LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929

D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

REVISED AGENDA
REGULAR MEETING #06-2023
MARCH 16, 2023 – 7:00 PM AT DISTRICT OFFICES

ALSO, THE MEETING WILL BE AVAILABLE TO THE PUBLIC ONLINE AT:
LOXAHATCHEERIVER.ORG/PUBLICMEETING

1. Call to Order & Pledge of Allegiance
2. Administrative Matters
   A. Roll Call
   B. Previous Meeting Minutes Page 5
   C. Additions and Deletions to the Agenda
3. Comments from the Public
4. Status Updates
   A. Loxahatchee River Watershed Page 12
   B. Loxahatchee River District Dashboard Page 32
5. Consent Agenda (see next page) Page 33
6. Regular Agenda
   A. Consent Agenda Items Pulled for Discussion
   B. LRD Rule Chapter 31-10 Rates, Fees, and Charges Page 85
   C. LRD Rule Chapter 31-13 Regulation of Sewer Use Page 110
   D. Liability and Workers Compensation Insurance Page 165
   E. Retirement Plan Investment Policy – to approve a revision Page 166
7. Reports (see next page) Pulled for Discussion
8. Future Business Page 229
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: March 8, 2023

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Clinton R. Yerkes 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. 22-005-00115 General Services - Electrician Services - to approve contract extension Page 34
B. Purchase Order Extension for Payment Services - to approve contract extension Page 36
C. Purchase Order Extension Bill Printing and Mailing - to approve contract extension Page 37
D. Evoqua Water Technologies – to approve contract amendment Page 38
E. Updates to LRD Employee Safety Manual (Safety Policy) – to approve revisions Page 39
F. Auditor Selection Committee – approval to establish committee Page 78
G. Fixed Asset Disposal – to approve disposal Page 80
H. Change Order to Current Contract – Jupiter Inlet Lighthouse Outstanding Natural Area Septic to Sewer Conversion/BLM Contract 140L0619R0043 Page 81

7. REPORTS

A. Neighborhood Sewering Page 167
B. Legal Counsel's Report Page 169
C. Engineer's Report Page 172
D. Busch Wildlife Sanctuary Page 180
E. Director's Report Page 181

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D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

AGENDA
PUBLIC HEARING #02-2023
MARCH 16, 2023 - 6:55 P.M. AT DISTRICT OFFICES
ALL MEETINGS ARE OPEN TO THE PUBLIC

1. Call to Order and Pledge of Allegiance
2. Roll Call
3. To receive public comments pertaining to the LRD Rule Chapter 31-10 Rates, Fees and Charges
4. Comments from the Board
5. 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: March 6, 2023

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Clinton R. Yerkes BOARD MEMBER

LOXAHATCHEE RIVER DISTRICT
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D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

AGENDA
PUBLIC HEARING #03-2023
MARCH 16, 2023 - 6:56 P.M. AT DISTRICT OFFICES
ALL MEETINGS ARE OPEN TO THE PUBLIC

1. Call to Order and Pledge of Allegiance
2. Roll Call
3. To receive public comments pertaining to the LRD Rule Chapter 31-13 Regulations for Sewer Systems
4. Comments from the Board
5. 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: March 6, 2023

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Clinton R. Yerkes BOARD MEMBER

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: Governing Board

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

DATE: March 10, 2023

SUBJECT: Approval of Meeting Minutes

Attached herewith are the minutes of the Public Hearing and the Regular Meeting of February 16, 2023. As such, the following motion is presented for your consideration:

"THAT THE GOVERNING BOARD approve the minutes of the Public Hearing and Regular Meeting of February 16, 2023 as submitted."

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Clinton R. Yerkes BOARD MEMBER

Ref. 01-2023

LOXAHATCHEE RIVER ENVIRONMENTAL CONTROL DISTRICT
PUBLIC HEARING – MINUTES
FEBRUARY 16, 2023

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

   Chairman Rostock called the Public Hearing of February 16, 2023 to order at 6:55 P.M.

2. ROLL CALL

   The following Board Members were in attendance:

   Mr. Baker
   Mr. Boggie
   Dr. Rostock

3. TO RECEIVE PUBLIC COMMENTS PERTAINING TO THE FINAL ASSESSMENT OF OLYMPUS DRIVE

   No comments from the public were received.

4. COMMENTS FROM THE BOARD

   No comments from the Board were received.

5. ADJOURNMENT

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

_____ _____
BOARD CHAIRMAN BOARD SECRETARY

_____
RECORDING SECRETARY

Ref: #03-2023

LOXAHATCHEE RIVER ENVIRONMENTAL CONTROL DISTRICT
REGULAR MEETING - MINUTES
FEBRUARY 16, 2023

1. CALL TO ORDER

Chairman Rostock called the Regular Meeting of February 16, 2023 to order at 7:00 PM.

2. ADMINISTRATIVE MATTERS

A. ROLL CALL

The following Board Members were in attendance:

Dr. Rostock
Mr. Boggie
Mr. Baker
Mr. Rockoff arrived at 7:08

Staff Members in attendance were Dr. Arrington, Mr. Dean, Mr. Chung, Ms. Fraraccio, Mr. Pugsley, Ms. Jones, and Ms. O'Neill.

Consultants in attendance were Mr. Curtis Shenkman and Mr. Hunter Shenkman, Mark Bymaster, Nowlen, Holt & Miner, P.A., Todd Mohler, Natalia Barranco, Bruce Reed, Lei Hua, and Nick Leone from KCI Technologies, Inc.

B. PREVIOUS MEETING MINUTES

The minutes of the Regular Meeting of January 19, 2023 were presented for approval and the following motion was made:

"THAT THE GOVERNING BOARD approve the minutes of the Regular Meeting January 19, 2023 of as submitted."

MOTION: Made by Mr. Baker, Seconded by Mr. Boggie
Passed Unanimously.

C. ADDITIONS & DELETIONS TO THE AGENDA

3. COMMENTS FROM THE PUBLIC
No comments from the public were received.

4. STATUS UPDATES

A. LOXAHATCHEE WATERSHED STATUS

Mr. DeWitt presented the Shoreline Stabilization Project that is proposed for the Jupiter Inlet Lighthouse Outstanding Natural Area. Mr. DeWitt also explained how members of the public can provide project-related comments to the Bureau of Land Management.

B. LOXAHATCHEE RIVER DISTRICT DASHBOARD

Dr. Arrington reviewed the District Dashboard.

5. CONSENT AGENDA

"THAT THE GOVERNING BOARD approve the Consent Agenda of February 16, 2023 as presented."

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

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

A. Final Assessment Olympus Drive – to approve final assessment

"THAT THE GOVERNING BOARD approve Resolution 2023-03 adopting the Olympus Drive Final Assessment Roll and Exhibits".

B. Lift Station 054 Cleanout Installation – to reject all bids

"THAT THE GOVERNING BOARD reject all bids for ITB 23-003-00125".

C. Waste Disposal Contract (Waste Pro) – to approve contract extension

"THAT THE DISTRICT GOVERNING BOARD authorize the Executive Director to execute a contract extension with Waste Pro of Florida for Bid Item No's. 2 through 8 as outlined in ITB No. 19-001 and in accordance with the contract specifications and the rates specified within their Bid dated February 6, 2019 including a 5.0% increase per the June 2022 Consumer Price Index."

D. Fixed Asset Disposal – to approve disposal

"THAT THE GOVERNING BOARD authorize the Executive Director to dispose of the items from aggregated assets listed in the schedule above in accordance with the District's Disposal of Surplus Tangible Personal Property Policy."

E. Change Order - Lift Station Rehabilitation General Construction Services/18-005-LSGENCONSTR – to authorize additional funds for FY23

"THAT THE DISTRICT GOVERNING BOARD reauthorize the lift station rehabilitation general construction services contract with Hinterland Group, Inc. in the amount not to exceed $ 850,000.00."

6. REGULAR AGENDA

A. CONSENT AGENDA ITEMS PULLED FOR DISCUSSION

B. Annual Audit for Fiscal Years 2022 & 2021.

Mark Bymaster, Nowlen, Holt & Miner, P.A. reviewed key findings from the recently completed annual audit of fiscal years 2022 and 2021. The Governing Board acknowledged the good work by Kara Fraraccio, Sue Bruce, and Cheryl Cripe in achieving a clean audit and for being awarded a Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association for the fourth year in a row.

"THAT THE GOVERNING BOARD receive the Annual Financial Report for the fiscal years ended September 30, 2022 and 2021 as prepared and submitted by Nowlen, Holt & Miner, P.A.."

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

C. 20 Acre Conceptual Site Plan – Final Presentation

Todd Mohler from KCI Technologies, Inc. presented the Conceptual Site Plan for the District's 20 acres located adjacent to Riverbend Park. The presentation began with a video that simulated flyover of the completed project. The video was followed by a PowerPoint presentation of key aspects and elements of the conceptual site plan. Lengthy Board discussion occurred. Some salient aspects of Board comments include the following (in no specific order):

Mr. Baker expressed his desire to optimize the project to enhance nesting opportunities for herons (i.e., through isolated islands) and to enhance photographic opportunities (i.e., minimize trees near the boardwalk). Mr. Baker also expressed his desire to see this project move forward and suggested the $2 million in the rate study for the BLM project could be reallocated to the 20 acres to get it to a point where it could be opened to the public.

Mr. Rockoff applauded the conceptual plan because it would create a marquee facility for conducting environmental education. Mr. Rockoff also stated that the Board would need to balance costs and benefits and potentially seek alternative funding opportunities to support the project. Dr. Rostock also stated his desire not to abandon the environmental education programming we have anticipated conducting at the BLM.

Dr. Rostock expressed that there is a need for this type of facility and service in northern Palm Beach County, and he expressed a desire to ensure strong coordination with Palm Beach County, especially PBC Parks Department.

Mr. Boggie stated that the conceptual site plan produced a beautiful campus and facilities, but that he remains confused by what the District is trying to achieve. Mr. Boggie further explained that he believes District staff need to clearly document (a) what are we trying to accomplish? (b) what outcomes are we trying to achieve? (c) what metrics should be used to measure success? (d) where are we now? (e) what are the gaps between where we are and where we want to be? (f) how can we close the identified gaps? (g) how should the District prioritize various opportunities (e.g., River Center, BLM, 20 acres, LRD plant site)? and (h) what are we willing to invest? Systematically addressing these questions will allow us to work in a logical manner to advance our environmental education efforts, which we have explicit authority to do.

D. LRD Rule Chapter 31-10 Schedule of Rates, Fees and Charges (Rate Study)

Dr. Arrington reviewed the Rate Study memorandum and expressed uncertainty regarding the magnitude and duration of inflation that is impacting our economy. Mr. Boggie requested Dr. Arrington distribute the "Cash Projections" chart so the Board could more easily assess the effectiveness of the proposed rate structure.

Dr. Rostock requested money be added to the rate study to allow a scientific, data driven assessment of the potential effects of septic system effluent in the remaining unsewered areas west of I-95. Mr. Baker indicated that South Indian River Water Control District (SIRWCD) was already doing such monitoring. Dr. Arrington committed to communicating with Mike Dillon to understand the nature of monitoring being conducted by SIRWCD. Mr. Boggie added that the LRD's neighborhood sewering efforts have been based on science and data and we should consider doing so.

No action was required.

E. LRD Rule Chapter 31-13 Regulation of Sewer Use

Mr. Pugsley reviewed the proposed revisions to Chapter 31-13 and answered Board questions. No action was required.

7. REPORTS

The following reports stood as written.

A. NEIGHBORHOOD SEWERING

B. LEGAL COUNSEL'S REPORT

C. ENGINEER'S REPORTS

D. BUSCH WILDLIFE SANCTUARY

E. DIRECTOR'S REPORT

8. FUTURE BUSINESS

Dr. Arrington reviewed Future Business.

9. COMMENTS FROM THE BOARD

Staff notified the District Governing Board that a change order had been executed on the contract with the Bureau of Land Management (Contract # 140L0621C0014) to incorporate pass through costs for permitting and utilities in the amount of $100,290.71 and extend the period of performance to November 30, 2023.

Dr. Rostock reiterated his compliment to Kara Fraraccio, Sue Bruce, and Cheryl Cripe for outstanding work on the District's annual audit and receipt of a Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association for the fourth year in a row.

10. ADJOURNMENT

MOTION: Made by Mr. Rockoff, Seconded by Mr. Baker,
Passed Unanimously.

"That the regular meeting of February 16, 2023 adjourns at 9:03 PM."

_____ _____

BOARD CHAIRMAN BOARD SECRETARY

_____

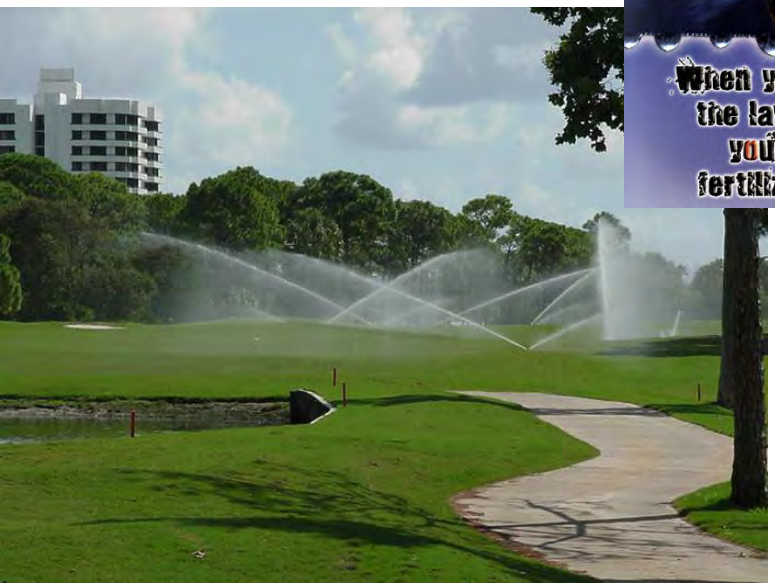
RECORDING SECRETARY

Loxahatchee River Watershed Status: Leveraging green infrastructure for efficient treatment of reclaimed water

This month, Albrey will present the research and findings from the LRD's most recent peer-reviewed publication, which is provided on the following pages. This is exciting research that assesses 12 years of water quality data from our reclaimed water system.

This research was published in Science of the Total Environment, which is a highly-respected peer-reviewed journal with an impact factor of 10.753. The publication can be found online at: https://www.sciencedirect.com/science/article/pii/S0048969723008483

I look forward to presenting the results of this interesting project and answering any questions you may have.



Science of the Total Environment 872 (2023) 162232

Contents lists available at ScienceDirect

Science of the Total Environment

journal homepage: www.elsevier.com/locate/scitotenv

Leveraging green infrastructure for efficient treatment of reclaimed water

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[b] Center for Energy, Environment & Sustainability, Wake Forest University, Winston-Salem, NC 27106, United States of America
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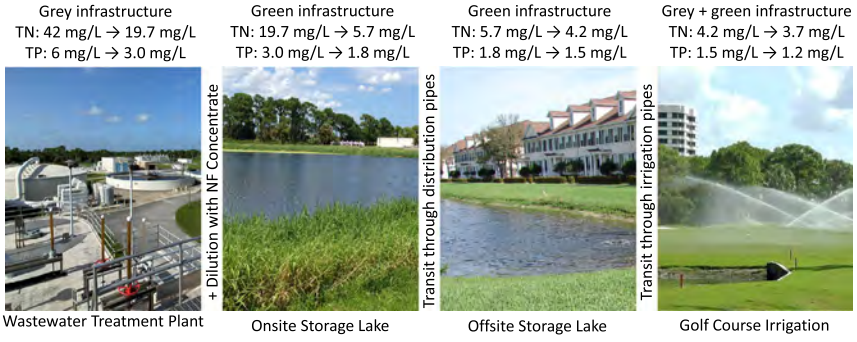
HIGHLIGHTS

- Water scarcity necessitates practical, sustainable water reuse practices.
- Green infrastructure significantly reduced reclaimed water nutrient concentrations.
- Nutrient levels were similar to those of advanced wastewater treatment.
- Fertilization should be reduced proportionally to nutrients in irrigation water.
- Irrigation with reclaimed water did not result in downstream eutrophication.

GRAPHICAL ABSTRACT



ARTICLE INFO

Editor: Jay Gan

Keywords:
Eutrophication
Irrigation
Nitrogen
Phosphorus
Storage lakes
Wastewater

ABSTRACT

Global water scarcity necessitates creative, yet practical, solutions to meet ever-growing demand. Green infrastructure is increasingly used in this context to provide water in environmentally friendly and sustainable ways. In this study, we focused on reclaimed wastewater from a joint gray and green infrastructure system employed by the Loxahatchee River District in Florida. The water system consists of a series of treatment stages for which we assessed 12 years of monitoring data. We measured water quality after secondary (gray) treatment, then in onsite lakes, offsite lakes, landscape irrigation (via sprinklers), and ultimately in downstream canals. Our findings show gray infrastructure designed for secondary treatment, integrated with green infrastructure, achieved nutrient concentrations nearly equivalent to advanced wastewater treatment systems. For example, we observed a dramatic decline in mean nitrogen concentration from 19.42 mg L^{-1} after secondary treatment to 5.26 mg L^{-1} after spending an average of 30 days in the onsite lakes. Nitrogen concentration continued to decline as reclaimed water moved from onsite lakes to offsite lakes (3.87 mg L^{-1}) and irrigation sprinklers (3.27 mg L^{-1}). Phosphorus concentrations exhibited a similar pattern. These decreasing nutrient concentrations led to relatively low nutrient loading rates and occurred while consuming substantially less energy and producing fewer greenhouse gas emissions than traditional gray infrastructure—at lower cost and higher efficiency. There was no evidence of eutrophication in canals downstream of the residential landscape whose sole source of irrigation water was reclaimed water. This study provides a long-term example of how circularity in water use can be used to work toward sustainable development goals.

1. Introduction

Green infrastructure is broadly defined as utilizing any natural aspect of the environment—and the desired services those features provide—as part of human infrastructure (Benedict and McMahon, 2006; Palmer et al.,

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http://dx.doi.org/10.1016/j.scitotenv.2023.162232
Received 30 September 2022; Received in revised form 8 February 2023; Accepted 9 February 2023
Available online 14 February 2023
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2015). Examples range broadly, including tree cultivation, green roofs, vegetation coverage for erosion prevention, stormwater detention ponds, and wetland construction. Green infrastructure systems are increasingly employed concomitant with urbanization. In Florida alone there are >75,000 stormwater ponds and lakes, accounting for 2.7 % of urban land cover as of 2020 (Sinclair et al., 2020). While stormwater ponds are not a panacea for water quality concerns (Harper and Baker, 2007), they contribute many ecosystem services (Taguchi et al., 2020), including nutrient retention and removal from water (e.g., Ament et al., 2022; Ryan et al., 2010; Troitsky et al., 2019). For example, in Florida stormwater systems with a detention time of 14 days removed approximately 20–40 % of total nitrogen and 60–70 % of total phosphorus (Harper and Baker, 2007). In Minnesota, annual nutrient retention for phosphorus was >48 % and for nitrogen >58 % in three urban stormwater detention ponds, with variation in retention tied closely to hydrology and pond storage capacity (Janke et al., 2022). Stormwater ponds are common in coastal urban environments, contributing to nutrient removal through sedimentation (Lusk and Chapman, 2021; Schroer et al., 2018), macrophyte uptake (Schwammberger et al., 2020), and nitrification and denitrification (Rivers et al., 2018; Yazdi et al., 2021).

The extension of green stormwater systems to the green management of reclaimed wastewater seems obvious, yet there are few studies of full-scale systems in urban settings. Recycling treated wastewater is an ancient practice (Angelakis et al., 2018) that is resurging due to increasing water conservation needs (Almuktar et al., 2018; Maniam et al., 2022; Partyka and Bond, 2022; Rao et al., 2022). In this study, the reclaimed water we refer to is treated wastewater plant effluent that is eventually recycled to meet landscape irrigation needs and to offset groundwater withdrawals. In the recycling process, green infrastructure systems are the lake ecosystems in which treated wastewater is stored. In addition, the landscape (e.g., turf grass, shrubs, trees, riparian buffers) comprises terrestrial green infrastructure (Lee et al., 2004). These components are used to complement traditional gray infrastructure, e.g., mechanical filtration, aeration, disinfection by chlorination, and an underground transport pipe system. Studies that address the link between treated wastewater and storage systems tend to look at the effects of the influent on the ecology of the recipient water body (Chen et al., 2017; Liu et al., 2021; Luo and Li, 2018; Yang et al., 2022). For example, attention has been directed to establishing threshold values of nutrients that, when exceeded, may cause unwanted effects such as eutrophication and toxic algal blooms (Song et al., 2022; Sun et al., 2022). Others have documented impacts of elevated salt content on crop production (Liu et al., 2023).

An under-studied, alternative perspective may have equally important management implications, i.e., how do reclaimed water storage lake ecosystems mediate water quality, thereby affecting ecosystems where the water is reused? Mechanisms of nutrient retention in reclaimed water lakes likely vary among systems and environmental conditions and could involve sedimentation, phytoplankton, macrophytes, wetlands, microbial communities, and biogeochemical processes. Regardless of the mediating mechanisms, evidence that water quality may be significantly improved as reclaimed water flows through green infrastructure has globally important management implications.

The incorporation of green infrastructure into reclaimed water recycling projects has other advantages. For example, gray infrastructure advanced treatment methods are often associated with intense energy demands, high greenhouse gas emissions, environmental contamination (e.g., heavy metals), and poor cost efficiency (Amann et al., 2022; Zhang et al., 2021)—all of which are improved by integrating green infrastructure (Jayasooriya et al., 2017; Sturiale and Scuderi, 2019; Wang et al., 2020). Letting natural ecological processes operate reduces the chemical, electric, and labor demands typically associated with gray infrastructure. If reclaimed water reuse avoids negative externalities (e.g., downstream eutrophication) due to achieving acceptable nutrient loading rates, then the reuse of reclaimed water may meet irrigation and nutrient demands for landscaping or agricultural purposes, thereby reducing the demand for additional fertilizer application (Liu et al., 2023; Narain-Ford et al., 2021; Partyka and Bond, 2022; Rao et al., 2022; Zhu and Dou, 2018; Zurita and White, 2014). In these ways, optimized reclaimed water reuse programs are consistent with the philosophy and practice of a sustainable, circular economy (Estevez et al., 2022).

In this study, we focused on the reclaimed wastewater gray and green infrastructure system employed by the Loxahatchee River District (LRD) in Florida. Reclaimed water in this system has been thoroughly evaluated and well characterized (Arrington and Dent, 2008; Stanford et al., 2021; Stanley et al., 2009). The reclaimed water system consists of a series of treatment stages for which we assessed 12 years of monitoring data. We measured water quality after secondary treatment through standard gray wastewater infrastructure, then in green infrastructure—including onsite lakes, offsite lakes, and landscape irrigation (via sprinklers)—and ultimately in downstream canals. Specifically, we had the following hypotheses:

- Nitrogen and phosphorus concentrations decline as reclaimed water moves through gray and green infrastructure systems.
- Nitrogen and phosphorus concentrations at the end of our gray and green reclaimed water systems (i.e., when water emerges from sprinkler heads) are comparable to nitrogen and phosphorus concentrations in reclaimed water following advanced wastewater treatment consisting entirely of gray infrastructure.
- Because of lower nutrient concentrations achieved through the gray and green infrastructure system, unwanted ecosystem-level impacts are avoided, i.e., no eutrophication of downstream canals.

We assess these hypotheses with a robust, long-term dataset. Also, we provide a model framework for the use of reclaimed water that adheres to water quality standards, meets regional demand for irrigation water, and increases efficiency relative to wastewater treatment relying solely on gray infrastructure—all while avoiding unwanted environmental effects and minimizing costs.

2. Material and methods

2.1. Study area

The Northwest Fork of the Loxahatchee River is one of two rivers in Florida designated as a National Wild and Scenic River and as such receives special protections. Urbanization, drainage, stabilization, deepening of Jupiter inlet, dredging, and habitat loss have degraded the watershed (Stoner and Arrington, 2017; VanArman et al., 2005). Altered hydrology, increased water withdrawals from the natural system, and sea level rise have exacerbated saltwater intrusion (VanArman et al., 2005). Saltwater flows into the watershed from the Atlantic Ocean via Jupiter Inlet, a natural inlet identifiable in the oldest maps of Florida. Ecological degradation spawned plans to safeguard the Loxahatchee River from additional harm, including defining minimum flows necessary to sustain the river and regulatory efforts that limit the amount of water withdrawn from the watershed (Florida Administrative Code Rule 40E-2.091 and 40E-8.221(4)). Additionally, the development of alternative water supplies, such as using reclaimed water to meet non-potable water demands, is a statewide goal and has been promoted within the watershed to safeguard existing surface water and groundwater (403.064 and 373.250, Florida Statutes).

The Florida State Legislature created the LRD in 1971 as an independent, multi-county special district with a mission to protect public health and preserve the Loxahatchee River watershed through wastewater solutions, scientific research, and environmental stewardship. A principal mechanism by which this mission is achieved is effective wastewater collection, treatment, and disposal. To improve surface and groundwater quality, LRD has worked to decommission septic systems within the urbanized portion of the Loxahatchee River watershed and convert homes to the regional sanitary sewer system. Presently, ~99 % of urban homes and businesses (i.e., east of Interstate 95) have been connected to the LRD sewer system.

2.2. Wastewater treatment plant

The LRD owns and operates the regional wastewater treatment facility for northeastern Palm Beach County and southeastern Martin County, Florida, USA. From 1976 to 1984, LRD provided advanced wastewater treatment and discharged treated effluent to a pond that flowed into the Northwest Fork of the Loxahatchee River. In 1984, LRD modified the treatment process to provide secondary treatment and began recycling treated effluent—also known as reclaimed water, reuse water, and irrigation quality water, among many other names (Ellis et al., 2019)—to meet landscape irrigation needs at local golf courses. In 1987, LRD discontinued surface water discharges to the Loxahatchee River when LRD began operating a deep injection well for the disposal of excess treated wastewater. In 1998, LRD began providing reclaimed water to a 1036-ha, master-planned, mixed-use community named Abacoa whose development conditions require 100 % of landscape irrigation needs within the community to be met with reclaimed water. In 2011, to keep up with the growing demand for reclaimed water, LRD reclaimed water supply was increased by blending up to 11,356 m^3d^{-1} (3.0 MGD) of nanofiltration concentrate (NF-concentrate) from the Town of Jupiter's drinking water plant with LRD reclaimed water as it enters onsite reclaimed water storage lakes (Stanley et al., 2009). Presently, the LRD wastewater treatment plant has a permitted treatment capacity of 41,640 m^3d^{-1} (11.0 million gallons per day, MGD), and provides secondary treatment including mechanical filtration, flow equalization, diffused aeration, secondary clarification, filtration, and high-level disinfection by chlorination. The treated effluent plus NF-concentrate meets Florida's public-access land application reclaimed water requirements (Fla. Admin. Code R. 62–610, Part III). Reclaimed water (treated effluent plus NF-concentrate) is recycled to meet landscape irrigation needs and offset groundwater withdrawals in the region. During wet weather periods, when reclaimed water storage features are full, excess reclaimed water is disposed of by deep well injection into the boulder zone. Pugsley (2020) provides a summary of the LRD wastewater treatment plant objectives, process systems, and the chronology of process improvements.

2.3. Reclaimed water storage and distribution

After treatment, LRD reclaimed water flows out of the wastewater treatment plant (Fig. 1, Supplementary Fig. 1), from the chlorine contact chamber, into two parallel, elevated lakes (where NF-concentrate is blended), and then sequentially through a series of four interconnected lakes (Supplementary Fig. 2). These onsite lakes have a cumulative total volume of 744,530 m^3 with a mean residence time of 30 days. These onsite lakes were designed as an “artificial lentic environment” with a high shoreline-to-volume ratio to promote natural biogeochemical water treatment and an underlying sandy-clay layer that limits groundwater seepage (Dent, 1975). These lakes support extensive littoral zones that function as constructed wetlands and are dominated by maidencane (*Panicum hemitomon*), alligator weed (*Alternanthera philoxeroides*), pennywort (*Hydrocotyle* spp.), and lake hygrophila (*Hygrophila costata*) with isolated, seasonal patches of water meal (*Wolffia columbiana*), small duckweed (*Lemna valdiviana*), and American water fern (*Azolla filiculoides*). Every 2–5 years, excess littoral vegetation is mechanically harvested and sent to a facility that processes vegetative waste into mulch or soil amendment. Onsite lakes also support an array of wading birds, reptiles, and fish, and serve as a public wildlife viewing area. Two onsite reclaimed water pump stations are used to distribute reclaimed water to customers through a network of 56,710 m of underground reclaimed water distribution pipes.

Approximately 64 % of LRD's reclaimed water is allocated to meet landscape irrigation needs at twelve local golf courses and the remaining 36 % is allocated to meet public-access landscape irrigation demands in Abacoa (Fig. 1; Table 1)—a mixed-use residential area that includes a university campus, professional and training baseball fields, public schools and parks, a community vegetable garden, common area lawns, and residential lawns. Each reclaimed water customer has a contract that stipulates maximum daily reclaimed water allocation, reclaimed water storage requirements, and reclaimed water cost structure. In general, offsite reclaimed water storage lakes (Supplementary Fig. 3) are required to hold a minimum volume equivalent to 3 days of peak irrigation demand; the total volume of offsite lakes is 547,087 m^3, the median area is 0.9 ha, and the mean residence time is 20 days (Table 1). Cumulatively, including onsite and offsite lakes, LRD reclaimed water is held in storage lakes for an average of 50 days before being used for irrigation. Groundwater quality in 27 shallow wells (10 background wells and 17 compliance wells) across 10 LRD reclaimed water customers (i.e., golf courses) from 1984 to 2006 was assessed and found no long-term or system-wide negative effects on groundwater quality after 22 years of operation (Arrington and Dent, 2008). All golf courses manage their reclaimed water irrigation systems, whereas in Abacoa LRD maintains a single pump station and major irrigation trunk lines that serve reclaimed water to neighborhood property owner associations. Throughout this study, LRD continuously metered all reclaimed water flows: from the treatment plant to the onsite lakes, NF-concentrate flows to onsite lakes, from onsite lakes to each offsite lake, from each offsite lake to the local irrigation systems (Supplementary Fig. 4). Downstream canals are the predominant lotic surface water bodies draining the area (Supplementary Fig. 5).

2.4. Nutrient sampling

Water samples were collected either monthly or quarterly from January 1, 2011 to December 31, 2022 for this study. NF-concentrate was sampled monthly, immediately before blending with the reclaimed water, and analyzed for total nitrogen and total phosphorus. Reclaimed water was sampled for total nitrogen, inorganic nitrogen, organic nitrogen, and total phosphorus from five sequential engineered systems (i.e., gray and green infrastructure; Supplementary Fig. 6): at the downstream end of the wastewater treatment plant (secondary treatment, gray infrastructure; $n = 1$), from the final onsite storage lake (onsite lake, green infrastructure; $n = 1$), from within offsite reclaimed water storage lakes (offsite lakes, green infrastructure; $n = 4$), as reclaimed water emerged from sprinklers within Abacoa (sprinklers, gray infrastructure; $n = 4$), and from the surface water drainage system downstream of the Abacoa community (downstream canals, green infrastructure; $n = 2$). For each sampling event, we collected and analyzed a single secondary treatment sample and a single onsite lake sample. The LRD reclaimed water is stored in thirteen offsite storage lakes but, for practical reasons, we selected and sampled four of these lakes throughout this study (i.e., Jupiter Hills, Loxahatchee Club, Admiral's Cove, and Abacoa). We sampled water from four sprinkler heads within the Abacoa community during each sampling event. Reclaimed water was collected as it emerged from sprinkler heads. Finally, we sampled water quality from two surface water canals located downstream of the Abacoa community (Fig. 1). These downstream canals provide stormwater drainage to the Abacoa community and any excess reclaimed water discharged within the community was assumed to impact water quality in these canals.

2.5. Laboratory analysis

Water samples were collected, preserved to a pH of ~2.0, transported on ice to the LRD WildPine Ecological Laboratory, refrigerated at 6 °C, and analyzed within 28 days of collection. The pH of all water samples was adjusted to 5.5–9.0 before analysis. All samples were processed following National Environmental Laboratory Accreditation Conference (NELAC) requirements. Detection limits were as follows: Total Kjeldahl nitrogen 0.2 mg L^{-1} (TKN; EPA 351.2), nitrate + nitrite 0.02 mg L^{-1} (NO_x; EPA 353.2), ammonia nitrogen 0.2 mg L^{-1} (NH_3^+; SM 4500-NH3 C), and total phosphorus 0.005 mg L^{-1} (SM 4500-P E). We calculated nitrogen fractions as total nitrogen = TKN + NO_x, organic nitrogen = TKN – NH_3^+, and inorganic nitrogen = NO_x + NH_3. See Stoner and Arrington (2017) for additional sampling and laboratory analysis details. Total nitrogen and total phosphorus values were compared to numeric nutrient criteria for Florida's peninsular freshwater canals as a conservative measure of eutrophic

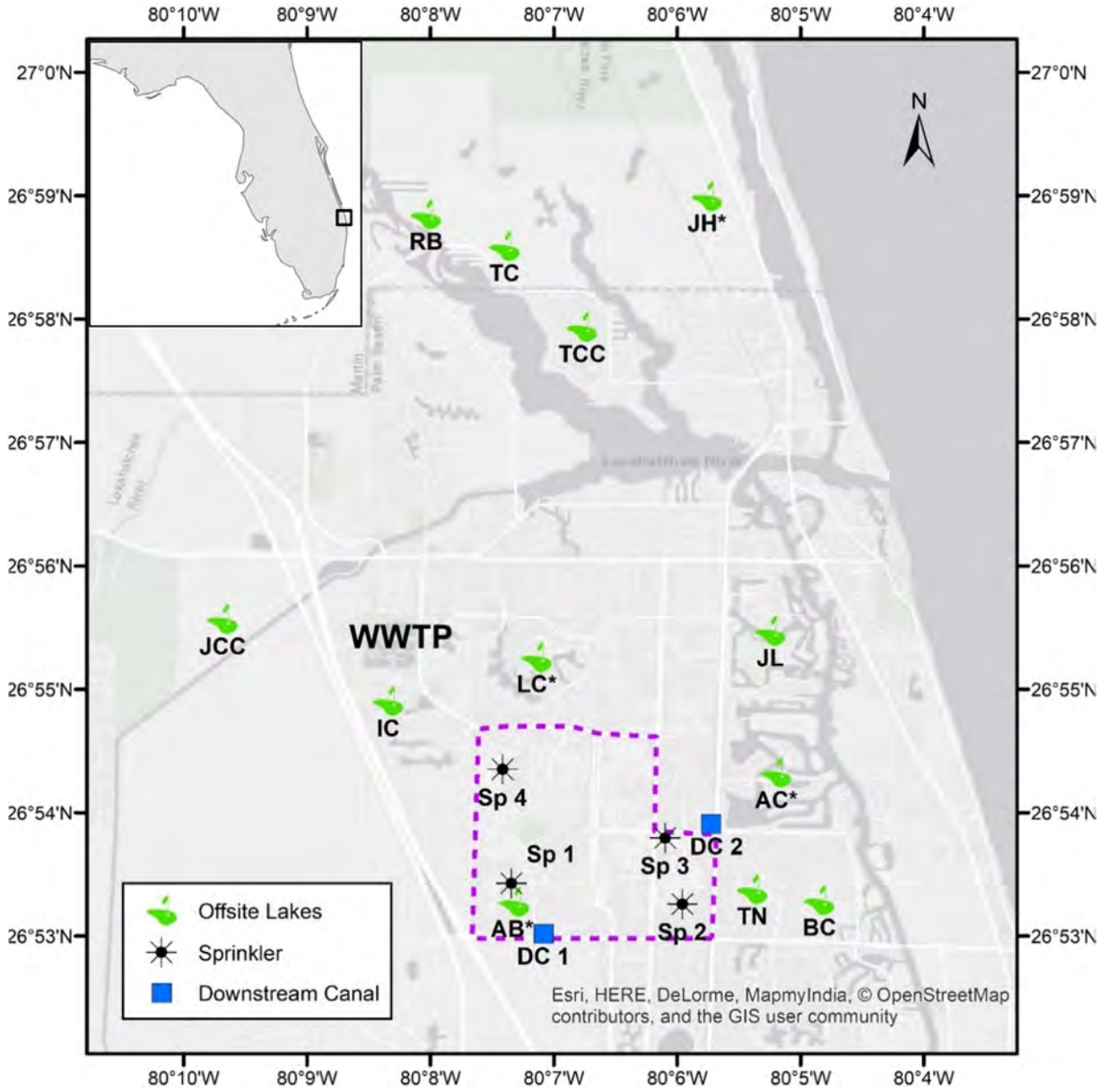

Fig. 1. Loxahatchee River District reclaimed water service area showing the wastewater treatment facility (WWTP), twelve golf courses irrigated with reclaimed water (green icons; Abacoa (AB), Admirals Cove (AC), Bears Club (BC), Indian Creek (IC), Jonathan's Landing (JL), Jupiter Country Club (JCC), Jupiter Hills (JH), Loxahatchee Club (LC), Riverbend (RB), Tequesta Country Club (TCC), Trump National (TN), Turtle Creek (TC)), and Abacoa 1036 ha mixed-use community entirely irrigated with reclaimed water (dashed purple polygon). Reclaimed water quality was monitored at (1) wastewater treatment plant site (WWTP), (2) four offsite (golf course) lakes (AB*, AC*, LC*, and JH*), (3) four reclaimed water sprinklers within Abacoa (SP1, SP2, SP3, and SP4), and (4) two stormwater canals downstream of Abacoa (DC1 and DC2). Nano-concentrate is blended with reclaimed water in onsite lakes at the WWTP. Reclaimed water is then distributed via underground pipes to all reclaimed water customers. Every golf course (plus the Abacoa community) has an on-site reclaimed water storage lake (see Table 1). Downstream canals provide offsite discharge of stormwater for the entire Abacoa community. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

conditions (Florida Department of Environmental Protection, Numeric Nutrient Content Criteria).

2.6. Quantifying nutrient loading rates

Nitrogen and phosphorus loading rates were quantified using two approaches. Actual nutrient loading rates were calculated by multiplying the mean total nitrogen or total phosphorus concentration times the average reclaimed water daily hydraulic loading rate (i.e., actual nutrient loading rate) for the period of record (see Table 1, Fig. 3). Maximum potential nutrient loading rates were calculated by multiplying the mean total nitrogen or total phosphorus concentration times the contractual maximum reclaimed water daily hydraulic loading rate (i.e., the contractual daily allocation that cannot be exceeded) for the period of record (see Table 1, Fig. 3). The maximum potential nutrient loading rate is indicative of reclaimed water nutrient loading rates during drought conditions when customers are most likely to use their full daily allocation of reclaimed water.

2.7. Data analyses

Lognormal generalized linear mixed-effects models (GLMM) and planned contrasts between individual water infrastructure systems were used to characterize nutrient concentrations in reclaimed water as it

Table 1
Characterization of LRD reclaimed water customers for the period Jan. 1, 2011 to Dec. 31, 2022. Minimum lake residence times based on lake volume as a function of contractual maximum irrigation rates. Average lake residence times were based on observed irrigation rates. The total irrigated area was 1098 ha. Maximum reclaimed water hydraulic loading rates were defined contractually and established using agronomic rates and site-specific conditions. Average hydraulic loading rates were based on observed reclaimed water irrigation rates.

Reclaimed water customer	Land use	Minimum Offsite Lake Residence Time (days)	Average Offsite Lake Residence Time (days)	Irrigated area (ha)	Average reclaimed water hydraulic loading rate ($m^3\ ha^{-1}\ day^{-1}$)	Maximum reclaimed water hydraulic loading rate ($m^3\ ha^{-1}\ day^{-1}$)
Loxahatchee Club	Golf Course	13	21	82	18.2	30.0
Jupiter CC	Golf Course	18	45	105	12.6	32.4
Bear's Club	Golf Course	14	35	57	13.1	33.2
Trump National	Golf Course	6	7	53	29.9	36.0
Tequesta CC	Golf Course	10	13	51	28.0	37.4
Jonathan's Landing	Golf Course	7	10	49	25.3	37.4
Turtle Creek	Golf Course	25	41	56	23.2	37.3
Admiral's Cove	Golf Course	11	19	142	21.3	37.4
Golf Club of Jupiter	Golf Course	2	5	34	14.4	37.4
Riverbend	Golf Course	3	4	40	27.9	37.4
Jupiter Hills	Golf Course	7	8	102	30.6	44.4
Abacoa	Mixed Use[a]	16	41	327	25.2	46.4
	Average =	11	20	92	22.8	37.2

[a] Mixed Use includes a golf course, professional baseball field, community vegetable garden, training fields, public schools, public parks, and residential irrigation.

moved through gray and green infrastructure (i.e., secondary treatment, onsite lakes, offsite lakes, sprinklers, and downstream canals). We built a GLMM for each response variable, which were the assessed nutrients (i.e., total nitrogen, inorganic nitrogen, organic nitrogen, and total phosphorus). Each of these models included gray and green infrastructure systems as fixed effects and individual site locations as random effects (random intercepts) to group data coming from non-independent locations and to explicitly account for the repeated sampling of these locations (Gomes, 2022). To explain temporal variation in the data we fit the day of the year (ordinal date) as a linear (accounting for day-to-day trends) and 2nd order polynomial (accounting for seasonal trends) fixed effect and we fit year as a random effect (random intercept) to account for year-to-year variation within the study (Gomes, 2022). We assessed each model fit by visualizing residual-fitted value relationships, homogeneity of variance, normality of residuals with quantile-quantile and density-residual plots, Variance Inflation Factors (VIF) to assess collinearity between fixed effects, and random effects quantile-quantile plots (see "ModelChecks" at https://doi.org/10.5281/zenodo.7596368). To assess differences in concentrations of total nitrogen, inorganic nitrogen, organic nitrogen, and total phosphorus between adjacent infrastructure systems (i.e., secondary treatment → onsite lakes → offsite lakes → sprinklers → downstream canals), we conducted the following independent contrasts of the estimated marginal least-squares means, secondary treatment vs onsite lakes, onsite lakes vs offsite lakes, offsite lakes vs sprinklers, sprinklers vs downstream canals, and finally secondary treatment vs sprinklers to assess changes within the entire system. Since we make these five contrasts, all p values were adjusted for multiple a priori planned comparisons using the False Discovery Rate (FDR) methods (Benjamini and Hochberg, 1995; Benjamini and Yekutieli, 2001). All of the above analytical methods were conducted in R v. 4.2.2 using the packages 'lme4' (Bates et al., 2015), `performance` (Lüdecke et al., 2021), and 'emmeans' (Lenth et al., 2019) for model building, model checking, and planned contrasts, respectively (to access raw data, code for statistical analyses, and results see https://doi.org/10.5281/zenodo.7596368).

Values throughout the manuscript, in Fig. 3, and Table 2 are reported as mean (of log transformed values, then exponentiated to original scale) ± 1 standard deviation. When assessing nutrient concentrations relative to numeric nutrient criteria, we report geometric mean ± 95 % confidence intervals to be consistent the state statutes. When estimating nutrient loading rates, we used arithmetic means (not transformed means) because the arithmetic means were more conservative (larger; see Table 2). Nutrient loading rates are presented based on average and maximum hydraulic loading rates (see Table 1).

3. Results and discussion

3.1. Reclaimed water production, distribution, and hydraulic loading rates

From January 1, 2011 to December 31, 2022 the LRD wastewater treatment plant received and treated 113,241,359 m^3 (29.9 billion gallons) of wastewater, at an average daily rate of 25,836 $m^3 d^{-1}$ (6.8 MGD). Over the same period, the LRD deep injection well was operated on 50 % of the days and used to dispose of 29 % (7401 $m^3\ d^{-1}$) of treated effluent, which occurs when there is no available capacity in reclaimed water storage lakes. The remaining 71 % (18,436 $m^3 d^{-1}$) was treated to reclaimed water standards, blended with NF-concentrate (5530 $m^3 d^{-1}$), and stored in onsite lakes. Ultimately, 84,540,667 m^3 of reclaimed water was distributed to reclaimed water customers at an average daily rate of 19,288 $m^3 d^{-1}$ and a maximum daily rate of 42,657 $m^3\ d^{-1}$. The total area irrigated with LRD reclaimed water was 1098 ha (2712 acres). Average and maximum daily reclaimed water hydraulic loading rates are provided in Table 1 for each of the LRD reclaimed water customers, which include 12 golf courses and the community of Abacoa (Fig. 1).

3.2. Rainfall and irrigation rates

From January 1, 2011 to December 31, 2022 average monthly rainfall at the LRD wastewater treatment plant ranged from 6.25 to 23.30 cm mo^{-1} (Fig. 2). Average wet season (May–October) monthly rainfall was 18.51 cm mo^{-1} and dry season (November–April) rainfall averaged 8.71 cm mo^{-1}. There was relatively little monthly or seasonal variation in reclaimed water irrigation rates, which averaged 6.39 cm mo^{-1} annually, 6.37 cm mo^{-1} in the wet season and 6.41 cm mo^{-1} in the dry season (Fig. 2).

3.3. Nutrient concentrations

Observed nutrient concentrations systematically declined as wastewater and reclaimed water moved through gray and green infrastructure from the wastewater treatment plant to onsite and offsite storage lakes, sprinkler heads, and ultimately downstream canals. Raw wastewater entering the wastewater treatment plant contained approximately 42 mg L^{-1} of total nitrogen and 6 mg L^{-1} of total phosphorus; consistent with medium-strength untreated domestic wastewater (Metcalf and Eddy, 2014). After secondary treatment, the mean total nitrogen concentration was 19.42 ± 4.51 (mean ± 1 standard deviation) mg L^{-1}, comprising 16.75 ± 4.01 mg L^{-1} inorganic nitrogen and 2.57 ± 1.59 mg L^{-1} organic nitrogen (Fig. 3a); mean total phosphorus concentration was 2.92 ± 0.55 mg L^{-1}

Table 2
Summary statistics for nitrogen and phosphorus across reclaimed water systems. We conducted a priori planned contrasts between each water system and the immediately downstream system using generalized linear mixed-effects model estimates. We provide sample size, arithmetic mean, and mean of the log transformed values exponentiated to the original scale (to facilitate interpretation) for total nitrogen, inorganic nitrogen, organic nitrogen, and total phosphorus. The percent reduction column shows nutrient reduction in reclaimed water between upstream and downstream systems based on Log-Scale Means. False Discovery Rate adjusted *p*-values reveal statistically significant differences between upstream and downstream systems (∗). Period of study was Jan. 1, 2011 to Dec. 31, 2022.

Nutrient	Summary statistics					Planned contrasts			
	Reclaimed water system	n	Mean (mg L^{-1})	Log-Scale Mean (mg L^{-1})	SD	Downstream system	t-ratio	p-value	% reduction
Total Nitrogen	Secondary Treatment	266	19.91	19.42	4.51	On-site Lakes	−10.04	<0.001*	73 %
	On-site Lakes	142	6.02	5.26	3.15	Off-site Lakes	−2.95	0.024*	26 %
	Off-site Lakes	187	4.33	3.87	2.31	Sprinkler	0.97	0.346	15 %
	Sprinklers	320	3.66	3.27	1.76	Downstream Canal	−18.67	<0.001*	75 %
	Downstream Canals	92	0.87	0.83	0.29				
Inorganic Nitrogen	Secondary Treatment	144	17.25	16.75	4.01	On-site Lakes	−8.76	<0.001*	85 %
	On-site Lakes	142	3.46	2.47	2.68	Off-site Lakes	−3.08	0.018*	42 %
	Off-site Lakes	184	2.14	1.43	2.08	Sprinkler	1.03	0.318	22 %
	Sprinklers	316	1.62	1.12	1.45	Downstream Canal	−12.85	<0.001*	80 %
	Downstream Canals	92	0.23	0.22	0.04				
Organic Nitrogen	Secondary Treatment	142	3.03	2.57	1.59	On-site Lakes	−0.44	0.675	7 %
	On-site Lakes	142	2.56	2.38	0.99	Off-site Lakes	−0.89	0.615	10 %
	Off-site Lakes	184	2.21	2.14	0.54	Sprinkler	0.70	0.615	10 %
	Sprinklers	311	2.08	1.91	0.83	Downstream Canal	−12.48	<0.001*	73 %
	Downstream Canals	92	0.64	0.52	0.27				
Total Phosphorus	Secondary Treatment	281	3.02	2.92	0.55	On-site Lakes	−4.15	0.006*	39 %
	On-site Lakes	142	1.85	1.77	0.42	Off-site Lakes	−2.27	0.052	20 %
	Off-site Lakes	187	1.55	1.41	0.49	Sprinkler	3.29	0.006*	19 %
	Sprinklers	321	1.23	1.14	0.47	Downstream Canal	−43.06	<0.001*	97 %
	Downstream Canals	92	0.05	0.04	0.04				

(Fig. 3b). These nutrient concentrations are consistent with reclaimed water receiving secondary treatment in Florida (Badruzzaman et al., 2012; Schmidt et al., 2013), and are sufficiently high to cause eutrophication of natural systems. As the reclaimed water completed the secondary wastewater treatment process (i.e., emerged from the chlorine contact chamber) it was discharged into two elevated, lined lakes and blended with NF-concentrate. NF-concentrate contained 2.18 ± 1.70 mg L^{-1} TN and 0.42 ± 2.17 mg L^{-1} TP. We did not measure ammonia in the NF-concentrate, so we could not partition this nitrogen into inorganic and organic fractions. Throughout 12 years of study, NF-concentrate comprised 22.54 % of water discharged to the reclaimed water storage lakes. Therefore, a dilution equation blending 22.54 % NF-concentrate (2.18 mg L^{-1} TN and 0.42 mg L^{-1} TP) with 77.46 % reclaimed water (19.42 mg L^{-1} TN and 2.92 mg L^{-1} TP) yielded reclaimed water with 15.53 mg L^{-1} TN and 2.36 mg L^{-1} TP—a 20.0 % decline in TN and an 19.3 % decline in TP. Thus, a portion of the nitrogen and phosphorus decline observed between secondary treatment and onsite lakes (Fig. 3) was a dilution effect.

Total nitrogen concentrations declined significantly among reclaimed water systems (Secondary vs sprinkler contrast, $p < 0.001$) as reclaimed water flowed from the secondary treatment system (19.42 ± 4.51 mg L^{-1}) to onsite lakes (5.26 ± 3.15 mg L^{-1}), offsite lakes (3.87 ± 2.31 mg L^{-1}), sprinklers (3.27 ± 1.76 mg L^{-1}), and downstream canals (0.83 ± 0.29 mg L^{-1}) (Fig. 3a; Table 2). Total nitrogen declined by 73 % (from 19.42 to 5.26 mg L^{-1}) between the end of the secondary wastewater treatment and the onsite lakes, with 20 % of the removal driven by dilution with NF-concentrate and the remaining 53 % removal driven by processes occurring in the onsite reclaimed water storage lakes. Mean total nitrogen concentrations measured at sprinkler heads (3.27 mg L^{-1}) were comparable to total nitrogen concentrations of 3 mg L^{-1} achieved by advanced wastewater treatment facilities (Fan et al., 2014; Metcalf and Eddy, 2014). Thus, the combined gray and green infrastructure achieved total nitrogen concentrations similar to advanced wastewater treatment systems but with significantly lower energy use, lower greenhouse gas emissions, and a fraction of the cost.

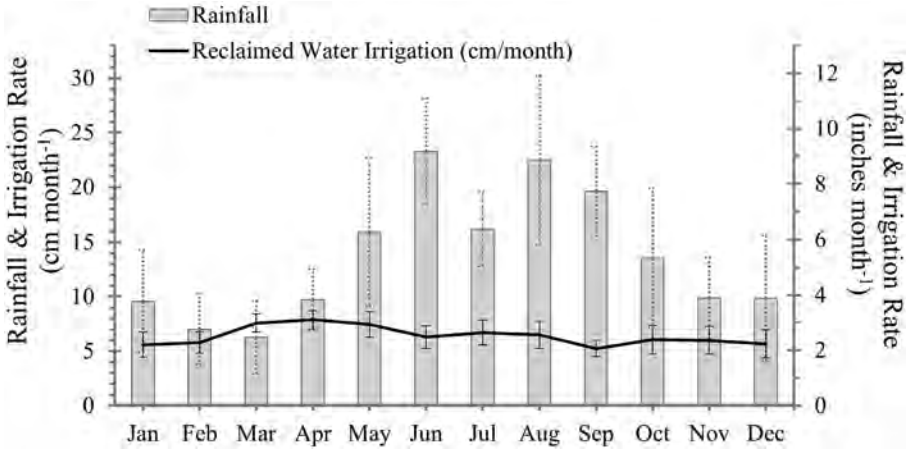

Fig. 2. Mean (± 95 % confidence intervals) monthly rainfall (gray bars) and reclaimed water irrigation (black line) rates for the period January 1, 2011, to December 31, 2022. The wet season (May to October) averaged 18.51 cm of rainfall per month while the dry season averaged 8.71 cm mo^{-1}. Mean monthly reclaimed water application rates exhibit some seasonality (peak in April and minimum in September), but far less than might be expected based on the seasonality of rainfall.

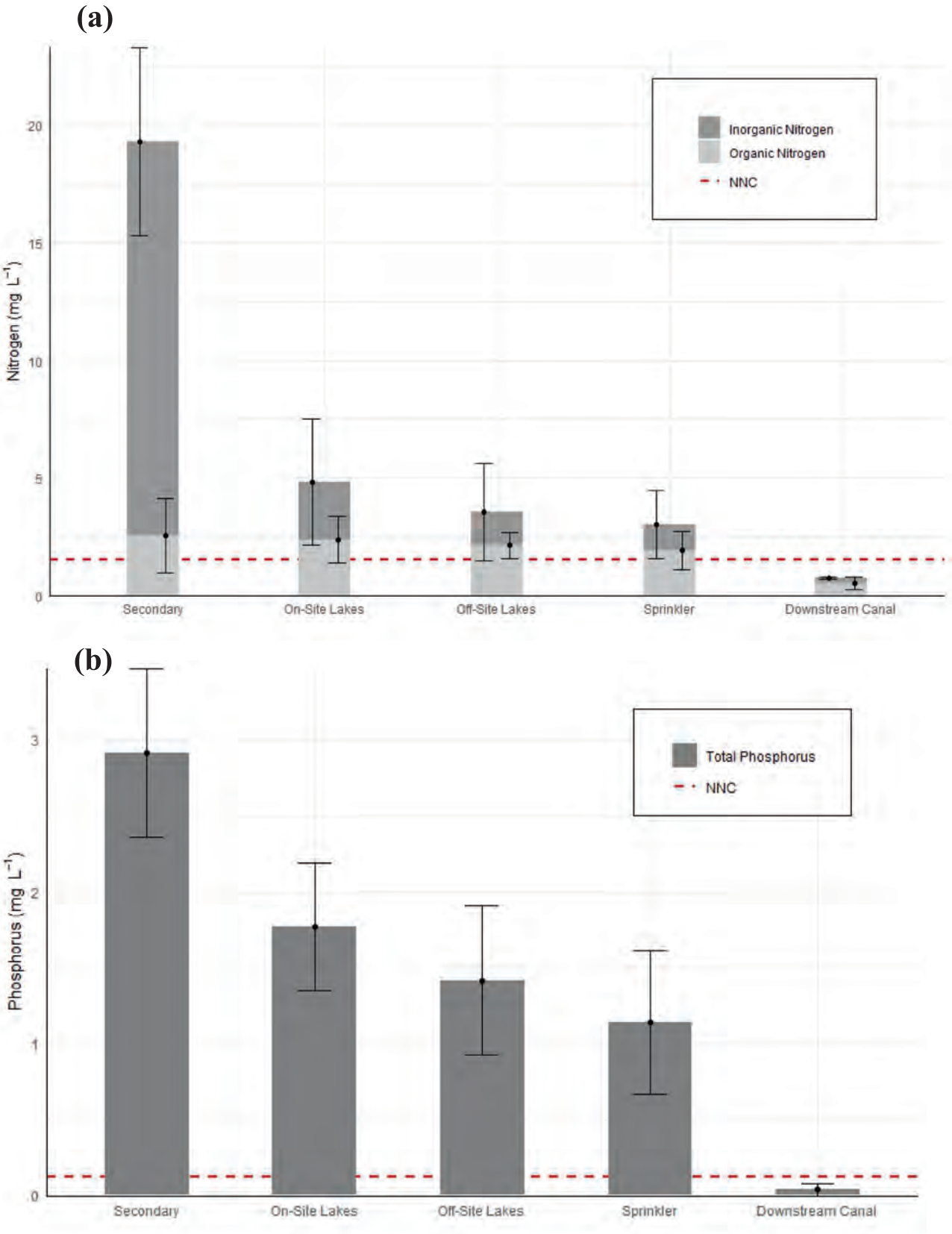

Fig. 3. Nutrient concentrations decreased as reclaimed water moved through the LRD-engineered systems. Mean (calculated on the logscale) (a) nitrogen and (b) phosphorus concentrations (± 1 standard deviation) for the period January 1, 2011, to December 31, 2022; summary statistics are provided in Table 2. The red dashed line depicts local numeric nutrient criteria (NNC) for peninsular freshwater streams (1.54 TN mg L^{-1} and 0.12 TP mg L^{-1}). (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

Inorganic nitrogen was the largest fraction of nitrogen in treated wastewater and declined significantly (Secondary vs sprinkler contrast, $p < 0.001$) among reclaimed water systems with the largest magnitude decline observed as reclaimed water moved from the secondary wastewater treatment system (16.75 ± 4.01 mg L^{-1}) to the onsite lakes (2.47 ± 2.68 mg L^{-1}), and smaller declines between subsequent systems, i.e., offsite lakes (1.43 ± 2.08 mg L^{-1}), sprinklers (1.12 ± 1.45 mg L^{-1}), and downstream canals (0.22 ± 0.04 mg L^{-1}) (Fig. 3a; Table 2). Inorganic nitrogen, i.e., nitrate + nitrite + ammonia, represented the most nitrogen that was lost—an 85 % decline in mean inorganic nitrogen concentrations occurred from secondary treatment to onsite lakes (Table 2; Fig. 3a). These decreased nitrogen concentrations were likely driven by physical and biological factors, including microbially-mediated ammonification-nitrification-denitrification (Lee et al., 2009; Rivers et al., 2018; Vymazal, 2007; Yazdi et al., 2021), assimilation by primary producers (Schwammberger et al., 2020), retention in sediments (Griffiths and Mitsch, 2020; Lusk and Chapman, 2021; Schroer et al., 2018), and biofilm uptake and transformation in reclaimed water transmission pipes (Rodríguez-Gómez et al., 2005).

Organic nitrogen concentrations did not differ significantly across all reclaimed water system (Secondary vs sprinkler contrast, $p = 0.211$), with concentrations declining consistently but not significantly as water moved from the secondary treatment plant (2.57 ± 1.59 mg L^{-1}) to onsite lakes (2.38 ± 0.99 mg L^{-1}) to offsite lakes (2.14 ± 0.54 mg L^{-1}) and sprinklers (1.91 ± 0.83 mg L^{-1}); however, there was a significant decrease in organic nitrogen concentrations between sprinklers and downstream canals (0.52 ± 0.27 mg L^{-1}; sprinkler vs canal contrast, $p < 0.001$; Table 2; Fig. 3a). Organic nitrogen increased, as a proportion of total nitrogen, from secondary treatment (13 %) to onsite lakes (45 %), offsite lakes (55 %), sprinklers (58 %), and downstream canals (63 %). Organic nitrogen concentrations were more persistent than inorganic nitrogen and are consistent with findings in stormwater systems, which identified few mechanisms other than burial in sediments that effectively removed organic nitrogen in wet detention systems analogous to our lakes (Harper and Baker, 2007; Vymazal, 2007).

Total phosphorus significantly declined among reclaimed water systems (Secondary vs sprinkler contrast, $p < 0.001$), from secondary treatment (2.92 ± 0.55 mg L^{-1}) to onsite lakes (1.77 ± 0.42 mg L^{-1}), offsite lakes (1.41 ± 0.49 mg L^{-1}, nearly significant at $p = 0.052$), sprinklers (1.14 ± 0.47 mg L^{-1}), and downstream canals (0.04 ± 0.04 mg L^{-1}) (Fig. 3b; Table 2). Total phosphorus declined by 39 % (from 2.92 to 1.77 mg L^{-1}) between secondary effluent and onsite lakes, with 49 % (0.56 mg L^{-1}) of this decline due to dilution with NF-concentrate and 51 % of the decline (0.59 mg L^{-1}) due to physical and biological processes in the onsite storage lakes. Phosphorus removal efficiency in the reclaimed water storage lakes was comparable to the median total phosphorus removal efficiency of 68 % (95 % confidence interval of 43–82 %) in Florida wetlands receiving secondarily treated domestic wastewater (Land et al., 2016). The primary processes removing phosphorus from the water column in these systems were sorption, precipitation, plant update, and soil accretion (Vymazal, 2007). Mean total phosphorus concentrations measured at sprinkler heads (1.14 mg L^{-1}) were only slightly higher than effluent produced by advanced wastewater treatment (1 mg L^{-1}; 403.086, Florida Statutes). The joint gray and green infrastructure produced effluent quality comparable to advanced wastewater treatment facilities (Fan et al., 2014; Metcalf and Eddy, 2014).

In stormwater canals downstream of a mixed-use community irrigated exclusively with reclaimed water, geometric means of total nitrogen and total phosphorus (0.83 and 0.04 mg L^{-1}, respectively) were below established numeric nutrient criteria for peninsular freshwater streams (1.54 and 0.12 mg L^{-1}; Florida Administrative Code R. 62–302.531). Mean chlorophyll *a* concentration corrected for phaeophytin at these same locations was 10.9 μg L^{-1}. Observed total nitrogen and total phosphorus geometric means from secondary treatment (19.40 and 2.92 mg L^{-1} TN and TP, respectively), onsite lakes (5.26 and 1.77 mg L^{-1}), offsite lakes (3.87 and 1.41 mg L^{-1}), and sprinklers (3.27 and 1.14 mg L^{-1}) all exceeded Florida's numeric nutrient criteria for peninsular freshwater streams (Fig. 3a). Nonetheless, the geometric means of total nitrogen and total phosphorus within downstream canals (0.83 and 0.04 mg L^{-1}) were 46 % and 70 % below the numeric nutrient criteria for peninsular freshwater streams even though monitored canal sites were located downstream of and receiving stormwater from the 1036 ha area that was entirely irrigated with reclaimed water. While others have documented eutrophication caused by landscape irrigation with treated reclaimed water (Toor et al., 2017), our results demonstrate that waterbodies receiving stormwater discharged from a large, mixed-use community irrigated entirely with reclaimed water were not eutrophic (i.e., nitrogen, phosphorus, and chlorophyll *a* water column concentrations were below numeric nutrient criteria; Fig. 3). Nutrient loading from landscape irrigation with reclaimed water did not impact surface water quality likely because landscape vegetation (predominantly turfgrass) assimilated and retained nutrients. Many of these nutrients were removed from the local system when excess vegetative matter was harvested and sent to mulching facilities. Further, the predominantly calcium carbonate soils immobilized nutrients (especially phosphorus) between sprinkler heads and downstream canals.

The reclaimed water distribution system, i.e., the underground pipe network, also appeared to contribute to declining nitrogen concentrations. Surface waters in reclaimed water storage lakes are generally aerobic and contained meaningful concentrations of nitrate and nitrite, but reclaimed water becomes anoxic as it flows through distribution pipes (Anwar et al., 2022; Li et al., 2019; Rodríguez-Gómez et al., 2005). In our study, sulfide odors and incidental dissolved oxygen measurements immediately before water emerged from sprinkler heads indicate the anoxic condition of the water as it traveled through the irrigation distribution system (56,710 m of underground pipes). This provides conditions for nitrification-denitrification in linked aerobic-anaerobic conditions.

3.4. Nutrient loading rates

In addition to assessing nutrient concentrations, we also quantified nutrient loading rates driven by reclaimed water landscape irrigation and contextualized these loading rates relative to agronomic requirements. We estimated nutrient loading rates that would have occurred if landscape irrigation had occurred with reclaimed water derived from each of the engineered steps in the system (i.e., from the end of secondary treatment, onsite lakes, offsite lakes, or sprinklers). Based on observed nutrient concentrations (i.e., actual mean values shown in Table 2) in water samples and the actual reclaimed water hydraulic loading rate (23 m^3 d^{-1} ha^{-1}), we computed the average total nitrogen (Fig. 4a) and phosphorus (Fig. 4b) loading rates. We observed a dramatic decline in average nitrogen loading from 164 kg ha^{-1} yr^{-1} after secondary treatment to 49 kg ha^{-1} yr^{-1} after spending an average of 30 days in onsite lakes (Fig. 4a). Projected nitrogen loading rates continued to decline as the source of reclaimed water moved from onsite lakes to offsite lakes 36 kg ha^{-1} yr^{-1} and sprinklers 30 kg ha^{-1} yr^{-1} (Fig. 4A). Average phosphorus loading rates exhibited a similar pattern with the potential phosphorus loading rate declining 25 kg ha^{-1} yr^{-1} in secondary treatment to 15 kg ha^{-1} yr^{-1} in onsite lakes, 13 kg ha^{-1} yr^{-1} in offsite lakes, and 10 kg ha^{-1} yr^{-1} in sprinklers (Fig. 4B). We also examined maximum potential nitrogen and phosphorus loading rates by using maximum reclaimed water hydraulic loading rate rather than the actual reclaimed water hydraulic loading rate (Fig. 4). If the reclaimed water customers took their maximum daily contractual allocation of reclaimed water, they, theoretically, could load the following amount of nitrogen to the landscape: 245 kg ha^{-1} yr^{-1} after secondary treatment, 74 kg ha^{-1} yr^{-1} after onsite lakes, 53 kg ha^{-1} yr^{-1} from offsite lakes, or 45 kg ha^{-1} yr^{-1} from sprinklers (Fig. 4A). Similarly, maximum phosphorus loading rates could have been 37 kg ha^{-1} yr^{-1} from secondary treatment, 23 kg ha^{-1} yr^{-1} from onsite lakes, 19 kg ha^{-1} yr^{-1} from offsite lakes, or 15 kg ha^{-1} yr^{-1} from sprinklers (Fig. 4B). The estimated loading rates measured from secondary treatment surpasses the proposed critical loading rate of nitrogen and phosphorus suggested for functional wetlands, 45 and 10 kg ha^{-1} yr^{-1}, respectively (Verhoeven et al., 2006).

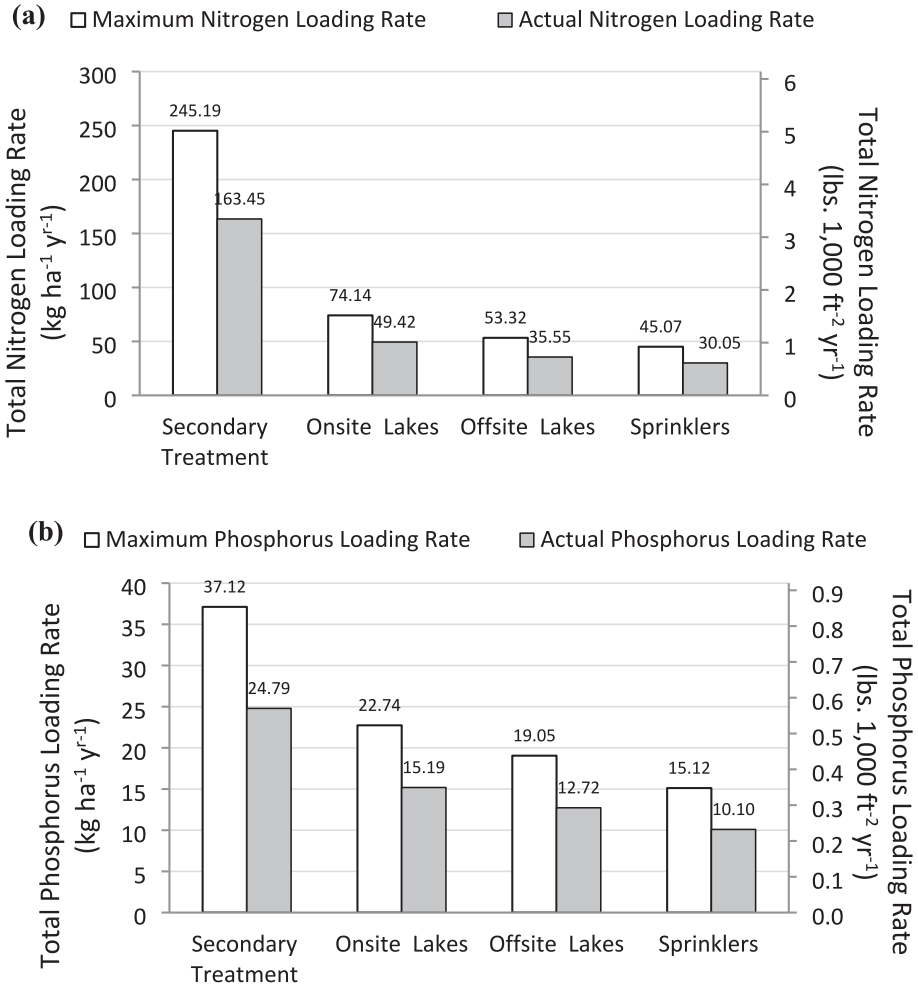

Fig. 4. Potential nutrient loading rates of (a) total nitrogen and (b) total phosphorus derived from landscape irrigation with reclaimed water calculated from mean nutrient values (Table 2) during the period January 1, 2011, to December 31, 2022. Nutrient loading was calculated based on measured mean (a) total nitrogen or (b) total phosphorus concentrations times the contractual maximum reclaimed water hydraulic loading rate (i.e., maximum loading rate) or the average reclaimed water hydraulic loading rate (i.e., actual loading rate) for the period of record, see Table 1. The most relevant nutrient loading rates are those shown for sprinklers—the source of reclaimed water applied to the landscape in the present study.

3.5. Nitrogen needs met with reclaimed water

In Fig. 5, we plot nitrogen loading rates as a percentage of agronomic nitrogen requirements for local turfgrasses. We did not assess phosphorus using this approach, because phosphorus demands in Florida are site-specific based on soils (Yang and Toor, 2017). Values for optimum growth were determined for local south Florida turfgrass species and derived from the University of Florida Institute of Food and Agricultural Sciences: St. Augustine grass (*Stenotaphrum secundatum*) low 195 kg ha^{-1} yr^{-1} (4 lbs. 1000 $ft.^{-2}$ yr^{-1}), St. Augustine grass high 293 kg ha^{-1} yr^{-1} (6 lbs. 1000 $ft.^{-2}$ yr^{-1}), Bahia grass (*Cynodon* spp.) low 98 kg ha^{-1} yr^{-1} (2 lbs. 1000 $ft.^{-2}$ yr^{-1}), Bahia grass high 195.3 kg ha^{-1} yr^{-1} (4 lbs. 1000 $ft.^{-2}$ yr^{-1}), Bermuda grass (*Cynodon dactylon*) low 214 kg ha^{-1} yr^{-1} (5 lbs. 1000 $ft.^{-2}$ yr^{-1}), Bermuda grass high 342 kg ha^{-1} yr^{-1} (7 lbs. 1000 $ft.^{-2}$ yr^{-1}), and established landscape plants ranging from zero to 293 kg ha^{-1} yr^{-1} (6 lbs. 1000 $ft.^{-2}$ yr^{-1}) (Martinez et al., 2014; Trenholm et al., 2002). Based on this, we included 98 kg ha^{-1} yr^{-1} (2 lbs. 1000 $ft.^{-2}$ yr^{-1}), 195 kg ha^{-1} yr^{-1} (4 lbs. 1000 $ft.^{-2}$ yr^{-1}), and 293 kg ha^{-1} yr^{-1} (6 lbs. 1000 $ft.^{-2}$ yr^{-1}) to provide a range of realistic values for local landscaping needs.

We assumed landscape irrigation with reclaimed water that yielded nitrogen loads >100 % of landscape nitrogen needs would contribute to the eutrophication of downstream waters (Trenholm et al., 2002). Based on the nitrogen requirements for plants in south Florida, on average, excess nutrients and potential eutrophication would only occur if irrigation had occurred with reclaimed water collected directly after secondary wastewater treatment and this was limited to low (98 kg ha^{-1} yr^{-1}) and mid-level (195 kg ha^{-1} yr^{-1}) nutrient requirement conditions (over 100 %, red line, Fig. 5). Landscape irrigation with reclaimed water provided an average of 10–31 % of nitrogen needs of turfgrasses and actual nitrogen loading rates never exceeded turfgrass nitrogen demand (Fig. 5).

Total nitrogen derived from reclaimed water emerging from sprinkler heads only provided 10–18 % of recommended fertilization rate for St. Augustine grass, the dominant local turfgrass. This is consistent with previous work that found irrigation with effluent from advanced treated wastewater (averaging 3 mg L^{-1} total nitrogen) alone was insufficient to support maximum St. Augustine grass growth (Fan et al., 2014). Additionally, an unpublished report that assessed multiple plots of St. Augustine grass irrigated with reclaimed water within Abacoa (see Fig. 1), including varying amounts of supplemental fertilization (0, 50 %, 75 %, 100 % of suggested agronomic fertilization rates), recommended fertilization should occur at 75 % of the recommended nitrogen application rate (Weinberg, 2015). These findings were based on quantitative and qualitative assessment of turfgrass plots within Abacoa over a year and support our findings that nutrients in the reclaimed water provide ~25 % of the nitrogen needed to

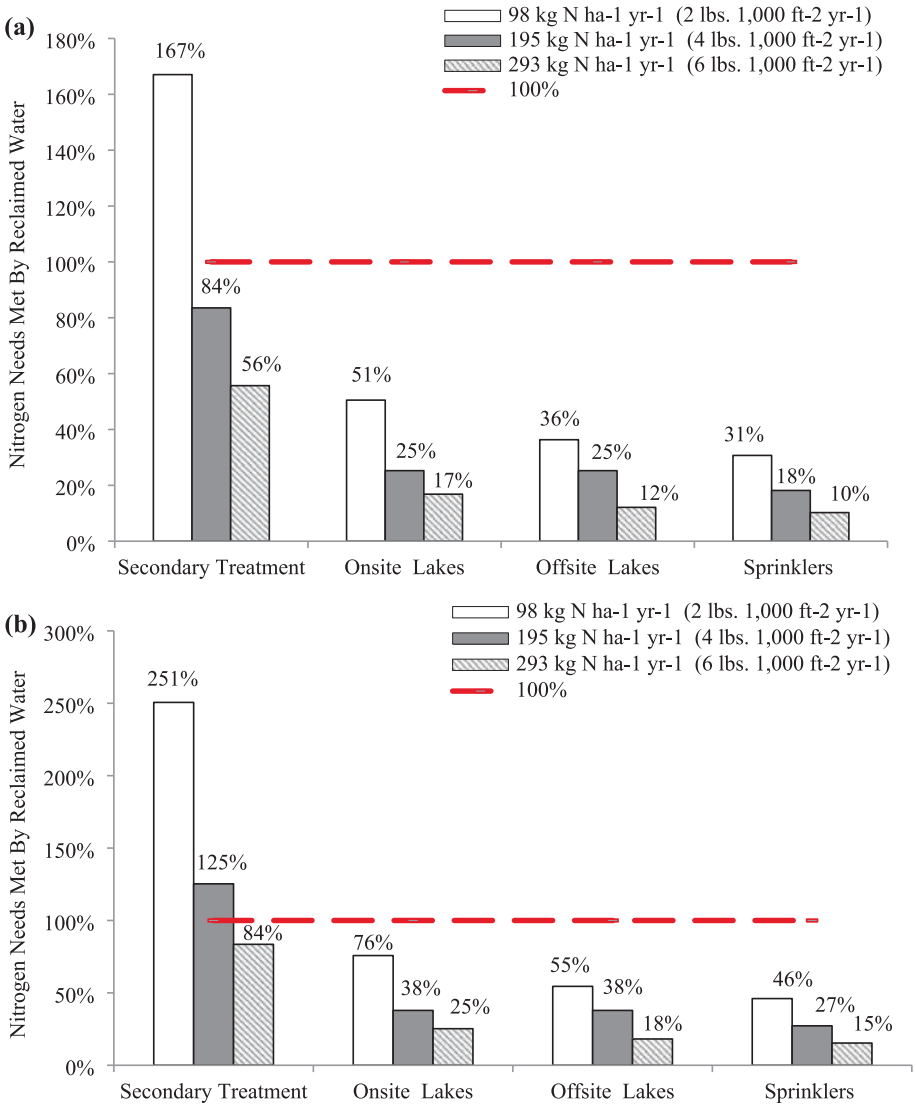

Fig. 5. Percent of turfgrass agronomic nitrogen requirements i.e., nitrogen needs, met by landscape irrigation with reclaimed water as it moved through the LRD-engineered systems for (a) average nitrogen loading rate and (b) maximum nitrogen loading rate (see Fig. 4) derived from mean nutrient values (Table 2) from the period January 1, 2011, to December 31, 2022. Percent values for optimum plant growth based on 98 kg ha^{-1} yr^{-1} (white bar), 195 kg ha^{-1} yr^{-1} (gray bar), and 293 kg ha^{-1} yr^{-1} (lined bar). The dashed red line is estimated plant assimilation based on optimum plant growth. Values <100 % suggest full plant assimilation and > 100 % assimilation indicates potential eutrophication downstream. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

support lush turfgrass. Thus, it appears that irrigation with reclaimed water lessens the need for additional fertilizer, further addressing green goals by obviating the need for mining fertilizer—an energy-intensive, ecosystem-damaging activity. We did not calculate the percent of phosphorus needs met with reclaimed water; nevertheless, low phosphorus and chlorophyll *a* concentrations in surface waters of downstream canals indicate eutrophication is not occurring and suggests the phosphorus in the reclaimed water was assimilated into the landscape.

3.6. Other considerations

We acknowledge that this study lacks causal mechanisms underlying the declining nutrient concentrations observed through these infrastructure systems; yet, regardless of mechanisms, evidence that water quality was significantly improved through the passive use of green infrastructure has important management implications. A logical next step to optimize green infrastructure development is to quantify system-specific factors affecting nutrient removal in storage lakes. Much emphasis has been placed on algal and microbial communities in systems receiving reclaimed water (Chen et al., 2017; Liu et al., 2021; Luo and Li, 2018; Yang et al., 2022), and that warrants attention in the design of any system. Potential by-products of the system, e.g., trace gas emissions (Kyung et al., 2020; Kyung et al., 2015; Mannina et al., 2016), need to be quantified at scale. Other aspects of reclaimed water need to be considered, such as residuals from pharmaceutical and personal care products (Lyu et al., 2019) or various microbiological parameters (Deviller et al., 2020). Factors besides nutrient concentrations may affect irrigated plants, e.g., water salinity (Ahmad et al., 2010; Liu et al., 2023; Parsons et al., 2010) or via effects on soil properties (Zalacain et al., 2019). Future studies should assess preferential uptake of nitrogen and phosphorus from reclaimed water irrigation vs fertilizers and quantify the nutrient subsidy of plants by nutrients in reclaimed water. Rigorous economic cost-benefit analyses of the infrastructure (e.g., reduced greenhouse emissions and cost efficiency) may provide additional, quantifiable justifications to sway customers and policymakers to conceptually accept, permit, and fund green infrastructure systems. That is, translating abstract scientific values into understandable currencies, e.g., carbon emissions or dollars, could better highlight the positive attributes of joint gray and green infrastructure.

4. Conclusions

Our findings show gray infrastructure designed for secondary treatment of wastewater, integrated with green infrastructure, achieved lower nutrient concentrations nearly equivalent to advanced wastewater treatment systems. This occurred while consuming substantially less energy and producing fewer greenhouse gas emissions than traditional gray infrastructure—at lower cost and higher efficiency. Using reclaimed water to meet landscape irrigation needs provides a drought-proof, alternative source of water, allowing natural water to remain in natural systems such as wetlands, surface waters, and underground aquifers. Nutrients supplied to landscapes via irrigation with effectively treated and rationed reclaimed water should be quantified and fertilizer application rates reduced accordingly.

This LRD reclaimed water system has been in operation for 39 years for which we report data for 12 years—there is no evidence that landscape irrigation with reclaimed water is driving eutrophication of surface waters. Nutrient concentrations within downstream canals were relatively low because biological (e.g., turfgrasses, biofilms) and physical (e.g., adsorption) factors contributed to nutrient uptake. We encourage other utilities and regulators to consider the economic, societal, and environmental benefits derived from implementing joint gray and green infrastructure when designing reclaimed water systems. As long as the public desires lush landscapes, using reclaimed water to meet landscape irrigation demands at lawns, golf courses, and public parks is a value-added approach. This demonstrates a circular economy design and takes steps toward desired sustainable development goals.

CRediT authorship contribution statement

D. Albrey Arrington: Conceptualization, Investigation, Methodology, Project administration, Writing - Original Draft.

Rachel Joy Harris: Resources, Investigation, Visualization, Writing - Original Draft.

Craig A. Layman: Investigation, Writing - Review & Editing.

Dylan G. E. Gomes: Formal analysis, Visualization, Writing – Reviewing & Editing.

Data availability

Our raw data, statistical code, model checks, and results have been posted at https://doi.org/10.5281/zenodo.7596368

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

We wish to acknowledge Rick Dent for his technical understanding and foresight in the conceptualization and implementation of the irrigation water quality program. We also recognize S. Noel, T. Ryan, D. Kehr, H. Johnson, D. Porter, J. Metz, A. Loptatosky, D. Tomasello, and B. Howard for their assistance with field sampling and lab analyses. Thank you to Courtney Marshall for drafting the flow schematic of our system. Finally, we extend our gratitude to three anonymous reviewers whose comments improved the quality of this manuscript.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.scitotenv.2023.162232.

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Supplementary Figure 1. Loxahatchee River District wastewater treatment facility located in Jupiter, FL, USA shown from two perspectives. (A) Aerial view looking north. (B) Looking southwest from on top of headworks.

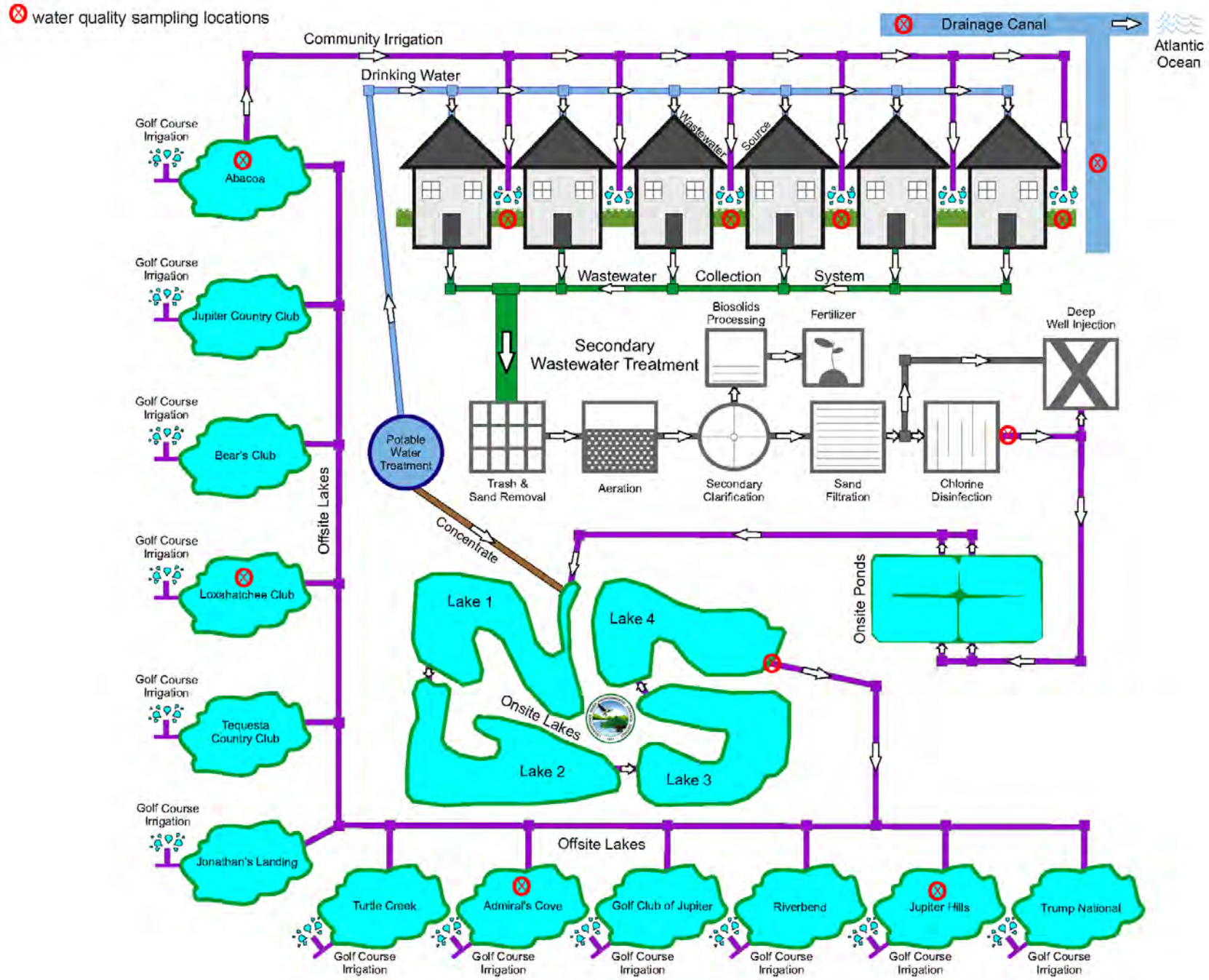
Supplementary Figure 2. Loxahatchee River District reclaimed water storage lakes; (A) aerial view; (B) ground view with reclaimed water pumping station in background.

Supplementary Figure 3. Offsite reclaimed water storage lakes located in Jupiter, FL, USA. Ground view showing proximity of offsite storage lakes to (A) golf course and (B) residential, multi-family housing.

Supplementary Figure 4. Loxahatchee River District reclaimed water being used to meet landscape irrigation needs (A) on a golf course and (B) within a residential neighborhood.

Supplementary Figure 5. Stormwater canal downstream of Abacoa, a mixed-use community in Jupiter, FL, USA. All stormwater originating from Abacoa flows through this canal on its way to the Atlantic Ocean.

Supplementary Figure 6. Schematic showing flow of wastewater to Loxahatchee River District's wastewater treatment facility and flow of reclaimed water away from the facility. Water quality sampling locations are illustrated noted in red.



Supplemental Table A. To assess differences in total nitrogen, inorganic nitrogen, organic nitrogen, and total phosphorus concentrations between adjacent infrastructure systems (i.e., secondary treatment → onsite lakes → offsite lakes → sprinklers → downstream canals), we conducted the following independent contrasts of the estimated marginal least-squares means, secondary treatment vs onsite lakes, onsite lakes vs offsite lakes, offsite lakes vs sprinklers, sprinklers vs, and downstream canals, and finally secondary treatment vs sprinklers to assess changes across the entire system. All p values were adjusted for multiple *a priori* planned comparisons using False Discovery Rate (FDR) methods (Benjamini & Hochberg, 1995; Benjamini & Yekutieli, 2001).

Response	Planned Contrast	Estimate	SE	df	t-ratio	p-value
TN	On-Site Lakes - Secondary	-1.30	0.13	6.90	-10.04	**<0.001**
TN	Off-Site Lakes - On-Site Lakes	-0.31	0.11	7.83	-2.95	**0.024**
TN	Off-Site Lakes - Sprinkler	0.06	0.06	14.06	0.97	0.346
TN	Downstream Canal - Sprinkler	-1.49	0.08	12.57	-18.67	**<0.001**
TN	Secondary - Sprinkler	1.67	0.10	7.41	17.45	**<0.001**
InorgN	On-Site Lakes - Secondary	-1.91	0.22	7.61	-8.76	**<0.001**
InorgN	Off-Site Lakes - On-Site Lakes	-0.55	0.18	8.45	-3.08	**0.018**
InorgN	Off-Site Lakes - Sprinkler	0.11	0.11	16.00	1.03	0.318
InorgN	Downstream Canal - Sprinkler	-1.75	0.14	14.25	-12.85	**<0.001**
InorgN	Secondary - Sprinkler	2.57	0.17	8.78	15.50	**<0.001**
OrgN	On-Site Lakes - Secondary	-0.07	0.16	5.96	-0.44	0.675
OrgN	Off-Site Lakes - On-Site Lakes	-0.12	0.13	7.02	-0.89	0.615
OrgN	Off-Site Lakes - Sprinkler	0.06	0.08	15.88	0.70	0.615
OrgN	Downstream Canal - Sprinkler	-1.36	0.11	14.25	-12.48	**<0.001**
OrgN	Secondary - Sprinkler	0.25	0.12	7.20	2.00	0.211
TP	On-Site Lakes - Secondary	-0.49	0.12	6.45	-4.15	**0.006**
TP	Off-Site Lakes - On-Site Lakes	-0.23	0.10	8.12	-2.27	0.052
TP	Off-Site Lakes - Sprinkler	0.20	0.06	17.57	3.29	**0.006**
TP	Downstream Canal - Sprinkler	-3.46	0.08	15.88	-43.06	**<0.001**
TP	Secondary - Sprinkler	0.93	0.09	7.04	10.38	**<0.001**

LOXAHATCHEE RIVER DISTRICT'S EXECUTIVE DASHBOARD

		Stewardship	Pre-Treatment	Collection & Transmission		Wastewater Treatment			Reclaimed Water	EHS	General Business					River Health		
		# People educated at RC	Grease Interceptor Inspections	Customer Service	Unauthorized Discharge of Sewage	Mean Daily Incoming Flow	Permit exceedance	NANO Blend to Reuse (@ 511)	Delivery of Reclaimed Water	Employee Safety	Cash Available	Revenue (excluding assessment & capital contrib.)	Operating Expenses	Capital Projects		Minimum Flow Compliance	Salinity @ NB seagrass beds	River Water Quality
Units		% of Target	% requiring pump out	# blockages with damage in home	Gallons; # impacting surface waters	million gallons/day	# occurrences	Max Specific Conductance (umhos/cm)	# days demand not met	# of OSHA recordable injuries	$	% of Budget	% of Budget	% within budget	average # days ahead (behind) schedule	# Days MFL Violation	‰	Fecal Coliform Bacteria (cfu/100ml)
Green Level		≥ 90%	≤ 15	Zero	<704; 0	< 7.7	Zero	<1542	<2	Zero	≥ $9,894,657	≥ 95%	≥ 85% but ≤ 105%	≥80%	≥ (30)	0	min ≥ 20 ‰	≤ 1 site > 200
Yellow		< 90%	≤ 25	1	≤1,500; 0	< 8.8	1	≤1875	≥ 2	-	< $9,894,657	≥ 90%	≥ 80%	≥60%	< (30)	1	min ≥ 10 ‰	≤ 3 sites >200
Red		<75%	> 25	≥ 2	>1,500; ≥1	≥ 8.8	≥ 2	>1875	≥ 9	≥ 1	< $5,557,057	< 90%	< 80% or > 105%	< 60%	< (60)	≥ 2	min < 10 ‰	≥ 4 sites > 200
2020 Baseline		34%	8	0.1	3,292	7.2	0	1,183	1	0.3	$ 35,350,661	100%	90%	91%	-15	7	14.6	2
2021 Baseline		113%	16	0.3	1,130	7.1	0	1,294	2	0.2	$ 40,651,532	97%	89%	79%	-34	0	24.3	3
2022 Baseline		81%	12	0.1	395	6.8	0	1,268	3	0.0	$ 44,372,235	101%	91%	83%	-51	1	22.6	3
2022	**Feb**	79%	8	0	225; 0	7.3	0	1,383	0	0	$ 44,675,863	101%	94%	80%	(54)	0	30.2	3
	Mar	91%	12	0	241; 0	7.2	0	1,384	0	0	$ 44,151,634	100%	93%	80%	(59)	0	24.0	2
	Apr	104%	22	1	217; 0	7.1	0	1,296	0	0	$ 44,230,248	103%	93%	83%	(62)	0	29.3	4
	May	55%	13	0	13; 0	6.5	0	1,312	1	0	$ 46,067,857	102%	92%	81%	(39)	16	31.8	2
	June	86%	14	0	17; 0	6.6	0	1,249	1	0	$ 44,902,557	101%	91%	81%	(36)	0	20.6	4
	July	95%	8	0	310; 0	6.2	0	1,245	7	0	$ 44,247,503	102%	93%	81%	(52)	0	26.9	4
	Aug	88%	10	0	45; 0	6.3	0	1,275	4	0	$ 45,392,935	101%	92%	84%	(69)	0	32.2	3
	Sept	77%	10	0	11; 0	6.4	0	1,207	13	0	$ 43,373,290	92%	92%	84%	(87)	0	5.0	4
	Oct	79%	13	0	120; 0	6.9	0	1,101	5	0	$ 43,464,126	97%	84%	86%	(34)	0	13.8	3
	Nov	53%	9	0	31; 0	7.2	0	1,269	3	0	$ 45,258,800	103%	83%	87%	(36)	0	17.3	0
	Dec	94%	14	0	3,482; 0	7.1	0	1,342	0	0	$ 44,024,404	107%	92%	89%	(36)	0	11.8	1
2023	**Jan**	69%	11	0	51; 0	7.1	0	1,447	9	0	$ 44,602,531	106%	91%	90%	(23)	0	26.5	1
	Feb	79%	14	0	8; 0	7.2	0	1,334	5	0	$ 45,825,795	105%	89%	92%	(22)	0	28.9	0
Consecutive Months at Green		0	10	10	2	165	22	19	0	15	161	16	3	13	2	9	2	4
Metric Owner		O'Neill	Pugsley	Dean	Dean	Pugsley	Pugsley	Pugsley	Dean	Horchar	Fraraccio	Fraraccio	Fraraccio	Dean	Dean	Howard	Howard	Howard

Metric	Explanation
Environmental Education	This month general admission to the River Center was 97% of our average, but cancellations by a large school group and for various programs caused us to miss our target.
IQ Water Delivery	FPL issues limited IQ Water deliveries to one IQ customer on 3 days; issues with our northern booster pump caused limited IQ Water deliveries to one customer on 2 days.

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: Governing Board

FROM: Administration Staff

DATE: March 09, 2023

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. 22-005-00115 General Services - Electrician Services - to approve contract extension
B. Purchase Order Extension for Payment Services - to approve contract extension
C. Purchase Order Extension Bill Printing and Mailing - to approve contract extension
D. Evoqua Water Technologies – to approve contract amendment
E. Updates to LRD Employee Safety Manual (Safety Policy) – to approve revisions
F. Auditor Selection Committee – approval to establish committee
G. Fixed Asset Disposal – to approve disposal
H. Change Order to Current Contract – Jupiter Inlet Lighthouse Outstanding Natural Area Septic to Sewer Conversion/BLM Contract 140L0619R0043

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 March 16, 2023 as presented."

Signed

D. Albrey Arrington, Ph.D.
Executive Director

Dr. Matt H. Rostock, CHAIRMAN | Kevin L. Baker, BOARD MEMBER | Gordon M. Boggie, BOARD MEMBER | Stephen B. Rockoff, BOARD MEMBER | Clinton R. Yerkes, BOARD MEMBER

Water Reclamation – Environmental Education – River Restoration

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

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

FROM: Kris Dean, P.E., Deputy Executive Director

DATE: March 9, 2023

SUBJECT: 22-005-00115/General Services – Electrician Services: Contract Extension

This contract, originally awarded for 12 months in February 2022, provides for licensed electrician services on an as needed basis for general repairs and maintenance to District wastewater and reclaimed water infrastructure.

This contract has provided a streamlined mechanism to engage certified electricians and allowed us to address numerous deficiencies in our system.

The contract allows for four 12 month extensions beyond the initial 12 month term and allows for an increase at each extension based on the June CPI-U, not to exceed 5%. The June 2022 CPI-U, All Items, Not Seasonally Adjusted was reported as 9.1%. The adjusted rates based on 5% are:

Master Electrician - $131.25/HR

Journeyman Electrician - $101.85

Apprentice/Electricians Helper - $88.2

Based on the success of this contract over the previous 12 months and satisfactory performance of the contractor staff recommends the following motion.

"THAT THE DISTRICT GOVERNING BOARD authorize the first of four 12 month extensions to ITB 22-005-00115 and authorize a unit price adjustment of 5.0% and an amount not to exceed $150,000."

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Clinton R. Yerkes BOARD MEMBER

Chase Rogers
Hinterland Group Inc.
2051 W Blue Heron Blvd
Riviera Beach, FL 33404
561-640-3503
Crogers@hinterlandgroup.com

3/7/2023

ATTN: Kris Dean, P.E.
Deputy Executive Director
Loxahatchee River Environmental Control District
2500 Jupiter Park Drive
Jupiter, FL 33458
Kris.Dean@lrecd.org

RE: Hinterland Group Inc. – ITB 22-005-00115/General Electrician Services

Request for Contract Extension

Hinterland Group Inc. hereby submits this letter as a request to extend the above mentioned contract for another year from February 21, 2023 to February 21, 2024 and to adjust the contract pricing in accordance with the June 2022 CPI index, at a rate not to exceed 5% for all items. The CPI index for June 2022 was 9.1%, so a 5% increase will be incorporated.
Updated pricing items are below.

- Master Electrician - $131.25/HR
- Journeyman Electrician - $101.85
- Apprentice/Electricians Helper - $88.20

Feel free to reach out should you need anything further.

Thank you

Chase Rogers

Chase Rogers
Hinterland Group Inc.

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

DATE: March 7, 2023

DEPARTMENT: Customer Service - Bud Howard, Director of Information Services

BUDGET: Payment processing services budgeted item of $110,000 for FY2023; Account #: 40-42-5340

DESCRIPTION:

This request is to authorize a $25,000 not to exceed extension to purchase order 23-0117 to First Billing Services, LLC., for credit/debit card and echeck payment processing services because of delays with the transition to our new payment services provider.

At the September 2022 Governing Board meeting, the Board approved a contract extension and purchase order for not to exceed $50,000 for credit card and echeck payment processing services from October 1, 2022 through the anticipated transition date of March 2023. Because of delays with the implementation of our new payment services provider and customer information system, we need to extend the payment services with First Billing through May 2023, with anticipated transaction costs not to exceed $25,000. This extension is contractually allowed under the Second Amendment to the Master Services Agreement that the Board approved in September 2022.

Therefore, we offer the following suggested motion:

"THE DISTRICT GOVERNING BOARD authorizes the Executive Director to approve a $25,000 extension to Purchase Order 23-0117 to First Billing Services, for a revised not to exceed amount of $75,000 for FY2023."

Dr. Matt H. Rostock, CHAIRMAN
Kevin L. Baker, BOARD MEMBER
Gordon M. Boggie, BOARD MEMBER
Stephen B. Rockoff, BOARD MEMBER
Clinton R. Yerkes, BOARD MEMBER

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

DATE: March 7, 2023

DEPARTMENT: Customer Service - Bud Howard, Director of Information Services

BUDGET: Printing and Mailing services budgeted item for FY2023
Postage: $65,000 from 40-42-5420
Printing: $20,000 from 40-42-5340

DESCRIPTION:

This request is to authorize a $25,000 not to exceed extension to purchase order 23-0223 to Arista Information Systems for printing and mailing services because of delays with the transition to our new Customer Information system.

At the September 2022 Governing Board meeting, the Board approved a purchase order for not to exceed $40,000 for printing and mailing services from October 1, 2022 through the anticipated transition date of March 2023. Because of delays with the implementation of our new customer information system, we need to extend the printing and mailing services with Arista through May 2023, with anticipated transaction costs not to exceed $25,000. This extension is contractually allowed under the Board approved agreement dated December 22, 2015.

Therefore, we offer the following suggested motion:

"THE DISTRICT GOVERNING BOARD authorizes the Executive Director to approve a $25,000 extension to Purchase Order 23-0223 to Arista Information Systems, for a revised not to exceed amount of $65,000 for FY2023."

Dr. Matt H. Rostock, CHAIRMAN
Kevin L. Baker, BOARD MEMBER
Gordon M. Boggie, BOARD MEMBER
Stephen B. Rockoff, BOARD MEMBER
Clinton R. Yerkes, BOARD MEMBER

Item 5D

Staff have determined no action is needed on this item at this time.

LOXAHATCHEE RIVER DISTRICT
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D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: GOVERNING BOARD
FROM: D. ALBREY ARRINGTON, Ph.D.
DATE: MARCH 9, 2023
SUBJECT: UPDATES TO LRD EMPLOYEE SAFETY MANUAL (SAFETY POLICY)

Pursuant to our policy revision schedule, staff have systematically reviewed our Employee Safety Manual (aka Safety Policy) and provided suggested recommendations for Board approval. Recommended revisions are shown using track changes. All proposed revisions have been reviewed and approved by the District's Safety Officer.

Notable revisions include:

1. Overall improvements to grammar, syntax, clarity, and readability of the document.
2. We have improved the Safety Training section and added clear references to our Skills Matrix.
3. We added a section addressing our Risk Management Plan (Section 4.3.26)

The draft, revised Employee Safety Manual is an improvement, and we seek your approval of this important, updated policy. Therefore, we offer the following motion for your consideration:

> **"THAT THE DISTRICT GOVERNING BOARD ratify and approve the Loxahatchee River Environmental Control District's Employee Safety Manual, effective March 16, 2023, and authorize the Executive Director to update the Employee Safety Manual from time to time, and periodically present it to the Governing Board for ratification and approval."**

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Clinton R. Yerkes BOARD MEMBER

LOXAHATCHEE RIVER ENVIRONMENTAL CONTROL DISTRICT (LRECD)

EMPLOYEE SAFETY MANUAL

Issued Date: 01/01/1994
Date of Last Revision: ~~3/18/2021~~ 3/16/2023

TABLE OF CONTENTS

GUIDANCE STATEMENT

The Loxahatchee River Environmental Control District (LRECD or District) intends to provide a safe and healthy work environment for you, our employees. ~~In fact,~~ Safety is one of our core values – "*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*."

In order to protect the health and safety of our employees, every reasonable effort will be made to abide by all applicable safety and health regulations, to provide and maintain a safe workplace, safe equipment, safe tools, to acquire proper materials, and to insist on safe methods and practices at all times.

~~Please understand, t~~This Employee Safety Manual is designed to protect you. You, our employees, have the most to lose from exposure to hazardous materials and unsafe conditions. In addition, this Employee Safety Manual should help safeguard our ratepayers, because incidents which injure people, damage machinery or equipment, ~~and~~ or destroy property are an expense.

Our Employee Safety Manual has been developed for your protection and to reduce the possibility of incidents. Employees are obligated to observe the policies and procedures provided herein, e.g., follow established protocol, always wear appropriate personal protective equipment~~)~~.

You have a responsibility to look out for your own safety as well as the safety of others around you. You have authority to stop work if you believe ongoing work is unsafe.

This is a living document. As our work evolves, our policies, procedures, and methods must evolve. If you have a safety concern, I implore you to bring it to your supervisor's attention. If that doesn't work, bring it to my attention.

You, our people, are our most important asset; your safety is our greatest responsibility. We expect your full cooperation in effectively implementing this Employee Safety Manual.

D. Albrey Arrington, Ph.D.
Executive Director

INTRODUCTION

The primary objective of this document is to define expectations regarding employee behavior to promote a safe work environment for all employees, whether you work in the plant, in the lab, in the River Center, in the field, and/or in an office. This Employee Safety Manual establishes policies and addresses techniques and procedures that are essential to protect you – our people. The LRECD Governing Board, Management, and your team members genuinely expect your day-to-day conduct to be shaped by a personal commitment to protect the health and safety of yourself and your colleagues.

There is a direct relationship between employee safety and the wellbeing, health, and financial strength of our organization. Our mutual awareness of this basic fact is essential if we are to continue to grow and maintain a workable and strong incident prevention program. Management and employees must recognize the fact that control of incidents can only be made possible through collaborative efforts. Management will provide leadership, training, and quality protective equipment in the effort toward an incident-free workplace. Employees will bring a personal commitment to working safely.

This Employee Safety Manual is your guide to working safely. The information in this manual applies to all LRECD employees. Make it a point to learn and follow these policies, procedures, and associated guidelines in your day-to-day work.

Constant awareness of and respect for hazards and compliance with all safety policies and procedures are considered conditions of employment. Supervisors and others in management reserve the right to discipline employees, up to and including termination, for failure to follow safety policies, procedures, and methods identified in this Employee Safety Manual.

1. RESPONSIBILITIES

1.1 Safety Officer

The Safety Officer serves the entire organization, reports to the Executive Director, and is responsible for the administration and implementation of methods described herein.

The Safety Officer's directive is to (1) provide the necessary tools to develop and sustain a world class safety culture, and (2). To proactively perform leading edge functions where safety is considered a key element in every employee's daily routine which leads to the elimination of incidents and unplanned events.

~~train and maintain a safe and safety conscious work force, oversee a safe work environment, reduce potential causes of incidents, and control incidents and near misses.~~

The Safety Officer serves the entire organization and is responsible for:

- Providing the necessary tools to develop and sustain a world class safety culture.
- Proactively work with District employees to ~~I~~identify~~ication~~ and ~~correction~~ eliminate~~of~~ potential hazards in our workplace~~s~~;
- Developing and implementing ~~suitable and~~ effective safety ~~education~~ communication and training ~~programs~~applicable to District needs;
- ~~Documenting employee safety training, competency, and compliance~~;
- Maintaining a safety training tracking program that ensures all required safety training is defined, documented and monitored for currency for each District employee;
- Creating, implementing, and monitoring Safe Work~~ing~~ ~~Procedures~~ Practices for workspaces, tools, equipment, and tasks;
- ~~Conducting~~ Facilitating incident investigations and root cause analysis for ~~each~~ applicable documented safety incidents and near miss reports;
- Fostering safety awareness through employee involvement, communication, education, and public postings;
- Perform routine ~~I~~inspecting and audits to ensure vehicles, jobsites, equipment, tools, and personal protective equipment (PPE) are in a safe and compliant condition;
- ~~Creating and e~~Evaluating and finalizing initial incident reports provided by supervision for record keeping and determining corrective actions to be taken in order to prevent incident recurrence;
- Providing consultation services to Employees, Departments, Directors, and the Governing Board addressing safety concerns and issues;
- Coordinate monthly reporting (Dashboard and Directors Safety Report) to Directors of safety issues (incidents, near misses, corrective actions) and results showing program effectiveness; and
- Maintaining and updating the Employee Safety Manual.

1.2 Supervisors

Supervisors (in coordination with the Safety Officer) are responsible for:

- Promoting a culture of safety within their areas of influence;
- Supervision has the primary responsibility for ~~C~~conducting ~~—~~incident investigations and root cause analysis including securing the accident scene, providing applicable photos, ~~pictures~~ and preliminary documentation of all incidents (final documentation by the Safety Officer);
- Creating, implementing, and monitoring Safe Working Procedures for workspaces, tools, equipment, and tasks;
- Documenting observations, potential safety process improvements and near misses utilizing the near miss reporting tool, ~~analyze the cause for the near miss, identify solutions for the near miss and communicate solutions;~~
- Ensuring vehicles are maintained for safe operation, in coordination with the delegated LRECD staff member;
- Ensuring applicable safety procedures are implemented and safety rules and policies are followed for each ~~on~~ jobsite~~s~~ and task~~s~~;
- Perform routine self-inspections to ~~E~~ensuring all respective facilities, storage locations, process equipment, and safety ~~PPE/~~equipment (e.g., PPE) is maintained for safe operation;
- Promote the use of PPE by ~~E~~ensuring all direct reports have, maintain, and use appropriate PPE;
- Ensuring all direct reports have completed the necessary training for required tasks;
- Conducting routine Tailgate safety meetings and Toolbox Talks;
- Ensuring that all direct reports utilize the Job Hazard Assessments on a daily basis to understand risks and corrective measures for each job performed;
- Ensuring safety related deficiencies identified by direct reports are adequately identified and addressed.
- Insisting that the "buddy" system be used for tasks which involve hazardous work.
- Ensure employes which are in new positions or are new hires are properly trained and proficient at required tasks before being able to work without oversight.

1.3 Employees

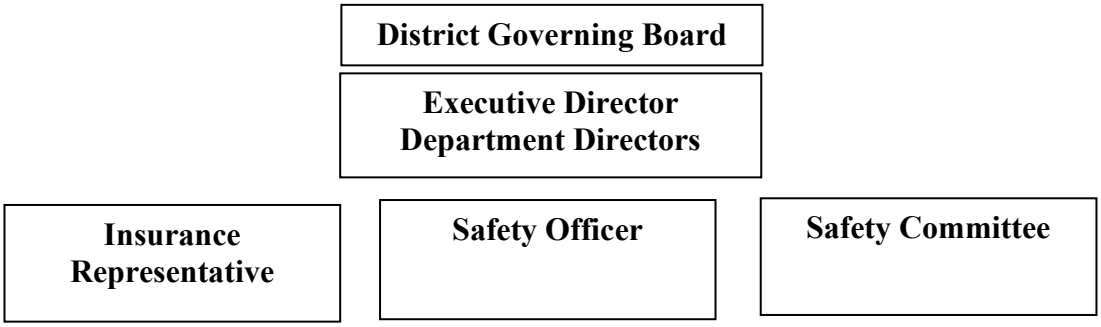
District Employees are responsible to:

- Comply with this Employee Safety Manual, including following all policies, procedures, and guidelines.
- Bring a personal commitment to working safely, be responsible for your own actions;
- Understand you have a duty to protect your coworkers from unsafe situations they may not be aware of;
- Understand you have the obligation to stop work if you believe it is unsafe.
- Recognize, understand, and demonstrate safety as a core value within the District;
- Participate in all relevant safety-related training efforts;
- Use applicable safety equipment, personal protective equipment and appropriate/required clothing for each task or job; follow the corrective measures on the Job Hazard Assessment.
- Only operate tools and equipment on which they have been trained;
- Operate equipment and tools in compliance with manufacturer's recommendations;
- Report all injuries, incidents, and near misses to Supervisor immediately (in the absence of your Supervisor, make the report to the Safety Officer); and
- Utilize the Job Hazard Assessment for all applicable tasks to identify hazards and corrective measures.
- Follow corrective measures identified in Job Hazard Assessment or proscribed for a specific task.
- Report any hazardous conditions, practices, and/or behaviors and make suggestions to address their concerns.
- Document near misses utilizing the near miss reporting tool.

2. SAFETY COMMITTEE

2.1 Safety Committee Organization

The Safety Committee has been established to recommend improvements to our workplace safety program, and identify corrective measures needed to eliminate or control recognized safety and health hazards. The Safety Committee consists of at least six (6) employee representatives and is chaired by the Safety Officer. The committee should be composed of a representative from each Division consisting of: Operations, Engineering, Information Services, Finance & Administration, and the District Insurance Representative. Division Directors will appoint members from their Division with input from the Safety Officer.



2.2 Safety Committee Responsibilities

Under the direction of the Safety Officer, the Safety Committee responsibilities are as follows:

- Meet on a quarterly basis or more frequently if needed;
- Review and recommend updates to the Employee Safety Manual;
- Review all incidents and near misses from the prior time period (e.g., quarter) and make recommendations for preventative measures;
- Develop and recommend improvements to the District's safety program;
- Recommend safety training improvements;
- Conduct safety inspections and make recommendations to correct or improve unsafe conditions and practices; and
- Listen to and document employee safety concerns and develop recommended solutions.

2.3 Safety Committee Meetings

The Safety Committee will meet quarterly to review safety dashboard, incidents, and near misses, to consider employee safety concerns, and provide recommendations for revisions to the Employee Safety Manual. Prior to the Safety Committee Meeting, the Safety Officer will submit an agenda to the Executive Director, Division Directors, and Safety Committee. The Safety Officer will distribute the minutes from each meeting to the Executive Director, Division Directors, and Safety Committee members within one week from the meeting. The meetings will occur during regular District office hours.

3. SAFETY TRAINING

~~Scope~~**Training Needs:** The utilization of a District-wide employee skills matrix will define the safety training needs for District employees. The skills and knowledge necessary to perform jobs/tasks compliantly and safely are derived from individual job descriptions. ~~success of any effort to prevent incidents depends largely upon the effectiveness of training and implementation. Personnel training in job responsibilities and operations are an important element in achieving safe operations.~~

Intent: The skills matrix will be used as a Learning Management System (LMS). The electronic database is intended to manage the assignments of training requirements, scheduling of the defined training needs and to communicate training requirements to District employees and respective management. The LMS is used to document the history of specific training for each employee. Training with refresher requirements is identified and notification will be sent to employees and respective management indicating when the training is due. The following methods will be utilized to deliver safety related training: ~~programs will be utilized in conjunction with our safety procedures. Training documentation will be maintained by the Safety Officer and shared with HR to retain in the employee's personnel file.~~

- ~~Safety Orientation for new employees will be conducted by the Safety Officer. Workplace safety and health orientation begins on the first day of initial employment or job transfer. Each employee will be given access to the most recent version of this Employee Safety Manual through the District's Intranet.~~
- ~~Formal safety training will be developed and implemented based upon job descriptions, employee skill levels, employee experience, and demonstrated need.~~
- ~~Safety training may be conducted on site or off site by in-house staff (e.g., Safety Officer), consultants, and/or online training programs.~~
- ~~Safety awareness and training may be achieved through posting of safety posters, safety instructions, and signs located in conspicuous areas frequented by employees (i.e., lunch/break rooms, office spaces, workspaces).~~

~~To give maximum effect, the District will use a variety of safety related educational materials and approaches, e.g., books, manuals, videos, posters, demonstrations, as well as online and hands-on training. The District desires to enhance the knowledge and skill levels of District employees to assist them with the identification of hazards and aid them in the prevention of incidents.~~

3.1 Online Safety Training

O~~O~~nline Safety Training ~~entails~~ are offered electronically and is defined as computer-based training. ~~programs providing numerous topics in a central and archived location allowing employee access at any time for both day shift and night shift employees.~~ The training can be accessed through the LMS. Computer-based training is usually conducted individually on the employee's computer or can be viewed onto a conference room screen for group training. Each online training module provides ~~valuable information and~~ competency testing to assure an employee's understanding of the material. ~~Archived training modules may be accessed at any time following completion for review.~~

~~**Frequency**: Training is scheduled by the Safety Officer in consultation with Supervisors, Managers, and HR. Computer based training modules provide flexibility for employees working day and night shifts and provide employees the ability to review~~

~~archived training on an as-needed basis. Refer to the District's Safety Intranet page for additional resources.~~

~~3.2~~ Instructor-led Training ~~Safety Training Meetings~~

~~**3.3 Safety Training Meetings are more formal safety training sessions often conducted by the Safety Officer. Staff may be trained in a specific piece of equipment, hazardous area or procedure which personnel may encounter. Training may be based upon duties and responsibilities defined in job descriptions. Safety Training Meetings may be applicable to all (e.g., effective use of personal protective equipment) or just a few staff (e.g., confined space entry). Scheduled Safety Training Meetings are located on our** Intranet.~~

3.2 Instructor-Led Training~~:~~

Training that is delivered in a live classroom environment. The instructor can be the Safety Officer or third party consultants. Examples would be Confined Space Entrant training, fork truck classroom and practical training, and New Hire Safety Orientation. Manufacture led specialty Equipment training is another example.

3.3 On-the-Job Training (OJT):

-Training provided to employees while working in their normal work environment and provided by a foreman, supervisor or lead.

~~—~~Safety Communication Methods:

3.4

3.4.Safety Briefing~~Tailgate Meetings~~

A tailgate meeting is an informal safety meeting, which is generally conducted at a job site prior to commencement of a job or work shift. Job site supervisors and crew should draw attention to hazards, processes, equipment, tools, environment and materials to inform all workers of risks in their surroundings and that are relevant to the job at hand. ~~Tailgate Meetings~~ Safety Briefings may include creation and/or review of JHA Safe Working Procedures, Maintenance of Traffic, required tasks and any other concerns. Safety Briefings ~~Tailgate Meetings~~ are job specific and will be held at job sites by supervisors on a daily basis.

3.4.2~~Tool Box Talks~~Monthly Safety Discussions

~~Tool Box Talks~~ Monthly Safety Discussions will be conducted on a monthly basis, at a minimum, by a responsible staff member (e.g., Supervisor, Foreman, or Lead). Monthly Safety Discussions~~Tool Box Talks~~ are more formal and structured meetings are designed to highlight safety concerns regarding specific work area hazards or a particular piece of equipment being used. These are not jobsite specific. Topics can range from near misses, incidents, safe working practices or any other relevant safety topic or discussion. To have a successful meeting, follow these tips:

- Start on time.
- Clearly define the objective of the meeting
- Allow personnel to report unsafe conditions and make suggestions for improving safety in the workplace.
- Discuss previous incidents and near misses experienced by personnel.
- Determine how to prevent recurrence of an unsafe condition.

- Discuss the department, division, or crew's safety record – good or bad.
- Meetings should allow enough time to cover each topic sufficiently.

Documentation: Monthly Safety Discussions ~~Tool box talks~~ should be documented by the jobsite supervisor and an e- mail summary of the meeting will be sent to the Division Director, Safety Officer, and participating staff.

3.4.3 Posters, Placards, and Signage

Safety awareness and training may be achieved through posting of safety posters, safety instructions, and signs located in conspicuous areas frequented by employees (i.e., lunch/break rooms, office spaces, workspaces).

~~3.4 Tool Safety & Safe Work Practices~~

~~District staff may only operate tools and equipment for which they have been adequately trained. Tool Safety Operation, Maintenance Manuals, and Safe Work Practices (SWP) are designed to give the user the manufacturer's recommendations on the proper use of the tool and equipment needed to operate each tool safely. If you are in doubt, you can obtain a hard copy of the manufacturer's recommendations from the Safety Officer or you can locate it on the District Intranet on the Safety Homepage Resources Menu under Tool Manuals. Refer to the District's Safety Intranet page for additional resources.~~

~~3.5 Specialty Equipment~~

~~District staff may only operate specialty equipment for which they have been adequately trained. Specialty equipment is defined as a piece of equipment that will only be used for a specific purpose or operated by specific departments. Specialty equipment purchased by a department must include a training program provided by the manufacturer or their recommended representative. This will ensure the proper training and materials to operate a specialized piece of equipment are addressed by all employees who will be authorized to operate specialty equipment.~~

~~**Documentation**: All training documentation will be kept by the Safety Officer and shared with HR for their personnel file.~~

4. SAFETY POLICIES & PROCEDURES

4.1 General Safety Precautions

As an employee of the Loxahatchee River District, you are part of a team that continually strives for excellence. You are also part of a team that specifically values you as an individual, your health, and your well-being. Given the nature and diversity of conditions you may experience while on the job, the following are general safety precautions:

- Wear clothing suitable for the weather and your work.
- All staff are required to use personal protective equipment (PPE) appropriate for the work they are conducting.
    - Consult the Job Hazard Assessment to determine required PPE
    - Wear protective shoes suitable for your work.
    - Use gloves, aprons or other suitable skin protection when handling sharp or rough materials, chemicals, hot or cold objects.
    - Wear appropriate eye and face protection as required for work environment.
- Maintain a safe workspace. Be sure to have enough light on stairs, aisles, and work areas.
- Be sure of your footing. Watch out for slippery spots, loose objects, and trip hazards. Using three-point contact while using stairs, ladders and climbing on equipment.
- Situational Awareness: be aware of work going on around you. Keep clear of suspended loads, high traffic areas, and moving equipment.
- Use caution when lifting heavy objects. Bend knees; keep back nearly straight when lifting. Leg muscles, not your back, should do the work.
- Get help moving or lifting heavy or bulky materials. Have just one person give commands when team-lifting big loads. Before lift, check for a clear path.
- Keep "horseplay" and roughhousing away from the job. Practical jokes often become painful injuries and are NOT appropriate in the workplace.
- Locate gas, power and water sources before starting work. Use as-built plans to the extent possible. Contact the Engineering Division to notify Sunshine State One Call of Florida at 811 if your work will require excavation. Utility companies will send a locator to mark underground assets within two full business days. Once underground assets are marked, you will know the approximate location of underground utilities relative to your work site, and you can dig safely.
- The personal administration of prescribed medications/drugs is the responsibility of the person for whom it is prescribed. No District employee may operate any District vehicle while on prescribed drugs that will adversely affect their ability to operate the vehicle. All directives for duty performance and the operation(s) of machinery must be followed. If you have been advised not to work, operate machinery, or special accommodations are required because you consumed a prescribed medication/drug, you must immediately notify the Safety Officer and/or Human Resources.
- The use of non-prescribed prescription drugs and abuse of prescribed drugs are prohibited. No District employee may operate any District vehicle while on prescribed drugs that will adversely affect their ability to operate the vehicle. Please refer to the District's Drug Free Workplace program for more detail.
- Each and every day bring a personal commitment to safety as you complete assigned tasks.

- Jobs which involve more than one District employee or department shall determine a chain of command during the pre-task briefing. The chain of command shall be followed during the entire task. If a situation occurs that a District employee believes an unsafe condition exists, the employee in charge of the task shall be respectfully notified. The job shall be stopped at the earliest convenience and at a safe mode. All employees involved in the task shall discuss the best method to get the task performed safely and consult with the District's Safety Officer to confirm proposed approach. Then the job can continue.

4.2 Job Hazard Assessment

Job Hazard Assessment (JHA) is a ~~procedure~~ process that is used at a task level to identify specific hazards/risks and immediate corrective actions. ~~helps integrate accepted safety and health principles and practices into a particular task or job operation. A JHA is used to identify, address, and mitigate each potential hazard.~~ The JHA task plan is automatically generated and attached to every work order in the EAM system. District employees are required to complete the JHA task plan assigned to each work order with appropriate responses (completed, not completed, N/A). ~~should be used for critical tasks and challenging work areas, e.g., confined space, trenching or shoring, work in a roadway, work under suspended loads, and any additional task or scope of work that presents a high degree of difficulty.~~ Using a JHA will ensure that physical, chemical, biological, and other identified hazards have been ~~identified~~ evaluated and mitigated. ~~A standing JHA should be developed and stored in EAM to address routine tasks. The District's goal is to have~~ generate ~~a written certification that identifies and mitigates known hazards, and for LRECD staff to employ PPE and other safety measures as required by the job hazard assessment.~~

Refer to the District's Safety Intranet page for additional resources, including a Job Hazard Assessment tool and JHA Form.

4.3 General - Routine and Non-Routine Tasks

Routine tasks are those commonplace tasks or duties that are done regularly or at specified intervals. Non-routine tasks are less predictable and can be among the most hazardous at any facility.

Examples of non-routine work can include repairs, corrective maintenance, troubleshooting, and infrequent tasks. It is especially important that JHA and PPE Assessment should be done to mitigate hazards of non-routine tasks.

4.3.1 Noise Hazards

Noise hazards are one of the most commonly encountered physical hazards at work sites. Employees may operate or work around a wide variety of equipment, ranging from heavy construction equipment to fixed equipment or machinery. Regardless of the type or size of equipment, they all generate noise. Noise becomes hazardous if it is loud enough and a person is exposed to it long enough.

Three methods for reducing noise hazards to workers are engineering controls, limiting noise exposure time, and using individual hearing protectors. The first two methods are effective but may not be available at all work sites. To protect employees in areas where engineering controls and limiting noise exposure time cannot be used, individual hearing protectors will be provided and must be diligently used.

Employees operating, or in the proximity of, tools or equipment producing noise levels in excess of 85 dBA must use adequate hearing protection devices. District employees must adhere to visual and audio signage for compliance.

Refer to the District's Safety Intranet page for additional resources.

4.3.2 Slips, Trips, and Falls

Slip hazards are present wherever liquids, loose surfaces, or other conditions (e.g., algae growth) are present. Slip hazards can be reduced through good housekeeping, e.g., placing safety cones or warning signs at wet areas, cleaning up spills immediately).

Trip hazards may be present at any site. Pipes, hoses and storage vessels present trip and fall hazards. In addition, site maintenance work, whether on or off plant, can present trip hazards if tools or materials are left in walkways. Trip hazards can be reduced by marking permanent trip hazards. District staff should always practice good housekeeping to minimize and avoid creating temporary trip hazards. Trip hazards that cannot be eliminated (such as permanent pipe) should be marked, and personnel should be briefed about the hazards and shown their locations.

Fall hazards are also present both on and off plant. Primary fall hazards are presented when gaining access to raised equipment, valves, meters, and tanks.

4.3.3 Chemical Hazards and Controls

Chemical Safety Data Sheets (SDSs) are maintained for chemicals used by the LRECD. Safety Data Sheets are located on-line in the LRD Safety Intranet page under Hazard Communication. ~~in the Right-to-Know stations in the office/laboratory of the operations building, maintenance building, Wildpine Lab, and the Master Lift Station.~~

Do not work with unfamiliar chemicals until you consult the Safety Data Sheets (SDS). If unsure, please consult your immediate Supervisor or the Safety Officer. Always wear Personal Protective Equipment as recommended by the applicable Safety Data Sheet. Never dispose of any chemical until you are sure of its hazardous class and authorized disposal options. Contact the Safety Officer for disposal of any hazardous material.

4.3.4 Temperature Hazards

Temperature extremes may present a hazard for LRECD personnel, especially during summer months. Workers who are exposed to extreme heat or work in hot environments may be at risk of heat stress. Exposure to extreme heat can result in occupational illnesses and injuries. Heat stress can result in heat stroke, heat exhaustion, heat cramps, or heat rashes. Heat can also increase the risk of injuries in workers as it may result in sweaty palms, fogged-up safety glasses, and dizziness. Personnel who wear certain personal protective equipment (e.g., Tyvek suite, waders) are particularly vulnerable to heat related illnesses. If untreated, the symptoms and effects of heat stress will grow increasingly serious. Symptoms of heat exhaustion include headache, dizziness, or fainting, weakness, confusion, nausea or vomiting, and wet skin. A worker who is not relieved of heat exhaustion may ultimately suffer a life-threatening heat stroke. The ability to recognize heat stress symptoms and to avoid the conditions that cause it are essential for protecting the health and safety of our personnel. Training, along with administrative and engineering controls, are methods utilized to mitigate hazards associated with working in extreme temperatures.

4.3.5 Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) is used as a way to protect against known hazards.

Personal Protective Equipment will be made available to employees. All LRECD employees are required to appropriately use PPE depending on their actual work assignments and/or specific hazards known to their work environment. The JHA which is completed for each work order shall define the appropriate PPE for each task. Employees must follow this requirement. District staff must wear appropriate PPE. When working near or operating equipment, you must refer to the manufacturer's recommendations to understand what PPE is required when operating the equipment and document the requirement on the JHA. Personal Protective Equipment provided to employees must be stored appropriately and readily accessible to the employee or the task or area for which it is intended. Damaged or defective Personal Protective Equipment must be removed from service immediately and exchanged with the Safety Officer for equipment in good working order.

a. Eye and Face Protection

Appropriate eye or face protection must be used when an employee is, or may be exposed to, any eye or face hazards. Such hazards include; flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation, dust, particles of steel, concrete, sand, splashes from raw sewage, corrosives, and liquid chemicals. By default, it is assumed wastewater treatment plant operators and wastewater treatment plant maintenance staff will likely be exposed to eye hazards (i.e., splashed wastewater); therefore, wastewater treatment plant operators and wastewater treatment plant maintenance staff must wear appropriate eye and face protection when conducting their duties within the wastewater treatment plant.

The District provides prescription safety glasses reimbursement benefit, see Personnel Policies & Procedures, Prescription Safety Glasses Reimbursement for more details. Safety glasses and face shields must meet the ANSI standard requirements and display the Z-87+ approval stamp on the equipment being used. Refer to OSHA Eye and Face Protection, Title 29 Code of Federal Regulations 1910.133 for compliance.

Hazard assessments will be done to determine the level of eye and face protection. Where appropriate, eye and face protection may be required (e.g., safety glasses or goggles may be required even if you're wearing a face shield).

b. Head Protection

Hard hats must be worn when:

- working on a site involving potential for injury to the head from falling objects;
- working on sites to be considered pipeline, construction, confined space, MOT, or where …
  - designated by a supervisor and/or safety officer;
  - working near ~~with high voltage~~ live electrical equipment greater than 50 volts which could contact the head;
  - engaged in cutting operations or tree trimming; or
  - as required by a JHA.

Hard Hats must not be modified except as authorized by the manufacturer. Electricians or qualified employees working on or near energized electrical equipment must use appropriate electrical rated hard hats (designated with class G or E rating). Class G hard hats are rated for 2200 volts. Class E hard hats are rated for 20,000 volts. At a minimum, class C hard hats are conductive and shall be used for all other activities not working with electricity. Hard Hats must be kept clean for inspection purposes and stored away from UV exposure. Hard Hats

with cracks, gouges, or broken components must be promptly returned to the Safety Officer for replacement. Hard hats with routine exposure to sunlight, extreme temperatures or chemicals shall be replaced every 5 years.

c. Finger and Hand Protection

Appropriate hand protection must be used when hands are exposed to hazards such as cuts, abrasions, skin absorption, or temperature extremes. Refer to the JHA for the task you are completing and/or SDS for the chemical you are working with to ensure the correct level of protection is achieved. Use gloves when handling material. However, g~~G~~loves ~~selection should also contemplate the danger of entanglement~~ not be used when working with rotating equipment and machinery.

d. Foot Protection

Safety shoes must be worn when significant risk of foot injury exists. Safety shoes protect feet against injuries from rolling or falling objects, objects piercing the sole, and where feet are exposed to electrical hazards. Different safety shoes protect against different risks. Make sure to wear safety shoes appropriate to your job description and/or the tasks you are accomplishing. District staff in the following Divisions must wear approved safety shoes (e.g., reinforced toe) at all times during each work day:

- Operations
  - Wastewater Operators – reinforced toe
  - Plant Maintenance – reinforced toe
  - Electricians – reinforced toe and nonconductive
- Engineering
  - Collection Operators – reinforced toe and nonconductive
  - Reuse Operators – reinforced toe
  - Construction Operators – reinforced toe and nonconductive
  - Inspectors – reinforced toe
  - Utility Locate Technicians – reinforced toe
- Administration
  - Warehouse staff – reinforced toe

The following areas are designated safe zones where safety shoes are not required.

- Administration Office
- Richard C Dent Operations Administration Building
- Walkways from the Wildpine Lab to Administration
- Walkways from Administration to Operations
- Parking lots adjacent to Administration and Operations
- River Center

Protective footwear must be replaced when conditions such as excessive tread wear, holes in soles or uppers or exposure of the protective toe cap are revealed. The District provides a safety shoe reimbursement benefit; see Personnel Policies & Procedures, Safety Shoe Reimbursement for more details.

e. Clothing

All District staff must adhere to the District Uniform Policy that aligns with your Division. All District employees must wear clothing suitable to the job they are performing and their work environment at all times.

1. Loose fitting clothing must not be worn if the employee may be exposed to an

entanglement hazard/ rotating equipment and machinery.

2. Do not wear rings, metal, bracelets, and other jewelry when working around or with machinery or climbing ladders. Wearing jewelry while operating mechanical devices and during manual labor can increase your risk for serious injury.
3. When chemicals are in use, chemical protective clothing must be worn according to the SDS recommendations provided by the manufacturer.
4. Tyvek or equivalent coverings must be worn when exposure to hazardous dust, biological, chemical, or overspray of toxic materials is present or is likely to occur.
5. Employees should pull back long hair when working with moving equipment. This can be achieved by wearing a hat, helmet, or hair net while working around machinery.
5. 6. Electricians and/or employees qualified to perform electrical trouble shooting shall wear only cotton clothing or arc flash rating attire.

f. Respiratory Protection

~~There are many tasks at the District that involve exposure to fumes, gases, mists, chemical dusts, etc., that may be harmful to the respiratory system, or may cause exposure to environments containing insufficient oxygen to support human life.~~

Respiratory protection is made available to all District ~~E~~employees whose job description or common duties require the use of a respirator. Each employee who is required to use a respirator must complete a medical evaluation, fit test, and formal training before being permitted to wear a respirator. The Safety Officer will coordinate and document such activity. Employees must be clean shaven prior to using a full-face or half-face respirator ~~use~~, including during the ~~annual~~ fit- test procedures. Fit testing will be conducted annually for employees who are required to use a full-face or half-face respirator~~s~~.

Powered Air-Purifying Respirators (PAPR) are used to support such tasks as chlorine operations and acid washing the odor scrubbers. Supplied Air Respirators (SAR or positive pressure hoods) are used to support abrasive blasting activities. Medical clearance is required annually but fit testing is not a requirement for the PAPR and SAR's.

The District promotes the voluntary use of respirators, including dust masks, during activities for which no airborne contaminants above the OSHA Permissible Exposure Limits and therefore a respirator is not required to be used. A copy of OSHA's Appendix D of the Respiratory Protection Standard is reviewed and made available to all employees.

~~Operations Department e~~Employees utilizing a full-face or half-face respirator must be able to shave on site during their shift to ensure a proper face seal ~~during chlorine cylinder changes or in case of emergency~~.

Refer to the District's Safety Intranet page for additional resources.

Examples of times to wear the appropriate respirator are: cutting or drilling into cement, ~~sand~~abrasive blasting, changing chlorine cylinders, spray painting, ~~burning~~, chemical applications, when an employee may be exposed to other respiratory hazards, and as required by JHA.

4.3.6 Tools

- Employees must be trained in the use of all tools or equipment before use or operation. Use the right tool for the job.
- Remove defective tools or machinery from use immediately and report the defect to the Department Supervisor for repair or replacement.
- Never point an air hose at anyone or use it to clean clothing. ~~This is extremely~~

~~dangerous!~~Air can penetrate the skin, enter the bloodstream creating an air embolism resulting in stroke-like symptoms.

- Do not use electrical power tools or equipment while standing in water. Keep cords out of puddles. All electrically powered portable hand tools shall be used with a Ground Fault Circuit Interrupter (GFCI). The GFCI location can either be in the outlet or can be of the portable "pigtail" type.
- Keep all tools and materials away from edge of scaffolds, platforms, shaft openings, etc.
- Have cords, leads, hoses, etc. placed to avoid tripping hazards or getting damaged, away from oil, heat and/or chemicals.
- Check hose, fittings, and valves for leaks.
- Compressed Gas Cylinders must be kept upright and secured.
- Open cylinder valves slowly to prevent damage to regulator. Close valves if work is finished, moving cylinders, or placing into storage.
- Use only sturdy ladders on firm base. Where possible, angle out base ¼ of ladder working length (4 feet high x 1 foot from wall). Keep area clear of scrap, tools, hoses, etc.
- Have ladder reach at least 3 feet above landing for easy access. Tie off ladder at top (secure bottom and brace long ladders).
- Read directions or when in doubt – check with your Supervisor or Safety Officer.

4.3.7 Warnings & Barricades

- Read danger warnings on container labels. Always follow all health/ safety precautions. Know before you use it. Always refer SDS and ensure a current copy of SDS.
- Place barricades, warning lights, caution tape, signs or combinations of, to warn of overhead danger, traffic, excavation, etc. Have authorized flagman or authorized attendants remain on site if necessary.
- Don't leave openings unprotected. Use strong cover, or barricade with 42" high guardrail (with mid-rail and toe-board).

4.3.8 Vehicles & Machinery

- Only qualified personnel may operate vehicles and other machinery.
- Always wear the vehicle or machinery seat belt. Including all passengers.
- Before starting machinery, opening valves, switches, etc., have safety guards in place.
- Do not ride on vehicles or mobile equipment unless specifically authorized.
- Always be seated when riding or operating equipment (unless designed for standing).
- Never adjust or repair machinery while in motion. Lock out, block, or bleed potential ~~forces~~ energy as required to prevent movement (create a zero energy environment prior to performing work).
- Operate machinery and vehicles within rated capacity and at safe speeds.
- Vehicles requiring repair must be reported to the delegated LRECD staff member.

4.3.9 Vehicle Safety

Motor vehicle incidents are a leading cause of death and injury in the United States. ~~Observance of state vehicle codes (traffic laws),~~Observance of state vehicle codes (traffic laws) properly maintained and inspected vehicles, and knowledge and use of defensive

driving skills are crucial to avoid vehicle incidents. Also, minimizing distractions while driving is a key element in maintaining your safety while operating a vehicle. Distracted driving is driving while doing another activity that takes your attention away from driving, e.g., talking or texting on your phone, eating and drinking, fiddling with the stereo, entertainment or navigation system. District employees must minimize distractions while operating vehicles. Vehicle safety applies to all LRECD staff that drive as part of their official LRECD duties. The Safety Officer will perform vehicle safety training annually.

4.3.10 Driver's Licensure

All individuals, including LRECD employees, interns, and volunteers operating LRECD vehicles or a private vehicle to conduct LRECD business must possess a valid Florida driver's license for the vehicle's class. In some cases, a Commercial Driver's License (CDL) is required (see job description). Any individual who operates a vehicle to conduct LRECD business knowing that his or her driver's license has been suspended or revoked will be subject to appropriate disciplinary action, up to and including termination.

4.3.11 Vehicle Maintenance

The Operations Department is responsible for overseeing the maintenance of all LRECD fleet vehicles. Supervisors and/or the Safety Officer is responsible for communicating all fleet transportation and vehicle safety procedures to drivers and recommending remedial action when drivers are involved in incidents or are found guilty of moving violations while using LRECD vehicles.

4.3.12 LRECD Driving Privileges

The privilege to drive an LRECD vehicle is conditioned on possession of a valid license to operate the vehicle and safe and lawful operation of the vehicle. Driving privileges may be revoked or suspended pursuant to the LRECD Personnel Policies & Procedures, Use of Company Vehicles. Conduct typically associated with suspension or revocation of these privileges include driving without a valid Florida driving license, driving under the influence, involvement in an avoidable incident, moving violations, and failure to follow other associated driving policies or procedures. New employees, ~~through their Supervisor or other designated employee~~ must demonstrate proficiency prior to ~~complete familiarization training before~~ being authorized to drive a District vehicle. The Department Manager and Supervisor shall document this activity and provide the documentation to the Safety Officer to be included in the District Training Matrix.

Safe Vehicle Operation Tips:

- Always do a 360° walk around the vehicle, checking within the fender wells and under the vehicle.
- Always wear a seat belt.
- Observe posted speed limits and other traffic signals.
- Yield to pedestrians.
- Park lawfully.
- If the vehicle appears to be unsafe to drive, do not drive it. Report the condition to supervisor.
- Do not overcrowd vehicles. This applies to passengers as well as equipment!
- Never pick up hitchhikers or transport non-authorized personnel.
- Never let personnel ride in a bed of a pick-up or other truck or trailer.
- Never leave the keys in an unattended vehicle.
- If you are unfamiliar with a particular vehicle, ask your supervisor or another

employee for assistance in locating lights and other instruments before operating the vehicle.

- When hooked/connected to a trailer make sure brake lights, blinkers and hazard flashers are in a good working condition.
- Obscene items or material is not permitted to be displayed on any LRECD vehicles.
- When any heavy equipment (other than the normal car/truck) is being operated or towed to and from an off-site location, an LRECD trail vehicle, with all flashers on, will immediately trail and follow the equipment or tow vehicle.

4.3.13 Boating Safety

Check the weather before any boat trip. It may be necessary to reschedule field work due to inclement weather. If caught in a sudden storm and can't make it back to the marina, seek shelter under the nearest bridge and wait out the storm; if that is not possible, go to the nearest shore, exit the boat, and find suitable shelter until all clear.

Make sure you are familiar with all the safety gear on the boat. The following is a list of Coast Guard and District required safety equipment for Class I recreational vessel (16 to 26 feet):

- A Float Plan must be issued by operator and sent to appropriate personnel prior to leaving dock and must report when returned to dock.
- Approved Class I, II, III Personal Floatation Devices (PFD) for each person on board. Boat is equipped with ten 10 Class II orange jackets stored in a compartment designed to float free in the event of catastrophic vessel sinking.
    - All personnel aboard a District Vessel must wear approved PFD issued by the District.
- Throwable device; seat cushions on board serve as throwable floatation devices.
- Fire Extinguisher; located under main seat; inspected annually.
- Sound-producing Device; an air horn is located under main seat.
- Anchors; vessel is equipped with a bow and a stern anchor.
- Bilge pump; vessel is equipped with automatic bilge pump and a manual hand pump located under rear seat
- Paddle
- Cell phone
- Vessel registration and Sea Tow membership card is kept in blue water-tight box next to helm.
- Vessel passengers who cannot swim, must wear a life jacket at all times.
- Anyone alone on the boat, must wear a life jacket at all times.
- Sunscreen, hat and water are recommended to bring on boat trips.
- Take the AED in the red pelican case from the lab onto the boat for field days.
- Ensure First Aid Kit is reasonably outfitted for all causes.
- Anyone born after 1/1/1988 cannot drive the boat without completing an online or in person boater's safety course and obtaining ID card. The District recommends all staff complete a boater's safety course as one of their safety trainings.
- Keep the deck of the boat organized and clean to avoid trips, slips and falls.
- It is everyone's responsibility to make sure every item and every person is secure before putting the boat in motion. Secure any loose items such as kayaks and cooler lids which may catch wind and become airborne.

When working in or under the water, (i.e. snorkeling):

- A 24" x 24" dive flag must be displayed on the boat and visible from 360 degrees.

- Proper PPE must be worn to prevent against cuts, stings, abrasions, and punctures.
  - Wet Suits, preferably 3mm or greater, booties, and gloves.
- Each diver working more than 100 feet from the boat must always carry a floatable dive flag when working in the vicinity of possible boat traffic. It is allowable to anchor dive flag, so diver may work in the immediate vicinity. The diver must stay within 25 feet from an anchored dive flag.

Refer to the District's Safety Intranet page for additional resources.

4.3.14 Electrical

- Only qualified employees are permitted to ~~should~~ make electrical repairs or installations, or troubleshoot electrical systems that are 50 volts or greater.
- Qualified Employees must be trained and knowledgeable of the construction and operation of the equipment in which they will be working. Employees will be trained to recognize and avoid the electrical hazards that might be present.
- Consider all wires "live" until verified and locked out. Keep safe distance from "live" electricity.
- Have electrical equipment properly grounded. Use 3-wire grounded receptacles, extension cords, or ensure double insulation.
- Cord splices or repairs must be electrically and mechanically equal to that cord's original state.
- Do not use metal ladders ~~near high-powered~~when working on or near electrical lines or equipment. ~~electricity.~~
- Lockout/Tagout all electrical components and equipment when physically engaging equipment, e.g., during inspection or maintenance.
- Follow all Arc Flash signage instructions including the proper PPE. Cotton clothing and/or Arc Flash rated clothing shall be worn when working near energized equipment.

4.3.15 Lockout/Tagout Energy Control

Purpose - This procedure establishes the minimum requirements for controlling hazardous energy whenever maintenance or repair is performed on machinery, equipment, and property. It is used to ensure that the machine or equipment is at a zero energy state prior to performing any work. The machine or equipment shall be~~stopped~~, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energizing or start-up of the machine or equipment or release of stored energy could cause injury.

At the District, ~~L~~lockout is the ~~preferred~~ only method of isolating machines or equipment from energy sources. ~~Tagout is to be performed instead of lockout only when there is no way to lockout a machine~~.

Refer to the District's Safety Intranet page for additional resources.

4.3.16 Fire Safety

The best defense against a fire is to prevent a fire from starting in the first place. Even under optimal circumstances, fires do occur. Efficient mechanisms for response are critical to prevent injury and loss when a fire happens.

There are a number of things all employees can do to be well prepared for fire emergencies:

- Know exit routes from your office and work areas and keep unblocked.

- Know where the closest fire extinguishers are located in proximity to your office and work areas.
- Know emergency contact numbers: 911.
- Know the location and operation of fire alarms.

a. Fire Drills

It is important for employees to know how to react to a fire emergency when they occur. All buildings are subject to fire drills at any time. Fire drills are a proactive approach that allows employees to experience building evacuations under a controlled environment. It allows for LRECD safety officials to identify problems that may occur under real life situations.

Administration and River Center staff are also responsible for instructing the general public and visitors on emergency exits. The Safety Officer in conjunction with the District Executive staff and the local Palm Beach County Fire & Rescue Special HAZMAT/Operations, when applicable, coordinates Fire drills. The District shall conduct documented fire drills annually. The Safety Officer will coordinate the activity with Management and Supervision.

b. Miscellaneous Fire Hazards and Devices

There are several devices that are restricted or prohibited.

- **Candles**: Candles are NOT permitted in any rooms or offices at any time. Office areas may have a general area designated to be a break area with microwave, coffee pot, toasters, and toaster ovens.
- **Portable (space) Heaters**: Open coil heaters are not permitted in offices.
- **Wall Outlets**: Wall outlets should never be overloaded. Multi-plug adapters are only permitted if they have a built-in circuit breaker.
- **Seasonal Decorations**: All decorations made of combustible material must have a flame-retardant application applied to it by the manufacture. This documentation must be retained. GFCI shall be used with all electrical decorations.
- **Explosives/Ordinance**: Materials such as guns, ammunition, fireworks, black powder, and pyrotex are not permitted in any LRECD building.
- **Oil Lamps**: Oil lamps are not permitted to be used or stored in LRECD buildings.
- **Extension Cords**: The use of extension cords is for temporary functions and duties only. No employee may have any electrical cord of any kind under rugs. Cords with fractured insulation or exposed wires must never be used and are to be immediately turned in to the Safety Officer. Extension cords shall never be run through windows, doors, ceilings, water or holes in the wall or floors. Never plug multiple cords together or daisy chain with power strips.
- **Smoking**: Smoking by employees or the public is prohibited in all LRECD buildings as well as all LRECD owned or leased vehicles. Smoking is permitted in designated areas only.

c. Fire Hydrants

Never park within 50 feet of a hydrant in any direction.

d. Fire Evacuation Plans

Each floor of every building must have a legible, conspicuous, emergency evacuation floor plan posted in view. **Emergency Numbers**: Emergency numbers must be posted for all

occupants in plain view; these must include local law enforcement, safety, and poison control. **Exit Signs**: All exits must be visibly marked. Exits that are not exits or could be confused with an exit must be marked "not an exit". Nothing may obstruct the visibility of these signs and they must be illuminated by a light source of at least 5 foot-candles. All exit signs should be on emergency backup battery power and provide visibility in the event of a power outage or darkness. Signs should have red letters with white or black background.

e. Fire Emergency Action Plan

IN THE EVENT OF A FIRE: Find, if possible, and activate the nearest fire alarm. They are typically red and located by exit doors. Close Doors: Doing so usually slows the spread of fire and reduces smoke damage. Exit Building: All building occupants should exit the building by way of the closest exit. Consult the evacuation plan if you are unsure.

Call 911: If there is no sign of emergency personnel go to the closest phone and call 911 again, they will activate the emergency response system.

Fire Stairwells: Multi-floor buildings are built with fire rated stairwells. All evacuation exits from upper floors of a building should always be by the stairwell. Always keep moving and never congregate in the stairwell, always go down never go up.

Interior Doors: If you are opening an interior door, check the handle for heat; if it is hot do not open it. It will be likely to have fire on the other side; there could be tremendous pressure on the other side as well. Go to a window and signal for help!

Muster Station: A predetermined area has been selected so that a head count can be taken and accountability ensured. Do not leave the area until the emergency has been cleared or someone with authority has released everyone. Muster locations are provided on fire safety maps located in each permanently occupied building.

Do Not Re-Enter the Building: Under no circumstances should anyone re-enter a building until the all-clear signal is given by the fire department, police department, , Executive Director, or his designee.

f. Portable Fire Extinguishers

An important part of fire safety is knowing where to find fire extinguishers and knowing how to use them if needed. Fire extinguishers are intended to provide a first aid attack on any small, incipient fire. Only trained employees should attempt to extinguish a fire, in no event should any untrained or inexperienced person try to fight a fire with an extinguisher.

The LRECD maintains portable fire extinguishers throughout the District as required and appropriate. You must be aware of potable fire extinguisher locations in proximity to your workspaces. Maps of potable fire extinguisher locations are available on the District's safety intranet page.

LRECD primarily uses Multi-Purpose ABC Type Fire Extinguishers. These are for use on all A, B, or C type fires. The District maintains carbon dioxide (CO_2) extinguishers in locations where an electrical fire might occur involving sensitive, high-value electrical equipment like computers and network gear. A carbon dioxide extinguisher can be used on both Class B or C fires, it leaves no residue, is non-conductive, and is a non-contaminating gas.

The LRECD, through coordination by the Safety Officer, provides annual fire extinguisher training. Refer to the District's Safety Intranet page for additional resources.

4.3.17 Ergonomics

The purpose of this program is to ~~inform employees that the LRECD is committed to~~ sustain or improv~~e our~~ District employees' health and safety ~~comfort and wellbeing~~ by identifying and correcting ergonomic risk factors on the job. This program applies to all work operations with the intention of~~. LRECD has implemented this ergonomics program to~~ address~~ing the problem~~ potential~~of~~ musculoskeletal disorders (MSDs).

Our goal through this Ergonomics Program is to prevent the occurrence of work-related musculoskeletal disorders by controlling or eliminating the risk factors that cause them. This program ensures that all affected employees are aware of job-related risk factors and provides information and solutions to alleviate them. ~~LRECD promotes continuous improvement for the efficiency, comfort, and wellbeing of all employees through a team effort of management and employee involvement.~~ The Safety Officer will perform industrial, or office ergonomic assessments as required. Computer Based Training for office ergonomics is provided. This training provides direction on the ergonomically correct posture for office workers, and the correct lifting techniques to avoid back strains.

~~If, after reading this program, you find that improvements can be made, please contact your supervisor.~~ We encourage employee suggestions and are committed to eliminating conditions that create a risk for conditions such as MSD's, carpal tunnel syndrome and back strain. ~~the *success of our Ergonomics Program. We strive for clear understanding, safe and efficient work practices, and involvement in the program from every level in LRECD.*~~

~~Elements of this training include the identification of workplace risk factors, job analysis methods, implementation and evaluation of control measures, and teamwork skills.~~

~~a. Injury/Medical Management~~

~~LRECD requires all employees to immediately report any symptoms of discomfort that may be associated with their job duties. In most cases, employees are to report to their immediate supervisor. Those supervisors are responsible to recommend alternative work or medical evaluation for injured or ill employees.~~

~~Supervisors record and file written reports from the first observation of illness or injury through all subsequent follow-up activities. They are also responsible to forward information about the worker injury or illness for recording. Every work procedure that causes a worker injury or illness will be investigated and reported.~~

~~This documentation provides vital information for the identification of job-related risk factors so that the problems can be corrected. After verification of an employee's job-related injury or illness, the affected Director and Safety Officer will review this plan and re-evaluate the workstation or work area to determine if additional practices, procedures, or redesign of the station could be implemented to prevent similar injuries.~~

~~b. Identifying Problem Jobs~~

~~There are several methods used to identify problem jobs that are most likely to result in ergonomic disorders. Jobs are evaluated for the following risk factors:~~

- ~~Rate and number of repetitions: performance of the same motion or motion patterns every few seconds for more than two hours at a time.~~
- ~~Postures and limb positions: fixed or awkward work postures such as overhead work, twisted or bent back, and bent wrist, stooping, or squatting, for more than a total of two hours.~~

- ~~Vibration: use of vibrating or impact tools or equipment for more than a total of two hours.~~
- ~~Loads/lifted: lifting, lowering, or carrying of anything weighing more than 25 pounds more than once during the work shift.~~
- ~~Loads/static: holding a fixed or awkward position with arms or neck for more than ten seconds.~~
- ~~Muscle forces: continually pulling or pushing objects.~~
- ~~Work pace: piece rate or machine paced work for more than four hours at a time (legally required breaks cannot be included when totaling the four-hour limit).~~

~~Employee participation and assistance in evaluating new equipment and processes for potential risk factors are crucial. Employees also evaluate hand tools to determine if the designs are ergonomically suitable for the intended use and appropriate for the workers who use them.~~

~~Through job hazard analysis, problems are identified for correction and supervisors and employees in the affected areas are notified. Directors, Supervisors and the Safety Officer, in conjunction with those affected employees, will develop possible solutions, choose the most appropriate, implement the changes, and follow up to determine the effectiveness.~~

~~**c. Employee Training**~~

~~The management staff receives copies of this written ergonomics program and its policy statement regarding ergonomics in our workplace.~~

~~**Information on the following elements are available to all employees**:~~

- ~~How to recognize workplace risk factors associated with work-related musculoskeletal disorders and the ways to reduce exposure to those risk factors.~~
- ~~The signs and symptoms of work-related musculoskeletal disorders, the importance of early reporting, and medical management procedures.~~
- ~~Reporting procedures and the person to whom the employee is to report workplace risk factors and work-related musculoskeletal disorders.~~
- ~~The process LRECD is taking to address and control workplace risk factors, each employee's role in the process, and how to participate in the process.~~
- ~~Opportunity to practice and demonstrate proper use of implemented control measures and safe work methods that apply to the job.~~

4.3.18 Maintenance of Traffic (MOT)

LRECD will comply with the FDOT Utility Accommodation Manual, FDOT Design Standards and Manual Uniform Traffic Control Devices, latest revisions, for any operations within State, County, or Municipal right-of-way. Work zone traffic control will be ~~directly supervised~~ the responsibility of ~~by~~ a LRECD Employee holding a current Temporary Traffic Control Advanced Certification. All other employees involved with the work zone traffic control will hold a current Temporary Traffic Control Intermediate Certification or Flagger certification as their duties require. District staff who design traffic control plans will hold a current Temporary Traffic Control Advanced Certification. All traffic control plans will include a reproduction of the designers Temporary Traffic Control (TTC) Advanced Certification including their name, certification # and certification expiration date.

Loxahatchee River District Employee's may use outside vendors to provide work zone traffic control including traffic control plans, equipment and setup. Use of an outside

vendor does not relieve the requirement for a District Supervisor with a current Temporary Traffic Control Advanced Certification. Traffic control plans provided by an outside vendor will include a reproduction of the designers Temporary Traffic Control (TTC) Advanced Certification including their name, certification # and certification expiration date as well as employer name and contact information.

When conducting work in or near a right-of-way, LRECD staff must consider changing hazards and conditions and adjust PPE as required, for example:

- Class II High Visibility Vest (day work)
- Class III High Visibility Vest (night work)
- Dark eye wear is prohibited at night
- Avoid glare to oncoming vehicles

4.3.19 Confined Space Entry

The purpose of this program is to inform employees that the LRECD and its employees will comply with standards consistent with the OSHA Confined Space Standard, Title 29 Code of Federal Regulations 1910.146. This program applies to all work operations at the LRECD where employees must enter a confined space as part of their job duties.

A confined space refers to a space which has 1) limited openings for entry and exit, 2) unfavorable ventilation which could contain or produce hazardous atmospheres, and 3) which is not intended for continuous employee occupancy. Examples of such confined spaces include, but are not limited to, metering vaults, regulating vaults, valve vaults, storage tanks, sludge pump vaults, well housings, dam site gate control chambers, pipelines, trenches, filter beds, air vacuum and release vaults, and other utility vaults, manholes and tunnels.

Non-permit confined space means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

A permit-required confined space (permit space) means a confined space that has one or more of the following characteristics:

1. Contains or has a potential to contain a hazardous atmosphere.
2. Contains a material that has the potential for engulfing an entrant.
3. Has an integral configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross section.
4. Contains any other recognized serious safety or health hazard

Refer to Permitted Confined Space on the District's Safety Intranet page for additional resources.

4.3.20 Excavation, Trenching and Shoring

Trenching is a hazardous construction operation. OSHA (CFR) Part 1926, Subpart P contains requirements for excavation and trenching operations. OSHA defines an excavation as any man-made cut, cavity, trench, or depression in the Earth's surface formed by earth removal. A trench is defined as a narrow excavation (in relation to its length). In general, the depth of a trench is greater than its width.

Trenching and excavation work presents serious hazards to all workers involved. Cave-ins are the greatest risk. Workers may enter trenches only after adequate protections are in place to address cave-in hazards. Other hazards include falling loads, hazardous atmospheres, and hazards from mobile equipment.

LRECD classifies all soil to be Class C. All training will be annually via CBT, classroom and live training. Employees who can consistently identify existing and predictable hazards will be deemed competent persons by LRECD. Tabulated data will accompany all trench boxes and speed shoring.

Refer to Excavation, Trenching, and Shoring on the District's Safety Intranet page for additional resources.

4.3.21 Underground Utility Locates

Before starting the excavation into the ground, do the following:

- Contact the owners of the property to inform them of the proposed work.
- Determine the location of utility sewer, telephone, fuel, electric, and water lines.
  - Call 811, the "Call Before You Dig" number to establish the location of underground utilities in the work area. Be sure all underground locations are complete before excavation begins.
- Determine the exact location of underground installations by safe and acceptable means when excavation operations approach the approximate location of the installations.
- Ensure that while the excavation is open, underground installations are protected, supported to safeguard workers.

4.3.22 Hazardous Atmospheres

Atmospheric testing is required before employees enter a confined space, an excavation greater than 4 feet in depth, or where a hazardous atmosphere could reasonably be expected. LRECD provides employees with and requires the use of atmospheric testing equipment and ventilation controls to reduce the hazardous atmospheric condition to an acceptable level.

Contact the Safety Officer to schedule training or access additional training resources.

Acceptable Atmospheric Conditions

Oxygen: between 19.5% - 23.5%
Flammable gas: less than 10% of the lower flammable limit
Hydrogen Sulfide: less than 10 parts per million
Carbon Monoxide: less than 10 parts per million
Chlorine: less than 1 part per million

NOTE: No employee will enter an excavation or a confined space where hazardous atmospheres have not been and/or cannot be reduced to acceptable levels.
NOTE: Use of gas-powered equipment within an excavation or confined space will require the use of ventilation equipment to prevent carbon monoxide buildup.

4.3.23 Fall Protection

OSHA records indicate slips, trips, and falls are the most common workplace injury. Fall from heights can be the most severe. A form of fall protection is required when working on any working surface 4 feet or greater from the next level for general industry and at 6-

foot elevations for the construction industry.

The most common fall protection is OSHA approved guard rails with toe boards. The District will make every attempt to utilize guardrails as the primary method of fall protection. Barriers to prevent access to floor openings in another method of preventing falls.

Other forms of fall protection are the use of a fall arrest or fall restraint system. This use is a combination of an approved harness with an approved lanyard, and an approved anchor point to tie the lanyard off.

If fall arrest/restraint is required, each employee must be formally trained on the use of the safety equipment. Any fall arrest/restraint equipment needing purchased must first get approval from the safety officer. The safety equipment will be inventoried and is required to be formally inspected on an annual basis.

~~There are two types of falls, Lower Level and Same Level~~

- ~~Lower Level would be falls from elevated height~~
- ~~Same Level falls would be a slips or trips~~

~~There are two types of fall protection, Arrest and Restraint~~

- Fall Arrest is a form of fall protection which involves preventing an employee from contacting the next surface when the ~~safe stopping of~~ a person is already falling.
- Fall Restraint is a form of fall protection that prevents workers from reaching and tumbling over an unprotected leading edge.

Fall protection is essential for preventing injuries due to falls from heights. Fall Protection is an integral part of our commitment to a safe work environment. Any time a worker is exposed to a fall hazard, procedures and equipment must be used to eliminate the hazard of working at heights.

Supervisors and/or qualified staff must assess the risks associated with a task and ensure that proper procedures and equipment are in place to protect employees working at heights. Fall arrest/restraint usage shall be documented on the Job Hazard Assessment. It is the duty of all supervisors, safety representatives, and employees to identify hazards, follow procedures, and use proper equipment. For example, staff must maintain work spaces clear of slip and trip hazards such as water puddling and extension cords.

~~Refer to the District's Safety Intranet page for additional resources.~~

4.3.24 Reporting Safety Concerns

All employees are empowered and expected to intervene and correct any hazard they may observe during the course of their ~~work day~~workday. If an employee has a safety concern in an active job site, immediately communicate your concern to the job site supervisor. When warranted, inform the Safety Committee by submitting a **Safety Committee Action Form** to the Safety Officer. The Near Miss Reporting tool, located on the LRD Intranet is another way to document Near Miss's, Unsafe of Unhealthy Conditions, Environmental Pollution Potential or Suggestion for Safety Process Improvement.

4.3.25 Safety Inspections

Safety inspections are an effective tool for identifying the occurrence of unsafe conditions. A well-organized inspection program is vital to confirm employees are effectively

implementing sound safety practices and working safely. Safety inspections may be conducted by the Safety Officer, members of the Safety Committee, Supervisors, Department Directors, or any LRECD employee.

- Safety Inspections may but not limited too
  - Job Site Inspection
  - Random Inspections
  - Vehicle Inspections
  - Inspection of PPE

The LRECD assimilates many standards of the Occupational Safety and Health Administration (OSHA). Other assimilated safety entities include The American National Standards Institute (ANSI), the National Fire Protection Association (NFPA), and the Underwriter which create guidelines for inspection requirements. These are general industry standards as well as codes of regulations that should be followed.

Items of Concern during safety inspections:

- **Personal Protective Equipment (PPE):** Is appropriate personal protective equipment in place and being used properly?
- **JHA**: Was a JHA completed? Is it available for review?
- **Machine Guards:** Are they in place and operable?
- **Housekeeping**: Is the work area clean and in order?
- **Floors**: Are floors in good condition and free of slip and trip hazards and obstructions?
- **Aisles**: Are aisles and passageways clear and free of slip/tripping hazards?
- **Lighting**: Is lighting adequate for the work being performed?
- **Stairways**: Are stairs in good repair, with safe, secure handrails?
- **Machines and Equipment**: Is it in safe operating condition and is it being operated properly?
- **Electrical**: Is the area free from shock hazards and are adequate outlets available. Are extension cords being used? Are they in good condition? Is proper PPE being used to troubleshoot?
- **Lock Out/Tag Out**: is lock out/tag out being effectively implemented?
- **First Aid**: Are first aid kits available and fully stocked? Are people trained in first aid, CPR, and AED usage?
- **Fire Extinguishers**: Are fire extinguishers accessible, properly maintained and are all occupants trained in their use?
- **Entrances**: Are entrances unobstructed, serviceable, and proper signage available?
- **Confined Space**: Was a confined space permit obtained?
- **Excavations**: Is shoring in place as required?
- **Hazardous Atmosphere**: Are gas detectors or blowers being used correctly?
- **Exits**: Are emergency exits marked properly and well lit.
- **Exterior**: Are sidewalks and parking lots free of debris?
- **MOT**: has a work zone been established? Has training been conducted?
- **Hazardous Communications (HAZCOM Plan)**: Are any hazardous chemicals stored or used in this area? Are SDS's available and up to date? Do employees in the area know the location of the SDS binder?
- **Ergonomics**: Are ergonomic issues being addressed?
- **Blood- borne Pathogens**: Are employees exposed to these and are they trained in universal precautions?
- **Emergency Phone Numbers**: Are emergency numbers posted so all employees

have access?

- **Personal Behavior**: Do employees understand the necessity to conduct themselves in a manner appropriate for their area, no horseplay, use proper Personal Protective Equipment, etc.?
- **Safety Equipment on Vehicles:** District vehicle safety equipment list will be inspected on a monthly basis by Supervisor and the crew assigned to that vehicle to ensure the required personal protective equipment and additional safety equipment is on board and available for use.

4.3.26 Risk Management Plan

The LRECD utilizes Chlorine at a threshold for which the Environmental Protection Agency (EPA) requires the submission of a Risk Management Plan (RMP). The RMP is managed by the Operations - Plant Manager and fully supported by the Safety Officer. The RMP is a living document which ensures specific areas of interest are evaluated and adequately managed to the EPA regulations. Safety Information, Hazard Review, OSHA Process Safety Management, Operating Procedures, Training, Mechanical Integrity, Management of Change, and Employee Participation are examples of areas addressed and reviewed annually by the Safety Officer and Plant Manager. A documented compliance audit must be performed at least once every three years, and revise and update the RMP with a resubmittal to the EPA at least every 5 years.

4.4 Stop Work Policy

This Stop Work Policy provides every person employed or engaged by the District the delegated authority and obligation to stop work when a perceived unsafe condition and/or behavior has the potential to result in danger to person(s), equipment, or the local environment. This District Governing Board and Management will fully support the decision(s) of an employee made in the prudent execution of this policy:

- Any District employee that observes a perceived unsafe condition that has the potential to result in danger to person(s), equipment, or the local environment must call for a Stop Work Order (e.g., engage the active parties to immediately discontinue the unsafe work, condition, or behavior).
- The Stop Work Order must be applied in good faith.
- Work that was ceased due to a Stop Work Order must not resume until all safety concerns are cleared to the satisfaction of the employee who initiated the Stop Work Order or to the satisfaction of the Safety Officer.
- The District will not retaliate against, and will not tolerate any intimidation or retribution towards, an employee that called a Stop Work Order in good faith.

Refer to the District's Safety Intranet page for additional resources.

5. INCIDENT REPORTING

LRECD has a strict policy stating all incidents must be reported immediately. An incident is defined as: an unplanned, undesired work-related event that may cause injury, illness, or property damage, or a combination of all three. Incident severity may range from minorto catastrophic. A Near Miss is an unplanned event that did not result in injury, illness, or damage – but had the potential to do so.

Refer to the District's Safety Intranet page for additional resources.

5.1 Incident/Near Miss Reporting

An incident reporting plan prescribes methods and practices for reporting incidents that can be read and understood by all employees.

The requirements of this program apply to all LRECD employees.

1. If an incident involves injury, the employee shall seek medical attention by either dialing 911 for emergency response, visit Jupiter Medical Facility, or by on-site treatment by an LRD employee trained in first aid. Employees injured on the job must report the injury to their supervisor and Safety Officer immediately after the appropriate medical attention is provided.

~~1.~~2. Near miss incidents (when an employee nearly had an incident but was able to avoid injury) are required to be recorded and reported.
   - Near miss incidents will be reported using the Near Miss Report form.

~~2. Actual incidents will be recorded and reported.~~
   - ~~First Report of Injury must be filled out.~~

~~3. Post-incident testing and reporting requirements must not delay the employees' receipt of necessary medical attention.~~

~~4. The injured employee will notify Immediate Supervisor (even after hours)~~
   - ~~If no supervisor responds, notify Safety Officer or HR~~

~~5. Either complete the Incident Report or have your supervisor complete the report~~
   - ~~If you sustain a non-emergency or emergency injury, the immediate or responding supervisor will complete the following steps.~~
   - ~~Supervisor must fill out a Supervisors Incident Report~~

~~6. Any injury that requires medical treatment above first aid must submit to a post-accident drug screen.~~

~~7. The employee must report for testing to the Jupiter Urgent Care facility within 24 hours of the incident.~~

~~8.~~1. ~~If the drug test is not performed with the allotted time frame, will be considered refusal to test, and may result in immediate termination.~~

~~9. Employees injured on the job must report the injury to their supervisor immediately. The injured employee's Supervisor and/or Division Director must notify the Safety Officer when an incident or near miss occurs within 24 hours~~

3. All incidents shall be documented utilizing the First Report of Injury form and the Incident Report Form. The forms shall be completed by the injured employee and the immediate supervisor~~.~~ The supervisor must complete a separate Supervisor Incident Report.
4. Any injury that requires medical treatment above first aid must submit to a post-accident drug screen at the Jupiter Urgent Care facility as soon as practical and no later than 24 hours of the incident.

~~10.~~ . If the drug test is not performed with the allotted time frame, will be considered

refusal to test, and may result in immediate termination.

A near miss ~~incident~~incident will be reported utilizing the Near Miss Reporting tool located on the LRD Intranet.

~~11.~~5.

Any employee witnessing an incident at work is to call for emergency help or whatever assistance appears to be necessary. In addition, the employee is to immediately report the incident to his or her supervisor, if possible, and take part in answering questions related to the Incident Report and Investigation.

5.2 Vehicle Incident

If an LRECD employee, intern, or volunteer is involved in a traffic incident while driving a vehicle to conduct District business, the vehicle should not be moved, unless it creates a hazard, until local law enforcement has been called and advised the driver that it is safe to do so. Immediately after calling law enforcement, the driver should notify their Supervisor and/or the Safety Officer and report the incident. If the vehicle is a LRECD vehicle and needs to be towed, call the approved District towing company. The vehicle should be towed to the towing company's holding facility to be evaluated by the delegated LRECD staff member. The driver of the vehicle and supervisor shall complete the Motor Vehicle Accident after applicable medical attention is provided to the driver.

Refer to the District's Safety Intranet page for additional resources.

6. INVESTIGATION & RECORDKEEPING

The Safety Officer is the primary recordkeeper and responsible for maintaining the below following records and documentation with Human Resources serving as a backup while also obtaining appropriate copies for personnel folders:

- Incident investigation reports
- Employer's Incident Report
- Training records and certifications
- Investigation and Interviews
- DOT compliance information

6.1 Incident Investigation Procedures

Thorough investigation of all incidents will lead to identification of incident causes and help:

- Reduce economic losses from injuries and lost productive time;
- Determine why incidents occur, where they happen, and any trends that might be developing;
- Employees develop an awareness of workplace problems and hazards;
- Identify areas for process improvement to increase safety and productivity;
- Note areas where training or methods need to be improved; and
- Suggest a focus for safety program development.

For all incident investigations, the Safety Officer will perform the following duties:

- Conduct the incident investigation at the scene of the injury as soon after the injury as safely possible.
- Ask the employee involved in the incident and any witnesses, in separate interviews, to tell in their own words exactly what happened.
- Repeat the employee's version of the event back to him/her and allow the employee to make any corrections or additions.
- After the employee has given his/her description of the event, ask appropriate questions that focus on causes.

When finished, remind the employee the investigation was to determine the cause and possible corrective action that can eliminate the cause(s) of the incident. Complete a First Report of Injury with the employee and review data with employee for accuracy. Refer to First Report of Injury form.

The incident investigation is used to:

- Track and report injuries on a monthly basis;
- Group injuries by type, cause, body part affected, time of day, and process involved;
- Determine if any trends in injury occurrence exist and mitigate those trends if possible;
- Identify any equipment, materials, or environmental factors that seem to be commonly involved in injury incidents;
- Discuss the possible solutions to the problems identified with the safety team and supervisors; and
- Proceed with improvements to reduce the likelihood of future injuries.

~~**6.2 Program Evaluation**~~

~~The incident reporting and investigation program is evaluated and updated by the Safety Officer, Safety Committee, and the District's Insurance carrier annually to determine whether the plan is being followed and if further training may be necessary. It would be nice to add text about Safety Officer producing an annual report summarizing and analyzing the context of all incidents and near misses. This report should use process improvement tools, e.g., pareto charts, six sigma analyses, to identify potential opportunities for improvement.~~

7. DISCIPLINE

~~Although employment with the District is based on mutual consent and both the employee and the District have the right to terminate employment 'at will', with or without cause or advance notice, the District may use progressive discipline in certain circumstances as determined by the District.~~

Any disciplinary action will be given following the District Disciplinary Action Policy. Refer to the LRECD Personnel Policies & Procedures, Termination of Employment and Progressive Discipline for more information. Vehicle accidents may have additional disciplinary action associated with negligence and property damage.

Disciplinary action may call for any of the steps – verbal warning, written warning, performance improvement plan, suspension with or without pay, or termination of employment – depending on the severity of the problem and the number of occurrences. ~~There may be circumstances when one or more steps are bypassed, see LRECD Personnel Policies & Procedures, Termination of Employment and Progressive Discipline for more information.~~

8. EMERGENCY PHONE NUMBERS

- Police, Fire, Ambulance: 911
- Jupiter Urgent Care 561-263-7010
- Safety Officer 561 401-4066 / (C) 561-262-2618
- Human Resources 561 401-4173 / (C) 561-779-3289
- Workers Compensation/PGCS 321-832-1400
- Kauff's Towing 800-432-7182

9. ACRONYMS AND DEFINITION'S

- AED – Automatic external defibrillator, used on heart attack victim's or when the heart as stopped
- SDS – Safety Data Sheets, document that lists information relating to occupational safety and health for use of various substances and products
- OSHA – Occupational Safety and Health Administration
- ANSI – American National Standards Institute
- NFPA – National Fire Protection Association
- MOT – Maintenance of Traffic

Employee Acknowledgement

Employee Safety Handbook Acknowledgment

I hereby acknowledge receipt of a copy of the Safety Handbook, either electronically or in paper form, for the Loxahatchee River District. I acknowledge that I have read and fully understand the guidelines and procedures contained in this handbook.

I accept responsibility for familiarizing myself with the information in this handbook and will report all unsafe conditions, accidents, and injuries. I agree that if there is any policy or provision in the handbook that I do not understand, I will seek clarification from; a member of the safety committee, my supervisor, or the Safety and Compliance Officer.

I understand that the policies, guidelines, and procedures are continually evaluated and may be amended, modified or terminated at any time.

Employee Signature	Date
Print Name	Department

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

To: Governing Board
From: Kara Fraraccio, Director of Finance and Administration
Date: March 10, 2023
Subject: Auditor Selection Committee

In June 2017, the District's Governing Board entered into an agreement with Nowlen, Holt & Miner, P.A. The term of the agreement was 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 2022 exercised the third option year. Nowlen, Holt & Miner, P.A. has provided the LRD with satisfactory service, however, now that the contract has expired, Florida Statutes 218.391 require we implement Auditor Selection Procedures.

The Audit Selection Procedure establishes that:

A. the LRD Governing Board shall establish an Audit Committee.
B. the Audit Committee's primary purpose is to assist the LRD Governing Board "in selecting an auditor to conduct the financial audit required by Section 218.39, Florida Statutes".
C. the Audit Committee is charged with:
    1) Establishing factors to use for the evaluation of audit services, e.g., ability of personnel, experience, price, etc.
    2) Publicly announcing request for proposals for audit services.
    3) Providing request for proposal to interested audit firms.
    4) Evaluating proposals provided by qualified firms.
    5) Ranking and recommending in order of preference no fewer than three firms deemed to be the most highly qualified to perform the required services based on the factors provided in paragraph (1) above.

Once the Audit Committee provides their final rankings of the audit firms to the Governing Board, the LRD Governing Board, or their designee, will then begin negotiations with the highest ranked firm, and will ultimately execute a written contract for audit services.

At this time, the LRD Governing Board needs to establish an Audit Committee. The Audit Committee must consist of at least three members, one of which must be a member of the Governing Board, who will serve as the chair of the committee. No employee of the LRD may serve as a member of the auditor selection committee; however, an employee may serve in an advisory capacity. I will serve in the advisory capacity to the Audit Committee.

Dr. Matt H. Rostock CHAIRMAN | Kevin L. Baker BOARD MEMBER | Gordon M. Boggie BOARD MEMBER | Stephen B. Rockoff BOARD MEMBER | Clinton R. Yerkes BOARD MEMBER

Water Reclamation – Environmental Education – River Restoration

The Florida Auditor General also advises that members of the audit committee should have access to the services of at least one financial expert. Because no LRD employee may serve as a member of the Audit Committee, I have reached out two finance professionals who live or work within the LRD service area and possess a detailed understanding of governmental financial reporting and auditing. Daniela Russell, CPA, Chief Financial Officer of Seacoast Utility Authority and Matthew Pazanski, Finance Director of the Town of Juno Beach, both, through education and experience, have an understanding of generally accepted accounting principles and financial statements; experience in preparing or auditing financial statements such as the LRD; experience in applying such principles in connection with the accounting for estimates, accruals, and reserves; experience with internal controls; and an understanding of audit committee functions.

Therefore, the following motion is offered for your consideration:

> **"THAT THE GOVERNING BOARD establishes an Audit Committee whose members include Gordon Boggie (Committee Chair), Steve Rockoff, Daniela Russell, and Matthew Pazanski and whose duration shall be until a satisfactory contract for audit services is successfully negotiated."**

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

To: Governing Board
From: Kara Fraraccio, Director of Finance and Administration
Date: March 10, 2023
Subject: Disposal of Surplus Property

Whenever the District disposes of tangible personal property of a non-consumable nature, Florida Statutes and our Disposal of Surplus Tangible Personal Property Policy require Governing Board approval before any Surplus Tangible Personal Property can be disposed of. Consistent with state statute and our policies and procedures, I request your authorization to dispose of the items listed below:

F/A #	Description	Condition	Date Recorded	Acquired Value	Book Value	Estimated Value
TE0097-1	2012 International Vac-con	Needs Repair	09/30/11	$ 300,998	$ -	$ 45,000
TE0097-2	Vac-con Turbocharger	Needs Repair	09/30/19	7,694	3,078	
				$ 308,692	**$ 3,078**	**$ 45,000**

The items listed in the schedule above are no longer of use to the District and are considered Surplus. The assets will be disposed of in accordance with the District's Disposal of Surplus Tangible Personal Property Policy.

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

I offer the following motion for your approval:

> **"THAT THE GOVERNING BOARD authorize the Executive Director to dispose of tangible personal property asset numbers TE0097-1 and TE0097-2 in accordance with the District's Disposal of Surplus Tangible Personal Property Policy."**

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Clinton R. Yerkes BOARD MEMBER

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: D. Albrey Arrington, Ph.D.
FROM: Kris Dean, P.E., Deputy Executive Director/Director of Engineering
DATE: March 10, 2023
SUBJECT: Bureau of Land Management/Jupiter Inlet Lighthouse Outstanding Natural Area – Septic to Sewer Contract – Change Order

In September 2020 staff entered into a contract with the BLM to provide design services for the septic to sewer conversion of the JILONA and undergrounding of existing FPL power and Comcast communication in the amount of $175,000. Then, in April 2021 the District entered into a contract with the BLM to provide construction services for septic to sewer conversion of the JILONA and undergrounding of existing overhead FPL power and Comcast communication in the amount of $1,500,000.00.

The contract expired on January 31, 2023 prior to completion of the work. Completion was delayed due to Florida Power and Light mobilization for completion of the power distribution system.

Staff coordinated with the BLM to extend the contract performance and allow for the FPL work to be completed. Staff also coordinated with the BLM for reimbursement of permitting and impact fees.

Period of performance:	Extend 301 days to November 30, 2023
Reimbursement of Costs:	$100,291.71

Coordination with the BLM on the change order extended past the January Board Meeting and contract expiration. Upon receipt of the final form and acknowledging the change order was time sensitive and in the best interest of the District, the Executive Director approved the change order under authority of the District's Procurement Policy Section 2.10 Item 5). The Deputy Executive Director also approved the change order.

Per the District's Procurement Policy the change order is presented to the Board this month.

No action is required by the Board.

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Clinton R. Yerkes BOARD MEMBER

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
P00001	See Block 16C	0040608328	

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
BLM OC-NOC CONST A&E SEC(OC664) DENVER FEDERAL CENTER BLDG. 50 POB 25047 DENVER CO 80225	LNC	BLM OC-NOC CONST A&E SEC(OC664) DENVER FEDERAL CENTER BUILDING 50 PO BOX 25047 DENVER CO 80225	LNC

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*		9A. AMENDMENT OF SOLICITATION NO.
LOXAHATCHEE RIVER DISTRICT Attn: Kris Dean 2500 JUPITER PARK JUPITER FL 33458-8962	(x)	9B. DATED *(SEE ITEM 11)*
	X	10A. MODIFICATION OF CONTRACT/ORDER NO. 140L0621C0014
		10B. DATED *(SEE ITEM 13)* 04/07/2021
CODE 0071415467	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
01 Net Increase: $100,290.71

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation data, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-4, Changes
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ☐ is not ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

UEI: EMBBMB8E4L57

The purpose of this modification is to extend the period of performance and reimburse the contractor for costs paid on the project.

1. The period of performance is extended by 301 days FROM: 8/2/2021 to 1/31/2023 TO: 8/2/2021 to 11/30-2023 at no additional cost to the Government. The Contractor has agreed to provide generators and fuel for their operation as consideration for the extension.

2. The Government is adding $100,290.71 in funding to reimburse the contractor for costs as follows: Florida Power and Light for $62,796.00; Comcast for $8,482.21; City of Jupiter, FL for $3,740.00 and $1,430.00 for 2-inch irrigation meters, and the Archaeological and Historical Conservancy for $23,842.50.

3. As a result CLIN 0020 is added for $100,290.71 resulting in a total contract value of

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
D. Albrey Arrington, Ph.D.; Executive Director		Jeane E. Steed	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)	2/14/2023	*(Signature of Contracting Officer)*	

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016)
Prescribed by GSA FAR (48 CFR) 53.243

NAME OF OFFEROR OR CONTRACTOR
LOXAHATCHEE RIVER DISTRICT

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	$1,600,290.71. 4. All other terms and conditions remain unchanged. 5. Contractor's Statement of Release: In consideration of this modification agreed to herein as a complete equitable adjustment for the changes, the contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments related to and/or attributed to such facts or circumstances giving rise to these changes and to this modification. Account Assignm: P G/L Account: 6100.327Y0 Business Area: L000 Commitment Item: 327Y00 Cost Center: LLESJ02400 Functional Area: L98400000.IB0000 Fund: XXXL5715OA Fund Center: LLESJ02400 Project/WBS: LX.OA.L2030004 PR Acct Assign: 01 Period of Performance: 08/02/2021 to 11/30/2023 Add Item 00020 as follows:				
00020	Septic to Sewer Mod 1 Obligated Amount: $100,290.71 Product/Service Code: Y1ND Product/Service Description: CONSTRUCTION OF SEWAGE AND WASTE FACILITIES				100,290.71

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LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929

D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: GOVERNING BOARD
FROM: D. ALBREY ARRINGTON, Ph.D.
DATE: MARCH 9, 2023
SUBJECT: RULE 31-10 RATES, FEES, & CHARGES – RATE STUDY

We are back for our second month of evaluation and public discussion of our annual rate study. This month staff are seeking Board approval of the attached revisions to Chapter 31-10 Rates, Fees, and Charges. You will see the marked-up version of Chapter 31-10 includes the following revisions:

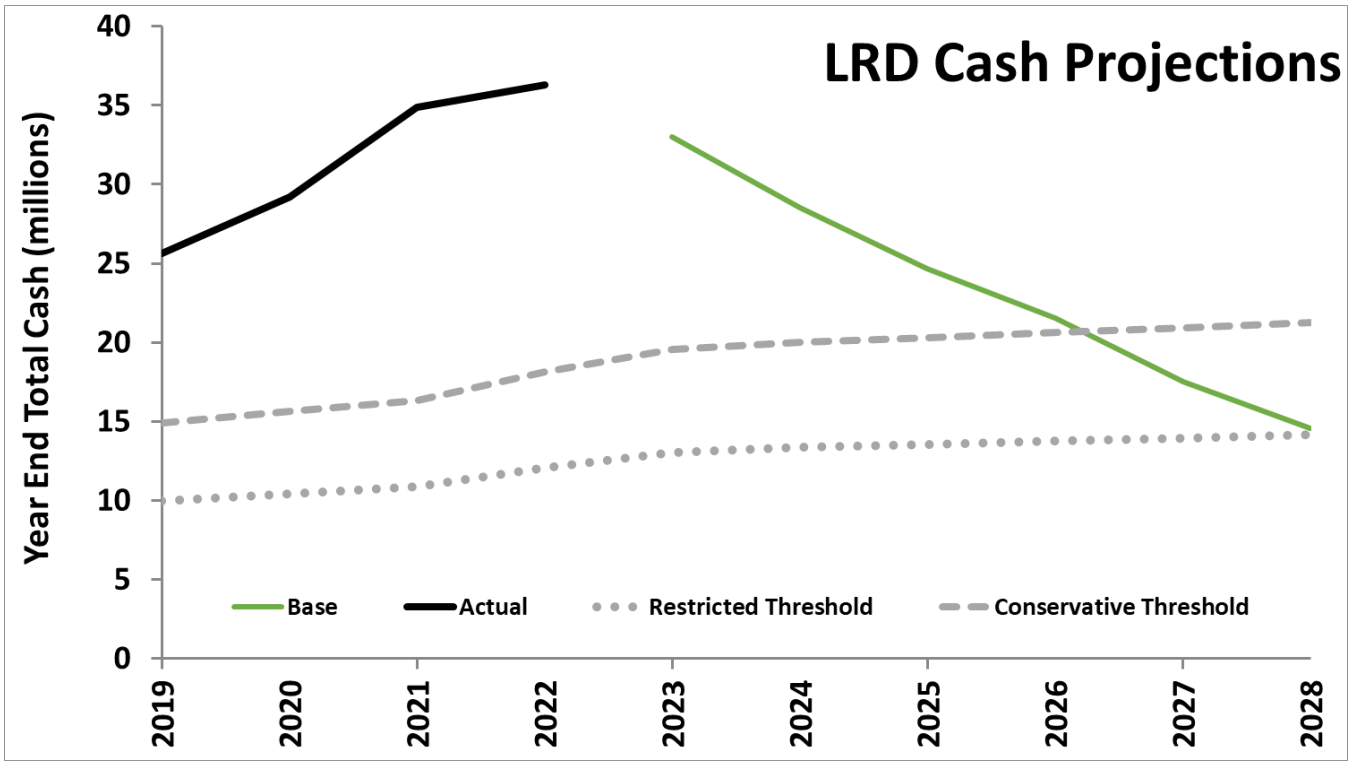
1. Effective Date is April 1, 2023.
2. Plant Connection Charges increased from $1,799.00 to $1,869.00 per EC based upon the February 2023 Engineering News Record Construction Cost Index.
3. Regional Transmission System Line Charges increased from $1,168.00 to $1,214.00 per EC based upon the February 2023 Engineering News Record Construction Cost Index.
4. Administrative Charges increased from $169.00 to $175.59 per EC based upon the February 2023 Engineering News Record Construction Cost Index.
5. Per our Rule, all existing Subregional Line Charges were increased based on the 10-Year Treasury Rate published by the US Department of Treasury on February 1st.
6. Quarterly Service Charges for sewer service are increased by 5% in 2023 followed by 3% per year over the subsequent four years. This is an increase relative to what was presented last month. We are seeing significant cost increases in various commodities and services, also inflation appears to be more persistent than anticipated, and the labor market continues to be very tight. I believe these factors justify a slightly more aggressive rate increase of 5% for the current year. It should be noted that the 5% increase will result in residential customers experiencing a rate increase of less than $1.00 per EC per quarter.
7. Irrigation Quality Water Rates were left as approved by the Board last year and an additional 3% rate increase was added for 2027.

Based on all these factors, I offer the following motion for your consideration:

"THAT THE DISTRICT GOVERNING BOARD approve Rule Chapter 31-10 Rates, Fees, and Charges, as revised, with an effective date of April 1, 2023.".

Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Dr. Matt H. Rostock BOARD MEMBER
Clinton R. Yerkes BOARD MEMBER

The chart below shows our cash projections over the next five years if we implement Chapter 31-10 as drafted. In addition, the rate at which we execute our planned capital projects has a significant impact on our projected financial condition. Given our history of slower than expected completion of capital projects, we believe the Rate Study projections (including the chart below) are conservative. Given the current rate of inflation, an expanding horizon of higher-than-normal inflation, and the tight labor market, I believe the proposed rate increases are reasonable.



Loxahatchee River District's FY2024 – FY2028 Capital Improvement Plan

	FY2024	FY2025	FY2026	FY2027	FY2028
80% of Total Capital is used in Rate Study Cash Projection Model (due to conservative nature of projected capital costs)	**$ 10,220,000**	**$ 8,844,000**	**$ 7,896,800**	**$ 8,904,000**	**$ 7,732,000**
Total Projected Capital Costs =	**$ 12,775,000**	**$ 11,055,000**	**$ 9,871,000**	**$ 11,130,000**	**$ 9,665,000**
Contingency	$0	$0	$0	$0	$0
Land	$10,000	$10,000	$10,000	$10,000	$10,000
Buildings	$250,000	$1,475,000	$100,000	$0	$100,000
Infrastructure Improvements (not buildings)	$960,000	$660,000	$90,000	$90,000	$90,000
Machinery and Equipment	$985,000	$2,115,000	$1,315,000	$915,000	$680,000
Vehicles	$295,000	$90,000	$471,000	$630,000	$175,000
Construction in Progress	**$10,275,000**	**$6,705,000**	**$7,885,000**	**$9,485,000**	**$8,610,000**
CIP - Exec/Finance/Lab/Cust Svc/IT/Construction	$0	$0	$0	$0	$0
CIP - Public Education	$1,000,000	$1,000,000	$0	$0	$0
CIP - Engineering Planning Studies	$105,000	$105,000	$105,000	$55,000	$55,000
CIP - General Collection & Transmission	$0	$0	$0	$0	$0
CIP - Neighborhood Sewering	$25,000	$25,000	$25,000	$25,000	$25,000
CIP - Lift Station	$1,025,000	$1,025,000	$625,000	$625,000	$625,000
CIP - Gravity System	$2,550,000	$2,300,000	$2,350,000	$2,050,000	$1,300,000
CIP - Force Main	$1,975,000	$1,050,000	$2,505,000	$5,205,000	$5,205,000
CIP - LPSS	$20,000	$20,000	$20,000	$20,000	$20,000
CIP - Permanent Generator	$150,000	$250,000	$125,000	$125,000	$125,000
CIP - Telemetry	$2,330,000	$35,000	$35,000	$35,000	$35,000
CIP - Operations Planning Studies	$0	$0	$0	$0	$0
CIP - Operations General Site Improvements	$100,000	$0	$0	$0	$0
CIP - Treatment & Disposal	$275,000	$525,000	$275,000	$25,000	$150,000
CIP - Reuse General	$550,000	$50,000	$50,000	$50,000	$50,000
CIP - Reuse Pumping Stations	$20,000	$0	$0	$0	$500,000
CIP - Reuse Mains	$20,000	$20,000	$20,000	$20,000	$20,000
CIP - Reuse Telemetry/Metering/Controls	$20,000	$50,000	$250,000	$250,000	$0
CIP - Biosolids	$110,000	$250,000	$1,500,000	$1,000,000	$500,000

RULES

OF THE

LOXAHATCHEE RIVER
ENVIRONMENTAL CONTROL DISTRICT

CHAPTER 31-10

SCHEDULE OF RATES, FEES AND CHARGES

FOR THE USERS OF THE REGIONAL WASTEWATER SYSTEM

31-10.001 Definitions.

When used in this Chapter the following terms are defined as follows.

(1) "Account" is the account for each property connected to the District's sewer system established by the District. No more than one (1) account will be established per unique Property Control Number (PCN) as established by either Martin County or Palm Beach County, whichever is applicable.

(2) "Administrative Charge" is the charge paid for each Equivalent Connection to the Regional Wastewater System, to pay for administrative, legal, engineering, and inspection expenses associated with each new connection to the system. The Administrative Charge is due and payable before connection is made to the system and is not transferable or refundable.

(3) "Capital Cost" means the construction cost of regional transmission facilities plus an allowance for associated cost. Construction costs include, but are not limited to, the cost of installation of pipelines, special fittings, valves, pumps, appurtenances, and the cost of acquiring permanent and construction right-of-ways and easements. Allowances for associated costs include engineering services, legal, fiscal, contingencies, and administrative cost. In no event will the allowance for associated cost exceed twenty percent (25%) of the construction cost.

(4) "Delinquent Quarterly Service Charge for Sewer Service" is delinquent if not paid during the service period.

(5) "District" means the Loxahatchee River Environmental Control District, a separate local agency of government operating in accordance with Chapter 2021-249, Laws of Florida.

(6) "Equivalent Connections" or "E.C." is a multiple factor determined by the amount of toilets (water closets) per individual residential and non-residential unit, the estimated public usage or average flow of wastewater per day, or a combination of the above which may be connected with or used by each parcel of land which may be connected with or used by the Regional Wastewater System, as more particularly set forth in Rules 31-10.002 and 31-10.003.

(7) "Estoppel Fee" means the charge to offset administrative and legal expenses associated with providing information to parties requesting the status in writing for justifiable reliance purposes as to rates, fees, and charges due to the District for a specific property. An Estoppel Fee is determined at $30.00 per Estoppel letter provided by the District and may be changed from time to time in accordance with the law.

(8) "Governing Board" means the Governing Board of the Loxahatchee River Environmental Control District.

(9) "G.P.D." means gallons per day.

(10) "Non-residential Unit" is a non-residential building or structure connected to the Regional Wastewater System including, but not limited to, hotels, motels and boarding houses, wholesale and retail businesses, professional offices, schools, warehouses (including each individual bay) and without limitation all other buildings and structures of a commercial, public, or quasi-public nature.

(11) "Owner" means the legal owner or owners of a property served by the District. By accepting sewage service from the District, all of the property owners of each parcel shall be jointly and severally liable to the District for all charges, rates, and fees incurred for each parcel. If requested by the Owner in writing, the District will submit its bills and other communications to an agent of the Owner such as a property owners or homeowners association manager, property manager, or other legally authorized representative of the Owner.

(12) "Plant Connection Charge" is the charge paid for each Equivalent Connection to the Regional Wastewater System, and credit for which shall run with and be appurtenant to the land. The Plant Connection Charge is due and payable before connection is made to the system and is not transferable. Excess Plant Connection Charge(s) may be refunded if owner demonstrates, in accordance with objective determinations of the District, that fully paid Plant Connection Charges will not be used. In no case shall Plant Connection Charge be refunded for a Residential or Non-residential Unit not connected within one (1) year of sewer being declared Available. Plant Connection Charges are determined as set forth in this rule and may be changed from time to time in accordance with the law.

(13) "Quarterly Service Availability Standby Charge" is the periodic charge for each Equivalent Connection, commencing upon the signing of a Standard Developer Agreement, and is computed at the rate of sixty-eight percent (68%) of the Quarterly Service Charge per Equivalent Connection as established by the Governing Board and amended from time to time.

(14) "Quarterly Service Charge" is the periodic charge for each Equivalent Connection when it is connected to the Regional Wastewater System or within one (1) year of the time the connection is Available, whichever occurs first, and shall be billed in advance. Quarterly Service Charges are established by the Governing Board and amended from time to time.

(15) "Regional Transmission Facility" means transmission lines, force mains, gravity interceptors, lift stations or pump stations that collect wastewater from two or more sub-regions and

transport the wastewater to the District treatment plant. The size and location of the Regional Transmission Facility are described in the latest Transmission System Master Plan as amended.

(16) "Regional Transmission System Line Charge" is the charge paid for each Equivalent Connection to the Regional Wastewater System, and credit for which shall run with and be appurtenant to the land. The Regional Transmission System Line Charge is due and payable before connection is made to the system and is not transferable. Regional Transmission System Line Charge may be refunded if owner demonstrates, in accordance with objective determinations of the District, that fully paid Regional Transmission System Line Charge will not be used.

(17) "Regional Wastewater System" means any plant, facility or property; and additional extensions and improvements having the capacity for current or future use in connection with the collection, transmission, treatment, purification or disposal of sewage of any nature or originating from any source, including industrial wastes resulting from any processes of industry, manufacture, trade or business, or from the development of any natural resources. The Regional Wastewater System includes but is not limited to: treatment plants, pumping stations, lift stations, valves, force mains, intercepting sewers, laterals, pressure lines, mains and all necessary appurtenances and equipment; all sewer mains and laterals for the reception and collection of sewage; any interest in real and personal property; rights, easements and franchises of any nature whatsoever relating to the District.

(18) "Reserve Service Availability" is the right of an Owner to receive sewer service in the Regional Wastewater System upon reasonable demand.

(19) "Residential Unit" is a residential living unit or structure directly or indirectly connected to the Regional Wastewater System including but not limited to single family dwelling, detached living structure with toilet or sink, and each separate living unit of duplexes, apartments, townhouses, condominiums, and cooperative apartments.

(20) "Special Assessments" are assessments approved, set, and levied by the Governing Board for properties benefitted by the construction, acquisition, extension and operation of the Regional Wastewater System on the basis of the total cost to the District of construction, reconstruction, labor, materials, acquisition, property rights, surveys, design, engineering, legal, administration, operation, maintenance, and all other expenses necessary or incidental to completion of the specially assessed improvements.

(21) "Subregional Collection Facilities" means neighborhood gravity collection lines, collection manholes, force mains, lift stations and pump stations intended primarily to collect and transport wastewater from the subregional system to the regional transmission facility.

(22) "Transmission System Master Plan" means the report on "Wastewater Collection System Master Plan" for the District dated February 1981 or the latest updated version of the report approved by the Governing Board. The report contains maps and describes those transmission mains, pump stations, lift stations, gravity collectors and interceptors, which constitute the facilities of the regional transmission system.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Section 6(6), (8), (9), (11), (12), and (27), and Section 8. History – New 12-9-76, Amended 9-26-78, 5-21-81, 3-15-2012, 3-20-2014, 3-19-2015, 6-18-2015, 3-17-2016, 3-21-2019, 3-17-22. Formerly 31-10.01.

31-10.002 Residential Equivalent Connections.

The District will use the following amounts to determine Plant Connection Charges, Regional Transmission System Line Charges, Administrative Charges, Quarterly Service Availability Standby Charges, and Quarterly Service Charges, and other purposes in connection with sewer service provided by the District:

1) Residential Equivalent Connections are calculated as:
   (a) One (1) toilet (water closet) equals 1.000 Equivalent Connection.
   (b) Two (2) toilets (water closets) equals 1.250 Equivalent Connections.
   (c) Three (3) toilets (water closets) equals 1.500 Equivalent Connections.
   (d) Four (4) or more toilets (water closets) equals 1.750 Equivalent Connections.
2) Nurseries/Day Care Centers are calculated as 1.0 residential Equivalent Connection per 550 square feet of gross space.
3) Live/Work Units (as such zoning designation is approved and defined by the local zoning authority) are calculated based upon two components:
   (a) The Residential ("Live") component is calculated as provided in subsection (1) above; plus
   (b) The Limited Non-Residential ("Limited Work Unit"), defined as a total gross floor area 500 square feet or less, adds 0.50 Equivalent Connection, or the Standard Non-Residential ("Standard Work Unit"), defined as a total gross floor area more than 500 square feet, adds 1.0 Equivalent Connection.

TYPE OF USE	EQUIVALENT CONNECTIONS
Residential Unit with 1 toilet	1.0
Residential Unit with 2 toilets	1.25
Residential Unit with 3 toilets	1.50
Residential Unit with 4 or more toilets	1.75
Nurseries/Day Care	1.0 per 550 square feet of gross space
Limited Live/Work Unit (500 sq. ft. or less of work use) as designated by zoning authority	0.5 per unit plus applicable Residential E.C.
Standard Live/Work Unit (more than 500 sq. ft. of work use) as designated by zoning authority	1.0 per unit plus applicable Residential E.C.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Laws of Florida, Section 6(6), (8), (9), (11), and (19), and Section 8. History-New 12-9-76, Amended 9-26-78, 5-21-81, 6-30-85, 11-1-98, Formerly 31-10.02. Amended 3-17-2005, 3-16-2006, 3-15-2012, 3-20-2014, 6-18-2015, 3-17-22.

31-10.003 Non-Residential Equivalent Connections.

(1) The District will use the highest number of Equivalent Connects to determine Plant Connection Charges, Regional Transmission System Line Charges, Administrative Charges, Quarterly Service Availability Standby Charges, and Quarterly Service Charges, and other purposes in connection with sewer service provided by the District:

(a) A minimum of one (1) Equivalent Connection per non-residential unit, as defined herein; or

(b) One (1) Equivalent Connection per toilet (water closet); or

(c) Equivalent Connections in accordance with the following non-residential businesses, occupations and uses, based upon the maximum occupancy per fire code design where applicable:

TYPE OF USE	EQUIVALENT CONNECTIONS
Tavern (Bar)	.04 per seat
Restaurant (regular)	.06 per seat
Restaurant (24 hours)	.10 per seat
Trailer Park and Mobile Home Park	1 per space
Hotel/Motel (no Bar or Restaurant)	1.0 per unit + 1.0 per common area and/or employee toilet Bar/Restaurant calculated separately
Hospital	.80 per bed + 1.0 per common area and/or employee toilet
Nursing/Rest Home	.40 per bed + 1.0 per common area and/or employee toilet
Assisted Living Facility / Adult Congregate Living Facility	.575 per bed + 1.0 per common area and/or employee toilet
High School and Middle School	.08 per pupil
Elementary School and Pre-School	.06 per pupil
Office Buildings	.75 per 1000 sq. ft. (gross building area) or 1.0 per toilet whichever is greatest
Large Single Use Retail (>20,000 sq. ft.)	.50 per1000 sq. ft. (gross building area) or 1.0 per toilet whichever is greatest
Laundromats	1.1 per washing machine
Recreational Vehicle (RV) Park	0.75 per recreational vehicle space + 1.0 per common area and/or employee toilet
Swimming Pool Backwash Discharge	0.1 per 3,000 gallons
Elevator Sump	0.5 per sump
Marina pump out station	1.0 per pump out station
Public toilets in parks	1.0 per toilet
Quasi-public toilets e.g., community recreation areas	1.0 per toilet

or,

(d) As may be designated by the Governing Board upon presentation of good and sufficient evidence to merit other specific determination.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Sections 6(6), (8), (9), (11), and (19), and Section 8, and Sections 6(9), (12) and (27). History-New 12-9-76, Amended 6-25-78, 9-26-78, 5-21-81, 4-25-84, 6-30-85. Formerly 31-10.03. Amended 3-23-00, 3-17-05, 3-16-06, 03-18-10, 3-20-2014, 6-18-2015, 3-17-2016, 3-17-22.

31-10.004 Application for Sewer Service.

Before any Owner receives sewer service from the District, the Owner shall:

1. if a new customer, submit an application form as provided on the District website ("Application for Sewer Service") to the District's Customer Service Department in person;

2. provide proper personal identification and proof of ownership of the property at which sewer service is desired. The District may accept telephone or electronic orders for utility service from existing customers with an active District account provided that the Owner provides the District proper personal identification (driver's license number or state identification card number) that matches the previous information in the Owner's record and proof of ownership of the property at which service is desired; and

3. pay all outstanding fees and charges owed to the District for the subject property, including any delinquent fees and/or charges.

An Application for Sewer Service shall not be deemed complete unless the above three (3) requirements are met.

The Fair and Accurate Credit Transaction Act of 2003, 15 United Sates Code, Chapter 41, Section 1681, which can be found at https://www.ftc.gov/enforcement/statutes/fair-accurate-credit-transactions-act-2003, requires that the District obtain positive identification from the Owner requesting utility service. The receipt of an application by the District does not constitute a guarantee of sewer service.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Laws of Florida, Section 6(6), (9), (11) and (19), and Section 8. History - New 12-9-76. Repealed 12-12-78, Formerly 31-10.04. New 3-19-2015 as to Application for Sewer Service, Amended 3-17-22.

31-10.005 Plant Connection Charges, Regional Transmission System Line Charges and Subregional Line Charges for Residential and Non-Residential Units.

(1) Before connecting, directly or indirectly, to the Regional Wastewater System, an Owner shall pay all applicable Plant Connection Charges, Regional Transmission System Line Charges, Administrative Charges, and Subregional Line Charges.

(2) Effective April 1, 1981, all residential and non-residential Plant Connection Charges, Regional Transmission System Line Charges, and Administrative Charges shall be based on the schedules in effect at the time the District and Owner execute a developer agreement as listed below:

PLANT CONNECTION CHARGES

~~April 1, 2022 thru March 31, 2023 @ $1,799.00 per E.C.~~

April 1, 2023 thru March 31, 2024 @ $1,869.00 per E.C.

REGIONAL TRANSMISSION SYSTEM LINE CHARGES

~~April 1, 2022 thru 31 March 31, 2023 @ $1,168.00 per E.C.~~

April 1, 2023 thru 31 March 31, 2024 @ $1,214.00 per E.C.

ADMINISTRATIVE CHARGES

~~April 1, 2022 thru March 31, 2023 @ $169.00 per E.C.~~

April 1, 2023 thru March 31, 2024 @ $175.59 per E.C.

Commencing April 1, 2023 and thereafter, Plant Connection Charges, Regional Transmission System Line Charges, and Administrative Charges shall increase (or decrease) based upon the annual increase (or decrease) in the Engineering News Record Construction Cost Index published in the February edition of each year.

The District shall not execute a contract committing to provide service that exceeds the total capacity limitations set by the Governing Board. The full amount of the Regional Transmission System Line Charges and Administrative Charges shall be due and payable in U.S. funds (dollars) or by contract to provide Capital Costs and to construct certain portions of the Regional Transmission System at the time commitment of service is made.

(3) Notwithstanding Section 31-10.005(2) above, effective April 1, 1995, those properties having (or which previously had) buildings or structures having certificates of occupancy prior to April 1, 1981, shall pay the full Plant Connection Charge established in Section 31-10.005(2) less a subsidy of Five Hundred Dollars ($500.00), provided they are paid for and connected to the Regional Sewer System within one (1) year of the time that lines serving said

property are formally declared Available by the Governing Board. Notwithstanding Section 31-10.005(2) above, the Plant Connection Charge, Regional Transmission System Line Charges, and Administrative Charges for those buildings or structures having certificates of occupancy prior to notice of sewer availability, can be financed using the District's Installment Agreement method of collection up to five (5) years at a fixed interest rate equal to the current Wall Street Journal Prime Rate plus two percent (2.0%), but not to exceed eight percent (8%), existing at the time of execution of the Installment Agreement, with no prepayment penalty. Should any structure or building not be paid for or financed using the District's Installment Agreement and connected to the District's system within one (1) year of the time that the line serving said property is formally declared Available by the Governing Board, it will at the time of connection pay full Plant Connection Charges, Regional Transmission System Line Charges, and Administrative Charges as are applicable to new construction at time that connection is made regardless of the date of certificate of occupancy.

(4) Owners with existing contracts for service with the District shall pay Plant Connection Charges, Regional Transmission System Line Charges, and Administrative Charges as indicated in those contracts, and such charges shall not be subject to increase.

(5) Subregional Line Charges. From time to time the District constructs and extends Subregional Collection Facilities to existing Residential and/or Non-residential Units. The District shall collect the costs of extending the Subregional Collection Facilities through the apportionment of these costs to each of the benefited properties. Such charges shall be payable commencing when the Equivalent Connection is connected to the Regional Wastewater System of the District, or within one (1) year of the time the connection is Available, whichever occurs first. All Subregional Line Charges shall be adjusted each April 1st based on the 10-Year Treasury Rate published by the US Department of Treasury on February 1st.

(5)(a) Western Indiantown Road Subregional Collection Facilities: Subregional Transmission System Line Charges for the Western Indiantown Road Subregional Collection Facilities shall be $1,927.32~~1,864.13~~ per Equivalent Connection. Commitment of service shall not exceed those total capacity limitations as authorized for commitment by the Governing Board. The full amount of the Subregional Line Charges shall be due and payable at the time commitment of service is made. Those buildings or structures having certificates of occupancy prior to January 20, 2012, the date this transmission system line was deemed Available, may finance this

Subregional Line Charge over twenty (20) years at a fixed interest rate equal to the current Wall Street Journal Prime Rate plus two (2.0%) percent, but not to exceed 8%, existing at the time commitment of service is made, with no prepayment penalty, to be collected by non-ad Valorem tax roll.

5(b) Inlet Village Subregional Line Charge for Inlet Village Subregional Collection Facilities. The rate of the Inlet Village Subregional Line Charge shall be $2,285.93~~2,210.98~~ per Equivalent Connection. Commitment of service shall not exceed those total capacity limitations as authorized for commitment by the Governing Board. The full amount of the Subregional Line Charges shall be due and payable at the time commitment of service is made, except those buildings or structures having certificates of occupancy prior to the date this transmission system line is deemed Available, may finance this Subregional Line Charge over twenty (20) years at a fixed interest rate equal to the current Wall Street Journal Prime Rate plus two (2.0%) percent, but not to exceed 8%, existing at the time commitment of service is made, with no prepayment penalty, to be collected by non-ad valorem tax roll.

5(c) Rocking Horse Lane Subregional Line Charge for Rocking Horse Lane Subregional Collection Facilities. The rate of the Rocking Horse Lane Subregional Line Charge shall be $637.34~~616.44~~ per Equivalent Connection. Commitment of service shall not exceed those total capacity limitations as authorized for commitment by the Governing Board. The full amount of the Subregional Line Charges shall be due and payable at the time commitment of service is made, except those buildings or structures having certificates of occupancy prior to the date this transmission system line is deemed Available, may finance this Subregional Line Charge over twenty (20) years at a fixed interest rate equal to the current Wall Street Journal Prime Rate plus two (2.0%) percent, but not to exceed 8%, existing at the time commitment of service is made, with no prepayment penalty, to be collected by non-ad valorem tax roll.

5(d) 66th Terrace Phase 1 Subregional Line Charge for 66th Terrace Phase 1 Subregional Collection Facilities. The rate of the 66th Terrace Phase 1 Subregional Line Charge shall be $643.11~~622.02~~ per Equivalent Connection. Commitment of service shall not exceed those total capacity limitations as authorized for commitment by the Governing Board of the District. The full amount of the Subregional Line Charges shall be due and payable at the time commitment of service is made, except those

buildings or structures having certificates of occupancy prior to the date this transmission system line is deemed available, may finance this Subregional Line Charge over twenty (20) years at a fixed interest rate equal to the current Wall Street Journal Prime Rate plus two (2.0%) percent, but not to exceed 8%, existing at the time commitment of service is made, with no prepayment penalty, to be collected by Non-Ad Valorem tax roll.

Specific Authority Chapter 2021-249, Laws of Florida, and Section 381.00655, Florida Statutes. Law Implemented Chapter 2021-249, Laws of Florida, Section 6(6), (9), (11), (12), and (19), and Section 8. History - New 12-9-76, Amended, 9-26-78, 12-12-78, 5-21-81, 5-24-82, 4-24-83, 4-25-84, 6-30-85, Formerly 31-10.05. Amended 6-30-86, 5-4-87, 4-17-88, 5-3-89, 5-13-90, 5-7-92, 5-9-93, 5-9-94, 5-19-96, 7-14-97, 11-1-98, 6-22-99, 3-23-00, 3-15-01, 3-21-02, 3-20-03, 3-18-04, 3-17-05, 3-16-06, 3-15-07, 3-20-08, 3-19-09, 3-18-10, 3-17-11, 3-15-2012, 6-21-2012, 3-21-2013, 3-20-2014, 3-19-2015, 3-17-2016, 3-16-2017, 3-21-2019, 10-15-2020, 3-17-22, 3-17-23.

31-10.006 Special Assessments.

Special Assessments are due and payable with interest at the time of transfer of the underlying real property for consideration as an at-arms-length transaction unless transferred to the real estate tax bill for the property as a continuing obligation of the property until paid in full.

Specific Authority Chapter 2021-249, Laws of Florida, Section 6(10), (12), (19) and (27). Law Implemented Chapter 2021-249, Laws of Florida, Section 6(10), (12), (19), and (27). History - New 12-9-76, Amended, 9-26-78, 12-12-78, 5-21-81, 5-24-82, 4-24-83, 4-25-84, 6-30-85, Formerly 31-10.05. Amended 6-30-86, 5-4-87, 4-17-88, 5-3-89, 5-13-90, 5-7-92, 5-9-93, 5-9-94, 5-19-96, 7-14-97, 11-1-98, 6-22-99, 3-23-00, 3-15-01, 3-21-02, 3-20-03, 3-18-04, 3-17-05, 3-16-06, 3-15-07, 3-20-08, 3-19-09,3-18-10, 3-17-11. 3-15-2012, 3-17-22.

31-10.007 Quarterly Service Charges for Sewer Service.

(1) Quarterly Service Charges shall be payable by the Owner commencing when the Equivalent Connection is connected to the Regional Wastewater System of the District, or within one (1) year of the time the connection is Available, whichever occurs first, and shall be billed in advance. Notwithstanding any other provision of this section, an Owner that has established a tenant as the bill recipient for the Quarterly Service Charge prior to April 1, 2015 may continue to have the established tenant listed as the bill recipient for the Quarterly Service Charge until such time as that tenant relationship changes (e.g., new Owner(s) or new tenant(s)). The Owner is required to notify the District within fifteen (15) days of the tenant relationship change.

(a) The Quarterly Service Charge for Residential Units shall be:

~~For the period of April 1, 2022 thru March 31, 2023 @ $56.25 per E.C.~~

For the period of April 1, 2023 thru March 31, 2024 @ $59.06~~57.38~~ per E.C.

For the period of April 1, 2024 thru March 31, 2025 @ $60.83~~59.10~~ per E.C.

For the period of April 1, 2025 thru March 31, 2026 @ $62.66~~60.87~~ per E.C.

For the period of April 1, 2026 thru March 31, 2027 @ $64.54~~62.70~~ per E.C.

For the period of April 1, 2027 thru March 31, 2028 @ $66.48 per E.C.

(b) The Quarterly Service Charge for Non-residential Units shall be as follows:

~~For the period of April 1, 2022 thru March 31, 2023 @ $6.42 per thousand gallons of metered potable water usage;~~

For the period of April 1, 2023 thru March 31, 2024 @ $6.74~~55~~ per thousand gallons of metered potable water usage;

For the period of April 1, 2024 thru March 31, 2025 @ $6.94~~75~~ per thousand gallons of metered potable water usage;

For the period of April 1, 2025 thru March 31, 2026 @ $7.15~~6.95~~ per thousand gallons of metered potable water usage;

For the period of April 1, 2026 thru March 31, 2027 @ $7.37~~16~~ per thousand gallons of metered potable water usage;

For the period of April 1, 2027 thru March 31, 2028 @ $7.59 per thousand gallons of metered potable water usage;

provided that the minimum Quarterly Service Charge for Non-residential Units shall be as follows:

~~For the period of April 1, 2022 thru March 31, 2023 @ $76.98~~

For the period of April 1, 2023 thru March 31, 2024 @ $80.83~~78.52~~

For the period of April 1, 2024 thru March 31, 2025 @ $83.25~~80.88~~

For the period of April 1, 2025 thru March 31, 2026 @ $85.75~~83.31~~

For the period of April 1, 2026 thru March 31, 2027 @ $88.32~~85.81~~

For the period of April 1, 2027 thru March 31, 2028 @ $90.97

For Non-residential Units that do not have a metered water supply or that have not established a minimum of one (1) month of water use history, and certain other uses (e.g., elevator sump; pool backwash; public toilets in parks; marina pump out station) the Quarterly Service Charge shall be a flat rate of:

~~For the period of April 1, 2022 thru March 31, 2023 @ $76.98 per E.C.~~

For the period of April 1, 2023 thru March 31, 2024 @ $80.83~~78.52~~ per E.C.

For the period of April 1, 2024 thru March 31, 2025 @ $83.25~~80.88~~ per E.C.

For the period of April 1, 2025 thru March 31, 2026 @ $85.75~~83.31~~ per E.C.

For the period of April 1, 2026 thru March 31, 2027 @ $88.32~~85.81~~ per E.C.

For the period of April 1, 2027 thru March 31, 2028 @ $90.97 per E.C.

(2) Temporary Disconnection of Sewer Service – The District may temporarily suspend Quarterly Service Charges when sewer service is disconnected as provided below. If temporarily suspended, quarterly sewer service charges will cease on the first day of the quarter following verification and approval by the District. Quarterly sewer service charges will resume on the first day of the quarter following reconnection to the sewer (e.g., upon receipt of a Certificate of Occupancy). Failure to notify the District of reconnection to the sewer system will result in the District back-billing quarterly sewer service charges to the date reconnection to the sewer was made. Circumstances warranting suspension of quarterly sewer service charges of an existing Residential Unit or Non-residential Unit connected to the District's sewer system include:

(a) sewer disconnection in coordination with the District's Engineering Department and according to District standards, or

(b) proof of designation as uninhabitable by a municipal authority (e.g., fire official, building official).

(3) The Quarterly Service Availability Standby Charge shall be due and payable for each Equivalent Connection reserving service availability, commencing upon the reserving of service availability and shall continue to be owing for each quarter and paid promptly upon billing in the manner as provided for the Quarterly Service Charge thereafter until payment of the Plant Connection Charge. The amount of the Quarterly Service Availability Standby Charge shall be sixty-eight percent (68%) of the Quarterly Service Charge which is set based upon the fixed expenses incurred by the District in operating the plant and the Regional Wastewater System excluding the variable costs related to the amount of sewerage processed.

(a) A prepayment of twelve (12) months Service Availability Standby Charges will be required commencing upon the reserving of service availability in addition to the Quarterly Service Availability Standby Charge which shall be prepaid quarterly.

(b) At the time Plant Connection Charges become due and payable ten and one half (10.5) months of the twelve (12) months of prepaid Service Availability Standby Charges shall be credited to the Plant Connection Charges.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Laws of Florida Section 6(6) (8), (9), (11), (19), and (27), and Section 8. History - New 12-9-76, Amended 6-25-78, 9-26-78, 12-12-78, 11-28-79, 5-21-81, 5-24-82, 10-12-82, 4-24-83, 5-24-84,6-30-85, Formerly 31-10.07. Amended, 6-30-86, 5-4-87, 4-17-88, 5-3-89, 5-13-90, 5-12-91, 5-7-92, 5-10-93, 5-7-94, 5-7-95, 5-19-96, 7-14-97, 11-1-98, 6-22-99, 3-23-00, 3-15-01, 3-21-02, 3-20-03, 3-18-04, 3-17-05, 3-16-06, 3-15-07, 3-20-08, 3-19-09, 3-18-10, 3-17-11, 3-15-2012, 3-21-2013, 3-20-2014, 3-19-2015, 6-18-2015, 3-17-2016, 3-16-2017, 3-21-2019, 3-17-22, 3-17-23.

31-10.008 Determination of Equivalent Connections.

Each Owner of each lot or parcel of land which may be connected to the Regional Wastewater System shall provide proof of the number of Equivalent Connections for each lot or parcel owned. If the Owner does not produce proof of the number of Equivalent Connections, the District will charge the Owner up to the maximum rates, fees and charges of the District based upon 1.75 E.C. per lot or parcel based upon the best information practically Available to the District.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Laws of Florida, Section 6(6) and (9), and Section 8. History - New 12-9-76. Amended 9-26-78, Formerly 31-10.08, Amended 3-15-2012, 3-19-2015, 3-17-22.

31-10.009 Responsibility for Payment and Enforcement of Collections and Foreclosure of Liens.

(1) Responsibility. The District shall hold the Owner of the property being served with sewage service primarily responsible for all charges for sewage service to the property, without regard to the fact that a tenant, licensee, customer or other party was actually utilizing the sewage service and may be paying for same directly to the District.

(2) Payment. All payments to the District shall be made using U.S. funds (dollars). Payment may be made in cash, check, electronic check, money order, electronic bill pay, direct debit, a Master Card or Visa debit card, or credit card or a Discover credit card. All checks shall be in a form that complies with the standards for cash items adopted by the Federal Reserve System to facilitate the sorting, routing, and mechanized processing of such items. Payment made using debit card or credit card is limited to a maximum of $5,000.00 per account per month.

(3) Delinquent Quarterly Service Charge for Sewer Service. Quarterly Service Charge for Sewer Service shall be delinquent if not paid during the service period. The District will apply a delinquent fee equal to ten percent (10%) of the delinquent Quarterly Service Charge for Sewer Service to accounts with a delinquent balance of $20.00 or more.

(4) Default. If any fees, rates, or charges for sewage service are not paid when due and are unpaid for thirty (30) days or more, the Owner shall be in default, and the District may seek recovery of the amounts due from the Owner through any or all available legal remedies.

(5) Enforcement. When the fees, rates, or charges for the services and facilities of any system are not paid when due and are in default as set forth above, the District shall provide written notice to the Owner that the District may discontinue and shut-off the supply of services and facilities to the property until all fees, rates, or charges, including interest at twelve percent (12%) per annum, plus all penalties and charges for the shutting off and discontinuance and the restoration of such services or facilities are fully paid. If the fees or charges remain unpaid for thirty (30) days after being due, such delinquent fees, rates, or charges shall bear interest at the rate of twelve percent (12%) per annum computed from the date when originally due, until paid and the District may discontinue the supply of service and facilities to the property. The District may file suit in a court of competent jurisdiction to recover any delinquent fees or charges, together with legal interest, penalties, and charges for the shutting off and discontinuance and the restoration of such services or facilities and all other costs and other expenses, including court costs and reasonable attorney's fees.

(6) Foreclosure of Liens. The District shall have a lien on all lands and premises served by it for all charges and fees, until paid, for services provided to such lands or premises by the District, or connection fees associated therewith, which lien shall be prior to all other liens, except that such lien shall be on parity with the lien of state, county, and municipal taxes, and any lien for charges for services created pursuant to Section 159.17, Florida Statutes. Such lien shall be perfected by the District by recording in the official records of the county in which the lands or premises are located a claim of lien in form substantially as provided in Section 713.08, Florida Statutes. A copy of the claim of lien shall be served as provided in Section 713.18, Florida Statutes, within ten (10) days after the claim of lien is recorded. If thirty (30) days after service has been made, liens created under this Rule remain delinquent, such liens may be foreclosed by the District in the manner provided by the laws of Florida for the foreclosure of mortgages on real property, and the District shall be entitled to 12% interest per annum, attorney's fees, and other court costs.

(7) No Service Free. No sewage disposal service shall be furnished or rendered free of charge to any Owner, person, firm, corporation, agency or organization whatsoever, and the District and each and every Owner, person, firm, corporation, agency or organization that uses or is required to use such service shall pay the rates, fees, and charges established by the Governing Board.

(8) Administrative Credits. The Executive Director, or his or her designee, may authorize a credit or refund to an account in certain situations, including billing errors, clerical errors, excessive payments by the customer, meter adjustments, and application of grant funds. In each case, the affected customer must provide a signed written request for refund that quantifies the requested refund, documents the justification for the refund, and states whether the refund should be provided as a credit to the customer's account unless the customer specifically requests a refund check at the same time the customer requests the refund. In no circumstance shall such credit or refund exceed $10,000 without prior authorization of the Governing Board.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Laws of Florida, Section 6(6),(8), (9), (11), and (19), and Section 8. History - New 12-9-76. Formerly 31-3.16, 31-3.18 and 31-10.09. Rules 31-3.016 & 31-3.018 moved, consolidated and renumbered 31-10.009(4), (5) and (6) by amendment on 6-15-2000. Amended 9-26-78, 10-11-80, 3-23-00, 6-15-00, 3-15-2012, 3-19-2015, 3-17-2016, 3-17-22.

31-10.010 Payment of Certain Rates, Fees and Charges; Developer Agreement.

(1) Applicants for service requiring less than ten (10) E.C.s must execute an Application for Sewer Service appropriate for the use and shall pay all Connection Charges at the time of application. Applications for Sewer Service forms are provided on the District's website at https://loxahatcheeriver.org and may be obtained from the District office.

(2) Applicants desiring to reserve service availability for 10 Equivalent Connections or more must execute a standard developer agreement, as developed and provided by the District ("Standard Developer Agreement"), which is provided on the District's website at https://loxahatcheeriver.org and also may be obtained from the District office, and pay all charges and fees required by the agreement. Applicants must also provide plans and specifications with sufficient detail to calculate the number of Equivalent Connections contemplated on the lot or parcel of land.

The following matters are addressed in the Standard Developer Agreement:

(a) The reservation of the agreed service availability in the Regional Wastewater System on the subject property in terms of Equivalent Connections.

(b) Payment required to reserve sewer service availability.

(c) Construction of off-site facilities under certain conditions.

(d) Dedication of facilities and land to the District.

(e) Describing the reservation of service availability in terms of the equivalent connections as non-assignable, non-transferable, and running with the land, and describing exceptions.

(f) Requiring payment of a Quarterly Service Availability Standby Charge and prepayment of twelve (12) months thereof.

(g) Describing payment and obligations and providing for recovery of costs and attorney's fees.

(h) Subject the Owner to the rates, fees and charges of the District as established from time to time but fixing the rate for the Regional Transmission System Line Charge, Administrative Charge, and Plant Connection Charge.

(2) Applicants desiring to reserve service availability for concurrency in the Regional Wastewater System must sign a "Concurrency Reservation Agreement," which is provided on the District's website at https://loxahatcheeriver.org ("Concurrency Reservation Agreement") and also may be obtained from the District office, and make all payments required by the agreement. Applicants must also provide plans and specifications with sufficient detail to calculate the number of Equivalent Connections contemplated on the lot or parcel of land. The following matters are addressed in the Concurrency Reservation Agreement:

(a) The reservation of the agreed service availability in the regional wastewater system on the subject property in terms of equivalent connections.

(b) Requiring payment of a Quarterly Service Availability Standby Charge and prepayment of twelve (12) months thereof.

(c) Providing a duration of the shorter of twelve (12) months or thirty (30) days after applicant obtains a development order.

(d) Providing for the unexpired portion of the prepaid Quarterly Service Availability Standby Charge to be refunded to the applicant if the development order is denied, or credited to the Service Availability Standby Charge if a Standard Developer's Agreement is entered into by the applicant within thirty (30) days of the development order.

(e) Describing the reservation of service availability in terms of the equivalent connections as non-assignable, non-transferable, and running with the land, and describing exceptions.

(f) Describing payment, including rates, fees, and charges of the District, and obligations and providing for recovery of costs and attorney's fees.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Laws of Florida, Section 6(6),(8), (9), (11), and (19), and Section 8. History-New 12-9-76. Amended, 9-26-78, 5-21-81, 5-24-84. Formerly 31-10.10. Amended 5-10-93, 3-20-08, 3-19-09, 3-18-10, 3-15-2012, 3-17-22.

31-10.012 Exceptions to the Payment of Connection Charges.

(1) Connection Charges shall not apply to those residential and non-residential buildings and structures referred to in the Agreement for Sale between the Village of Tequesta and the District, dated May 23, 1973.

(2) Those residential and non-residential buildings and structures which have escrowed, paid or committed capital improvement charges and have executed legally binding agreements where capital improvement charges are referred to in such agreements, said agreements shall be enforced according to their tenor, except that the capital improvement charges shall be treated as Plant Connection Charges, and except that where capital improvement charges may be increased or subjected to assessment and reassessment from time to time, there shall be no increase over the amount of capital improvement charges as stated in said agreements, and said provision providing for assessment and reassessment of capital improvement charges shall not be enforced.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Laws of Florida, Section 6(6), (8), (9) (11), (12), and (27), and Section 8. History - New 12-12-79. Formerly 31-10.12, Amended 3-15-2012.

31-10.013 Irrigation Quality Water User; Rates, Fees and Charges for Irrigation Quality Water Service; Irrigation Quality Water Agreements.

(1) "I.Q. Water" is defined as Irrigation Quality Water provided by the District, regardless of the original source of the I.Q. Water. I.Q. Water also may be referred to as "reuse water" or "reclaimed water", which is further defined in Chapter 62-610, Florida Administrative Code.

(2) "Wholesale I.Q. User" is defined as user of I.Q. Water, for which the I.Q. Water is pumped by the District to a storage facility, such as ponds, lakes, or tanks, at an off-site location. The I.Q. Water is then pumped by a party other than the District, into the lines that irrigate the User's property.

(3) "Retail I.Q. User" is defined as a user of I.Q. Water, for which the I.Q. Water is pumped by the District, to a storage facility, such as ponds, lakes or tanks, at an off-site location.

The I.Q. Water is then pumped by the District from the storage facility, into the lines that deliver I.Q. Water to the User's property for further distribution and irrigation by the User.

(4) "Nano I.Q. User" is defined as a user of I.Q. Water, where the I.Q. Water was originally made available by blending the Town of Jupiter's nanofiltration concentrate and for which the I.Q. Water is pumped by the District, to a storage facility, such as ponds, lakes, or tanks, at an off-site location. The I.Q. Water is then pumped by a party other than the District, into the lines that irrigate the User's property.

(5) Rates, Fees and Charges for Wholesale, Retail, and Nano I.Q. Water Rates are those rates, fees and charges approved, set, and levied by the Governing Board based on the total cost to the District of construction, reconstruction, labor, materials, equipment, acquisition, property rights, surveys, design, engineering, legal, administration, operation, maintenance, and all other expenses necessary or incidental to construction, operation, and improvement of the I.Q. Water system and provision of I.Q. Water.

(6) The District's rate for I.Q. Water are:

(a) Wholesale I.Q. Users shall pay the following rates for their requested G.P.D.

~~For the period of April 1, 2022 thru March 31, 2023 $0.4578 per 1,000 gallons.~~

For the period of April 1, 2023 thru March 31, 2024 $0.4715 per 1,000 gallons.

For the period of April 1, 2024 thru March 31, 2025 $0.4856 per 1,000 gallons.

For the period of April 1, 2025 thru March 31, 2026 $0.5002 per 1,000 gallons.

For the period of April 1, 2026 thru March 31, 2027 $0.5152 per 1,000 gallons.

For the period of April 1, 2027 thru March 31, 2028 $0.5307 per 1,000 gallons.

(b) Retail I.Q. Users shall pay the following rates for their requested G.P.D.

~~For the period of April 1, 2022 thru March 31, 2023 $0.6192 per 1,000 gallons.~~

For the period of April 1, 2023 thru March 31, 2024 $0.6378 per 1,000 gallons.

For the period of April 1, 2024 thru March 31, 2025 $0.6569 per 1,000 gallons.

For the period of April 1, 2025 thru March 31, 2026 $0.6766 per 1,000 gallons.

For the period of April 1, 2026 thru March 31, 2027 $0.6969 per 1,000 gallons.

For the period of April 1, 2027 thru March 31, 2028 $0.7178 per 1,000 gallons.

(c) Nano I.Q. Users shall pay the following rates for their requested G.P.D.

~~For the period of April 1, 2022 thru March 31, 2023 $0.7951 per 1,000 gallons.~~

For the period of April 1, 2023 thru March 31, 2024 $0.8349 per 1,000 gallons.

For the period of April 1, 2024 thru March 31, 2025 $0.8766 per 1,000 gallons.

For the period of April 1, 2025 thru March 31, 2026 $0.9204 per 1,000 gallons.

For the period of April 1, 2026 thru March 31, 2027 $0.9480~~8~~ per 1,000 gallons.

For the period of April 1, 2027 thru March 31, 2028 $0.9765 per 1,000 gallons.

The District may revise its schedule of rates, fees, and charges in accordance with the Loxahatchee River Environmental Control District Act codified in Chapter 2021-249, Laws of Florida, all applicable District rules, and all relevant laws. It is the District's intention to evaluate the sufficiency of I.Q. Water rates during the annual Rate Study, which typically occurs in February and March with potential rate adjustments implemented April 1st. The I.Q. Rate shall be billed monthly or such other billing cycle period as the District may determine.

(7) The Start Up Fee of the District for Retail I.Q. Users shall be the greater of (a) six (6) months of charges at the Retail I.Q. Rate for the requested gallons per day, or (b) $3,500.00. The Application Fee of the District for Wholesale I.Q. Users shall be the greater of (a) six (6) months of charges at the I.Q. Rate for the requested gallons per day, or (b) $18,000.00.

(8) All persons, firms and corporations (hereinafter called "Applicant") desiring to reserve service availability in the regional I.Q. Water system of the District where said I.Q. Water is Available or is proposed to be Available, as determined by the District, prior to receiving District approval, shall sign a Standard Irrigation Quality Water Agreement and pay the charges and fees specified therein.

Specific Authority Chapter 2101-249, Laws of Florida. Law Implemented Chapter 2021-249, Laws of Florida, Sections 6(6), (8), (9), (11), (12), and (27), and Section 8; History-New 7-23-97, Amended 11-1-98, 3-16-06, 3-18-10, 3-21-2013, 3-19-2015, 3-21-2019, 2-20-2020, 3-17-22, 3-17-23.

31-10.014 Low Pressure Pump Unit Delivery Procedures & Delivery Charge.

(1) All Owners in an area serviced by a low pressure sanitary sewer system, shall be responsible for taking possession of the Low Pressure Pump Unit ("**Pump Unit**") upon notification the Pump Unit is available for pick up at the District. A Property Owner that does not pick up the Pump Unit shall be subject to the following delivery procedures and delivery charge. The First Delivery Notice to the Owner shall provide:

(a) Owner is delinquent with installation of the low pressure pumping system for their wastewater service.

(b) The District has been holding their Pump Unit since the completion of the sewer project.

(c) The Pump Unit was included in their assessment and is their responsibility to install.

(d) The District will no longer hold the Pump Unit for their pick up and installation.

(e) If not picked up within thirty (30) days, the Pump Unit will be delivered at an additional Delivery Charge of $300.00 to the Owner (the "Delivery Charge").

(f) The Pumping Unit will be delivered in good working order, suitable for District's future maintenance.

(g) If the Owner fails to have the Pump Unit installed within forty five (45) days and there is damage to the Pump Unit components, the Owner will be responsible for the cost to provide a Pump Unit in good working order for District maintenance in the future.

2. If the Pump Unit is not picked up within thirty (30) days after the First Delivery Notice, the Second Delivery Notice shall be sent to the Owner which shall provide:

(a) Pump Delivery will be made on a date and time certain.

(b) The Pump Unit and appurtenances will be delivered to the most accessible location on the Property or a mutually convenient location as discussed with Owner.

(c) A written report will be made of each delivery with photographs of the Pump Unit placement at time of delivery and condition of surrounding area. The District will request written receipt from the Owner for the Pump Unit, however it is not mandatory for the Property Owner to provide or for the District to obtain.

(d) The written report shall be signed by two District personnel, witnessed and notarized, and made part of the District's records.

3. After delivery, the Owner will be provided written notification that their Pump Unit has been delivered and an Invoice will be provided for the Delivery Charge.

4. All correspondence to be provided by certified mail with return receipt and regular mail.

Specific Authority Chapter 2021-249, Laws of Florida. Law Implemented Chapter 2021-249, Laws of Florida, Sections 6(6), (8), (9), (10), and (19), and Section 8. History-New 3-15-2012. Amended 3-17-22.

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929

D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: D. Albrey Arrington, Ph.D., Executive Director
FROM: Jason A. Pugsley, P.E., Operations – Plant Manager
DATE: March 10, 2023
SUBJECT: Proposed Revisions to Chapter 31-13 "Regulation of Sewer Use"

The District's Chapter 31-13 "Regulation of Sewer Use" Rule is commonly referred to as our "Sewer Use Ordinance" and/or our "Industrial Pretreatment Ordinance" by regulatory agencies such as EPA and FDEP. We last revised Chapter 31-13 in January 2020. This month we are bringing proposed revisions to the Board for approval.

The three (3) most substantive proposed revisions to Chapter 13-13 are the incorporation of:

1. Rules and requirements related to the District's existing Fats, Oils and Grease (FOG) Compliance Monitoring Program including specific guidelines for the use and maintenance of grease, oil/sand and lint interceptor units; and

2. Rules and requirements related to Per- and Polyfluoroalkyl (PFAS) substances. PFAS is a large group of highly fluorinated synthetic chemicals used in a wide range of industries. PFAS have been classified by EPA as emerging contaminants of concern. While EPA and FDEP have not established regulatory limits for PFAS they have issued health advisory (HA) levels for drinking water. While PFAS limits have not been formally issued by EPA and FDEP, given the importance of these emerging contaminants we have revised Chapter 31-13 to address the potential discharge of these contaminants to the POTW; and

3. Numerical concentration limits for specific constituents of concern within byproduct waste streams received from publicly owned water and/or wastewater treatment systems. The numerical limits are specific to any waste byproduct stream received by the District as part of any Interlocal Agreement executed between the District and another utility.

Additional sections were also revised to improve overall clarity, to provide reference to the District's recently revised enabling legislation Chapter 2021-249, Laws of Florida, and to improve conformity with the State of Florida Model Pretreatment Ordinance.

This month we are seeking Board approval of the revised version of Chapter 31-13 "Regulation of Sewer Use"; therefore, Staff request your consideration of the following motion:

> "THAT THE DISTRICT GOVERNING BOARD approve the revisions to Rule Chapter 31-13, as presented, with an effective date of April 1, 2023."

Dr. Matt H. Rostock CHAIRMAN | **Kevin L. Baker** BOARD MEMBER | **Gordon M. Boggie** BOARD MEMBER | **Stephen B. Rockoff** BOARD MEMBER | **Clinton R. Yerkes** BOARD MEMBER

Water Reclamation – Environmental Education – River Restoration

LOXAHATCHEE RIVER ENVIRONMENTAL CONTROL DISTRICT

CHAPTER 31-13 REGULATION OF SEWER USE

2500 Jupiter Park Drive
Jupiter, Florida 33458
Palm Beach County
Latitude: 26° 55’ 27.32” N Longitude: 80° 08’ 22.91” W

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SECTION 1 - GENERAL PROVISIONS

1.1. Purpose and Policy

This Rule sets forth uniform requirements for Users of the Publicly Owned Treatment Works (POTW) for the area serviced by the Loxahatchee River Environmental Control District (DISTRICT, the District) and enables the District to comply with all applicable State and Federal laws, including (33 United States Code [U.S.C.] section 1251 et seq.), the General Pretreatment Regulations (Title 40 of the *Code of Federal Regulations* [CFR] Part 403 and Chapter 62-625 Florida Administrative Code [F.A.C.]). The objectives of this Rule are:

A. To prevent the introduction of pollutants into the POTW that will interfere with the operation of the POTW, including interference with its use or disposal of municipal biosolids [40 CFR 403.2(a)];
B. To prevent the introduction of pollutants into the POTW which will Pass Through the POTW, inadequately treated, into receiving waters or otherwise be incompatible with the POTW;
C. To ensure that the quality of the wastewater treatment plant biosolids is maintained at a level that allows its use and disposal in compliance with applicable statutes and regulations;
D. To protect POTW personnel who may be affected by wastewater and biosolids in the course of their employment and to protect the general public; and
E. To improve the opportunity to recycle and reclaim wastewater and biosolids from the POTW.
F. To provide for fees for the equitable distribution of the cost of operation, maintenance, and improvement of the POTW~~ublicly Owned Treatment Works~~; and
G. To enable the District to comply with its National Pollutant Discharge Elimination System (NPDES) permit conditions, biosolids use, and disposal requirements, and any other Federal or State laws to which the (WWTF) ~~wastewater treatment plant~~ is subject.

This Rule shall apply to all Users of the POTW, and requires compliance with Chapter 62-625, F.A.C. of all such Users. The Rule authorizes the issuance of wastewater discharge permits; authorizes monitoring, compliance, and enforcement activities; establishes administrative review procedures; requires User reporting; and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

1.2 Administration

Except as otherwise provided herein, the District's Executive Director shall administer, implement, and enforce the provisions of this Rule. Any powers granted to, or duties imposed upon, the Executive Director may be delegated to other duly authorized District personnel. Whenever the Executive Director is authorized to take any action or make any decisions pursuant to the District's Rules, the District's duly authorized representatives, agents and employees shall have similar authority in the Executive Director's stead.

It is anticipated this document will need periodic review and updating to keep current with changing regulations. However, the basic procedural information and methods of implementation should remain valid.

1.3 Abbreviations

The following abbreviations shall have the designated meanings:

- ASPP - Accidental Spill Prevention Plan
- BOD - Biochemical Oxygen Demand
- BMP – Baseline Monitoring Practice
- BMR – Baseline Monitoring Report
- CFR - Code of Federal Regulations
- CIU – Categorical Industrial User
- COD - Chemical Oxygen Demand
- DISTRICT - Loxahatchee River Environmental Control District
- EPA - U.S. Environmental Protection Agency
- F.A.C. – Florida Administrative Code
- FDEP – Florida Department of Environmental Protection
- FSE – Food Service Establishment
- F.S. – Florida Statutes
- GPD - gallons per day
- IU – Industrial User
- MDL – Method Detection Limit
- mg/l - milligrams per liter
- NPDES - National Pollutant Discharge Elimination System
- NSCIU – Non-Significant Categorical Industrial User
- O&M - Operation and Maintenance
- PFAS – Per-and Polyfluoroalkyl
- PFOA – Perfluorooctanoic Acid
- PFOS – Perfluorooctane Sulfonic Acid
- POTW - Publicly Owned Treatment Works
- RCRA - Resource Conservation and Recovery Act
- SIC - Standard Industrial Classifications
- SIU – Significant Industrial User
- SWDA - Solid Waste Disposal Act (42 U.S.C. 6901, et seq.)
- TRC – Technical Review Criteria
- TSS - Total Suspended Solids
- USC or U.S.C. - United States Code
- WWF – Wastewater Facility

1.4 Definitions

Except as discussed below, the general definitions set forth in the enabling legislation of the District, Chapter 2021-249~~71-822~~, Laws of Florida, ~~as amended~~, and as set forth in Chapter 31, Florida Administrative Code shall apply to this Rule. Unless a provision explicitly states otherwise, the following terms and phrases, as used in this Rule, shall have the meanings hereinafter designated.

1. Act or "the Act". The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251 et seq.

2. Amalgam separator. A device that employs filtration, settlement, centrifugation, or ion exchange to remove amalgam and its metal constituents from a dental office vacuum system before it discharges to the POTW.

3. Amalgam waste. Non-contact amalgam (amalgam scrap that has not been in contact with the patient); contact amalgam (including, but not limited to, extracted teeth containing amalgam); amalgam sludge captured by chairside traps, vacuum pump filters, screens, and other amalgam trapping devices; used amalgam capsules; and leaking or unusable amalgam capsules.

4. ANSI/ADA Standard No. 108. The American National Standards Institute and American Dentistry association standard for amalgam separators.

5. Applicable Pretreatment Standards. For any specified pollutant, District prohibitive standards, District specific pretreatment standards (local limits), State of Florida pretreatment standards, or EPA's Categorical Pretreatment Standards (when effective), whichever standard is appropriate or most stringent.

6. Approval Authority. Designated as the State of Florida (due to Florida having an EPA approved pretreatment program)

7. Authorized Representative of the User.
    a. If the User is a corporation:
        i. A president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
        ii. The manager of one or more manufacturing, production, or operation facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
    b. If the User is a partnership or sole proprietorship: a general partner or proprietor, respectively;
    c. If the User is a Federal, State, or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or his/her designee.
    d. The individuals described in paragraphs 1 through 3 above may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the

discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the District.

8. Baseline Monitoring Report (BMR). Required from all industrial users of the POTW, 180 days after the effective date of an applicable categorical pretreatment standard. These reports, which are analogous to NPDES permit applications and are required by 40 CFR 403,12(b) of the General Pretreatment Regulations. All industrial users must provide information on their production processes, water usage, discharge, and compliance status.

9. Best Management Practices (BMPs). Means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in Rules 62-625.400(1)(a) and (2), F.A.C. BMP's include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

10. Biochemical Oxygen Demand (BOD). The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20° degrees Celsius, usually expressed as a concentration [milligrams per liter (mg/l)].

11. Bypass. The intentional diversion of wastewater streams from any portion of a User's treatment facility.

12. Categorical Pretreatment Standard or Categorical Standard. Any regulation containing pollutant discharge limits promulgated by the U.S. EPA in accordance with Sections 307(b) and (c) of the Act (33 U.S.C. 1317) that apply to a specific category of Users and that appear in 40 CFR Chapter I, Subchapter N, Parts 405-471.

13. Chemical Oxygen Demand (COD). A measure of the oxygen required to oxidize all compounds, both organic and inorganic, in water.

14. Categorical User (CU) or Categorical Industrial User (CIU). A User regulated by one of EPA's Categorical Pretreatment Standards

15. Color. The optical density at the visual wave length of maximum absorption, relative to distilled water. One hundred percent (100%) transmittance is equivalent to zero (0.0) optical density.

16. Composite Sample. The sample resulting from the combination of individual wastewater samples taken at selected intervals based on an increment of either flow or time.

17. Control Authority. The Loxahatchee River Environmental Control District (District).

18. Cooling Water/Non-Contact Cooling Water. Water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product, or finished product. Cooling water may be generated from any use, such as air conditioning, heat exchangers, cooling or refrigeration to which the only pollutant added is heat.

19. Daily Maximum. The arithmetic average of all effluent samples for a pollutant collected during a calendar day.

20. Daily Maximum Limit. The maximum allowable discharge limit of a pollutant during a calendar day. Where Daily Maximum Limits are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where Daily Maximum Limits are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

21. Disposal Facility. A permitted or certified waste management facility that is authorized to receive interceptor waste.

~~21.~~22. Discharge. The introduction of pollutants or other material or substance into the POTW from any from any nondomestic source regulated under Chapter 403, F.S.

~~22.~~23. Domestic User (Residential User). Any person who contributes, causes, or allows the contribution of wastewater into the District POTW that is of a similar volume and/or chemical make-up to that of a residential dwelling unit. Discharges from a residential dwelling unit typically include up to 100 gallons per capita per day, 0.17 pounds of BOD per capita per day, and 0.2 pounds of TSS per capita per day.

~~23.~~24. Environmental Protection Agency (EPA). The U.S. Environmental Protection Agency.

~~24.~~ Exemption. Exemptions to specific District requirements may be granted when specific criteria are met. Exemptions will be issued on a case-by-case basis by the District's Director of Engineering.

25.

~~25.~~26. Existing Source. Any source of discharge that is not a "New Source."

27. Existing User. Any non-categorical User which was discharging wastewater prior to the effective date of this Rule.

28. Food Service Establishment. A restaurant, cafeteria, lunchroom, food stand, saloon, tavern, bar, lounge, or other similar facility operated as an enterprise engaged in the business of selling food to the public.

~~26.~~29. Grab Sample. A sample that is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen (15) minutes.

30. Grease Interceptor. A control devevice that is designed to intercept fats, oil, and grease from wastewater discharged from specific establishments, until they can be removed and disposed of by a waste hauler. It is typically a large liquid retention box with a minimum of two compartment which are separated by baffles and which are installed underground.

~~27.~~31. Hauler. A company that removes and properly disposes of waste collected by any type of interceptor unit.

~~28.~~32. Hazardous Waste Pharmaceutical. A pharmaceutical that is a solid waste, as defined in Title 40 of the Code of Federal Regulations (40 CFR) section 261.2, and exhibits one or more characteristics identified in 40 CFR part 261 subpart C or is listed in 40 CFR part 261 subpart D.

~~29.~~33. Healthcare Facility. Any organization or person that is lawfully authorized to:

a. Provide preventative, diagnostic, therapeutic, rehabilitative, maintenance or palliative care, and counseling, service, assessment or procedure with respect to the physical or mental condition, or functional status, of a human or animal or that affects the structure or function of the human or animal body; or

~~(2)~~ Distribute, sell, or dispense pharmaceuticals. This definition includes, but is not limited to, wholesale distributors, third-party logistics providers that serve as forward distributors, military medical logistics facilities, hospitals, psychiatric hospitals, ambulatory surgical centers, health clinics, physicians' offices, optical and dental providers, chiropractors, long-term care facilities, ambulance services, pharmacies, long-term care pharmacies, mail-order pharmacies, retailers of pharmaceuticals, veterinary clinics, and veterinary hospitals.

b. Healthcare facility does not include pharmaceutical manufacturers.

~~30.~~34. Indirect Discharge or Discharge. The introduction of pollutants into the POTW from any non-domestic source.

~~31.~~35. Instantaneous Limit. The maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.

~~32.~~36. Interference. A discharge which alone or in conjunction with a discharge or discharges from other sources, either:

a. Inhibits or disrupts the POTW, its treatment processes or operations;
b. Inhibits or disrupts its biosolids processes, use or disposal; or
c. Is a cause of a violation of the District's NPDES permit or of the prevention of sewage biosolids use or disposal in compliance with any of the following statutory/ regulatory provisions or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act; the Solid Waste Disposal Act (SWDA), including Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State biosolids management plan prepared pursuant to Subtitle D of the SWDA; the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research, and Sanctuaries Act.

~~33.~~37. ISO 11143. The International Organization for Standardization's standard for amalgam separators.

38. Lint Interceptor. A device designed and intended to capture and prevent lint and other debris from being discharged into the POTW.

39. Local Limit(s). Specific discharge limit(s) developed and enforced by the District upon industrial or commercial facilities to implement the general and specific discharge prohibitions listed in Rule 62-625.400(1)(a) and (2), F.A.C. Refer to Sections 2.1 A and B for a list of prohibitions.

~~34.~~40. Long Term Average. An average based on production over an extended period of time which captures a normal range of flow variation and constituent concentrations.

~~35.~~41. Medical Wastes. Isolation wastes, infectious agents, human blood and blood products, pathological wastes, sharps, body parts, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes, and dialysis wastes.

~~36.~~42. Method Detection Limit. An estimate of the minimum amount of a substance that an analyte process can reliably detect. An MDL is analyte-specific and matrix-specific and is laboratory dependent.

~~37.~~43. Monthly Average. The sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

~~38.~~44. Monthly Average Limit. The highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

~~39.~~45. Narrative Standard. A standard or criterion expressed in words rather than numerically.

~~40.~~46. New Source.

a. Any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced after the publication of proposed categorical pretreatment standards under Section 307 of the Clean Water Act which will be applicable to such source if such standards are thereafter promulgated in accordance with that section, provided that:
    i. The building, structure, facility, or installation is constructed at a site at which no other source is located; or
    ii. The building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or
    iii. The production or wastewater generating processes of the building, structure, facility, or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source, should be considered.
b. Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility, or installation meeting the criteria of Section (1) (b) or (c) above but otherwise alters, replaces, or adds to existing process or production equipment.

c. Construction of a new source as defined under this paragraph has commenced if the Owner or operator has:

i. Begun, or caused to begin as part of a continuous on-site construction program

1. Any placement, assembly, or installation of facilities or equipment; or
2. Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

ii. Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

~~41.~~47. New User. A "New User" is a User that is not regulated under federal categorical pretreatment standards but that applies to the District for a new building permit or occupies an existing building and plans to commence discharge of wastewater to the District's collection system after the effective date of this Rule. Any person that buys an existing facility that is discharging non-domestic wastewater will be considered an "existing User" if no significant changes are made in the manufacturing operation.

~~42.~~48. Non-contact Cooling Water. Water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

~~43.~~49. Non-significant categorical industrial User (NSCIU). Means an industrial User that discharges 100 gallons per day (gpd) or less of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the pretreatment standard) and:

a. Has consistently complied with all applicable categorical pretreatment standards and requirements;
b. Annually submits the certification statement required in Rule 62-625.600(17), F.A.C., together with any additional information necessary to support the certification statement; and
c. Never discharges any untreated categorical process wastewater.

~~44.~~50. North American Industry Classification System (NAICS). Groups together and identifies establishments that use the same or similar processes to produce goods or services. Developed jointly by the U.S., Canada, and Mexico to provide comparable statistics about business activity across North America. NAICS has replaced and supersedes the U.S. Standard Industrial Classification (SIC) system.

NAICS		**SIC**	
2-digit	Sector	Division	Letter
3-digit	Subsector	Major Group	2-digit
4-digit	Industry Group	Industry Group	3-digit
5-digit	NAICS Industry	Industry	4-digit

6-digit	National	N/A	N/A

NAICS vs. SIC: Structure and Nomenclature

51. Oil/Sand Interceptors. A device designed and intended to separate and captureoil, sand, dirt and other debris from being discharged into the POTW

52. Originator. A facility that produces any type of products, byproducts, or pollutants other than domestic waste which are discharged into the POTW.

53. PFAS. Also known as "per-and polyfluoroalkyl" substances are made up of PFOS (perfluorooctane sulfonic acid) and PFOA (perfluorooctanoic acid). It is a group of chemicals used to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water.

54. PFOS. Also known as Perfluorooctane sulfonic acid make up perfluorinated alkylated substances (PFAS). This group of chemicals is commonly used in a wide range of industrial processes and is found in many consumer products. PFOS has been used in stain-resistant fabrics, fire-fighting foams, food packaging, and as a surfactant in industrial processes.

55. PFOA. Also known as perfluorooctanoic acid, is a man-made chemical usually found in products that resist sticking, heat, water, stains, and grease.

~~45.~~56. Pass Through. A discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the District's NPDES permit (including an increase in the magnitude or duration of a violation).

~~46.~~57. Permittee. A person or User issued a wastewater discharge permit.

~~47.~~58. Person. Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns. This definition includes all Federal, State, or local governmental entities.

~~48.~~59. pH. A measure of the acidity or alkalinity of a substance, expressed in standard units.

~~49.~~60. Pharmaceutical. Any drug or dietary supplement for use by humans or other animals; any electronic nicotine delivery system (e.g., electronic cigarette or vaping pen); or any liquid nicotine (e-liquid) packaged for retail sale for use in electronic nicotine delivery systems (e.g., pre-filled cartridges or vials). This definition includes, but is not limited to, dietary supplements, as defined by the Federal Food, Drug and Cosmetic Act; prescription drugs, as defined by Title 21 of the Code of Federal Regulations part 203.3(y); over-the-counter drugs; homeopathic drugs; compounded drugs; investigational new drugs; pharmaceuticals remaining in non-empty containers; personal protective equipment contaminated with pharmaceuticals; and clean-up material from spills of pharmaceuticals. Pharmaceutical does not include dental amalgam or sharps.

~~50.~~61. Plant Manager. The person designated by the District to supervise the operation of the POTW, and who is charged with certain duties and responsibilities by this Rule**.** The term also means a Duly Authorized Representative of the District.

~~51.~~62. Pollutant. Any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage biosolids, munitions, medical wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt, agricultural and industrial wastes, and the characteristics of the wastewater [i.e., pH, temperature, TSS, turbidity, color, BOD, Chemical Oxygen Demand (COD), toxicity, or odor].

~~52.~~63. Pretreatment. The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to (or in lieu of) introducing such pollutants into the POTW. This reduction or alteration can be obtained by physical, chemical, or biological processes; by process changes; or by other means (except by diluting the concentration of the pollutants unless allowed by an applicable pretreatment standard).

~~53.~~64. Pretreatment Requirement. Any substantive or procedural requirement related to pretreatment imposed on a User, other than a pretreatment standard.

~~54.~~65. Pretreatment Standards or Standards. Prohibited discharge standards, categorical pretreatment standards, and local limits and/or BMPs established by the District~~/POTW~~.

~~55.~~66. Prohibited Discharge Standards or Prohibited Discharges. Absolute prohibitions against the discharge of certain substances, which appear in Sections 2.1 (A) and (B) of this Rule.

67. Publicly Owned Treatment Works (POTW). A "treatment works," as defined by Section 212 of the Act (33 U.S.C. 1292) which is owned by the District. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage or industrial wastes of a liquid nature and any conveyances which convey wastewater to a treatment plant.

~~56.~~68. Reclaimed Water. Water that has received at least secondary treatment and basic disinfection and is reused after flowing out of the wastewater treatment facility (FDEP Chapter 62-610 FAC).

~~57.~~69. Removal. A reduction in the amount of a pollutant in the POTW's effluent or alteration of the nature of a pollutant during treatment at the POTW. The reduction or alteration can be obtained by physical, chemical, or biological means and may be the result of specifically designed POTW capabilities or may be incidental to the dilution of a pollutant in the POTW.

~~58.~~70. Reverse Distributor. Any person that receives and accumulates prescription pharmaceuticals that are potentially creditable hazardous waste pharmaceuticals for the purpose of facilitating or verifying manufacturer credit. Any person, including forward distributors, third-party logistics providers, and pharmaceutical manufacturers, that processes prescription pharmaceuticals for the facilitation or verification of manufacturer credit is considered a reverse distributor.

~~59.~~71. Septic Tank Waste. Any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.

~~60.~~72. Severe Property Damage. Substantial physical damage to property that causes the property to become inoperable, or substantial and permanent loss of natural resources. Severe property damage does not mean economic loss caused by delays in production.

~~61.~~73. Sewage. Human excrement and/or gray water (household showers, dishwashing operations, etc.)

74. Sewer. Any pipe, conduit, ditch, or other device used to collect and transport sewage from the generating source.

~~62.~~ Sewer System. Any plant, facility, or property, and additions, extensions, and improvements thereto at any future time constructed or acquired as part thereof, useful or necessary, or having the present capacity for future use in connection with the collection, treatment, purification, or disposal of sewage of any nature or originating from any source, including industrial wastes resulting from any processes of industry, manufacture, trade, or business, or from the development of any natural resources; and without limiting the generality of the foregoing definition shall include treatment plants, pumping stations, lift stations, valves, force mains, intercepting sewers, laterals, pressure lines, mains, and all necessary appurtenances and equipment; all sewer mains and laterals for the reception and collection of sewage from premises connected therewith; and shall include all real and personal property and any interest therein, rights, easements, and franchises of nature whatsoever relating to any such sewer system and necessary or convenient for the operation thereof.

75.

~~63.~~76. Shall, May, Will. "Shall" and "Will" are ~~is~~ mandatory, "M~~m~~ay" is permissive.

~~64.~~77. Significant Industrial User (SIU).

a. A User subject to categorical pretreatment standards; or
b. A User that:
    i. Discharges an average of 25,000 GPD or more of process wastewater to the POTW (excluding sanitary, non-contact cooling, and boiler blowdown wastewater); or
    ii. Contributes a process waste stream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or
    iii. Is designated as such by the District on the basis that it has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.
c. Upon a finding that a User meeting the criteria in Subsection (2) has no reasonable potential for adversely affecting the POTW's operation or for violating any applicable pretreatment standard or requirement, the District may at any time, on its own initiative or in response to a petition received from a User and in accordance with procedures in

Rule 62-625.500(2)(e), F.A.C. determine that such User should not be considered a significant industrial User.

~~65.~~78. Significant Non-Compliance ("SNC"). For the purposes of this provision, a User is in significant non-compliance if its violation meets the criteria specified in Section 9 of this Rule.

~~66.~~79. Slug Load. Any discharge at a flow rate or concentration which could cause a violation of the discharge standards in Section 2.1 through 2.4 of this Rule or any discharge of a non-routine, episodic nature, including but not limited to, an accidental spill or a non-customary batch discharge.

~~67.~~80. Standard Industrial Classification (SIC) Code. A classification pursuant to the Standard Industrial Classification Manual issued by the United States Office of Management and Budget.

~~68.~~81. State. The State of Florida or an agency within the state government having relevant jurisdiction.

~~69.~~82. Storm Water. Any flow occurring during or following any form of natural precipitation, and resulting from such precipitation, including snowmelt.

~~70.~~83. Total Suspended Solids. The total suspended matter that floats on the surface of, or is suspended in, water, wastewater, or other liquid, and which is removable by laboratory filtering.

~~71.~~84. Treatment Plant Effluent. The discharge from the POTW into waters of the United States.

~~72.~~85. Upset. An exceptional incident in which there is unintentional and temporary non-compliance with applicable Pretreatment Standards because of factors beyond the reasonable control of the User.

86. User or Industrial User (IU). ~~A source of indirect discharge.~~ A non-domestic discharger introducing an industrial waste stream into the POTW.

~~73.~~87. Wastewater. Liquid and water-carried industrial wastes and sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, which are contributed to the POTW.

~~74.~~88. Wastewater Discharge Permit. An authorization or equivalent control document issued by the District to Users discharging wastewater to the POTW. The permit may contain appropriate pretreatment standards and requirements as set forth in this Rule.

~~75.~~89. Wastewater Treatment Plant or Treatment Plant. That portion of the POTW which is designed to provide treatment of municipal sewage and industrial waste. The use of the singular shall be construed to include the plural and the plural shall include the singular as indicated by the context of its use.

SECTION 2 - GENERAL SEWER USE REQUIREMENTS

2.1 Prohibited Discharge Standards

A. General Prohibitions: No User shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes Pass Through or Interference. These general prohibitions apply to all Users of the POTW whether or not they are subject to categorical pretreatment standards or any other National, State, or local pretreatment standards or requirements.

B. Specific Prohibitions: No User shall introduce or cause to be introduced into the POTW the following pollutants, substances, or wastewater:

(1) Pollutants which create a fire or explosive hazard in the POTW, including, but not limited to, wastestreams with a closed-cup flash point of less than 140° F (60° C) using the test methods specified in Chapter 62-730, F.A.C;

(2) Wastewater having a pH less than 5.0 or more than 9.5, or otherwise causing corrosive structural damage to the POTW or equipment;

(3) Solid or viscous substances in amounts which will cause obstruction of the flow in the POTW resulting in Interference; such as, but not limited to, ashes, bones, cinders, sand, mud, grass clippings, straw, spent grains, spent lime, stone or marble dusts, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure, hair, hide or fleshings, entrails and paper dishes, cups, milk containers, either whole or ground garbage grinders, tar asphalt residues, residues from refining or processing of fuel or lubricating oil, or glass grinding or polishing wastes;

(4) Pollutants, including biological oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause Pass Through or Interference with the POTW;

(5) Wastewater having a temperature which will inhibit biological activity in the treatment plant resulting in Interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104° F (40° C);

(6) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that will cause Interference or Pass Through;

(7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

(8) Any trucked or hauled pollutants, except at discharge points designated by the District in accordance with Section 3.5 of this Rule. All industrial or septic waste haulers shall have a discharge permit issued by the Palm Beach County Health Unit or Martin County Health Unit. No hauled load may be discharged without prior written consent from the District. Samples may be collected from each load to ensure compliance with applicable standards. The hauler may be required to provide waste analysis of any load prior to discharge. The hauler must provide a waste tracking form for every load. The form shall include, at a minimum, the name and address of the waste hauler, permit number, truck identification, names and addresses of sources of waste, volume and characteristics of waste. This form shall identify the type of industry,

known or suspected waste constituents, and whether any wastes are Resource Conservation and Recovery Act (RCRA) hazardous wastes;

(9) Noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life or health, or to prevent entry into the sewers for maintenance or repair;

(10) Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent, thereby violating the District's NPDES permit;

(11) Wastewater containing any radioactive wastes or isotopes except in compliance with applicable State or Federal regulations;

(12) Storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, non-contact cooling water, and unpolluted wastewater, unless specifically authorized by the District;

(13) Any sludge, screenings, or other residues from the pretreatment of industrial wastes or from industrial processes;

(14) Medical wastes, except as specifically authorized by the District;

(15) Wastewater causing, alone or in conjunction with other sources, the treatment plant's effluent to fail a toxicity test;

(16) Detergents, surface-active agents, or other substances which may cause excessive foaming in the POTW;

(17) Fats, oils, or greases of animal or vegetable origin in concentrations greater than 100.0 mg/l;

(18) Any substance which will cause the POTW to violate its NPDES and/or other disposal system permits.

(19) Any hazardous wastes as defined in rules published by the State of Florida or in Chapter 62-730, F.A.C.

(20) Any hazardous waste pharmaceutical from a healthcare facility or reverse distributor.

Pollutants, substances, or wastewater prohibited by this Section shall not be processed or stored in such a manner that they could be discharged to the POTW.

2.2 National Categorical Pretreatment Standards

Users must comply with the categorical pretreatment standards found at 40 CFR Chapter I, Subchapter N, Parts 405–471.

A. Where a categorical pretreatment standard is expressed only in terms of either the mass or the concentration of a pollutant in wastewater, the District may impose equivalent concentration or mass limits in accordance with requirements specified in Rule 62-625.410(4), F.A.C..

B. When the limits in a categorical pretreatment standard are expressed only in terms of mass of pollutant per unit of production, the District may convert the limits to equivalent limitations expressed either as mass of pollutant discharged per day or effluent concentration for purposes of calculating effluent limitations applicable to individual Users, in accordance with requirements specified in Rule 62-625.410(4), F.A.C..

C. When wastewater subject to a categorical pretreatment standard is mixed with wastewater not regulated by the same Standard, the District shall impose an alternate limit in accordance with Rule 62-625.410(6), F.A.C.

2.3 State Requirements

State requirements and limitations on discharges to the POTW shall be met by all Users which are subject to such standards in any instance in which they are more stringent than federal requirements and limitations or those in this Rule or in other applicable Rules, regulations or ordinances.

2.4 Local Limits

A. The District is authorized to establish Local Limits pursuant to Rule 62-625.40011(3), F.A.C.

(1) No person shall discharge wastewater containing pollutants in excess of the local limits for those pollutants which have been established for the District's POTW using standard procedures, calculations and methods acceptable to FDEP to protect against Pass Through, Interference, protection of POTW employees, and adverse effects on wastewater residuals disposal. No User shall discharge process waste streams, unregulated waste streams, or dilute waste streams in excess of the concentrations set forth by the District. Local limits shall be included as permit conditions and attached to each SIU wastewater permit issued.

(2) Established local limits are subject to change and shall be modified as needed based on regulatory requirements and standards, POTW operation, performance and processes, the District's User base, potable water quality and domestic wastewater characteristics. Modifications to the established local limits must be reviewed and approved by FDEP prior to implementation. Implementation shall be effective 30 days from notice of acceptance of the modified limits by FDEP. Permitted SIUs shall also be issued an addendum to their wastewater discharge permit containing the new local limits.

B. The following pollutant limits are established to protect against Pass Through and Interference. No User shall discharge wastewater containing in excess of the following Instantaneous Limits:

0.24 mg/l arsenic
400 mg/l BOD5
0.18 mg/l cadmium
2.67 mg/l chromium
16.3 mg/l copper
0.64 mg/l cyanide
3.30 mg/l lead
0.41 mg/l mercury
0.27 mg/l molybdenum
1.94 mg/l nickel
0.34 mg/l selenium
4.44 mg/l silver
1.66 mg/l zinc
400 mg/l total suspended solids
100 mg/l Fats, oils and grease
< 5.5 pH

> 9.5 pH
150° F Temperature

The above limits apply at the point where the wastewater is discharged to the POTW. All concentrations for metallic substances are for total metal unless indicated otherwise. The District may impose mass limitations in addition to the concentration-based limitations above. Where a User is subject to a categorical pretreatment standard and a local limit for a given pollutant, the more stringent limit or applicable pretreatment standard shall apply.

C. The District may develop Best Management Practices (BMPs), by rule or in individual wastewater discharge permits, to implement Local Limits and the requirements of Section 2.1 of this Rule.

2.5 District's Right of Revision

The District reserves the right to establish, by Rule or in industrial wastewater discharge permits, more stringent standards or requirements on discharges to the POTW consistent with the purpose of this Rule.

2.6 Dilution

No User shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with an applicable pretreatment standard or requirement unless expressly authorized by an applicable pretreatment standard or requirement. The District may impose mass limitations on Users which it believes may be using dilution to meet applicable pretreatment standards or requirements or in other cases when the imposition of mass limitations is appropriate.

SECTION 3—PRETREATMENT OF WASTEWATER

3.1 Pretreatment Facilities

Users shall provide necessary wastewater treatment as necessary to comply with this Rule and shall achieve compliance with all applicable Pretreatment Standards, Local Limits, and the prohibitions set out in Section 2.1 of this Rule within the time limitations specified by the EPA, the State of Florida, or the District, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the User's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be submitted to the District for review and shall be acceptable to the District before such facilities are constructed. The review of such plans and operating procedures will in no way relieve the User from the responsibility of modifying such facilities as necessary to produce discharge acceptable to the District under the provisions of this Rule.

3.2 Additional Pretreatment Measures

A. Whenever deemed necessary, the District may require Users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers,

relocate and/or consolidate points of discharge, separate sewage wastestreams from industrial wastestreams, and such other conditions as may be necessary to protect the POTW and determine the User's compliance with the requirements of this Rule.

B. The District may require any person discharging into the POTW to install and maintain, on their property and at their expense, a suitable storage and flow control facility to ensure equalization of flow. An individual wastewater discharge permit may be issued solely for flow equalization.

C. Fats, Oils and Grease Compliance Monitoring Program

1. Grease, oil/sand and lint interceptors shall be provided when, in the opinion of the District, they are necessary for the proper handling of wastewater containing excessive amounts of grease, oil/sand, and lint, except that such interceptors shall not be required for residential users. All Interceptors construction shall be in accordance with the District's Minimum Construction Standards, Section 122 and shall meet all applicable standards in Chapter 64E-6, Florida Administrative Code and in compliance with the 2020 Florida Building Code Plumbing, Chapter 10 Traps, Interceptors and Separators, Section 1003.3.5. All interceptors must be approved by the District Engineer.

(a) Grease Interceptors shall be located outside the building with a minimum capacity of 750 gallons and shall be installed in series when multiple tanks are required and shall not be shared. All equipment and kitchen plumbing fixtures in any Food Service Establishment shall be connected to a common drain line which routes all wastewater flow through the grease interceptor, including but not limited to scullery sinks, pots and pan sinks, floor drains, pre-wash sinks, dishwashers, automatic hood wash units, indoor garbage can washes. Under the counter grease traps are not allowed under any circumstance.

(b) Oil/Sand Interceptors are required for all car washes and establishments with facilities for servicing vehicles/mechanical equipment. All plumbing (other than restrooms) from the area where repairs and maintenance are performed shall be connected to an oil/sand interceptor; this includes but is not limited to floor drains and hand wash sinks. Engine oil, transmission oil, coolant, solvents, additives, brake fluid or any other fluid collected in the process of servicing vehicles/mechanical equipment shall not be discharged into the interceptor or any other plumbing fixture; the handling and

(c) Lint Interceptors are required for all laundromats and establishments with a central laundry room with five (5) washing machines or more. Interceptors shall be equipped with a wire basket or similar device which is removable for cleaning and prevents the passage of solids ½" or larger in size, strings, rags, buttons or other materials detrimental to the wastewater facilities. Lint interceptors shall be sized based on the following formula: Number of washers x 2 cycles per hour x 20gallons per cycle flow rate x 2.0 hours retention time x 1.5 storage factor.

2. All interceptors shall be inspected on a semi-annual basis, at a minimum. Additionally, all interceptors will have a structural inspection performed by District staff on a 5-year basis pending no change in ownership or operational modifications. The structural inspection will require the interceptor to be pumped out, pressure washed and cleaned of all contents at the Owner's expense, in advance of the scheduled inspection date. If any facility that has a interceptor installed, submits for change of ownership or operation, then a structural inspection will be required (if not already completed within the past 6 months) as part of the District's review and approval process.

3. The maintenance of all interceptors shall be the sole responsibility of the Owner. Maintenance shall include the proper removal and disposal, by appropriate means, of the captured material and the maintenance of records of the dates and the means of disposal. All maintenance records shall besubject to review by the District. Any removal and hauling of the collected materials must be performed by a licensed waste disposal firm in accordance with Federal, State and local regulatory requirements.

(a) If inspection of the interceptor(s) performed by the District's Industrial Pretreatment Coordinator is found to be out of compliance and the User is notified by letter, the User shall have all deficiencies outlined in the notice of non-compliance letter corrected within thirty (30) days from the date of the letter and a copy of the invoice for all work completed must be submitted to the District's Industrial Pretreatment Coordinator for verification and recordkeeping purposes.

(b) Senate Bill 1110 (Grease Waste Removal and Disposal) requires grease waste haulers to dispose of grease waste, including grease waste from grease interceptors, traps and graywater, at registered disposal facilities and to document grease waste removal and disposal with a service manifest. The manifest shall provide a cradle to grave record of the production, transport and proper disposal of all interceptor contents.

Upon completion of grease removal, the *Originator* must;

i. Sign the manifest verifying that the information is accurate and
ii. Retain a copy of the service manifest onsite for a minimum of one year.

Upon completion of grease removal, the *Hauler* must;

i. Document the removal and disposal of the grease waste in the service manifest
ii. Verify the information is accurate with the Originator and the disposal facility operator and sign the service manifest.
iii. Provide a copy of the signed service manifest to the Originator.
iv. Sign the service manifest, verifying that the information is accurate.
v. Provide the Originator and the county and municipality in which the Originator is located with a copy of the completed service manifest showing the signatures of the Originator, the Hauler and the disposal facility operator within 30 days after the date of the disposal

Upon completion of grease waste disposal, the disposal facility must;

i. Sign the service manifest verifying that the information is accurate.

(c) There are instances where food service establishments may not be required to provide a grease interceptor. In these instances, an Exemption from a grease interceptor may issued by the District. In order to qualify for an Exemption, the following minimum criteria must be met:

- No food preparation on-site;
- The following equipment is prohibited from being on-site: oven, dishwasher, stove top, cooking surfaces/griddle, fryers, ranges, or any equipment used to cook food, including pre-cooked frozen food;
- Only pre-made food may be allowed to be heated on-site using the following equipment: toasters, microwaves or sandwich presses;
- Traditional and/or convection ovens which have a microwave feature, or which utilize microwaves to accelerate preparation times are not permitted;
- No reusable buffet serving basins used on-site;
- If serving food on-site, all food is served on paper/plastic plates using disposable utensils or in the pre-packaging it was brought on-site in.

If the above criteria cannot be met or if it is determined that after an Exemption has been issued by the District, the above criteria can no longer be met, then a District-approved grease interceptor must be installed. Failure to do so will result in a violation of this Rule, and may result in fines as well as outlined in Section 10.6 (Administrative Fines) of the Rule.

D. Users with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter(s).

E. When a property's discharge may be injurious to the District's systems or may violate the Rules of the District, the Owner of any property serviced by a building sewer carrying wastes shall, at the request of the District, install a suitable structure together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling, and measurement of the wastes. Such structures when required, shall be accessible and safely located and shall be constructed in accordance with plans approved by the District. The structure shall be installed by the Owner at the Owner's expense and shall be maintained by the Owner so as to be safe and accessible at all times.

F. The District will have the right to require a User or an Owner to provide access for inspection of all services including making copies thereof, and to provide information needed to determine compliance with this Rule. These requirements may include:
(1) Wastewaters discharge peak rate and volume over a specified time period;
(2) Chemical analyses of wastewaters;
(3) Information on raw materials, processes, and products affecting wastewater volume and quality;
(4) Quantity and disposition of specific liquid, sludge, oil, solvent, or other materials important to sewer use control;
(5) A plot plan of sewers on the User's or Owner's property showing sewer and pretreatment facility locations;
(6) Details of wastewater pretreatment facilities;

(7) Details of systems to prevent and control the losses of materials through spills to any District sewer.

G. Per-and-Polyfluorinated Substances (PFAS)

1. PFAS compounds are used in industries such as aerospace, automotive, construction, and electronics. PFAS compounds are also applied in a variety of industrial, agricultural, military and commercial products, including firefighting foams, stain-or water-repellant, fabric coating and non-stick cookware. Henceforth, the District may require all IUs to sample their effluent for PFAS using the limits established for drinking water standards and as outlined under the health advisory level, provided by the Florida Health Department, as a not to exceed limit. The purpose of this is to ensure that the reclaimed water produced by the District for irrigation purposes, the biosolids produced from de-water sludge, and the disposal of wastewater by underground injection wells does not add additional contamination of PFAS compounds to the soil and/or groundwater with the primary objective of protecting public health and welfare.
2. Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) are part of a group of chemicals called perfluoroalkyl substances (PFASs). These are a family of man-made compounds that do not occur naturally. They break down very slowly and may also get into drinking water wells. PFAS are found in the blood of people, animals and in the environment (groundwater, air, soil), as well as produce products, such as vegetables and fruits.
3. While there are currently no wastewater standards for PFAS, as of June 2022, EPA has set a health advisory (HA) level of 0.004 part per trillion (ppt) for PFOA and 0.02 part per trillion (ppt) for PFOS. The HA level is stipulated for combined concentrations of PFOS and PFOA. This level is set to be protective for both cancer and non-cancer effects over a lifetime. All discharges to the District's POTW shall be less than 150% of any defined regulatory limit and/or HA level for drinking water. Analytical analysis of PFAS samples shall be perfomed using EPA Method 1633.

H. Publicly Owned Water and/or Wastewater Treatment Byproduct Waste Limits

1. When deemed appropriate for the benefit of one or more publicly owned utility and their respective rate payers, and when it is determined to be in the best interest of public health and welfare and the environment, the District may elect to enter into an Interlocal Agreement with another publicly owned water and/or wastewater utility. When executing these types of agreements it is essential for the District to set numerical limits for specific constituents to ensure that the quality of the treated secondary effluent, irrigation quality (i.e., reclaimed) water and dewatered biosolids are relatively unaffected by the introduction and incorporation of any byproduct waste stream.

2. All byproduct waste streams to be received by the District from any publicly owned utility shall be less than or equal to the following numerical limits as measured on a monthly average basis.

Quantitative Criteria for Byproduct Waste Streams

Parameter	Numerical Limit
TDS	2,000 mg/l
Chloride	272 mg/l
Calcium	588 mg/l
Magnesium	29 mg/l
Potassium	11 mg/l
Sodium	98 mg/l
Sulfate	600 mg/l
Ph	7.7

3.3 Dental Facilities that Remove or Place Amalgam Fillings

A. All Owners and operators of dental facilities that remove or place amalgam fillings shall comply with the following reporting and waste management practices:

(1) For dental facilities whose first discharge to the POTW occurred on or before January 16, 2020, the One-Time Compliance Report is due no later than October 12, 2020, or no later than 90 days after transfer of ownership.

(2) For dental facilities whose first discharge to the POTW occurred after January 16, 2020, the One-Time Compliance Report is due within 90 days of the start of discharge to the sewer collection system.

(3) No person shall rinse chairside traps, vacuum screens, or amalgam separators equipment in a sink or other connection to the sanitary sewer.

(4) Owners and operators of dental facilities shall ensure that all staff members who handle amalgam waste are trained in the proper handling, management and disposal of mercury-containing material and fixer-containing solutions and shall maintain training records that shall be available for inspection by the District during normal business hours.

(5) Amalgam waste shall be stored and managed in accordance with the instructions of the recycler or hauler of such materials.

(6) Bleach and other chlorine-containing disinfectants shall not be used to disinfect the vacuum line system.

(7) The use of bulk mercury is prohibited. Only pre-capsulated dental amalgam is permitted.

B. All Owners and operators of dental vacuum suction systems, except as set forth in subsections (C) and (D) of this Section, shall comply with the following:

(1) An ISO 11143 or ANSI/ADA Standard No. 108 certified amalgam separator or equivalent device shall be installed for each dental vacuum suction system on or before July 14, 2020; provided, however, that all dental facilities that are newly constructed on and after the effective date of this Rule shall include an installed ISO 11143 or ANSI/ADA Standard No. 108 certified amalgam separator device. The installed device must be ISO 11143 or ANSI/ADA Standard No. 108 certified as capable of removing a minimum of 95 percent of amalgam. The amalgam separator system shall be certified at flow rates comparable to the flow rate of the actual vacuum suction system operation. Neither the separator device nor the related plumbing shall include an automatic flow bypass. For facilities that require an amalgam separator that exceeds

the practical capacity of ISO 11143 test methodology, a non-certified separator will be accepted, provided that smaller units from the same manufacturer and of the same technology are ISO-certified.

(2) Proof of certification and installation records shall be submitted to the District within 30 days of installation.

(3) Amalgam separators shall be maintained in accordance with manufacturer recommendations. Installation, certification, and maintenance records shall be available for immediate inspection upon request therefor by the District during normal business hours. Records shall be maintained for a minimum of three years.

C. Facilities with vacuum suction systems that meet all the following conditions may apply to the District for an exemption to the requirements of subsection (B) of this Section:

(1) The system is a dry vacuum pump system with an air-water separator.

(2) The sedimentation tank is non-bottom draining, with the drain above the anticipated maximum level of accumulated sludge.

(3) Evidence of regular pump outs by a licensed hauler (a minimum of once a year, or more often if either directed by the manufacturer or necessary to keep solids from exiting through the drain) is maintained and available for audit by the District during normal business hours.

(4) The system has no direct discharge pipe to the sewer on the bottom of the sedimentation tank.

An Owner or operator whose facility meets conditions (1) through (4) may apply for this exemption by written letter to the District. The District will review the system and, if the exemption is approved, shall provide a written letter of exemption. An exemption obtained pursuant to this subsection (C) shall expire upon installation of a new vacuum system. Upon expiration of the exemption, the facility shall comply with subsection (B) of this Section before commencing further operation.

D. Dental dischargers that exclusively practice one or more of the following specialties are not subject to the requirements of this Section: (1) Orthodontics; (2) Periodontics; (3) Oral and maxillofacial surgery; (4) Radiology; (5) Oral pathology or oral medicine; (6) Endodontistry and prosthodontistry.

E. Dental practices that do not place dental amalgam, and do not remove amalgam except in limited emergency or unplanned, unanticipated circumstances, are exempt from the requirements of this part, provided the dental practice:

(1) Submits the following statement to the District, signed by a responsible corporate officer, general partner, proprietor, or a duly authorized representative by the applicable compliance deadline identified in Section 3.3A:

> *"This facility is a dental discharger subject to this rule and does not place or remove dental amalgam except in limited emergency or unplanned, unanticipated circumstances. I am a responsible corporate officer, a general partner or proprietor (if the facility is a partnership or sole proprietorship), or a duly authorized representative in accordance with the requirements of § 403.12(l) of the above named dental facility, and certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person*

or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(2) Removes dental amalgam for limited emergency or unplanned, unanticipated circumstances, less than 48 times per year and as no more than 5% of dental procedures; and

(3) The dental practice notifies the District of any changes affecting the applicability of this certification.

F. Disposal of hauled wastewater from dental facilities to the sanitary sewer must be in accordance with Section 2 General Sewer Use Requirements and Section 3.5 Hauled Wastewater and may be subject to industrial Pretreatment Requirements.

G. Dental dischargers that fail to comply with this Section will be considered a SIU, and will be subject to the requirements herein, including Section 6 Reporting Requirements, Section 7 Compliance Monitoring, Section 10 Administrative Enforcement Remedies, and/or Section 11 Judicial Enforcement Remedies.

3.4 Accidental Discharge / Slug Discharge Control Plans

The District shall evaluate whether each SIU needs an accidental discharge/slug discharge control plan or other action plan to control Slug Discharges. The District may require an SIU to develop, submit for approval, and implement such a plan or take such other action that may be necessary to control Slug Discharges. Alternatively, the District may develop such a plan for any SIU. An accidental discharge/slug discharge control plan shall address, at a minimum, the following:

A. Description of discharge practices, including non-routine batch discharges;

B. Description of stored chemicals;

C. Procedures for immediately notifying the District of any accidental or Slug Discharge, as required by Section 4.5 of this Rule; and

D. Procedures to prevent adverse impact from any accidental or Slug Discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

3.5 Hauled Wastewater

Hauled industrial waste may not be introduced to the POTW.

Septic tank waste may be introduced into the POTW only at a designated receiving structure within the treatment plant area, and at such times as are established by the District. Such wastes shall not violate Section 2 of this Rule or any other requirements established or adopted by the District. Discharge permits for individual vehicles to use such facilities are required and shall be issued by the Plant Manager.

A. Septic tank waste haulers may only discharge loads at locations specifically designated by the District. No load may be discharged without prior consent of the Plant Manager. The on-duty Operator shall collect samples of each hauled load to ensure compliance with applicable pretreatment standards. The District may require the hauler to provide a waste analysis of any load prior to discharge.
B. Septic tank waste haulers will be provided, by the Plant Manager, with a waste tracking form for every load. This form shall include, at a minimum, the name and address of the waste hauler, permit number, truck identification, sources of waste, and volume and characteristics of waste.
C. Fees for dumping hauled wastes are established as part of the District's Rule Chapter 31-10 Schedule of Rates, Fees, and Charges for the Users of the Regional Wastewater System.

SECTION 4 – INDIVIDUAL WASTEWATER DISCHARGE PERMITS

4.1 Wastewater Analysis

When requested by the District, a User must submit information on the nature and characteristics of its wastewater within 30 days of the request. The Plant Manager is authorized to prepare a form for this purpose and may periodically require Users to update this information.

4.2 Individual Wastewater Discharge Permit Requirement

A. No Significant Industrial User shall discharge wastewater into the POTW without first obtaining an individual wastewater discharge permit from the District, except that a Significant Industrial User that has filed a timely application pursuant to Section 4.3 of this Rule may continue to discharge for the time period specified therein.
B. The District may require other Users, including liquid waste haulers, to obtain individual wastewater discharge permits as necessary to carry out the purposes of this Rule.
C. Any violation of the terms and conditions of an individual wastewater discharge permit shall be deemed a violation of this Rule and subjects the wastewater discharge permittee to the sanctions set out in Sections 10 through 12 of this Rule. Obtaining an individual wastewater discharge permit does not relieve a permittee of its obligation to comply with all Federal and State Pretreatment Standards or Requirements or with any other requirements of Federal, State, and local law.

4.3 Individual Wastewater Discharge Permitting: Existing Connections

Any User required to obtain an individual wastewater discharge permit who was discharging wastewater into the POTW prior to the effective date of this Rule and that wishes to continue such discharges in the future shall, within forty-five (45) days after notification by the District, submit a permit application to the District in accordance with Section 4.5 of this Rule and shall not cause or allow discharges to the POTW to continue after ninety (90) days after the effective date of this Rule except in accordance with an individual wastewater discharge permit issued by the District.

4.4 Individual Wastewater Discharge Permitting: New Connections

Any User required to obtain an individual wastewater discharge permit who proposes to begin or recommence discharging into the POTW must obtain such permit prior to the beginning or recommencing of such discharge. An application for this individual wastewater discharge permit, in accordance with Section 4.5 of this Rule, must be filed at least 90 days prior to the date upon which any discharge will begin or recommence.

4.5 Individual Wastewater Discharge Permit Application Contents

A. All Users required to obtain an individual wastewater discharge permit must submit a permit application. The District uses the State of Florida, Individual Industrial User Survey Application, from its Pretreatment Guidance Manual as a permit application. Categorical Users submitting the following information shall have complied with Rule 62-625.600(1), F.A.C. The District may require Users to submit all or some of the following information as part of a permit application:

(1) Identifying Information.

a. The name and address of the facility, including the name of the operator and Owner.

b. Contact information, description of activities, facilities, and plant production processes on the premises;

(2) Environmental Permits. A list of any environmental control permits held by or for the facility.

(3) Description of Operations.

a. A brief description of the nature, average rate of production (including each product produced by type, amount, processes, and rate of production), and standard industrial classifications of the operation(s) carried out by such User. This description should include a schematic process diagram, which indicates points of discharge to the POTW from the regulated processes.

b. Types of wastes generated, and a list of all raw materials and chemicals used or stored at the facility which are, or could accidentally or intentionally be, discharged to the POTW;

c. Number and type of employees, hours of operation, and proposed or actual hours of operation;

d. Type and amount of raw materials processed (average and maximum per day);

e. Site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains, and appurtenances by size, location, and elevation, and all points of discharge;

(4) Time and duration of discharges;

(5) The location for monitoring all wastes covered by the permit;

(6) Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined wastestream formula set out in Section 2.2C of this Rule (and Rule 62-625.410(6), F.A.C.).

(7) Measurement of Pollutants.

a. The categorical pretreatment standards applicable to each regulated process and any new categorically regulated processes for existing sources.

b. The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the Standard or by the District, of regulated pollutants in the discharge from each regulated process.
c. Instantaneous, Daily Maximum, and long-term average concentrations, or mass, where required, shall be reported.
d. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in Section 6.10 of this Rule. Where the Standard requires compliance with a Best Management Practice or pollution prevention alternative, the User shall submit documentation as required by the District or the applicable Standards to determine compliance with the Standard.
e. Sampling must be performed in accordance with procedures set out in Section 6.11 of this Rule.

(8) If appropriate, Users shall submit a~~Any~~ request~~s~~ for a monitoring waiver (or a renewal of an approved monitoring waiver) for a pollutant neither present nor expected to be present in the discharge based on Section 6.4 B of this Rule [and Rule 62-625.600(4)(c)1, F.A.C.].

(9). Any other information as may be deemed necessary by the District to evaluate the permit application.

B. Incomplete or inaccurate applications will not be processed and will be returned to the applicant for revision.

4.6 Application Signatories and Certifications

A. All wastewater discharge permit applications, User reports and certification statements must be signed by an Authorized Representative of the User and contain the certification statement in Section 6.15 A of this Rule.

B. If the designation of an Authorized Representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new written authorization satisfying the requirements of this Section must be submitted to the District prior to or together with any reports to be signed by an Authorized Representative.

C. A facility determined to be a Non-Significant Categorical Industrial User by the District pursuant to Section 1.4 (4032) of this Rule must annually submit the signed certification statement in Section 6.15 B of this Rule [Note: See Rule 62-625.200(25)(c), F.A.C.].

4.7 Individual Wastewater Discharge Permit Decisions

The District will evaluate the data furnished by the User and may require additional information. Within forty-five (45) days of receipt of a complete individual wastewater discharge permit application, the District will determine whether or not to issue a discharge permit. The District may deny any application for any individual wastewater discharge permit.

SECTION 5—INDIVIDUAL WASTEWATER DISCHARGE PERMIT ISSUANCE

5.1 Individual Wastewater Discharge Permit Duration

An individual wastewater discharge permit shall be issued for a specified time period, not to exceed five (5) years from the effective date of the permit. An individual wastewater discharge permit may be issued for a period less than five (5) years, at the discretion of the District. Each individual wastewater discharge permit will indicate a specific date upon which it will be effective as well as the date it will expire.

5.2 Individual Wastewater Discharge Permit Contents

An individual wastewater discharge permit shall include such conditions as are deemed reasonably necessary by the District to prevent Pass Through or Interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate biosolids management and disposal, and protect against damage to the POTW.

A. Industrial wastewater discharge permits must contain:

(1) A statement that indicates the wastewater discharge permit issuance date, effective date, and expiration date (in no case more than 5 years);

(2) A statement that the wastewater discharge permit is non-transferable without prior notification to the District in accordance with Section 5.5 of this Rule, and provisions for furnishing the new Owner or operator with a copy of the existing wastewater discharge permit;

(3) Effluent limits, including Best Management Practices, based on applicable Pretreatment Standards;

(4) Self monitoring, sampling, reporting, notification, and record-keeping requirements. These requirements shall include an identification of pollutants (or best management practice) to be monitored, sampling location, sampling frequency, and sample type based on the applicable general pretreatment standards in Sections 2.4 and 6.12 of this Rule and Rule 62-625.500(2)(a)(2)(d), F.A.C., categorical pretreatment standards, local limits, and State and Local laws and;

(5) The process for seeking a waiver from monitoring for a pollutant neither present nor expected to be present in the Discharge in accordance with Section 6.4B of this Rule.

(6) A statement of applicable civil and criminal penalties for violation of Pretreatment Standards and Requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable Federal, State, or local law.

(7) Requirements to control Slug Discharge, if determined by the District to be necessary.

(8) Any grant of the monitoring waiver by the District must be included as a condition in the User's permit (Section 6.4B of this Rule).

B. Individual wastewater discharge permits may contain, but need not be limited to, the following conditions:

(1) Limits on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow regulation and equalization;

(2) Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works;
(3) Requirements for the development and implementation of spill control plans or other special conditions including management practices necessary to adequately prevent accidental, unanticipated, or nonroutine discharges;
(4) Development and implementation of waste minimization plans to reduce the amount of pollutants discharged to the POTW;
(5) The unit charge or schedule of User charges and fees for the management of the wastewater discharged to the POTW;
(6) Requirements for installation and maintenance of inspection and sampling facilities and equipment, including flow measurement devices;
(7) A statement that compliance with the individual wastewater discharge permit does not relieve the permittee of responsibility for compliance with all applicable Federal and State Pretreatment Standards, including those which become effective during the term of the individual wastewater discharge permit; and
(8) Other conditions as deemed appropriate by the District to ensure compliance with this Rule, and State and Federal laws, rules, and regulations.

5.3 Individual Wastewater Discharge Permit Appeals

Any person wishing to appeal a decision of the District may do so to the District's Governing Board.

5.4 Individual Wastewater Discharge Permit Modification

User requests for permit modifications shall be made in writing and include the facts or reasons which support the request. When modifying a permit, the District shall allow a reasonable time frame for the User to comply with the new or changed conditions if the User cannot meet them at the time of modification and if permitted by law. If the new or changed conditions are the result of new or changed pretreatment regulations, those regulations will stipulate the compliance period. The filing of a request by the permittee for an industrial wastewater discharge permit modification does not stay any wastewater discharge permit condition.

The District may modify an individual wastewater discharge permit for good cause including, but not limited to, the following:

A. To incorporate any new or revised Federal, State, or local Pretreatment Standards or Requirements;
B. To address significant alterations or additions to the User's operation, processes, or wastewater volume or character since the time of wastewater discharge permit issuance;
C. A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;
D. Information indicating that the permitted discharge poses a threat to the District's POTW, personnel, beneficial reuse of biosolids or reclaimed water, or the receiving waters;
E. Violation of any terms or conditions of the individual wastewater discharge permit;
F. Misrepresentations or failure to fully disclose all relevant facts in the wastewater discharge permit application or in any required report;

G. Revision of or a grant of variance from categorical pretreatment standards pursuant to Rule 62-625.700, F.A.C.;
H. To correct typographical or other errors in the wastewater discharge permit;
I. To reflect a transfer of the facility ownership and/or operation to a new Owner or operator where requested in accordance with Section 5.5 of this Rule; or
J. Upon request of the permittee, provided such request does not create a violation of any applicable requirements, standards, laws, or rules and regulations.

5.5 Individual Wastewater Discharge Permit Transfer

Wastewater discharge permits may be reassigned or transferred to a new Owner and/or operator only if the permittee gives at least ninety (90) days advance notice to the District and the District approves the individual wastewater discharge permit transfer. The notice to the District must include a written certification by the new Owner and/or operator which:

A. States that the new Owner and/or operator has no immediate intent to change the facility's operations and processes;
B. Identifies the specific date on which the transfer is to occur; and
C. Acknowledges full responsibility for complying with the existing individual wastewater discharge permit and all requirements therein.

Failure to provide advance notice of a transfer renders the wastewater discharge permit voidable as of the date of facility transfer.

5.6 Individual Wastewater Discharge Permit Revocation

The District may revoke an individual wastewater discharge permit for good cause, including, but not limited to, the following reasons:

~~A. Failure to notify the District of significant changes to the wastewater prior to a changed discharge;~~
~~B~~A. Failure to provide prior notification to the District of changed conditions pursuant to Section 6.6 of this Rule;
~~C~~B. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application;
~~D~~C. Falsifying self-monitoring reports;
~~E~~D. Tampering with monitoring equipment;
~~F~~E. Refusing to allow the District timely access to the facility premises and records;
~~G~~F. Failure to meet effluent limitations;
~~H~~G. Failure to pay fines;
~~I~~H. Failure to pay sewer charges;
~~J~~I. Failure to meet compliance schedules;
~~K~~J. Failure to complete a wastewater survey or the wastewater discharge permit application;
~~L~~K. Failure to provide advance notice of the transfer of business ownership of a permitted facility; or;
~~M~~L. Violation of any Pretreatment Standard or Requirement, or any terms of the wastewater discharge permit or this Rule.

5.7 Individual Wastewater Discharge Permit Reissuance

A User with an expiring individual wastewater discharge permit shall apply for an individual wastewater discharge permit reissuance by submitting a completed individual wastewater discharge permit application, in accordance with Section 4.5 of this Rule, a minimum of ninety (90) days prior to the expiration of the User's existing individual wastewater discharge permit.

5.8 Regulation of Waste Received from Other Jurisdictions

The District must ensure that discharges received from entities outside its jurisdictional boundaries are regulated to the same extent as are discharges from within its jurisdictional boundaries.

A. If another Special District or Municipality, or User located within another Special District or Municipality, contributes wastewater to the POTW, the District Governing Board shall authorize execution of an interlocal agreement with the contributing Special District or Municipality.

B. Prior to entering into an agreement required by Section 5.8 A. of this Rule, the District shall request the following information from the contributing Special District or Municipality:
   (1) A description of the quality and volume of wastewater discharged to the POTW by the contributing Special District or Municipality;
   (2) An inventory of all Users located within the contributing Special District or Municipality that are discharging to the POTW; and
   (3) Such other information as the District may deem necessary.

C. An interlocal agreement, as required by Section 5.8 A. of this Rule, shall contain the following conditions:
   (1) A requirement for the contributing Special District or Municipality to adopt a sewer use ordinance which is at least as stringent as this Rule and Local Limits, including required Baseline Monitoring Reports (BMRs) which are at least as stringent as those set out in Section 2.4 of this Rule. The requirement shall specify that such ordinance and limits must be revised as necessary to reflect changes made to the District's Rule or Local Limits;
   (2) A requirement for the contributing Special District or Municipality to submit a revised User inventory on at least an annual basis;
   (3) A provision specifying which pretreatment implementation activities, including individual wastewater discharge permit issuance, inspection and sampling, and enforcement, will be conducted by the contributing Special District or Municipality; which of these activities will be conducted by the District; and which of these activities will be conducted jointly by the contributing Special District or Municipality and the District;
   (4) A requirement for the contributing Special District or Municipality to provide the District with access to all information that the contributing Special District or Municipality obtains as part of its pretreatment activities;
   (5) Limits on the nature, quality, and volume of the contributing Special District or Municipality's wastewater at the point where it discharges to the POTW;

(6) Requirements for monitoring the contributing Special District or Municipality's discharge;
(7) A provision ensuring the District access to the facilities of Users located within the contributing Special District or municipality's jurisdictional boundaries for the purpose of inspection, sampling, and any other duties deemed necessary by the District; and
(8) A provision specifying remedies available for breach of the terms of the interlocal agreement.

Nothing in this Section shall impair existing Interlocal Agreements.

SECTION 6 - REPORTING REQUIREMENTS

6.1 Baseline Monitoring Reports

Users that become subject to new or revised categorical Pretreatment Standards are required to comply with following reporting requirements even if they have been designated as Non-Significant Categorical Industrial Users.

A. Within either one hundred eighty (180) days after the effective date of a categorical Pretreatment Standard, or the final administrative decision on a category determination under Rule 62-625.410(2)(d), F.A.C., whichever is later, existing Categorical Industrial Users currently discharging to or scheduled to discharge to the POTW shall submit to the District, a report which contains the information listed in Section 6.1 B. of this Rule, below. At least ninety (90) days prior to commencement of their discharge, New Sources, and sources that become Categorical Industrial Users subsequent to the promulgation of an applicable categorical Standard, shall submit to the District a report which contains the information listed in Section 6.1 B. of this Rule below. Each New Source shall report the method of pretreatment it intends to use to meet applicable categorical Standards. Each New Source shall give estimates of the information requested in Section 6.1 B. ~~B~~ (below) of this Rule.

B. Users described above shall submit the information set forth below.

(1) All information required in Section 4.5A (1) (a), Section 4.5A (2), Section 4.5A (3) (a), and Section 4.5A (6) of this Rule.

(2) Measurement of pollutants.

a. The User shall provide the information required in Section 4.5 A (7) (a) through (e) of this Rule.

b. The User shall take a minimum of four (4) representative samples to compile the data necessary to comply with the requirements of this paragraph.

c. Samples should be taken immediately downstream from pretreatment facilities if such exist or immediately downstream of the regulated process if no pretreatment exists. If other wastewaters are mixed with the regulated wastewater prior to pretreatment, the User shall measure the flows and concentrations necessary to allow the use of the combined wastestream formula in Rule 62-625.410(6), F.A.C. to evaluate compliance with the Pretreatment Standards. Where an alternate concentration or mass limit has been calculated in accordance with Rule 62-625.410(6), F.A.C. this adjusted limit along with supporting data shall be submitted to the District;

d. Sampling and analysis shall be performed in accordance with Sections 6.11 and 6.12 of this Rule;

e. The District may allow the submission of a baseline report which utilizes only ~~—~~historical data so long as the data provides information sufficient to determine the need for industrial pretreatment measures;

~~A.~~ The baseline report shall indicate the time, date and place of sampling and ~~f.——~~methods of analysis, and shall certify that such sampling and analysis is ~~g.~~f. ~~—~~ representative of normal work cycles and expected pollutant discharges to the POTW.

(3) Compliance Certification. A statement, reviewed by the User's Authorized Representative as defined in Section 1.4(7) of this Rule and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the pretreatment standards and requirements.

(4) Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the pretreatment standards, the shortest schedule by which the User will provide such additional pretreatment and/or O&M must be provided. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard. A compliance schedule pursuant to this Section must meet the requirements set out in Section 6.2 of this Rule.

(5) Signature and Report Certification. All baseline monitoring reports must be certified in accordance with Section 6.15(A) of this Rule and signed by an Authorized Representative of the User as defined in Section 1.4(7) of this Rule.

6.2 Compliance Schedule Progress Reports

The following conditions shall apply to the compliance schedule required by Section 6.1(B)(4) of this Rule.

A. The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the User to meet the applicable Pretreatment Standards (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.).

B. No progress increment referred to in Section 6.2 (A) of this Rule~~paragraph (A) of this Section~~ shall exceed nine (9) months.

C. The User shall submit a progress report to the District no later than fourteen (14) days following each progress milestone date in the schedule and the final date for compliance, including, as a minimum, whether or not it complied with the increment of progress, the reason for delay, and, if appropriate, the steps being taken by the User to return to the established schedule.

D. In no event shall more than nine (9) months elapse between such progress reports.

6.3 Reports on Compliance with Categorical Pretreatment Standard Deadline

Within ninety (90) days following the date for final compliance with applicable categorical pretreatment standards, or in the case of a New Source following commencement of the introduction of wastewater into the POTW, any User subject to such pretreatment standards and requirements shall submit to the District, a report containing the information described in Sections 4.5 and 6.1(B)(2) of this Rule.

For Users subject to equivalent mass or concentration limits established in accordance with the procedures in Sections 4.5 and 6.1(B)(2) of this Rule, this report shall contain a reasonable measure of the User's long-term production rate. For all other Users subject to categorical pretreatment standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation), this report shall include the User's actual production during the appropriate sampling period. All compliance reports must be signed and certified in accordance with Section 6.15(A) of this Rule. All sampling will be done in conformance with Section 6.12 of this Rule.

6.4 Periodic Compliance Reports for Categorical Industrial Users

All SIUs are required to submit periodic compliance reports even if they have been designated a Non-Significant Categorical Industrial User (NSCIU).

A. Any CIU, except an NSCIU, after the compliance date of such pretreatment standard, or, in the case of a new source, after the commencement of the discharge into the POTW, shall submit to the District during the months of June and December, annually, unless required more frequently in the pretreatment standard or by the District in accordance with Section 6.4 D of this Rule, a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical pretreatment standards. In addition, this report shall include a record of measured or estimated average and maximum daily flows for the reporting period for the discharge reported. In cases where the pretreatment standard requires compliance with a best management practice (BMP) or pollution prevention alternative, the Industrial User (IU) shall submit documentation required by the District or the pretreatment standard necessary to determine the compliance status of the IU. The IU may request submission of this report in months other than June and December, if based on such factors as local high or low flow rates, holidays, or budget cycles, the alternate dates more accurately represent actual operating conditions.

B. The District may authorize a CIU to waive sampling of a pollutant regulated by a categorical pretreatment standard if the CIU demonstrates the following through sampling and other technical factors:
    (1) The pollutant is neither present nor expected to be present in the discharge, or the pollutant is present only at background levels from intake water and without any increase in the pollutant due to activities of the CIU; and
    (2) The pollutant is determined to be present solely due to sanitary wastewater discharged from the facility provided that the sanitary wastewater is not regulated by an applicable categorical standard and otherwise includes no process wastewater.

C. This authorization of the monitoring waiver is subject to the following conditions and does not supersede certification processes and requirements established in categorical pretreatment standards, except as specified in the categorical pretreatment standard:

(1) The monitoring waiver is valid only for the duration for the effective period of the individual wastewater discharge permit, but in no case longer than five (5) years. The CIU must submit a new request for the waiver before the waiver can be granted for each subsequent wastewater discharge permit.

(2) In making a demonstration that a pollutant is not present, the CIU must provide data from at least four (4) samplings of the facility's process wastewater prior to any treatment present at the facility that is representative of all wastewater from all processes. Non-detectable sample results may only be used as a demonstration that a pollutant is not present if FDEP's approved method from Rule 62-4.246, F.A.C., with the lowest method detection limit (MDL) for that pollutant was used in the analysis;

(3) The request for a monitoring waiver must be signed in accordance with Section 1.4(7) and include the certification statement in Section 6.15A of this Rule.

(4) The authorization must be included as a condition in the CIU's permit. The reasons supporting the waiver and any information submitted by the CIU in its request for the waiver must be maintained by the District for three (3) years after expiration of the waiver.

(5) Upon approval of the monitoring waiver and revision of the CIU's individual wastewater discharge permit by the District, the CIU must certify each report with the statement in Section 6.15(C) of this Rule.

(6) In the event that a waived pollutant is found to be present or is expected to be present because of changes that occur in the CIU's operations, the CIU must immediately notify the District and comply with the monitoring requirements of Section 6.4A of this Rule or other more frequent monitoring requirements imposed by the District.

D. All periodic compliance reports must be signed and certified in accordance with Section 6.15A of this Rule and signed by an authorized representative of the user as defined in Section 1.4(7) of this Rule.

E. Sampling and analysis shall be performed in accordance with Sections 6.11 and 6.12 of this Rule.

F. For this report, the IU will be required to collect the number of grab samples necessary to assess and assure compliance with applicable pretreatment standards and pretreatment requirements.

G. If a User subject to the reporting requirement in this Section monitors any regulated pollutant at the appropriate sampling location more frequently than required by the District, using the procedures prescribed in Section 6.12 of this Rule, the results of this monitoring shall be included in the report.

6.5 Periodic Compliance Reports for Industrial Users Not Subject to Categorical Pretreatment Standards

A. Industrial users with discharges that are not subject to categorical pretreatment standards shall submit to the District during the months of June and December annually, unless required more frequently in the pretreatment standard or by the District in accordance with Section 6.4 of this Rule, a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical pretreatment standards. In addition, this report shall include a record of measured or estimated average and maximum daily flows for the reporting period for the discharge reported in Section 6.1 B(2) of this Rule. In cases where the pretreatment

standard requires compliance with a BMP or pollution prevention alternative, the IU shall submit documentation required by the District or the pretreatment standard necessary to determine the compliance status of the IU. The IU may request submission of this report in months other than June and December, if based on such factors as local high or low flow rates, holidays, or budget cycles, the alternate dates more accurately represent actual operating conditions.

B. All periodic compliance reports must be certified in accordance with Section 6.15 A of this Rule and signed by an authorized representative of the user as defined in Section 1.4(7) of this Rule.

C. Sampling and analysis shall be performed in accordance with Sections 6.11 and 6.12 of this Rule.

D. For this report, the IU will be required to collect the number of grab samples necessary to assess and assure compliance with applicable pretreatment standards and requirements.

E. If an IU subject to the reporting requirement in this Section monitors any regulated pollutant at the appropriate sampling location more frequently than required by the District, using the procedures prescribed in Section 6.12 of this Rule, the results of this monitoring shall be included in the report.

6.6 Reports of Changed Conditions

Each User must notify the District of any significant changes to the User's operations or system which might alter the nature, quality, or volume of its wastewater at least thirty (30) days before the change (Rule 62-625.600(9), F.A.C.).

A. The District may require the User to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of a wastewater discharge permit application under Section 4.5 of this Rule.

B. The District may issue an individual wastewater discharge permit under Section 5.7 (Individual Wastewater Discharge Permit Reissuance) of this Rule or modify an existing wastewater discharge permit under Section 5.4 (Individual Wastewater Discharge Permit Modification) of this Rule in response to changed conditions or anticipated changed conditions.

C. Users are not permitted to implement any changes to their operations and/or system(s) which would alter the nature, quality or volume of the wastewater to be discharged to the POTW without prior written approval from the District to do so.

6.7 Reports of Potential Problems

A. In the case of any discharge, including, but not limited to, accidental discharges, discharges of a nonroutine, episodic nature, a noncustomary batch discharge, a Slug Discharge or Slug Load, that might cause potential problems for the POTW, the User shall immediately telephone and notify the District of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the User.

B. Within five (5) days following such discharge, the User shall, unless waived by the District, submit a detailed written report describing the cause(s) of the discharge and the measures to

be taken by the User to prevent similar future occurrences. Such notification shall not relieve the User of any expense, loss, damage, or other liability which might be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the User of any fines, penalties, or other liability which may be imposed pursuant to this Rule.

C. A notice shall be permanently posted on the User's bulletin board or other prominent place advising employees who to call in the event of a discharge described in Section 6.7 A. of this Rule~~paragraph A~~, above. Employers shall ensure that all employees, who could cause such a discharge to occur, are advised of the emergency notification procedure.

D. All Users are required to notify the District immediately of any changes at its facility affecting the potential for a Slug Discharge.

6.8 Reports from Unpermitted Users

All Users not required to obtain an individual wastewater discharge permit shall provide appropriate reports to the District as the District may require.

6.9 Notice of Violation/Repeat Sampling and Reporting

If sampling performed by a User indicates a violation, the User shall notify the District within twenty-four (24) hours of becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the District within thirty (30) days after becoming aware of the violation. Where the District has performed the sampling and analysis in lieu of the User, the District will perform the repeat sampling and analysis unless the User is notified and required to perform the repeat analysis. Re-sampling is not required if the District performs sampling at the Industrial User at a frequency of at least once per month, or the District performs sampling at the User's sampling location between the time when the initial sampling was conducted and the time when the User or the District receives the results of this sampling.

6.10 Notification of the Discharge of Hazardous Waste

A. Discharge of hazardous waste, as defined in rules published by the State of Florida or in Chapter 62-730, F.A.C., to the POTW is prohibited. The discharge of hazardous waste to the POTW shall be considered a violation of this rule.

B. Users shall notify the District and FDEP's hazardous waste and pretreatment authorities in writing of any discharge into the POTW of a substance which, if otherwise disposed of, would be a hazardous waste under ~~Chapter 62-730, F.A.C~~, 40 CFR Part 261.~~.~~ Such notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the User discharges more than one hundred (100) kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the IU: (1) An identification of the hazardous constituents contained in the wastes, (2) An estimation of the mass and concentration of such constituents in the waste stream discharged during that calendar month, and (3) An estimation of the mass of constituents in the waste

stream expected to be discharged during the following twelve (12) months. Users shall provide notification no later than thirty (30) days after the discharge of the listed or characteristic hazardous waste. Any notification under this paragraph need be submitted only once for each hazardous waste discharged. However, notifications of changed conditions must be submitted under Section 6.6 (Reports of Changed Conditions) of this Rule. The notification requirement in this Section does not apply to pollutants already reported by Users subject to categorical Pretreatment Standards under the self-monitoring requirements of Sections 6.1, 6.3 and 6.4 of this Rule.

C. In the case of any new FDEP regulations identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the IU must notify the District and the FDEP's hazardous waste and pretreatment authorities of the discharge of such substance within ninety (90) days of the effective date of such regulations.

D. In the case of any notification made under this Section, the IU shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

E. This provision does not create a right to discharge any substance not otherwise permitted to be discharged by this Rule, a permit issued thereunder, or any applicable Federal or State law.

6.11 Analytical Requirements

Analytical tests shall be performed in accordance with the techniques prescribed in 40 CFR Part 136, as of August 28, 2017~~July 1, 2009~~, hereby adopted and incorporated by reference. If a test for a specific component is not listed in 40 CFR Part 136, or if the test procedure has been determined to be inappropriate for the analyte in question (e.g., insufficient sensitivity) the laboratory, with the approval of the IU and the District, shall identify and propose a method for use in accordance with Rules 62-160.300 and 62-160.330, F.A.C. If a sampling procedure is not available or none of the approved procedures are appropriate for collecting the samples, the sampling organization, with the approval of the IU and the District, shall identify and propose a method for use in accordance with Rule 62-160.220, F.A.C.

6.12 Sample Collection

Samples collected to satisfy reporting requirements must be based on data obtained through appropriate quarterly sampling and analysis performed during the period covered by the report, based on data that is representative of conditions occurring during the quarterly reporting period.

A. Except in the case of NSCIUs, the reports required in Sections 6.1, 6.3, 6.4, and 6.5 of this Rule shall contain the results of sampling and analysis of the discharge, including the flow and the nature and concentration, or production and mass where requested by the District, of pollutants contained therein which are limited by the applicable pretreatment standards. This sampling and analysis may be performed by the District in lieu of the IU. Where the District performs the required sampling and analysis in lieu of the IU, the IU is not required to submit the compliance certification required in Sections 6.1, 6.3, 6.4 and 6.5 of this Rule. In addition, where the District collects all the information required for the report, including flow data, the IU is not required to submit the report. All laboratory analytical reports prepared by the IU or the District shall comply with Rule 62-160.340, F.A.C.

B. The reports required in Sections 6.1, 6.3, 6.4 and 6.5 of this Rule shall be based upon data obtained through sampling and analysis performed during the period covered by the report. These data shall be representative of conditions occurring during the reporting period. The District will indicate the frequency of monitoring necessary to assess and assure compliance by the IU with applicable Pretreatment Standards and Requirements.

C. For all sampling required by this ordinance, grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organic compounds. For all other pollutants, 24-hour composite samples must be obtained through flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the District. Where time-proportional composite sampling or grab sampling is authorized by the District, the sample must be representative of the discharge and the decision to allow the alternative sampling will be documented in the IU's file. Using protocols (including appropriate preservation) specified in Chapter 62-160, F.A.C., and DEP-SOP-001/01, multiple grabs collected during a 24-hour period may be composited prior to analysis as follows:

(1) Samples for cyanide, total phenols, and sulfides may be composited in the laboratory or in the field;

(2) Samples for volatile organics and oil and grease may be composited in the laboratory; and

(3) Composite samples for other parameters unaffected by the compositing procedures as allowed in FDEP's approved sampling procedures and laboratory methodologies may be authorized by the District, as appropriate.

D. Oil and grease samples shall be collected in accordance with Section 6.12 C of this Rule ~~,~~ above, unless the sampling location or point cannot be physically accessed to perform a direct collection of a grab sample. In these instances, the sample shall be pumped from the sampling location or point into the sample container using a peristaltic-type pump. All pump tubing used for sample collection must be new or pre-cleaned and must be changed between sample containers and sample points. The pump tubing shall not be pre-rinsed or flushed with sample prior to collecting the sample. The report of analysis shall indicate that a peristaltic pump was used to collect the oil and grease sample. Samples for oil and grease, temperature, pH, cyanide, total phenols, sulfides, and volatile organic compounds must be obtained using grab collection techniques.

E. Sampling required in support of baseline monitoring reporting and 90-day compliance reporting required in Section 6.1 and 6.2 of this Rule shall be conducted as follows:

(1) For Users where historical sampling does not exist, a minimum of four (4) grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds.

(2) For Users where historical sampling data is available, the District may authorize a reduced sample quantity.~~lower minimum.~~

6.13 Date of Receipt of Reports

Written reports will be deemed to have been submitted on the date postmarked. For reports, which are not mailed, postage prepaid, into a mail facility serviced by the United States Postal Service, the date of receipt of the report by the District shall govern.

6.14 Record Keeping

A. Any IU subject to the reporting requirements of this ordinance shall:

(1) Maintain records of all information resulting from any monitoring activities required by this ordinance, including documentation associated with BMPs. All sampling and analysis activities shall be subject to the record-keeping requirements specified in Chapter 62-160, F.A.C.; and

(2) Maintain for a minimum of three (3) years all records of monitoring results (whether or not such monitoring activities are required by this ordinance), including documentation associated with BMPs and shall make such records available for inspection and copying by the District and FDEP. This period of retention shall be extended during the course of any unresolved litigation regarding the IU or the District, where the IU has been specifically notified of a longer retention period by the District.

B. Records shall include the date, exact place, method, and time of sampling, and the name of the person(s) taking the samples; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.

6.15 Certification Statement

A. Certification of Permit Applications, User Reports and Initial Monitoring Waiver—The following certification statement is required to be signed and submitted by Users submitting permit applications in accordance with Section 4.6 of this Rule; Users submitting baseline monitoring reports under Section 6.1 [Note: See Rule 62-625.600(1)(a) F.A.C.]; Users submitting reports on compliance with the categorical Pretreatment Standard deadlines under Section 6.3 of this Rule [Note: See Rule 62-625.600(3) F.A.C.]; Users submitting periodic compliance reports required by Section 6.4 A–D of this Rule [Note: See Rule 62-625.600(4) and (7) F.A.C.], and Users submitting an initial request to forego sampling of a pollutant on the basis of Section 6.4C(3) of this Rule [Note: See Rule 62-625.600(4)(c)(2) F.A.C.]. The following certification statement must be signed by an Authorized Representative as defined in Section 1.4(7) of this Rule:

> *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

B. Annual Certification for Non-Significant Categorical Industrial Users (NSCIU) - A facility determined to be a NSCIU by the District, pursuant to Section 1.4(40) and Section 4.6C of this Rule, must annually submit the following certification statement signed in accordance with the signatory requirements in Section 1.4(7) of this Rule. This certification must accompany an alternative report required by the District:

Based on my inquiry of the person or persons directly responsible for managing compliance with the categorical Pretreatment Standards under 40 CFR ____, I certify that, to the best of my knowledge and belief that during the period from _____, _____ to _____, _____ [months, days, year]:
(a) The facility described as _____ [facility name] met the definition of a Non-Significant Categorical Industrial User as described in Section 1.4(40~~32~~) of this Rule.
(b) The facility complied with all applicable Pretreatment Standards and requirements during this reporting period; and (c) the facility never discharged more than 100 gallons of total cateorical wastewater on any given day during this reporting period.

This compliance certification is based on the following information.
_____
_____

C. Certification of Pollutants Not Present

Users that have an approved monitoring waiver based on Section 6.4 B of this Rule must certify on each report with the following statement that there has been no increase in the pollutant in its wastestream due to activities of the User.

Based on my inquiry of the person or persons directly responsible for managing compliance with the Pretreatment Standard for 40 CFR _____ [specify applicable National Pretreatment Standard part(s)], I certify that, to the best of my knowledge and belief, there has been no increase in the level of _____ [list pollutant(s)] in the wastewaters due to the activities at the facility since filing of the last periodic report under Section 6.4.A of this Rule.

SECTION 7 - COMPLIANCE MONITORING

7.1 Right of Entry: Inspection and Sampling

The District shall have the right to enter the premises of any User to verify whether the User is complying with all requirements of this Rule and any individual wastewater discharge permit or order issued hereunder. Users shall allow District personnel ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

A. Where a User has security measures in force which require proper identification and clearance before entry into its premises, the User shall make necessary arrangements with its site security personnel so that, upon presentation of suitable identification, District personnel shall be permitted to enter without delay for the purposes of performing specific responsibilities.
B. District personnel shall have the right to set up on the User's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the User's operations.

C. The District may require the User to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the User at its own expense. All monitoring facilities shall be constructed and maintained in accordance with all applicable local construction standards and specifications and approved by the District. All devices used to measure wastewater flow and quality shall be calibrated annually to ensure their accuracy.

D. Unreasonable delays in allowing District personnel access to the User's premises shall be a violation of this Rule.

7.2 Search Warrants

The District may seek issuance of a search warrant(s) from any court of competent jurisdiction for any of the following reasons:

A. Refusal of access to a building, structure or property or any part thereof.

B. If the District is able to demonstrate probable cause to believe that there may be a violation of this Rule.

C. If there is a need to inspect and sample as part of a routine inspection and sampling program of the District.

D. To protect public health, safety and welfare within the District.

SECTION 8 - CONFIDENTIAL INFORMATION

In accordance with Chapter 119, F.S., all information, documents, and data submitted to the District are considered to be public information, and as such shall be available to the public. However, in accordance with Section 403.111, F.S., any information submitted to the District in accordance with this Rule may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions, or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, the District shall make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in Section 403.111, F.S. Wastewater constituents and characteristics and other "effluent data" as defined by 40 CFR 2.302 shall not be recognized as confidential information and shall be available to the public without restriction.

SECTION 9 - PUBLICATION OF USERS IN SIGNIFICANT NON-COMPLIANCE

The District shall publish annually, in a newspaper(s) of general circulation that provides meaningful public notice within the jurisdiction(s) served by the District, a list of the Users which, during the previous twelve (12) months, were in Significant Noncompliance with applicable Pretreatment Standards and Requirements. The term Significant Noncompliance shall be applicable to all Significant Industrial Users (SIU) or any other Industrial User that violates one (1) or more of the following criteria:

A. Chronic violations of wastewater discharge limits defined here as those in which sixty six percent (66%) or more of all the measurements taken for the same pollutant parameter taken

during a six (6) month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including Instantaneous Limits as defined in Section 2.4 of this Rule;

B. Technical Review Criteria (TRC) violations, defined here as those in which thirty three percent (33%) or more of wastewater measurements taken for each pollutant parameter during a six (6) month period equals or exceeds the product of the numeric Pretreatment Standard or Requirement including Instantaneous Limits, multiplied by the applicable TRC (1.4 for BOD, TSS, fats, oils and grease, and 1.2 for all other pollutants except pH);

C. Any other violation of a Pretreatment Standard or Requirement (Daily Maximum, Long Term Average, Instantaneous Limit, or Narrative Standard) that the District determines has caused, alone or in combination with other discharges, Interference or Pass Through (including endangering the health of POTW personnel or the general public);

D. Any discharge that has resulted in the District's exercise of its emergency authority to halt or prevent such a discharge;

E. Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in an individual wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;

F. Failure to provide, within forty-five (45) days after the due date, any required reports, including baseline monitoring reports, reports on compliance with categorical Pretreatment Standard deadlines, periodic self-monitoring reports, and reports on compliance with compliance schedules;

G. Failure to accurately report noncompliance; or

H. Any other violation(s), which may include a violation of Best Management Practices, which the District determines will adversely affect the operation or implementation of the local pretreatment program.

SECTION 10 - ADMINISTRATIVE ENFORCEMENT REMEDIES

10.1 Notification of Violation

When the District finds that a User has violated, or continues to violate, any provision of this Rule, an individual wastewater discharge permit or order issued hereunder, or any other Pretreatment Standard or Requirement, the District may serve upon that User a written Notice of Violation. Within ten (10) days of the receipt of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted by the User to the District. Submission of this plan in no way relieves the User of liability for any violations occurring before or after receipt of the Notice of Violation. Nothing in this Section shall limit the authority of the District to take any action, including emergency actions or any other enforcement action, prior to issuing a Notice of Violation.

10.2 Consent Orders

The District may enter into Consent Orders~~, assurances of compliance,~~ or other similar documents establishing an agreement with any User responsible for non-compliance. Such documents shall include specific action to be taken by the User to correct the non-compliance within a time period specified by

the document. Such documents shall have the same force and effect as the administrative orders issued pursuant to Sections 10.4 and 10.5 of this Rule and shall be judicially enforceable.

10.3 Show Cause Hearing

The District may order, via a certified letter or registered mail, a User which has violated or continues to violate any provision of this Rule, an individual wastewater discharge permit or order issued hereunder, or any other Pretreatment Standard or Requirement, to appear before the District and show cause why the proposed enforcement action should not be taken. Notice shall be served on the User specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the User show cause why the proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing. Such notice may be served on any authorized representative of the User. A show cause hearing shall not be a bar against, or prerequisite for, taking any other action against the User.

10.4 Compliance Orders

When the District finds that a User has violated, or continues to violate any provision of this Rule, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, the District may issue an order to the User responsible for the discharge directing that the User come into compliance within a specified time. If the User does not come into compliance within the time specified in the order, sewer service may be discontinued unless adequate treatment facilities, devices, or other related appurtenances are installed and properly operated. Compliance orders may also contain other requirements to address the non-compliance, including additional self-monitoring, and management practices designed to minimize the amount of pollutants discharged to the sewer. A compliance order may not extend the deadline for compliance established by a Pretreatment Standard or Requirement, nor does a compliance order relieve the User of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a bar against, or a prerequisite for, taking any other action against the User.

10.5 Cease and Desist Orders

When the District finds that a User has violated, or continues to violate, any provision of this Rule, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, or that the User's past violations are likely to recur, the District may issue an order to the User directing it to cease and desist all such violations and directing the User to:

A. Immediately comply with all requirements; and

B. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and/or terminating the discharge. Issuance of a cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the User.

10.6 Administrative Fines

A. When the District finds that a User has violated or continues to violate any provision of this Rule, an industrial wastewater discharge permit or order issued hereunder, or any other Pretreatment Standard or Requirement, the District may fine such User in at least the amount of one-thousand dollars ($1,000) a day for each violation. Such fines shall be assessed on a per violation, per day basis. In the case of monthly or other long term average discharge limits, fines shall be assessed for each day during the period of violation. The District may add the costs of preparing administrative enforcement actions, such as notices and orders, to the fine.

B. Unpaid charges, fines, and penalties shall, after ninety (90) calendar days, be assessed an additional penalty of two percent (2%) of the unpaid balance, and interest shall accrue thereafter at a rate of one and one-half percent (1.5%) per month. A lien against the User's property will be sought for unpaid charges, fines, and penalties.

C. Users desiring to dispute such fines must file a written request for the District to reconsider the fine along with full payment of the fine amount within thirty (30) days of being notified of the fine. Where a request has merit, the District shall convene a hearing on the matter within forty-five (45) days of receiving the request from the User. In the event the User's appeal is successful, the payment, together with any interest accruing thereto, shall be returned to the User. The District ~~may add the~~will also return any costs previously added to the fine which were assessed to cover the District's cost of preparing administrative enforcement actions~~, such as notices and orders, to the fine~~.

D. Issuance of an administrative fine shall not be a bar against, or be a prerequisite for, taking any other action against the User.

10.7 Emergency Suspensions

The District may immediately suspend a User's discharge, after informal notice to the User, whenever such suspension is necessary to stop an actual or threatened discharge which reasonably appears to present or cause an imminent or substantial endangerment to the health or welfare of persons. The District may also immediately suspend a User's discharge, after notice and opportunity to respond, that threatens to interfere with the operation of the POTW or which presents, or may present, an endangerment to the environment.

A. Any User notified of a suspension of its discharge shall immediately stop or eliminate its contribution. In the event of a User's failure to immediately comply voluntarily with the suspension order, the District shall take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The District shall allow the User to recommence its discharge when the User has demonstrated to the satisfaction of the District that the period of endangerment has passed, unless the termination proceedings in Section 10.8 of this Rule are initiated against the User.

B. A User that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful contribution and the measures taken to prevent any future occurrence, to the District prior to the date of any show cause or termination hearing under Sections 10.3 and 10.8 of this Rule.

Nothing in this Section shall be interpreted as requiring a hearing prior to any emergency suspension under this Rule.

10.8 Termination of Discharge (Non-Emergency)

In addition to the provisions in Section 5.6 of this Rule, any User that violates any of the following conditions is subject to discharge termination:

A. Violation of individual wastewater discharge permit conditions;
B. Failure to accurately report the wastewater constituents and characteristics of its discharge;
C. Failure to report significant changes in operations or wastewater volume, constituents and characteristics prior to discharge;
D. Refusal of reasonable access to the User's premises for the purpose of inspection, monitoring or sampling; or
E. Violation of the Pretreatment Standards defined in Section 2 of this Rule.

Such User will be notified of the proposed termination of its discharge and be offered an opportunity to show cause under Section 10.3 of this Rule why the proposed action should not be taken. Exercise of this option by the District shall not be a bar to, or a prerequisite for, taking any other action against the User.

SECTION 11 - JUDICIAL ENFORCEMENT REMEDIES

11.1 Injunctive Relief

When the District finds that a User has violated, or continues to violate, any provision of this Rule, an industrial wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or Requirement, the District may seek injunctive, civil and criminal remedies in at least the amount of one thousand dollars ($1,000.00) a day for each violation in the court(s) of applicable jurisdiction. The District may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the User to conduct environmental remediation. A petition for injunctive relief shall not be a bar against, or a prerequisite for, taking any other action against a User.

11.2 Civil Penalties

The District may seek civil penalties against a User by the ~~applicable~~appropriate State attorney with jurisdiction.

A. A User which has violated or continues to violate any provision of this Rule, an industrial wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement shall be liable to the District for a maximum civil penalty of not less than $1,000.00 per violation, per day. In the case of a monthly or other long-term average discharge limit, penalties shall accrue for each day during the period of the violation.

B. The District may recover reasonable attorneys' fees, court costs, and other expenses associated with enforcement activities, including sampling and monitoring expenses, and the cost of any actual damages incurred by the District.

C. In determining the amount of civil liability, the Court shall take into account all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration, any economic benefit gained through the User's violation, corrective actions by the User, the compliance history of the User, and any other factor as justice requires.

D. Filing a suit for civil penalties shall not be a bar against, or a prerequisite for, taking any other action against a User.

11.3 Criminal Prosecution

The District may seek criminal prosecution of Users by the appropriate State attorney with jurisdiction.

A. A User which has willfully or negligently violated any provision of this Rule, an industrial wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement shall, upon conviction, be guilty of a misdemeanor, punishable by a fine of not less than one-thousand dollars ($1,000) per day, or imprisonment in accordance with State sentencing guidelines, or both.

B. A User which has willfully or negligently introduced any substance into the POTW which causes personal injury or property damage shall, upon conviction, be guilty of a misdemeanor and be subject to a penalty of at least one-thousand dollars ($1,000) per violation per day and/or be subject to imprisonment in accordance with State sentencing guidelines, or both. This penalty shall be in addition to any other cause of action for personal injury or property damage available under law.

C. A User which knowingly makes false statements, representations, or certifications in any application, record, report, plan, or other documentation filed, or required to be maintained, pursuant to this Rule, wastewater discharge permit, or order issued hereunder, or who falsified, tampered with, or knowingly rendered inaccurate any monitoring device or method required under this Rule shall, upon conviction, be punished by a fine of not less than $1,000 per violation per day, or imprisonment in accordance with State sentencing guidelines, or both.

D. In the event of a second conviction, an IU shall be punished by a fine of not less than one thousand dollars ($1,000) per violation per day, or imprisonment in accordance with State sentencing guidelines, or both.

11.4 Remedies Non-Exclusive

The remedies provided for in this Rule are not exclusive. The District reserves the right to take any, all, or any combination of these actions against a non-compliant User. Enforcement in response to pretreatment violations will generally be in accordance with this Rule. However, the District reserves the right to take other action against any User when the circumstances warrant. Further, the District is empowered to take more than one enforcement action against any non-compliant User. These actions may be taken concurrently.

SECTION 12 - AFFIRMATIVE DEFENSES TO DISCHARGE VIOLATIONS

12.1 Upset

A. For the purposes of this Section, upset means an exceptional incident in which there is unintentional and temporary non-compliance with applicable Pretreatment Standards because of factors beyond the reasonable control of the User. An upset does not include non-compliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

B. An upset shall constitute an affirmative defense to an action brought for non-compliance with applicable Pretreatment Standards if the requirements of paragraph C of this Section are met.

C. A User who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and the User can identify the root cause cause(s) of the upset; and

(2) The facility was at the time being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures; and

(3) The User has submitted the following information to the District and Plant Manager within twenty-four (24) hours of becoming aware of the upset. Note: If this information is provided orally, a written submission must be provided within five (5) days and include at a minimum the following information:

(a) A description of the indirect discharge and cause of non-compliance;

(b) The period of non-compliance, including exact dates and times or, if not corrected, the anticipated time the non-compliance is expected to continue; and

(c) Steps being taken and/or planned to reduce, eliminate, and prevent recurrence of non-compliance.

D. In any enforcement proceeding, the User seeking to establish the occurrence of an upset shall have the burden of proof.

E. Users will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for non-compliance with applicable pretreatment standards.

F. Users shall control production of all discharges to the extent necessary to maintain compliance with applicable pretreatment standards upon reduction, loss, or failure of their treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

12.2 Prohibited Discharge Standards

A User shall have an affirmative defense to an enforcement action brought against it for non-compliance with the prohibitions in Section 2.1(A) and Section 2.1(B)(3 through 7 and 9 through 18) of this Rule if it can prove that it did not know, or have reason to know, that its discharge, alone or in conjunction with discharges from other sources, would cause Pass Through or Interference and that either:

(a) A Local Limit exists for each pollutant discharged and the User was in compliance with each limit directly prior to, and during, the Pass Through or Interference; or

(b) No Local Limit exists, but the discharge did not change substantially in nature or constituents from the User's prior discharge when the District was regularly in compliance with its NPDES permit, and in the case of Interference, was in compliance with applicable effluent and/or biosolids use or disposal requirements.

12.3 Bypass

A. A User may allow ~~any~~ a temporary bypass to occur in order to perform simple maintenance to ensure efficient opreration, as long as the bypass does not result in a violation of the ~~which does not cause~~ applicable Pretreatment Standards or Requirements ~~to be violated, but only if it is for essential maintenance to assure efficient operation~~. These bypasses are not subject to the provision of paragraphs (B) and (C) of this Section.

B. Bypass Notification

1. If a User knows in advance of the need for a bypass, it shall submit prior notice to the District at least ten (10) days before the date of the bypass, if possible. If a User does not know of the need for a bypass ten (10) days prior to the bypass then the User shall notify the District immediately upon knowledge of the need for the bypass.
2. A User shall submit oral notice to the District of an unanticipated bypass that exceeds applicable pretreatment standards within twenty-four (24) hours from the time it becomes aware of the bypass. A written submission shall also be provided within five (5) days of the time the User becomes aware of the bypass. The written submission shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass. The District may waive the written report on a case-by-case basis if the oral report has been received within twenty four (24) hours.
3. In the event further information is requested, the User shall provide the information within forty-eight (48) hours of the request. If the event occurs during a holiday period or weekend, the written notification shall be the first working day following the holiday period or weekend. Such notification shall not relieve the User of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall notification relieve the User of any fines, civil penalties, or other liability which may be imposed by this Rule or other applicable law.

C. Prohibition of Bypass

1. Any ~~B~~bypass that will result in an exceedance of any ~~exceeds~~ applicable Pretreatment Standard~~s~~ is prohibited, and the District may take an enforcement action against a User for a bypass, unless:
   a. The b~~B~~ypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
   b. There were no technically feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of

reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. The User submitted notices as required under Section 12.3B (above) of this Ruleparagraph (B) of this Section.

(2) The District may approve an anticipated bypass, after considering its adverse effects, if the District determines that it will meet the three (3) conditions listed in Section 12.3C(1)paragraph (C)(1)(-above), of this Rule.

SECTION 13 - MISCELLANEOUS PROVISIONS

13.1 Pretreatment Charges and Fees

The District may adopt reasonable fees for reimbursement of costs of setting up and operating the District's Pretreatment Program which may include:

A. Fees for wastewater discharge permit applications including the cost of processing such applications;

B. Fees for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing a User's discharge, and reviewing monitoring reports submitted by Users;

C. Fees for reviewing and responding to accidental discharge procedures and construction;

D. Fees for filing appeals; and

E. Fees to recover administrative and legal costs associated with an enforcement activity taken by the District to address noncompliance by a User; and

F. Other fees as the District may deem necessary to carry out the requirements contained herein. These fees relate solely to the matters covered by this Rule and are separate from all other fees, fines, and penalties chargeable by the District.

13.2 Severability

If any provision of this Rule is invalidated by any court of competent jurisdiction, the remaining provisions shall not be affected and shall continue in full force and effect.

13.3 Conflicts

All other District Rules and parts of other District Rules inconsistent or conflicting with any part of this Rule are hereby repealed to the extent of the inconsistency or conflict.

SECTION 14 - EFFECTIVE DATE

This Rule shall be in full force and effect immediately following its approval and publication, as provided by law.

Note: Chapter 31-13 was amended and restated in its entirety based upon the EPA Model Rule, and approved in its entirety by the Governing Board on ~~January 16, 2020~~March ??, 2023~~October 20, 2011~~. The former version is available in the District archives. The Specific Authority for the entire Chapter 31-13 is from the District's enabling Legislation, Chapter 2021-249~~2002-358~~, Laws of Florida, including but not limited to Section (6), subsections (13), (14), (19) and (24).
History: New 5-5-85, Amended 5-15-92, 8-19-99, 10-20-2011, 1-16-2020,~~.~~ March 16, 2023.

_____ LRD Governing Board Chairman, ~~Stephen B. Rockoff~~Dr. Matt H. Rostock

_____ LRD General Counsel, Curtis Shenkman, P.A.

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

_____ LRD ~~Operations~~ Plant Manager, Jason Pugsley, P.E.

_____ LRD Industrial Pretreatment Coordinator, Deveyand Dave

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

To: Governing Board

From: Kara Peterson, Director of Finance and Administration

Date: March 10, 2023

Subject: Liability and Workers Compensation Insurance

The District's current Property, General Liability, Automobile Liability and Physical Damage, and Workers' Compensation insurance policy with Preferred Governmental Insurance Trust (Preferred) and Pollution Liability with Chubb Insurance expires on April 30, 2023. Staff has updated the District's asset and payroll schedules to reflect our current exposures and in return have received exceptionally high renewal quotes for certain policies. Staff has determined that it is in the best interest of the District to go to market to see if we can find better options. We will be prepared to discuss renewal options next month.

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
Stephen B. Rockoff BOARD MEMBER
Clinton R. Yerkes BOARD MEMBER

Water Reclamation – Environmental Education – River Restoration

Item 6E

Retirement Plan Investment Policy – will be distributed as soon as the information is available.

LOXAHATCHEE RIVER DISTRICT

Neighborhood Sewering Schedule-Revised February 2020

Rank *	Area Description	# Lots	Activity	Original Target Date	Revised Target Start Date
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
H	Olympus Dr, Juno (LP)	2	Notified Owners – June 2013 Prelim. Design started – August 2017 Notice of Intent to Assess – July 2020 Preliminary Assessment – Jan 2023 Final Assessment – Feb 2023	2016	2021
	605+607 Military Trl (LP)	2	Notified Owners – June 2020 Notice of Intent – Jan 2021	2022	
	18041 69th Terrace	1	LRD procedures shared for connection to sewer services Statutory Way Provision – Jan 2022 In Procurement for Construction	N/A	2022
	5331 Center Street	1	LRD procedures shared for connection to sewer services Notice of Intent – March 2022 In Construction	N/A	2022
	Island Way Property	1	Notice of Intent – August 2022 Project is in permitting	N/A	2022

Rank *	Area Description	# Lots	Activity	Original Target Date	Revised Target Start Date
AA	Peninsular Road	4	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	171st 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 Statutory Way Provision (2) – June 2021 Project is in Construction	2014	AEO
D	Loggerhead Park *(institutional)*	6 ECs	Need Easements from County-No database	2014	AEO
DD	Taylor Road	38	Notified Owners – September 2011 Private Roads	2015	AEO
FF	Rolling Hills	50	Notified Owners – Jan. 2013 - Private HOA Notice of Intent to Assess – October 2019 Award of Contract – December 2021 Project Under Construction	2017	2021
FF	North A1A	3	Postponed-Town activities in area No database	2012	AEO
GG	815 S US 1 (Yum Yum Tree)	9 ecs	Notified Owner – November 2014	2016	AEO
GG	Rockinghorse *(north of Roebuck Road)*	11	Notified Owners – January 2013	2018	AEO
GG	Castle Rd SE	5	Notified Owners – Jan 2013-private road	2018	AEO
GG	Jupiter Rd SE	4	Notified Owners – Jan 2013-private road	2018	AEO
HH	Harbor Rd. S. LPSS	6	Notified Owners – January 2014-private road	2017	AEO
HH	Indian Hills SE	12	Notified Owners – January 2016 Easement for Road & Utilities, No Dedication	2019	AEO
16	Limestone Creek Road West	49	Notified Owners – January 2013-private road	2018	TBD
19	US Coast Guard Station Offices *(institutional)* PX Commercial *(commercial)*	2 ECs 2 ECs	US Government - private roads-No database Contract for installation of sanitary sewers – September 2020 Project Under Construction	2019	2021
	109+111 Old Jupiter Beach Road	2	Notified Owners – September 2021 Follow Up Reminder – July 2022 Constr. Plans Complete – Pending Owners		
	182nd Road North	12	Sewering Pricing Request by 50% of Owners Conceptual Design/Cost Est. In Progress		

* Rank based upon "2010 Septic System Inventory & Assessment
TBD = To be determined AEO = As easements are obtained

CURTIS L. SHENKMAN
Board Certified
Real Estate Attorney
HUNTER SHENKMAN
Attorney

CURTIS SHENKMAN, P.A.

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Curtis@PalmBeachLawyer.Law

LEGAL ASSISTANTS
REAL ESTATE
JUDY D. MONTEIRO
DENISE B. PAOLUCCI

March 6, 2023

Loxahatchee River Environmental Control District
D. Albrey Arrington, Exec. Dir. and Board Members (sent by email to S. Patel)
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, and/or monitoring 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.

ALL CASES HAVE NO CHANGE IN STATUS SINCE LAST REPORT.

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

OTHER LITIGATION

IN THE CIRCUIT COURT OF THE FIFTEENTH JUDICIAL CIRCUIT, IN AND FOR PALM BEACH COUNTY, FLORIDA
CASE NO. 50-2019 CA 014447 XXXX MB AB

FRED BEMAN, Plaintiff,vs.
LOXAHATCHEE RIVER DISTRICT,
Defendant.

December 6, 2017. Auto Accident involving District vehicle and vehicle driven by Fred Beman.
April 15, 2020. Summons & Complaint served upon the District.
April 20, 2020. Attorney Lyman Reynolds, appointed be District's Insurance Carrier to Defend the District under the District's Insurance Policy.
May 4, 2020. District's Motion to Dismiss filed.
July 8, 2020. District's attorney reports Motion to Dismiss not yet set for a hearing.
August 19, 2020. Agreed Order permitting transfer of the case to Martin County Sept 16, 2020. Amended Complaint filed in Martin County
November 16, 2021, Notice of Lack of Prosecution filed in Palm Beach County.
Dec 2, 2021, Summons served on the District; Attorney Reynolds responded with Motion to Dismiss on December 17, 2021.
January 14, 2022. District's Responses to Plaintiff's Request for Production and Interrogatories was filed.
January 31, 2022. District's Motion to Dismiss denied. District's Answer due by February 20, 2022, being prepared by Attorney Reynolds.
February 20, 2022, District's Answer Filed.
April 22, 2022, Deposition of Plaintiff
June 21, 2022, Attorney Reynolds indicated projected trial date is December 18, 2023, and provided confidential information to claims adjuster.
November 1, 2022 Attorney Reynolds office setting Pre Trial MEDIATION in January 2023.
January 13, 2023 Dr. Michael Zeide performs CME on Plaintiff
March 1, 2023 Mediation being scheduled for May 2023

Pre-Suit Notice of Claim under FS 768.28 (6)(a)
Dated August 3, 2020, from Attorney for Plaintiff

Donovan Mackey and Dee Mackey, Plaintiff
Vs. LOXAHATCHEE RIVER DISTRICT,
Defendant.

On or about October 2019 sewage back up into 141 Beacon Lane, Jupiter, FL 33469 (Jupiter Inlet Colony). Plaintiffs claim personal injury from the sewage back up.
August 3, 2020, District notified District's insurance carrier of the claim.
August 18, 2020, Insurance Adjuster for the District assigned the claim.
As of July 11, 2022, No activity since Adjuster assigned the claim
Plaintiff cannot file suit until claim is denied. 768.28 (6)(b).
Statute of Limitations is running on the claim.
NO CHANGE IN STATUS SINCE JULY 2022 REPORT.

LIEN FORECLOSURES

NONE

MORTGAGE OR LIEN FORECLOSURES / LRD COUNTERCLAIMS/CROSSCLAIMS

NONE

Loxahatchee River Environmental Control District
Monthly Status Report
February 28, 2023

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

The following is a summary of work performed by Baxter and Woodman, Inc. (B&W), on District projects for the monthly period ending February 28, 2023.

Irrigation Quality 511 (IQ-511) Pump Station Piping Improvements

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

- Successful start up of IQ-511 was performed on January 10, 2023.
- Substantial Walk Through was performed on January 13, 2023.
- Final Walk Through was performed on February 7, 2023.
- Contractor has completed all punch list items except removal of the DIP pipe, repainting of the electrical building and repair of the fiber line.
- Contractor has not submitted the final payment application or final as-builts.
- FDEP performed an inspection on February 15 at IQ-511. Our Inspector was onsite to meet the inspectors and no issues were reported.

Structural Condition Assessment of Headworks, Diversion Structure A

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

- Condition assessment of headworks structure was performed on January 12, 2023 and Draft Letter Report submitted to the District January 13, 2023.

Lift Station Control Panels & RTU Upgrades

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

Surveys received and under review for lift stations: #21, #29, #32, #33, #122, #132, #139, #155, #228, #232, #236, #238, and #264.

Surveys reviewed and approved for the following lift stations. Starting preparation of the site plans.

- LS #3 216 Jupiter Woods Dr
- LS #11 1110 Kriss Ln
- LS #24 110 Mohican Blvd
- LS #121 4210 River Edge Rd
- LS #126 34 Fisherman's Way
- LS #153 350 Bush Rd
- LS #164 19969 Loxahatchee Pointe Dr

- LS #191 706 S. Pennock Ln
- LS #207 51 Wandering Trail
- LS #252 234 Sweet Bay Ci
- LS #260 176 Ritz Carlton Club Dr
- LS #301 250 Thelma Ave

Respectfully Submitted by:

BAXTER & WOODMAN, INC.

Rebecca Travis, P.E.
Executive Vice President / Florida Division Manager

500 S. Australian Ave., Suite 850
West Palm Beach, FL 33401
Office: +1 (561) 746-6900

Loxahatchee River Environmental Control District
CMA Project Status Update
March 7, 2023

1. BLM House Demolition and Reconstruction (CMA Project # 494.001)
   Activities Performed:
   - Conceptual Design Memorandum and building layout options were approved by the Board on 10/21/21.
   - A coordination meeting was held 11/12/21.
   - 90% design, specifications and cost estimate were submitted.
   - LRD plan comments were addressed.
   - Proposed roof alternative design was submitted to LRD for review (to address comments from SHPO).
   - Bid documents were submitted to LRD.
   - Comments were received from LRD and meetings/calls conducted to review.
   - Final bid documents were submitted to LRD.
   - Project advertised for bid (bids due January 10, 2023, anticipated award at January Board meeting).
   - Recommendation of bid rejection was presented to the Board on January 19, 2023. Board voted to reject all bids.
   - Conducted discussions with LRD staff on possible project adjustments to save costs.
   - Project on hold pending cost review.

2. 2500 Jupiter Park Drive Conceptual Site Planning
   Activities Performed:
   - Conducted kickoff meeting.
   - Environmental field work was performed, report submitted, comments received from LRD, revised report submitted.
   - Staff and Board survey were performed.
   - Existing site base plan was prepared.
   - A review of adjacent stormwater permits was performed.
   - Site concept plans were prepared.
   - Site visits and meeting with LRD were conducted to review survey results and concept plans.
   - Presented survey results and concept plans to the Board.
   - Submitted data request to LRD for massing study and received results. Provided LRD with initial space calculations.
   - Reviewed WWTF capacity expansion goals with LRD. Submitted memorandum on the WWTF future space to LRD.
   - Submitted draft Site Security memorandum, received comments from LRD, and submitted final memorandum.
   - Draft massing concepts were presented to LRD at the meeting.
   - LRD comments were incorporated, and a revised massing study was submitted.
   - LRD provided comments on the revised massing study.
   - Revised massing study submitted.
   - Draft site plans submitted.
   - Site planning memorandum underway.

Holtz Consulting Engineers, Inc.

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: March 9, 2023

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 March 9, 2023. **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.**

Electrical System Condition Assessment, Short Circuit, Device Coordination and Arc Flash Study

- HCE's electrical subconsultant, Hillers Electrical Engineering, is underway with the efforts for this project. The first items to be submitted for the project include an updated plant one line diagram and the draft condition assessment analysis technical memorandum.

  Schedule Update:
  The updated one-line diagram will be completed and submitted to the District by March 10, 2023. The draft technical memorandum for the condition assessment analysis will be submitted to the District for review by May 19, 2023.

Greenhouse Gas Strategies Evaluation

- *HCE is currently coordinating with Hazen and the District to schedule a visit to other floating solar installations in the state*. Hazen is currently working on completing the iron vs. bioxide analysis. The stress testing event for the District's clarifiers occurred at the end of February. A meeting is scheduled for March 13, 2023 to review the results.

  Schedule Update:
  All work is on schedule. The project is scheduled to be completed by June 9, 2023.

Lift Station No. 082 Improvements

- The Town of Jupiter permit for the water main relocation has been submitted through the permitting portal. The sketch and legal description for the new easement of the proposed water main should be completed this week and will be included with the permit application. Additionally, HCE will coordinate with Orion (Shoppes of Jupiter plaza owner) to sign a new standard easement agreement.

Schedule Update:
The Contractor is currently working on preparing the change order for the water main relocation, new tie-in location for the force main, and revisions to the generator drawings that include a retaining wall, concrete footer, and aluminum guardrail on the west and north side of the pad. This change order will include the time extension required to complete this work. The current contractual final completion date is April 13, 2023.

Country Club Drive Force Main Transmission System Preliminary Evaluation

- *The draft technical memorandum was submitted to the District on June 10, 2022 for review and comment. Upon receipt of the comments from the District, the memorandum will be finalized and transmitted to the District.*

Schedule Update: *Per the work authorization agreement, upon receipt of comments from the District on the draft memorandum, the final memorandum will be prepared and submitted within two weeks.*

Lift Station Telemetry Improvements

- Revere has completed modifications to the first five existing control panels and has also completed RTU panel builds on first five RTU panels. HCE and LRD completed a factory site visit to inspect the first five RTU panels and provided final comments. The final RTU panel submittal addressing final comments per the inspection, HMI SCADA screen template and installation details for the next 45 existing control panel modifications are currently in review. Additionally, Revere has submitted a new change order to include the additional costs for the next 45 existing panel modifications. HCE is currently reviewing this submittal as well. HCE and HCE's electrical subconsultant, C&W Engineering, provided Revere with signed and sealed drawing sets for permits. A courtesy letter was sent out to Martin County, Town of Jupiter, and Village of Tequesta building departments informing them of the upcoming work. As of now only the Town of Jupiter is the only entity that has requested submitting a permit.

Schedule Update: *The Notice to Proceed (NTP) has been issued for August 8, 2022. Substantial completion is 595 days from the NTP, March 25, 2024 and final completion is 660 days from the NTP, May 29, 2024. The most recent schedule provided from the Contractor currently shows them completing construction early, at the end of November 2023.*

Rolling Hills Gravity Sewer System, Lift Station, & Force Main

- During the month of February, additional progress has been made towards completion of the project. The new pumps were delivered, and a successful lift station start-up was achieved with the presence of Xylem pump manufacturer representatives, the Contractor, CC Controls, and District and HCE staff. HCE is currently working on the certification package to be submitted to the FDEP. Outstanding items remaining include minor punch list items and

the final change order, which are anticipated to be completed by the end of March. The photo on the previous page shows the lift station start-up with contractors and LRD staff.

Schedule Update: The current final completion date for the project was February 8, 2023. HCE is currently working on the final change order which will include the contract time extension for the new pump delivery and installation, start-up, and close-out of the project.

Jupiter Inlet Lighthouse Septic to Sewer Conversion

- Throughout the month of February, HCE continued their onsite observation of ongoing construction efforts. Progress has been made with abandonment of all existing water mains throughout the BLM property. These abandonments follow last month's FDEP approval regarding the main lift station (LS183) and gravity sewer mains, thus placing the entire gravity and majority of the low-pressure system in use. Additional work completed in February included the final three septic tank abandonments and completion of some of the electrical punch list items. Work still continues with the installation of critical electrical components on the commercial duplex (restroom unit), earth work for storm drainage, and sodding. HCE has continued ongoing coordination of construction activities with the archaeologist, performing cultural resources monitoring throughout the duration of construction. The above photo depicts the recent lift station start up by District inspection technicians. Additionally, all three low-pressure simplex pump stations were approved and started-up this past month. The photo to left depicts grouting of the existing water main. Change Order #3, for additional unforeseen work on the project, was prepared and submitted to the District for review and approval.

Schedule Update: Change Order #4 for critical path delays for the project is currently being prepared by HCE. Once reviewed and approved by the District the contract time will be extended.

Deep Injection Well Replacement Cost Study

- The technical memorandum was submitted to District staff on February 16, 2023 and comments were received by the District on March 2, 2023. A meeting is scheduled for March 14, 2023 to discuss the review comments so the technical memorandum can be finalized.

  Schedule Update: The final technical memorandum will be submitted to the District by April 4, 2023.

Injection Well Pump Manual Transfer Switch Addition

- The Contractor has remobilized onto the project site. The signed and sealed wind load calculations with backup documentation and revised electrical details were submitted for review on March 6, 2023. HCE's electrical subconsultant, Hillers Electrical Engineering, is currently reviewing the submittals.

  Schedule Update: *Change Order #2 for the changes for the equipment rack installation and wind load calculations extended the contract date. The new substantial completion date is April 15, 2023 and final completion date is April 30, 2023.*

Lift Station No. 050 Emergency Generator

- The generator sizing report and topographic survey have been completed. HCE is proceeding with the design of the project.

  Schedule Update: *Draft layout for the new generator will be submitted to the District by March 27, 2023. 90% plans and specifications will be submitted to the District for review by May 18, 2023.*

Bulk Sodium Hypochlorite Conversion Study

- Work is underway for the project. The first deliverable to be submitted to the District will be the technical memorandum.

  Schedule Update: *The draft technical memorandum will be submitted to the District by June 8, 2023 and final technical memorandum will be submitted by July 6, 2023.*

Emergency Response ESRI Collection Tool & Synovia Vehicle Tracking Assistance

- *No new activities have occurred for this work.*

ISO 9001:2015 CERTIFIED
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
1425 W Cypress Creek Road, Suite 101 • Fort Lauderdale, FL 33309 • Phone 954-776-1616

Loxahatchee River Environmental Control District
Master Plan 20-AC "Sierra Square" @ 9278 Indiantown Rd
LRECD PO# 21-0649 / KCI #482021095.01

Progress Report

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

From: Todd Mohler, RLA, KCI, Project Manager

Date: March 3, 2023

ACTIVITIES

KCI Technologies progress report updates for the current billing period are:

Activities and Support:

1. **Survey**: Complete.
2. **Environmental**: Complete.
3. **Geotechnical**: Complete.
4. **Electrical Engineering:** Complete.
5. **Civil Engineering**: Complete.
6. **Landscape Architecture**: Board Meeting Presentation made on 2/16/23. All deliverables are now complete.
7. **Architecture**: Complete.

Busch Wildlife Sanctuary

The 1st Quarter Report will be presented
at the April 2023 Board Meeting.

Director's Report

- Admin. & Fiscal Report attach. #1
- Engineering Report attach. #2
- Operations Report attach. #3
- Information Services Report attach. #4
- Environmental Education attach. #5
- Safety Report attach. #6
- Other Matters (as needed) attach. #7

J:\Board\Notebook\Directors Report

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

To: Governing Board
From: Kara Fraraccio, Director of Finance and Administration
Date: March 10, 2023
Subject: Monthly Financial Report

Cash and Investments

Balance as of February 28, 2023
Certificates of Deposit:

Institution	Original Term	Maturity	Rate	Book Value	Monthly Change in Investment	Market Value
TD Bank	9 Months	05/05/23	3.22%	$ 2,500,000	$ 6,272	2,545,340
TD Bank	9 Months	05/08/23	3.35%	1,274,425	3,328	1,298,360
Bank United	9 Months	05/16/23	2.13%	1,003,248	1,653	1,014,762
TD Bank	12 Months	08/10/23	3.36%	2,000,000	5,239	2,037,674
Bank United	12 Months	08/16/23	2.42%	1,004,118	1,885	1,017,239
Bank United	12 Months	08/16/23	2.42%	1,004,118	1,885	1,017,239
US Century Bank	13 Months	09/22/23	2.71%	2,500,000	5,266	2,535,518
Bank United	12 Months	11/18/23	4.55%	1,060,577	3,732	1,074,109
Bank United	12 Months	11/22/23	4.59%	1,582,357	5,624	1,601,956
TD Bank	10 Months	12/01/23	5.00%	2,538,250	9,196	2,546,595
Subtotal				**$ 16,467,093**	**$ 44,080**	**$ 16,688,792**
Investment Accounts:						
Synovus - Public Demand			2.75%		$ 11,737	$ 7,456,525
Bank United - Public Funds Reserve			3.93%		6,189	2,030,624
Florida Prime - SBA			4.77%		7,463	2,047,862
Subtotal					**$ 25,389**	**$ 11,535,011**
Checking Account:						
SunTrust-Hybrid Business Account			1.95%		$ 23,706	$ 12,669,487
Subtotal					**$ 23,706**	**$ 12,669,487**
Brokerage Accounts:						
Vanguard GNMA ADM			-2.55%	$ 102,643	$ (2,277)	$ 89,263
Vanguard Short-Term Treasury			-0.78%	1,844,863	(13,735)	1,768,823
U.S. Treasuries - Due 03/14/23			4.38%	498,712	1,770	504,179
U.S. Treasuries - Due 03/21/23			4.35%	498,805	1,768	503,742
U.S. Treasuries - Due 04/04/23			4.33%	513,717	1,805	517,775
U.S. Treasuries - Due 05/25/23			4.69%	1,231,427	4,384	1,246,211
U.S. Treasuries - Due 06/22/23			4.61%	146,718	447	147,759
U.S. Treasuries - Due 07/06/23			4.77%	151,397	433	152,400
Charles Schwab Bank Sweep					1	2,353
Subtotal				**$ 4,988,282**	**$ (5,404)**	**$ 4,932,505**
Total					**$ 87,771**	**$ 45,825,795**

Average weighted rate of return on investments is: 2.91%
As of 2/28/23:
3 month Short Term Bond: 4.72%
1 month Federal Fund Rate: 4.57%

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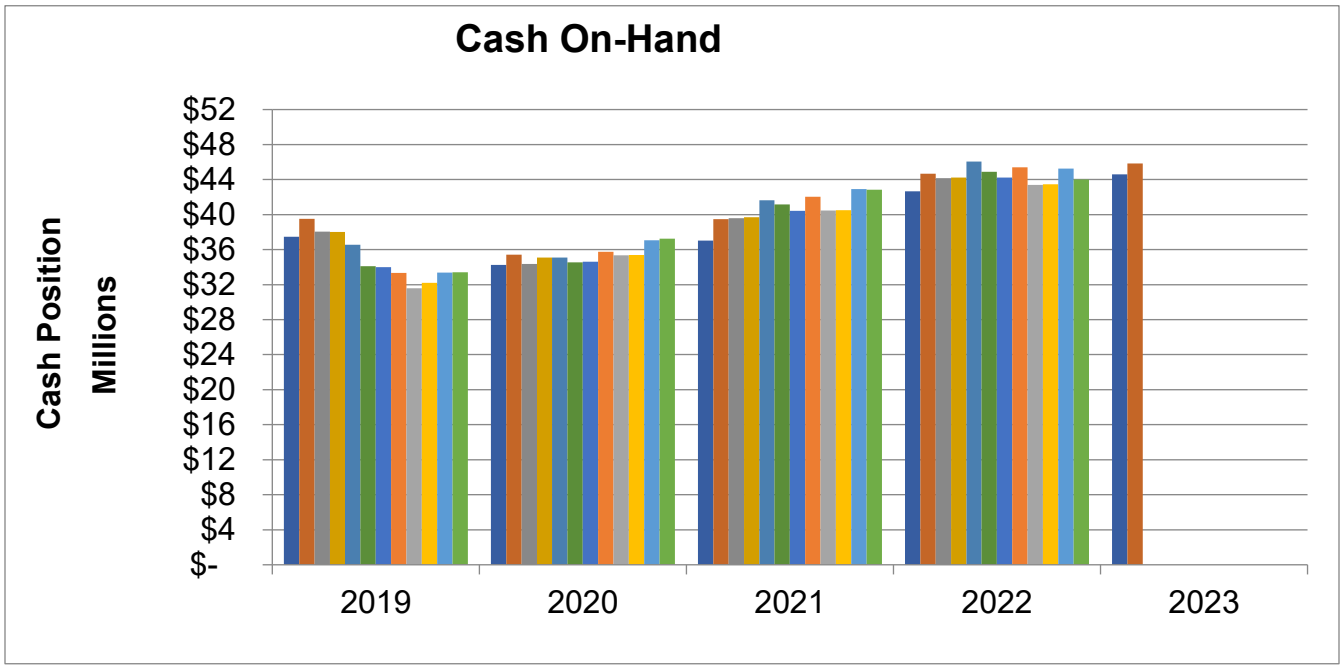
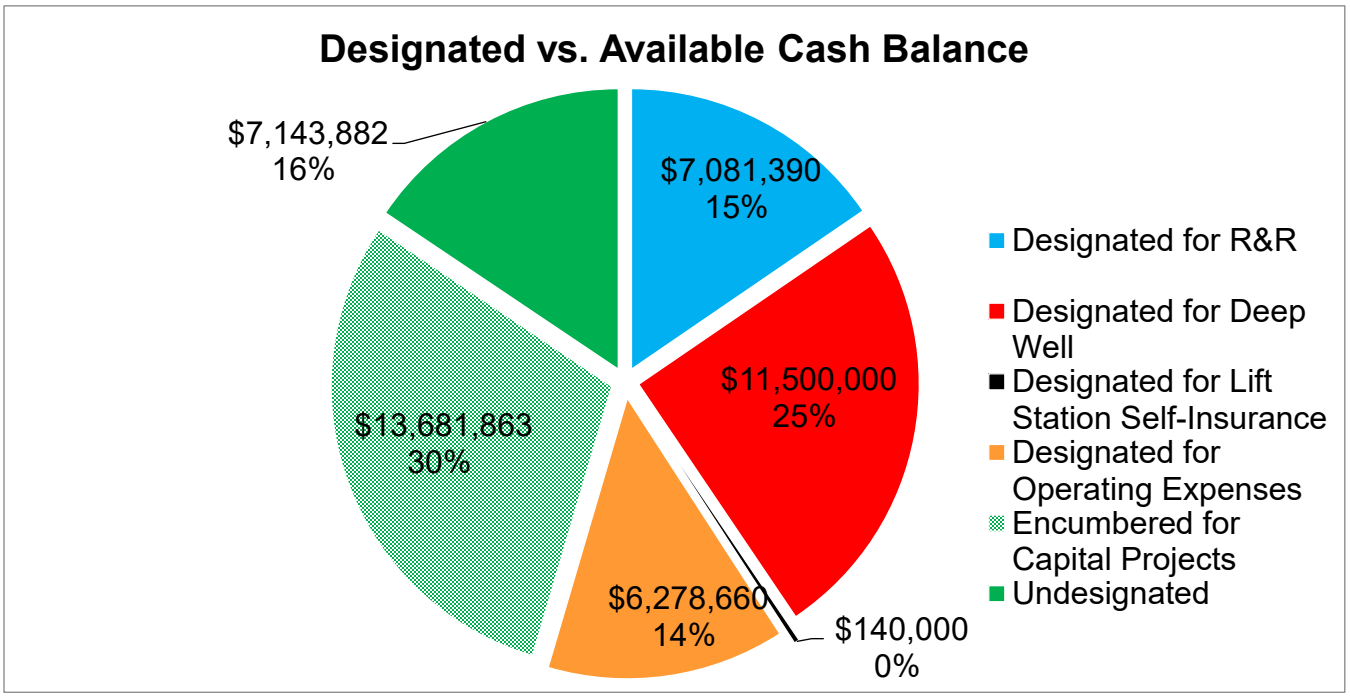
Cash position for February 2022 was $44,675,863. Current Cash position is up by $1,149,932.





Financial Information

- Legal Fees billed in February were $4,635. The fiscal year-to-date total is $33,545.
- Estoppel fees collected in February totaled $6,390. The fiscal year-to-date total is $25,980.
- There was no Septage billing for the month of February.
- Developer's Agreement – There were no new Developer Agreements.
- I.Q. Water Agreements – All I.Q. Water Agreements are current.

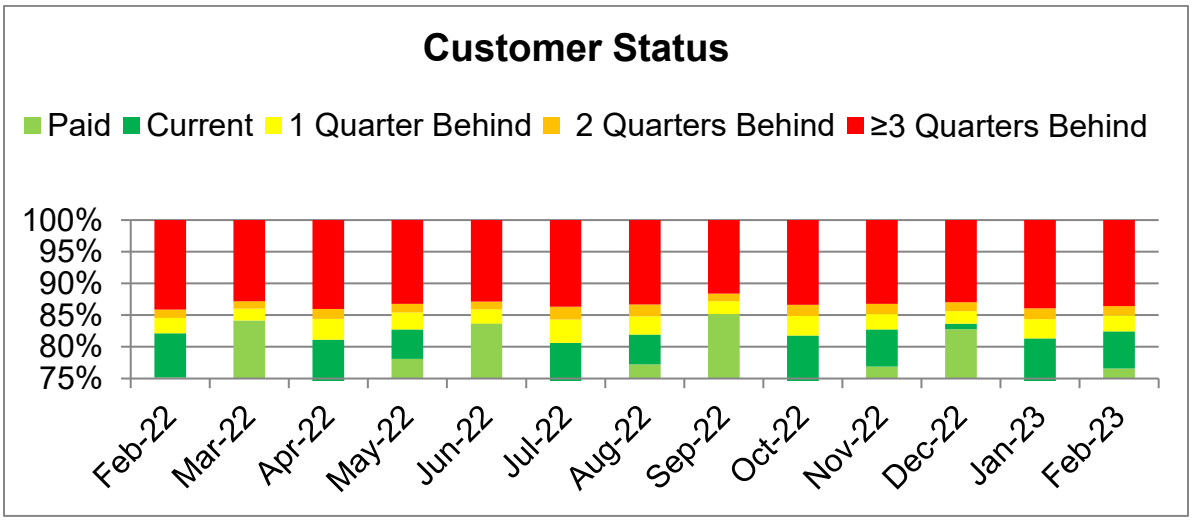
Summary of Budget vs. Actual

Budget Benchmark *41.67%*	Feb-23 Actual	YTD Actual	FY 23 Budget	Favorable (Unfavorable)	Budget Expended	Feb-22 YTD
Revenues						
Operating Revenues						
Regional Sewer Service	$ 1,469,528	$ 7,321,162	$17,501,000	$ (10,179,838)	41.83%	$7,061,695
Standby Sewer Service	8,797	44,351	108,000	(63,649)	41.07%	48,993
IQ Water Charges	194,562	972,204	2,352,000	(1,379,796)	41.34%	953,192
Admin. and Engineering Fees	2,927	8,596	63,000	(54,404)	13.64%	18,581
Other Revenue	21,851	178,125	516,265	(338,140)	34.50%	170,328
Subtotal Operating Revenues	1,697,665	8,524,438	20,540,265	(12,015,827)	41.50%	8,252,789
Capital Revenues						
Assessments	$ 71,610	$ 1,062,725	1,411,000	(348,275)	75.32%	1,062,506
Line Charges	19,842	53,229	465,000	(411,771)	11.45%	88,394
Plant Charges	52,111	153,890	686,000	(532,110)	22.43%	295,520
Capital Contributions			140,000	(140,000)	0.00%	
Subtotal Capital Revenues	143,563	1,269,844	2,702,000	(1,432,156)	47.00%	1,446,420
Other Revenues						
Grants		5,126		5,126		1500
Interest Income	117,802	999,444	560,700	438,744	178.25%	537,206
Subtotal Other Revenues	117,802	1,004,570	560,700	443,870	179.16%	538,706
Total Revenues	$ 1,959,030	$ 10,798,852	$ 23,802,965	$ (13,004,113)	45.37%	$ 10,237,915
Expenses						
Salaries and Wages	$ 514,198	$ 2,717,102	$7,381,800	$ 4,664,698	36.81%	$2,429,315
Payroll Taxes	37,542	192,940	530,500	337,560	36.37%	172,839
Retirement Contributions	50,576	383,541	1,107,000	723,459	34.65%	345,538
Employee Health Insurance	163,683	650,473	1,542,500	892,027	42.17%	586,671
Workers Compensation Insurance		29,895	77,800	47,905	38.43%	28,502
General Insurance		252,705	423,520	170,815	59.67%	229,068
Supplies and Expenses	67,108	450,391	1,105,382	654,991	40.75%	425,334
Utilities	117,907	640,927	1,555,116	914,189	41.21%	588,507
Chemicals	63,842	223,150	634,000	410,850	35.20%	147,257
Repairs and Maintenance	86,076	639,366	1,940,780	1,301,414	32.94%	864,667
Outside Services	171,942	821,684	2,312,578	1,490,894	35.53%	813,705
Contingency			225,000	225,000	0.00%	
Subtotal Operating Expenses	1,272,874	7,002,174	18,835,976	11,833,802	37.17%	6,631,403
Capital						
Capital Improvements	$ 483,168	$ 2,190,311	12,741,414	10,551,103	17.19%	885,132
Subtotal Capital	483,168	2,190,311	12,741,414	10,551,103	17.19%	885,132
Total Expenses	$ 1,756,042	$ 9,192,485	$ 31,577,390	$ 22,384,905	29.11%	$ 7,516,535
Excess Revenues Over (Under) Expenses	$ 202,988	$ 1,606,367	$ (7,774,425)	$ 9,380,792		$ 2,721,380

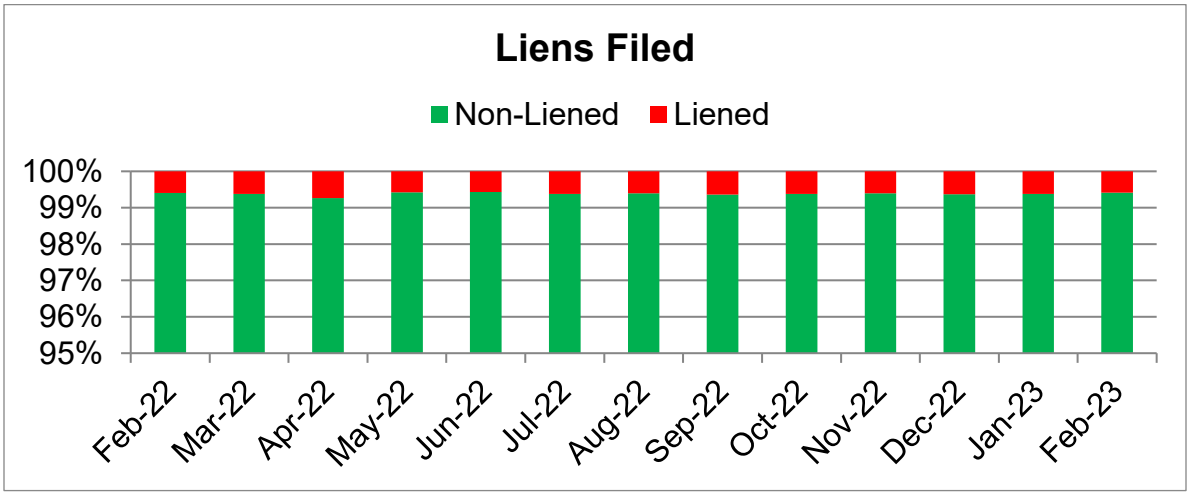
Total Capital expenses incurred and encumbered totalled $15,491,368 or 122% of the capital budget. This includes funds encumbered in a prior fiscal year for projects that stretch across multiple fiscal years.

Accounts Receivable

The District's first quarter billing was $4,409,775, of this amount $3,635,174 represents customer balances that are either paid or current. The chart below illustrates customers' receivable status as a percentage of quarterly sewer billing. Paid or current balances represent approximately 83.0% billing.



The District serves approximately 33,238 customers. Currently, the District has 196 liens filed which represent approximately 1.0% of our customers.



Pending/Threatened Litigation

- Vehicle Accident – The District received a legal summons related to a vehicle accident involving a District vehicle. This claim is currently being handled through the District's General Liability Insurance provider, PRIA. PRIA has assigned the firm of Roberts, Reynolds, Bedard & Tuzzio, PLLC to represent the District.
- Beacon Lane – The District received a formal notice that a negligence claim is being made on behalf of a resident on Beacon Lane from injuries sustained as a result of septic and sewage over-flow at the property. We notified the District's legal counsel, the project engineers, the contractor, and the District's General Liability Insurance provider, PRIA.
- Turtle Creek Sub-system 2 & 3 – The District's contract legal counsel, Delaparte and Gilbert, has sent formal notice of latent defects to the Contractor. The District is working with the Contractor to get this matter resolved.

Retirement Plan Administrative Committee Update

On March 7, 2023, the Retirement Plan Administrative Committee met in the Governing Board room to discuss the Fourth Quarter Retirement Plan results. As of December 31, 2022, the Plan had 89 participants with participant assets totalling $10,743,931. The majority of the Plan's balance continues to be in the Self-directed Brokerage accounts (63.2%); however, that percentage continues to decline with new contributions coming in and going to the funds in the Core Line-up. Three funds are on the watch list due to long-term performance being below the index and median of the peer group for the 3 and 5-year periods. The most notable of these are T. Rowe Price Growth Stock, which has been on the list since the fourth quarter of 2021. The other two funds, FMI Large Cap and Western Asset Core Plus have been on the watch list since the second quarter of 2022. The Administrative Committee discussed the performance of these funds and recognized that while these funds are flagged for review, we have deemed the funds to still meet the fundamental credentials of the investment line up. Empower Retirement also presented their 2022 Fee Disclosure. The annual fees related to the District's Plan are approximately $31,478, which is about $354 per participant.

The Administrative Committee also discussed the possibility of replacing the fund in the Empower Broker Sweep program and/or the Empower Fixed Account Series II with a Vanguard Cash Reserves Federal Money Market Fund Admiral Shares, VMRXX, subject to approval by Empower and acceptable cost impacts to the District. The VMRXX fund has benefited from the recent change in rates and is currently yielding more than 4.5%.

LOXAHATCHEE RIVER DISTRICT
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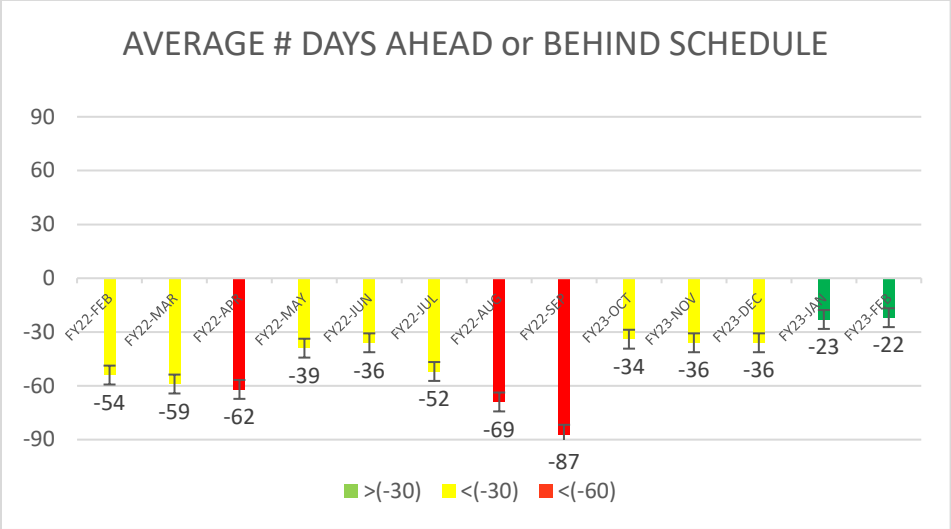
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: D. Albrey Arrington, Ph.D., Executive Director
FROM: Kris Dean, P.E., Deputy Executive Director
Courtney Jones, P.E., Director of Engineering
DATE: March 9, 2023
SUBJECT: Capital Program and Engineering Services Report

Capital Projects

Capital Schedule (FLOAT = -22 Days)



Notable delays to the Capital Program are listed below.

R19011 – Lift Station 082 Conversion – Staff are working with the consultant and contractor to complete the project prior to the end of this fiscal year. See Holtz engineering consultant's report for additional details.

N20036 – Improve Operational Flexibility of our IQ System/IQ 511 Piping Modifications – This project reached substantial completion in January 2023. Staff, consultant and contractor are working to close out the project punch list.

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R20023 – Rolling Hills Gravity Sewer System – Startup of the lift station is complete. Staff are waiting on the certification package from the consultant.

N20012 – Jupiter Inlet Lighthouse Septic to Sewer – The sewer portion of the project is substantially complete. The project is currently delayed due to the utility power conversion portion of the project and electric equipment supply chain issues. Staff are working with the District's Contracting Officer at BLM to process a time extension. See Tab 5H.

R21002 – Lift Station 041 Main Lining – The contractor is working through the punchlist. Staff anticipate completion in March 2023.

R20036 – Loxahatchee River Subaqueous Crossing Replacement – The current schedule has design, permit and bidding completing in June 2023.

N20019 – Permanent Generator at Headworks – The installation is complete. Staff and the contractor are coordinating start-up.

The overall negative (-) float is attributed to the following causes:

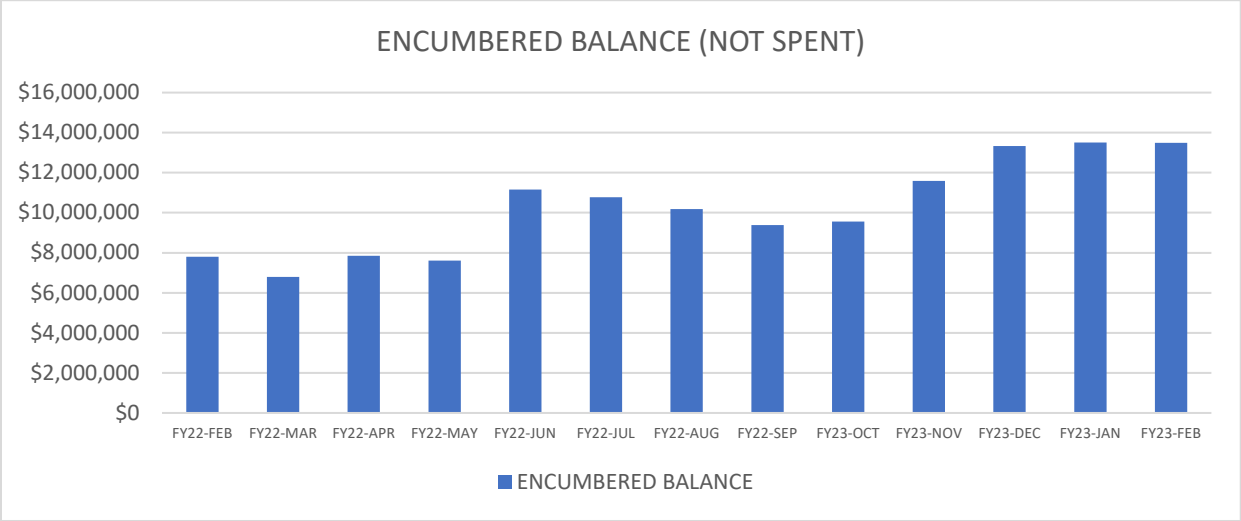
Construction Delays:	60%
Supply Chain Issues:	13%
Design/Permit/Bid:	21%
Late Start:	0%
Planning Contracts:	0%

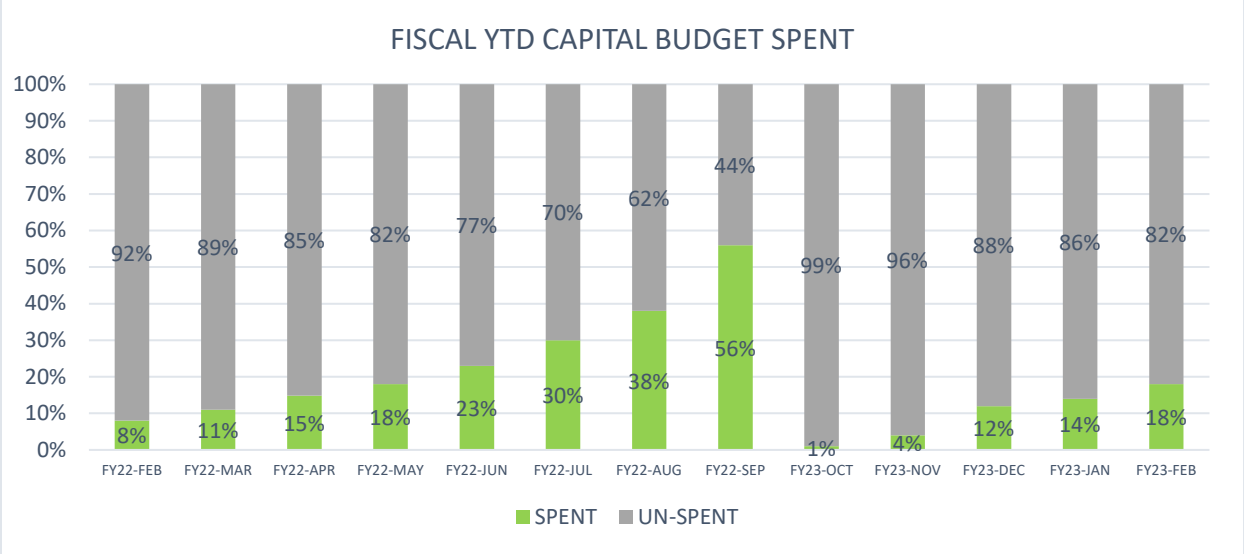
Construction delays have the largest impact to the negative float (60% from 4 projects total). Staff are working with consultants and contractors to implement recovery schedules with project completions by the end of FY23.

Design/Permit/Bid also have a significant impact to the negative float (21% from 2 projects total). Two projects, both dealing with subaqueous river crossings, are currently impacting negative float. Staff are working with both consultants on recovery schedules.

Capital Budget

Encumbered Balance (unspent encumbered funds) decreased over February 2023. Note, December's reported unspent encumbered funds was incorrect. The correct unspent encumbered funds for December 2022 has been updated in the chart below.





Project Updates

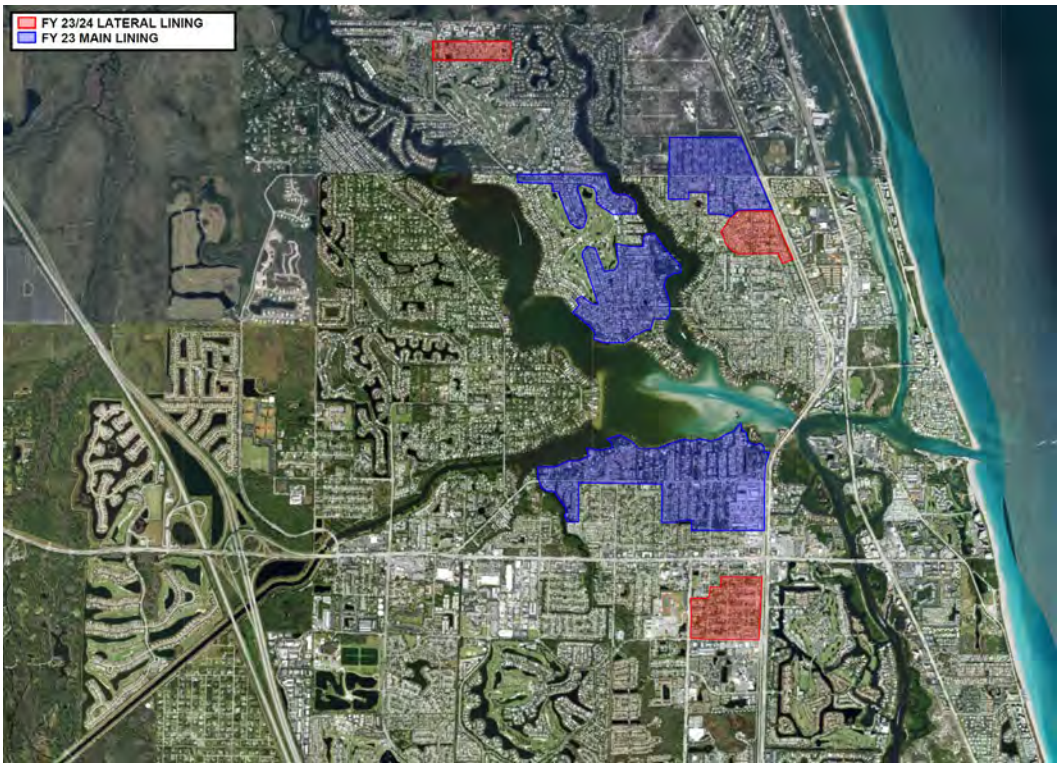
Science Center and Jupiter Inlet Lighthouse Outstanding Natural Area (aka: BLM House Renovations): Staff are working with the consultant to understand the project costs.

2500 Jupiter Park Drive Site Planning: Since the presentation to the Board in May 2022, staff and the consultant have continued to make progress on the massing study, architectural programming, potential treatment facility footprint and security review. Once these components are complete staff will provide revised site plans for Board discussion and consideration.

20 Acres/9278 Indiantown Road: The consultant is working on a DRAFT proposal to provide professional engineering services for site remediation. Staff anticipate bringing this to the Governing Board in April 2023 for consideration.

In-house Projects

Gravity System Rehabilitation – Cleaning, TV Inspection and Lining:



Main lining work is complete in LS018 and LS041 systems. LS054 system has one (1) main line remaining to be lined as part of this project, which is anticipated to be completed on March 10, 2023. Punchlist items and coordination have delayed completion of LS041 and LS054, now anticipated in March 2023.

The Board awarded lateral lining contracts for LS018, LS041 and LS054 in November 2022. A preconstruction meeting was held on January 11, 2023. This work is scheduled to commence in April 2023.

The Board also awarded main lining contracts for LS050 in November 2022 and LS070 and LS071 in December 2022. Work commenced in January 2023.

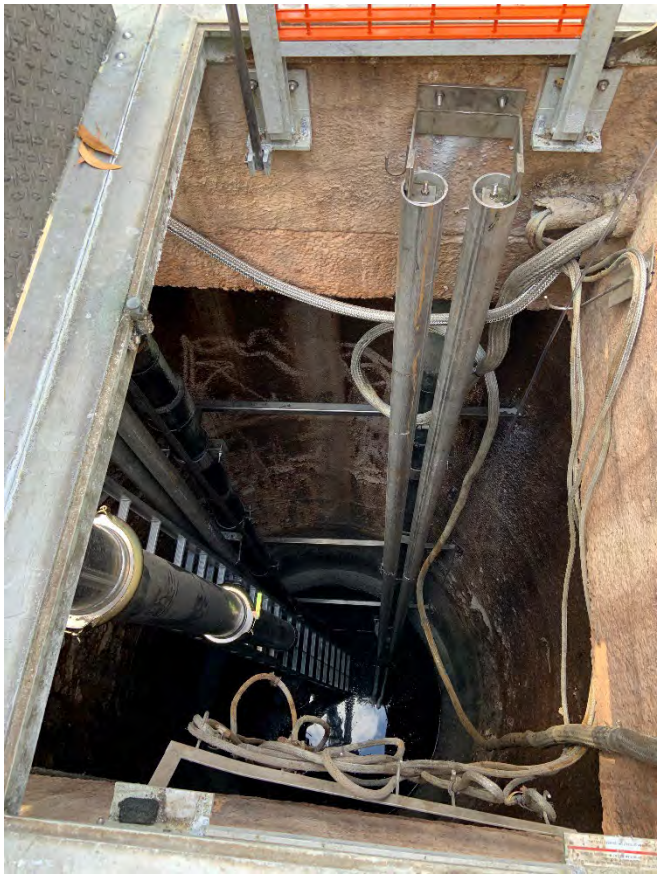
Staff are currently working with multiple contractors to locate a viable contract to perform lining in LS011, LS012, LS014, LS027 and LS190 collection systems. Staff anticipate bringing this to the Board in April 2023.

Lift Station Rehabilitations General Construction Services:

Lift Station	*Inspection*	*Design*	*Procurement*	*Construction*
064	*COMPLETE*	*COMPLETE*	*COMPLETE*	*IN-PROCESS*
095	*COMPLETE*	*IN-PROCESS*	*----------*	*----------*
131	*COMPLETE*	*COMPLETE*	*COMPLETE*	*IN-PROCESS*
163	*COMPLETE*	*COMPLETE*	*COMPLETE*	*COMPLETE*
174	*COMPLETE*	*COMPLETE*	*COMPLETE*	*IN-PROCESS*
210	*COMPLETE*	*COMPLETE*	*COMPLETE*	*IN-PROCESS*
211	*COMPLETE*	*COMPLETE*	*COMPLETE*	*IN-PROCESS*
233	*COMPLETE*	*COMPLETE*	*COMPLETE*	*IN-PROCESS*
242	*COMPLETE*	*COMPLETE*	*IN-PROCESS*	*----------*
266	*COMPLETE*	*COMPLETE*	*COMPLETE*	*COMPLETE*

In-house Construction staff in conjunction with Maintenance and Collections Departments completed Lift Station No. 163 Rehabilitation. The rehabilitation of this station included installation of discharge piping supports and replacement of guide rails with the station wet well. These repairs have increased operation of the station as previously Collections was not able to pull one (1) of the pumps out of the station due to the condition of the guide rails.


GENERAC



***Neighborhood Sewering/Remnant Properties*:**

5331 Center St.: Design and permitting are complete for 5331 Center Street. Pricing and material submittals have been coordinated with the Contractor and approved. Staff are coordinating with the Contractor scheduling. This project includes a single service to be installed in easements coordinated by the property owner.

18041 and 18049 69th Terrace: The property owner at 18041 69th Terrace provided easements and requested staff install sewers to a proposed two-unit residential project. Design and permitting are complete. Staff are coordinating with contractor for pricing and scheduling. This project includes a double service to be installed in easements.

18150 SE Wooden Bridge Lane: Design, permitting and construction of the low-pressure service lateral are complete for 18150 SE Wooden Bridge Lane. The project includes a single service to be installed in the right of way. Service is available to the property owner. District staff are coordinating with the property owner regarding requirements for installation of the low-pressure station / connection.

109-111 Old Jupiter Beach Road: Design is complete for 109-111 Old Jupiter Beach Road. The project includes two services and low-pressure force main to be installed in existing roadway ingress/egress easement. Homeowners were provided information on 9/22/21 and 7/13/22, but no response has been provided. Project is on hold.

Island Way LPSS: Design is complete and project is in permitting. The project includes two services and low-pressure force main to be installed in the right of way.

Other: Staff are working with IT and customer service to confirm remnant sewering and update priority listing based on property access rights.

Statutory Way of Necessity:

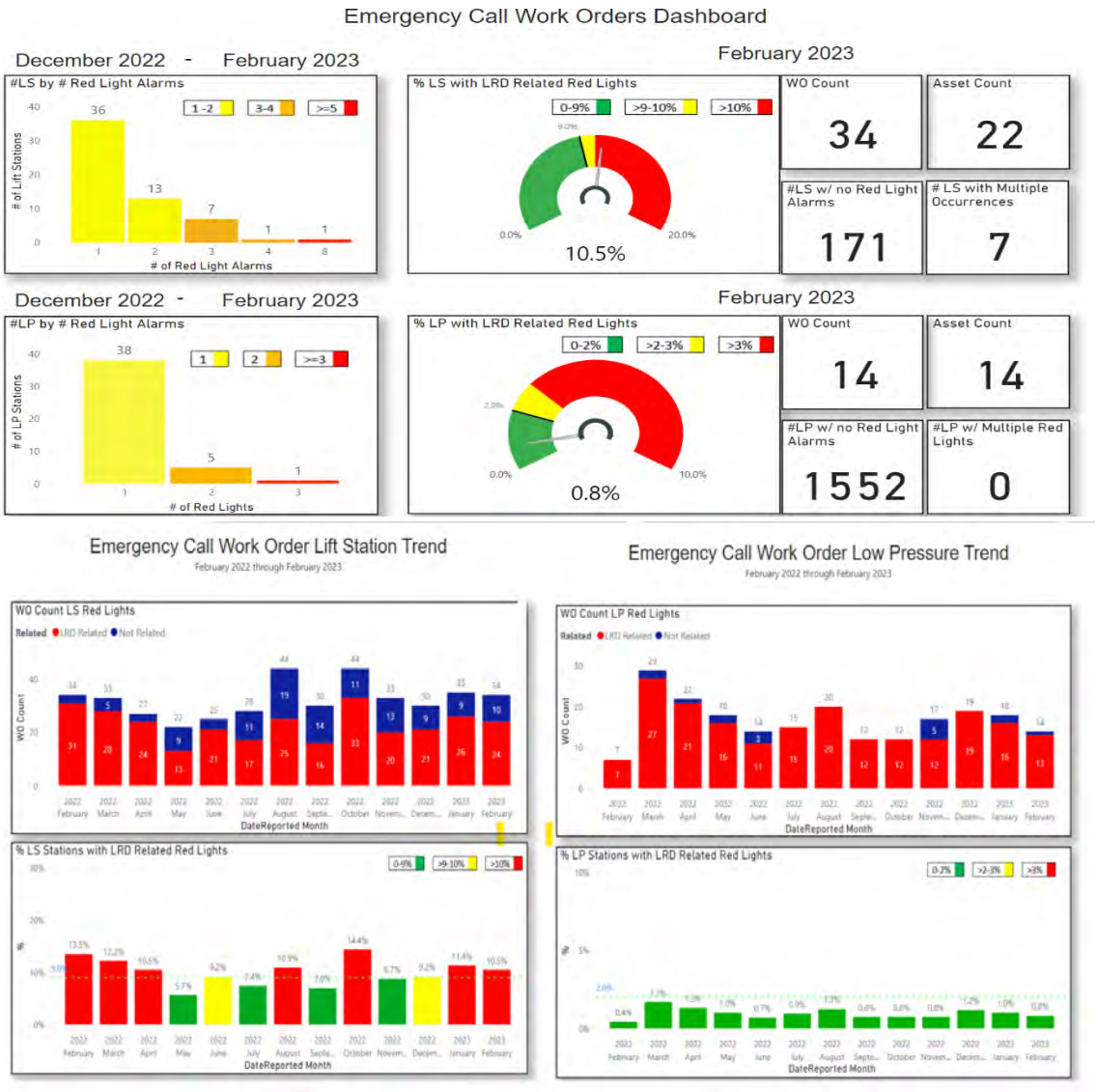
Jamaica Drive Low Pressure Sewer: Over the last two years staff have been coordinating with two property owners for utility easements to install sewers to their properties on Jamaica Drive without success. At this time both property owners have determined Statutory Way of Necessity is the preferred option and entered into letter agreements for staff to proceed on their behalf.

Agreements are in place. Pricing and material submittals have been coordinated with the Contractor and approved. Staff are coordinating with the Contractor scheduling.

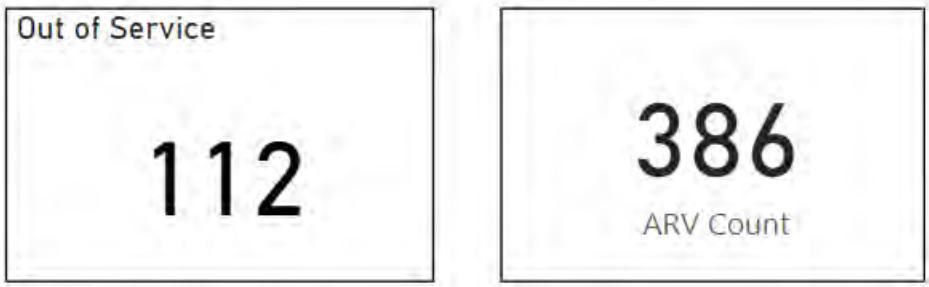
COLLECTIONS AND REUSE

Lift Station Red Lights: This month the system experienced 48 total red lights. 34 lift station red lights (with 7 stations experiencing multiple red light events) and 14 low pressure red lights (with 0 stations experiencing multiple red light events).

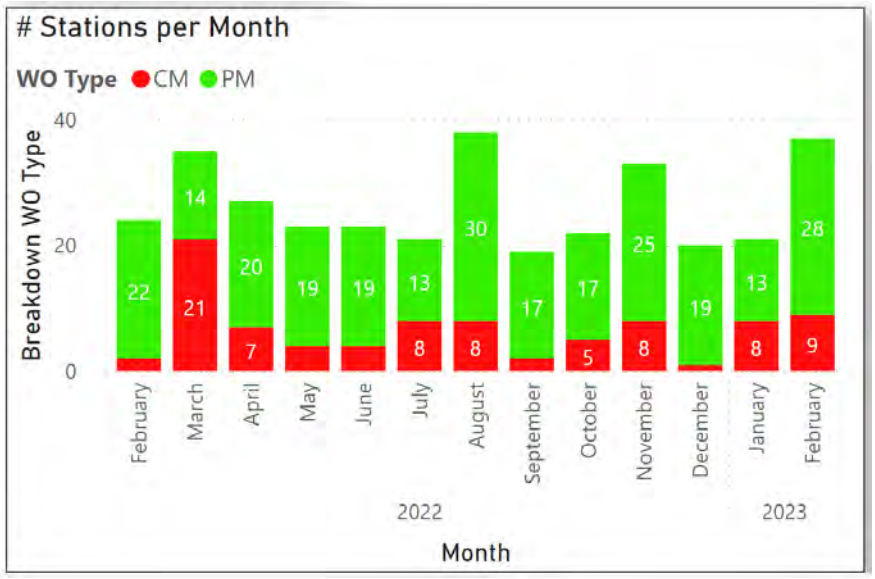
Work Order counts due to red lights exclude red lights due to FP&L power failure since staff have no mechanism to impact FP&L performance during inclement weather or other power outages. Staff continue to include FP&L power outages in the 3-month rolling average for repeat stations and work order counts to facilitate FPL coordination on problem areas and potential use of portable standby power to ensure continuity of service.



Air Release Valves: The ARV evaluation process has identified 386 ARVs with 112 out of service.



Wet Well Cleaning: Unscheduled wetwell cleanings totaled 9 for the month.



UNAUTHORIZED DISCHARGES (fka SANITARY SEWER OVERFLOWS)

There were 2 unauthorized discharges in the collection-transmission-distribution system this month.

On February 13, 2023, the District had an unauthorized discharge of 2 gallons of sewage from a private residence low-pressure system (LP1415-WW) located on SE Hobart Street, Jupiter, FL. The unauthorized discharge was due to a wet well overflow caused by power loss. The unauthorized discharge was stopped by residents not using water until power was restored. The unauthorized discharge was absorbed into the soil in the immediate area around the low-pressure system wet well. The affected area was cleaned with 3 gallons of potable water and disinfected with lime. No known storm drains or bodies of water were affected.

On February 18, 2023, the District had an unauthorized discharge of 0.5 gallons of sewage from a private residence low-pressure system (LP0483-LPS1) located on Pennock Point Road, Jupiter, FL. The unauthorized discharge was caused by a damaged pipe. The unauthorized discharge was stopped by disabling and isolating the low-pressure system until repairs could be made. The unauthorized discharge was absorbed into the soil in the immediate area inside the low-pressure system service box. The affected area was disinfected with lime. No known storm drains or bodies of water were affected.

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

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

FROM: Jason A. Pugsley, P.E., Operations – Plant Manager

DATE: March 9, 2023

SUBJECT: February 2023 Operations Department Monthly Report

Treatment Plant Division / Maintenance Department

Overall, the month of February was productive with all monthly reports prepared and submitted on time. There were no permit exceedances this month. Influent flows to the plant were on the same order of magnitude as the previous month. The treatment plant generally operated efficiently and met all treatment objectives, however plant operations had to deal with a significant process upset which occurred during a planned hydraulic stress test performed towards the end of the month. The details of the process upset will be discussed in greater detail later in the report.

The plant experienced two (2) unauthorized discharges during the month of February. The first discharge occurred due to a crack which formed on a ½-inch diameter, non-potable process water poly-vinyl chloride (PVC) service line at the sludge storage tank odor control system. The discharge resulted in approximately 5-gallons of highly disinfected irrigation quality (i.e., reclaimed) water being discharged to grade where it percolated into the soil. The second unauthorized discharge occurred due to a crack which formed on a 2-inch diameter, non-potable process water PVC below grade fitting located at the southeast corner of the chlorine contact basin. The discharge resulted in approximately 35-gallons of highly disinfected irrigation quality water (i.e., reclaimed) water being discharged to grade where it percolated into the soil. No bodies of water or storm drains were affected as a result of either of the discharges and the area around the discharges was disinfected with lime. The discharges were reported to the appropriate regulatory agencies.

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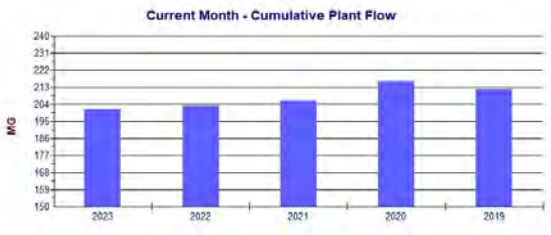
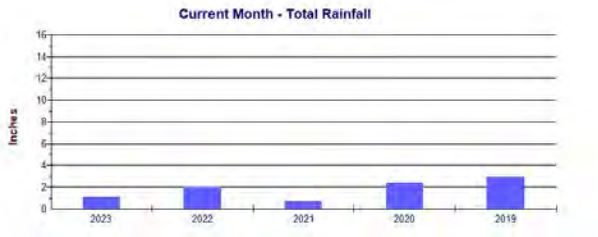
Water Reclamation – Environmental Education – River Restoration

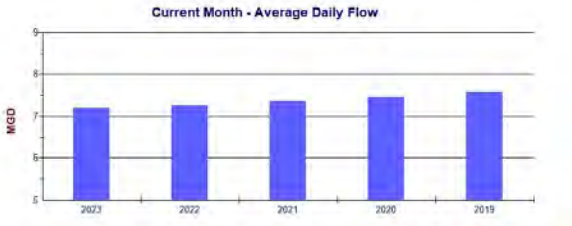
Graphical summaries of the plant flows and rainfall during the month of February, including comparisons with plant flows during the previous month (i.e., January 2022), are presented below.



The Cumulative Influent Flow to the plant for the month of February was 201.12 million gallons. This is slightly less than the January flow of 220.97 million gallons.

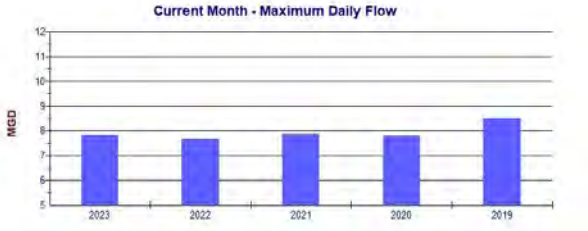


1.10 inches of total rainfall was recorded at the plant site during the month of February. This is significantly more than the January rainfall recorded of 0.35 inches.



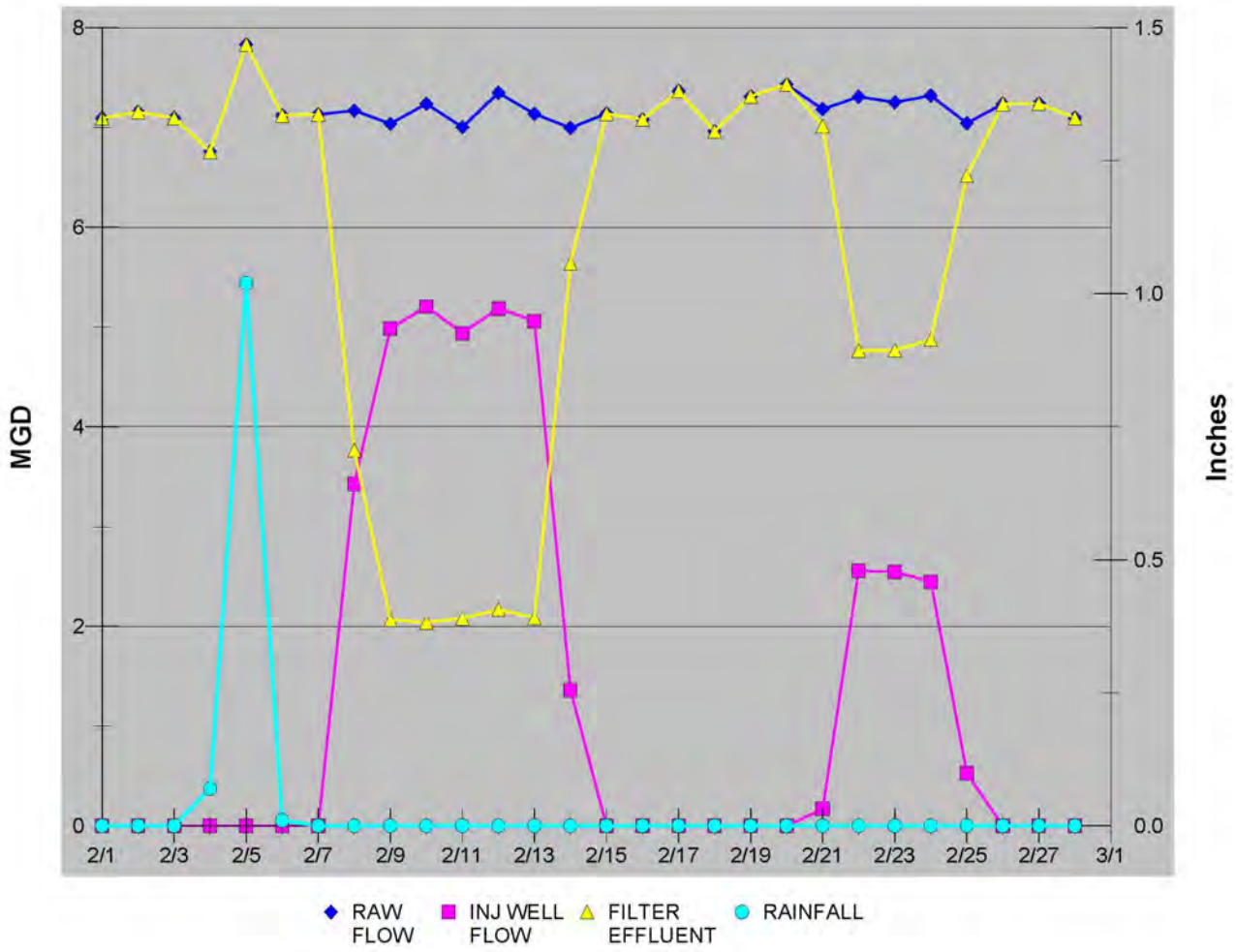
The Average Daily Flow (ADF) for the month of February was recorded at 7.18 MGD compared to 7.13 MGD during the month of January and 7.25 MGD during February 2022.

The Peak Hour Flow (PHF) for February was 6,542 GPM which equates to an equivalent daily rate of 9.42 MGD. This is a slightly lower than the PHF for January of 6,826 GPM (9.83 MGD).



The Maximum Daily Flow (MDF) in February was 7.83 MGD. This is slightly greater than the MDF for January of 7.51 MGD.

For the month of February, 80.98% or 162.86 MG of the cumulative influent flow to the plant was sent to the IQ storage system where it was distributed, as needed, to the various golf courses and the Abacoa development sites. A total of 38.41 MG of blended effluent was diverted to the Deep Injection Well. The plant delivered a total of approximately 411.14 million gallons of IQ water to the reuse customers during the month of February.



Year to date (i.e., Calendar Year 2023), approximately 80.71% of all influent flow to the plant was treated and available for reuse as IQ water. The total volume of IQ water distributed to reuse customers for the year stands at 411.14 million gallons.

All monthly reporting was submitted on time.

Treatment Plant:

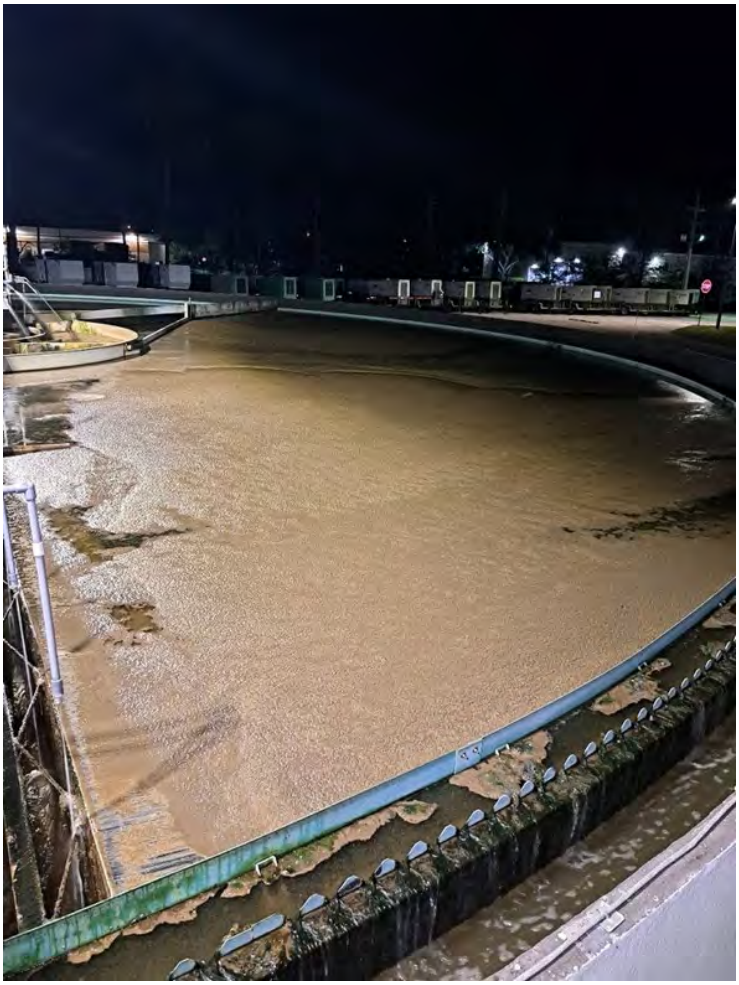
Operations Staff continued to perform routine monitoring, sampling and general maintenance of equipment and structures. Staff also worked and/or provided operational assistance during the execution of various special and/or capital improvement projects. One significant activity performed this month was a coordinated training exercise with Palm Beach County Fire Rescue (PBCFR). The training exercise was the culmination of a prior site walk-through with representatives of PBCFR Station No. 19 which are the first responders dedicated to the District's WWTP. The site walk-through was coordinated by the District's Safety Compliance officer and attended by District Operations Staff. During the walk-through all treatment process tankage were reviewed to determine the necessary procedures that would be required to perform personnel extraction in the event of an emergency. After reviewing the treatment tankage, PBCFR determined that the most challenging extraction would be from the interior of the synthetic media (i.e., "fuzzy") filters. The tankage consists of four (4) modular filter units which each have an access hatch which measures approximately 20-inch x 20-inch. To simulate actual rescue conditions, PBCFR lowered a mannequin into the interior of two filter units and then performed a confined space entry using a ladder truck and series of pulleys. The training went well and PBCFR was extremely appreciative for the opportunity to bolster the skills of their Staff by performing an intricate exercise with non-standard conditions. The training also helps to foster a strong working relationship with District Staff.

Palm Beach County Fire Rescue Onsite Training Exercise at Synthetic Media Filters

During the month, Operations Staff also worked closely with the outside electrical contractor who is performing the installation of a permanently installed diesel driven, standby generator unit at the WWTP headworks structure. The project includes the installation of a standby generator and the infrastructure required to automatically transfer to the generator in the event of a loss of power from the primary electrical service (i.e., FPL power). To facilitate installation, Operations staff coordinated with the Contractor to perform a temporary electrical shut-down of the headworks structure this month. A shut down of the headworks is significant because the structure includes the equipment required to remove inorganic wastes (i.e., plastics, paper, etc.) and grit from the influent wastewater stream. During these types of shut-downs Operations Staff has to manually manipulate the influent gates at the structure to prevent hydraulically overloading the structure. Staff also has to manually remove the screenings captured by the manual bar rack. Prior to the shutdown, the Contractor was required to submit a shutdown/bypass plan for approval which detailed the specific steps to be followed and a defined shutdown duration. The shutdown was executed according to plan and the work was completed without incident.

Headworks Structure – Diesel Driven Standby Generator Unit

Lastly, Operations Staff worked with an engineering consultant to perform a planned hydraulic stress test of the secondary clarification units at the District's WWTP. The stress test was performed to evaluate plant operating conditions during extreme conditions and to determine whether the plant could operate with one (1) flow equalization (EQ) tank in service. The ability to operate the plant with a single EQ tank would reduce the electrical loads associated with one (1) EQ process air blower and EQ recirculation pumps, thereby reducing the greenhouse gas footprint of the WWTP. The District's WWTP includes a total of four (4) secondary clarifier units. Typically, a total of three (3) units are in service and one (1) unit is maintained as a spare. As part of the clarifier stress test one of the three (3) in-service clarifier units was removed from service and all flow was routed through two (2) units. Initially, the plant operated without incident but approximately 12-hours into the testing period Operators observed a significant decline in the quality of the secondary effluent and noted excessive solids carry over from the clarifier units. As a result, Staff made the decision to terminate the stress test and to bring the third clarifier unit back online. During the resulting 5-day process upset period, effluent quality coming off the clarifiers was significantly degraded (high total suspended solids) relative to normal standards. Nonetheless, Staff was able to maintain partial flow to the reclaimed (i.e.,I.Q.) water treatment system due to the excellent performance of the deep bed filter units. Even though the stress test had to be terminated, Staff used the opportunity as a learning experience. Staff are also working with the engineering consultant to fully evaluate and determine the cause of the upset.

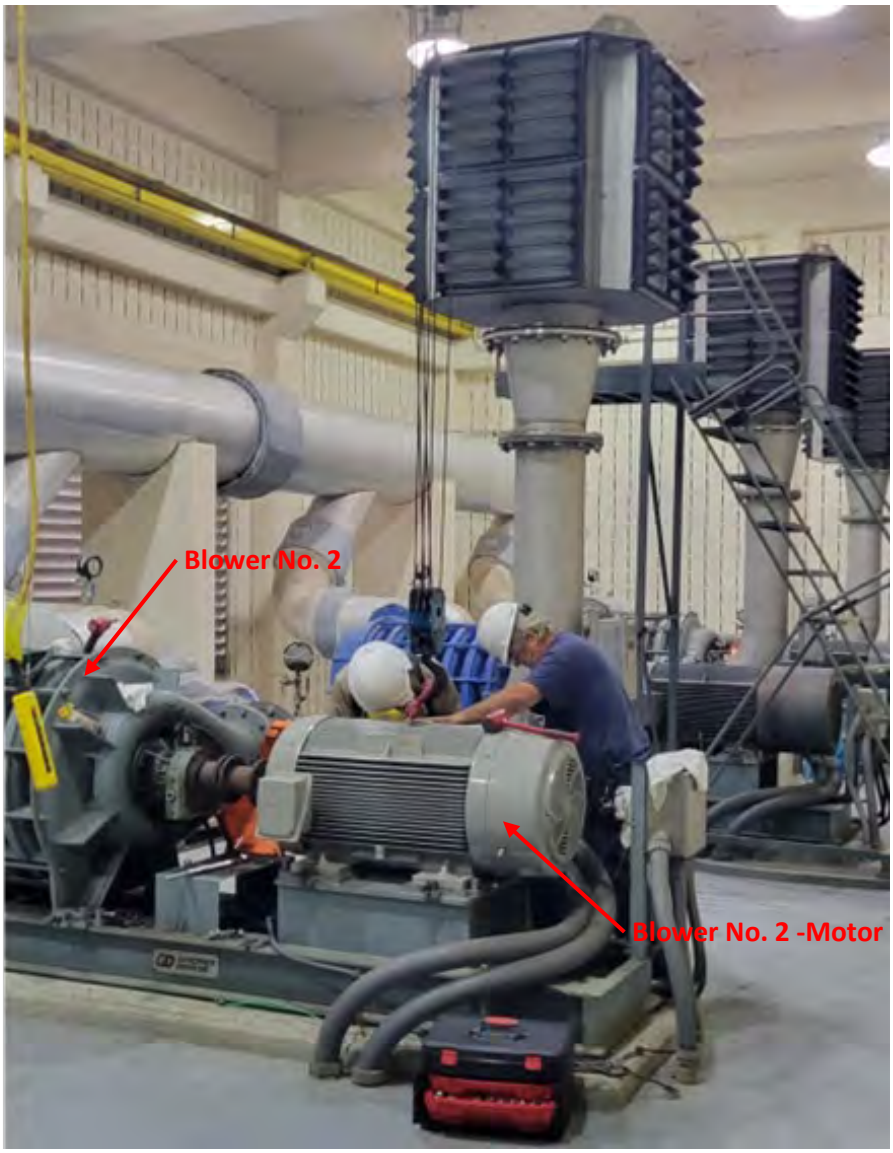


Secondary Clarifier Units – Solids Carry Over During Upset

Maintenance Department:

The Maintenance Department continued to efficiently perform planned maintenance (PM) tasks over the last monthly period. In addition to the completion of standard PM tasks, the Maintenance Department addressed non-routine maintenance items as well as "special projects." A few examples of these types of projects are presented below.

Maintenance Team members replaced a motor on one of the four (4) main process air blowers which supply diffused air to the aeration basin. The main process air blowers at the District's WWTP include one jockey blower (Blower No. 1) equipped with a 150-hp motor and three (two duty/one standby) main blowers (Blower No's 2 through 4) equipped with dedicated 300-hp motors. Blower No. 2 became inoperable and upon inspection, Maintenance Staff determined that the service breaker was inoperable and wouldn't close. Upon further inspection and testing of the blower it was determined that the motor had a dead short. Staff were able to quickly replace the motor and return the blower to service.

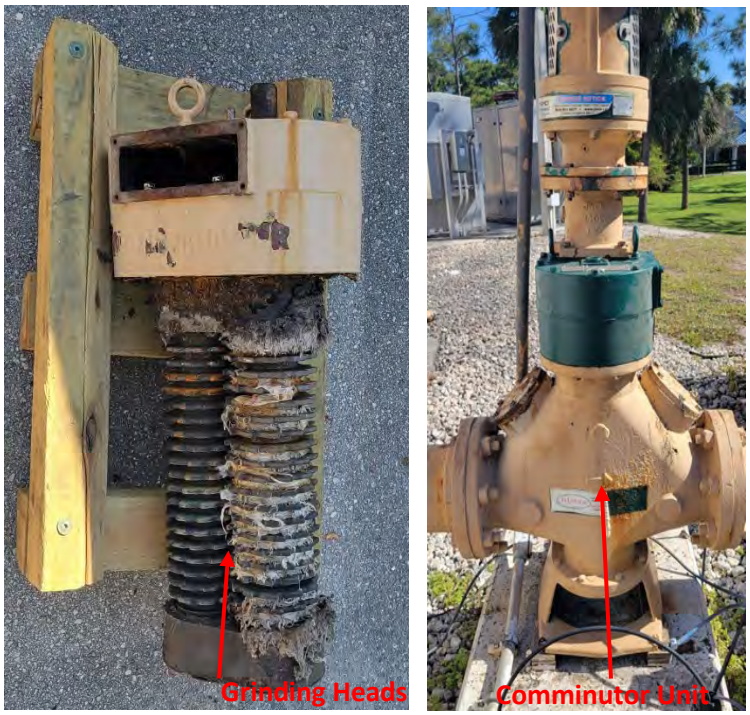


Maintenance Staff Replacing Process Air Blower No. 2 Motor

During the month of February, Maintenance Team members also worked to refurbish the finish on the housing of the fiberglass reinforced plastic (FRP) exhaust fan servicing the sludge storage tank odor control system. Equipment fabricated of FRP have numerous benefits for applications with corrosive gases but when installed outside they are susceptible to ultraviolet degradation. The existing blower has functioned well and was in good operating condition but the gel coat finish on the blower housing was in need of refinishing. Maintenance Staff were able to source and apply the required gel coating system which will extend the useful service life of the blower.

Sludge Storage Tank Odor Control System Exhaust Fan – Before and After Gel Coat Repairs

Maintenance Team members also replaced the grinding head in the comminutor unit located upstream of the sludge pumps this month. The sludge pumps convey waste activated sludge (WAS) from the sludge storage tank to the two (2) belt filter press units for dewatering. The purpose of the comminutor unit is to ensure that the consistency of the sludge discharged to the belt filter press units is homogenous and that there are no clumped solids. A homogenous consistency enhances the sludge dewatering process since it ensures optimal contact between the sludge polymer and WAS upstream of the belt filter press units, thereby increasing the percent solids of the dewatered sludge cake produced.



Sludge Comminutor - Grinder Head Replacement

Lastly, Maintenance Team members installed and organized two (2) new flammable liquid storage lockers behind the Maintenance Building. The need for additional flammable storage was identified during a recent facility inspection performed by the District's Safety Compliance officer. The installation of the lockers presented Staff with a great opportunity to inventory and dispose of unused and/or out of date products.

Two New Flammable Liquid Storage Lockers for Maintenance Building

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: Albrey Arrington, Ph.D., Executive Director
FROM: Bud Howard, Director of Information Services
DATE: March 8, 2023
SUBJECT: Information Services Monthly Governing Board Update for February 2023

WildPine Ecological Laboratory

Riverkeeper Project

In February, the lab staff and our partners collected 159 water quality samples from 28 monitoring stations throughout the watershed. A total of 75 fecal indicator bacteria samples were analysed in support of additional testing for the weekly bacteria monitoring program and the additional monthly testing in Jones and Sims Creeks.

The overall water quality score for February 2023 was “Good” with 88% of all samples meeting the EPA/DEP water quality criteria. This was similar to last month’s score of 85%, and similar to last year’s score of 86% for February (see score card below).

For the core parameters, *Total Nitrogen* scored “Good” during February with 93% of sites meeting the water quality criteria. This was a slight decrease from last month’s score of 100%, and a slight increase from last year’s score of 88%. *Total Phosphorus* scored “Good” with 96% of sites meeting the criteria, which was slightly better than last month’s score of 90%, and better than last year’s 88%. *Chlorophyll* scores increased in February from “Poor” to “Fair” with 75% of sites meeting the water quality criteria. The chlorophyll scores were better last month’s score of 53%, but not as good as last year’s score of 85%. For the combined *Fecal Indicator Bacteria* (fecal coliforms in all waters, enterococci in marine and brackish waters and *E. coli* in fresh waters), February scored “Good” again at 88%, which was similar to last month’s score of 90%, and slightly better than last year’s score of 84%. The winter/spring dry season is typically the best time of year for lower bacteria levels in the river, as indicated below in the monthly bacteria scorecard.

Dr. Matt H. Rostock CHAIRMAN | Kevin L. Baker BOARD MEMBER | Gordon M. Boggie BOARD MEMBER | Stephen B. Rockoff BOARD MEMBER | Clinton R. Yerkes BOARD MEMBER

2/1/2022 2/28/2023

Loxahatchee River District Water Quality Scorecard

Results scored to FDEP/EPA Water Quality Criteria

Green - Good: 80% - 100%
Yellow - Fair: 60% - 79.9%
Red - Poor: < 60%

Monthly Water Quality Score

February 2023

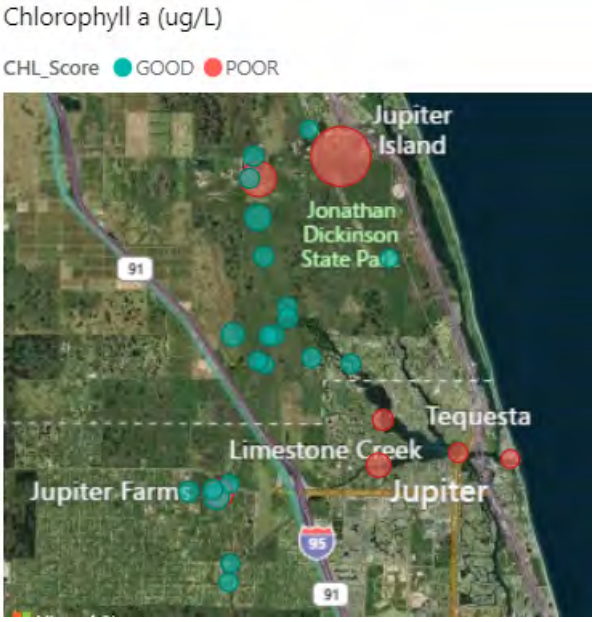
88% Overall

159 Total Samples

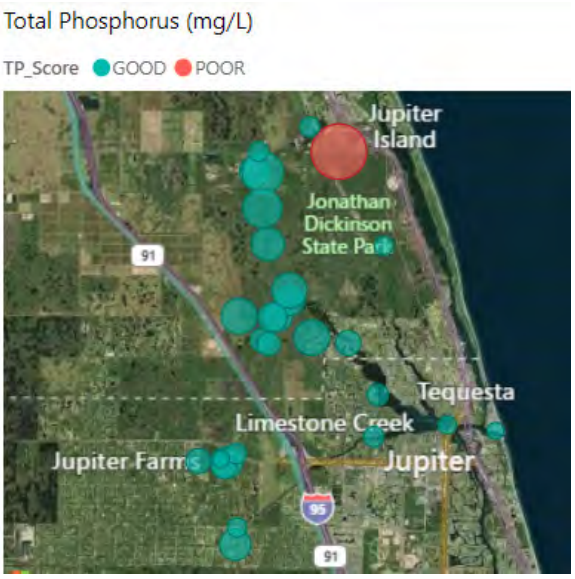
TN: Total Nitrogen, TP: Total Phosphorus, CLA: Chlorophyll a, BAC: Enterococci and E. coli bacteria

Year	Month	# Samples	Overall Score	# TN Samples	Total Nitrogen Percent Good	# TP Samples	Total Phosphorus Percent Good	# CLA Samples	Chlorophyll Percent Good	# BAC Samples	Bacteria Percent Good
2023	February	159	88%	28	93%	28	96%	28	75%	75	88%
2023	January	160	85%	30	100%	30	90%	30	53%	70	90%
2022	December	164	75%	29	93%	29	86%	29	76%	77	64%
2022	November	120	77%	18	100%	18	83%	18	56%	66	74%
2022	October	160	71%	30	100%	30	73%	30	40%	70	71%
2022	September	104	81%	19	100%	19	95%	19	79%	47	68%
2022	August	162	80%	26	88%	26	88%	26	77%	84	76%
2022	July	159	72%	30	93%	30	70%	30	47%	69	75%
2022	June	123	76%	16	88%	16	75%	16	69%	75	75%
2022	May	119	84%	21	95%	20	85%	20	80%	58	81%
2022	April	147	82%	26	96%	27	81%	27	48%	67	91%
2022	March	123	88%	16	100%	16	100%	16	88%	75	83%
2022	February	153	86%	26	88%	26	88%	26	85%	75	84%
Total		**1853**	**80%**	**315**	**95%**	**315**	**85%**	**315**	**65%**	**908**	**79%**

Spatial Distribution of Water Quality Results

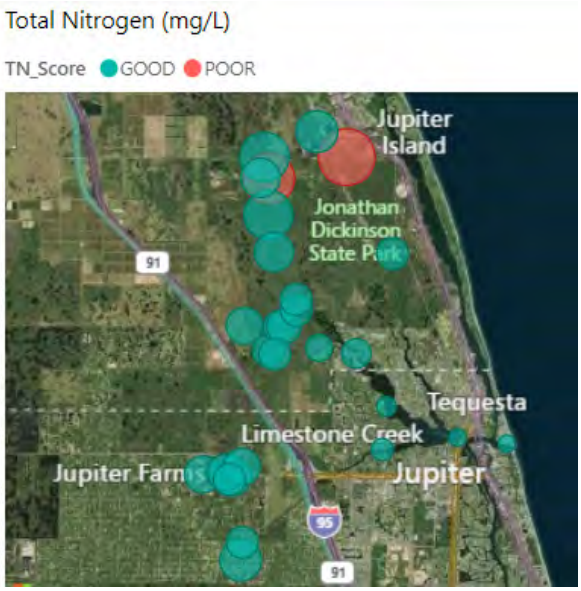


In February, *Chlorophyll* results met the water quality criteria at 21 out of 28 sites. The highest concentration observed was at the Hobe Hills outfall site (Station 56) at the northern boundary of Jonathan Dickinson State Park (JDSP) with 80 µg/L. This site routinely has poor water quality, but construction is currently underway in Hobe Hills to improve drainage structures including swales to improve water quality, so we hope to see improvement (additional discussion below). Station 111, which drains into JDSP through the Kitching Creek Road ditch/canal system, also had high chlorophyll concentration at 35 µg/L. Both sites were above the freshwater numeric nutrient limit of 20 µg/L. The other poor-scoring stations were scattered about the estuary, most that have very strict water quality standards, with results ranging from 2 µg/L at Station 10 in the Jupiter Inlet to 13 µg/L at Station 72 at the Loxahatchee River Road bridge in the SW Fork. Oftentimes, we see higher concentrations of chlorophyll during the late summer and early fall when water temperatures and productivity are higher. It is likely that the unseasonably warm temperatures are driving some of these high results.

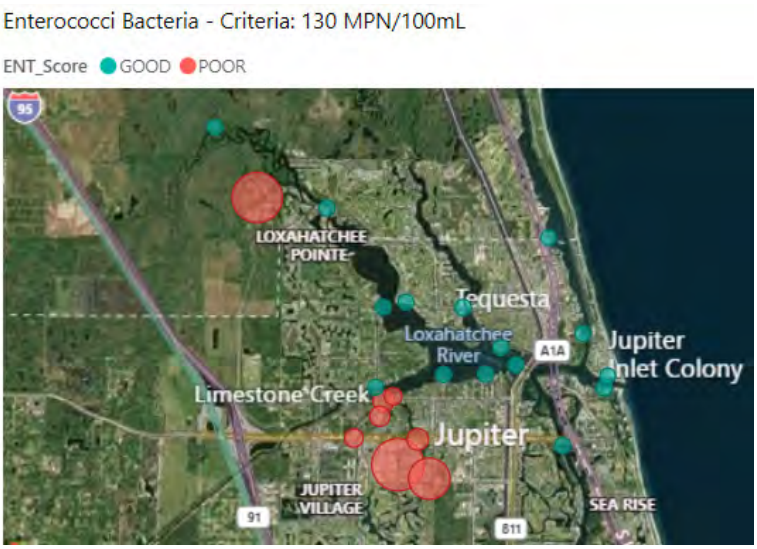


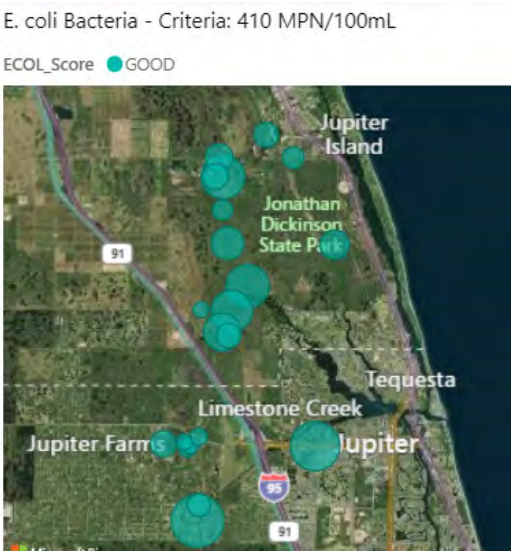
Total Phosphorus (TP) results scored "Good" at 27 out of 28 sites in February. Again, the Hobe Hills outfall site (Station 56) had the highest concentration at 0.14 mg/L, just over the Numeric Nutrient Criteria (NNC) water quality standard of 0.12 mg/L in fresh waters. Like chlorophyll at Station 56, historical phosphorus levels are also routinely poor.

Total Nitrogen results scored "Good" at 26 out of 28 sites in February. And like the other parameters, the Hobe Hills outfall site (Station 56) had the highest concentration at 1.8 mg/L, just over the Numeric Nutrient Criteria (NNC) water quality standard of 1.5 mg/L in fresh waters. Station 111 which drains into JDSP through the Kitching Creek Road ditch/canal system also had high nitrogen at 1.6 mg/L, in addition to the high chlorophyll mentioned above.



The overall *fecal indicator bacteria* results scored "Good" in February, which is a marked improvement from the last seven months. Enterococci (see map below left), the preferred indicator bacteria for salt and brackish waters, scored "Poor" at eight stations. All seven stations sampled in Jones and Sims Creeks scored "Poor". The other "Poor" scoring site was River's Edge (Station 107). Historically, these areas have had elevated FIB concentrations. The Caloosahatchee Culvert (CALC) site in Jones Creek had the highest concentration at 3,873 MPN/100mL, up from last month's 2,187 MPN/100mL. The Toney Penna Footbridge (TPJ) site, also in Jones Creek, was moderately high at 2,723 MPN/100mL, up from last month's 1,515 MPN/100 mL. River's Edge (Station 107), a tributary into the northwest fork, was also "Poor" at 3,654 MPN/100 mL. The other five "Poor" scoring stations in Jones/Sims Creeks were between 189 and 627 MPN/100 mL. For E. coli (see map below right), the preferred indicator bacteria for freshwater, all stations scored "Good". All freshwater samples tested were below 300 MPN/100 mL.





Martin County Neighbourhood Stormwater Restoration Project

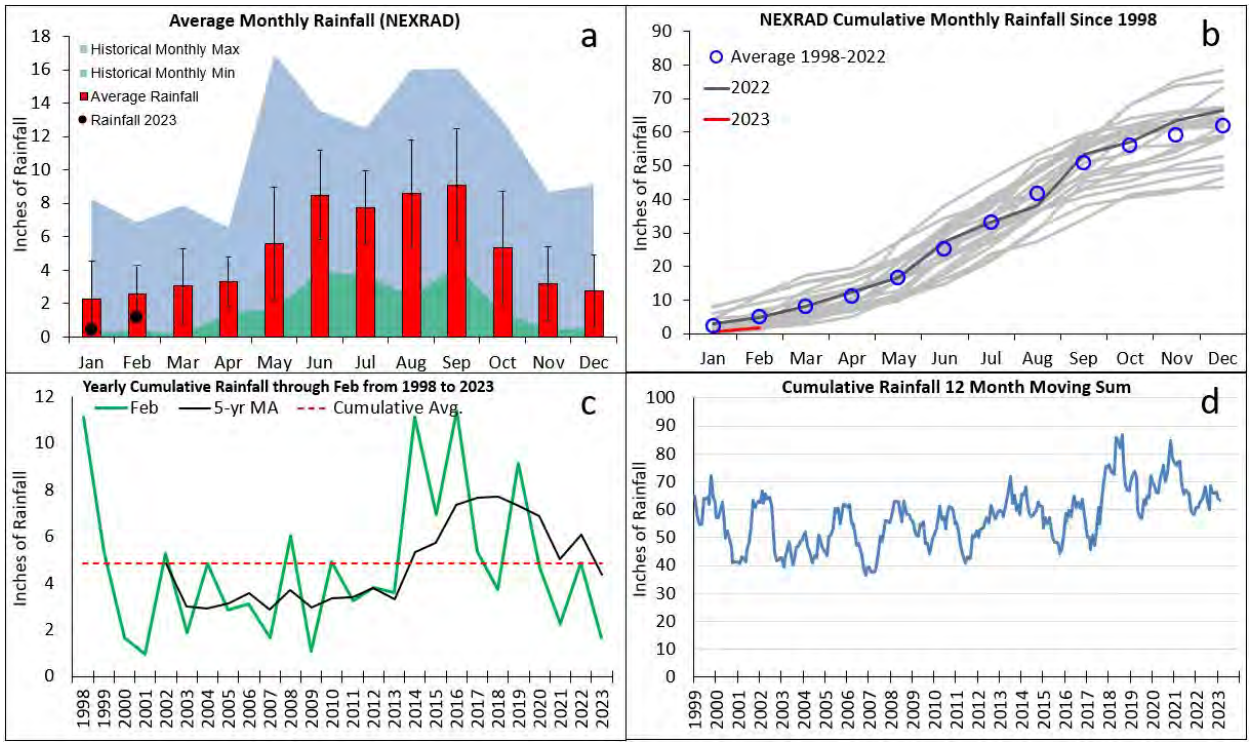
The Hobe Hills neighbourhood, formerly known as Papaya Village, is a residential community that is between Eaglewood Golf Course to the north and Jonathan Dickinson State Park (JDSP) to the south (see orange polygon on map right). Since 2014, Loxahatchee River District and JDSP staff have been working together to conduct sampling and analysis at an outfall in this neighborhood that drains to the south and enters JDSP (map right). Martin County formulated a plan to address the stormwater infrastructure within the neighbourhood to improve water quality. The project includes the replacement of drainage structures, drainage improvements where necessary, regrading of drainage swales, pavement resurfacing, and ancillary items within the neighborhood. Project construction started last Fall and is scheduled to be completed Summer 2023. We are hopeful that our water quality monitoring will show marked water quality improvements in this area. For more information, click HERE.

Hydrologic Monitoring

Rainfall

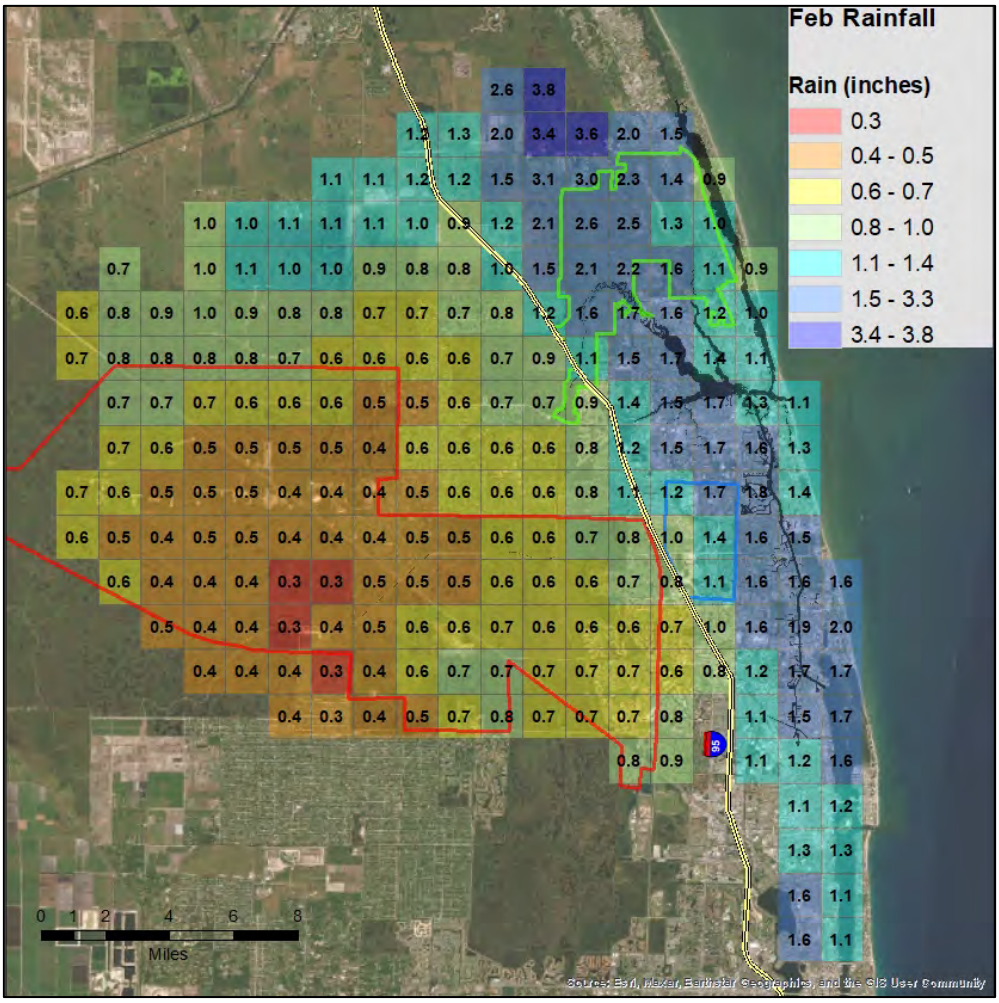
Dry conditions continued through February with average rainfall across the watershed totalling just 1.1” inches (panel ‘a’ in figure below); far less than both the historic average of 2.6” for the month and the 2.0” experienced during February 2022. Rainfall was only detected within the watershed during 3 consecutive days between February 4-6, with the highest single-day total of 1.0” recorded on February 5. Cumulative annual rainfall total through February is only 1.7”, about 66% below the

4.8” average for the period and continues the downward trend in cumulative rainfall in recent years (panel “c” below). Incedentally, cumulative rainfall this year is off to the driest start since 2009 when cumulative rainfall for the same period was 1.1”. Despite the recent dry conditions, the 12-month moving rainfall sum is 63.3”, or 3% above the 61.5” historical sum through February. This is driven by the higher than average late season rainfall last year.



Figures above display various measures of rainfall. Panel (a) shows average monthly rainfall from 1998 to 2022 (red bars; error bars indicate ± 1 sd). Black dots indicate monthly rainfall for the current year. The blue and green shaded areas show the maximum and minimum rainfall ever recorded for each month. Panel (b) shows monthly cumulative rainfall for each year since 1998. Red line indicates cumulative rainfall during 2023; dark grey line indicates rainfall during 2022. Blue circles are monthly cumulative average rainfall measured between 1998-2022. Panel (c) shows cumulative annual rainfall using NEXRAD radar-based data. Green line indicates cumulative rainfall through indicated month for each year since 1998, when the radar-based rainfall measurements began. Black line is the 5-year moving average across all years and red dashed line shows cumulative average through indicated month. Panel (d) shows cumulative 12-month moving sum of monthly rainfall.

The spatial distribution of rainfall across the watershed in February ranged from less than 0.3” in the driest regions to about 3.8” in the rainiest regions (figure below). In general, rainfall distribution is typical for dry season pattern when the highest rainfall tends to fall along the coastal regions while the driest regions are in the western portions of the watershed. During February, the highest rainfall totals were experienced near Jonathan Dickinson State Park and Atlantic Ridge (dark blue cells in the map below). The driest regions were within the C-18 basin and include portions of J.W. Corbett Wildlife Management Area and Pratt and Whitney facility in the southwest extent of the watershed (red and orange cells in the map below).



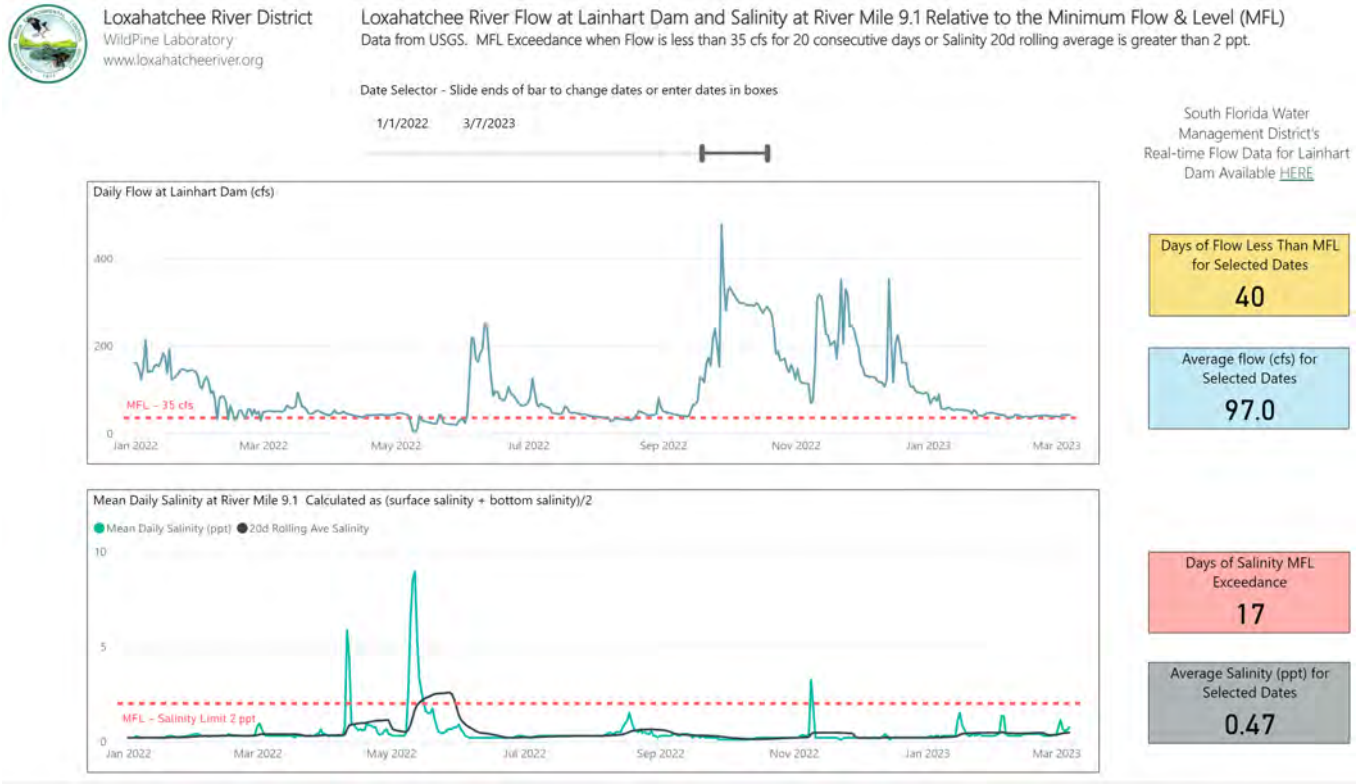
Rainfall distribution across the watershed using NEXRAD data. Each pixel represents an area of 2 km x 2 km. Blue colored pixels show highest rainfall and red pixels show lowest rainfall. For reference, the red line is the C-18 basin which includes portions of J.W. Corbett WMA, Loxahatchee Slough, and Pine Glades Natural Area; green line shows Jonathan Dickinson State Park boundary, light blue line shows the Abacoa development.

River Flows

As we enter the peak months of the dry season, river flows have diminished as expected. Throughout the month, the daily average river flow measured at the Lainhart Dam averaged just 39 cfs, with a narrow range of between 36 cfs to a peak of just 45 cfs. Despite low rainfall and subsequent low river flow, there were no days when average daily river flow fell below the Minimum Flow and Level target of 35 cfs. The flood control system operators at the South Florida Water Management utilized and average of 15 cfs of supplemental flow through the G-161 structure, which brings water in from Grassy Waters Preserve.

River flows through February were sufficient to maintain low salinity in the upstream reaches of the Northwest Fork of the Loxahatchee River. Early in the month, the mean bottom salinity at River Mile 9.1 bumped to a peak of 1.4 ppt during February 4 & 5 but returned to < 0.4 ppt for the remainder of the month.

With such low rainfall this dry season we will continue to closely monitor flow and salinity conditions through our Minimum Flow and Level (MFL) data visualization tool (screenshot below and available at: https://loxahatcheeriver.org/river/) and coordinate our observations with the South Florida Water Management District staff.



Top graph shows mean daily flow measured at Lainhart Dam (blue line) and the Minimum Flow & Level (red dashed line). Boxes at right is shown the number of days during the indicated period that average daily flow was below the 35 cfs MFL flow target (yellow box) and the mean daily flow during the selected timeframe. Bottom graph shows mean daily salinity at the USGS River Mile 9.1 structure with the 2 ppt threshold line indicated (red dashed line). Boxes at right show the number of days of salinity exceedance (red box) and average salinity during the indicated period (gray box).

Oyster Spat Monitoring

Oyster spat settlement evaluation for the 27-day period ending Feb 9 showed near average oyster spat settlement for the period that typically has the lowest settlement density. In the Northwest Fork, average spat density was 133 spat m^2 with about half, or 54% of the activity occurring at the downstream site.

Oyster spat settlement in the Southwest Fork was also relatively low at only 50 spat/m^2 with about 67% of the settlement occurring at the downstream site.

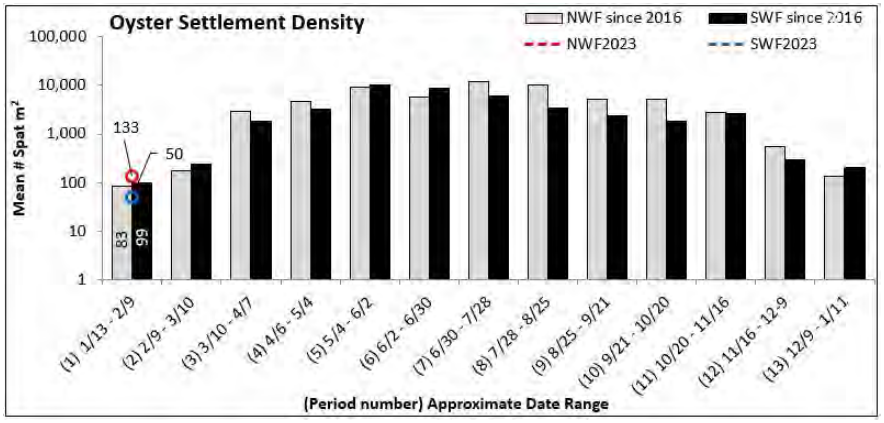
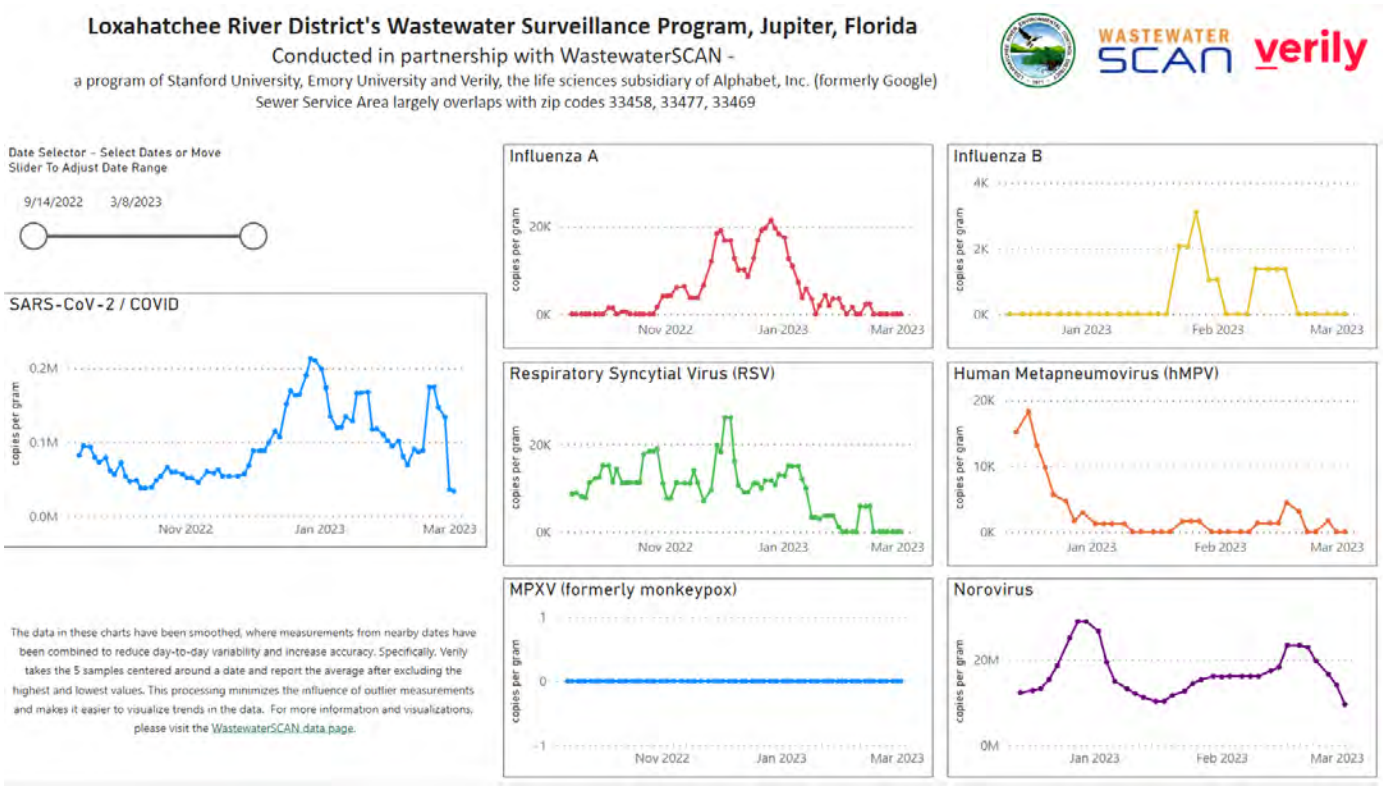


Figure shows mean oyster spat settlement for the Northwest Fork (gray bars) and the Southwest Fork (black bars) since 2016. Dashed lines show oyster spat settlement the current year in the NWF (red) and SWF (blue). Note logarithmic scale of vertical axis.

Wastewater Surveillance of COVID-19

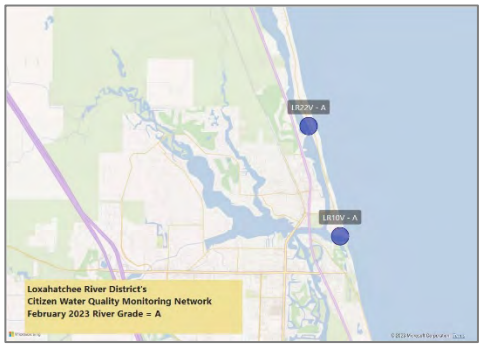
The wastewater surveillance monitoring for the Biobot/CDC and WastewaterSCAN programs for COVID-19 continue to show significant variability in virus concentrations as shown in the figure below. The most recent results from the samples collected on March 1 and 3 have shown a marked decline following a few weeks of highly variable samples. These results may be due, at least in part, to the significant increase in the number of visitors to our area.

Influenza A and B, and the respiratory viruses RSV and hMPV, have all dropped to non-detects, and Norovirus concentrations have reached a new low since monitoring began on December 14, 2022.



Volunteer Water Quality

The weekly Volunteer Water Quality had another high scoring month with a strong “A” grade. The only deviation from high scores was another instance of poor water clarity at the Jupiter Inlet site at the beginning of the month, which was associated with rougher seas. Otherwise, all the other parameters scored in the “Good” range for both reporting sites.



	Averaged results for the Month							Monthly Cumulative Grades						Cumul. Monthly	
Site	Temp (F)	Secchi	Salinity	pH	DO	DO%	Color	Vis	Salt	pH	DO	DO%	Color	Score	Grade
LR10V	23.5	2.78	35.8	8.2	6.9	100.1	1.0	**C**	**A**	**A**	**A**	**A**	**A**	95.8	**A**
LR22V	26.0	1.30	34.0	8.2	6.4	95.6	1.0	**A**	**A**	**A**	**A**	**A**	**A**	100.0	**A**
Average	24.8													96.7	**A**

VAB (Visible at Bottom)
DO (Dissolved Oxygen)
ND (No Data)

Customer Service

Payment Processing

With Q1 Bills due February 15, the Customer Service Team was busy processing nearly 19,000 payments totalling over $2.6M. Over 9,600 of these payments came though AutoPay. Because we cannot transfer the customer's credit card/bank information to our new payments processor, we continue to brainstorm our plan for migrating as many of these AutoPay customers to the new payments system to preserve as many of these highly efficient payment methods as possible. The distribution of Past Due notices began March 7 and the billing period ends March 31.

Customer Information & Billing System

We continue to have significant activity towards the implementation of our new Customer Information and Billing System, and we are optimistic we will meet our revised target "go live" date is the week of May 21 as significant programming changes are released in the coming weeks. We now have access to a test software environment for staff to gain some experience in the new system and provide feedback on migrated data.

Information Technology (IT)

Network Infrastructure Replacement Phase 1

The IT Team is well underway with our network infrastructure replacement project of all District equipment. The purpose of the this project is to replace networking hardware that has reached end of life due to soon to end support from the manufacturers, and to capitialize on new security features and functionality. Following a period of careful configuration design and planning with our security consultant, we have successfully replaced 12 network switches in the various offices with minimal disruption to users. By replacing this equipment, we have further reduced our vulnerability to network based attacks and exploits that could possibly impair our ability to operate.

New network switch example

Loxahatchee River Environmental Center

March 2023

River Center Summary Statistics

LRD'S ENVIRONMENTAL STEWARDSHIP DASHBOARD

		Total Visitors (incl. Visitors, Field Trips, Onsite Programs)	Average Program Participation [Actual participants/Capacity of Program]	Volunteer Engagement	1st Time Visitors	Visitor Satisfaction	Staff Overall Program Assessment	Expenses	Program Revenue
Benchmark / Customer Expectation		% of Target	% of Capacity	% of Target	% of Target	Rating Average [Max Rating is 5]	Rating Average [Max Rating is 9]	% within budget	% of Target
Blue Level		≥ 110%	≥ 95%						
Green Level		≥ 90%	≥ 85%	≥ 90%	≥ 90%	≥4	≥7	≥ 85% but ≤ 105%	≥ 90%
Yellow		≥ 75%	≥ 70%	≥ 75%	≥ 75%	≥3	≥5	≥ 80%	≥ 75%
Red		<75%	<70%	<75%	<75%	<3	<5	< 80% or > 105%	<75%
2020 Baseline		35%	50%	70%	65%	4.6	7.8	81%	103%
2021 Baseline		113%	83%	102%	275%	4.7	7.8	92%	85%
2022 Baseline		81%	120%	75%	163%	4.6	7.9	91%	94%
2022	Feb	79%	90%	109%	235%	4.5	8.1	99%	98%
	Mar	91%	90%	96%	110%	4.7	8.2	103%	103%
	Apr	104%	75%	136%	173%	4.9	7.9	97%	87%
	May	55%	86%	55%	147%	5.0	7.9	100%	153%
	June	86%	92%	105%	107%	4.8	8.0	100%	122%
	July	95%	84%	134%	164%	4.5	7.9	101%	123%
	Aug	88%	100%	147%	184%	3.8	8.0	91%	129%
	Sept	77%	86%	76%	178%	4.6	7.8	89%	120%
	Oct	79%	100%	118%	100%	4.9	7.4	55%	82%
	Nov	53%	104%	82%	111%	4.4	8.0	63%	88%
	Dec	94%	124%	50%	286%	4.6	7.9	96%	85%
	Jan	69%	76%	63%	338%	4.6	7.9	85%	92%
2023	Feb	79%	88%	82%	102%	4.7	7.8	85%	104%
Consecutive Months at Green		0	1	0	13	6	13	3	2
Metric Owner		O'Neill	Duggan/Warwick	Patterson	O'Neill	O'Neill	O'Neill	O'Neill	O'Neill

Metric	Explanation
Total Visitors	We had one school field trip (44 people) cancel and several cancellations for our lecture series and other programs. The average for general admission visitors is 627 and this month we had 607 (which is 97% of our average).
Volunteer Engagement	We are on an upward trend with volunteer participation. We have increased communication with our volunteers, and they are responding. In addition, we are receiving more volunteer applications. We hope to see this number continue to increase.

River Center General

Special Programs

Nature Hike – Jupiter Ridge [Wednesday, February 1st]

The River Center team facilitated a nature hike as part of our Naturalist Series. Twelve visitors and two staff took a trip through the Jupiter Ridge Natural Area. Over 270-acres of scrub, scrubby flatwood, mesic flatwoods, depression marsh, and mangrove swamp ecosystems are in this natural area. Participants walked along wet prairie trails viewing Coopers Hawk, Carolina Willow, Sand Beach Oaks, Sand Pines, Deer Moss, Star-Grass, **Eastern Scrub Lizard**, and Sulfur, Mangrove Skipper, and Great Southern White butterflies.

Lecture Series [Friday, February 3rd]

On Friday, February 3rd Harper Carroll, Fire Manager for Palm Beach County's Environmental Resources Management, came to present about "Prescribed Fire: The Spark of Life." He talked about the history of fire and the benefits of prescribed fire in Florida. Harper briefly went over the process for managing a prescribed fire as the burn crew. Fifty-four people came out to hear this lecture. Prior to the lecture a light lunch is provided.

Blooming in the Garden [Saturday, February 11th]

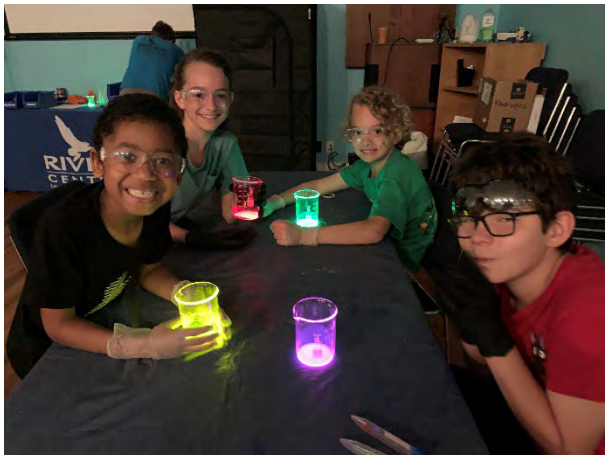
The Blooming in the Garden program is designed for children ages 3-6. The theme for this month was "Fun with Frogs and Toads." Children were able to observe some chorus frogs gathered (and then released) on site. We read a story about frogs and toads and talked about similarities and differences. We hopped along through our garden searching for different kinds of common Florida frogs and toads that were posted around the trail. Then we made our own jumping frog craft. When it was time to go home, the children received seeds to take home to start their own garden!

Evening Lecture Series [Friday, February 17th]

Our guest speaker was Wyatt Richardson, FNGLA Palm Beach Chapter Treasurer and Nursery Manager for Haverland Nursery. Wyatt presented on native plant communities of South Florida, and how to understand which communities will thrive in your back yard. Wyatt brought native plant examples from his nursery to display resilient native plant species; Paired with his presentation, Wyatt explained how to have an easy to maintain native pollinator garden in your yard.

Science with Sam [Saturday, February 18th]

Science with Sam taught a lesson on bioluminescence. This class focused on organisms that are bioluminescent and why they use their light. Students discussed what types of animals give off bioluminescence, why the animal uses it, and how that helps them survive. Students had the opportunity to create their own chemiluminescent glowing reaction similar to the bioluminescence of the animals discussed. At the end of class, students were able to observe live bioluminescent dinoflagellates swirl and glow and see how they use their light as self-defense.



Homeschool Workshop [Wednesday, Feb. 15th]

The River Center conducted a homeschool workshop for students ages 7-10. This month's workshop was about Reptiles of the Loxahatchee River. Students learned how reptiles are eco-enrichers and how they play a significant role in the Loxahatchee River ecosystem. Students also got an up-close experience with our resident reptiles including Cypress the American alligator, our yellow-bellied sliders, and our corn snake Daisy.

Volunteer of the Month

Mattias Skantze is our February 2023 Volunteer of the Month! Mattias is willing to go above and beyond to complete tasks, help visitors and make sure that everything is running smoothly. He takes the initiative to ensure every guest is having a great experience and provides wonderful information for our guests. Mattias loves to learn about the different animals that are in our care and wants to take on the responsibility of caring for our animals. Mattias also loves gardening and being outside and is willing to take on the task of weeding, trimming and planting. He has a great attitude around the center and is always willing to jump in and complete anything that is asked of him. We love having him volunteer and grateful for his consistent support every week!

Upcoming River Center Events

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

Every Thursday, 9:30 a.m. – 10 a.m. – Story time: Join the River Center for Story Time. Families are welcome as we read stories and have an animal encounter.

March 17: 9:00 a.m. – 12:00 p.m.: Family Fishing Clinic: Don't miss out on this exciting fishing opportunity with the River Center. Fishing clinics are a great way for kids to learn the basics of fishing methods and tactics! Make sure to join us for an engaging overview that includes knot tying, fish identification, and of course fishing! Parents are encouraged to accompany their kids and participate in the clinic. The cost is $10 per child. Interested participants should bring water, sunscreen, a hat, and sunglasses.

March 17, 1:00 p.m. – 2:30 p.m.: Introduction to Volunteering: Do you have a passion for the environment? Do you enjoy interacting and educating the public? The River Center is looking for enthusiastic and personable volunteers to join our River Center team! Individuals 14+ are invited to attend the next Intro to Volunteering workshop from 1:00 PM – 2:30 PM. For questions or application information please contact our Volunteer Coordinator Rebecca Patterson at 561-339-3107 or Volunteer@Lrecd.org

March 17: 5:00 p.m. – 6:00 p.m.: Evening Lecture Series: The Early Days of Florida Horticulture: Dr. George Rogers, considered a leading authority on Florida native plants, has authored several field guides to help with native plant identification as well as books designed to encourage native planting in our community. Dr. Rogers earned his doctorate in botany from the University of Michigan and did a post-doctoral fellowship in botany at Harvard University. Dr. Rogers uses his books and teachings to foster a new sense of stewardship to Florida native plants and teach the history of horticulture in our community. Registration is required to attend.

March 18: 1 p.m. – 2 p.m.: Science with Sam [Exciting Electricity]: On select Saturdays from 1:00 pm – 2:00 pm, join our Scientist Sam for different science activities for children 6-12. Activities will include garden exploration and hands-on opportunities with wildlife. Each month has a different theme! In this lesson students will discover the enchanting world of bioluminescence through experimentation. Students will have the opportunity to create their own luminescence and understand what a unique adaptation bioluminescence is, and what types of organisms have gained this feature.

March 21, 9:30 – 11:30 a.m.: Exploring Archery: Join the River Center for our introductory archery workshop! Learn about the complex history of archery, uses, safety and basic skills. All equipment will be provided but interested participants should bring comfortable clothing, closed toed shoes, water and sunscreen.

March 22, 10 a.m. – 12 p.m.: Kayak Tour – Fullerton Island: Join the River Center for our Public Kayak Tour around Fullerton Island and Sawfish Bay. Paddle along the mangroves on our naturalist led tour for great views of local wildlife. All equipment will be provided but interested participants should bring water shoes, sunscreen, and plenty of water! The cost for this program is $20 per person. Make sure to reserve your spot today! Space is limited! Kayak Difficulty Level: Easy to moderate, all paddler levels welcome.

March 23, 10:00 a.m. – 1:00 p.m.: Craft-a-palooza: Join us in the River Center classroom for some FREE arts and crafts activities. This is a free event, and no RSVP is required to attend or participate. Our crafts are designed for children ages 3-10. Make sure you don't miss out on this exciting spring break event!

March 24, 10:00 a.m. – 12:00 p.m.: Pal Mar - Hungryland: Come explore with us! Tie up your hiking boots and join the River Center for our Nature Walk through Pal Mar Natural Area. Walk along the guided paths and immerse yourself in this local natural area. We will explore a path inside this natural area with uneven terrain. Interested participants should wear closed toed shoes, long pants (recommended), a walking stick, comfortable clothing and bring plenty of water. Please RSVP to attend. Space is limited.

April 1, 8:30 a.m. – 12:00 p.m.: Girl Scout BUGS: Brownies will earn their Legacy "Bugs" badge and Daisies will earn their Clover petal. This fun-filled event will help Brownies discover bugs and why they are important while Daisies will discover the world around them alongside their Girl Scout sisters. Daisy & Brownie level scouts.

April 4, 9 – 11 a.m.: River Center Garden Club: Come and spend some time outdoors. Learn more about native gardening and meet new people. Bring hat, sunscreen, and water. Most equipment is provided but you may want to bring your own gloves, trowels, trimmers, shovels.

April 7: 12:00 p.m. – 1:00 p.m.: Lecture Series: Love Letter to the Palm Beaches: Benji Studt is a scientist, conservation photographer, nature communicator, and explorer. After graduating from the University of Florida, he spent 3 years working for South Florida Water Management District in the wetland regulation arena. He then moved to Palm Beach County's Department of Environmental Resources Management (ERM) where for almost 10 years he designed wetland restoration projects, as well as conducted biological monitoring and land management activities. For the last 5 years, Benji has led ERM's public outreach team with the goal of inspiring real connections between the residents and visitors of the Palm Beaches, and the incredible public lands system that makes this area so special. Registration is required to attend. This event is not recommended for children under the age of 12.

April 8: 8:00 a.m. – 4:00 p.m.: Boating America 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 there is a deposit 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, but all ages are welcome.

April 8: 10 – 11:30 a.m.: Blooming in the Garden [April Showers]: Join the River Center for our Blooming in the Garden program, designed for children ages 3-6. The program will start at 10:00am at the River Center Chiki Hut with a story time and a garden themed craft. We will then move to our garden for a garden themed hands-on activity. When it is time to go home, children will receive seeds to take home to start their own garden! This is an exciting opportunity for little ones and their families to enjoy nature together!

April 15: 1 p.m. – 2 p.m.: Science with Sam [Chemical Reactions]: On select Saturdays from 1:00 pm – 2:00 pm, join our Scientist Sam for different science activities for children 6-12. Activities will include garden exploration and hands-on opportunities with wildlife. Each month has a different theme! In this lesson students will discover the enchanting world of bioluminescence through experimentation. Students will have the opportunity to create their own luminescence and understand what a unique adaptation bioluminescence is, and what types of organisms have gained this feature.

April 18, 10 a.m. – 12 p.m.: Kayak Tour – Cypress Creek South Natural Area: Join the River Center for our Public Kayak Tour to Cypress Creek South Natural Area. Paddle along through the freshwater marsh on our naturalist led tour for great views of local wildlife. All equipment will be provided but interested participants should bring water shoes, sunscreen, and plenty of water! The cost for this program is $20 per person. Make sure to reserve your spot today! Space is limited! Kayak Difficulty Level: Easy to moderate, all paddler levels welcome.

April 21: 5:00 p.m. – 6:00 p.m.: Evening Lecture Series: Manta Rays: Join us at the River Center for our new evening lecture series! Our April evening speaker is Jessica Pate, Founder and Lead Scientist of the Florida Manta Project for the Marine Megafauna Foundation. Jessica Pate has an undergraduate degree from UNC-Chapel Hill and a graduate degree from Florida Atlantic University. She has studied sea turtles in Florida, Central America, and West Africa. She has also taught marine biology on traditionally rigged schooners and has crossed the Atlantic Ocean by sail. In 2016, Jessica started the Florida Manta Project to study the biology and ecology of manta rays in South Florida and has discovered a potential rare nursery habitat. Jessica will talk about manta ray biology and global manta ray conservation, as well what discoveries that she has made about Florida's manta rays. You will also find out how to become a citizen scientist and contribute to important manta ray research! Registration is required to attend.

April 22, 1:00 p.m. – 2:30 p.m.: Introduction to Volunteering: Do you have a passion for the environment? Do you enjoy interacting and educating the public? The River Center is looking for enthusiastic and personable volunteers to join our River Center team! Individuals 14+ are invited to attend the next Intro to Volunteering workshop from 1:00 PM – 2:30 PM. For questions or application information please contact our Volunteer Coordinator Emmy Weeks at 561-339-3107 or Volunteer@Lrecd.org

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

To: D. Albrey Arrington, Ph.D., Executive Director
From: Ed Horchar Safety Officer
Date: March 07, 2023
Subject: District Safety Report for February 2023

Safety Metrics: February 2023
OSHA recordable injuries: Zero
Lost time injuries: Zero
Actual TRIR: 0.0 [Goal < 2.2]
TRIR = Total Recordable Incident Rate

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.*

OSHA Recordable Incidents/MVA's:

The LRD has now experienced zero OSHA Recordable Injuries for **fifteen** consecutive months. The District has sustained a Total Recordable Incident Rate (TRIR) of **0.0**, below our goal of 2.2. The District continues to experience a performance best period (recent history) for consecutive months with no recordable injuries.

The District experienced zero Motor Vehicle Accident's (MVA) in February. With a total of two MVAs in the last 12-month period, the MVA incident rate is at 2. 3. Slightly above the LRD MVA goal of 2.2.

Sustainment:

Job Hazard Assessment (JHA) activity levels in February increased slightly comparable to January levels. The increase in activity is the second highest documented monthly total for the District. The following is a comparison of February JHA's performed per employee in each participating department:

Reuse:	34 JHA / employee	Construction:	8 JHA / employee
Operations:	34 JHA / employee	Inspection:	16 JHA / employee
Collections:	41 JHA / employee	Wild Pine Lab	2 JHA / employee
Maintenance:	20 JHA / employee		

Kevin L. Baker BOARD MEMBER | Gordon M. Boggie BOARD MEMBER | Stephen B. Rockoff BOARD MEMBER | Dr. Matt H. Rostock BOARD MEMBER | Clinton R. Yerkes BOARD MEMBER

JHA and EAM:

The District reduced paper JHA's by approximately 4% in February. In February a total of 1047 JHA's were completed electronically through the EAM Work Order process. Approximately 95% of all EAM Work Orders included a completed JHA. Another good indicator as the 95% expectation is met for the third consecutive month. Reuse gets the shout-out for February by increasing the work order related JHA input by 9 per employee while maintaining a 99% JHA to Work Order ratio. Collections is runner up for sustaining a high JHA output and a 99% JHA to Work Order ratio. Its clear District employees are engaged in this process…well done!

There were six Near Miss reports initiated in February. Employees from the Executive Organization, Operations and Collections all participated in this program in February. The hazards include plant traffic management and trips slips, and falls. The Near Miss's are input into the Work Order system if corrective action is warranted. As the program matures the process is improving and becoming more efficient. We are starting to see more corrective actions being addressed on a monthly basis. Reporting safety issues in the Near Miss Reporting system includes Unsafe or Unhealthy Conditions, Environmental Pollution Potential, and Suggestions for Safety Process Improvement. This continuous improvement process will enhance the District's overall safety performance and help continue the streak of continuous months without a recordable injury. Your input is important, and each employee is encouraged to participate in this program.

Training:

District employees realized a 100% completion rate for all safety training tracked in February, exceeding the District goal of 95%. The focus in February was trench and shoring safety, Lock-out/tag-out, and confined space entry awareness. Classroom training offered in February was Management of Traffic (MOT) Temporary Traffic Control conducted by the Safety Council of Palm Beach County. Congratulations to Ryan Chernekoff and Alex Smith (Construction) for obtaining the Advanced MOT, and Wyatt Fischbach and Tommy Cox (Construction) and Corey Brookshire (Collections) for obtaining the Intermediate MOT. A big congratulations goes out to Dan Winters (Operations) for receiving the required DOT Class B CDL Licence in February. Nice job! Another District Operations employee and one Maintenance employee are finalizing their CDL Class B License in March. A DOT Tanker Endorsement has been obtained by a Collections employee in February through testing at the DMV. A total of thirty-five District employees now have received the endorsement since initiation in October. A reminder to all CDL Drivers who require a tanker endorsement that you have until March 31st to obtain your tanker endorsement.

At left Chuck Talledo and Rod Jessurun set-up a temporary LS Panel to support the rehab of LS 163. At right Foreman Jason Broadrick prepares to enter the confined space as Tommy Cox and Wyatt Fischbach operate the non-entry rescue device (AKA the Green Monster)

A total of 11 Workplace inspections occurred in February. District jobs that were observed included multiple visits during LS 163 rehabilitation, chlorine building monthly alarm testing, head works channel inspection, head works grit classifier inspection preparations, Palm Beach County Rescue 19 Special Operations confined space rescue drill, Maintenance Shop inspection, and various near miss report evaluations including dewatering facility tripping hazards, working at heights hazards, and injection well screen chamber fall prevention concerns.

Palm Beach County Rescue 19 Special Operations Unit and Ladder Truck are on site at the Synthetic Media Filter performing confined space rescue training. At right First Responders are rescuing a dummy from the confined space utilizing the ladder truck. Rescue 19 will be supporting the District in the near future with evacuation drills to include a chlorine building simulated emergency scenario.

Fifteen consecutive months of injury-free work and going strong. Congratulation to all District employees for whom this trend could not be accomplished. Injury free work demonstrates dedication to work smart and stay focused to safety components of each task. The experienced District employees are leading the way by working safely by example. Let's stay safe at home and at work. Feel free to visit with any questions or ideas you may have. And do not forget to utilize the near miss reporting system. Let's help each other to stay safe and reach beyond our goals.

LOXAHATCHEE RIVER DISTRICT
2500 JUPITER PARK DRIVE, JUPITER, FLORIDA 33458 TEL: (561) 747-5700 FAX: (561) 747-9929
D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: Governing Board
FROM: Administration Staff
DATE: March 10, 2023
SUBJECT: Consultant Payments

The following amounts have been reviewed and approved for payment to our consultants for work performed during the prior month.

Consultant	Prior Month	Fiscal YTD
Attorneys	$ 14,281.78	$ 61,034.95
Baxter & Woodman	$ 119,620.30	$132,446.73
Chen Moore	$ 7,857.96	$ 35,070.06
Holtz	$ 19,872.71	$143,884.79
KCI	–	$ 77,478.50
Mock, Roos & Associates	$ 6,758.00	$ 67,869.75
Kimley-Horn & Associates, Inc.	$ 31,885.00	$ 41,188.00

Should you have any questions regarding these items, please contact Kara Fraraccio concerning the attorney invoices, and Kris Dean concerning the engineer invoices.

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
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D. Albrey Arrington, Ph.D. EXECUTIVE DIRECTOR loxahatcheeriver.org

MEMORANDUM

TO: GOVERNING BOARD

FROM: D. ALBREY ARRINGTON, Ph.D.

DATE: FEBRUARY 27, 2023

SUBJECT: EXECUTIVE DIRECTOR'S 2023 GOALS

I have drafted my goals for 2023. Dr. Rostock (LRD Board Chairman) has reviewed and approved of these goals. The first page includes general goals and the second page includes specific goals with specific completion dates. I hope you will review these goals and please let me know if you believe we have missed anything or if you believe any goal is pointing in the wrong direction.

Dr. Matt H. Rostock CHAIRMAN
Kevin L. Baker BOARD MEMBER
Gordon M. Boggie BOARD MEMBER
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2023 – Performance Assessment Categories for Dr. Arrington

Organizational Leadership. Does the Executive Director provide strong, visionary leadership to the organization? How well does the Executive Director motivate and energize the organization in pursuit of our mission? Does Executive Director build and model the desired organizational culture and core values?

Effective relationship with Board. How well does Executive Director communicate and interact with the LRD Governing Board? Is the relationship characterized by transparency, candor, open & effective communication? Is the Governing Board keep informed, in a clear and timely manner, regarding all relevant aspects of the District?

Strategic Plan. Are prioritized elements from the Strategic Plan being implemented? Is the organization aligned to the Mission, Vision, and Core Values?

People management. Does the Executive Director recruit and maintain qualified, effective, and productive staff? Are the right people in the right jobs, especially in management positions? Are staff turnover and succession managed effectively?

Operating metrics. Are metrics on the Executive Dashboard (e.g., revenues, expenses, safety, environmental education, customer satisfaction) indicative of a well-run organization?

Governance. Does the Executive Director implement procedures to ensure Governing Board actions and policies are effectively administered? Are District Rules and policies reviewed periodically?

Financial performance. Did the organization achieve a clean audit, which is the product of establishing and implementing effective financial procedures and internal controls? Did the Executive Director produce a timely and quality Rate Study and Budget? Was a budget amendment necessary?

Effective decision making. Does the Executive Director make recommendations and decisions that show sound judgment, clear thinking, and are designed to ensure effective use of organizational resources.

Compliance with legal and regulatory standards. Did the organization operate in compliance with relevant laws and governmental regulations? Did Executive Director respond appropriately to regulatory agency comments and recommendations.

Litigation. Did the organization experience any costly, avoidable litigation?

Relationships with external constituencies. How well does the Executive Director engage with sister agencies, regulatory agencies, state and federal policy makers, and other stakeholders? Is the organization respected within the community?

Albrey's 2023 Specific Goals (specific, measurable, achievable, and time-bound)

1. By 2/28/23 publish a peer-reviewed manuscript characterizing nutrient concentrations in and loading derived from landscape irrigation with LRD's reclaimed water.
2. By 5/15/23 develop plan to conduct environmental education programming at Jupiter Inlet Lighthouse Outstanding Natural Area without the benefit of the full-scale planned site improvements.
3. By 6/30/23 obtain LRPI funding from state legislature.
4. By 6/30/23 successfully transition to our new billing services provider.
5. By 6/30/23 complete engineering design of new Loxahatchee River subaqueous force main.
6. By 7/20/23 present site plan for 2500 Jupiter Park Drive to the Governing Board.
7. By 9/21/23 complete significant rehabilitation of IT network infrastructure to improve security.
8. Oversee BWS exit from 2500 Jupiter Park Drive by 9/21/23 and subsequently oversee restoration of the premises as agreed upon.
9. By 9/21/23 conduct strategic planning exercise for LRD's environmental education efforts.
10. By 9/21/23 complete a technical assessment and provide recommendation to Governing Board regarding conversion from gaseous chlorine to liquid sodium hypochlorite as our primary disinfectant for reclaimed water.
11. By 11/30/23 maintain 12 month rolling average of Total Recordable Incident Rate < 1.5.
12. Complete arc flash study by 12/21/23 and expeditiously implement recommendations.
13. By 12/21/23 present findings from before/after monitoring of water quality in Jones Creek relative to the Town's scheduled vegetation trimming to assess improvements to water quality.
14. By 12/21/23, as Chair of LRMCC, oversee publication of draft Loxahatchee River Management Plan.
15. By 12/21/23 diligently advocate for Loxahatchee River Watershed Restoration implementation pursuant to the SFWMD/USACOE Integrated Delivery Schedule and delivery of supplemental flows to avoid violations of the minimum flow target.
16. By 12/21/23 achieve startup of new lift station telemetry panels at 55 lift stations.
17. By 12/21/23 line 100 gravity sewer services.
18. By 12/21/23 line 30,000-feet of gravity sewer mains.

Future Business

General:

- Board Presentation of select Six Sigma green belt projects

Future Contracts:

- Lift Station 054 System Cleanout Installation - Construction Contract Award
- Lift Station 050 Emergency Generator and Automatic Transfer Switch – to approve Professional Engineering Services Agreement
- County Line Road Bridge IQ Main Relocation - Award Construction Contract
- Loxahatchee River Subaqueous Force Main Replacement – Award Construction Contract
- Rolling Hills Gravity Sewer System – Preliminary Assessment
- Wooden Bridge – Preliminary Assessment
- Lift Station Control Panel and RTU Upgrades – Award Construction Contract
- FY23/FY24 Main Lining – Award piggy back contract