold an Aquatic Adventure Summer Camp this week, it did not slow down for visitation, programs, and family activities.



Sandbar and Seashells Family Boat Tour - July 2nd

The River Center hosted its July Sandbar and Seashells Family Boat Tour. We worked with Aqua Adventures to provide a boating experience geared toward families. This trip we had five kids and six adults onboard to snorkel at Bird Island, dip net on the sandbar, and boat around the lighthouse.

Kayaking 101 – July 3rd

The River Center taught an Introduction to Kayaking workshop. Participants in this workshop learned basic kayak strokes, safety tips and how to be a proficient paddler on the water. We had six children and five adults participate in the kayak program around Burt Reynolds Park. They enjoyed the experience of getting out on the water and becoming more comfortable in a kayak.

Craft-a-Palooza – July 4th

The River Center celebrated Independence Day with a special summertime story time followed by Craft-a-Palooza that was all things U.S.A. with red, white, and blue.



Estuary Exploration - Seine and Dip Netting Experience at Blowing Rocks Preserve – July 5th



The River Center hosted our family friendly Estuary Exploration at Blowing Rocks Preserve on Friday, July 5th and Saturday, July 27th. These activities include 2 hours of seine and dip netting in our beautiful Indian River Lagoon. Guests discovered plenty of sea urchins, conchs, pufferfish, and pipe fish! We had fun exploring the preserve and splashing around outdoors. We had 34 participants total for the programs. The River Center would like to thank The Nature Conservancy for their continued support through this partnership.

Family Fishing Clinic – July 6th

On July 6th, 17 children and their parents attended our River Center Family Fishing clinic conducted at Burt Reynolds Park. Our fishing clinics are a great introduction for adults and children to learn fishing basics such as knot tying, important items to keep in your tackle box, various dehooking methods and conservation. Participants also tested their casting skills before heading out to the docks to put their new knowledge and skills to the test. Kids get to go home with a goody bag filled with information and giveaways from Florida Fish and Wildlife Conservation Commission.



Hike and Paddle – Pine Glades Natural Area

On July 10th the River Center participated in a Public Kayak Tour of Pine Glades Natural Area by PBC Environmental Resources Management. This event was unique because it was a hike and paddle with participants hiking along the trails of the freshwater marsh land before jumping in a kayak to explore by water just before sunset. It was a great day out on the water and we had 13 guests participate in this paddle. The River Center as hosted its own public kayak tour also at Pine Glades with 12 participants. On this beautiful morning paddle through the calm waters of the marsh, guests saw a variety of wildlife including alligators, herons, osprey, and limpkins!



Aquatic Adventure Summer Camp

The River Center's summer camp season has been a blast for the month of July. Each week featured a different age group with a total of 64 campers and 12 high school volunteer counselors.

Nature Navigators – Week of July 8th



Nature Navigators is designed for children ranging from ages 6 to 8 entering 1st, 2nd, and 3rd grade. We traveled throughout Jupiter to visit all parts of the Loxahatchee River. Campers kayaked at Fullerton Island and Sawfish Bay, seine and dip netted at Blowing Rocks Preserve, explored the Lake Worth Lagoon at John D. MacArthur Beach State Park, and snorkeled at Dubois Park. These campers also went on special visits to Busch Wildlife Sanctuary, Jonathan Dickinson State Park, and a fishing trip to Burt Reynolds Park.

Middle School Snorkel Camp – Week of July 15th

The week of Snorkel Camp was designed for children ranging from ages 11 to 13 entering 6th, 7th, and 8th grade. Campers went kayaking, seine and dip netting, snorkeling every day, standup paddle boarding, fishing, and took a boat trip. We visited Blowing Rocks Preserve, kayaked at Coral Cove Park, Dubois Park, Jupiter Beach, as well as traveled by boat to the Central Embayment of the Loxahatchee River.



High School Community Service Camp – Week of July 22nd

For the third year, we held the High School Community Serve Camp. This was an amazing and rewarding opportunity for teens ages 14-17 to give back to our community by volunteering their time and skills for local non-profit, county, and state agencies. Participants earned 40 hours of community service towards high school graduation and college applications/scholarships. We visited John D. MacArthur Beach State Park, Coral Cove Park, Burt Reynolds Park, Jonathan Dickinson State Park, and The Nature Conservancy at Blowing Rocks Preserve conducting exotic plant removal, planting and trimming projects, lagoon and shoreline cleanups. Campers also got the opportunity to participate in some research projects such as snorkeling, estuary species diversity and abundance studies, and plant identification. We took a trip with Aqua Adventures up the Indian River Lagoon and into the Loxahatchee River central embayment to conduct a



seagrass survey and water quality testing with David Porter of the WildPine Lab. On Tuesday, we kayaked along the Wild and Scenic portion of the Loxahatchee River and on Friday, held a friends and family parent presentation. These 15 students worked incredibly hard, met professionals in the field, gained knowledge and experience, and made new friends. These volunteers earned a combined total of 568 hours of community service! This program could not be possible without the partnership and support of community organizations.

River Trekkers – Week of July 29th

River Trekkers is designed for children ages 9 to 10 entering 4th and 5th grades. Campers went kayaking, seine and dip netting, snorkeling, swimming, standup paddle boarding, fishing, and tons of fun! The River Trekkers trekked to the Indian River Lagoon at Blowing Rocks Preserve, Dubois Park, Lighthouse Park, paddle boarded to Fullerton Island, kayaked at Pine Glades Natural Area, and visited all the special locations throughout the Loxahatchee River watershed.



Blooming in the Garden

On July 13th the River Center hosted another Blooming in the Garden early learning program. The theme this month was butterflies and flowers that included story time, a butterfly themed craft, and a chance to plant some seeds to take home. Families also went outside to our garden for a hands-on activity, catching critters, looking at leaves, and exploring the secret garden. We had 22 children and 15 adults enjoy a morning learning and being out in nature.



Outreach

We were not invited to any outreach events this month.

Volunteer of the Month – Kyle Rutter

A senior at Suncoast High School, Kyle Rutter has been involved with the River Center for the past 3 summers- accumulating 63 hours this month alone- and cumulatively reaching 234.45 hours. He attended our inaugural High School Community Service camp and followed that up with taking a role as camp counselor for the past 2 summers. He enjoys working with younger campers and brings great warmth and initiative to the program. He is an incredibly hard worker and the campers really respect and gravitate towards him. This year he went above and beyond by working 3 camp sessions, covering a last minute schedule challenge. The team here at the River Center is forever grateful. Thank you Kyle!! Well done!!



Upcoming River Center Events

RSVP at www.lrdrivercenter.org/events-calendar
rivercenter@lrcd.org or 561-743-7123

August 17, 8 am – 4 pm: Boating Safely Class: The River Center continues to collaborate with the US Coast Guard Auxiliary “Flotilla 52” to provide a series of Boating Safely Classes targeted specifically to young boaters in our community. These classes are provided through a generous sponsorship by the AustinBlu Foundation, a not-for-profit dedicated to raising awareness and promoting educational programs to improve boater safety. There is no cost for this class, however a deposit is required to reserve a seat. The deposit of \$10 will be refunded in full to all students who complete the class. Recommended for children 12 years and up.

September 6, 12 pm – 1 pm: Lecture – Join us for a presentation by Amanda Waite from the Angari Foundation on Marine Debris. This program is part of our partnership with the Town of Jupiter’s PURE Jupiter campaign to reduce single-use plastics.

September 14, 8:30 am – 12:30 pm: Girl Scout Workshop – Woodworking for Animal Habitats: Wildlife is all around us, you just have to start looking. All girls will learn about wild animals, special and endangered habitats, focusing on Florida wildlife. Girls will investigate and explore local habitats

through the River Center's exhibits and aquariums. Finally, girls will help protect animal's habitats and put their skills to the test by creating animal houses. Each participant will leave the workshop with an animal box that they created and decorated themselves to help make their backyard and community more animal friendly. By being good woodworkers and advocates for wild animals, we can all help make the world a better place.

September 19, 10 am – 11:30 am: Art in Nature: Brenda Nicklaus of Art in Nature will lead a program for children ages 5 and up to explore nature and make art.

September 21, 9 am – 11 am: International Coastal Cleanup: Help keep our beaches and waterways beautiful! Join us at Coral Cove Park!

September 26, 5 – 7 pm: Kayaking : Location to be determined.

Town of Jupiter Inlet Colony Neighborhood Rehabilitation Project

Daniel J. Comerford III
and Thomas C. Jensen

The Town of Jupiter Inlet Colony realized that it was faced with a challenge concerning its aging infrastructure. With a commitment to be known as the “Greenest Municipality in the State of Florida,” the town faced this challenge head on by committing to a \$9.5 million neighborhood rehabilitation project.

The 138-acre town strongly believes in protecting and preserving the environment around it. Following this belief, a goal was set to significantly reduce nutrient discharges and increase water quality in the receiving waters of the Indian River Lagoon at the confluence of the

Jupiter Inlet and Loxahatchee River. To achieve this goal, the town entered into an interlocal agreement with the Loxahatchee River District (for sanitary sewers) and the Village of Tequesta (for water main replacement).

The town converted 241 existing septic tank systems to a central gravity sanitary sewer system that will be operated by the Loxahatchee River District. This elimination of individual septic tank systems led to significant reductions in nutrient loads entering both groundwater and surface waterbodies, providing for a substantial reduction in total nitrogen and total phosphorus. The conversion resulted in a 100 percent reduction in nitrogen and phosphorus loads from the septic tank systems.

The town also focused on its internal stormwater management system to improve water quality in the Indian River and provide for better drainage within the town. This entailed the adjustment to roadway profiles, valley gutters, and approximately 5,000 feet of exfiltration trenches, with associated storm drainage inlets.

These improvements provide a yearly reduction of 460 pounds of total nitrogen and 100 pounds of total phosphorus, with a 68 and 71 percent reduction in these nutrient loadings, respectively. The exfiltration trenches also allow for an 80 percent reduction in water volume being discharged through existing outfalls into the adjacent impaired waterways. Lastly, the town had its more than 60-year-old asbestos cement water distribution system replaced with new pipes, which were sized to handle the town's system water demands and fire flows.

The project was daunting, but something the town believed was necessary to protect its surrounding waterways—now, and in the future. Through the hard work of everyone involved, and the cooperation and determination of the town's commissioners and residents, the construction project was completed ahead of schedule and under budget by \$690,000.

This project was assisted financially by three grants to offset some of the overall costs that were directly assessed to the residents. The grants included:

- ◆ \$600,000 from the Loxahatchee River Preservation Initiative funded by the State Legislature in 2014



The Town of Jupiter Inlet Colony.



The beginning of the road construction portion of the project.



Heavy equipment is used for the project during installation of the gravity sewer.



Installing the exfiltration trenches.



A new water main pipe being installed.



The completed project.

- ◆ \$750,000 Florida Department of Environmental Protection Total Maximum Daily Load (TMDL) grant in 2015
- ◆ \$75,000 grant from the South Florida Water Management District Cooperative Funding Program

With the entire town comprised of 239 residential properties, a town hall, and a beach club, keeping the residents informed and having their opinions heard was vital to the success of the project. The commissioners, along with the Lox-

ahatchee River District, the Village of Tequesta, and the project engineer, had multiple meetings before and during the construction of the project so that the residents were well-informed. We explained all options and why certain improvements were recommended, along with providing updates as to what had happened since the last meeting and what to expect in the coming weeks. These communications were instrumental in the success of the project.

The residents and the commissioners celebrated the monumental step in improving the

surrounding waters, not only for the residents of today, but also the residents of tomorrow. While we're proud of the progress we have made, we will continue to look for new ways and creative innovations to work toward our goal of remaining as the "Greenest Municipality in the State of Florida."

Dr. Daniel J. Comerford III is the mayor of the Town of Jupiter Inlet Colony and Thomas C. Jensen, P.E., is a project manager with Kimley-Horn & Associates in West Palm Beach. ◊



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

MEMORANDUM

To: D. Albrey Arrington, Ph.D., Executive Director
From: Travis Bains, CSHO, ENS, Safety Compliance Officer
Date: August 5, 2019
Subject: District Safety Report for June 2019

Safety is a Core Value at LRD

Our conduct is shaped by a personal commitment to protect the health and safety of ourselves and our colleagues. Safety is driven through education, training, planning, protective equipment, and individual accountability.

Safety Metrics: July 2019

OSHA recordable injuries: **One**

Lost time injuries: **none**

TRIR: **5.0**

This month I am introducing the District to TRIR (Total Recordable Incident Rate), which is an industry standard metric for assessing safety performance. TRIR is calculated by multiplying the number of OSHA recordable incidents by 200,000 then dividing by the total number of hours worked. TRIR is typically calculated for a given 12 month period. We have benchmarked TRIR among our colleagues (local water and wastewater utilities) and currently we are in the 50-75th percentile. Our realistic goal is to reduce this number to 4.4 or lower (better than the median) and our aspirational goal is to be at or below 2.0 (in the top 25th percentile).

Synopsis of Injury

An employee was injured on July 12, 2019 while working at the Master Lift Station. The Injured Employee was assisting in a cleaning of the deep well, early in the morning. The Injured Employee reported that he was holding a small diameter rope attached to the vacuum pipe of the Vac-Con when a sudden jerk in the rope occurred. Although the Injured Employee was wearing his safety gear, he felt a sharp pain in his left hand. Unfortunately, the injury was not immediately reported. Rather, the injury was reported three days later, on July 15, when he returned to work following his scheduled 'weekend'.

Upon learning of the injury, I directed the Injured Employee to Jupiter Urgent Care on July 15. The Injured Employee was placed on "restrictive duty" by a physician. The Injured Employee has been back for a follow up, where an MRI was ordered of his hand. The Injured Employee has continued his primary job duties that are within the proscribed restrictive duties.

Training

- Heat Stress training was conducted in the month of July for staff directly affected by high temperatures (approximately 60 staff). Training was done on jobsites and in classroom settings.

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Dr. Matt H. Rostock
Chairman

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Board Member

Topics covered were Heat Exhaustion, Heat Stroke, (De)Hydration, and First Aid. 95% (57 of 60) of employees completed the training.

- Confined space entry – approximately 55% of District employees are expected to enter confined spaces as part of their job description. Confined Space Training for affected employees is 100% complete.
- General first aid training is a valuable for the District; such training enables our workplace to be safer and employees to respond to injuries and illness with proficiency. First Aid training is ongoing with approximately 41% of the District employees have completed First Aid training. Our goal is to reach 100% by December 2019, then recertify every twenty-four months.

Hazard Analysis & Individual Accountability

The District Safety Officer works daily with supervisors and staff throughout the organization to assess and evaluate potential hazards by addressing the 4 Qs:

1. What am I about to do?
2. How could I get hurt?
3. What am I going to do to prevent injury?
4. What do I need to do this job and how will I do it safely?

This month the District Safety Officer worked with relevant staff to conduct targeted hazard analyses for the following projects:

SS-PD Blower #1 & 2 PM

PM includes cycling and lubrication of valves, cleaning grease, grit, and debris, checking of degraded components

Primary hazards: electrical hazards, pinch point, hazardous communication

Job Hazard Analysis: completed and reviewed by participating staff

Job site safety assessment conducted

Chlorine Building Cylinder Change-Out

Project includes the change-out of two (2) ton chlorine cylinders

Primary hazards: use of crane and overhead work, assessing atmospheric conditions, personal protective equipment, use of respirator (full face with fit test)

Job Hazard Analysis: completed and reviewed by participating staff.

Job site safety assessment conducted.

IQ Pump Station 518 Site Inspection

Inspection includes inspecting and assessing integrity of site, security of site for storage and use of 125-pound chlorine cylinders, inspection of PPE

Primary hazards: unauthorized entrance, hazardous atmosphere, electrical hazards, environmental growth

Job Hazard Analysis: completed and reviewed by participating staff

Job site safety assessment conducted

Low Pressure Inspections

PM includes inspecting assets associated with low pressure sewer systems and troubleshooting alarms.

Primary hazards: hazardous atmosphere, personal protective equipment, situational awareness, open electrical boxes (LO/TO, personal)

Job Hazard Analysis: completed and reviewed by participating staff
Job site safety assessment conducted

Permit Confined Space, Installing Inside-Drop

Project includes installing PVC pipe in a low-pressure sewer system.

Primary hazards: Confined space permit, monitoring atmospheric hazards, set-up of a davit arm, heat stress, ventilation.

Job Hazard Analysis: completed and reviewed by participating staff

Job site safety assessment conducted

Annual signage

This project includes inspecting appropriateness and sufficiency of safety-related signage associated with District-owned assets. For example, potentially hazardous or dangerous areas are reviewed for appropriate signage, e.g., hazard communication, chemical labeling, noise hazard, confined space, electrical hazard. To date we have completed approximately 60% of identified sites. This project has been extended to include outside locations, new target date is September 1.

Safety Quote of the month: *“Safety is as simple as ABC - Always Be Careful.”*

Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

2500 Jupiter Park Drive, Jupiter, Florida 33458

Telephone (561) 747-5700 • Fax (561) 747-9929 • www.loxahatcheeriver.org



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

MEMORANDUM

TO: Governing Board

FROM: Administration Staff

DATE: August 8, 2019

SUBJECT: Consultant Payments

The following amounts have been reviewed and approved for payment to our consultants for work performed during the prior month.

	<u>Prior Month</u>	<u>Fiscal YTD</u>
Smith, Gaskill & Shenkman, PA	\$6,627.62	\$118,673.88
Hazen	\$2,772.20	\$128,137.96
Holtz	\$12,517.80	\$116,089.05
Mathews	\$3,720.94	\$347,237.39

Should you have any questions in regard to these items, please contact Kara Fraraccio concerning the attorney's invoice, and Kris Dean concerning the engineers' invoices.

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Future Business



Neighborhood Sewering:

- 181st Street Gravity Construction Contract
- Island Country Estates Construction Contract
- Notice of Intent to Assess - Hobart St.
- Notice of Intent to Assess - Rolling Hills
- Notice of Intent to Assess - 18205 Gardiner Ln.
- Notice of Intent to Assess - Thelma Ave.

Other:

- Fiscal Year 2020 Final Budget
- Low Pressure General Construction Services Contract
- Olympia Force Main Replacement Construction Contract
- Lift Station 82 Conversion
- Chapter 31-16 Workshop (Wed, 10/16 @ 1:00 pm)
- LRD/BWS Workshop (Mon, 10/28 @ 1:00 pm)
- Landscape Maintenance Contract
- Generator Purchase
- Greenhouse Gas Emissions Study