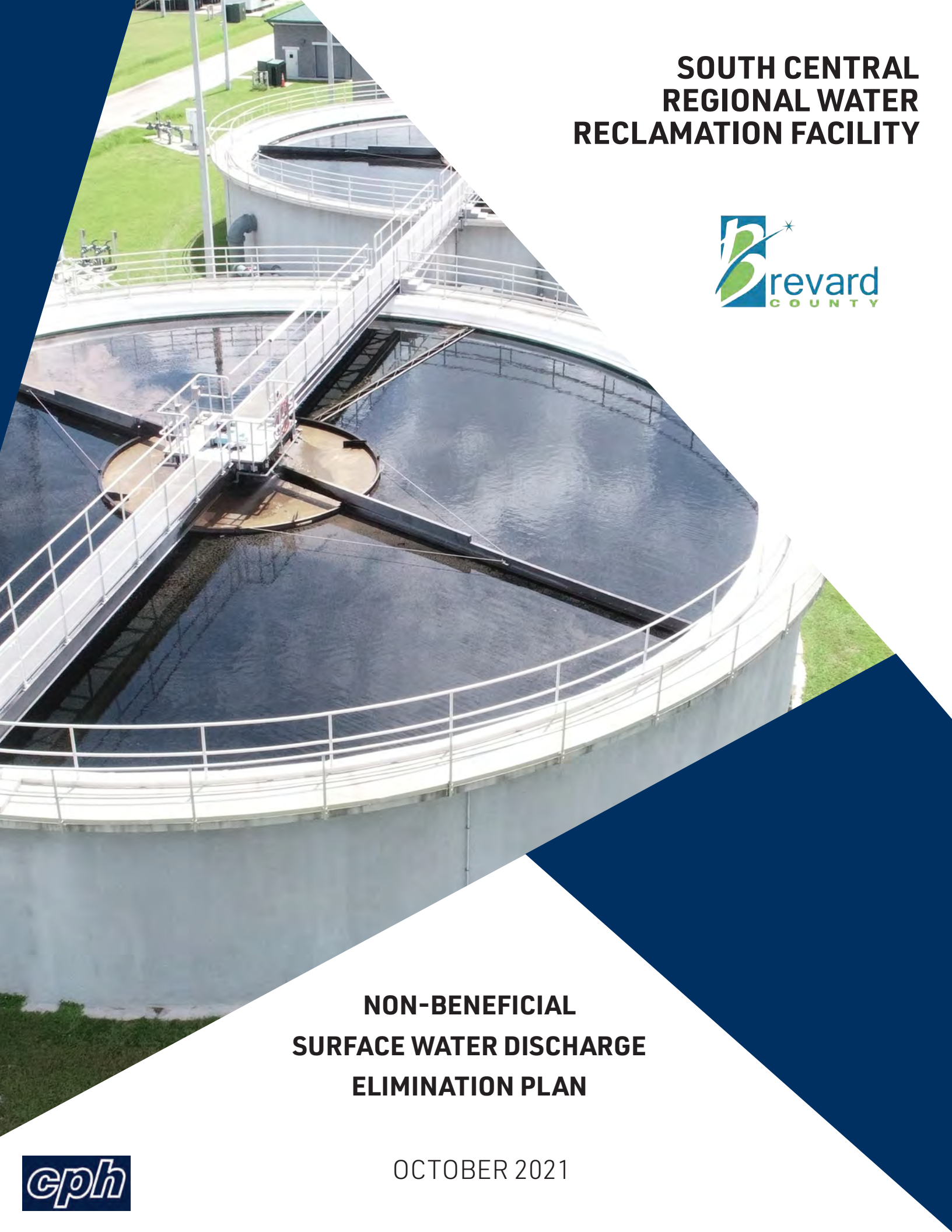

SOUTH CENTRAL REGIONAL WATER RECLAMATION FACILITY

Brevard COUNTY

NON-BENEFICIAL SURFACE WATER DISCHARGE ELIMINATION PLAN

OCTOBER 2021

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Cover Sheet for Plan Submittal

Facility Name BCUD - South Central Regional WRF

Facility ID FL0102679

Contact Person Name, Title, Phone, Email Edward Fontanin, P.E., Utility Services Director

Brevard County Utility Services Department, (321) 633-2093; edward.fontanin@brevardfl.gov

If the requirement for a plan does not apply to the facility, please mark which exemption applies (attach documentation demonstrating that the facility meets the exemption) Not Applicable

Check One	Exemption
	Facility is in a fiscally constrained county as described in section 218.67(1), F.S.
	Facility is in a municipality that is entirely with a rural area of opportunity as designated pursuant to section 288.0656, F.S.
	Facility is in a municipality that has less than $10 million in total revenue, as determined by the municipality's most recent annual financial report submitted to the Department of Financial Services in accordance with section 218.32, F.S.
	Facility is operated by an operator of a mobile home park as defined in section 723.003, F.S., and has a permitted capacity of less than 300,000 gallons per day.

Indicate which plan(s) category under which the facility will comply

Check One	Plan Category
	The plan eliminates the discharge.
	The plan meets section 403.086(10), F.S.
	The plan does not eliminate the discharge – The discharge is associated with an indirect potable reuse project;
	The plan does not eliminate the discharge – The discharge is a wet weather discharge that occurs in accordance with an applicable department permit;
	The plan does not eliminate the discharge – The discharge is into a stormwater management system and is subsequently withdrawn by a user for irrigation purposes;
X	The plan does not eliminate the discharge – The utility operates the domestic wastewater treatment facilities with reuse systems that reuse a minimum of 90 percent of a facility's annual average flow, as determined by the department using monitoring data for the prior 5 consecutive years, for reuse purposes authorized by the department; or
	The plan does not eliminate the discharge – The discharge provides direct ecological or public water supply benefits, such as rehydrating wetlands or implementing the requirements of minimum flows and minimum water levels or recovery or prevention strategies for a waterbody.

Please enter the information on discharges eliminated **Not Applicable**

Discharge Type (effluent, reclaimed water, or reuse water)	Average Gallons Per Day	Date the discharge will be eliminated

Please enter information on any continuing discharges to surface waters after January 1, 2032.

Discharge Allowance Category	Discharge Type (effluent, reclaimed water, or reuse water)	Average Gallons Per Day	Treatment Level Provided (e.g. BOD limit = 5mg/L, TSS = 5 mg/L, TN = 3mg/L, TP = 1mg/L and high-level disinfection)
Meets section 403.086(10), F.S.			
Associated with an indirect potable reuse project.			
Wet weather discharge in accordance with an applicable department permit.			
Discharge into a stormwater management system that is subsequently withdrawn by a user for irrigation purposes.			
Reuse system reuses a minimum of 90 percent of a facility's annual average flow.	**Reclaimed Water**	**Up to 0.99 MGD AADF per Permit**	**AWT and high-level disinfection are provided at the SCRWRF**
Discharge provides direct ecological or public water supply benefits.			

Certification Statement

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.	
Authorized Signatory Representative Name *and Official Title* (type or print) [Rule 62-620.305, F.A.C.]	**Edward Fontanin, P.E., Utility Services Director** **Brevard County Utility Services Department**
Authorized Signatory Representative Signature	*Date Signed*

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SOUTH CENTRAL REGIONAL

WATER RECLAMATION FACILITY

NON-BENEFICIAL SURFACE WATER ELIMINATION PLAN

OCTOBER 2021

CPH, Inc.
500 West Fulton Street
Sanford, Florida 32771
CPH Project No. B19507

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List of Abbreviations

AADF	Annual Average Daily Flow
AC	Acres
ASP	Activated Sludge Process
AWET	Acute Whole Effluent Toxicity
ADF	Average Daily Flow
BCUD	Brevard County Utilities Department
BFP	Belt Filter Press
BMP	Best Management Practices
BNR	Biological Nutrient Removal
BOD	Biochemical Oxygen Demand
CAR	Capacity Analysis Report
$CBOD_5$	Carbonaceous Biochemical Oxygen Demand - 5-Day
CCC	Chlorine Contact Chamber
CFR	Code of Federal Regulations
CIP	Capital Improvements Plan
COD	Chemical Oxygen Demand
DIW	Deep Injection Well
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
EPA	Environmental Protection Agency
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
F/M	Food-to-Microorganism Ratio
FSS	Fixed Suspended Solids
GPCD	Gallons per Capita-Day
HDT	Hydraulic Detention Time
HP	Horsepower
hr	Hour
HRT	Hydraulic Retention Time
IR	Internal Recycle
lb	Pounds
lb/day	Pounds per day
MCRT	Mean Cell Residence Time
MDF	Maximum Daily Flow
mg	Milligram
mg/L	Milligrams per Liter
MG	Million Gallons
MGD	Million Gallons per Day

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List of Abbreviations

Min	Minutes
MLSS	Mixed Liquor Suspended Solids
MLVSS	Mixed Liquor Volatile Suspended Solids
MOP	Monitoring and Operating Protocol
NaOCl	Sodium Hypochlorite
NH_3-N	Ammonia-Nitrogen
O&M	Operations and Maintenance
ORP	Oxidation Reduction Potential
PAR	Public Access Reuse
PD	Positive Displacement
PHF	Peak Hourly Flow
PVC	Polyvinyl Chloride
RAS	Return Activated Sludge
RCP	Reinforced Concrete Pipe
RPM	Revolutions per Minute
SCADA	Supervisory Control and Data Acquisition
SCRWRF	South Central Regional Water Reclamation Facility
SLR	Solids Loading Rate
SNdN	Simultaneous Nitrification-Denitrification
SOR	Surface Overflow Rate
SRF	State Revolving Fund
SRT	Solids Retention Time
SU	Standard Unit
TDH	Total Dynamic Head
TKN	Total Kjeldahl Nitrogen (Organic-N + NH_3-N)
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
TRC	Total Residual Chlorine
TS	Total Solids
TSS	Total Suspended Solids
VFD	Variable Frequency Drive
VS	Volatile Solids
VSS	Volatile Suspended Solids
WAS	Waste Activated Sludge
WLR	Weir Loading Rate
WOR	Weir Overflow Rate
WRF	Water Reclamation Facility

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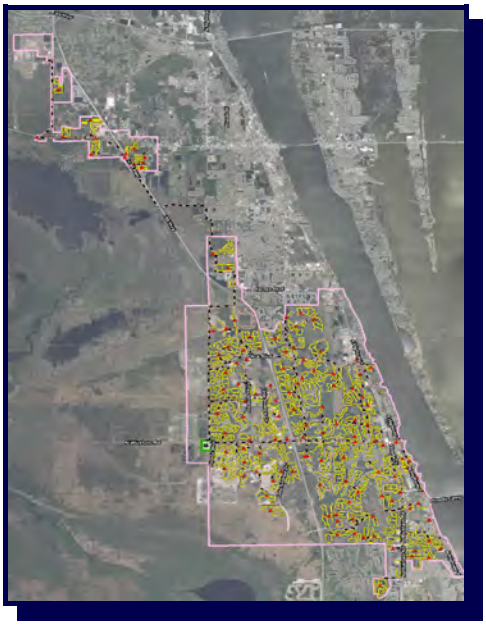
SECTION 1

EXECUTIVE SUMMARY

1.1 INTRODUCTION

The promotion of water conservation and reuse of reclaimed water are State goals/objectives and are considered to be in the public interest. The State also finds that the reuse of reclaimed water is a critical component of meeting the State's existing and future water supply needs while sustaining natural systems. To enhance the quality of surface waters throughout the Florida, the State is looking to reduce/eliminate non-beneficial surface water discharges by wastewater treatment facility's through a new law and modifications to Section 403.064, "*Reuse of Reclaimed Water*", of the Florida Statutes. The new law requires utilities with wastewater treatment plants that discharge to surface waters to submit a Non-beneficial Surface Water Discharge Elimination Plan to the FDEP to review by November 1, 2021 with full implementation of any proposed improvements completed by January 1, 2032.

Brevard County owns and operates the South Central Regional WRF (SCRWRF) to process all of the wastewater generated within its permitted service area. The treatment facility serves the residential, commercial, agricultural and rural areas in this portion of Brevard County. The County has invested million of dollars into this facility and all of its ancillary components over the last twenty (20) years as well as reclaimed water distribution/transmission and effluent disposal infrastructure.



South Central Regional WRF Wastewater Management System Service Area

The current regulatory environment, including the State's attempt to eliminate non-beneficial surface water discharges, requires Brevard County to evaluate the SCRWRF's surface water discharge and its potential impacts to surrounding surface waters in accordance with the requirements of Section 403.064, "*Reuse of Reclaimed Water*", of the Florida Statutes.

This Non-Beneficial Surface Water Discharge Elimination Plan for the South Central Regional WRF includes the evaluation of the current FDEP-permitted surface water discharge from the South Central Regional WRF to the 4-Mile Canal and thence the St. Johns River, the amount of effluent discharged to the surface water system, the amount of reclaimed water utilized throughout the service area, the reclaimed water quality generated by the treatment facility and the capability of the facility to meet Advanced Wastewater Treatment (AWT) Standards on a consistent basis to ensure protection of the environment. This Surface Water Discharge Elimination Plan is comprised of the following Sections:

- Section 2: Regulatory Framework for Non-Beneficial Surface Water Discharge Elimination
- Section 3: Existing Facility Conditions
- Section 4: Non-Beneficial Surface Water Discharge Elimination Plan

1.2 REGULATORY FRAMEWORK FOR NON-BENEFICIAL SURFACE WATER DISCHARGE ELIMINATION

The State of Florida Legislature developed and passed House Bill 263 and Senate Bill 64, and the Governor signed the legislation into law on June 29, 2021, requiring domestic wastewater utilities to submit a Plan to the FDEP for eliminating non-beneficial surface water discharges (e.g., treated effluent, reclaimed water or reuse water).

The new law creates a timeline and Plan to eliminate non-beneficial surface water discharge by January 1, 2032, subject to the requirements of the law. It contains a series of conditions authorizing discharges that are being beneficially used or otherwise regulated, and for specified hardships. The law requires domestic wastewater utilities that dispose of effluent, reclaimed water, or reuse water by surface water discharge to submit a Plan to eliminate non-beneficial surface water discharge to the Florida Department of Environmental Protection (FDEP) by November 1, 2021 and fully implemented at the treatment facility by January 1, 2032.

1.3 EXISTING FACILITY CONDITIONS

The South Central Regional WRF is classified as a 12.0 MGD AADF *Advanced Wastewater Treatment plus Filtration* Facility (Category I, Class A), utilizing two (2) parallel BNR wastewater treatment plants to treat the incoming raw wastewater from the service area and is currently operating under FDEP Permit No. FL0102679. The unit operations and processes currently employed are as follows:

Treatment Elements	Description
Primary Treatment	Two (2) automatic, continuous, self-cleaning, mechanical barscreens (3 mm) each with a screenings compacting/dewatering screw system; two (2) centrifugal grit separators, each with washing units and dewatering screws; two (2) automatic, continuous, self-cleaning drum screens (1 mm) each with washing units and dewatering screws; and an odor control system.
Secondary Treatment	**Carrousel BNR Treatment System (Trains No. 1 and 2)** Biological oxidation of the organic wastes utilizing an external anaerobic basin followed by a dual-train Carrousel Oxidation Ditch system consisting of primary anoxic, aerobic, secondary anoxic and reaeration basins. A flow splitter box directs the MLSS to four secondary clarifiers that are utilized for sedimentation of solids. A dedicated RAS/WAS pumping station is provided for each set of clarifiers (No. 1 and No. 2; No. 3 and No. 4). **IFAS BNR Treatment System (Trains No. 3 and 4)** Biological oxidation of the organic wastes utilizing dual-train IFAS BNR Treatment System (5-Stage). Each treatment train includes anaerobic, primary anoxic, aerobic, secondary anoxic and reaeration basins and has an Internal Mixed Liquor Recycle (IMLR) pumping system. The MLSS from the IFAS treatment trains are directed to two (2) 90-foot diameter secondary clarifiers for sedimentation of solids. A dedicated RAS/WAS pumping station is provided for the secondary clarifiers (No. 5 and No. 6).
Tertiary Treatment	Tertiary filtration via automatically operating, disc filtration units installed as follows: ■ Carrousel BNR Trains 1 and 2 - four (4) disc filtration units rated at 1.5 MGD each. ■ IFAS BNR Trains 3 and 4 - three (3) disc filtration units rated at 2.0 MGD each.
Disinfection	High-level disinfection is accomplished through the use of bulk liquid NaOCl (chemical feed and storage systems) and a system of chlorine contact chambers as follows: ■ Carrousel BNR Trains 1 and 2 - Dual compartment Chlorine Contact Chamber. ■ IFAS BNR Trains 3 and 4 - Dual compartment Chlorine Contact Chamber.
Sludge Treatment	Sludge treatment consisting of two (2) sludge holding tanks with submersible hyperboloid mixers and aeration devices, PD blowers, a sludge pumping system, a dewatering system (belt filter presses) and a system of dewatered sludge conveyors.

A high-quality reclaimed water is produced at the facility and is used throughout the South Central Regional WRF Service area in accordance with the following disposal systems:

Disposal System	FDEP Designation	AADF Capacity (MGD)	Disposal System Description
Land Application (Reuse)	R-001	8.20	An existing slow-rate Public Access Reuse (PAR) system consisting of on-site irrigation at the SCRWRF and within the approved Reuse System Service Area.
	R-002	2.50	An existing slow-rate Restricted Public Access system consisting of the 200^{+} acre Ritch Grissom Memorial Wetlands (163^{+} total wetted acres) with four (4) wetland cells and an interior lake. The detention time through this created wetland system is approximately 53 days, and is located at latitude 28°13' 47" N, longitude 80°46' 18" W.
Surface Water Discharge	D-001	0.99	An existing discharge to 4-Mile Canal, Class III Fresh Waters, (WBID# 2893N) which is approximately 128 feet in length and discharges at a depth of approximately 0 feet. The outfall pipe is a 60" diameter concrete culvert that discharges to the 4-Mile Canal then to the St. Johns River. The point of discharge is located at latitude 28°13' 48" N, longitude 80°46' 14" W.

Surface water discharges from the Wetlands lake to the 4-Mile Canal and thence the St. Johns River (D-001) occur due to intense rainfall events associated with tropical systems (Hurricane Matthew, Hurricane Irma, etc.) and severe localized thunderstorms within the South Central Regional WRF Wastewater Management System Service Area.

The South Central Regional WRF is highly efficient in treating the raw wastewater from the service area and is in compliance with all FDEP Operations Permit requirements/limitations.

1.4 NON-BENEFICIAL SURFACE WATER DISCHARGE ELIMINATION PLAN

The detailed evaluation of monthly operating data indicates that the South Central Regional WRF has reused approximately 96.6% of the facility's annual average effluent flow over the past five-calendar year period (2016 - 2020). The remaining 3.4% of the effluent flow, over this same period, were surface water discharges from the Ritch Grissom Memorial Wetlands to the 4-Mile Canal. The surface water discharges were due to intense rainfall events associated with Hurricane Matthew, Hurricane Irma and severe localized thunderstorms within the SCRWRF service area.

Therefore, in accordance with the requirements of the 403.064(17)(a)(3)(d), Florida Statutes, the Surface Water Discharge Elimination Plan for the South Central Regional WRF does not provide for a complete elimination of the FDEP-permitted surface water discharge to the 4-Mile Canal and thence to the St. Johns River. However, Brevard County is providing the FDEP with an affirmation demonstration (as provided for in the law), based on the analyses and evaluations conducted in Section 3 of this document, that the SCRWRF is reusing a minimum of 90% of its annual average effluent flow as determined using the daily monitoring data from the previous five (5) Calendar Years (2016 - 2020) of operating data. In accordance with the regulatory requirements of 403.064, F.S., the County will therefore continue to utilize the FDEP-permitted discharge from the Ritch Grissom Memorial Wetlands to 4-Mile Canal and will not exceed the 0.990 MGD AADF flow limitation. It is anticipated that as growth occurs within the South Central Regional Wastewater Management System Service Area, new reclaimed water sites and additional storage will be developed thereby reducing the need to discharge to the 4-Mile Canal, with the exception of wet weather discharges during extreme weather and high groundwater table events.

1.5 POTENTIAL TREATMENT FACILITY IMPROVEMENTS

To meet the surface water discharge requirements, on a continual basis, when water is conveyed from the Wetlands lake to the 4-Mile Canal, it is imperative that the reclaimed water/effluent from the treatment facility meet AWT standards. The effluent TN concentration is the only effluent parameter that is not currently meeting AWT standards.

However, the two distinct BNR treatment systems produce differing effluent TN concentrations as shown in the table below:

BNR System	Time Period	Effluent Nutrient Concentrations (mg/L)	
		TN*	TP**
Carrousel	January 2016 - April 2019	**7.8**	0.8
IFAS	May 2019 - December 2020	**3.7**	0.2

* *AWT Total Nitrogen Standard: ≤ 3 mg/L* ** *AWT Total Phosphorus Standard: ≤ 1 mg/L*

Therefore, to meet the AWT TN Standard, on a consistent basis, and ensure that the treatment facility meets the required FDEP Operational limits for nutrients, improvements, modifications and adjustments within the BNR Systems will be required at the South Central Regional WRF:

BNR System	Required Improvements to Meet the AWT TN Standard*
IFAS	**Minor** operational modifications and adjustments
Carrousel	**Moderate to significant** operational, process and infrastructure improvements, modifications and adjustments

* *A listing of proposed treatment facility improvements will be generated upon completion of a detailed evaluation of each BNR system, process design information, design criteria, facility operational data and standard operating procedures.*

The required facility improvements to the BNR Treatment Systems at the South Central Regional WRF, to consistently meet the AWT TN Standard, will be included in the County's Utility Capital Improvements Program (CIP). As this is not a currently funded CIP project, the County will evaluate their utility capital resources during upcoming annual budget cycle meetings and include this project in its list of potential prioritized utility projects.

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SECTION 2

REGULATORY FRAMEWORK FOR NON-BENEFICIAL SURFACE WATER DISCHARGE ELIMINATION

2.1 INTRODUCTION

This Section of the Non-Beneficial Surface Water Discharge Elimination Plan (NBSWDEP) presents the regulatory framework for the potential surface water elimination/reduction options for Brevard County's South Central Regional WRF. The regulations regarding the surface water discharge elimination program have been promulgated by the State of Florida under 403.064, "*Reuse of Reclaimed Water*" (June 2021). The new law requires Brevard County to submit to the Florida Department of Environmental Protection (FDEP), by November 1, 2021, a Plan for eliminating non-beneficial treatment facility effluent discharges to surface waters.

The Florida Department of Environmental Protection (FDEP) regulates surface waters and watersheds within the State and the approach for restoring and protecting State waters and addressing TMDL Program requirements (1972 Federal Clean Water Act and the 1999 Florida Watershed Restoration Act (FWRA)).

2.2 NON-BENEFICIAL SURFACE WATER ELIMINATION LAW/REQUIREMENTS

The State of Florida Legislature, during the past session, developed and passed House Bill 263 and Senate Bill 64 requiring domestic wastewater utilities to submit a Plan to the FDEP for eliminating non-beneficial surface water discharges (e.g., treated effluent, reclaimed water or reuse water). Governor DeSantis signed the legislation into law on June 29, 2021. The law added new regulatory requirements to 403.064, "*Reuse of Reclaimed Water*" of the Florida Statutes which will be discussed herein.

The new law creates a timeline and Plan to eliminate non-beneficial surface water discharge by January 1, 2032, subject to the requirements of the law. It contains a series

of conditions authorizing discharges that are being beneficially used or otherwise regulated, and for specified hardships. The law requires domestic wastewater utilities that dispose of effluent, reclaimed water, or reuse water by surface water discharge to submit a Plan to eliminate non-beneficial surface water discharge to the Florida Department of Environmental Protection (FDEP). The Plan must be submitted to FDEP by November 1, 2021 and implemented by January 1, 2032.

The Non-Beneficial Surface Water Discharge Elimination Plan must include the following:

- The average flow (MGD) of effluent, reclaimed water, or reuse water that will no longer be discharged into surface waters and the date of such elimination;
- The average flow (MGD) of surface water discharge that will continue in accordance with the requirements for the elimination of ocean outfalls, one of the discharge conditions specified in the legislation or one of the hardship conditions; and
- The level of treatment which the effluent, reclaimed water, or reuse water will receive before being discharged into a surface water by each alternative.

To be approved by the FDEP, the Non-Beneficial Surface Water Discharge Elimination Plan must:

- Result in eliminating the surface water discharge;
- Result in meeting the statutory requirements (Section 403.086(10)) regarding the discharge of domestic wastewater through an ocean outfall; or
- Provide an affirmative demonstration that any of the following discharge conditions applies to the remaining discharge if the Plan does not provide for the complete elimination of surface water discharge:

Discharge Conditions
The discharge is associated with an indirect potable reuse project.
The discharge is a wet weather discharge that occurs in accordance with an applicable FDEP permit.
The discharge is into a stormwater management system and is subsequently withdrawn by a user for irrigation purposes.
The utility operates domestic wastewater treatment facilities with reuse systems that reuse a minimum of ninety percent (90%) of a facility's annual average flow, as determined by the FDEP using monitoring data for the prior five (5) consecutive years, for reuse purposes authorized by the FDEP.
The discharge provides direct ecological or public water supply benefits, such as rehydrating wetlands or implementing the requirements of minimum flows and minimum water levels or recovery or prevention strategies for a waterbody.

The new law requires the FDEP to approve or deny a Non-Beneficial Surface Water Discharge Elimination Plan within nine (9) months after receiving the Plan. Brevard County may modify its Plan(s) by submitting the proposed modification(s) to the FDEP for review. However, the Plan(s) may not be modified such that the requirements of the new law are not met and the FDEP may not extend the time within which a Plan will be implemented. The approval of the Plan or a modification by the FDEP does not constitute final agency action.

If the Non-Beneficial Surface Water Discharge Elimination Plan is not submitted in a timely manner by the County, or approved by the FDEP, the South Central Regional WRF may not dispose of effluent, reclaimed water, or reuse water by surface discharge after January 1, 2028. In addition, a violation subjects Brevard County to administrative and civil penalties pursuant to ss. 403.121, 403.131, and 403.141.

A domestic wastewater utility applying for a permit for a new or expanded surface water discharge is now required to prepare a Plan in accordance with 403.064, F.S. as part of that permit application. The FDEP may not approve a permit for a new or expanded surface water discharge unless the Plan meets one or more of the conditions provided in the new law.

By December 31, 2021, and annually thereafter, the FDEP is required to submit a report to the President of the Florida Senate and the Speaker of the Florida House of Representatives which provides the average gallons per day of effluent, reclaimed water, or reuse water that will no longer be discharged into surface waters by the utility and the dates of such elimination; the average gallons per day of surface water discharges that will continue in accordance with the alternatives provided in the law, and the level of treatment that the effluent, reclaimed water, or reuse water will receive before being discharged into a surface water by each alternative and utility; and any modified or new plans submitted by a utility since the last report.

This new law does not apply to any of the following:

A domestic wastewater treatment facility that is located in a fiscally constrained Florida County as described in s. 218.67(1).
A domestic wastewater treatment facility that is located in a municipality that is entirely within a rural area of opportunity as designated pursuant to s. 288.0656.
A domestic wastewater treatment facility that is located in a municipality that has less than $10 million in total revenue, as determined by the municipality's most recent annual financial report submitted to the Department of Financial Services in accordance with s. 218.32.
A domestic wastewater treatment facility that is operated by an operator of a mobile home park as defined in s. 723.003 and has a permitted capacity of less than 300,000 gallons per day.

Therefore, as the South Central Regional WRF has a permitted “intermittent” surface water discharge from the Wetlands lake to the 4-Mile Canal and thence the St. Johns River, and does not meet one of the Plan exemptions, as identified above, a Non-Beneficial Surface Water Discharge Elimination Plan must be submitted to FDEP by the November 1, 2021 deadline.

2.3 SOUTH CENTRAL REGIONAL WRF - CURRENT DISPOSAL PRACTICES

Brevard County owns and operates the South Central Regional Water Reclamation Facility (SCRWRF) which is classified as an "Advanced Wastewater Treatment plus Filtration Facility" (Category I, Class A) utilizing the following two (2) parallel BNR wastewater treatment systems (Carrousel and IFAS Biological Nutrient Removal (BNR) Systems) and meets all Class I Reliability Criteria. The treatment facility consists of dual mechanical influent screening systems, grit removal, four (4) BNR treatment trains (anaerobic, primary anoxic, aerobic, deoxygenation, secondary anoxic and reaeration basins) with chemical feed facilities, secondary clarification, tertiary filtration, high-level disinfection, pumping systems and reclaimed water storage.

A "high-quality" reclaimed water is produced at the facility that is low in TN and TP. The "current" permitted treatment capacity of the facility is 12.00 MGD AADF and the SCRWRF is operating under FDEP Operations Permit No. FL0102679 (a copy is provided in Appendix A). Biosolids are partially digested, dewatered, and then transported to a Class I landfill for final disposal.

Reuse/effluent disposal is achieved by a combination of the following FDEP permitted disposal systems:

Disposal System	FDEP Designation	AADF Capacity (MGD)	Disposal System Description
Land Application (Reuse)	R-001	8.20	An existing slow-rate Public Access Reuse (PAR) system consisting of on-site irrigation at the SCRWRF and within the approved Reuse System Service Area.
	R-002	2.50	An existing slow-rate Restricted Public Access system consisting of the 200^{+} acre Ritch Grissom Memorial Wetlands (163^{+} total wetted acres) with four (4) wetland cells and an interior lake. The detention time through this created wetland system is approximately 53 days, and is located at latitude 28°13' 47" N, longitude 80°46' 18" W.
Surface Water Discharge	D-001	0.99	An existing discharge to 4-Mile Canal, Class III Fresh Waters, (WBID# 2893N) which is approximately 128 feet in length and discharges at a depth of approximately 0 feet. The outfall pipe is a 60" diameter concrete culvert that discharges to the 4-Mile Canal then to the St. Johns River. The point of discharge is located at latitude 28°13' 48" N, longitude 80°46' 14" W.

Surface water discharges from the Wetlands lake to the 4-Mile Canal and thence the St. Johns River (D-001) occur due to intense rainfall events associated with tropical systems (Hurricane Matthew, Hurricane Irma, etc.) and severe localized thunderstorms within the South Central Regional WRF Wastewater Management System Service Area.

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SECTION 3

EXISTING FACILITY CONDITIONS

3.1 WASTEWATER MANAGEMENT SYSTEM SERVICE AREA

The South Central Regional Wastewater Management System Service Area includes land within unincorporated portions of Brevard County as presented in Figure 3.1-1. The southern portion of the service area is generally bordered by Green Road on the north, Post Road on the south, I-95 on the east, and Pineda Boulevard on the west. The northern portion of the service area is generally bordered by Coconut Avenue on the north, Pluckebaum Road on the south, I-95 on the east, and Adamson Road on the west.

The South Central Regional Wastewater Management System serves the County's residential, commercial, agricultural, and rural areas. Population and corresponding raw wastewater flow projections are based on this service area. The raw wastewater is collected and conveyed via gravity sewers, lift stations and forcemains to the South Central Regional Water Reclamation Facility (SCRWRF) located at 10001 North Wickham Road, Melbourne, FL 32940, for advanced treatment and water reclamation.

Development is suburban in nature, dominated by single-family residential subdivisions and commercial development typically associated with residential development. Natural barriers and land development barriers regulated by the federal government confine the South Central Regional Wastewater Management System Service Area.

3.2 SOUTH CENTRAL REGIONAL WATER RECLAMATION FACILITY (SCRWRF)

The South Central Regional WRF is classified as an *Advanced Wastewater Treatment plus Filtration* Facility (Category I, Class A), utilizing two (2) parallel BNR wastewater treatment plants to treat the incoming raw wastewater from the service area and meets all Class I Reliability criteria. The two (2) parallel BNR treatment trains are briefly described below:

- A 6.0 MGD AADF treatment system consisting of an independent anaerobic reactor and a dual-train, 4-Stage Carrousel BNR Treatment System with primary anoxic, aerobic, secondary anoxic and reaeration basins. The Carrousel BNR Treatment System utilizes mechanical surface aerators and hyperboloid mixers to provide oxygenation and mixing of the Mixed Liquor Suspended Solids (MLSS).

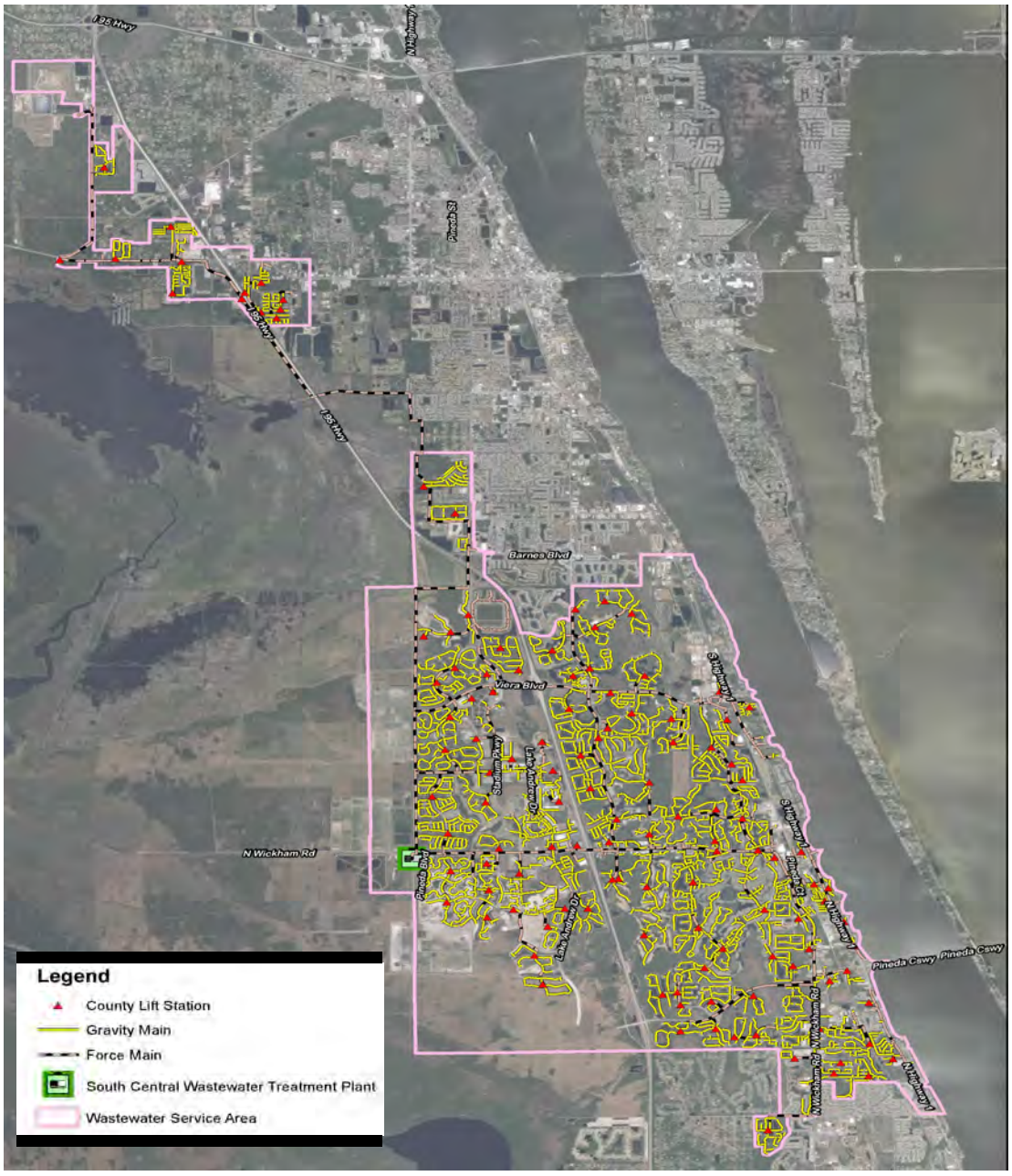


FIGURE 3.1-1

SOUTH CENTRAL REGIONAL WASTEWATER MANAGEMENT SYSTEM SERVICE AREA

- A 6.0 MGD AADF dual-train IFAS BNR Treatment System designed and operated as a 5-Stage process consisting of anaerobic, primary anoxic, aerobic, secondary anoxic and reaeration basins. The IFAS system utilizes turboblowers, medium bubble diffusers and hyperboloid mixers to provide oxygenation and mixing of the Mixed Liquor Suspended Solids (MLSS).

The Carrousel BNR treatment trains are currently *on-line* and processing the incoming raw wastewater from the Service Area and are generating an effluent meeting all FDEP requirements. The IFAS BNR Treatment System trains are currently *off-line* as the raw wastewater flows being received at the facility are below the 6.00 MGD capacity of Carrousel BNR System. The South Central Regional Wastewater Management System, Reclaimed Water System Service Area and the South Central Regional WRF are operating under FDEP Operations Permit No. FL0102679. A copy of the current FDEP Operations Permit is provided in Appendix A. An aerial view, schematic flow diagram and site plan of the South Central Regional WRF are presented in Figures 3.2-1 through 3.2-3, respectively.

The reclaimed water produced at the South Central Regional WRF is used throughout the service area for slow-rate irrigation and land application of *public* and *restricted public* access sites. An aerial view of the South Central Regional Reclaimed Water Service Area is presented in Figure 3.2-4. Effluent flow in excess of the reclaimed water demand can be discharged to the Ritch Grissom Memorial Wetlands (200$^{\pm}$ acres; four cells and an interior lake) or the Reuse/Reject Water Storage Ponds (100 MG capacity).

The unit operations and processes currently employed at the South Central Regional WRF (2020) are divided into the following elements/categories:

Treatment Elements	Description
Primary Treatment	Two (2) automatic, continuous, self-cleaning, mechanical barscreens (3 mm) each with a screenings compacting/dewatering screw system; two (2) centrifugal grit separators, each with washing units and dewatering screws; two (2) automatic, continuous, self-cleaning mechanical drum screens (1 mm) each with washing units and dewatering screws; and an odor control system.
Secondary Treatment	**Carrousel BNR Treatment System (Trains No. 1 and 2)** Biological oxidation of the organic wastes utilizing an external anaerobic basin followed by a dual-train Carrousel Oxidation Ditch system consisting of primary anoxic, aerobic, secondary anoxic and reaeration basins. A flow splitter box directs the MLSS to four secondary clarifiers that are utilized for sedimentation of solids. A dedicated RAS/WAS pumping station is provided for each set of clarifiers (No. 1 and No. 2; No. 3 and No. 4). **IFAS BNR Treatment System (Trains No. 3 and 4)** Biological oxidation of the organic wastes utilizing dual-train IFAS BNR Treatment System (5-Stage). Each treatment train includes anaerobic, primary anoxic, aerobic, secondary anoxic and reaeration basins and has an Internal Mixed Liquor Recycle (IMLR) pumping system. The MLSS from the IFAS treatment trains are directed to two (2) 90-foot diameter secondary clarifiers for sedimentation of solids. A dedicated RAS/WAS pumping station is provided for the secondary clarifiers (No. 5 and No. 6).
Tertiary Treatment	Tertiary filtration via automatically operating, disc filtration units installed as follows: ■ Carrousel BNR Trains 1 and 2 - four (4) disc filtration units rated at 1.5 MGD each. ■ IFAS BNR Trains 3 and 4 - three (3) disc filtration units rated at 2.0 MGD each.

FIGURE 3.2-1 **SOUTH CENTRAL REGIONAL WRF - AERIAL VIEW**

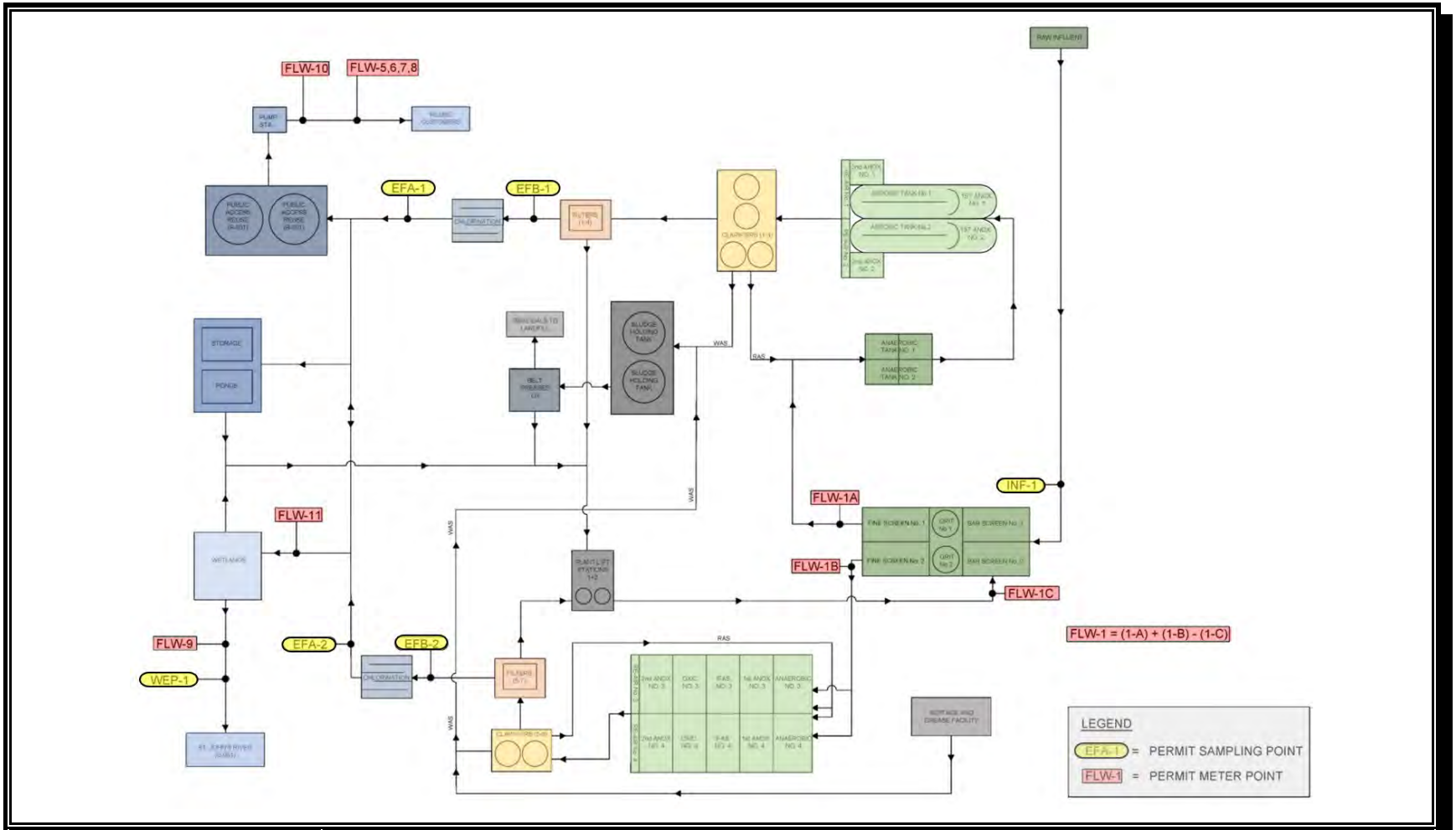


FIGURE 3.2-2 **SOUTH CENTRAL REGIONAL WRF: SCHEMATIC FLOW DIAGRAM**

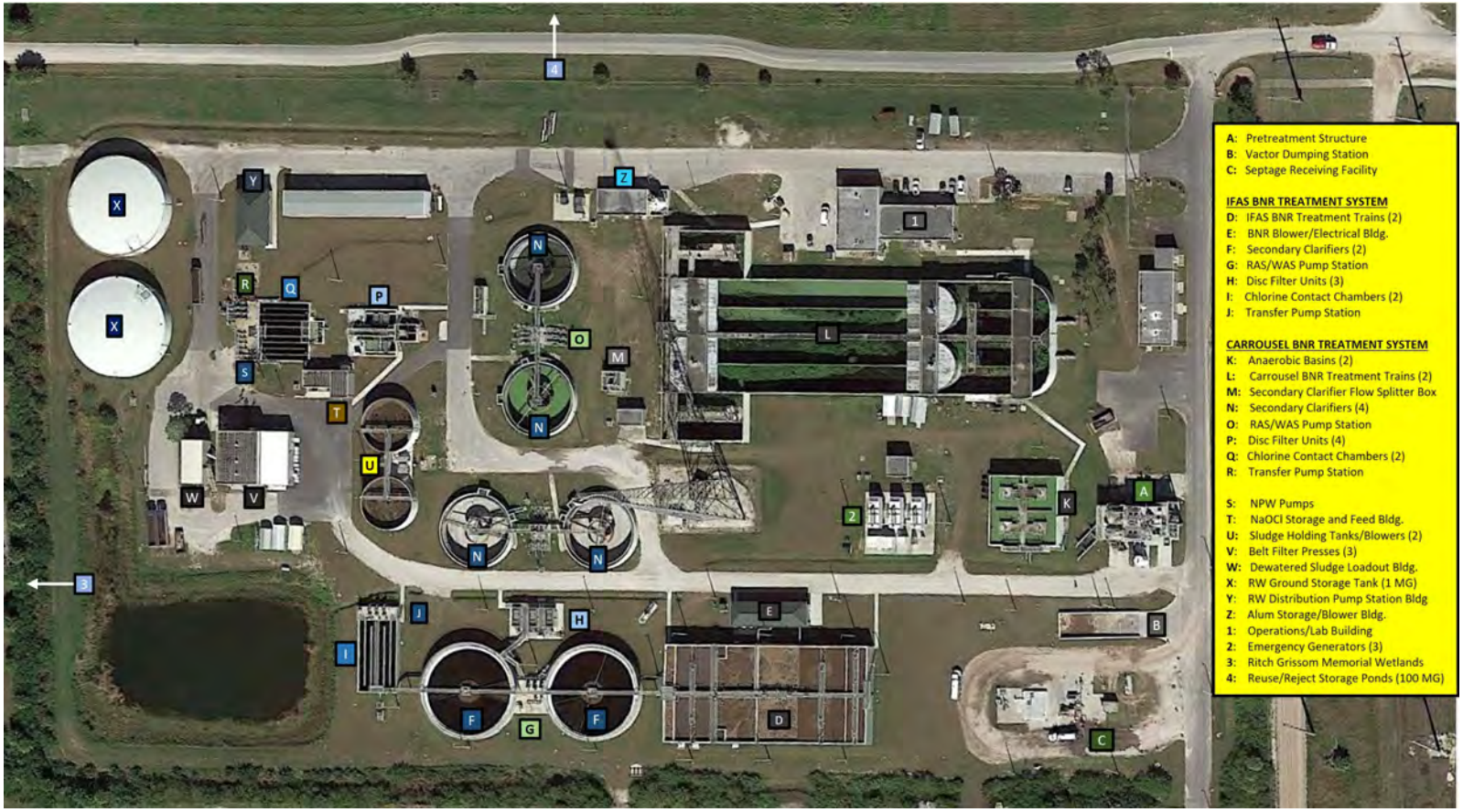


FIGURE 3.2-3 **SOUTH CENTRAL REGIONAL WRF: FACILITY SITE PLAN**

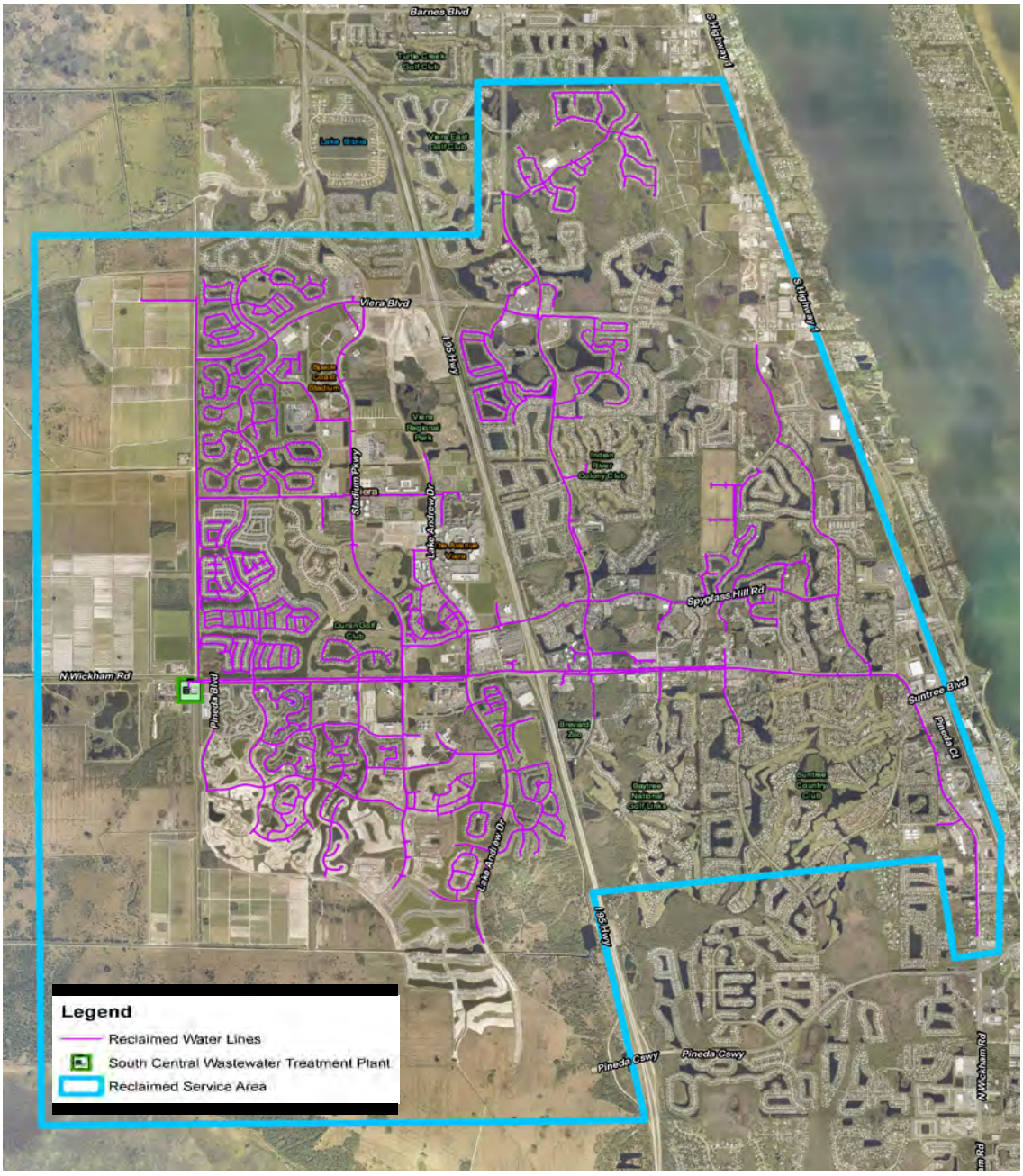


FIGURE 3.2-4

SOUTH CENTRAL REGIONAL RECLAIMED WATER SERVICE AREA

Treatment Elements	Description
Disinfection	High-level disinfection is accomplished through the use of bulk liquid NaOCl (chemical feed and storage systems) and a system of chlorine contact chambers as follows: ■ Carrousel BNR Trains 1 and 2 - Dual compartment Chlorine Contact Chamber. ■ IFAS BNR Trains 3 and 4 - Dual compartment Chlorine Contact Chamber.
Sludge Treatment	Sludge treatment consisting of two (2) sludge holding tanks with submersible hyperboloid mixers and aeration devices, PD blowers, a sludge pumping system, a dewatering system (belt filter presses) and a system of dewatered sludge conveyors. Dewatered sludge is transported to the local Class I solids waste landfill for final disposal.

Design and current wastewater flows at the South Central Regional WRF are as follows:

Table 3.2-1: South Central Regional WRF Design and Current Wastewater Flows

Flow Condition	Wastewater Flow Rate (MGD)	
	Design*	Actual Operation**
Annual Average Daily Flow (AADF)	12.00	4.872
Maximum Daily Flow (MDF)	18.00	7.140
Peak Hourly Flow (PHF)	24.00	

* Designed for *50% of flow through each treatment system (Carrousel and IFAS)* ** *Actual flow conditions from Calendar Year 2020.*

Influent and effluent design criteria for the South Central Regional WRF are presented below.

Table 3.2-2: South Central Regional WRF - Influent and Effluent Design Criteria

Parameter	Units	Influent	Tertiary Effluent
$CBOD_5$	mg/L	300*	< 5
TSS	mg/L	300*	< 5**
TKN	mg/L	50	
NH_3-N	mg/L	38	< 1
TN	mg/L		< 3***
TP	mg/L	8	≤ 1****
pH	S.U.	6.0 - 8.5	6.0 - 8.5

* *Data from Rerating Study and IFAS design* ** *After Tertiary Filtration*
*** *Supplemental carbon may be required.* **** *A coagulant may be required*

3.2.1 Primary Treatment System

Raw wastewater flows from the South Central Regional Wastewater Management System Service Area enter the Pretreatment Structure, located on the east side of the facility, through a 36-inch DIP. The Pretreatment Structure consists of a dual-level, cast-in-place concrete structure consisting of the following unit operations:

Pretreatment Structure

- Fine screening (3 mm) - Step Screens
- Grit Removal System - Head® Cell Units
- Fine screening (1 mm) - Drum Screens

Raw wastewater flows entering the Pretreatment Structure are conveyed into dual channels (3.5 foot width, each). Each channel contains an automatic, continuous, self-cleaning mechanical barscreen (3 mm openings) and can be isolated using sluice gates. The screenings are collected and discharged into washing/dewatering presses (one per barscreen) to reduce the organic content, moisture content and volume of screenings material. Screenings are then conveyed to a discharge chute and deposited into municipal dumpsters at grade (landfill disposal).

Mechanical Barscreens (3 mm)

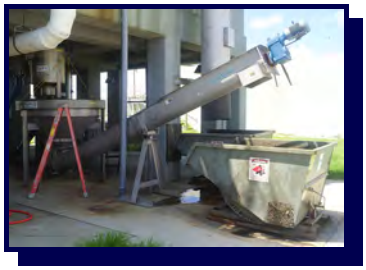
The two raw wastewater influent channels converge, following the mechanical barscreens, and the screened wastewater is conveyed to the Grit Removal System. Two (2) centrifugal grit separator units (Eutek HeadCell®), located in the central section of the Pretreatment Structure, are used to remove grit (heavy inorganic mineral matter) from the screened wastewater stream prior to final fine screening (drum screens).

Grit Separator Unit (HeadCell)

Accessory equipment associated with each grit collector unit includes the following:

- GritCup® grit washing/classification units
- SpiraSnail® grit dewatering units

The Eutek HeadCell® units remove the grit particles and concentrate them in a sump at the bottom of the units. The GritCup® units receive the collected grit and discharge a concentrated grit slurry into the SpiraSnail® units below (at grade). These units are then used to wash, dewater and discharge the grit into municipal dumpsters (landfill disposal).



Grit Washing/Dewatering Unit

Degritted raw wastewater is conveyed to the second-stage screening system where additional inorganic material is removed by the fine mesh within the units. The two (2) units are internally-fed rotating drum screens that perform two functions:

- Screening of the liquid/solid slurry
- Conveying of the captured solids

Mech. Drum Screens (1 mm)

Washing press systems, one per drum screen, are used to convey, wash and dewater various solid materials/screenings. The dewatered screenings are then discharged into chutes and fall into municipal dumpsters (landfill disposal).

Solid covers are installed over all channels within the Pretreatment Structure and odor control collection piping is installed throughout. Malodorous compounds generated within the Pretreatment Structure are conveyed, via an induced draft, to an odor control system for processing. Downstream of the Pretreatment Structure odors are not a concern as RAS is mixed with the screened and degritted wastewater in the anaerobic basins of all process trains.

Pretreatment Structure Odor Control System

Screened and degritted wastewater is then conveyed to an integral flow splitter box, at the west end of the Pretreatment Structure, that directs the flow to the BNR Treatment Systems (IFAS and/or Carrousel BNR Treatment Systems). The flow to each BNR Treatment System is metered separately.

3.2.2 Secondary Treatment System - Carrousel BNR Treatment System

Secondary treatment of raw, degritted wastewater, up to 6.0 MGD AADF, can be processed through the Carrousel BNR Treatment System. The Carrousel BNR Treatment System consists of the following treatment elements:

- An external anaerobic basin
- A dual-train, 4-Stage oxidation ditch BNR treatment system, each with the following: a primary anoxic basin, aerobic basin, secondary anoxic basin and reaeration basin.

The Carrousel BNR Treatment system (oxidation ditches) is designed to utilize the metabolic reactions of microorganisms to produce an acceptable effluent water quality by removing oxygen demanding constituents ($CBOD_5$) and nutrients (nitrogen and phosphorus).

Carrousel BNR Treatment System

Screened and degritted wastewater is mixed with RAS and enters the external two-train anaerobic basin. Under anaerobic conditions, the heterotrophs break the high-energy bonds in internally accumulated polyphosphate, resulting in the release of phosphate (PO_4^{-3}) and the consumption of organic matter in the form of Volatile Fatty Acids (VFAs) or other easily biodegraded organic compounds. When the heterotrophs are then put under aerobic conditions, they take up phosphate, forming internal polyphosphate molecules. This *luxury uptake* results in more phosphate being incorporated in the microbial cells than was released in the anaerobic zone, thereby reducing the total phosphate concentration in solution.

Carrousel BNR Treatment System: Anaerobic Basins

The mixed liquor suspended solids (MLSS) flow by gravity from the anaerobic basins to the primary anoxic basin in each Carrousel BNR Treatment Train. Internal Recycle (IR) from the end of the aerobic zone is also conveyed, by gravity through the use of an Eliminat*IR*® gate, to the primary anoxic basin in each Carrousel BNR treatment system. The primary anoxic basin functions as the main denitrification zone. The RAS and IR streams bring nitrate (NO_3^-) from the aerobic basin into contact with the influent organic matter (BOD_5). Heterotrophic bacteria convert the nitrate to nitrogen gas and consume a portion of the influent BOD_5 in the process.

The MLSS from the primary anoxic basin flows by gravity to a distribution channel and enter the aerobic basin of the Carrousel BNR Treatment System. The aerobic basins contain heterotrophic bacteria (suspended growth) and provide the detention

time and oxygen transfer required for oxidation of the influent organic compounds, nitrification, and phosphorus uptake. Oxygen and mixing are provided by a pair of Excell surface aerators provided in each treatment train (at opposite ends of the aerobic zone).

MLSS is discharged from the aerobic basin, by gravity, into the secondary anoxic basin which provides removal of nitrogen species via the denitrification process. A pair of submersible hyperboloid mixers is utilized in each basin to keep the contents mixed without adding any additional dissolved oxygen.

Following the secondary anoxic basin, the MLSS is aerated in the reaeration basin (one per treatment basin, 2 total). This is the final step in the Carrousel BNR Treatment System where nitrogen micro-bubbles attached to the floc (from the secondary anoxic basin) are stripped from the mixed liquor, any residual soluble BOD remaining from the supplemental carbon addition is oxidized (if added), and the mixed liquor is oxygenated.

Secondary clarification of the biologically treated wastewater is provided to remove MLSS, flocculated suspended solids and chemical precipitates and to meet the effluent criteria mandated by FDEP, EPA and Class I Reliability. Secondary clarification is provided by four (4) identical 70-foot diameter, 12.5-foot sidewater depth, cast-in-place concrete clarifiers with full-surface skimmers. The settled MLSS are removed in the secondary clarifier underflow and either returned to the Carrousel BNR Treatment System as RAS or wasted to the Sludge Holding Tank(s) as WAS.

Carrousel BNR Treatment System: Sec. Clarifiers

3.2.3 Secondary Treatment System - IFAS BNR Treatment System

Secondary treatment of raw, degritted wastewater, up to 6.0 MGD AADF, can be processed through the IFAS BNR Treatment System. The dual-train IFAS BNR Treatment System consists of the following treatment elements:

- Anaerobic basin
- Primary anoxic basin
- Aerobic basin
- Secondary anoxic basin
- Reaeration basin

IFAS BNR Treatment System

The IFAS BNR treatment system is designed to utilize the metabolic reactions of microorganisms to produce an acceptable effluent water quality by removing oxygen demanding constituents ($CBOD_5$) and nutrients (nitrogen and phosphorus).

Screened and degritted wastewater is mixed with RAS and enters the anaerobic basins of the dual-train IFAS BNR Treatment System. Under anaerobic conditions, the heterotrophs break the high-energy bonds in internally accumulated polyphosphate, resulting in the release of phosphate (PO_4^{-3}) and the consumption of organic matter in the form of Volatile Fatty Acids (VFAs) or other easily biodegraded organic compounds. When the heterotrophs are then put under aerobic conditions, they take up phosphate, forming internal polyphosphate molecules. This *luxury uptake* results in more phosphate being incorporated in the microbial cells than was released in the anaerobic zone, thereby reducing the total phosphate concentration in solution.

IFAS BNR System: Anaerobic Basins

The MLSS exit the anaerobic basin through slots in the wall and enter the primary anoxic basin. Internal Mixed Liquor Recycle (IMLR) from the aerobic activated sludge basin (no elements/media) is also conveyed, by IMLR wall pumps, through a pipe on the basin floor to the primary anoxic basin. The primary anoxic basin functions as the main denitrification zone. The RAS and IMLR streams bring nitrate (NO_3^-) from the aerobic activated sludge basin into contact with the influent organic matter (BOD_5). Heterotrophic bacteria convert the nitrate to nitrogen gas and consume a portion of the influent BOD_5 in the process.

IFAS BNR System: Primary Anoxic Basins

The Mixed Liquor Suspended Solids (MLSS) from the primary anoxic basin flow over a full length wall weir and enter the aerobic IFAS basin within the IFAS Treatment System. The IFAS aerobic basins contain carrier elements/media (AnoxKaldnes Type K5) upon which bacterial growth occurs. The aerobic IFAS basins contain heterotrophic bacteria (suspended growth) and autotrophic bacteria (attached growth on carrier elements/media) and provide the detention time and oxygen transfer required for oxidation of the influent organic compounds, nitrification, and phosphorus uptake.

Aerobic IFAS Basin

In the IFAS BNR Process, the autotrophic bacteria convert the influent ammonia (NH_3) to nitrate (NO_3^-), and heterotrophic bacteria oxidize the organic matter (BOD_5). The MLSS from the aerobic IFAS basin flow through wall mounted media retention screens (30 total) into the aerobic activated sludge basin within each IFAS BNR treatment train. The screens ensure that the carrier elements/media are retained within the aerobic IFAS basin. This basin is a second aerobic basin, containing no IFAS System carrier elements/media, and provides additional time for the aerobic decomposition of organic matter (BOD_5) by heterotrophic bacteria. Aeration of the aerobic IFAS and activated sludge basins are provided by three turboblowers housed in the Blower Building located immediately adjacent (north) of the IFAS BNR Treatment System. Dual IMLR submersible wall pumps are installed at the end of each aerobic activated sludge basin to recycle MLSS to the primary anoxic basin to enhance denitrification.

IFAS System - Aerobic AS Basin

The aerobic activated sludge basin flow is conveyed, by gravity through slots in the wall, into the secondary anoxic basin of each IFAS BNR Treatment Train. The secondary anoxic basins provide removal of nitrogen species via the denitrification process. A submersible hyperboloid mixer is utilized in each secondary anoxic basin to keep the contents mixed without adding any additional dissolved oxygen.

IFAS Secondary Anoxic Basin

Following the secondary anoxic basin, the MLSS are aerated in the reaeration basin (one per IFAS treatment basin, 2 total). This is the final step in the IFAS BNR Treatment System where nitrogen micro-bubbles attached to the floc (from the

Reaeration Basin

secondary anoxic basin) are stripped from the mixed liquor, any residual soluble BOD remaining from the supplemental carbon addition is oxidized (if added), and the mixed liquor is oxygenated. Alum can be added in the treatment process to assist in the chemical precipitation/removal of phosphorus from the final effluent, as necessary, to meet the regulatory effluent requirements.

Secondary clarification of the biologically treated wastewater is provided to remove MLSS, flocculated suspended solids and chemical precipitates and to meet the effluent criteria mandated by FDEP, EPA and Class I Reliability. Secondary clarification is provided by two (2) identical 90-foot diameter, 12.5-foot sidewater depth, cast-in-place concrete clarifiers with full-surface skimmers. The settled MLSS are removed in the secondary clarifier underflow and either returned to the IFAS BNR Treatment System as RAS or wasted to the Sludge Holding Tank(s) as WAS.

Secondary Clarifiers - IFAS BNR Treatment System

3.2.4 Tertiary Treatment System - Carrousel BNR Treatment System

Tertiary filtration of the treated effluent from the Carrousel BNR Treatment System is required to ensure protection of public health and enhance the disinfection process. A chemical dosage (alum) may be introduced, as necessary, in the Reaeration Basins of the BNR Treatment System to enhance phosphorus removal, via chemical precipitation, and TSS/Turbidity removal should the effluent be approaching the FDEP mandated maximum concentration/limit. Tertiary filtration is accomplished through the use of four (4) disc filtration units, using cloth media and a dynamic/linear backwash system, installed in a concrete basin. Self priming centrifugal backwash pumps are used to clean the cloth media and remove the captured solids.

Tertiary (Disc) Filters

3.2.5 Tertiary Treatment System - IFAS BNR Treatment System

Tertiary filtration of the treated effluent from the IFAS BNR Treatment System is required to ensure protection of public health and enhance the disinfection process. A chemical dosage (alum) may be introduced, as necessary, in the Reaeration Basins of the BNR Treatment System to enhance phosphorus removal, via chemical precipitation, and TSS/Turbidity removal should the effluent be approaching the FDEP mandated maximum concentration/limit. Tertiary filtration is accomplished through the use of three (3) disc filtration units, using cloth media and a dynamic/linear backwash system, installed in a concrete basin. Self priming centrifugal backwash pumps are used to clean the cloth media and remove the captured solids.

Tertiary (Disc) Filters - IFAS System

3.2.6 Disinfection Sytem - Carrousel BNR Treatment System

From the Carrousel BNR Treatment System tertiary filters, the treated effluent flows, by gravity, to a cast-in-place concrete Chlorine Contact Chamber (CCC). The CCC provides high level disinfection of the effluent through the application of liquid sodium hypochlorite (NaOCl) via a flow-paced system. The Chlorine Contact Chamber is divided into two distinct compartments and is designed to meet Class I Reliability Criteria. The CCC System is designed to provide a minimum of fifteen (15) minutes of contact time at PHF and thirty (30) minutes at AADF. Sodium hypochlorite is metered and mixed into the tertiary effluent and the CCC provides the contact time for the inactivation of fecal coliforms, pathogens and other microbial organisms.

Carrousel BNR System - CCC

3.2.7 Disinfection System - IFAS BNR Treatment System

From the IFAS BNR Treatment System tertiary filters, the treated effluent flows, by gravity, to a cast-in-place concrete Chlorine Contact Chamber (CCC). The CCC provides high level disinfection of the effluent through the application of liquid sodium hypochlorite (NaOCl) via a flow-paced system. The Chlorine Contact Chamber is divided into two (2) distinct compartments, each sized for fifty percent

(50%) of the total flow in accordance with Class I Reliability Criteria. The CCC System is designed to provide a minimum of fifteen (15) minutes of contact time at PHF and thirty (30) minutes at AADF. Sodium hypochlorite is metered and mixed into the tertiary effluent and the CCC provides the contact time for the inactivation of fecal coliforms, pathogens and other microbial organisms.

IFAS BNR System - CCC

3.2.8 Transfer Pump Stations

After high level disinfection, the effluent flows over a weir at the end of each BNR Treatment System's CCC, and into their integral Transfer Pump Station. Each Transfer Pump Station consists of a cast-in-place concrete wetwell and three pumps.

Carrousel System - Transfer Pump Station

IFAS System - Transfer Pump Station

The Carrousel and IFAS Treatment Train Transfer Pump Stations have the ability to convey the CCC effluent to one of the following locations depending upon water quality (turbidity and total residual chlorine) and whether the reclaimed water ground storage tanks are full:

- Reclaimed Water Ground Storage Tanks (2 MG capacity, total)
- Ritch Grissom Memorial Wetlands (163$^{\pm}$ wetted acres, 2.5 MGD capacity)
- Reuse/Reject Water Storage Ponds (100 MG capacity, total)

Turbidity, pH and Total Residual Chlorine (TRC) are analyzed continuously and automatically at the South Central Regional WRF in accordance with the existing FDEP Operations Permit conditions and as presented below:

South Central Regional WRF - FDEP Compliance Monitoring Locations		
Compliance Parameter	**Carrousel BNR System**	**IFAS BNR System**
Turbidity	EFB-1 (After Filtration, prior to disinfection)	EFB-2 (After Filtration, prior to disinfection)
Total Residual Chlorine, pH	EFA-1 (Following disinfection)	EFA-2 (Following disinfection)

3.2.9 Reclaimed Water/Effluent Disposal System

The South Central Regional WRF effluent disposal systems, permitted by FDEP, are briefly described below:

Effluent Disposal System	Description
Surface Water Discharge (D-001)	An existing 0.990 MGD annual average daily flow discharge to 4-Mile Canal, Class III Fresh Waters, (WBID# 2893N) which is approximately 128 feet in length and discharges at a depth of approximately 0 feet. The outfall pipe is a 60-inch diameter concrete culvert that discharges to the 4-Mile Canal. The point of discharge is located approximately at latitude 28°13' 48" N, longitude 80°46' 14" W.
Land Application System (R-001)	An existing 8.2 MGD annual average daily flow permitted capacity slow-rate public access system. R-001 is a reuse system which consists of on-site irrigation and within the approved Reuse Service Area. Reclaimed water can be discharged into stormwater storage lake system(s) D-002 located at the Indian River Colony Club Golf Course. The reclaimed water is stored in an existing stormwater retention pond with a storage capacity of 4.5 MG, which has an intermittent discharge to adjacent drainage features (6-Mile Canal), which ultimately discharges to the St. Johns River.
Land Application System (R-002)	An existing 2.5 MGD annual average daily flow permitted capacity slow-rate restricted public access system. R-002 is a reuse system which consists of the Ritch Grissom Memorial Wetlands with 200^{+} acres (163^{+} total wetted acres) comprising four (4) cells and an interior lake. The detention time through this created wetland system is approximately 53 days, and is located approximately at latitude 28°13' 47" N, longitude 80°46' 18" W.

Reclaimed water meeting the Public Access Criteria is pumped from the Transfer Pump Stations to a pair of Reclaimed Water Ground Storage Tanks (1.0 MG capacity each. The pre-stressed concrete storage tanks are *in-line equalization facilities* that also offer an effluent water quality buffer before it is pumped to the reclaimed water distribution system.

Reclaimed Water Ground Storage Tanks

The Reclaimed Water Distribution Pump Station conveys reclaimed water from the reclaimed water ground storage tanks to the distribution system for final disposal. The pump station consists of three (3) split-case centrifugal pumps and is designed to deliver approximately 9.072 MGD to the reclaimed water distribution system with the largest pump out of service. The pumps are equipped with variable frequency drives (VFD's) that assist in maintaining system pressures, efficiently, when the demand for reclaimed water in the service area is low.

RW Distribution Pump Station Bldg

If the reclaimed water ground storage tanks are full, reclaimed water can be directed to either the Ritch Grissom Memorial Wetlands or the Reuse/Reject Water Storage Ponds.

Any reclaimed water that does not meet the Public Access Criteria (low chlorine residual or high turbidity) will not be pumped to the Reclaimed Water Ground Storage Tanks. The effluent will be conveyed to either the Ritch Grissom Memorial Wetlands or the Reuse/Reject Water Storage Ponds. The water from the storage ponds can be pumped back to the either the headworks, tertiary filter, or the chlorine contact chambers for re-treatment, during periods of low flow.

South Central Regional WRF, Wetlands and Storage Ponds

The South Central Regional Wastewater Management Plan is a program of water reuse. Following the reclamation process at the South Central Regional WRF, highly treated wastewater effluent, *reclaimed water*, is distributed throughout the regional planning area. Spray irrigation and land application are currently practiced in areas open to public access, including:

South Central Regional Reclaimed Water Irrigation/Diposal Sites (General)		
Residential Neighborhoods	Parks	School Properties
Athletic Complexes	County-Owned Properties	Golf Courses
Playgrounds	Nurseries	Agricultural Facilities/Farms
Ritch Grissom Memorial Wetlands	Other Municipal Sites	Commercial Establishments

As mentioned above, during discharges from the Ritch Grissom Memorial Wetlands to the 4-Mile Canal, monitoring of the following parameters is required:

- Flow Rate
- $CBOD_5$
- TSS
- Total Kjeldahl Nitrogen
- Nitrate + Nitrite
- Ammonia Nitrogen
- Sulfate
- Total and Ortho-Phosphorous
- pH
- Fecal Coliform Bacteria
- Total Nitrogen
- Chloride
- Specific Conductance
- Dissolved Oxygen
- Temperature
- Alkalinity

3.2.10 Sludge Management System

The sludge management system at the South Central Regional WRF consists of the following infrastructure components/elements: (1) a sludge holding tank system; (2) a belt filter press dewatering system, and (3) a system of sludge conveyors.

Sludge Holding Tanks

Waste Activated Sludge (WAS) is pumped from the Carrousel and IFAS Treatment System secondary clarifier(s) to the Sludge Holding Tank(s). Two (2) sludge holding tanks (0.169 MG, each) are used to store and partially treat sludge until it can be pumped to the belt filter presses for dewatering. The sludge is mixed and aerated using a hyperboloid mixing/aeration system.

Sludge feed pumps are used to convey partially stabilized sludge from the sludge holding tanks to the belt filter presses. Three (3) belt filter presses are utilized to dewater the sludge prior to shipment to a local Class I solids waste landfill for final disposal. Dewatering reduces the volume and makes the handling and disposal of sludge easier.

Belt Filter Presses

3.3 PERMITTED CAPACITY

The South Central Regional WRF (*Advanced Wastewater Treatment plus Filtration*) serves the County's residential, commercial, agricultural and rural areas. The treatment facility removes contaminants in the raw wastewater that exert an oxygen demand (BOD_5 and nutrients) and produces a high quality reclaimed water utilized throughout the South Central Regional Reclaimed Water Service Area.

The design capacity of the South Central Regional WRF is as follows:

TREATMENT FACILITY	PERMITTED FLOW CONDITION (MGD)		
	AADF	MDF	PHF
South Central Regional WRF	12.00	18.00	24.00

The County accomplishes effluent disposal through the following FDEP reuse/effluent disposal methods outlined in Operations Permit No. FL0102679: (1) Slow-Rate Public Access Reuse, System (R-001); (2) Slow-Rate restricted Public Access Reuse System (R-002); (3) Surface water discharge system (D-001) - Ritch Grissom Memorial Wetlands; and (4) Stormwater storage lake system(s) (D-002) - Stormwater Storage Lake System

The County has, as previously described, implemented a large-scale system for the beneficial reuse of the reclaimed water produced from the South Central Regional WRF. The County began large-scale reclaimed water irrigation of public access sites in 1990 and restricted public access (Ritch Grissom Memorial Wetlands) in 2000. New reclaimed water sites may be added as the reclaimed water service area expands in the future. The major users of reclaimed water (using more than 0.1 MGD) in the South Central Regional Reclaimed Water Service Area are identified in the table below and presented graphically in Figure 3.3-1.

Site No.	User Name	User Type	Capacity (MGD)	Area (ac)
PAA-001A	Baytree Golf Course	Golf Courses	0.410	103
PAA-001B	Indian River Colony Club Golf Course	Golf Courses	0.730	220
PAA-001C	Duran Golf Course	Golf Courses	0.380	136
PAA-001E	Viera East Golf Course	Golf Courses	0.290	100
		Total:	**1.810**	**559**

Reclaimed water storage is located throughout the County's South Central Regional Wastewater Management Service Area as indicated in the table below.

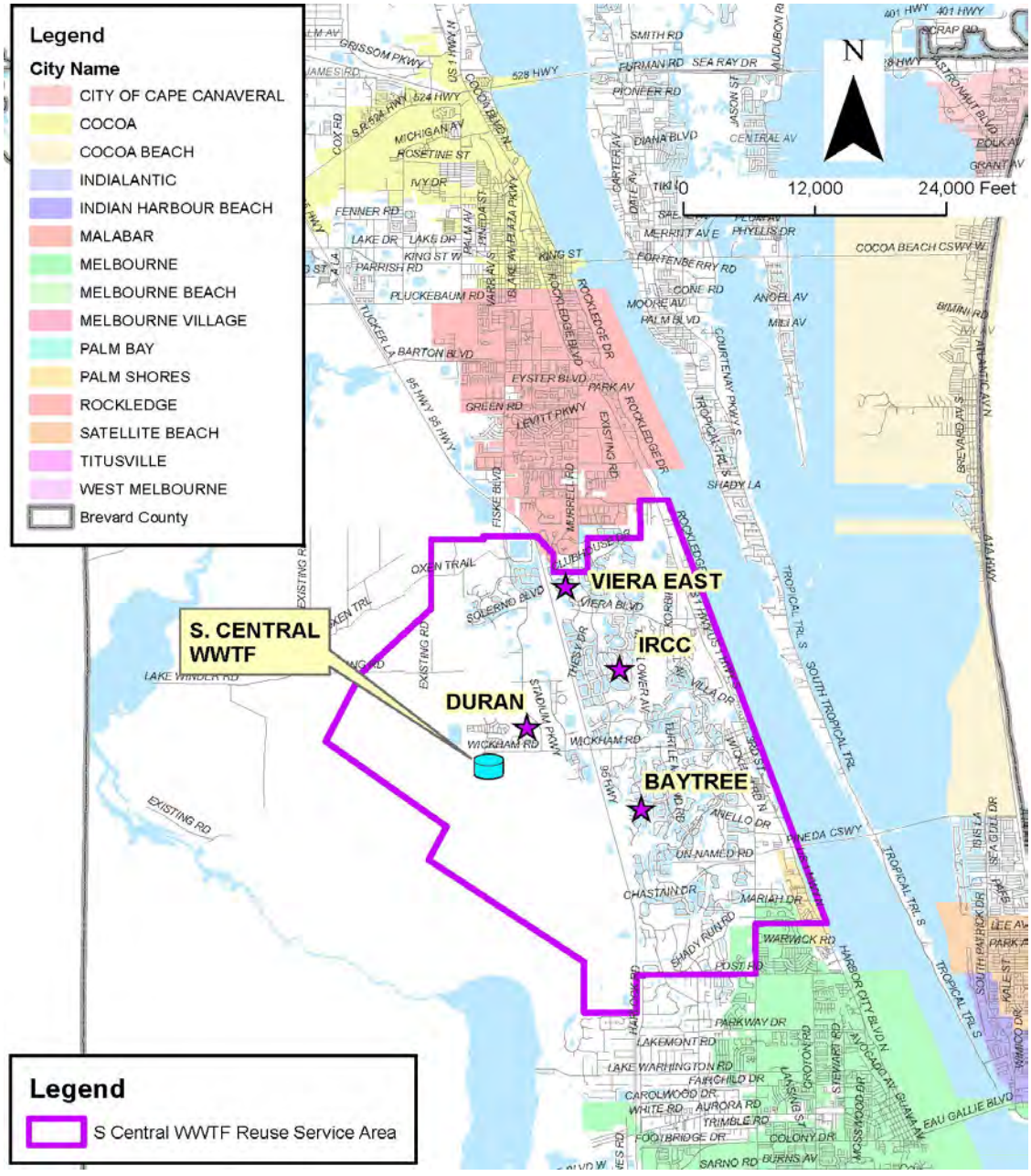


FIGURE 3.3-1 **SOUTH CENTRAL REGIONAL RECLAIMED WATER SERVICE AREA - MAJOR USERS**

Reclaimed Water Storage Location	No. of Units	Total Storage Volume (MG)
South Central Regional WRF Ground Storage Tanks	2	2.0
Reuse/Reject Water Storage Ponds (Off-Site)	2	100.0
Golf Course Storage Ponds (Baytree, Viera, Indian River Colony Club, and Duran)	4	11.9
Ground Storage Tank near the Suntree CC	1	2.0
Total Reclaimed Water Storage Capacity:	**9**	**115.9**

The current effluent disposal capacity of the South Central Regional Reclaimed Water Distribution System is as follows:

South Central Regional Effluent Disposal System	ID	Effluent Disposal Capacity (MGD)
Slow-Rate Public Access System	R-001	8.20
Slow-Rate Restricted Public Access System (Wetlands)	R-002	2.50
Surface Water Discharge	D-001	0.99
SCRWRF - Total Effluent Disposal Capacity:		**11.69**

3.4 HISTORICAL WASTEWATER FLOWS

Historical wastewater flows, including monthly ADF flows, three-month ADF flows and annual ADF flows, for the South Central Regional WRF for the Calendar Years 2015 - 2020 are presented in Table 3.4-1 and are plotted as a function of time in Figures 3.4-1 through 3.4-3, respectively. Historical annual variations in raw wastewater flow (Calendar Years 2016 - 2020) are presented below in tabular form and graphically in Figure 3.4-4.

Calendar Year	AADF (MGD)	Max Month Flow (MGD)	Maximum 3-Month ADF		Maximum 3-Month ADF to AADF	Maximum Month Peaking Factor
			Month	Flow (MGD)		
2016	4.777	5.300	April	5.204	1.089	1.109
2017	5.031	5.552	November	5.320	1.057	1.104
2018	5.088	5.803	August	5.436	1.068	1.141
2019	4.380	5.045	January	4.911	1.121	1.152
2020	4.872	5.385	August	5.285	1.085	1.105
Five Year Average Flow Ratios/Factors:					**1.084**	**1.122**

Table 3.4-1: South Central Regional WRF - Historical Wastewater Flows

Month	Year	Monthly ADF (MGD)	3-Month ADF (MGD)	AADF (MGD)
JANUARY	2015	4.703	4.929	4.622
FEBRUARY	2015	4.743	4.846	4.658
MARCH	2015	5.217	4.888	4.733
APRIL	2015	4.552	4.837	4.758
MAY	2015	4.482	4.750	4.786
JUNE	2015	4.432	4.489	4.819
JULY	2015	4.708	4.541	4.844
AUGUST	2015	5.306	4.815	4.864
SEPTEMBER	2015	5.035	5.016	4.861
OCTOBER	2015	4.803	5.048	4.838
NOVEMBER	2015	4.831	4.890	4.825
DECEMBER	2015	4.759	4.798	4.798
JANUARY	2016	5.137	4.909	4.834
FEBRUARY	2016	5.157	5.018	4.868
MARCH	2016	5.155	5.150	4.863
APRIL	2016	5.300	5.204	4.925
MAY	2016	3.691	4.715	4.860
JUNE	2016	4.807	4.599	4.891
JULY	2016	3.848	4.115	4.819
AUGUST	2016	4.635	4.430	4.763
SEPTEMBER	2016	5.100	4.528	4.769
OCTOBER	2016	5.065	4.933	4.790
NOVEMBER	2016	4.617	4.927	4.773
DECEMBER	2016	4.806	4.829	4.777

Table 3.4-1: South Central Regional WRF - Historical Wastewater Flows (Cont'd)

Month	Year	Monthly ADF (MGD)	3-Month ADF (MGD)	AADF (MGD)
JANUARY	2017	4.979	4.801	4.763
FEBRUARY	2017	5.011	4.932	4.751
MARCH	2017	4.787	4.926	4.721
APRIL	2017	4.982	4.927	4.694
MAY	2017	4.816	4.862	4.788
JUNE	2017	4.986	4.928	4.803
JULY	2017	4.843	4.882	4.886
AUGUST	2017	4.799	4.876	4.899
SEPTEMBER	2017	5.342	4.995	4.919
OCTOBER	2017	**5.552**	5.231	4.960
NOVEMBER	2017	5.066	**5.320**	4.997
DECEMBER	2017	5.214	5.277	**5.031**
JANUARY	2018	4.791	5.024	5.016
FEBRUARY	2018	4.896	4.967	5.006
MARCH	2018	4.960	4.882	5.021
APRIL	2018	4.911	4.922	5.015
MAY	2018	5.199	5.023	5.047
JUNE	2018	**5.803**	5.304	5.115
JULY	2018	5.182	5.395	5.143
AUGUST	2018	5.322	**5.436**	**5.187**
SEPTEMBER	2018	5.344	5.283	**5.187**
OCTOBER	2018	4.866	5.177	5.130
NOVEMBER	2018	4.879	5.030	5.114
DECEMBER	2018	4.897	4.881	5.088

Table 3.4-1: South Central Regional WRF - Historical Wastewater Flows (Cont'd)

Month	Year	Monthly ADF (MGD)	3-Month ADF (MGD)	AADF (MGD)
JANUARY	2019	4.955	4.910	5.101
FEBRUARY	2019	4.743	4.865	5.088
MARCH	2019	4.108	4.602	5.017
APRIL	2019	4.069	4.307	4.947
MAY	2019	4.162	4.113	4.861
JUNE	2019	4.126	4.119	4.721
JULY	2019	4.095	4.128	4.631
AUGUST	2019	5.045	4.422	4.607
SEPTEMBER	2019	4.229	4.456	4.515
OCTOBER	2019	4.285	4.520	4.466
NOVEMBER	2019	4.1915	4.235	4.409
DECEMBER	2019	4.551	4.342	4.380
JANUARY	2020	4.362	4.368	4.331
FEBRUARY	2020	4.336	4.416	4.297
MARCH	2020	4.519	4.406	4.331
APRIL	2020	4.975	4.610	4.406
MAY	2020	4.926	4.807	4.470
JUNE	2020	5.385	5.095	4.575
JULY	2020	5.283	5.198	4.674
AUGUST	2020	5.189	5.285	4.686
SEPTEMBER	2020	5.030	5.167	4.753
OCTOBER	2020	4.886	5.035	4.803
NOVEMBER	2020	4.960	4.959	4.867
DECEMBER	2020	4.610	4.818	4.872

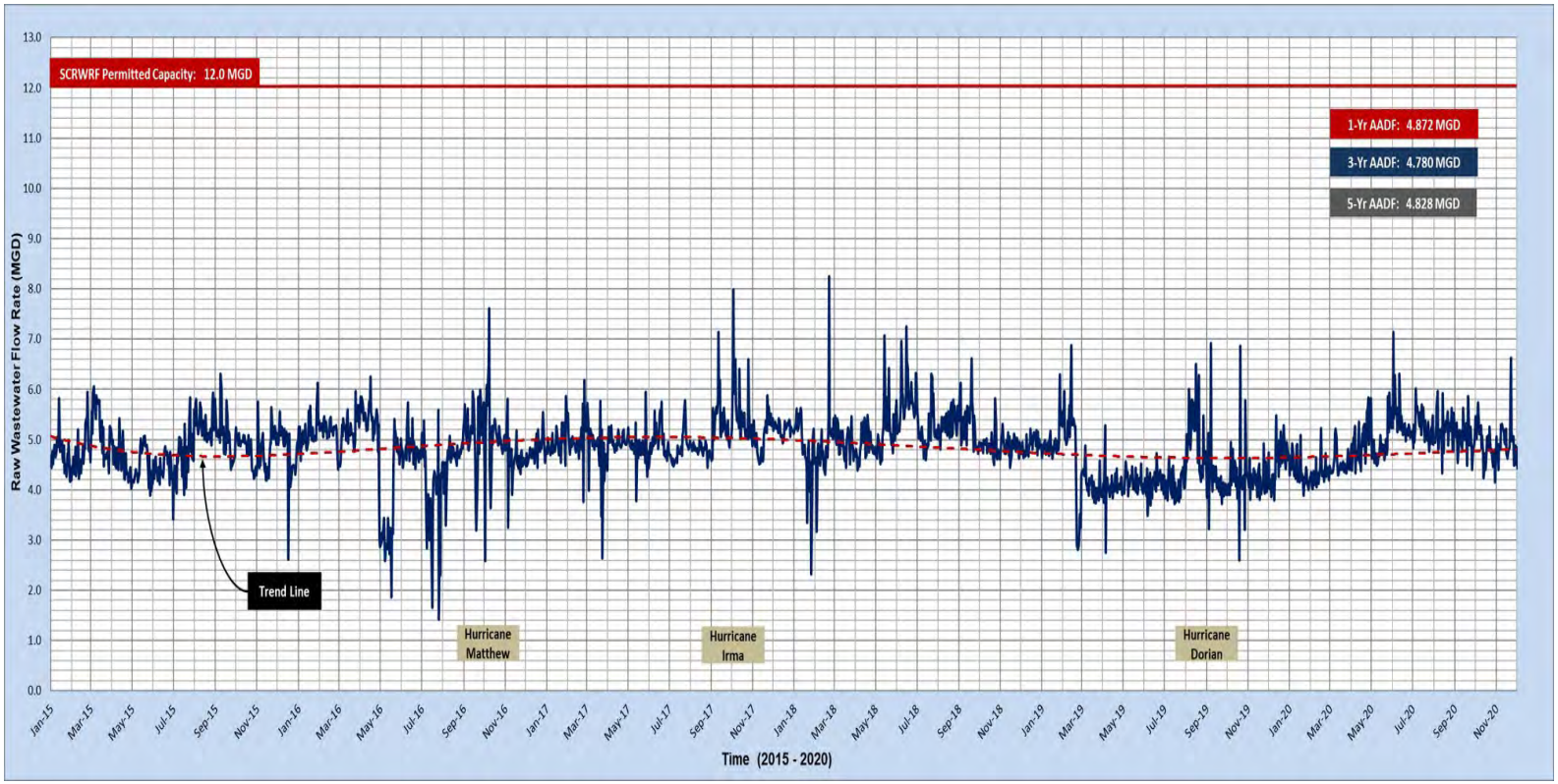


FIGURE 3.4-1 **SOUTH CENTRAL REGIONAL WRF: HISTORICAL WASTEWATER FLOWS (ADF)**

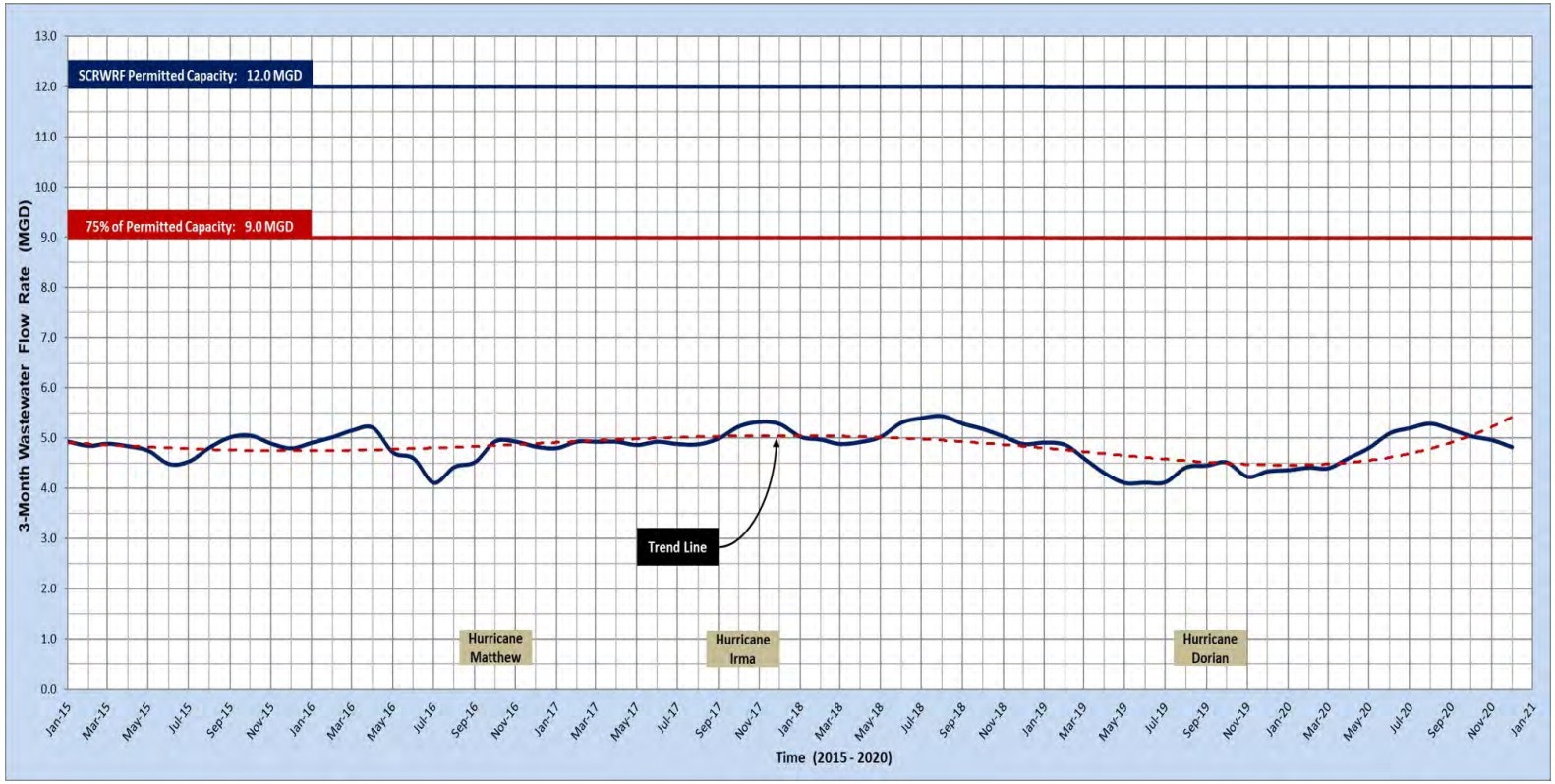


FIGURE 3.4-2

SOUTH CENTRAL REGIONAL WRF:
HISTORICAL WASTEWATER FLOWS (3-MONTH ADF)

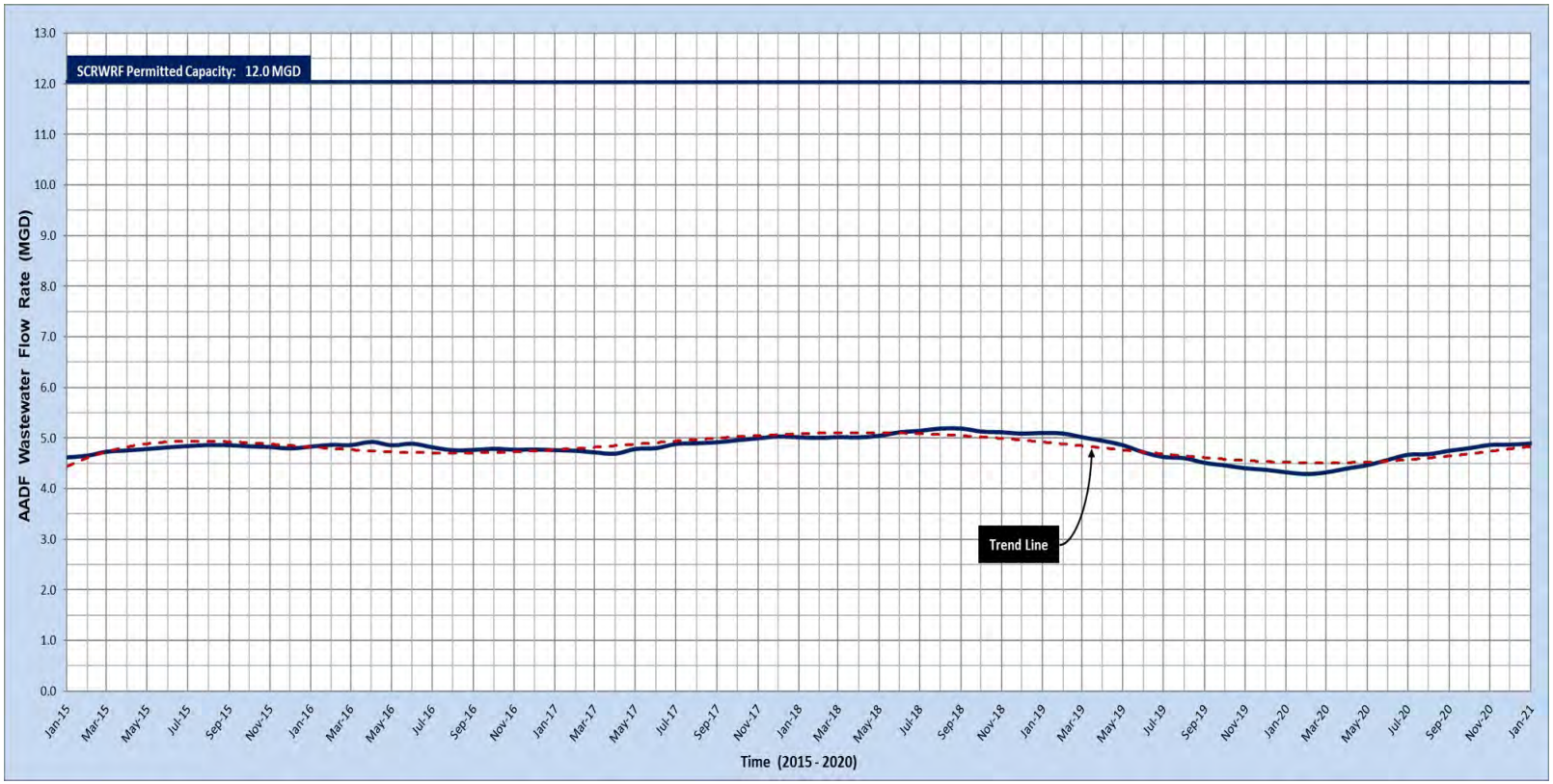


FIGURE 3.4-3 **SOUTH CENTRAL REGIONAL WRF: HISTORICAL WASTEWATER FLOWS (AADF)**

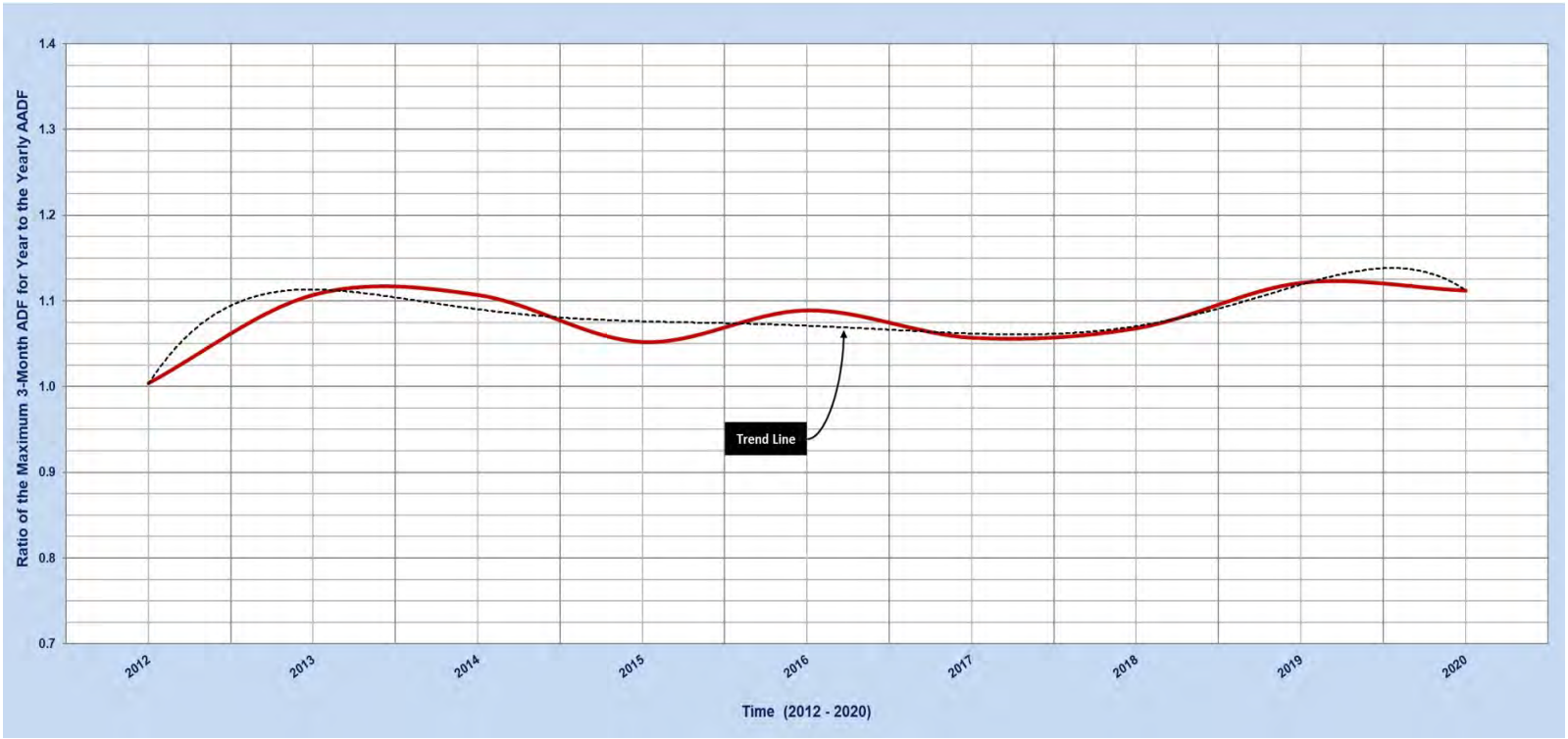


FIGURE 3.4-4 **SOUTH CENTRAL REGIONAL WRF: ANNUAL VARIATIONS IN FLOW**

A review of the historical raw wastewater flows to the South Central Regional WRF, during the past five (5) years and in the last twelve (12) months, are synopsized in the table below.

Raw Wastewater Flow Condition	South Central Regional WRF Raw Wastewater Flow (MGD)	
	Jan 2016 - Dec 2020	Calendar Year 2020
Average Daily Flow	4.828	4.872
Maximum Day Flow	8.240	7.140
Minimum Day Flow	1.430	3.890
Monthly ADF Range	3.691 - 5.803	4.336 - 5.385
3-Month ADF Range	4.113 - 5.436	4.368 - 5.285
AADF Range (monthly rolling average)	4.297 - 5.187	4.297 - 4.872
% of Permitted Facility Capacity (ADF)	**40.2**	**40.6**

The South Central Regional WRF raw wastewater flows, during the last 5-Year period, were approximately 40.2% of the permitted capacity of the facility. The raw wastewater flow treated at the facility during Calendar Year 2020 was approximately 40.6% of the permitted capacity of the facility. Thus, flow rates are below the facility's permitted capacity (12.0 MGD AADF) and the South Central Regional WRF is capable of handling the raw wastewater hydraulic loadings anticipated over the 20-year planning horizon.

3.5 FACILITY EFFLUENT FLOWS

As previously indicated in Section 3.2.9, treated effluent from the South Central Regional WRF can be discharged to any of the three (3) FDEP-permitted disposal systems:

Effluent Disposal System	Disposal Capacity (MGD AADF)
Land Application System - Public Access Reuse (R-001)	8.20
Land Application System - Reclaimed Water Flow to Wetlands (R-002)	2.50
Surface Water Discharge to the 4-Mile Canal (D-001)	0.99

The South Central Regional WRF effluent flows, by disposal system (R-001, R-002 and D-001), on a monthly and annual basis, for the period from 2016 - 2020 are presented in Table 3.5-1 and graphically (ADF and AADF) in Figures 3.5-1 through 3.5-6, respectively.

Table 3.5-1: South Central Regional WRF - Effluent Disposal (2016 - 2020)			
Month/Year	**Public Access Reuse System Flow - R-001 (MGD)**	**Reclaimed Water Flow to the Wetlands - R-002 (MGD)**	**Surface Water Discharge Flow to 4-Mile Canal - D-001 (MGD)**
Jan 2016	2.883	0.002	0.000
Feb 2016	2.802	0.170	0.000
Mar 2016	4.190	0.051	0.000
Apr 2016	4.265	0.014	0.000
May 2016	4.364	0.220	0.000
Jun 2016	3.810	0.527	0.000
Jul 2016	3.636	0.095	0.000
Aug 2016	3.823	0.599	0.000
Sep 2016	3.140	0.944	0.000
Oct 2016*	3.074	1.385	1.537
Nov 2016	3.610	0.455	0.129
Dec 2016	3.311	0.062	0.000
2016 Average	**3.576**	**0.377**	**0.139**
Jan 2017	3.510	0.186	0.000
Feb 2017	3.837	0.138	0.000
Mar 2017	3.789	0.372	0.000
Apr 2017	3.052	0.028	0.000
May 2017	2.413	0.153	0.000
Jun 2017	3.377	0.123	0.000
Jul 2017	2.440	1.047	0.000
Aug 2017	2.626	1.301	0.000
Sep 2017	2.879	0.493	0.691
Oct 2017**	2.765	1.504	2.242
Nov 2017	3.181	0.871	0.844
Dec 2017	3.412	0.791	0.046
2017 Average	**3.107**	**0.584**	**0.319**

Table 3.5-1: South Central Regional WRF - Effluent Disposal (2016 - 2020)			
Month/Year	**Public Access Reuse System Flow - R-001 (MGD)**	**Reclaimed Water Flow to the Wetlands - R-002 (MGD)**	**Surface Water Discharge Flow to 4-Mile Canal - D-001 (MGD)**
Jan 2018	3.286	0.832	0.553
Feb 2018	3.785	0.248	0.000
Mar 2018	3.830	0.056	0.000
Apr 2018	3.504	0.000	0.000
May 2018	2.785	0.000	0.000
Jun 2018	3.780	0.640	0.000
Jul 2018	3.627	0.253	0.984
Aug 2018	2.759	0.000	0.000
Sep 2018	4.246	0.000	0.000
Oct 2018	4.493	0.000	0.000
Nov 2018	3.709	0.000	0.000
Dec 2018	3.700	0.000	0.000
2018 Average	**3.625**	**0.169**	**0.128**
Jan 2019	3.714	0.000	0.000
Feb 2019	2.649	0.000	0.000
Mar 2019	3.780	0.000	0.000
Apr 2019	3.955	0.000	0.000
May 2019	3.569	0.000	0.000
Jun 2019	4.033	0.000	0.000
Jul 2019	4.143	0.000	0.000
Aug 2019	5.113	0.000	0.000
Sep 2019	5.281	0.000	0.000
Oct 2019	3.926	0.000	0.000
Nov 2019	3.770	0.000	0.000
Dec 2019	3.105	0.548	0.000
2019 Average	**3.920**	**0.046**	**0.000**

Table 3.5-1: South Central Regional WRF - Effluent Disposal (2016 - 2020)			
Month/Year	**Public Access Reuse System Flow - R-001 (MGD)**	**Reclaimed Water Flow to the Wetlands - R-002 (MGD)**	**Surface Water Discharge Flow to 4-Mile Canal - D-001 (MGD)**
Jan 2020	3.307	1.186	0.000
Feb 2020	3.531	0.602	0.000
Mar 2020	4.157	0.000	0.000
Apr 2020	4.241	0.000	0.000
May 2020	4.006	0.000	0.000
Jun 2020	3.844	0.000	0.000
Jul 2020	3.805	0.000	0.710
Aug 2020	3.658	0.000	0.000
Sep 2020	3.763	0.000	0.000
Oct 2020	3.421	0.000	0.308
Nov 2020	2.945	0.000	0.000
Dec 2020	3.070	0.000	0.000
2020 Average	**3.646**	**0.149**	**0.085**

Effluent Disposal Percentage by Disposal System (2016 - 2020)						
Calendar Year	**Effluent Disposal System Flow (MGD AADF)**			**Overall Effluent Disposal (%)**		
	Reclaimed Water System - PAR (R-001)	**Reclaimed Water to Wetland (R-002)**	**Surface Water Discharge (D-001)**	**Reclaimed System (R-001)**	**Reclaimed System (R-002)**	**SW Discharge (D-001)**
2016	3.576	0.377	0.139	87.4%	9.2%	3.4%
2017	3.107	0.584	0.319	77.5%	14.6%	8.0%
2018	3.625	0.169	0.128	92.4%	4.3%	3.3%
2019	3.920	0.046	0.000	98.8%	1.2%	0.0%
2020	3.646	0.149	0.085	94.0%	3.8%	2.2%
5-Yr Avg.	**3.575**	**0.265**	**0.134**	**90.0%**	**6.6%**	**3.4%**

Overall 5-Year SCRWRF Effluent Disposal by System:	**Reclaimed Water (R-001 + R-002)**	**Surface Water Discharge (D-001)**
	96.6%	**3.4%**

* *Surface Water Discharge due to Hurricane Matthew* ** *Surface Water Discharge due to Hurricane Irma*

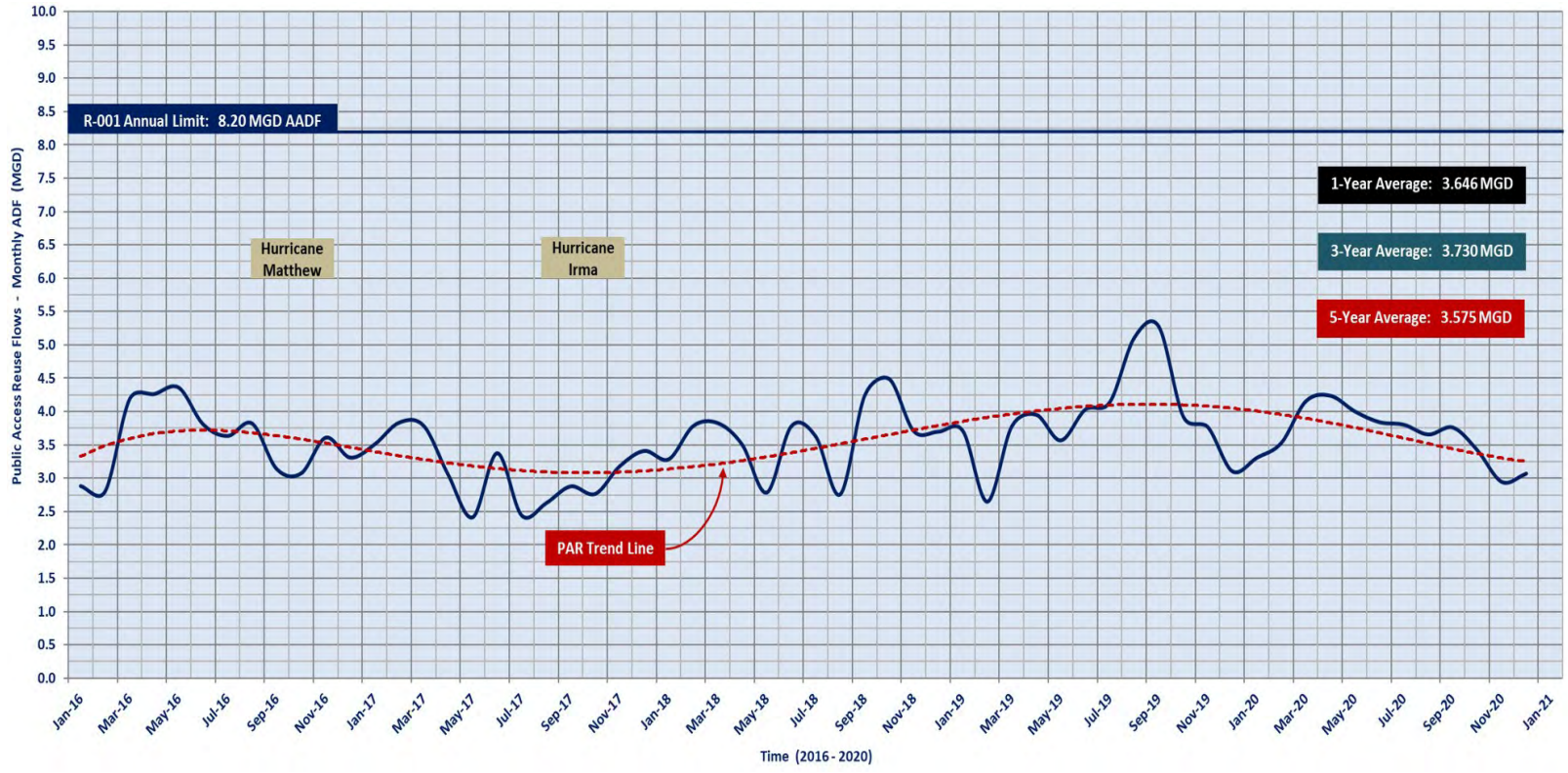


FIGURE 3.5-1

SOUTH CENTRAL REGIONAL WRF: PUBLIC ACCESS REUSE SYSTEM (R-001) - HISTORICAL EFFLUENT MONTHLY ADF

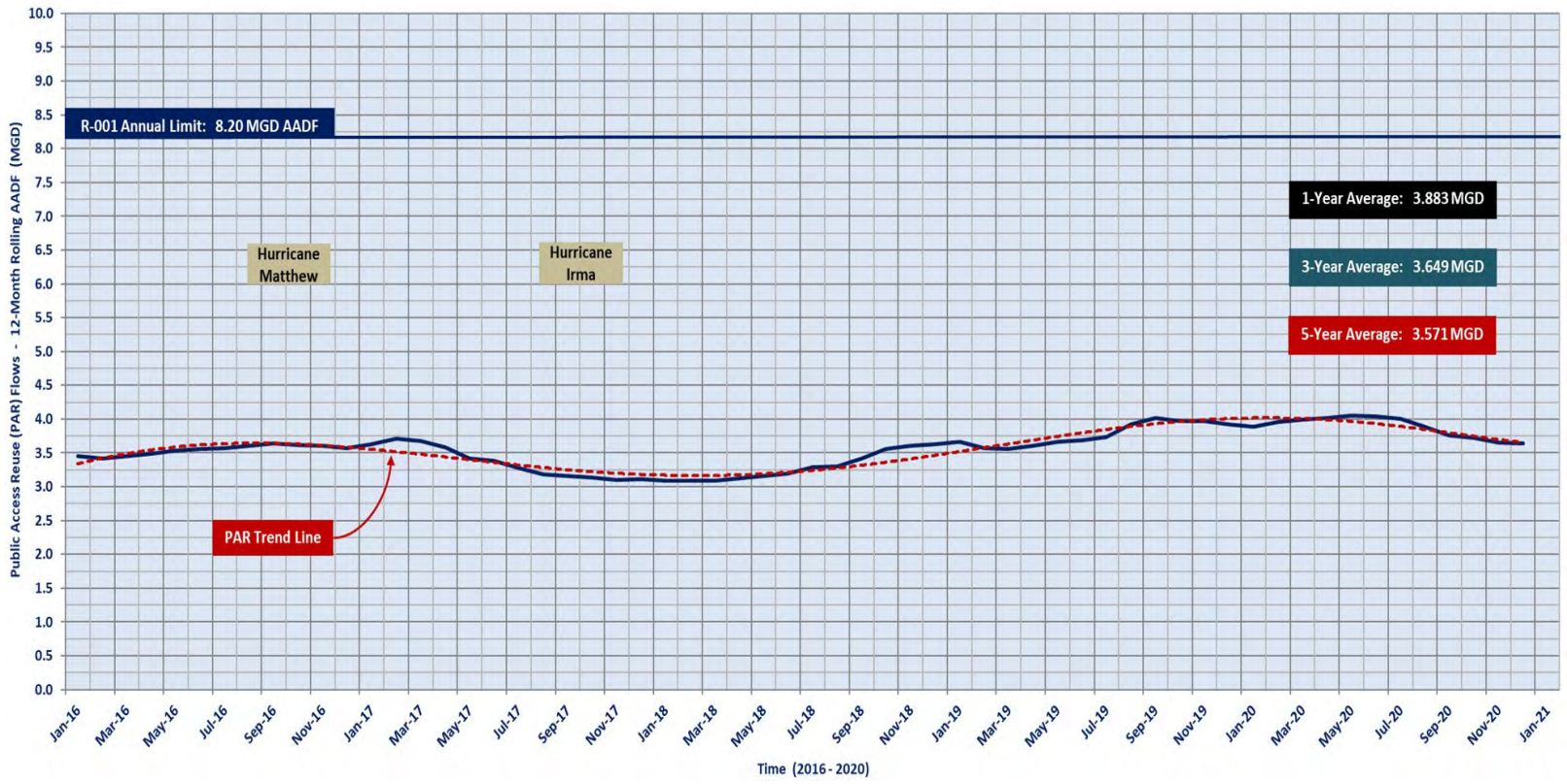


FIGURE 3.5-2

SOUTH CENTRAL REGIONAL WRF: PUBLIC ACCESS REUSE SYSTEM (R-001) - HISTORICAL EFFLUENT 12-MONTH ROLLING AADF

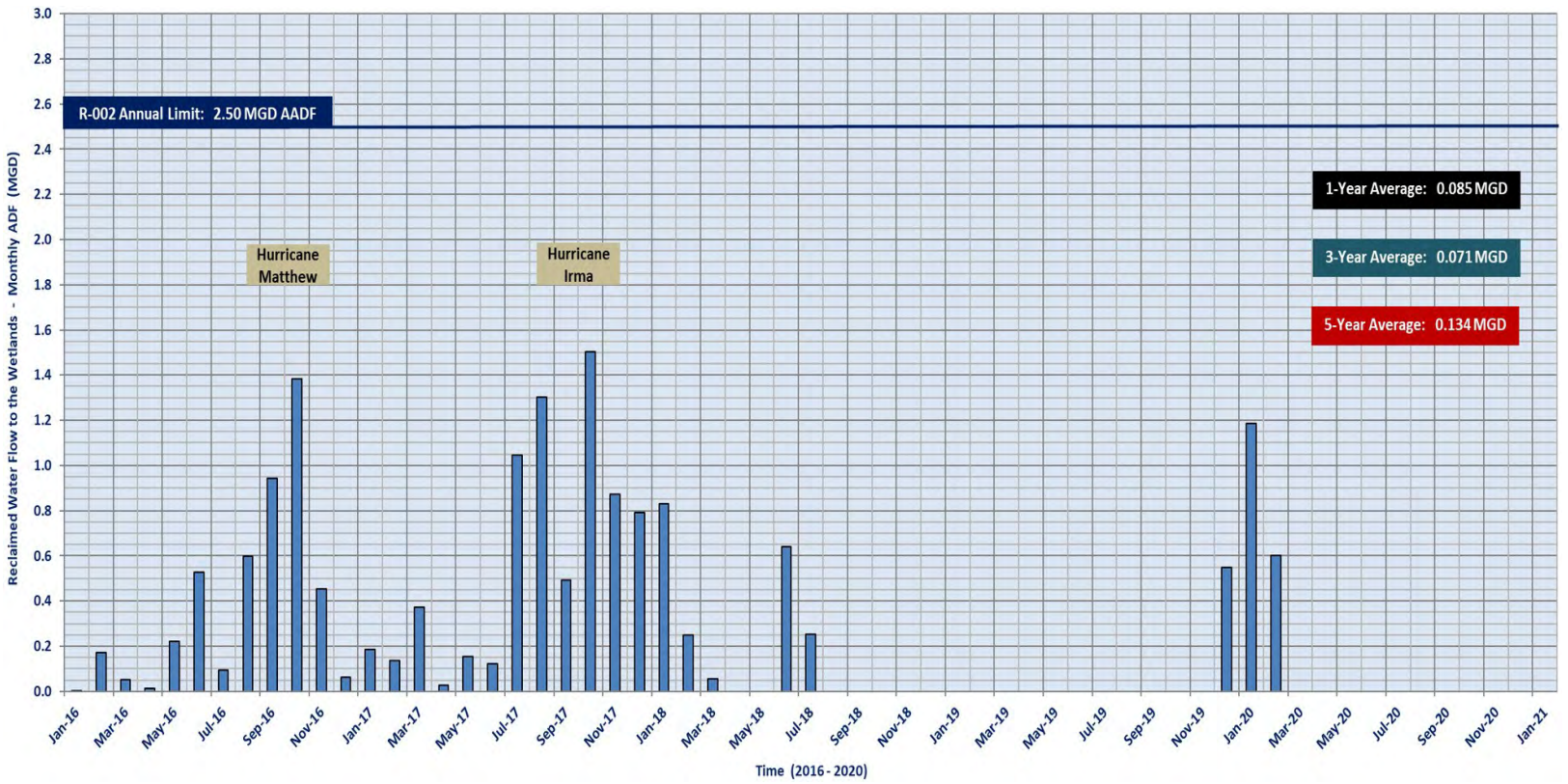


FIGURE 3.5-3

SOUTH CENTRAL REGIONAL WRF: RECLAIMED WATER FLOW TO THE WETLANDS (R-002) - HISTORICAL EFFLUENT MONTHLY ADF

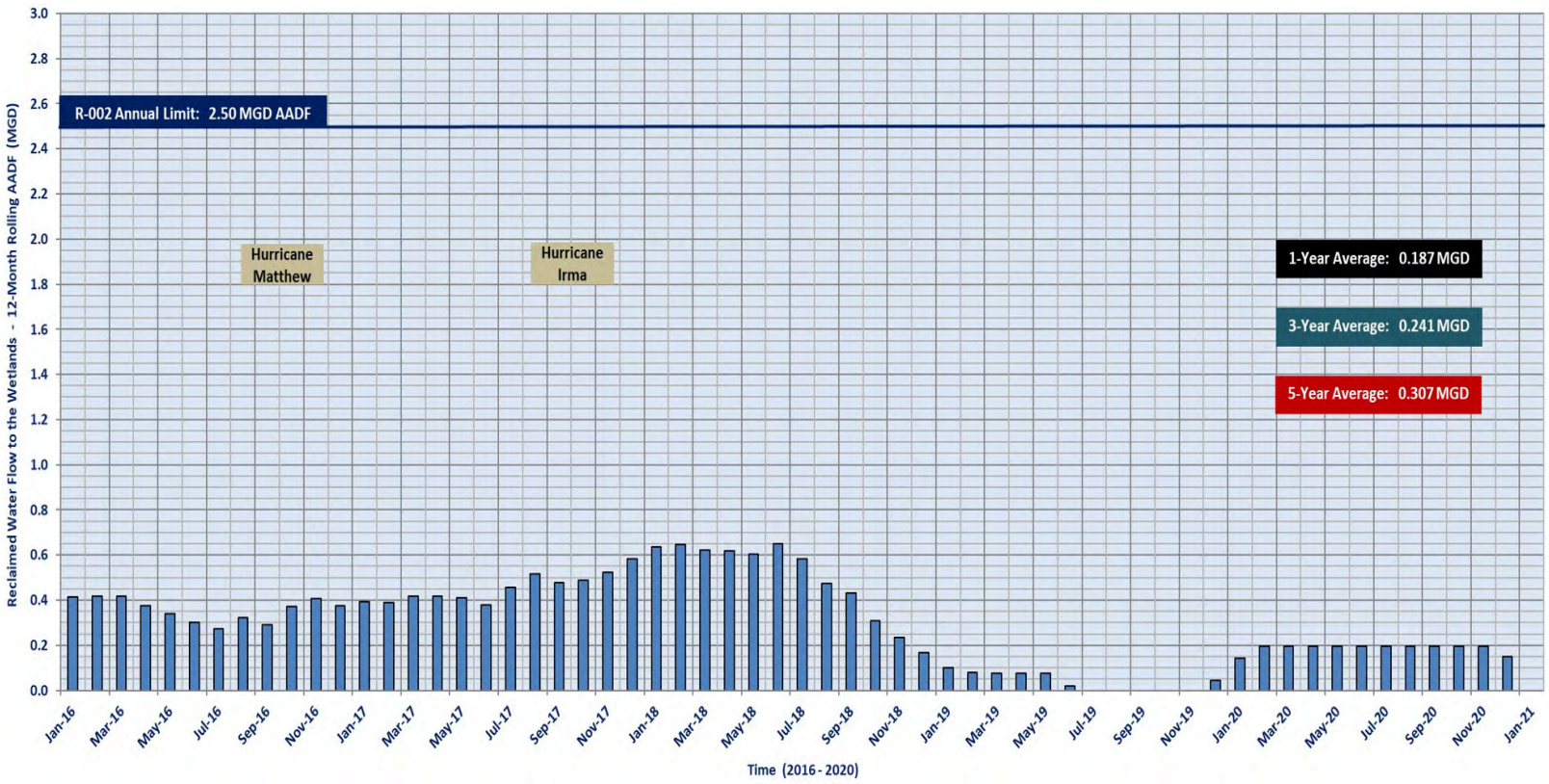


FIGURE 3.5-4

SOUTH CENTRAL REGIONAL WRF: RECLAIMED WATER FLOW TO THE WETLANDS (R-002) - HISTORICAL EFFLUENT 12-MONTH ROLLING AADF

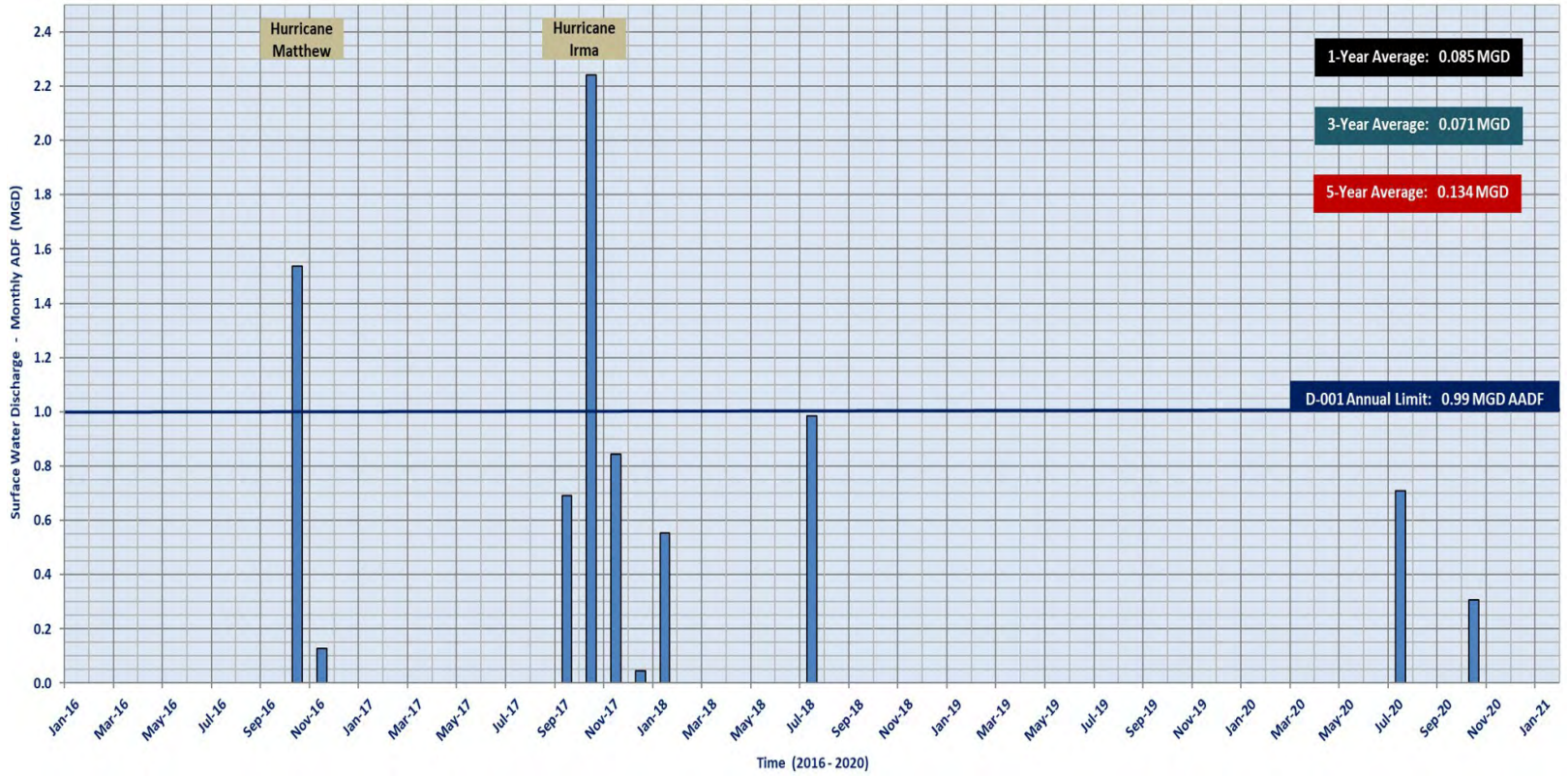


FIGURE 3.5-5

SOUTH CENTRAL REGIONAL WRF: SURFACE WATER DISCHARGE (D-001) TO THE 4-MILE CANAL - HISTORICAL EFFLUENT MONTHLY ADF

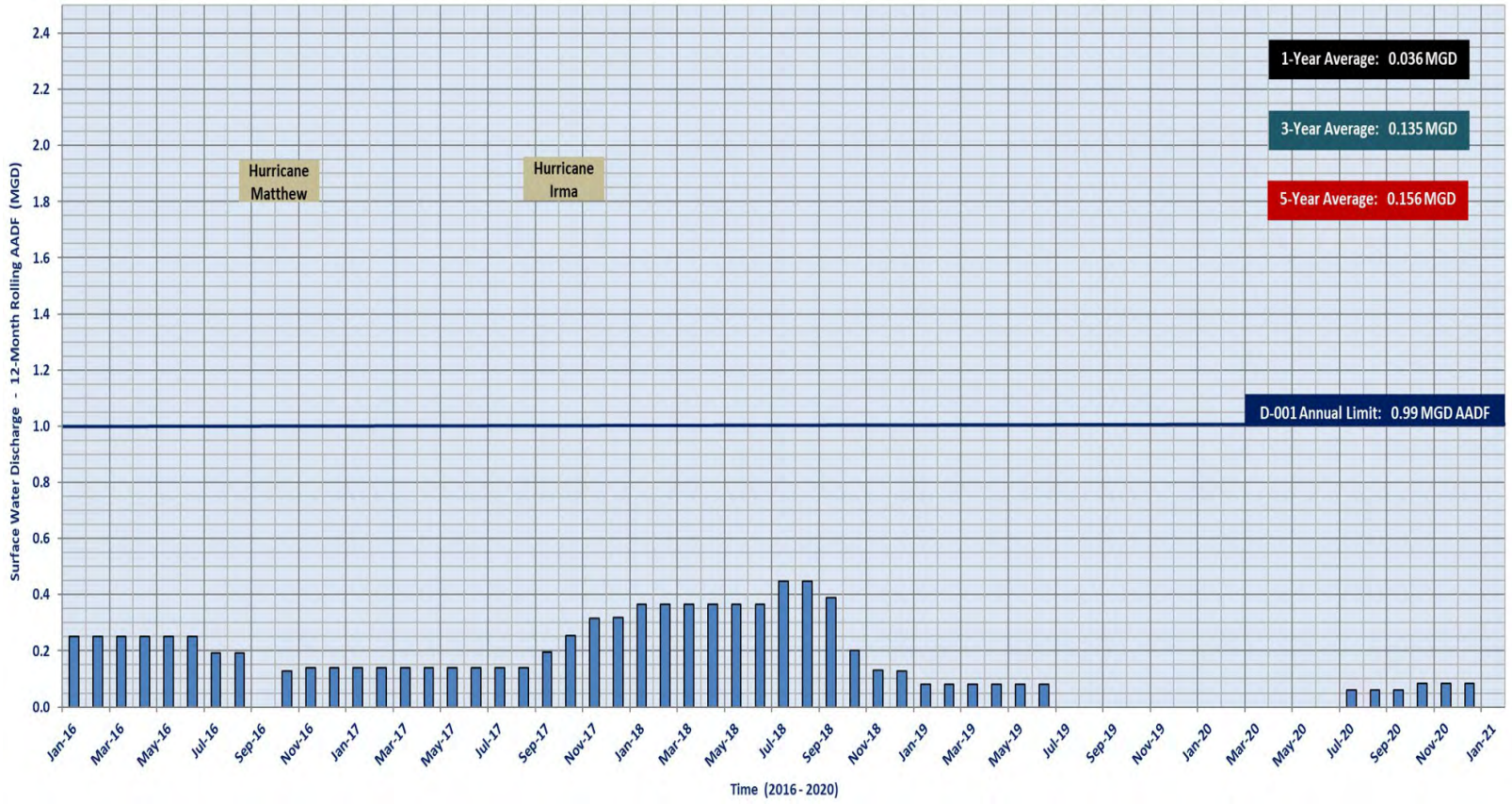


FIGURE 3.5-6

SOUTH CENTRAL REGIONAL WRF: SURFACE WATER DISCHARGE (D-001) TO THE 4-MILE CANAL - HISTORICAL EFFLUENT 12-MONTH ROLLING AADF

The South Central Regional WRF has reused approximately 96.6% of the facility's annual average effluent flow over the five-year period from 2016 - 2020. Only 3.4% of the effluent flow over this five year period were surface water discharges from the Ritch Grissom Memorial Wetlands to the 4-Mile Canal; these mainly due to discharges occurring from the intense rainfall events associated with Hurricane Matthew (October 2016) and Hurricane Irma (October 2017). ***Therefore, the South Central Regional WRF meets the requirements of 403.064(17)(a)(3)(d) in that it has reused a minimum of 90% of the facility's effluent AADF over the past five (5) calendar years (2016 - 2020).***

3.6 FACILITY EFFLUENT QUALITY

Reclaimed water quality ($CBOD_5$, TSS, TN, TP, pH and Fecal Coliform) generated by the South Central Regional WRF, for the last five calendar years (2016 - 2020), is presented in Table 3.6-1. The South Central Regional WRF treatment system efficiencies, for the same five-year period are presented below:

South Central Regional WRF - Treatment System Efficiency (2016 - 2020)*							
Parameter	Influent Conc. (mg/L)	Influent Loading (lb/day)	Effluent Conc. (mg/L)	Effluent Load (lb/day)	Parameter Removal (lb/day)	Percent Removal	
						Design	Actual
$CBOD_5$	191	7,695	2.2	113	9,566	90%	98.8%
TSS	231	9,305	1.0	52	11,653	90%	99.6%
TN**	50	2,013	6.4	324	2,208	80%	87.2%
TP**	8	322	0.6	31	374	70%	92.4%

* *AADF (2016 - 2020): 4.828 MGD* ** *Assumed Influent Concentration (testing not required by permit)*

3.6.1 $CBOD_5$ Treatment (Removal) Efficiency

Over the last five-year period (Calendar Years 2016 - 2020), actual influent $CBOD_5$ concentrations have been below the values used in the design of the facility (300 mg/L). The South Central Regional WRF has the ability to operate efficiently between 50 mg/L and 400 mg/L by adjusting process operations.

The effluent $CBOD_5$ concentrations are below the design values used for the facility, typical AWT standards (< 5 mg/L), and meet the limitations identified in the current FDEP Operations Permit.

Table 3.6-1: South Central Regional WRF - Reclaimed Water Quality (2016 - 2020)						
Month/Year	**$CBOD_5$ (mg/L)**	**TSS (mg/L)**	**TN (mg/L)**	**TP (mg/L)**	**pH (S.U.)**	**Fecal (#/100 mL)**
Permit Limit	**20**	**5**	**---**	**---**	**6.0 - 8.5**	**25**
Jan 2016	1.1	0.7	8.1	0.8	7.44	< 1
Feb 2016	1.3	0.6	7.0	0.4	7.39	< 1
Mar 2016	1.3	0.7	7.4	1.5	7.34	< 1
Apr 2016	1.1	1.1	5.7	4.0	7.37	< 1
May 2016	1.4	1.3	8.5	1.9	7.19	< 1
Jun 2016	2.4	1.3	10.0	1.2	7.25	< 1
Jul 2016	1.7	1.4	7.0	0.8	7.26	< 1
Aug 2016	1.8	1.0	7.3	0.4	7.30	< 1
Sep 2016	1.9	0.7	8.8	0.1	7.28	< 1
Oct 2016	1.9	0.5	8.9	0.1	7.35	< 1
Nov 2016	2.1	1.0	8.1	0.3	7.36	< 1
Dec 2016	1.2	1.3	7.9	0.6	7.37	< 1
2016 Avg.	**1.6**	**1.0**	**7.9**	**1.0**	**7.33**	**< 1**
Jan 2017	1.8	1.3	8.3	0.8	7.43	< 1
Feb 2017	1.4	1.5	8.6	0.5	7.38	< 1
Mar 2017	2.7	1.3	7.4	0.3	7.34	< 1
Apr 2017	1.4	1.4	7.4	0.6	7.32	< 1
May 2017	5.5	0.5	6.3	0.2	7.42	< 1
Jun 2017	1.2	0.8	6.2	1.7	7.43	< 1
Jul 2017	1.9	0.6	6.6	0.7	7.43	< 1
Aug 2017	1.0	0.6	7.7	2.8	7.41	< 1
Sep 2017	1.3	1.8	4.9	0.3	7.40	< 1
Oct 2017	2.6	2.6	8.0	0.7	7.30	< 1
Nov 2017	1.2	1.1	7.3	0.8	7.28	< 1
Dec 2017	1.4	1.1	7.4	0.2	7.30	< 1
2017 Avg.	**2.0**	**1.2**	**7.2**	**0.8**	**7.37**	**< 1**

Table 3.6-1: South Central Regional WRF - Reclaimed Water Quality (2016 - 2020)						
Month/Year	$CBOD_5$ (mg/L)	TSS (mg/L)	TN (mg/L)	TP (mg/L)	pH (S.U.)	Fecal (#/100 mL)
Permit Limit	20	5	---	---	6.0 - 8.5	25
Jan 2018	1.3	1.4	2.5	0.1	7.33	< 1
Feb 2018	2.1	1.5	8.4	0.2	7.31	< 1
Mar 2018	1.4	1.1	9.3	0.2	7.12	< 1
Apr 2018	1.4	1.6	7.5	0.5	7.12	< 1
May 2018	1.6	1.1	10.0	1.7	7.21	< 1
Jun 2018	1.1	0.7	6.5	0.1	7.39	< 1
Jul 2018	1.7	0.6	8.3	0.1	7.38	< 1
Aug 2018	1.5	1.0	7.8	1.8	7.22	< 1
Sep 2018	1.2	0.8	9.6	0.3	7.14	< 1
Oct 2018	1.0	1.0	9.7	0.7	7.11	< 1
Nov 2018	1.8	1.4	7.9	0.8	7.12	< 1
Dec 2018	2.0	1.9	8.1	0.4	6.94	< 1
2018 Avg.	**1.5**	**1.2**	**8.0**	**0.6**	**7.20**	**< 1**
Jan 2019	2.0	1.6	9.3	0.2	6.89	< 1
Feb 2019	2.0	1.7	8.2	0.1	6.83	< 1
Mar 2019	1.6	2.0	8.5	1.3	6.98	< 1
Apr 2019	1.3	1.5	8.5	1.7	7.27	< 1
May 2019	2.7	0.6	4.7	0.2	7.25	< 1
Jun 2019	2.7	0.8	7.5	0.5	7.19	< 1
Jul 2019	2.0	1.4	6.0	0.2	7.37	< 1
Aug 2019	2.2	0.9	2.2	0.3	7.38	< 1
Sep 2019	2.8	1.1	2.8	0.6	7.39	< 1
Oct 2019	2.5	0.6	3.3	0.5	7.26	< 1
Nov 2019	2.6	0.6	3.6	0.3	7.26	< 1
Dec 2019	3.5	0.6	3.1	0.4	7.31	< 1
2019 Avg.	**2.3**	**1.1**	**5.6**	**0.5**	**7.20**	**< 1**

Table 3.6-1: South Central Regional WRF - Reclaimed Water Quality (2016 - 2020)						
Month/Year	$CBOD_5$ (mg/L)	TSS (mg/L)	TN (mg/L)	TP (mg/L)	pH (S.U.)	Fecal (#/100 mL)
Permit Limit	20	5	---	---	6.0 - 8.5	25
Jan 2020	1.8	0.6	2.9	0.3	7.30	< 1
Feb 2020	3.4	0.7	3.2	0.2	7.08	< 1
Mar 2020	4.8	0.6	3.4	0.2	7.16	< 1
Apr 2020	4.1	0.6	3.0	0.1	7.23	< 1
May 2020	5.1	0.6	4.0	0.4	7.25	< 1
Jun 2020	4.3	0.6	2.9	0.1	7.29	< 1
Jul 2020	4.6	0.6	4.6	0.1	7.20	< 1
Aug 2020	5.2	0.6	3.2	0.1	7.04	< 1
Sep 2020	4.9	0.6	3.6	0.1	7.07	< 1
Oct 2020	4.4	0.6	3.0	0.1	7.06	< 1
Nov 2020	2.1	1.4	3.0	0.1	7.45	< 1
Dec 2020	1.1	0.7	3.5	0.2	7.07	< 1
2020 Avg.	3.8	0.6	3.4	0.2	7.18	< 1
5-Year Avg.	2.2	1.0	6.4	0.6	7.26	< 1
5-Yr % Removal	98.8%	99.6%	87.2%	92.4%	---	---

The 5-Year $CBOD_5$ treatment (removal) efficiency averaged approximately 98.8%; which is greater than the design treatment efficiency of 90% and the minimum FDEP requirement of 85%. The $CBOD_5$ treatment (removal) efficiency has averaged 97.3% since the IFAS BNR improvements have been completed. The effluent $CBOD_5$ concentration from the facility has been significantly below the design value of 5 mg/L. ***Thus, the South Central Regional WRF is highly effective in removing organic wastes from the raw wastewater***.

3.6.2 TSS Treatment (Removal) Efficiency

Over the last five-year period (Calendar Years 2016 - 2020), actual influent TSS concentrations have been below the values used in the design of the facility (300 mg/L); although the facility has the ability to operate efficiently between 40 mg/L and 500 mg/L by adjusting process operations.

The effluent TSS concentrations are below the design values used for the facility, typical AWT standards (< 5 mg/L) and meet the limitations identified in the current FDEP Operations Permit.

The 5-Year TSS treatment (removal) efficiency averaged approximately 99.6%; which is greater than the design treatment efficiency of 90% and the minimum FDEP requirement of 85%. The TSS treatment (removal) efficiency has averaged 99.6% since the IFAS BNR improvements have been completed. The effluent TSS concentration has been significantly below the design value of 5 mg/L. ***Thus, the South Central Regional WRF is highly effective in removing suspended solids from the raw wastewater as well as those generated in the treatment process***.

3.6.3 TN Treatment (Removal) Efficiency

Over the last five-year period (Calendar Years 2016 - 2020), actual influent TKN concentrations have been in the range of values used in the design of the facility (50 mg/L). The facility has the ability to operate efficiently between 20 mg/L and 60 mg/L by adjusting process operations.

The 5-Year TN treatment (removal) efficiency averaged approximately 87.2%. However, the TN treatment (removal) efficiency has averaged 92.6% since the IFAS BNR Treatment System became operational (2019) with an average effluent TN concentration of 3.4 mg/L in Calendar Year 2020. The new IFAS BNR System has significantly reduced the facility effluent TN concentration and, with minor operational modifications and control strategies, is capable of meeting AWT standards.

In contrast, during the period from January 2016 - April 2019 when the Carrousel BNR System was the only treatment technology operating at the SCRWRF (the IFAS BNR System had not been constructed), the effluent TN concentration averaged 7.90 mg/L. ***Therefore, if the Carrousel BNR System is to be utilized to treat wastewater at the SCRWRF in the future, significant operational, process and infrastructure improvements will be required in order to meet the AWT standard for TN (< 3 mg/L) and ensure that the facility is in compliance with the effluent TN limitations mandated in its FDEP Operations Permit. It is recommended that a process engineering evaluation/study be conducted to address the elevated effluent TN concentrations and provide both short-term and long-term recommendations and solutions to resolve this issue.*** Items to be evaluated and assessed in the evalution/study include, but are not limited to, the following:

- Hydraulic and aeration issues in the anaerobic treatment basins and their impact on the BNR system performance.

- Assessment of how the facility operators are/were running the Carrousel BNR Treatment System (operational parameters, MLSS concentration, SRT's, recycle rates, etc.).

- Evaluation of the hydraulic detention and solids residence times within the BNR system basins and their impact of efficient nitrogen removal.

- Evaluation of the potential conversion of the Carrousel BNR System to a fine bubble aeration system with energy efficient blowers in lieu of the existing treatment system turbines (for aeration of the mixed liquor only).

- Assessment associated with creating a plug-flow regime within the Carrousel oxidation ditches (more efficient in the treatment of the wastewater) through the addition of internal walls throughout the reactor rather than the continued use of the complete-mix flow regime that exists in the biological reactor today.

- Evaluation of the advantages and impacts associated with replacement of the existing Carrousel EliminatIR® Gates with an Internal Recycle (IR) pumping system to provide better operational control of the recycling of nitrate rich effluent from the aerobic basins to the primary anoxic basins thereby enhancing TN removal. The existing EliminatIR® gates are in poor condition and very difficult to control; thereby reducing the efficiency of the denitrification process and TN removal.

- Evaluation of the potential to include swing zones within the Carrousel BNR System that can be switched between anoxic and aerobic operation providing the facility operators with real-time control of the available reactor volume and biomass inventory for efficient nitrification and denitrification performance.

- Providing real-time instrumentation and automation to effectively identify the performance of the nitrification and denitrification processes within the biological reactor basins and allowing the SCADA system to make modifications to enhance the removal of nitrogen from the wastewater.

- Evaluation of a more efficient primary and secondary anoxic mixing system and their impacts on the overall TN removal and energy consumption within the Carrousel BNR System.

- Assessment of the impact of converting the Carrousel BNR System into a more efficient, multi-staged biological treatment system with respect to nutrient removal.

- Evaluation of process configuration modifications within the Carrousel BNR System.

- Evaluation of the InDense Gravimetric Selection Technology® on the operations of the Carrousel BNR System. The InDense system encourages aerobic granular sludge formation, allows a higher concentration of MLSS to be retained in the biological reactor, improves reactor operations, enhances nitrogen and phosphorus removal, promotes denser sludge selection (enhances MLSS settling in the clarifiers) and can potentially increase the treatment capacity of the BNR system without adding additional tankage.

3.6.4 TP Treatment (Removal) Efficiency

Over the last five-year period (Calendar Years 2016 - 2020), actual influent TP concentrations have been in the range of values used in the design of the SCRWRF. The facility has the ability to operate efficiently between 2 mg/L and 12 mg/L by adjusting process operations and/or adding alum/polymer to the BNR Treatment System reaeration basins (enhancing TP removal via chemical precipitation).

The 5-Year TP treatment (removal) efficiency averaged approximately 92.4%. However, the TP treatment (removal) efficiency has averaged 97.5% since the optimization of the IFAS BNR Treatment System has been completed (alum/polymer addition). ***Thus, the South Central Regional WRF is providing highly efficient treatment and removal of TP.***

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SECTION 4

NON-BENEFICIAL SURFACE WATER DISCHARGE ELIMINATION PLAN

4.1 THE SOUTH CENTRAL REGIONAL WRF DISCHARGE ELIMINATION PLAN

The South Central Regional WRF, located at 10001 North Wickham Road, Melbourne, FL, 32940 is an *Advanced Wastewater Treatment plus Filtration* Facility (Category I, Class A), utilizing two (2) parallel BNR wastewater treatment plants to treat the raw wastewater from the service area and meets all Class I Reliability criteria. The facility consists of primary, secondary and tertiary treatment systems to treat the raw wastewater from the South Central Regional Wastewater Collection and Transmission System. Reclaimed water storage is found throughout the service area (115.9 MG, total) including ground storage tanks, reclaimed water storage ponds adjacent to the SCRWRF, stormwater ponds, golf course stormwater lake systems, and the Ritch Grissom Memorial Wetlands.

Biosolids management at the SCRWRF consists of aerobic digestion of the waste activated sludge followed by dewatering of the solids through the use of a system of belt filter presses. The dewatered sludge can be transferred to an FDEP approved Biosolids Treatment Facility (BTF) or disposed of in a Class I solid waste landfill.

The treatment facility discharges highly treated reclaimed water to three FDEP-permitted disposal systems:

- Public Access Reuse System, R-001 (8.20 MGD AADF)
- Ritch Grissom Memorial Wetlands - Restricted Public Access Reuse System, R-002 (2.50 MGD AADF)
- Surface Water Discharge System, from the Wetlands Lake to the 4-Mile Canal then to the St. Johns River, D-001 (0.99 MGD AADF)

As previously presented in Section 3.5 of this document, an analysis of facility effluent flows by disposal system, over the last five (5) Calendar Years, was conducted with the following results:

Calendar Year	Effluent Disposal System Flow (MGD AADF)			Overall Effluent Disposal (%)		
	Reclaimed Water System - PAR (R-001)	Reclaimed Water to Wetland (R-002)	Surface Water Discharge (D-001)	Reclaimed System (R-001)	Reclaimed System (R-002)	SW Discharge (D-001)
2016	3.576	0.377	0.139	87.4%	9.2%	3.4%
2017	3.107	0.584	0.319	77.5%	14.6%	8.0%
2018	3.625	0.169	0.128	92.4%	4.3%	3.3%
2019	3.920	0.046	0.000	98.8%	1.2%	0.0%
2020	3.646	0.149	0.085	94.0%	3.8%	2.2%
5-Yr Avg.	**3.575**	**0.265**	**0.134**	**90.0%**	**6.6%**	**3.4%**
Overall 5-Year SCRWRF Effluent Disposal by System:				**Reclaimed Water (R-001 + R-002)**		**Surface Water Discharge (D-001)**
				96.6%		**3.4%**

The data indicates that the South Central Regional WRF has reused approximately 96.6% of the facility's annual average effluent flow over the past five-year period (2016 - 2020). The remaining 3.4% of the effluent flow, over this five-year period, were surface water discharges from the Ritch Grissom Memorial Wetlands to the 4-Mile Canal. The surface water discharges were due to intense rainfall events associated with Hurricane Matthew, Hurricane Irma and severe localized thunderstorms within the SCRWRF service area. The annual surface water discharge, from January 2016 - December 2020, averaged 0.134 MGD and occurred in only 9 months during this period (170 discharge days in the 5-year period total of 1,827 days, or 9.3% of the time due to heavy rainfall events).

Therefore, in accordance with the requirements of the 403.064(17)(a)(3)(d), Florida Statutes, the Surface Water Discharge Elimination Plan for the South Central Regional WRF does not provide for a complete elimination of the FDEP-permitted surface water discharge to the 4-Mile Canal and thence to the St. Johns River. However, Brevard County is providing the FDEP with an affirmation demonstration (as provided for in the law), based on the analyses and evaluations conducted in Section 3 of this document, that the SCRWRF is reusing a minimum of 90% of its annual average effluent flow as determined using the daily monitoring data from the previous five (5) Calendar Years (2016 - 2020) of operating data. In accordance with the regulatory requirements of 403.064, F.S., the County will therefore continue to utilize the FDEP-permitted discharge from the Ritch Grissom Memorial Wetlands to 4-Mile Canal and will not exceed the 0.990 MGD AADF flow limitation. It is anticipated that as growth occurs within the South Central Regional Wastewater Management System Service Area, new reclaimed water sites and additional storage will be developed thereby reducing the need to discharge to the 4-Mile Canal, with the exception of wet weather discharges during extreme weather and high groundwater table events.

In accordance with 403.064(17), Florida Statutes, Brevard County is also required to provide the following information as part of the Surface Water Discharge Elimination Plan:

Plan Information to Be Provided	Value	Explanation
The average flow (MGD) of effluent, reclaimed water, or reuse water that will no longer be discharged into surface waters and the date of such elimination	0.0 MGD AADF	Facility reuses more than 90% of its annual effluent flow based on the last 5 calendar years of operational data
The average flow (MGD) of surface water discharge that will continue in accordance with the requirements for the elimination of ocean outfalls, one of the discharge conditions specified in the legislation or one of the hardship conditions;	0.99 MGD AADF (maximum)	This is the permitted surface water discharge capacity in the current facility FDEP Operations Permit. In addition, over the last 5 calendar years, the surface water discharge averaged 0.134 MGD (13.5% of permitted capacity)
The level of treatment which the effluent, reclaimed water, or reuse water will receive before being discharged into a surface water by each alternative	AWT Levels* (5, 5, 3, 1)	The SCRWRF consists of two BNR treatment trains capable of potentially generating reclaimed water meeting AWT standards/levels

* *Modifications to the IFAS and Carrousel BNR Treatment Systems will be required to meet AWT Standards (BOD_5 < 5 mg/L; TSS < 5 mg/L; TN < 3 mg/L; and TP , 1 mg/L). This is further discussed in Section 4.3 of this document.*

4.2 CAPACITY AND EFFICIENCY OF THE SOUTH CENTRAL REGIONAL WRF

A detailed evaluation of the historical wastewater flows to the South Central Regional WRF was conducted in Section 3.4 of this document. The raw wastewater flow rate received at the treatment facility, over the last five (5) Calendar Years (2016 - 2020), averaged 4.828 MGD, or 40.2% of the facility's treatment capacity. Therefore, the South Central Regional WRF has the hydraulic capacity to treat the raw wastewater flows over the 20-year planning horizon.

Likewise, a detailed evaluation of the facility effluent quality, over the last five (5) Calendar Years (2016 - 2020), was conducted in Section 3.6 of this document. The reclaimed water quality produced and treatment efficiencies are as follows:

South Central Regional WRF - Treatment System Efficiency (2016 - 2020)			
Parameter	**Influent Conc. (mg/L)**	**Effluent Conc. (mg/L)**	**Parameter Removal**
$CBOD_5$	191	2.2	98.8%
TSS	231	1.0	99.6%
TN	50	6.4	87.2%
TP	8	0.6	92.4%

Therefore, the South Central Regional WRF is capable of treating the incoming raw wastewater and generating a reclaimed water product that is in compliance with the current FDEP Operations Permit using the existing unit operations and processes at the facility.

4.3 ABILITY OF THE SOUTH CENTRAL REGIONAL WRF TO MEET "CURRENT" AND "FUTURE" NUTRIENT LIMITS

The wastewater treatment processes at the South Central Regional WRF consist of primary treatment unit operations and two distinct treatment trains each with their own secondary and tertiary treatment unit operations and processes to remove contaminants inherent in the raw wastewater influent and meet the Federal and State regulatory standards.

The reclaimed water quality produced by the South Central Regional WRF during the last five-year period (2016 - 2020) and the ability to meet AWT Criteria is presented below:

Parameter	AWT Effluent Limits (mg/L)	Effluent Concentration (mg/L)*	"Current" Facility Effluent Meets AWT Criteria
BOD_5	**5**	2.2	Yes
TSS	**5**	1.0	Yes
Total Nitrogen (TN)	**3**	**6.4**	**No**
Total Phosphorus (TP)	**1**	0.6	Yes
pH	**6.0 - 8.5**	7.26	Yes

* *Concentrations of reclaimed water constituents from Jan 2016 - Dec 2020* ** *Values in **"red"** exceed the AWT Criteria*

To meet the surface water discharge requirements, on a continual basis, when water is conveyed from the Wetlands lake to the 4-Mile Canal, it is imperative that the reclaimed water/effluent from the treatment facility meet AWT standards. The effluent TN concentration is the only effluent parameter that is not currently meeting AWT standards. However, the two distinct BNR treatment systems produce differing effluent TN concentrations as shown in the table below:

BNR System	Effluent Analysis Timeframe	Effluent Nutrient Concentrations (mg/L)***	
		TN*	TP**
Carrousel	January 2016 - April 2019	**7.9**	0.8
IFAS	May 2019 - December 2020	**3.7**	0.2

* *AWT Total Nitrogen Standard: ≤ 3 mg/L* ** *AWT Total Phosphorus Standard: ≤ 1 mg/L* ** *Values in **"red"** exceed the AWT Std*

Therefore, to meet the AWT TN Standard, on a consistent basis, and ensure that the treatment facility meets the effluent TN limitations mandated in its FDEP Operations Permit, improvements, modifications and adjustments within the two BNR Systems will be required at the South Central Regional WRF as outlined below:

BNR Treatment System	Required Improvements to Meet the AWT TN Standard
IFAS	**Minor** operational modifications and control strategy adjustments
Carrousel	**Significant** operational, process and infrastructure improvements will be required'

* *See Section 3.6.3 of this document for further discussion of this topic.*

The required facility improvements to the BNR Treatment Systems at the South Central Regional WRF, to consistently meet the AWT TN Standard, will be included in the County's Utility Capital Improvements Program (CIP). As this is not a currently funded CIP project, the County will evaluate their utility capital resources during upcoming annual budget cycle meetings and include this project in its list of potential prioritized utility projects.

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APPENDIX A

SOUTH CENTRAL REGIONAL WRF: "EXISTING" FDEP OPERATIONS PERMIT

OCTOBER 2021

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FLORIDA DEPARTMENT OF Environmental Protection

Central District Office
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Interim Secretary

In the Matter of an
Application for Permit by:

Edward Fontanin, PE, Director
Brevard County Utility Services
2725 Judge Fran Jamieson Way, A-213
Melbourne, FL 32940-6605
Edward.fontanin@brevardfl.gov

File Number FL0102679-018-DW1P
Brevard County
BCUD South Central WWTF

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number FL0102679 to operate the BCUD South Central Wastewater Facility (WWTF), issued under Chapter 403**,** Florida Statutes.

Monitoring requirements under this permit are effective on September 1, 2021. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements.

NOTICE OF RIGHTS

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes

during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of when and how the petitioner received notice of the agency decision;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
(e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
(f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a), F.A.C.

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver may not apply to persons who have not received a clear point-of-entry.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for

an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation
Mediation is not available in this proceeding.

Judicial Review
Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

EXECUTION AND CLERKING
Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Reggie Phillips
Program Administrator
Permitting and Waste Cleanup Program

Attachment(s):
Permit, DMR, and Statement of Basis

CERTIFICATE OF SERVICE
The undersigned duly designated deputy clerk hereby certifies that this document and all attachments were sent on the filing date below to the following listed persons:

DEP: David Smicherko, Cindy Stafford, Charles LeGros
David A. Gierach, PE, CPH, dgierach@cphcorp.com
Benjamin M. Fries, PE, Vice President, CPH, bfries@cphcorp.com

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk July 12, 2021 **Date**

FLORIDA DEPARTMENT OF Environmental Protection

Central District Office
3319 Maguire Blvd, Suite 232
Orlando, Florida 32803-3767

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Interim Secretary

STATE OF FLORIDA
DOMESTIC WASTEWATER FACILITY PERMIT

PERMITTEE:
Brevard County Utility Services Department

RESPONSIBLE OFFICIAL:
Edward Fontanin
2725 Judge Fran Jamieson Way
BLDG. A-213
Melbourne, Florida 32940- 6605
(321) 633-2091
edward.fontanin@brevardfl.gov

PERMIT NUMBER: FL0102679 MI
FILE NUMBER: FL0102679-018-DW1P
ISSUANCE DATE: **July 12, 2021**
EFFECTIVE DATE: **July 12, 2021**
EXPIRATION DATE: **July 11, 2026**

FACILITY:
BCUD/South Central Regional
10001 N Wickham Rd
Melbourne, FL 32940-6604
Brevard County
Latitude: 28°13' 44.98" N Longitude: 80°45' 26.37" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and applicable rules of the Florida Administrative Code (F.A.C.) and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. The above-named permittee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

WASTEWATER TREATMENT:

An existing 12.0 million gallon per day (MGD) annual average daily flow (AADF) permitted capacity activated sludge advanced wastewater treatment (AWT) plant utilizing the IFAS BNR and Carrousel BNR Treatment Process. The plant consists of a mechanical bar screen and de-gritter assembly, 5-stage IFAS BNR and 4-stage Carrousel BNR Process (anaerobic tanks, first anoxic tanks, extended oxidation ditches, second anoxic tanks, re-aeration tanks), clarifiers, chemical feed facilities, filters and chlorination, with aerobic digestion and belt-thickening of biosolids. The facility utilizes electronic sensors and automatic diversion valves, two (2) 1.0 million gallon on-site reclaimed water covered ground storage tanks and associated high service pump stations, and a standby power generator.

The facility includes a Septage and Grease receiving station with flow metering, mechanical screening, and a holding tank with a submersible mixer.

The facility may supplement the reclaimed water production with storm water introduced into the collection system of the facility.

REUSE OR DISPOSAL:

Surface Water Discharge D-001: An existing 0.990 MGD annual average daily flow discharge to 4-Mile Canal, Class III Fresh Waters, (WBID# 2893N) which is approximately 128 feet in length and discharges at a depth of approximately 0 feet. The outfall pipe is a 60” diameter concrete culvert that discharges to the 4-Mile Canal. The point of discharge is located approximately at latitude 28°13' 48" N, longitude 80°46' 14" W.

Land Application R-001: An existing 8.2 MGD annual average daily flow permitted capacity slow-rate public access system. R-001 is a reuse system which consists of on-site irrigation at the plant, and within the approved Reuse Service Area, as shown on the attached map, and identified in Section IV of this permit

Reclaimed water is discharged into stormwater storage lake system(s) D-002 located at the Indian River Colony Club Golf Course. The reclaimed water is stored in an existing stormwater retention pond with a storage capacity of 4.5 million gallons, which has an intermittent discharge to adjacent drainage features (6-Mile Canal), which ultimately discharges to the St. Johns River. Discharge of reclaimed water to this stormwater retention pond shall be in accordance with Condition I.B. 12 of this permit.

Stormwater from the following sources may be introduced into the sanitary sewerage system to augment the supply of reclaimed water: The facility may introduce storm water from a retention pond into the collection system at the wet well of Lift Station W-09 (Silver Pines Subdivision).

Land Application R-002: An existing 2.5 MGD annual average daily flow permitted capacity slow-rate restricted public access system. R-002 is a reuse system which consists of Created Wetlands with 200± acres (163± total wetted acres) comprising four (4) cells and an interior lake. The detention time through this created wetland system is approximately 53 days, and is located approximately at latitude 28°13' 47" N, longitude 80°46' 18" W.

IN ACCORDANCE WITH: The limitations, monitoring requirements, and other conditions set forth in this cover sheet and Part I through Part IX on pages 1 through 29 of this permit.

I. RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Surface Water Discharges

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge effluent from Outfall D-001 to 4-Mile Canal. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.8.:

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (Outfall D-001)	MGD	Max Max Max	0.990 Report Report	Annual Average Daily Maximum Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-9	See I.A.4
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	3.0 3.75 4.5 6.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	WEP-1	See I.A.6
BOD, Carbonaceous 5 day, 20C	lb/yr	Max	2000	Single Sample	Annually	Calculated	WEP-1	See Note 1
BOD, Carbonaceous 5 day, 20C	lb/mth	Max	Report	Monthly Total	Monthly	Calculated	WEP-1	
Solids, Total Suspended	mg/L	Max Max Max Max	3.0 3.75 4.5 6.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	Grab	WEP-1	See I.A.6
Coliform, Fecal	#/100mL	Max	Report	Weekly Average	5 Days/Week	Grab	WEP-1	
pH	s.u.	Min Max	6.5 8.0	Single Sample Single Sample	Continuous	Meter	WEP-1	See I.A.3
Nitrogen, Total	mg/L	Max Max Max	2.0 2.4 3.2	Monthly Average Weekly Average Single Sample	Weekly	24-hr FPC	WEP-1	
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Monthly Average	Weekly	24-hr FPC	WEP-1	
Nitrite plus Nitrate, Total 1 det. (as N)	mg/L	Max	Report	Monthly Average	Weekly	24-hr FPC	WEP-1	
Nitrogen, Ammonia, Total (as N) (Effluent)	mg/L	Max	Report	Monthly Average	Weekly	24-hr FPC	WEP-1	See I.A.8, I.A.9, and I.A.10
Nitrogen, Ammonia, Total (as N) (calculated limit)	mg/L	Max	Report	Monthly Average	Weekly	Calculated	WEP-1	See I.A.8, I.A.9, and I.A.10
Nitrogen, Ammonia, Total (as N) (Effluent minus calculated limit)	mg/L	Max	0.00	Monthly Average	Weekly	Calculated	WEP-1	See I.A.8, I.A.9, and I.A.10

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Nitrogen, Ammonia, Total (as N) (Effluent)	mg/L	Max	2.5	Single Sample	Monthly	Calculated	WEP-1	See I.A.8, I.A.9, and I.A.10
Phosphorus, Total (as P)	mg/L	Max Max Max	0.2 0.24 0.32	Monthly Average Weekly Average Single Sample	Weekly	24-hr FPC	WEP-1	
Phosphorus, Total (as P)	lb/yr	Max	46	Single Sample	Annually	Calculated	WEP-1	See Note 1 ok
Phosphorus, Total (as P)	lb/mth	Max	Report	Monthly Total	Monthly	Calculated	WEP-1	
Phosphate, Ortho (as P)	mg/L	Max	Report	Monthly Average	Weekly	24-hr FPC	WEP-1	
Sulfate, Total	mg/L	Max	Report	Monthly Average	Weekly	24-hr FPC	WEP-1	
Chloride (as Cl)	mg/L	Max	Report	Monthly Average	Weekly	24-hr FPC	WEP-1	
Alkalinity, Total (as CaCO3)	mg/L	Max	Report	Monthly Average	Weekly	24-hr FPC	WEP-1	
Specific Conductance	umhos/cm	Max	Report	Monthly Average	Weekly	Grab	WEP-1	
Temperature (C), Water	Deg C	Max	Report	Monthly Average	Monthly	Meter	WEP-1	
Oxygen, dissolved (DO)	mg/L	Max	Report	Monthly Average	Monthly	Grab	WEP-1	
Water Level at sample collection time	ft	Max	Report	Monthly Average	Monthly	Meter	WEP-1	

Note 1: The Total Maximum Daily Load (TMDL) for the St. John's River has been finalized by the Department. As stated in the TMDL documentation, "The TMDL includes a waste load allocation (WLA) of 1.0 ton BOD/year and 0.023 tons/year for Total Phosphorus (TP). The discharge shall not exceed the following limitations:

Parameter	Maximum Mass Loading (pounds/year)
$CBOD_5$	2000.0
Total Phosphorus	46.0

2. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-9	Flow to St. Johns River
WEP-1	Outfall structure 9 from wetland cell #3 and cell #4

3. Hourly measurement of pH during the period of required operator attendance may be substituted for continuous measurement. *[62-600.660(1)]*

4. A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-600.200(25)]*

5. The discharge shall not contain components that, alone or in combination with other substances or in combination with other components of the discharge:

   a. Settle to form putrescent deposits or otherwise create a nuisance; or

   b. Float as debris, scum, oil, or other matter in such amounts as to form nuisances; or

   c. Produce color, odor, taste, turbidity, or other conditions in such degree as to create a nuisance; or

   d. Are acutely toxic; or

   e. Are present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant, locally occurring, wildlife or aquatic species, unless specific standards are established for such components in subsection 62-302.500(2) or Rule 62-302.530, F.A.C.; or

   f. Pose a serious danger to the public health, safety, or welfare.

   [62-302.500(1)(a)]

6. In accordance with subsections 62-600.420(1) and (2), F.A.C., the monthly average effluent CBOD5 and TSS concentrations shall not exceed 15% of their respective influent values (i.e., 85% removal). *[62-600.420(1) and (2)]*

7. Sampling of surface water quality in the 4-Mile Canal and the wetlands interior lake shall be conducted at the sites shown on the attached map for the parameters listed in the Table below. An annual summary report of all surface water sampling/monitoring data shall be submitted to the Department by January 1st of each year. *[62-611.700]*

Parameter	Interior Station 2 Frequency	Downstream Station 4 Frequency
Temperature	Q (DD)	---
Dissolved Oxygen	Q (DD)	Q
pH	Q	Q
CL_2 (TRC)	---	---
Conductivity	Q	Q
Color	Q	---
$CBOD_5$	Q	---
TSS	Q	---
TP (as P)	Q	Q
OP (as P)	Q	---
TN	Q	Q
TKN (as N)	Q	---
NH_3 (as N)	Q	---
NO_3 (as N)	Q	---
NO_2 (as N)	Q	
SO_4 (as S)	Q	---
Fecal Coliforms	Q	---
Chlorophyll a	Q	---

M = Monthly A = Annually
DD = 48 hr. dawn-dusk, max of 4 hr. intervals SA = Semi-Annually
Q = Quarterly
(Sample type shall be in accordance with Condition I.A.1.)

8. Effluent shall be monitored for pH and temperature at the same time and location as total ammonia nitrogen (TAN). The monthly average TAN value shall not exceed the average of the values calculated from the following equation, with no single value exceeding 2.5 times the value from the equation:

Calculated TAN Criterion Value for a Collected Sample =

$$0.8876((0.0278/1+10^{7.688-pH})+(1.1994/1+10^{pH-7.688}))\ x\ (2.126\ x\ 10^{0.028(20-T)})$$

Where:

- T and pH are the paired temperature (in degrees Celsius) and pH associated with the effluent TAN sample, i.e., measured at the same time and location as the effluent TAN sample is collected.
- For purposes of TAN criterion calculations, pH is subject to the range of 6.5 to 9.0. In the TAN criterion equation, the pH shall be set to 6.5 if the measured pH is less than 6.5 and set to 9.0 if the measured pH is greater than 9.0.
- The value of T shall be set to 7 if the measured temperature is less than 7°C.

For convenience, a calculator that may be used to determine monthly average and single sample TAN criterion values is located at: https://floridadep.gov/dear/water-quality-standards-program/documents/total-ammonia-nitrogen-calculator%C2%A0

a. Determine compliance with the monthly average TAN criterion as follows:
   (1) Calculate the TAN criterion value using pH and temperature measurements associated with each total ammonia sample. Then calculate the average of the resulting TAN criterion values (i.e. add together all the values calculated with the equation and divide by the total number of samples).
   (2) Calculate the average of all effluent total ammonia concentrations measured.
   (3) Effluent is in compliance if the average effluent total ammonia concentration is less than or equal to the calculated average TAN criterion.

b. Determine compliance with the single sample maximum TAN criterion as follows:
   (1) Calculate the TAN criterion value using pH and temperature measurements associated with each total ammonia sample. Multiply each resulting TAN criterion value by 2.5.
   (2) Effluent is in compliance with the single sample TAN criterion if all effluent total ammonia concentrations are less than or equal to 2.5 times their corresponding calculated TAN criterion.

[62-302.530]

9. The total ammonia nitrogen (TAN) monthly average effluent value shall be recorded on the DMR in the parameter row for "(effluent)." The calculated effluent limit shall be recorded on the DMR in the parameter row for "(calculated limit)." Compliance with the effluent limitation is determined by calculating the difference between the measured effluent value and the calculated. The compliance value shall be recorded on the DMR in the parameter row for "(effluent minus calculated limit)." The compliance value shall not exceed 0.00. *[62-302.530]*

10. To determine compliance with the total ammonia nitrogen (TAN) single sample effluent limitation, divide each TAN effluent sample value by the calculated TAN criterion value for that sample (calculated using the equation in permit condition I.A.8.) and compare to 2.5. On the DMR, report the greatest ratio of effluent sample value to TAN criterion value calculated for that sample. The compliance value shall not exceed 2.5. *[62-302.530]*

11. Senate Bill (SB) 64 was signed on June 29, 2021, and may affect the discharge related to this facility. The SB includes a requirement to submit information relating to the discharge with (1) your plan to eliminate the discharge or (2) your documentation demonstrating that no plan is required via email to DEP's Wastewater Management Program at: NPDESDischargePlan2021@FloridaDEP.gov to the Department by November 1, 2021. [SB 64] A link to the bill can be found at: https://www.flsenate.gov/Session/Bill/2021/64

B. Reuse and Land Application Systems

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to supplement reclaimed water with Stormwater discharged into the sewerage system and direct reclaimed water to Reuse System R-001. Such reclaimed water shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.8.:

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (Public access reuse)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-10	See I.B.4
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	20.0 30.0 45.0 60.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/ Week	24-hr FPC	EFA-1	
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	20.0 30.0 45.0 60.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/ Week	24-hr FPC	EFA-2	
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	4 Days/ Week	Grab	EFB-1	
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	4 Days/ Week	Grab	EFB-2	
Coliform, Fecal	#/100mL	Max	25	Single Sample	4 Days/ Week	Grab	EFA-1	
Coliform, Fecal	#/100mL	Max	25	Single Sample	4 Days/ Week	Grab	EFA-2	
Coliform, Fecal, % less than detection	percent	Min	75	Monthly Total	4 Days/ Week	Calculated	EFA-1	See I.B.5
Coliform, Fecal, % less than detection	percent	Min	75	Monthly Total	4 Days/ Week	Calculated	EFA-2	See I.B.5
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFA-1	See I.B.3
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFA-2	See I.B.3
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	Continuous	Meter	EFA-1	See I.B.6 and I.B.9
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	Continuous	Meter	EFA-2	See I.B.6 and I.B.9
Turbidity	NTU	Max	Report	Single Sample	Continuous	Meter	EFB-1	See I.B.7 and I.B.9
Turbidity	NTU	Max	Report	Single Sample	Continuous	Meter	EFB-2	See I.B.7 and I.B.9
Giardia	cysts/100 L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFA-1	See I.B.10

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Giardia	cysts/100 L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFA-2	See I.B.10
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFA-1	See I.B.10
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFA-2	See I.B.10
Nitrogen, Total	mg/L	Max Max	10.0 Report	Annual Average Monthly Average	Weekly	24-hr FPC	EFA-1	See I.B.12
Nitrogen, Total	mg/L	Max Max	10.0 Report	Annual Average Monthly Average	Weekly	24-hr FPC	EFA-2	See I.B.12
Phosphorus, Total (as P)	mg/L	Max Max	6.0 Report	Annual Average Monthly Average	Weekly	24-hr FPC	EFA-1	See I.B.12
Phosphorus, Total (as P)	mg/L	Max Max	6.0 Report	Annual Average Monthly Average	Weekly	24-hr FPC	EFA-2	See I.B.12
Flow (Baytree Golf Course Pond)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-5	
Flow (Viera Golf Course Pond)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-6	
Flow (Indian River Colony Club)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-7	
Flow (Duran Golf Course)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-8	

2. Reclaimed water samples shall be taken at the monitoring site locations listed in Permit Condition I.B.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-10	Total flow to Reuse Service Area
EFA-1	Effluent from the Caroussel Process CCC
EFA-2	Final effluent from the IFAs Process CCC
EFB-1	After filtration, prior to chlorination in the Caroussel Process
EFB-2	After filtration, prior to chlorination in the IFAS Process
FLW-5	Flow Meter in line to Baytree Golf Course Storage Pond
FLW-6	Flow meter in line to Viera Golf Course Storage Pond
FLW-7	Sum of the flow meters associated with Indian River Colony Golf Course Storage Pond and residential irrigation
FLW-8	Flow to Duran Golf Course

3. Hourly measurement of pH during the period of required operator attendance may be substituted for continuous measurement. *[62-600.660(1)]*

4. A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-600.200(25)]*

5. To report the "% less than detection," count the number of fecal coliform observations that were less than detection, divide by the total number of fecal coliform observations in the month, and multiply by 100% (round to the nearest integer). *[62-600.440(6)(a)]*

6. The minimum total chlorine residual shall be limited as described in the approved operating protocol, such that the permit limitation for fecal coliform bacteria will be achieved. In no case shall the total chlorine residual be less than 1.0 mg/L. *[62-600.440(6)(b)][62-610.460(2)][62-610.463(2)]*

7. The maximum turbidity shall be limited as described in the approved operating protocol, such that the permit limitations for total suspended solids and fecal coliforms will be achieved. *[62-610.463(2)]*

8. The treatment facilities shall be operated in accordance with all approved operating protocols. Only reclaimed water that meets the criteria established in the approved operating protocol(s) may be released to system storage or to the reuse system. Reclaimed water that fails to meet the criteria in the approved operating protocol(s) shall be directed to the following permitted alternate discharge system: Reject pond for re-treatment or to R-002, Created Wetland system. *[62-610.320(6) and 62-610.463(2)]*

9. Instruments for continuous on-line monitoring of total residual chlorine and turbidity shall be equipped with an automated data logging or recording device. *[62-610.463(2)]*

10. Intervals between sampling for Giardia and Cryptosporidium shall not exceed two years. *[62-610.472(3)(d)]*

11. Discharge of reclaimed water to the lakes listed in the table below at Golf Course/Stormwater Outfall stormwater storage lake system D-002 shall only occur when the elevation of the water in each lake is less than the corresponding control elevation listed in the table below. A list of all days during a month on which discharges from each lake to the receiving water body occurred shall be attached to the DMR form. For each day on which discharge occurred, the approximate number of hours of discharge shall be noted. *[62-610.830(1) and (4)]*

Monitoring Site Number	Name of Storage Lake/Description of Monitoring Location	Control Elevation (ft. M.S.L.)	Receiving Water Body
STM-1	Golf Course/Stormwater Outfall	24.5	St. Johns River

12. The Department adopted a Basin Management Action Plan (BMAP) for the Indian River North BMAP on February 17, 2021. This permit has been revised to include an annual average limit of 10.0 mg/l of Total Nitrogen and 6.0 mg/l of Total Phosphorus in the reclaimed water. [FDEP Final Order 21-0082]

13. During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to direct reclaimed water to Reuse System R-002. Such reclaimed water shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.8.:

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (wetlands from WRF)	MGD	Max Max	2.5 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-11	See I.B.16

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	5.0 6.25 7.5 10.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFA-1	
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	5.0 6.25 7.5 10.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFA-2	
Solids, Total Suspended	mg/L	Max Max Max Max	5.0 6.25 7.5 10.0	Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFA-1	
Solids, Total Suspended	mg/L	Max Max Max Max	5.0 6.25 7.5 10.0	Single Sample Annual Average Monthly Average Weekly Average Single Sample	5 Days/Week	24-hr FPC	EFA-2	
Coliform, Fecal	#/100mL	Max Max Max	200 200 800	Annual Average Monthly Geometric Mean Single Sample	5 Days/Week	Grab	EFA-1	See I.B.17
Coliform, Fecal	#/100mL	Max Max Max	200 200 800	Annual Average Monthly Geometric Mean Single Sample	5 Days/Week	Grab	EFA-2	See I.B.17
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFA-1	See I.B.15
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFA-2	See I.B.15
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	Continuous	Meter	EFA-1	See I.B.18 and I.B.15
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	Continuous	Meter	EFA-2	See I.B.18 and I.B.15
Nitrogen, Total	mg/L	Max Max Max Max	6.0 7.5 9.0 12.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	24-hr FPC	EFA-1	
Nitrogen, Total	mg/L	Max Max Max Max	6.0 7.5 9.0 12.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	24-hr FPC	EFA-2	
Phosphorus, Total (as P)	mg/L	Max Max Max Max	0.75 0.94 1.125 1.5	Annual Average Monthly Average Weekly Average Single Sample	Weekly	24-hr FPC	EFA-1	
Phosphorus, Total (as P)	mg/L	Max Max Max Max	0.75 0.94 1.125 1.5	Annual Average Monthly Average Weekly Average Single Sample	Weekly	24-hr FPC	EFA-2	
Flow (from storage ponds to wetlands)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-12	See IV.A.4

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (from wetlands to storage ponds)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-13	See IV.A.4

14. Reclaimed water samples shall be taken at the monitoring site locations listed in Permit Condition I.B.13. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-11	Total flow to wetlands
EFA-1	Effluent from the Caroussel Process CCC
EFA-2	Final effluent from the IFAs Process CCC
FLW-12	Total flow from storage ponds to wetlands
FLW-13	Total flow from wetlands to storage ponds

15. Hourly measurement of pH and total residual chlorine for disinfection during the period of required operator attendance may be substituted for continuous measurement. *[62-600.660(1)]*

16. A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-600.200(25)]*

17. The effluent limitation for the monthly geometric mean for fecal coliform is only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly geometric mean shall be calculated and reported on the Discharge Monitoring Report to be used to calculate the annual average. All other fecal coliform effluent limitations included in permit condition I.B.13 apply regardless of the number of values reported. *[62-600.440(5)(b)]*

18. Total residual chlorine must be maintained for a minimum contact time of 15 minutes based on peak hourly flow. *[62-610.410][62-600.440(5)(c) and (6)(b)]*

C. Other Limitations and Monitoring and Reporting Requirements

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the treatment facility shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.C.8.:

			Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (Total Through Plant)	MGD	Max Max Max	12.0 Report Report	Annual Average 3-Month Rolling Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-1	See I.C.4
Percent Capacity, (TMADF/Permitted Capacity) x 100	percent	Max	Report	Monthly Average	Monthly	Calculated	CAL-1	
BOD, Carbonaceous 5 day, 20C (Influent)	mg/L	Max	Report	Single Sample	5 Days/Week	24-hr FPC	INF-1	See I.C.3

			Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Solids, Total Suspended (Influent)	mg/L	Max	Report	Single Sample	5 Days/Week	24-hr FPC	INF-1	See I.C.3
Rainfall	in	Max	Report	Single Sample	Daily; 24 hours	Meter	OTH-1	

2. Samples shall be taken at the monitoring site locations listed in Permit Condition I.C.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-1	Total flow through plant
CAL-1	Calculated from FLW-1
INF-1	Influent to headworks mechanical bar screen
OTH-1	Rain Gauge

3. Influent samples shall be collected so that they do not contain digester supernatant or return activated sludge, or any other plant process recycled waters. *[62-600.660(4)(a)]*

4. A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-600.200(25)]*

5. Sampling results for giardia and cryptosporidium shall be reported on DEP Form 62-610.300(4)(a)4, Pathogen Monitoring, which is attached to this permit. This form shall be submitted to the Department's Central District Office and to DEP's Wastewater Management Program in Tallahassee. *[62-610.300(4)(a)]*

6. The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-600, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (November 10, 2020)" is available at https://floridadep.gov/dear/quality-assurance/content/quality-assurance-resources. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

   a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

   b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and

   c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

   When the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

   Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the

laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above-referenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. *[62-4.246, 62-160]*

7. The permittee shall provide safe access points for obtaining representative samples which are required by this permit. *[62-600.650(2)]*

8. **Monitoring requirements under this permit are effective on September 1, 2021.** Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e. monthly, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Unless specified otherwise in this permit, monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below. DMRs shall be submitted for each required monitoring period including periods of no discharge.

REPORT Type on DMR	Monitoring Period	Submit by
Monthly	first day of month - last day of month	28th day of following month
Once Every Two Months	January 1 - February 28/29 March 1 - April 30 May 1 - June 30 July 1 - August 31 September 1 - October 31 November 1 - December 31	March 28 May 28 July 28 September 28 November 28 January 28
Quarterly	January 1 - March 31 April 1 - June 30 July 1 - September 30 October 1 - December 31	April 28 July 28 October 28 January 28
Semiannual	January 1 - June 30 July 1 - December 31	July 28 January 28
Annual	January 1 - December 31	January 28

The permittee shall use the electronic DMR system approved by the Department (EzDMR) and shall electronically submit the completed DMR forms using the DEP Business Portal at https://www.fldepportal.com/go/, unless the permittee has a waiver from the Department in accordance with 40 CFR 127.15. Reports shall be submitted to the Department by the twenty-eighth (28th) of the month following the month of operation.

[62-620.610(18)][62-600.680(1)]

9. During the period of operation authorized by this permit, reclaimed water or effluent shall be monitored annually for the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., (except for asbestos, total coliform, color, odor, and residual disinfectants). These monitoring results shall be reported to the Department annually on the DMR. During years when a permit is not renewed, a certification stating that no new non-domestic wastewater dischargers have been added to the collection system since the last reclaimed water or effluent analysis was conducted may be submitted with the signed DMR in lieu of performing the analysis. When such a certification is submitted with the DMR, monitoring not required this period should be noted on the DMR. The annual reclaimed water or effluent analysis report, and certification if applicable, shall be completed and submitted in a timely manner so as to be received by the Department at the address identified on the DMR by January 28 of each year. Approved analytical methods identified in Rule 62-620.100(3)(j), F.A.C., shall be used for the analysis. If no method is included for a parameter, methods specified in Chapter 62-550, F.A.C., shall be used. *[62-600.660(2) and (3)(d)][62-600.680(2)][62-610.300(4)]*

10. The permittee shall submit an Annual Reuse Report using DEP Form 62-610.300(4)(a)2. on or before January 1 of each year. *[62-610.870(3)]*

11. Operating protocol(s) shall be reviewed and updated periodically to ensure continuous compliance with the minimum treatment and disinfection requirements. Updated operating protocols shall be submitted to the Department's Central District Office for review and approval upon revision of the operating protocol(s) and with each permit application. *[62-610.320(6)][62-610.463(2)]*

12. The permittee shall maintain an inventory of storage systems. The inventory shall be submitted to the Department's Central District Office at least 30 days before reclaimed water will be introduced into any new storage system. The inventory of storage systems shall be attached to the annual submittal of the Annual Reuse Report. *[62-610.464(5)]*

13. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Central District Office at the address specified below:

    Electronic submittal is preferred, by sending to DEP_CD@dep.state.fl.us.

    Florida Department of Environmental Protection
    Central District
    3319 Maguire Blvd
    Suite 232
    Orlando, Florida 32803-3767

    Phone Number - (407) 897-4100

    [62-620.305]

14. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. *[62-620.305]*

II. BIOSOLIDS MANAGEMENT REQUIREMENTS

A. Basic Requirements

1. Biosolids generated by this facility may be transferred to DEP approved Biosolids Treatment Facility or disposed of in a Class I solid waste landfill. Transferring biosolids to an alternative biosolids treatment facility does not require a permit modification. However, use of an alternative biosolids treatment facility requires submittal of a copy of the agreement pursuant to Rule 62-640.880(1)(c), F.A.C., along with a written notification to the Department at least 30 days before transport of the biosolids. *[62-620.320(6), 62-640.880(1)]*

2. The permittee shall monitor and keep records of the quantities of biosolids generated, received from source facilities, treated, distributed and marketed, land applied, used as a biofuel or for bioenergy, transferred to another facility, or landfilled. These records shall be kept for a minimum of five years. *[62-640.650(4)(a)]*

3. Biosolids quantities shall be monitored by the permittee as specified below. Results shall be reported on the permittee's Discharge Monitoring Report for Monitoring Group RMP-Q in accordance with Condition I.C.8.

			Biosolids Limitation		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Biosolids Quantity (Landfilled)	dry tons	Max	Report	Monthly Total	Monthly	Calculated	RMP-1	
Biosolids Quantity (Received)	dry tons	Max	Report	Monthly Total	Monthly	Calculated	RMP-1	

			Biosolids Limitation		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Biosolids Quantity (Transferred)	dry tons	Max	Report	Monthly Total	Monthly	Calculated	RMP-1	

[62-640.650(5)(a)1]

4. Biosolids quantities shall be calculated as listed in Permit Condition II.3 and as described below:

Monitoring Site Number	Description of Monitoring Site Calculations
RMP-1	Biosolids leaving the facility based on estimated percent solids and volume or actual truck weight. Calculated and reported in dry tons.

5. The treatment, management, transportation, use, land application, or disposal of biosolids shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. *[62-640.400(6)]*

6. Storage of biosolids or other solids at this facility shall be in accordance with the Facility Biosolids Storage Plan. *[62-640.300(4)]*

7. Biosolids shall not be spilled from or tracked off the treatment facility site by the hauling vehicle. *[62-640.400(9)]*

B. Disposal

1. Disposal of biosolids, septage, and "other solids" in a solid waste disposal facility, or disposal by placement on land for purposes other than soil conditioning or fertilization, such as at a monofill, surface impoundment, waste pile, or dedicated site, shall be in accordance with Chapter 62-701, F.A.C. *[62-640.100(6)(b) & (c)]*

C. Transfer

1. The permittee shall not be held responsible for treatment and management violations that occur after its biosolids have been accepted by a permitted biosolids treatment facility with which the source facility has an agreement in accordance with subsection 62-640.880(1)(c), F.A.C., for further treatment, management, or disposal. *[62-640.880(1)(b)]*

2. The permittee shall keep hauling records to track the transport of biosolids between the facilities. The hauling records shall contain the following information:

Source Facility
1. Date and time shipped
2. Amount of biosolids shipped
3. Degree of treatment (if applicable)
4. Name and ID Number of treatment facility
5. Signature of responsible party at source facility
6. Signature of hauler and name of hauling firm

Biosolids Treatment Facility or Treatment Facility
1. Date and time received
2. Amount of biosolids received
3. Name and ID number of source facility
4. Signature of hauler
5. Signature of responsible party at treatment facility

A copy of the source facility hauling records for each shipment shall be provided upon delivery of the biosolids to the biosolids treatment facility or treatment facility. The treatment facility permittee shall report to the Department within 24 hours of discovery any discrepancy in the quantity of biosolids leaving the source facility and arriving at the biosolids treatment facility or treatment facility.

[62-640.880(4)]

D. Receipt

1. The permittee shall be responsible for proper treatment, management, and disposition of biosolids accepted from source facilities. *[62-640.880(1)(a)]*

2. The permittee shall enter into a written agreement with each source facility that it intends to receive biosolids from. The agreement shall address the quality and quantity of the biosolids accepted by the permittee. The agreement shall include a statement, signed by the permittee, as to the availability of sufficient permitted capacity to receive the biosolids from the source facility, and indicating that the permittee will continue to operate in compliance with the requirements of its permit. The agreement shall also address responsibility during transport of biosolids between the facilities. The permittee shall submit a copy of this agreement to the Department's Central District Office at least 30 days before transporting biosolids from the source facility to the permittee. *[62-640.880(1)(c)]*

III. GROUND WATER REQUIREMENTS

A. Construction Requirements

1. The permittee shall give at least 72-hour notice to the Department's Central District Office, prior to the installation of any monitoring wells. *[62-520.600(6)(h)]*

2. Before construction of new ground water monitoring wells, a soil boring shall be made at each new monitoring well location to properly determine monitoring well specifications such as well depth, screen interval, screen slot, and filter pack. *[62-520.600(6)(g)]*

3. Within 30 days after installation of a monitoring well, the permittee shall submit to the Department's Central District Office well completion reports and soil boring/lithologic logs on the attached DEP Form(s) 62-520.900(3), Monitoring Well Completion Report. *[62-520.600(6)(j) and .900(3)]*

4. All piezometers and monitoring wells not part of the approved ground water monitoring plan shall be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C., unless future use is intended. *[62-532.500(5)]*

B. Operational Requirements

1. For the Part II land application system(s), all ground water quality criteria specified in Chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge. The zone of discharge for Land Application Site R-002 shall extend horizontally 100 feet from the application site and vertically to the base of the surficial aquifer. *[62-520.200(27)] [62-520.465]*

2. For the Part III Public Access system, all ground water quality criteria specified in Chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge. The zone of discharge shall extend horizontally 100 feet from the application site(s) or to the property boundaries, whichever is less, and vertically to the base of the surficial aquifer. *[62-520.200(27)] [62-520.465]*

3. The ground water minimum criteria specified in Rule 62-520.400 F.A.C., shall be met within the zone of discharge. *[62-520.400 and 62-520.420(4)]*

4. If the concentration for any constituent listed in Permit Condition III.7. and III.9. in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative background quality shall be the prevailing standard. *[62-520.420(2)]*

5. During the period of operation authorized by this permit, the permittee shall continue to sample ground water at the monitoring wells identified in Permit Conditions III.6. and III.8., below in accordance with this permit and

the approved ground water monitoring plan prepared in accordance with Rule 62-520.600, F.A.C. *[62-520.600] [62-610.412] [62-610.463]*

6. The following monitoring wells shall be sampled for Reuse System R-001.

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Latitude	Longitude	Depth (Feet)	Aquifer Monitored	Well Type	New or Existing
MWB-1	Background well @ Duran Golf Course	28°14' 14"	80°44' 5"	24	Surficial	Background	Existing
MWC-1	Compliance well @ Duran Golf Course site	28°14' 22"	80°43' 57"	17	Surficial	Compliance	Existing
MWC-2	Compliance well @ Duran Golf Course Site	28°14' 11"	80°44' 26"	23	Surficial	Compliance	Existing
MWC-3	Compliance well @ Duran Golf Course Site	28°14' 51"	80°44' 34"	23	Surficial	Compliance	Existing
MWC-5-SOD	GW-5 COMPLIANCE	28°14' 3"	80°45' 33"	16	Surficial	Compliance	Existing
MWC-6-SOD	GW-6 COMPLIANCE	28°14' 2"	80°45' 18"	16	Surficial	Compliance	Existing

[62-520.600] [62-610.463]

7. The following parameters shall be analyzed for each monitoring well identified in Permit Condition III.6.:

Parameter	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Water Level Relative to NGVD	Report	ft	In Situ	Quarterly
Nitrogen, Nitrate, Total (as N)	10	mg/L	Grab	Quarterly
Solids, Total Dissolved (TDS)	500	mg/L	Grab	Quarterly
Chloride (as Cl)	250	mg/L	Grab	Quarterly
Coliform, Fecal	4	#/100mL	Grab	Quarterly
pH	6.5-8.5	s.u.	Grab	Quarterly
Turbidity	Report	NTU	Grab	Quarterly

[62-520.600(11)(b)] [62-600.670] [62-600.650(3)] [62-520.310(5)]

8. The following monitoring wells shall be sampled for Reuse System R-002 located at Land Application Site RAA-001.

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Latitude	Longitude	Depth (Feet)	Aquifer Monitored	Well Type	New or Existing
MWB-1-WET	BCUD South Central Wetlands MW-1 Upgradient	28°13' 18"	80°45' 40"	12	Surficial	Background	Existing
MWC-2-WET	Wetlands MW-2 Compliance	28°13' 46"	80°46' 12"	14	Surficial	Compliance	Existing

[62-520.600] [62-610.412]

9. The following parameters shall be analyzed for each monitoring well identified in Permit Condition III.8.:

Parameter	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Water Level Relative to NGVD	Report	ft	In Situ	Quarterly
Nitrogen, Nitrate, Total (as N)	10	mg/L	Grab	Quarterly

Parameter	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Solids, Total Dissolved (TDS)	500	mg/L	Grab	Quarterly
Chloride (as Cl)	250	mg/L	Grab	Quarterly
Coliform, Fecal	4	#/100mL	Grab	Quarterly
pH	6.5-8.5	s.u.	Grab	Quarterly
Turbidity	Report	NTU	Grab	Quarterly

[62-520.600(11)(b)] [62-600.670] [62-600.650(3)] [62-520.310(5)]

10. Water levels shall be recorded before evacuating each well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NAVD allowable) at a precision of plus or minus 0.01 foot. *[62-520.600(11)(c)] [62-610.412(2)(c)] [62-610.463(3)(a)]*

11. Ground water monitoring wells shall be purged prior to sampling to obtain representative samples. *[62-160.210] [62-600.670(3)]*

12. Analyses shall be conducted on unfiltered samples, unless filtered samples have been approved by the Department's Central District Office as being more representative of ground water conditions. *[62-520.310(5)]*

13. Ground water monitoring test results shall be submitted on Part D of Form 62-620.910(10) in accordance with Permit Condition I.C.8. *[62-520.600(11)(b)] [62-600.670] [62-600.680(1)] [62-620.610(18)]*

14. If any monitoring well becomes inoperable or damaged to the extent that sampling or well integrity may be affected, the permittee shall notify the Department's Central District Office within two business days from discovery, and a detailed written report shall follow within ten days after notification to the Department. The written report shall detail what problem has occurred and remedial measures that have been taken to prevent recurrence or request approval for replacement of the monitoring well. All monitoring well design and replacement shall be approved by the Department's Central District Office before installation. *[62-520.600(6)(l)]*

15. The permittee shall sample the following monitoring well(s): MW-5-SOD for the primary and secondary drinking water parameters included in Rules 62-550.310 and 62-550.320, F.A.C., (except for asbestos and all parameters in Table 5 of Chapter 62-550, F.A.C., other than Di(2-ethylhexyl) adipate and Di(2-ethylhexyl) phthalate). Results of this sampling shall be submitted to the Department's Central District Office with the application for permit renewal. Sampling shall occur no sooner than 180 days before submittal of the renewal application. *[62-520.600(5)(b)]*

IV. ADDITIONAL REUSE AND LAND APPLICATION REQUIREMENTS

A. Part II Slow-Rate/Restricted Access System(s) – Created Wetlands (D-002)

1. The permittee shall ensure restricted public access control to the created wetlands area and ensure that those persons who enter the area are informed of the nature of the system. Advisory signs shall be posted around the site boundaries to designate the nature of the project area. *[62-600.440(5)(g)2] [62-611.600(6)]*

2. For this created, managed wetlands treatment/reuse system, persons knowledgeable in these disciplines are needed to make technical management decisions from theory and actual experience. *[62-4.070(3)]*

3. The created wetlands may be augmented with groundwater during periods of insufficient reclaimed water supply (high public access reuse demand) to keep the wetlands hydrated and plants viable, contingent upon receipt of appropriate permit(s) from the St. John’s River Water Management District for use of groundwater in the wetlands. *[62-4.070(3)]*

4. The created wetlands may be augmented with water from the 100 million gallon storage ponds during periods of insufficient reclaimed water supply (high public access reuse demand) to keep the wetlands hydrated and plants viable, contingent upon maintaining compliance with the reclaimed water and effluent limitations

contained in Part I.A.1. of this permit, or water from the wetland may be sent to the storage pond as an alternative to discharging to surface waters.

B. Part III Public Access System(s) – R-001

1. Use of reclaimed water is authorized within the general service area identified in the attached map. The following uses of reclaimed water are authorized within this general service area:

   Residential Developments
   Golf Courses
   Athletic Complexes and Parks
   Other Landscape Irrigation

   [62-620.630(10)(a)]

2. This reuse system includes the following major user(s) of reclaimed water (i.e., using 0.1 MGD or more) and general service area(s):

Site Number	User Name	User Type	Capacity (MGD)	Acreage
PAA-001A	R-001 site Baytree G.C.	Golf Courses	0.410	103
PAA-001B	R-001 site Indian River Colony Club G.C.	Golf Courses	0.730	220
PAA-001C	R-001 site Duran Golf Courses	Golf Courses	0.380	136
PAA-001E	Viera East Golf Course	Golf Courses	0.290	100
		Total	1.81	559

   [62-610.800(5)][62-620.630(10)(b)]

3. New major users of reclaimed water (i.e., using 0.1 MGD or more) may be added to the reuse system using the general permit described in Rule 62-610.890, F.A.C., if the requirements in this rule are complied with. Application for use of this general permit shall be made using Form 62-610.300(4)(a)1. *[62-610.890]*

4. Cross-connections to the potable water system are prohibited. *[62-610.469(7)]*

5. A cross-connection control program shall be implemented and/or remain in effect within the areas where reclaimed water will be provided for use and shall be in compliance with the Rule 62-555.360, F.A.C. *[62-610.469(7)]*

6. The permittee shall conduct inspections within the reclaimed water service area to verify proper connections, to minimize illegal cross-connections, and to verify both the proper use of reclaimed water and that the proper backflow prevention assemblies or devices have been installed and tested. Inspections are required when a customer first connects to the reuse distribution system. Subsequent inspections are required as specified in the cross-connection control and inspection program. *[62-610.469(7)(h)]*

7. If an actual or potential (e.g. no dual check device on residential connections served by a reuse system) cross-connection between the potable and reclaimed water systems is discovered, the permittee shall:

   a. Immediately discontinue potable water and/or reclaimed water service to the affected area if an actual cross-connection is discovered.

   b. If the potable water system is contaminated, clear the potable water lines.

   c. Eliminate the cross-connection and install a backflow prevention device as required by the Rule 62-555.360.F.A.C.

d. Test the affected area for other possible cross-connections.

e. Within 24 hours, notify the Department's Central District Office's domestic wastewater and drinking water programs.

f. Within 5 days of discovery of an actual or potential cross-connection, submit a written report to the Department's Central District Office detailing: a description of the cross-connection, how the cross-connection was discovered, the exact date and time of discovery, approximate time that the cross-connection existed, the location, the cause, steps taken to eliminate the cross-connection, whether reclaimed water was consumed, and reports of possible illness, whether the drinking water system was contaminated and the steps taken to clear the drinking water system, when the cross-connection was eliminated, plan of action for testing for other possible cross-connections in the area, and an evaluation of the cross-connection control and inspection program to ensure that future cross-connections do not occur.

[62-555.360][62-620.610(20)]

8. Maximum obtainable separation of reclaimed water lines and potable water lines shall be provided and the minimum separation distances specified in Rule 62-610.469(7), F.A.C., shall be provided. Reuse facilities shall be color coded or marked. Underground piping which is not manufactured of metal or concrete shall be color coded using Pantone Purple 522C using light stable colorants. Underground metal and concrete pipe shall be color coded or marked using purple as the predominant color. *[62-610.469(7)]*

9. In constructing reclaimed water distribution piping, the permittee shall maintain a 75-foot setback distance from a reclaimed water transmission facility to public water supply wells. No setback distances are required to other potable water supply wells or to any nonpotable water supply wells. *[62-610.471(3)]*

10. A setback distance of 75 feet shall be maintained between the edge of the wetted area and potable water supply wells, unless the utility adopts and enforces an ordinance prohibiting potable water supply wells within the reuse service area. No setback distances are required to any nonpotable water supply well, to any surface water, to any developed areas, or to any private swimming pools, hot tubs, spas, saunas, picnic tables, barbecue pits, or barbecue grills. *[62-610.471(1), (2), (5), and (7)]*

11. Reclaimed water shall not be used to fill swimming pools, hot tubs, or wading pools. *[62-610.469(4)]*

12. Low trajectory nozzles, or other means to minimize aerosol formation shall be used within 100 feet from outdoor public eating, drinking, or bathing facilities. *[62-610.471(6)]*

13. A setback distance of 100 feet shall be maintained from indoor aesthetic features using reclaimed water to adjacent indoor public eating and drinking facilities. *[62-610.471(8)]*

14. The public shall be notified of the use of reclaimed water. This shall be accomplished by posting of advisory signs in areas where reuse is practiced, notes on scorecards, or other methods. *[62-610.468(2)]*

15. All new advisory signs and labels on vaults, service boxes, or compartments that house hose bibbs along with all labels on hose bibbs, valves, and outlets shall bear the words "do not drink" and "no beber" along with the equivalent standard international symbol. In addition to the words "do not drink" and "no beber," advisory signs posted at storage ponds and decorative water features shall also bear the words "do not swim" and "no nadar" along with the equivalent standard international symbols. Existing advisory signs and labels shall be retrofitted, modified, or replaced in order to comply with the revised wording requirements. For existing advisory signs and labels this retrofit, modification, or replacement shall occur within 365 days after the date of this permit. For labels on existing vaults, service boxes, or compartments housing hose bibbs this retrofit, modification, or replacement shall occur within 730 days after the date of this permit. *[62-610.468, 62-610.469]*

16. The permittee shall ensure that users of reclaimed water are informed about the origin, nature, and characteristics of reclaimed water; the manner in which reclaimed water can be safely used; and limitations on the use of reclaimed water. Notification is required at the time of initial connection to the reclaimed water

distribution system and annually after the reuse system is placed into operation. A description of on-going public notification activities shall be included in the Annual Reuse Report. *[62-610.468(6)]*

17. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required. *[62-610.414(8)]*

18. Overflows from emergency discharge facilities on storage ponds shall be reported as abnormal events in accordance with Permit Condition IX.20. *[62-610.800(9)]*

Supplemental Water Supplies - Discharge of Stormwater into the Sewerage System

19. Introduction of stormwater into the sewerage system shall be limited to dry-weather, low-flow conditions in the sanitary sewerage system. *[62-610.472(3)(c)]*

V. OPERATION AND MAINTENANCE REQUIREMENTS

A. Staffing Requirements

1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of one or more operators certified in accordance with Chapter 62-602, F.A.C. In accordance with Chapter 62-699, F.A.C., this facility is a Category I, Class A facility and, at a minimum, operators with appropriate certification must be on the site as follows:

   A Class C or higher operator 6 hours/day for 7 days/week. The lead/chief operator must be a Class A operator, or higher.

   [62-620.630(3)][62-699.310] [62-610.462]

2. The lead/chief operator shall be employed at the plant full time. "Full time" shall mean at least 4 days per week, working a minimum of 35 hours per week, including leave time. A licensed operator shall be on-site and in charge of each required shift for periods of required staffing time when the lead/chief operator is not on-site. An operator meeting the lead/chief operator class for the treatment plant shall be available during all periods of plant operation. "Available" means able to be contacted as needed to initiate the appropriate action in a timely manner. *[62-699.311(10), (6) and (1)]*

3. An operator meeting the lead/chief operator class for the plant shall be available during all periods of plant operation. "Available" means able to be contacted as needed to initiate the appropriate action in a timely manner. *[62-699.311(1)]*

B. Capacity Analysis Report and Operation and Maintenance Performance Report Requirements

1. The application to renew this permit shall include an updated capacity analysis report prepared in accordance with Rule 62-600.405, F.A.C. *[62-600.405(5)]*

2. The application to renew this permit shall include a detailed operation and maintenance performance report prepared in accordance with Rule 62-600.735, F.A.C. *[62-600.735(1)]*

C. Recordkeeping Requirements

1. The permittee shall maintain the following records and make them available for inspection at the following address: on the site of the permitted facility.

   a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings or electronic monitoring and recording for continuous monitoring

instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

b. Copies of all reports required by this permit for at least three years from the date the report was prepared;

c. Records of all data, including reports and documents, used to complete the application for this permit for at least three years from the date the application was filed;

d. Monitoring information, including a copy of the laboratory certification showing the laboratory certification number, related to the residuals use and disposal activities for the time period set forth in Chapter 62-640, F.A.C., for at least three years from the date of sampling or measurement;

e. A copy of the current wastewater facility permit;

f. Copies of the current operation and maintenance manuals for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee as required by Chapters 62-600 and 62-604, F.A.C.;

g. A copy of any required record drawings for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee;

h. Copies of the licenses of the current certified operators;

i. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules. The logs shall, at a minimum, include identification of the plant; the signature and license number of the operator(s) and the signature of the person(s) making any entries; date and time in and out; specific operation and maintenance activities, including any preventive maintenance or repairs made or requested; results of tests performed and samples taken, unless documented on a laboratory sheet; and notation of any notification or reporting completed in accordance with Rule 62-602.650(3), F.A.C. The logs shall be maintained on-site in a location accessible to 24-hour inspection, protected from weather damage, and current to the last operation and maintenance performed; and

j. Records of biosolids quantities, treatment, monitoring, and hauling for at least five years.

[62-620.350, 62-604.500, 62-602.650, 62-640.650(4)]

VI. SCHEDULES

1. In accordance with section 403.088(2)(e) and (f), Florida Statutes, a compliance schedule for this facility is contained in Consent Order OGC #21-0180, which is hereby incorporated by reference.

2. The following improvement actions shall be completed according to the following schedule:

Improvement Action	Completion Date
1. Develop a collection system operation and maintenance manual in accordance with permit condition VIII. 6	Within 8 months of permit issuance

[62-620.320(6)]

3. The permittee is not authorized to discharge to waters of the state after the expiration date of this permit, unless:

   a. The permittee has applied for renewal of this permit at least 180 days before the expiration date of this permit using the appropriate forms listed in Rule 62-620.910, F.A.C., and in the manner established in the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.; or

   b. The permittee has made complete the application for renewal of this permit before the permit expiration date.

VII. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

1. This facility is not required to have a pretreatment program at this time. *[62-625.500]*

VIII. OTHER SPECIFIC CONDITIONS

1. The permittee shall comply with all conditions and requirements for reuse contained in their consumptive use permit issued by the Water Management District, if such requirements are consistent with Department rules. *[62-610.800(10)]*

2. In the event that the wastewater facilities or equipment, including collection/transmission systems, no longer function as intended, are no longer safe in terms of public health and safety (including inactive or abandoned facilities), or odor, noise, aerosol drift, or lighting adversely affects neighboring developed areas at the levels prohibited by paragraphs 62-600.400(2)(a) and 62-604.400(2)(c), F.A.C., corrective action (which may include additional maintenance or modifications of the permitted facilities) shall be taken by the permittee. Other corrective action may be required to ensure compliance with rules of the Department. Additionally, the treatment, management, use or land application of residuals shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. *[62-600.410(5), 62-604.500(3) and 62-640.400(6)]*

3. All collection/transmission systems shall be operated and maintained so as to provide uninterrupted service. *[62-604.500(2)]*

4. The deliberate introduction of stormwater in any amount into collection/transmission systems designed solely for the introduction (and conveyance) of domestic/industrial wastewater; or the deliberate introduction of stormwater into collection/transmission systems designed for the introduction or conveyance of combinations of storm and domestic/industrial wastewater in amounts which may reduce the efficiency of pollutant removal by the treatment plant is prohibited, except as provided by Rule 62-610.472, F.A.C. *[62-604.130(4)]*

5. Cross-connection, as defined in Rule 62-550.200, F.A.C., between the wastewater facility, including the collection/transmission system, and a potable water system is prohibited. *[62-550.360][62-604.130(3)]*

6. The collection/transmission operation and maintenance manual shall be maintained and revised periodically in accordance with subsection 62-604.500(4), F.A.C., to reflect any alterations performed or to reflect experience resulting from operation. However, a new operation and maintenance manual is not required to be developed for each project if there is already an existing manual that is applicable to the facilities being constructed. *[62-604.500(4)]*

7. Collection/transmission system overflows shall be reported to the Department in accordance with Permit Condition IX. 20. *[62-604.550] [62-620.610(20)]*

8. The operating authority of a collection/transmission system and the permittee of a treatment plant are prohibited from accepting connections of wastewater discharges which have not received necessary pretreatment or which contain materials or pollutants (other than normal domestic wastewater constituents):

   a. Which may cause fire or explosion hazards; or

   b. Which may cause excessive corrosion or other deterioration of wastewater facilities due to chemical action or pH levels; or

   c. Which are solid or viscous and obstruct flow or otherwise interfere with wastewater facility operations or treatment; or

   d. Which result in the wastewater temperature at the introduction of the treatment plant exceeding $40^{o}C$ or otherwise inhibiting treatment; or

   e. Which result in the presence of toxic gases, vapors, or fumes that may cause worker health and safety problems.

[62-604.130(5)]

9. The treatment facility, storage ponds for Part II systems, rapid infiltration basins, and/or infiltration trenches shall be enclosed with a fence or otherwise provided with features to discourage the entry of animals and unauthorized persons. *[62-610.418(1) and 62-600.400(2)(b)]*

10. Screenings and grit removed from the wastewater facilities shall be collected in suitable containers and hauled to a Department approved Class I landfill or to a landfill approved by the Department for receipt/disposal of screenings and grit. *[62-701.300(1)(a)]*

11. Where required by Chapter 471 or Chapter 492, F.S., applicable portions of reports that must be submitted under this permit shall be signed and sealed by a professional engineer or a professional geologist, as appropriate. *[62-620.310(4)]*

12. The permittee shall provide verbal notice to the Department's Central District Office as soon as practical after discovery of a sinkhole or other karst feature within an area for the management or application of wastewater, wastewater residuals (sludges), or reclaimed water. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department's Central District Office in a written report within 7 days of the sinkhole discovery. *[62-620.320(6)]*

13. The permittee shall provide notice to the Department of the following:

    a. Any new introduction of pollutants into the facility from an industrial discharger which would be subject to Chapter 403, F.S., and the requirements of Chapter 62-620, F.A.C., if it were directly discharging those pollutants; and

    b. Any substantial change in the volume or character of pollutants being introduced into that facility by a source which was identified in the permit application and known to be discharging at the time the permit was issued.

    Notice shall include information on the quality and quantity of effluent introduced into the facility and any anticipated impact of the change on the quantity or quality of effluent or reclaimed water to be discharged from the facility. If pretreatment becomes necessary, this permit may be modified to require the permittee to develop and implement a local pretreatment program in accordance with the requirements of Chapter 62-625, F.A.C.

[62-620.625(2)]

IX. GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida Statutes, and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1)]*

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviations from the approved drawings, exhibits, specifications, or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. *[62-620.610(2)]*

3. As provided in subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. *[62-620.610(3)]*

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. *[62-620.610(4)]*

5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5)]*

6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6)]*

7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7)]*

8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8)]*

9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to:

    a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;

    b. Have access to and copy any records that shall be kept under the conditions of this permit;

    c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and

    d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

    [62-620.610(9)]

10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10)]*

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11)]*

12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12)]*

13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13)]*

14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. *[62-620.610(14)]*

15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility or activity and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15)]*

16. The permittee shall apply for a revision to the Department permit in accordance with Rules 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16)]*

17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

    a. A description of the anticipated noncompliance;

    b. The period of the anticipated noncompliance, including dates and times; and

    c. Steps being taken to prevent future occurrence of the noncompliance.

    [62-620.610(17)]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246 and Chapters 62-160, 62-600, and 62-610, F.A.C., and 40 CFR 136, as appropriate.

    a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.

    b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

    c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.

    d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.

e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.

f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220, and 62-160.330, F.A.C.

[62-620.610(18)]

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19)]*

20. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance 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 noncompliance. For noncompliance events related to sanitary sewer overflows or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (sanitary sewer overflows or bypass events), type of sewer overflow (e.g., manhole), discharge volumes by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. The written submission may be provided electronically using the Department's Business Portal at http://www.fldepportal.com/go/ (via "Submit" followed by "Report" or "Registration/Notification"). Notice required under paragraph (d) may be provided together with the written submission using the Business Portal. All noncompliance events related to sanitary sewer overflows or bypass events submitted after December 21, 2020 shall be submitted electronically.

(a) The following shall be included as information which must be reported within 24 hours under this condition:
1. Any unanticipated bypass which causes any reclaimed water or the effluent to exceed any permit limitation or results in an unpermitted discharge,
2. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
3. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
4. Any unauthorized discharge to surface or ground waters.

(b) Oral reports as required by this subsection shall be provided as follows:
1. For unauthorized releases or spills of treated or untreated wastewater reported pursuant to subparagraph (a)4. that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WATCH OFFICE TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Watch Office:
a. Name, address, and telephone number of person reporting;
b. Name, address, and telephone number of permittee or responsible person for the discharge;
c. Date and time of the discharge and status of discharge (ongoing or ceased);
d. Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
e. Estimated amount of the discharge;
f. Location or address of the discharge;
g. Source and cause of the discharge;
h. Whether the discharge was contained on-site, and cleanup actions taken to date;
i. Description of area affected by the discharge, including name of water body affected, if any; and
j. Other persons or agencies contacted.

2. Oral reports, not otherwise required to be provided pursuant to subparagraph (b)1. above, shall be provided to the Department within 24 hours from the time the permittee becomes aware of the circumstances.

(c) If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department shall waive the written report.

(d) In accordance with Section 403.077, F.S., unauthorized releases or spills reportable to the StateWatch Office pursuant to subparagraph (b)1. above shall also be reported to the Department within 24 hours from the time the permittee becomes aware of the discharge. The permittee shall provide to the Department information reported to the State Watch Office. Notice of unauthorized releases or spills may be provided to the Department through the Department's Public Notice of Pollution web page at https://floridadep.gov/pollutionnotice.

1. If, after providing notice pursuant to paragraph (d) above, the permittee determines that a reportable unauthorized release or spill did not occur or that an amendment to the notice is warranted, the permittee may submit additional notice to the Department documenting such determination.
2. If, after providing notice pursuant to paragraph (d) above, the permittee discovers that a reportable unauthorized release or spill has migrated outside the property boundaries of the installation, the permittee must provide an additional notice to the Department that the release has migrated outside the property boundaries within 24 hours after its discovery of the migration outside of the property boundaries.

[62-620.610(20)] [62-620.100(3)] [403.077, F.S.]

21. The permittee shall report all instances of noncompliance not reported under Permit Conditions IX.17., IX.18., or IX.19. of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Permit Condition IX.20. of this permit. *[62-620.610(21)]*

22. Bypass Provisions.

a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment works.

b. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(2) There were no 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

(3) The permittee submitted notices as required under Permit Condition IX.22.c. of this permit.

c. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Permit Condition IX.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

d. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Permit Condition IX.22.b.(1) through (3) of this permit.

e. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Permit Condition IX.22.b. through d. of this permit.

[62-620.610(22)]

23. Upset Provisions.

    a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee.

        (1) An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation.

        (2) An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of upset provisions of Rule 62-620.610, F.A.C., are met.

    b. A permittee 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 that the permittee can identify the cause(s) of the upset;

        (2) The permitted facility was at the time being properly operated;

        (3) The permittee submitted notice of the upset as required in Permit Condition IX.20. of this permit; and

        (4) The permittee complied with any remedial measures required under Permit Condition IX.5. of this permit.

    c. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.

    d. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

    [62-620.610(23)]

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Reggie Phillips
Program Administrator
Permitting and Waste Cleanup Program

Attachment(s):
Discharge Monitoring Report
"Pathogen Monitoring" Form
Monitor Well Completion Report
Map of the General Reuse Service Area

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed submit this report to: https://www.fldepportal.com/go/

PERMITTEE NAME:	Brevard County Utility Services Department	PERMIT NUMBER:	FL0102679-018-DW1P	**Expiration Date**	July 11, 2026
MAILING ADDRESS:	2725 Judge Fran Jamieson Way				
	BLDG. A-213	LIMIT:	Final	REPORT FREQUENCY:	Monthly
	Melbourne, Florida 32940- 6605	CLASS SIZE:	MI	PROGRAM:	Domestic
FACILITY:	BCUD/South Central Regional	MONITORING GROUP NUMBER:	D-001		
LOCATION:	10001 N Wickham Rd	MONITORING GROUP DESCRIPTION:	Surface Discharge, including Influent		
	Melbourne, FL 32940-6604	RE-SUBMITTED DMR: ☐			
		NO DISCHARGE FROM SITE: ☐			
COUNTY:	Brevard	MONITORING PERIOD From:	_____ To: _____		
OFFICE:	Central District				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow (Outfall D-001)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-9	Permit Requirement		0.990 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Outfall D-001)	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-9	Permit Requirement	Report (Day.Max.)	Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Y Mon. Site No. WEP-1	Permit Requirement					3.0 (An.Avg.)		mg/L		5 Days/Week	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 P Mon. Site No. WEP-1	Permit Requirement				6.0 (Max.)	4.5 (Max.Wk.Avg.)	3.75 (Mo.Avg.)	mg/L		5 Days/Week	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Q Mon. Site No. WEP-1	Permit Requirement		Report (Mo.Total)	lb/mth						Monthly	Calculated
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 Y Mon. Site No. WEP-1	Permit Requirement					3.0 (An.Avg.)		mg/L		5 Days/Week	Grab

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: D-001 PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 P Mon. Site No. WEP-1	Permit Requirement				6.0 (Max.)	4.5 (Max.Wk.Avg.)	3.75 (Mo.Avg.)	mg/L		5 Days/Week	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 P Mon. Site No. WEP-1	Permit Requirement						Report (Max.Wk.Avg.)	#/100mL		5 Days/Week	Grab
pH	Sample Measurement										
PARM Code 00400 P Mon. Site No. WEP-1	Permit Requirement				6.5 (Min.)		8.0 (Max.)	s.u.		Continuous	Meter
Nitrogen, Total	Sample Measurement										
PARM Code 00600 P Mon. Site No. WEP-1	Permit Requirement				2.4 (Max.Wk.Avg.)	2.0 (Mo.Avg.)	3.2 (Max.)	mg/L		Weekly	24-hr FPC
Nitrogen, Kjeldahl, Total (as N)	Sample Measurement										
PARM Code 00625 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Nitrite plus Nitrate, Total 1 det. (as N)	Sample Measurement										
PARM Code 00630 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Nitrogen, Ammonia, Total (as N) (Effluent)	Sample Measurement										
PARM Code 00610 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Nitrogen, Ammonia, Total (as N) (calculated limit)	Sample Measurement										
PARM Code 00610 Q Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	Calculated
Nitrogen, Ammonia, Total (as N) (Effluent minus calculated limit)	Sample Measurement										
PARM Code 00610 R Mon. Site No. WEP-1	Permit Requirement						0.00 (Mo.Avg.)	mg/L		Weekly	Calculated
Nitrogen, Ammonia, Total (as N)	Sample Measurement										
PARM Code 00610 S Mon. Site No. WEP-1	Permit Requirement						2.5 (Max.)	mg/L		Monthly	Calculated

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: D-001 PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 P Mon. Site No. WEP-1	Permit Requirement				0.24 (Max.Wk.Avg.)	0.2 (Mo.Avg.)	0.32 (Max.)	mg/L		Weekly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Q Mon. Site No. WEP-1	Permit Requirement		Report (Mo.Total)	lb/mth						Monthly	Calculated
Phosphate, Ortho (as P)	Sample Measurement										
PARM Code 70507 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Sulfate, Total	Sample Measurement										
PARM Code 00945 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Chloride (as Cl)	Sample Measurement										
PARM Code 00940 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Alkalinity, Total (as CaCO3)	Sample Measurement										
PARM Code 00410 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Specific Conductance	Sample Measurement										
PARM Code 00095 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	umhos/cm		Weekly	Grab
Temperature (C), Water	Sample Measurement										
PARM Code 00010 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	Deg C		Monthly	Meter
Oxygen, Dissolved (DO)	Sample Measurement										
PARM Code 00300 P Mon. Site No. WEP-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Monthly	Grab
Water Level at sample collection time	Sample Measurement										
PARM Code 85327 P Mon. Site No. WEP-1	Permit Requirement		Report (Mo.Avg.)	ft						Monthly	Meter

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed submit this report to: https://www.fldepportal.com/go/

PERMITTEE NAME:	Brevard County Utility Services Department	PERMIT NUMBER:	FL0102679-018-DW1P	**Expiration Date**	July 11, 2026
MAILING ADDRESS:	2725 Judge Fran Jamieson Way				
	BLDG. A-213	LIMIT:	Final	REPORT FREQUENCY:	Annually
	Melbourne, Florida 32940- 6605	CLASS SIZE:	MI	PROGRAM:	Domestic
FACILITY:	BCUD/South Central Regional	MONITORING GROUP NUMBER:	D-001		
LOCATION:	10001 N Wickham Rd	MONITORING GROUP DESCRIPTION:	Surface Discharge, including Influent		
	Melbourne, FL 32940-6604	RE-SUBMITTED DMR: ☐			
		NO DISCHARGE FROM SITE: ☐			
COUNTY:	Brevard	MONITORING PERIOD From:	_____ To: _____		
OFFICE:	Central District				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 P Mon. Site No. WEP-1	Permit Requirement		2000 (Max.)	lb/yr						Annually	Calculated
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 P Mon. Site No. WEP-1	Permit Requirement		46 (Max.)	lb/yr						Annually	Calculated

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed submit this report to: https://www.fldepportal.com/go/

PERMITTEE NAME:	Brevard County Utility Services Department	PERMIT NUMBER:	FL0102679-018-DW1P	**Expiration Date**	July 11, 2026
MAILING ADDRESS:	2725 Judge Fran Jamieson Way				
	BLDG. A-213	LIMIT:	Final	REPORT FREQUENCY:	Monthly
	Melbourne, Florida 32940- 6605	CLASS SIZE:	MI	PROGRAM:	Domestic
FACILITY:	BCUD/South Central Regional	MONITORING GROUP NUMBER:	R-001		
LOCATION:	10001 N Wickham Rd	MONITORING GROUP DESCRIPTION:	Public Access Reuse, with Influent		
	Melbourne, FL 32940-6604	RE-SUBMITTED DMR: ☐			
		NO DISCHARGE FROM SITE: ☐			
COUNTY:	Brevard	MONITORING PERIOD From:	_____ To: _____		
OFFICE:	Central District				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow (Public access reuse)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-10	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Public access reuse)	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-10	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Y Mon. Site No. EFA-1	Permit Requirement					20.0 (An.Avg.)		mg/L		5 Days/Week	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 A Mon. Site No. EFA-1	Permit Requirement				60.0 (Max.)	45.0 (Max.Wk.Avg.)	30.0 (Mo.Avg.)	mg/L		5 Days/Week	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 P Mon. Site No. EFA-2	Permit Requirement					20.0 (An.Avg.)		mg/L		5 Days/Week	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Q Mon. Site No. EFA-2	Permit Requirement				60.0 (Max.)	45.0 (Max.Wk.Avg.)	30.0 (Mo.Avg.)	mg/L		5 Days/Week	24-hr FPC

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: R-001 PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 B Mon. Site No. EFB-1	Permit Requirement						5.0 (Max.)	mg/L		4 Days/Week	Grab
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 P Mon. Site No. EFB-2	Permit Requirement						5.0 (Max.)	mg/L		4 Days/Week	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 A Mon. Site No. EFA-1	Permit Requirement						25 (Max.)	#/100mL		4 Days/Week	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 P Mon. Site No. EFA-2	Permit Requirement						25 (Max.)	#/100mL		4 Days/Week	Grab
Coliform, Fecal, % less than detection	Sample Measurement										
PARM Code 51005 A Mon. Site No. EFA-1	Permit Requirement				75 (Min.Mo.Total)			percent		4 Days/Week	Calculated
Coliform, Fecal, % less than detection	Sample Measurement										
PARM Code 51005 P Mon. Site No. EFA-2	Permit Requirement				75 (Min.Mo.Total)			percent		4 Days/Week	Calculated
pH	Sample Measurement										
PARM Code 00400 A Mon. Site No. EFA-1	Permit Requirement				6.0 (Min.)		8.5 (Max.)	s.u.		Continuous	Meter
pH	Sample Measurement										
PARM Code 00400 P Mon. Site No. EFA-2	Permit Requirement				6.0 (Min.)		8.5 (Max.)	s.u.		Continuous	Meter
Chlorine, Total Residual (For Disinfection)	Sample Measurement										
PARM Code 50060 A Mon. Site No. EFA-1	Permit Requirement				1.0 (Min.)			mg/L		Continuous	Meter
Chlorine, Total Residual (For Disinfection)	Sample Measurement										
PARM Code 50060 P Mon. Site No. EFA-2	Permit Requirement				1.0 (Min.)			mg/L		Continuous	Meter

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: R-001 PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Turbidity	Sample Measurement										
PARM Code 00070 B Mon. Site No. EFB-1	Permit Requirement						Report (Max.)	NTU		Continuous	Meter
Turbidity	Sample Measurement										
PARM Code 00070 P Mon. Site No. EFB-2	Permit Requirement						Report (Max.)	NTU		Continuous	Meter
Nitrogen, Total	Sample Measurement										
PARM Code 00600 Y Mon. Site No. EFA-1	Permit Requirement					10.0 (An.Avg.)		mg/L		Weekly	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 A Mon. Site No. EFA-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 P Mon. Site No. EFA-2	Permit Requirement					10.0 (An.Avg.)		mg/L		Weekly	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 Q Mon. Site No. EFA-2	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Y Mon. Site No. EFA-1	Permit Requirement					6.0 (An.Avg.)		mg/L		Weekly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 A Mon. Site No. EFA-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 P Mon. Site No. EFA-2	Permit Requirement					6.0 (An.Avg.)		mg/L		Weekly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Q Mon. Site No. EFA-2	Permit Requirement						Report (Mo.Avg.)	mg/L		Weekly	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: R-001 PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow (Baytree Golf Course Pond)	Sample Measurement										
PARM Code 50050 P Mon. Site No. FLW-5	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Baytree Golf Course Pond)	Sample Measurement										
PARM Code 50050 Q Mon. Site No. FLW-5	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Viera Golf Course Pond)	Sample Measurement										
PARM Code 50050 R Mon. Site No. FLW-6	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Viera Golf Course Pond)	Sample Measurement										
PARM Code 50050 S Mon. Site No. FLW-6	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Indian River Colony Club)	Sample Measurement										
PARM Code 50050 T Mon. Site No. FLW-7	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Indian River Colony Club)	Sample Measurement										
PARM Code 50050 U Mon. Site No. FLW-7	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Duran Golf Course)	Sample Measurement										
PARM Code 50050 V Mon. Site No. FLW-8	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Duran Golf Course)	Sample Measurement										
PARM Code 50050 W Mon. Site No. FLW-8	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Total Through Plant)	Sample Measurement										
PARM Code 50050 6 Mon. Site No. FLW-1	Permit Requirement		12.0 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Total Through Plant)	Sample Measurement										
PARM Code 50050 5 Mon. Site No. FLW-1	Permit Requirement	Report (3Mo.Avg.)	Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: R-001 PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Percent Capacity, (TMADF/Permitted Capacity) x 100	Sample Measurement										
PARM Code 00180 P Mon. Site No. CAL-1	Permit Requirement						Report (Mo.Avg.)	percent		Monthly	Calculated
BOD, Carbonaceous 5 day, 20C (Influent)	Sample Measurement										
PARM Code 80082 G Mon. Site No. INF-1	Permit Requirement						Report (Max.)	mg/L		5 Days/Week	24-hr FPC
Solids, Total Suspended (Influent)	Sample Measurement										
PARM Code 00530 G Mon. Site No. INF-1	Permit Requirement						Report (Max.)	mg/L		5 Days/Week	24-hr FPC
Rainfall	Sample Measurement										
PARM Code 46529 P Mon. Site No. OTH-1	Permit Requirement		Report (Max.)	in						Daily; 24 hours	Meter

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed submit this report to: https://www.fldepportal.com/go/

PERMITTEE NAME:	Brevard County Utility Services Department	PERMIT NUMBER:	FL0102679-018-DW1P	**Expiration Date**	July 11, 2026
MAILING ADDRESS:	2725 Judge Fran Jamieson Way				
	BLDG. A-213	LIMIT:	Final	REPORT FREQUENCY:	Monthly
	Melbourne, Florida 32940- 6605	CLASS SIZE:	MI	PROGRAM:	Domestic
FACILITY:	BCUD/South Central Regional	MONITORING GROUP NUMBER:	R-002		
LOCATION:	10001 N Wickham Rd	MONITORING GROUP DESCRIPTION:	Influent to manmade wetlands		
	Melbourne, FL 32940-6604	RE-SUBMITTED DMR: ☐			
		NO DISCHARGE FROM SITE: ☐			
COUNTY:	Brevard	MONITORING PERIOD From:	_____ To: _____		
OFFICE:	Central District				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow (wetlands from WRF)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-11	Permit Requirement		2.5 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (wetlands)	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-11	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Y Mon. Site No. EFA-1	Permit Requirement					5.0 (An.Avg.)		mg/L		5 Days/Week	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 A Mon. Site No. EFA-1	Permit Requirement				10.0 (Max.)	7.5 (Max.Wk.Avg.)	6.25 (Mo.Avg.)	mg/L		5 Days/Week	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 P Mon. Site No. EFA-2	Permit Requirement					5.0 (An.Avg.)		mg/L		5 Days/Week	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Q Mon. Site No. EFA-2	Permit Requirement				10.0 (Max.)	7.5 (Max.Wk.Avg.)	6.25 (Mo.Avg.)	mg/L		5 Days/Week	24-hr FPC

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: R-002 PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 Y Mon. Site No. EFA-1	Permit Requirement					5.0 (An.Avg.)		mg/L		5 Days/Week	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 A Mon. Site No. EFA-1	Permit Requirement				10.0 (Max.)	7.5 (Max.Wk.Avg.)	6.25 (Mo.Avg.)	mg/L		5 Days/Week	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 P Mon. Site No. EFA-2	Permit Requirement					5.0 (An.Avg.)		mg/L		5 Days/Week	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 Q Mon. Site No. EFA-2	Permit Requirement				10.0 (Max.)	7.5 (Max.Wk.Avg.)	6.25 (Mo.Avg.)	mg/L		5 Days/Week	24-hr FPC
Coliform, Fecal	Sample Measurement										
PARM Code 74055 Y Mon. Site No. EFA-1	Permit Requirement					200 (An.Avg.)		#/100mL		5 Days/Week	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 A Mon. Site No. EFA-1	Permit Requirement					200 (Mo.Geo.Mn.)	800 (Max.)	#/100mL		5 Days/Week	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 P Mon. Site No. EFA-2	Permit Requirement					200 (An.Avg.)		#/100mL		5 Days/Week	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 Q Mon. Site No. EFA-2	Permit Requirement					200 (Mo.Geo.Mn.)	800 (Max.)	#/100mL		5 Days/Week	Grab
pH	Sample Measurement										
PARM Code 00400 A Mon. Site No. EFA-1	Permit Requirement				6.0 (Min.)		8.5 (Max.)	s.u.		Continuous	Meter
pH	Sample Measurement										
PARM Code 00400 P Mon. Site No. EFA-2	Permit Requirement				6.0 (Min.)		8.5 (Max.)	s.u.		Continuous	Meter

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: R-002 PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Chlorine, Total Residual (For Disinfection)	Sample Measurement										
PARM Code 50060 A Mon. Site No. EFA-1	Permit Requirement				0.5 (Min.)			mg/L		Continuous	Meter
Chlorine, Total Residual (For Disinfection)	Sample Measurement										
PARM Code 50060 P Mon. Site No. EFA-2	Permit Requirement				0.5 (Min.)			mg/L		Continuous	Meter
Nitrogen, Total	Sample Measurement										
PARM Code 00600 Y Mon. Site No. EFA-1	Permit Requirement					6.0 (An.Avg.)		mg/L		Weekly	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 A Mon. Site No. EFA-1	Permit Requirement				12.0 (Max.)	9.0 (Max.Wk.Avg.)	7.5 (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 P Mon. Site No. EFA-2	Permit Requirement					6.0 (An.Avg.)		mg/L		Weekly	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 Q Mon. Site No. EFA-2	Permit Requirement				12.0 (Max.)	9.0 (Max.Wk.Avg.)	7.5 (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Y Mon. Site No. EFA-1	Permit Requirement					0.75 (An.Avg.)		mg/L		Weekly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 A Mon. Site No. EFA-1	Permit Requirement				1.5 (Max.)	1.125 (Max.Wk.Avg.)	0.94 (Mo.Avg.)	mg/L		Weekly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 P Mon. Site No. EFA-2	Permit Requirement					0.75 (An.Avg.)		mg/L		Weekly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Q Mon. Site No. EFA-2	Permit Requirement				1.5 (Max.)	1.125 (Max.Wk.Avg.)	0.94 (Mo.Avg.)	mg/L		Weekly	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: R-002 PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow (from storage pond to wetlands)	Sample Measurement										
PARM Code 50050 P Mon. Site No. FLW-12	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (from storage pond to wetlands)	Sample Measurement										
PARM Code 50050 Q Mon. Site No. FLW-12	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
Flow (from wetlands to storage pond)	Sample Measurement										
PARM Code 50050 R Mon. Site No. FLW-13	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (from wetlands to storage pond)	Sample Measurement										
PARM Code 50050 S Mon. Site No. FLW-13	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer

ISSUANCE/REISSUANCE DATE: July 12, 2021
DMR EFFECTIVE DATE: September 1, 2021 - Permit expiration

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed submit this report to: https://www.fldepportal.com/go/

PERMITTEE NAME:	Brevard County Utility Services Department	PERMIT NUMBER:	FL0102679-018-DW1P	**Expiration Date**	July 11, 2026
MAILING ADDRESS:	2725 Judge Fran Jamieson Way				
	BLDG. A-213	LIMIT:	Final	REPORT FREQUENCY:	Monthly
	Melbourne, Florida 32940- 6605	CLASS SIZE:	MI	PROGRAM:	Domestic
FACILITY:	BCUD/South Central Regional	MONITORING GROUP NUMBER:	RMP-Q		
LOCATION:	10001 N Wickham Rd	MONITORING GROUP DESCRIPTION:	Biosolids Quantity		
	Melbourne, FL 32940-6604	RE-SUBMITTED DMR: ☐			
		NO DISCHARGE FROM SITE: ☐			
COUNTY:	Brevard	MONITORING PERIOD From:	_____ To: _____		
OFFICE:	Central District				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Biosolids Quantity (Received)	Sample Measurement										
PARM Code B0002 + Mon. Site No. RMP-1	Permit Requirement		Report (Mo.Total)	dry tons						Monthly	Calculated
Biosolids Quantity (Landfilled)	Sample Measurement										
PARM Code B0008 + Mon. Site No. RMP-1	Permit Requirement		Report (Mo.Total)	dry tons						Monthly	Calculated
Biosolids Quantity (Transferred)	Sample Measurement										
PARM Code B0007 + Mon. Site No. RMP-1	Permit Requirement		Report (Mo.Total)	dry tons						Monthly	Calculated

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0102679-018-DW1P Facility: BCUD/South Central Regional
Monitoring Period From: _____ To: _____

	Alkalinity, Total (as CaCO3) mg/L	BOD, Carbonaceous 5 day, 20C mg/L	BOD, Carbonaceous 5 day, 20C mg/L	BOD, Carbonaceous 5 day, 20C (Influent) mg/L	BOD, Carbonaceous 5 day, 20C mg/L	Chloride (as Cl) mg/L	Chlorine, Total Residual (For Disinfection) mg/L	Chlorine, Total Residual (For Disinfection) mg/L	Coliform, Fecal #/100mL	Coliform, Fecal #/100mL	Coliform, Fecal #/100mL
Code	00410	80082	80082	80082	80082	00940	50060	50060	74055	74055	74055
Mon. Site	WEP-1	EFA-1	EFA-2	INF-1	WEP-1	WEP-1	EFA-1	EFA-2	EFA-1	EFA-2	WEP-1
1											
2											
3											
4											
5											
6											
7											
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22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
Total											
Mo. Avg.											

PLANT STAFFING:

Day Shift Operator Class: _____ Certificate No: _____ Name: _____

Evening Shift Operator Class: _____ Certificate No: _____ Name: _____

Night Shift Operator Class: _____ Certificate No: _____ Name: _____

Lead Operator Class: _____ Certificate No: _____ Name: _____

ISSUANCE/REISSUANCE DATE: July 12, 2021
DMR EFFECTIVE DATE: September 1, 2021 - Permit expiration

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0102679-018-DW1P Facility: BCUD/South Central Regional
Monitoring Period From: _____ To: _____

	Flow (Total Through Plant) MGD	Flow (Public access reuse) MGD	Flow (wetlands) MGD	Flow (from storage pond to wetlands) MGD	Flow (from wetlands to storage pond) MGD	Flow (Baytree Golf Course Pond) MGD	Flow (Viera Golf Course Pond) MGD	Flow (Indian River Colony Club) MGD	Flow (Duran Golf Course) MGD	Flow (Outfall D-001) MGD	Nitrite plus Nitrate, Total 1 det. (as N) mg/L
Code	50050	50050	50050	50050	50050	50050	50050	50050	50050	50050	00630
Mon. Site	FLW-1	FLW-10	FLW-11	FLW-12	FLW-13	FLW-5	FLW-6	FLW-7	FLW-8	FLW-9	WEP-1
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
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21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
Total											
Mo. Avg.											

PLANT STAFFING:

Day Shift Operator Class: _____ Certificate No: _____ Name: _____

Evening Shift Operator Class: _____ Certificate No: _____ Name: _____

Night Shift Operator Class: _____ Certificate No: _____ Name: _____

Lead Operator Class: _____ Certificate No: _____ Name: _____

ISSUANCE/REISSUANCE DATE: July 12, 2021
DMR EFFECTIVE DATE: September 1, 2021 - Permit expiration

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0102679-018-DW1P Facility: BCUD/South Central Regional
Monitoring Period From: _____ To: _____

	Nitrogen, Ammonia, Total (as N) (Effluent) mg/L	Nitrogen, Kjeldahl, Total (as N) mg/L	Nitrogen, Total mg/L	Nitrogen, Total mg/L	Nitrogen, Total mg/L	Oxygen, Dissolved (DO) mg/L	Phosphate, Ortho (as P) mg/L	Phosphorus, Total (as P) mg/L	Phosphorus, Total (as P) mg/L	Phosphorus, Total (as P) mg/L	Rainfall in
Code	00610	00625	00600	00600	00600	00300	70507	00665	00665	00665	46529
Mon. Site	WEP-1	WEP-1	EFA-1	EFA-2	WEP-1	WEP-1	WEP-1	EFA-1	EFA-2	WEP-1	OTH-1
1											
2											
3											
4											
5											
6											
7											
8											
9											
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26											
27											
28											
29											
30											
31											
Total											
Mo. Avg.											

PLANT STAFFING:

Day Shift Operator Class: _____ Certificate No: _____ Name: _____

Evening Shift Operator Class: _____ Certificate No: _____ Name: _____

Night Shift Operator Class: _____ Certificate No: _____ Name: _____

Lead Operator Class: _____ Certificate No: _____ Name: _____

ISSUANCE/REISSUANCE DATE: July 12, 2021
DMR EFFECTIVE DATE: September 1, 2021 - Permit expiration

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0102679-018-DW1P Facility: BCUD/South Central Regional
Monitoring Period From: _____ To: _____

	Solids, Total Suspended mg/L	Solids, Total Suspended mg/L	Solids, Total Suspended mg/L	Solids, Total Suspended mg/L	Solids, Total Suspended (Influent) mg/L	Solids, Total Suspended mg/L	Specific Conductance umhos/cm	Sulfate, Total mg/L	Temperature (C), Water Deg C	Turbidity NTU	Turbidity NTU
Code	00530	00530	00530	00530	00530	00530	00095	00945	00010	00070	00070
Mon. Site	EFA-1	EFA-2	EFB-1	EFB-2	INF-1	WEP-1	WEP-1	WEP-1	WEP-1	EFB-1	EFB-2
1											
2											
3											
4											
5											
6											
7											
8											
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27											
28											
29											
30											
31											
Total											
Mo. Avg.											

PLANT STAFFING:

Day Shift Operator Class: _____ Certificate No: _____ Name: _____

Evening Shift Operator Class: _____ Certificate No: _____ Name: _____

Night Shift Operator Class: _____ Certificate No: _____ Name: _____

Lead Operator Class: _____ Certificate No: _____ Name: _____

ISSUANCE/REISSUANCE DATE: July 12, 2021
DMR EFFECTIVE DATE: September 1, 2021 - Permit expiration

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0102679-018-DW1P Facility: BCUD/South Central Regional
Monitoring Period From: _____ To: _____

	Water Level at sample. collection time ft	pH s.u.	pH s.u.	pH s.u.							
Code	85327	00400	00400	00400							
Mon. Site	WEP-1	EFA-1	EFA-2	WEP-1							
1											
2											
3											
4											
5											
6											
7											
8											
9											
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27											
28											
29											
30											
31											
Total											
Mo. Avg.											

PLANT STAFFING:

Day Shift Operator Class: _____ Certificate No: _____ Name: _____

Evening Shift Operator Class: _____ Certificate No: _____ Name: _____

Night Shift Operator Class: _____ Certificate No: _____ Name: _____

Lead Operator Class: _____ Certificate No: _____ Name: _____

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Central Regional
Permit Number: FL0102679-018-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWB-1
Well Type: Background
Description: Background well @ Duran Golf Course
Re-submitted DMR: ☐

Report Frequency: Quarterly
Program: Domestic

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		Report	mg/L	Grab	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		Report	#/100mL	Grab	Quarterly				
pH	00400		Report	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Central Regional
Permit Number: FL0102679-018-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-1
Well Type: Compliance
Description: Compliance well @ Duran Golf Course site
Report Frequency: Quarterly
Program: Domestic
Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
Solids, Total Dissolved (TDS)	70295		500	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		250	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		4	#/100mL	Grab	Quarterly				
pH	00400		6.5-8.5	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Central Regional
Permit Number: FL0102679-018-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-2
Well Type: Compliance
Description: Compliance well @ Duran Golf Course Site
Report Frequency: Quarterly
Program: Domestic
Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
Solids, Total Dissolved (TDS)	70295		500	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		250	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		4	#/100mL	Grab	Quarterly				
pH	00400		6.5-8.5	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Central Regional
Permit Number: FL0102679-018-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-3
Well Type: Compliance
Description: Compliance well @ Duran Golf Course Site
Report Frequency: Quarterly
Program: Domestic
Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
Solids, Total Dissolved (TDS)	70295		500	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		250	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		4	#/100mL	Grab	Quarterly				
pH	00400		6.5-8.5	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Central Regional
Permit Number: FL0102679-018-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-6-SOD
Well Type: Compliance
Description: GW-6 COMPLIANCE
Re-submitted DMR: ☐

Report Frequency: Quarterly
Program: Domestic

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
Solids, Total Dissolved (TDS)	70295		500	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		250	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		4	#/100mL	Grab	Quarterly				
pH	00400		6.5-8.5	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Central Regional
Permit Number: FL0102679-018-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-5-SOD
Well Type: Compliance
Description: GW-5 COMPLIANCE
Re-submitted DMR: ☐

Report Frequency: Quarterly
Program: Domestic

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
Solids, Total Dissolved (TDS)	70295		500	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		250	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		4	#/100mL	Grab	Quarterly				
pH	00400		6.5-8.5	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Central Regional
Permit Number: FL0102679-018-DW1P
County: Brevard

Monitoring Well ID: MWB-1-WET
Well Type: Background
Description: BCUD South Central Wetlands MW-1 Upgradient

Report Frequency: Quarterly
Program: Domestic

Office: Central District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		Report	mg/L	Grab	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		Report	#/100mL	Grab	Quarterly				
pH	00400		Report	s.u.	Grab	Quarterly				
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COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Central Regional
Permit Number: FL0102679-018-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-2-WET
Well Type: Compliance
Description: Wetlands MW-2 Compliance
Report Frequency: Quarterly
Program: Domestic
Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
Solids, Total Dissolved (TDS)	70295		500	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		250	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		4	#/100mL	Grab	Quarterly				
pH	00400		6.5-8.5	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

INSTRUCTIONS FOR COMPLETING THE WASTEWATER DISCHARGE MONITORING REPORT

Read these instructions before completing the DMR. Hard copies and/or electronic copies of the required parts of the DMR were provided with the permit. All required information shall be completed in full and typed or printed in ink. A signed, original DMR shall be mailed to the address printed on the DMR by the 28th of the month following the monitoring period. Facilities who submit their DMR(s) electronically through eDMR do not need to submit a hardcopy DMR. The DMR shall not be submitted before the end of the monitoring period.

The DMR consists of three parts--A, B, and D--all of which may or may not be applicable to every facility. Facilities may have one or more Part A's for reporting effluent or reclaimed water data. All domestic wastewater facilities will have a Part B for reporting daily sample results. Part D is used for reporting ground water monitoring well data.

When results are not available, the following codes should be used on parts A and D of the DMR and an explanation provided where appropriate. Note: Codes used on Part B for raw data are different.

CODE	DESCRIPTION/INSTRUCTIONS
ANC	Analysis not conducted.
DRY	Dry Well
FLD	Flood disaster.
IFS	Insufficient flow for sampling.
LS	Lost sample.
MNR	Monitoring not required this period.

CODE	DESCRIPTION/INSTRUCTIONS
NOD	No discharge from/to site.
OPS	Operations were shutdown so no sample could be taken.
OTH	Other. Please enter an explanation of why monitoring data were not available.
SEF	Sampling equipment failure.

When reporting analytical results that fall below a laboratory's reported method detection limits or practical quantification limits, the following instructions should be used, unless indicated otherwise in the permit or on the DMR:

1. Results greater than or equal to the PQL shall be reported as the measured quantity.
2. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. These values shall be deemed equal to the MDL when necessary to calculate an average for that parameter and when determining compliance with permit limits.
3. Results less than the MDL shall be reported by entering a less than sign ("<") followed by the laboratory's MDL value, e.g. < 0.001. A value of one-half the MDL or one-half the effluent limit, whichever is lower, shall be used for that sample when necessary to calculate an average for that parameter. Values less than the MDL are considered to demonstrate compliance with an effluent limitation.

PART A -DISCHARGE MONITORING REPORT (DMR)

Part A of the DMR is comprised of one or more sections, each having its own header information. Facility information is preprinted in the header as well as the monitoring group number, whether the limits and monitoring requirements are interim or final, and the required submittal frequency (e.g. monthly, annually, quarterly, etc.). Submit Part A based on the required reporting frequency in the header and the instructions shown in the permit. The following should be completed by the permittee or authorized representative:

Resubmitted DMR: Check this box if this DMR is being re-submitted because there was information missing from or information that needed correction on a previously submitted DMR. The information that is being revised should be clearly noted on the re-submitted DMR (e.g. highlight, circle, etc.)
No Discharge From Site: Check this box if no discharge occurs and, as a result, there are no data or codes to be entered for all of the parameters on the DMR for the entire monitoring group number; however, if the monitoring group includes other monitoring locations (e.g., influent sampling), the "NOD" code should be used to individually denote those parameters for which there was no discharge.
Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.
Sample Measurement: Before filling in sample measurements in the table, check to see that the data collected correspond to the limit indicated on the DMR (i.e. interim or final) and that the data correspond to the monitoring group number in the header. Enter the data or calculated results for each parameter on this row in the non-shaded area above the limit. Be sure the result being entered corresponds to the appropriate statistical base code (e.g. annual average, monthly average, single sample maximum, etc.) and units. Data qualifier codes are not to be reported on Part A.
No. Ex.: Enter the number of sample measurements during the monitoring period that exceeded the permit limit for each parameter in the non-shaded area. If none, enter zero.
Frequency of Analysis: The shaded areas in this column contain the minimum number of times the measurement is required to be made according to the permit. Enter the actual number of times the measurement was made in the space above the shaded area.
Sample Type: The shaded areas in this column contain the type of sample (e.g. grab, composite, continuous) required by the permit. Enter the actual sample type that was taken in the space above the shaded area.
Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.
Comment and Explanation of Any Violations: Use this area to explain any exceedances, any upset or by-pass events, or other items which require explanation. If more space is needed, reference all attachments in this area.

PART B - DAILY SAMPLE RESULTS

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.
Daily Monitoring Results: Transfer all analytical data from your facility's laboratory or a contract laboratory's data sheets for all day(s) that samples were collected. Record the data in the units indicated. Table 1 in Chapter 62-160, F.A.C., contains a complete list of all the data qualifier codes that your laboratory may use when reporting analytical results. However, when transferring numerical results onto Part B of the DMR, only the following data qualifier codes should be used and an explanation provided where appropriate.

CODE	DESCRIPTION/INSTRUCTIONS
<	The compound was analyzed for but not detected.
A	Value reported is the mean (average) of two or more determinations.
J	Estimated value, value not accurate.
Q	Sample held beyond the actual holding time.
Y	Laboratory analysis was from an unpreserved or improperly preserved sample.

To calculate the monthly average, add each reported value to get a total. For flow, divide this total by the number of days in the month. For all other parameters, divide the total by the number of observations.
Plant Staffing: List the name, certificate number, and class of all state certified operators operating the facility during the monitoring period. Use additional sheets as necessary.

PART D - GROUND WATER MONITORING REPORT

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.
Date Sample Obtained: Enter the date the sample was taken. Also, check whether or not the well was purged before sampling.
Time Sample Obtained: Enter the time the sample was taken.
Sample Measurement: Record the results of the analysis. If the result was below the minimum detection limit, indicate that. Data qualifier codes are not to be reported on Part D.
Detection Limits: Record the detection limits of the analytical methods used.
Analysis Method: Indicate the analytical method used. Record the method number from Chapter 62-160 or Chapter 62-601, F.A.C., or from other sources.
Sampling Equipment Used: Indicate the procedure used to collect the sample (e.g. airlift, bucket/bailer, centrifugal pump, etc.)
Samples Filtered: Indicate whether the sample obtained was filtered by laboratory (L), filtered in field (F), or unfiltered (N).
Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.
Comments and Explanation: Use this space to make any comments on or explanations of results that are unexpected. If more space is needed, reference all attachments in this area.

SPECIAL INSTRUCTIONS FOR LIMITED WET WEATHER DISCHARGES

Flow (Limited Wet Weather Discharge): Enter the measured average flow rate during the period of discharge or divide gallons discharged by duration of discharge (converted into days). Record in million gallons per day (MGD).
Flow (Upstream): Enter the average flow rate in the receiving stream upstream from the point of discharge for the period of discharge. The average flow rate can be calculated based on two measurements; one made at the start and one made at the end of the discharge period. Measurements are to be made at the upstream gauging station described in the permit.
Actual Stream Dilution Ratio: To calculate the Actual Stream Dilution Ratio, divide the average upstream flow rate by the average discharge flow rate. Enter the Actual Stream Dilution Ratio accurate to the nearest 0.1.
No. of Days the SDF > Stream Dilution Ratio: For each day of discharge, compare the minimum Stream Dilution Factor (SDF) from the permit to the calculated Stream Dilution Ratio. On Part B of the DMR, enter an asterisk (*) if the SDF is greater than the Stream Dilution Ratio on any day of discharge. On Part A of the DMR, add up the days with an "*" and record the total number of days the Stream Dilution Factor was greater than the Stream Dilution Ratio.
$CBOD_5$: Enter the average $CBOD_5$ of the reclaimed water discharged during the period shown in duration of discharge.
TKN: Enter the average TKN of the reclaimed water discharged during the period shown in duration of discharge.
Actual Rainfall: Enter the actual rainfall for each day on Part B. Enter the actual cumulative rainfall to date for this calendar year and the actual total monthly rainfall on Part A. The cumulative rainfall to date for this calendar year is the total amount of rain, in inches, that has been recorded since January 1 of the current year through the month for which this DMR contains data.
Rainfall During Average Rainfall Year: On Part A, enter the total monthly rainfall during the average rainfall year and the cumulative rainfall for the average rainfall year. The cumulative rainfall for the average rainfall year is the amount of rain, in inches, which fell during the average rainfall year from January through the month for which this DMR contains data.
No. of Days LWWD Activated During Calendar Year: Enter the cumulative number of days that the limited wet weather discharge was activated since January 1 of the current year.
Reason for Discharge: Attach to the DMR a brief explanation of the factors contributing to the need to activate the limited wet weather discharge.

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed submit this report to: https://www.fldepportal.com/go/

PERMITTEE NAME: Brevard County Utility Services Department
MAILING ADDRESS: 2725 Judge Fran Jamieson Way
BLDG. A-213
Melbourne, Florida 32940- 6605
FACILITY: BCUD/South Central Regional
LOCATION: 10001 N Wickham Rd
Melbourne, FL 32940-6604

COUNTY: Brevard
OFFICE: Central District

PERMIT NUMBER: FL0102679-018-DW1P

LIMIT: Final
CLASS SIZE: MI
MONITORING GROUP NUMBER: RWS-A
MONITORING GROUP DESCRIPTION: Annual Reclaimed Water or Effluent Analysis
RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
MONITORING NOT REQUIRED:* ☐
MONITORING PERIOD From: _____ To: _____

REPORT FREQUENCY: Annually
PROGRAM: Domestic

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Antimony, Total Recoverable (GWS = 6)**	Sample Measurement										
PARM Code 01268 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Arsenic, Total Recoverable (GWS = 10)	Sample Measurement										
PARM Code 00978 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Barium, Total Recoverable (GWS = 2,000)	Sample Measurement										
PARM Code 01009 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Beryllium, Total Recoverable (GWS = 4)	Sample Measurement										
PARM Code 00998 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Cadmium, Total Recoverable (GWS = 5)	Sample Measurement										
PARM Code 01113 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Chromium, Total Recoverable (GWS =100)	Sample Measurement										
PARM Code 01118 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC

*THE "MONITORING NOT REQUIRED" CHECKBOX SHOULD BE SELECTED WHEN A CERTIFICATION STATEMENT IN ACCORDANCE WITH SUBSECTION 62-600.680(2), F.A.C., IS SUBMITTED WITH THIS DMR. SEE CERTIFICATION STATEMENT IN COMMENTS SECTION BELOW.
**GROUND WATER STANDARD (GWS) FOR REFERENCE AND REVIEW ONLY.

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):
☐ NO NEW NON-DOMESTIC WASTEWATER DISCHARGERS HAVE BEEN ADDED TO THE COLLECTION SYSTEM SINCE THE LAST RECLAIMED WATER OR EFFLUENT ANALYSIS WAS CONDUCTED.
SIGN AND DATE:

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Cyanide, Free (amen. to chlorination)(GWS = 200)	Sample Measurement										
PARM Code 00722 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Fluoride, Total (as F) (GWS = 4.0/2.0)	Sample Measurement										
PARM Code 00951 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC
Lead, Total Recoverable (GWS = 15)	Sample Measurement										
PARM Code 01114 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Mercury, Total Recoverable (GWS = 2)	Sample Measurement										
PARM Code 71901 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Nickel, Total Recoverable (GWS = 100)	Sample Measurement										
PARM Code 01074 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Nitrogen, Nitrate, Total (as N) (GWS = 10)	Sample Measurement										
PARM Code 00620 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC
Nitrogen, Nitrite, Total (as N) (GWS = 1)	Sample Measurement										
PARM Code 00615 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC
Nitrite plus Nitrate, Total 1 det. (as N)(GWS = 10)	Sample Measurement										
PARM Code 00630 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC
Selenium, Total Recoverable (GWS =50)	Sample Measurement										
PARM Code 00981 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Sodium, Total Recoverable (GWS = 160)	Sample Measurement										
PARM Code 00923 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Thallium, Total Recoverable (GWS = 2)	Sample Measurement										
PARM Code 00982 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
1,1-dichloroethylene (GWS = 7)	Sample Measurement										
PARM Code 34501 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
1,1,1-trichloroethane (GWS = 200)	Sample Measurement										
PARM Code 34506 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
1,1,2-trichloroethane (GWS = 5)	Sample Measurement										
PARM Code 34511 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
1,2-dichloroethane (GWS = 3)	Sample Measurement										
PARM Code 32103 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
1,2-dichloropropane (GWS = 5)	Sample Measurement										
PARM Code 34541 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
1,2,4-trichlorobenzene (GWS = 70)	Sample Measurement										
PARM Code 34551 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Benzene (GWS = 1)	Sample Measurement										
PARM Code 34030 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Carbon tetrachloride (GWS = 3)	Sample Measurement										
PARM Code 32102 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Cis-1,2-dichloroethene (GWS = 70)	Sample Measurement										
PARM Code 81686 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Dichloromethane (methylene chloride)(GWS = 5)	Sample Measurement										
PARM Code 03821 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Ethylbenzene (GWS = 700)	Sample Measurement										
PARM Code 34371 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Monochlorobenzene (GWS = 100)	Sample Measurement										
PARM Code 34031 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
1,2-dichlorobenzene (GWS = 600)	Sample Measurement										
PARM Code 34536 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
1,4-dichlorobenzene (GWS = 75)	Sample Measurement										
PARM Code 34571 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Styrene, Total (GWS = 100)	Sample Measurement										
PARM Code 77128 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Tetrachloroethylene (GWS = 3)	Sample Measurement										
PARM Code 34475 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Toluene (GWS = 1,000)	Sample Measurement										
PARM Code 34010 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
1,2-trans-dichloroethylene (GWS = 100)	Sample Measurement										
PARM Code 34546 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Trichloroethylene (GWS = 3)	Sample Measurement										
PARM Code 39180 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Vinyl chloride (GWS = 1)	Sample Measurement										
PARM Code 39175 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Xylenes (GWS = 10,000)	Sample Measurement										
PARM Code 81551 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
2,3,7,8-tetrachlorodibenzo-p-dioxin(GWS = 3x10^-5)	Sample Measurement										
PARM Code 34675 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
2,4-dichlorophenoxyacetic acid (GWS = 70)	Sample Measurement										
PARM Code 39730 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Silvex (GWS = 50)	Sample Measurement										
PARM Code 39760 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Alachlor (GWS = 2)	Sample Measurement										
PARM Code 39161 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Atrazine (GWS = 3)	Sample Measurement										
PARM Code 39033 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Benzo(a)pyrene (GWS = 0.2)	Sample Measurement										
PARM Code 34247 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Carbofuran (GWS = 40)	Sample Measurement										
PARM Code 81405 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Chlordane (tech mix. and metabolites)(GWS = 2)	Sample Measurement										
PARM Code 39350 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Dalapon (GWS = 200)	Sample Measurement										
PARM Code 38432 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Bis(2-ethylhexyl)adipate (GWS = 400)	Sample Measurement										
PARM Code 77903 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Bis (2-ethylhexyl) phthalate (GWS = 6)	Sample Measurement										
PARM Code 39100 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Dibromochloropropane (DBCP) (GWS = 0.2)	Sample Measurement										
PARM Code 82625 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Dinoseb (GWS = 7)	Sample Measurement										
PARM Code 30191 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Diquat (GWS = 20)	Sample Measurement										
PARM Code 04443 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Endothall (GWS = 100)	Sample Measurement										
PARM Code 38926 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Endrin (GWS = 2)	Sample Measurement										
PARM Code 39390 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Ethylene dibromide (1,2-dibromoethane)(GWS = 0.02)	Sample Measurement										
PARM Code 77651 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	Grab
Glyphosate (GWS = 0.7)	Sample Measurement										
PARM Code 79743 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Heptachlor (GWS = 0.4)	Sample Measurement										
PARM Code 39410 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Heptachlor epoxide (GWS = 0.2)	Sample Measurement										
PARM Code 39420 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Hexachlorobenzene (GWS = 1)	Sample Measurement										
PARM Code 39700 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Hexachlorocyclopentadiene (GWS = 50)	Sample Measurement										
PARM Code 34386 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Gamma BHC (Lindane) (GWS = 0.2)	Sample Measurement										
PARM Code 39782 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Methoxychlor (GWS = 40)	Sample Measurement										
PARM Code 39480 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Oxamyl (vydate) (GWS = 200)	Sample Measurement										
PARM Code 38865 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Pentachlorophenol (GWS = 1)	Sample Measurement										
PARM Code 39032 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Picloram (GWS = 500)	Sample Measurement										
PARM Code 39720 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Polychlorinated Biphenyls (PCBs)(GWS = 0.5)	Sample Measurement										
PARM Code 39516 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Simazine (GWS = 4)	Sample Measurement										
PARM Code 39055 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Toxaphene (GWS = 3)	Sample Measurement										
PARM Code 39400 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Trihalomethane, Total by summation (GWS = 0.080)	Sample Measurement										
PARM Code 82080 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	Grab
Radium 226 + Radium 228, Total (GWS = 5)	Sample Measurement										
PARM Code 11503 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	pCi/L		Annually	24-hr FPC
Alpha, Gross Particle Activity (GWS = 15)	Sample Measurement										
PARM Code 80045 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	pCi/L		Annually	24-hr FPC
Aluminum, Total Recoverable (GWS = 0.2)	Sample Measurement										
PARM Code 01104 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC
Chloride (as Cl) (GWS = 250)	Sample Measurement										
PARM Code 00940 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC
Iron, Total Recoverable (GWS = 0.3)	Sample Measurement										
PARM Code 00980 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC
Copper, Total Recoverable (GWS = 1,000)	Sample Measurement										
PARM Code 01119 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Manganese, Total Recoverable (GWS = 50)	Sample Measurement										
PARM Code 11123 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Central Regional MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0102679-018-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Silver, Total Recoverable (GWS = 100)	Sample Measurement										
PARM Code 01079 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
Sulfate, Total (GWS = 250)	Sample Measurement										
PARM Code 00945 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC
Zinc, Total Recoverable (GWS = 5,000)	Sample Measurement										
PARM Code 01094 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	ug/L		Annually	24-hr FPC
pH (GWS = 6.5-8.5)	Sample Measurement										
PARM Code 00400 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	s.u.		Annually	Grab
Solids, Total Dissolved (TDS) (GWS = 500)	Sample Measurement										
PARM Code 70295 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC
Foaming Agents (GWS = 0.5)	Sample Measurement										
PARM Code 01288 P Mon. Site No. RWS-A	Permit Requirement						Report (Max.)	mg/L		Annually	24-hr FPC

INSTRUCTIONS FOR COMPLETING THE WASTEWATER DISCHARGE MONITORING REPORT

Read these instructions before completing the DMR. Hard copies and/or electronic copies of the required parts of the DMR were provided with the permit. All required information shall be completed in full and typed or printed in ink. A signed, original DMR shall be mailed to the address printed on the DMR by the 28th of the month following the monitoring period. Facilities who submit their DMR(s) electronically through eDMR do not need to submit a hardcopy DMR. The DMR shall not be submitted before the end of the monitoring period.

The DMR consists of three parts--A, B, and D--all of which may or may not be applicable to every facility. Facilities may have one or more Part A's for reporting effluent or reclaimed water data. All domestic wastewater facilities will have a Part B for reporting daily sample results. Part D is used for reporting ground water monitoring well data.

When results are not available, the following codes should be used on parts A and D of the DMR and an explanation provided where appropriate. Note: Codes used on Part B for raw data are different.

CODE	DESCRIPTION/INSTRUCTIONS
ANC	Analysis not conducted.
DRY	Dry Well
FLD	Flood disaster.
IFS	Insufficient flow for sampling.
LS	Lost sample.
MNR	Monitoring not required this period.

CODE	DESCRIPTION/INSTRUCTIONS
NOD	No discharge from/to site.
OPS	Operations were shutdown so no sample could be taken.
OTH	Other. Please enter an explanation of why monitoring data were not available.
SEF	Sampling equipment failure.

When reporting analytical results that fall below a laboratory's reported method detection limits or practical quantification limits, the following instructions should be used, unless indicated otherwise in the permit or on the DMR:

1. Results greater than or equal to the PQL shall be reported as the measured quantity.
2. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. These values shall be deemed equal to the MDL when necessary to calculate an average for that parameter and when determining compliance with permit limits.
3. Results less than the MDL shall be reported by entering a less than sign ("<") followed by the laboratory's MDL value, e.g. < 0.001. A value of one-half the MDL or one-half the effluent limit, whichever is lower, shall be used for that sample when necessary to calculate an average for that parameter. Values less than the MDL are considered to demonstrate compliance with an effluent limitation.

PART A -DISCHARGE MONITORING REPORT (DMR)

Part A of the DMR is comprised of one or more sections, each having its own header information. Facility information is preprinted in the header as well as the monitoring group number, whether the limits and monitoring requirements are interim or final, and the required submittal frequency (e.g. monthly, annually, quarterly, etc.). Submit Part A based on the required reporting frequency in the header and the instructions shown in the permit. The following should be completed by the permittee or authorized representative:

Resubmitted DMR: Check this box if this DMR is being re-submitted because there was information missing from or information that needed correction on a previously submitted DMR. The information that is being revised should be clearly noted on the re-submitted DMR (e.g. highlight, circle, etc.)
No Discharge From Site: Check this box if no discharge occurs and, as a result, there are no data or codes to be entered for all of the parameters on the DMR for the entire monitoring group number; however, if the monitoring group includes other monitoring locations (e.g., influent sampling), the "NOD" code should be used to individually denote those parameters for which there was no discharge.
Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.
Sample Measurement: Before filling in sample measurements in the table, check to see that the data collected correspond to the limit indicated on the DMR (i.e. interim or final) and that the data correspond to the monitoring group number in the header. Enter the data or calculated results for each parameter on this row in the non-shaded area above the limit. Be sure the result being entered corresponds to the appropriate statistical base code (e.g. annual average, monthly average, single sample maximum, etc.) and units. Data qualifier codes are not to be reported on Part A.
No. Ex.: Enter the number of sample measurements during the monitoring period that exceeded the permit limit for each parameter in the non-shaded area. If none, enter zero.
Frequency of Analysis: The shaded areas in this column contain the minimum number of times the measurement is required to be made according to the permit. Enter the actual number of times the measurement was made in the space above the shaded area.
Sample Type: The shaded areas in this column contain the type of sample (e.g. grab, composite, continuous) required by the permit. Enter the actual sample type that was taken in the space above the shaded area.
Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.
Comment and Explanation of Any Violations: Use this area to explain any exceedances, any upset or by-pass events, or other items which require explanation. If more space is needed, reference all attachments in this area.

PART B - DAILY SAMPLE RESULTS

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.
Daily Monitoring Results: Transfer all analytical data from your facility's laboratory or a contract laboratory's data sheets for all day(s) that samples were collected. Record the data in the units indicated. Table 1 in Chapter 62-160, F.A.C., contains a complete list of all the data qualifier codes that your laboratory may use when reporting analytical results. However, when transferring numerical results onto Part B of the DMR, only the following data qualifier codes should be used and an explanation provided where appropriate.

CODE	DESCRIPTION/INSTRUCTIONS
<	The compound was analyzed for but not detected.
A	Value reported is the mean (average) of two or more determinations.
J	Estimated value, value not accurate.
Q	Sample held beyond the actual holding time.
Y	Laboratory analysis was from an unpreserved or improperly preserved sample.

To calculate the monthly average, add each reported value to get a total. For flow, divide this total by the number of days in the month. For all other parameters, divide the total by the number of observations.
Plant Staffing: List the name, certificate number, and class of all state certified operators operating the facility during the monitoring period. Use additional sheets as necessary.

PART D - GROUND WATER MONITORING REPORT

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.
Date Sample Obtained: Enter the date the sample was taken. Also, check whether or not the well was purged before sampling.
Time Sample Obtained: Enter the time the sample was taken.
Sample Measurement: Record the results of the analysis. If the result was below the minimum detection limit, indicate that. Data qualifier codes are not to be reported on Part D.
Detection Limits: Record the detection limits of the analytical methods used.
Analysis Method: Indicate the analytical method used. Record the method number from Chapter 62-160 or Chapter 62-601, F.A.C., or from other sources.
Sampling Equipment Used: Indicate the procedure used to collect the sample (e.g. airlift, bucket/bailer, centrifugal pump, etc.)
Samples Filtered: Indicate whether the sample obtained was filtered by laboratory (L), filtered in field (F), or unfiltered (N).
Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.
Comments and Explanation: Use this space to make any comments on or explanations of results that are unexpected. If more space is needed, reference all attachments in this area.

SPECIAL INSTRUCTIONS FOR LIMITED WET WEATHER DISCHARGES

Flow (Limited Wet Weather Discharge): Enter the measured average flow rate during the period of discharge or divide gallons discharged by duration of discharge (converted into days). Record in million gallons per day (MGD).
Flow (Upstream): Enter the average flow rate in the receiving stream upstream from the point of discharge for the period of discharge. The average flow rate can be calculated based on two measurements; one made at the start and one made at the end of the discharge period. Measurements are to be made at the upstream gauging station described in the permit.
Actual Stream Dilution Ratio: To calculate the Actual Stream Dilution Ratio, divide the average upstream flow rate by the average discharge flow rate. Enter the Actual Stream Dilution Ratio accurate to the nearest 0.1.
No. of Days the SDF > Stream Dilution Ratio: For each day of discharge, compare the minimum Stream Dilution Factor (SDF) from the permit to the calculated Stream Dilution Ratio. On Part B of the DMR, enter an asterisk (*) if the SDF is greater than the Stream Dilution Ratio on any day of discharge. On Part A of the DMR, add up the days with an "*" and record the total number of days the Stream Dilution Factor was greater than the Stream Dilution Ratio.
$CBOD_5$: Enter the average $CBOD_5$ of the reclaimed water discharged during the period shown in duration of discharge.
TKN: Enter the average TKN of the reclaimed water discharged during the period shown in duration of discharge.
Actual Rainfall: Enter the actual rainfall for each day on Part B. Enter the actual cumulative rainfall to date for this calendar year and the actual total monthly rainfall on Part A. The cumulative rainfall to date for this calendar year is the total amount of rain, in inches, that has been recorded since January 1 of the current year through the month for which this DMR contains data.
Rainfall During Average Rainfall Year: On Part A, enter the total monthly rainfall during the average rainfall year and the cumulative rainfall for the average rainfall year. The cumulative rainfall for the average rainfall year is the amount of rain, in inches, which fell during the average rainfall year from January through the month for which this DMR contains data.
No. of Days LWWD Activated During Calendar Year: Enter the cumulative number of days that the limited wet weather discharge was activated since January 1 of the current year.
Reason for Discharge: Attach to the DMR a brief explanation of the factors contributing to the need to activate the limited wet weather discharge.

Florida Department of Environmental Protection
Twin Towers Office Bldg., 2600 Blair Stone Road, Tallahassee, Florida 32399-2400

PATHOGEN MONITORING

Part I - Instructions

1. Completion of this report is required by Rules 62-610.463(4), 62-610.472(3)(d), 62-610.525(13), 62-610.568(11), 62-610.568(12), and 62-610.652(6)(c), F.A.C., for all domestic wastewater facilities that provide reclaimed water to certain types of reuse activities. The schedule for sampling and reporting shall be in accordance with the permit for the facility. If a schedule for sampling or re-sampling is not included in the permit, the following schedule shall apply:

   a. Routine Sampling:

      If sampling is required once every two years, this report shall be submitted on or before November 28 of each even numbered year (2006, 2008, 2010, etc.).

      If sampling is required once every five years, this report shall be submitted with the application for permit renewal.

      If sampling is required quarterly, this report shall be submitted on or before February 28, May 28, August 28, and November 28 of each year.

   b. Subsequent Re-Sampling:

      If subsequent re-sampling is required by Item 9 in Part I of this form, this form shall be submitted for the subsequent re-sampling(s) in accordance with the schedule established in Item 9 in Part I of this form.

2. Submit one copy of this form and a copy of the laboratory's final report for the analysis of *Giardia* and *Cryptosporidium* to each of the following two addresses:

   a. The appropriate DEP district office (attention Domestic Wastewater Program). Addresses for the DEP district offices are available at www.dep.state.fl.us/secretary/dist/default.htm.

   b. DEP Water Reuse Coordinator
      Mail Station 3540
      2600 Blair Stone Road
      Tallahassee, Florida 32399-2400

3. Please type or print legibly.

4. In Part II, Items 7 through 12 need to be completed only if this is the first submittal of this report, if the information in Items 7 through 12 has changed since the last submittal, or if the information in any of these questions has not been previously provided.

5. Part III is to be used when sampling for *Giardia* and *Cryptosporidium* at the treatment plant. Part III is also to be used when sampling for *Giardia* and *Cryptosporidium* in a supplemental water supply (see Rule 62-610.472, F.A.C.).

6. For each sample, record the sample volume obtained in liters.

7. For *Giardia*, record the concentrations in cysts per 100 liters. For *Cryptosporidium*, record the concentrations in oocysts per 100 liters. Sufficient sample volumes shall be collected and processed such that the detection limit is no greater than 5 cysts or oocysts per 100 liters. Detection levels on the order of 1 cyst or oocyst per 100 liters are recommended. If an observation is less than the detection limit, make an entry in the form "<2" (where 2 per 100 liters is the detection limit in this example). The actual detection limit will be dictated by the volumes of sample obtained, filtered, and processed. Do NOT record nondetectable values as zero.

8. EPA Method 1623 or other approved methods for reclaimed water or nonpotable waters, adjusted appropriately to accommodate the detection limit requirements, shall be used. Methods previously allowed for EPA's Information Collection Rule (ICR) shall not be used. The full requirements of the approved method, including quality assurance and quality control, are to be met. Quality assurance and sampling requirements in Chapter 62-160, F.A.C., shall apply.

   Two concentrations of *Giardia* and *Cryptosporidium* shall be recorded on Part III of this form:

   a. Total cysts and oocysts shall be enumerated using EPA Method 1623 or other approved methods.

   b. Potentially viable cysts and oocysts shall be enumerated using the DAPI staining technique contained in EPA Method 1623 or similar enumeration techniques included in other approved methods. Cysts and oocysts that are stained DAPI positive or show internal structure by D.I.C. shall be considered as being potentially viable. If the laboratory reports separate values for DAPI positive and for cysts or oocysts having internal structure, the larger of the two concentrations will be reported as being potentially viable.

9. If the number of potentially viable cysts of *Giardia* reported exceeds 5 per 100 liters, a subsequent sample shall be taken and analyzed using EPA Method 1623 or other approved methods and reported using this form. If the number of potentially viable oocysts of *Cryptosporidium* reported exceeds 22 per 100 liters, a subsequent sample shall be taken and analyzed using EPA Method 1623 or other approved methods and reported using this form. This subsequent sample shall be collected within 90 days of the date the initial sample was taken, analyzed for both *Giardia* and *Cryptosporidium*, and the results of the subsequent analysis shall be submitted to DEP using this form within 60 days of sample collection.

10. Rule 62-160.300, F.A.C., requires that all laboratories generating environmental data for submission to the DEP shall hold certification from the Department of Health's (DOH) Environmental Laboratory Certification Program (ELCP). Certification by the ELCP for analysis of *Giardia* and *Cryptosporidium* using EPA Method 1623 for non-potable waters is required. If other approved methods are used, certification by the ELCP is required for the specific method and for the test matrix. Lists of certified laboratories can be found at www.dep.state.fl.us/labs/cgi-bin/aams/index.asp

11. Samples shall be collected during peak flow periods (normally between the hours of 8:00 a.m. and 6:00 p.m.).

12. Recognizing that concentrations of these pathogens generally increase during the late summer through fall period, it is recommended that utilities sample during the August through October time period.

13. If the wastewater treatment facility uses chlorination for disinfection, samples obtained for analysis of *Giardia* and *Cryptosporidium* shall be dechlorinated.

14. When sampling at the treatment facility, obtain a grab sample for total suspended solids (TSS) that is representative of the water leaving the filters at the treatment facility during the period when pathogen

samples are being obtained. In addition, record the highest turbidity and the lowest total chlorine residual observed during the period when pathogen samples are being obtained.

15. When sampling a supplemental water supply, obtain a grab sample for total suspended solids (TSS) that is representative of the surface water or treated stormwater as it is added to the reclaimed water system. This TSS sample shall be taken during the period when pathogen samples are being obtained. In addition, record the lowest total chlorine residual observed during the period when pathogen samples are being obtained.

Part II - General Information

1. DEP wastewater facility identification number: **FL0102679**

   Wastewater facility name: BCUD/South Central Regional

   Permittee name: Brevard County Utility Services Department

2. Person completing this form:

   Name: _____

   Telephone: (_____)_____

   Email address: _____

3. Sampling and analysis:

   Date samples were taken: _____

   Organization collecting the samples: _____

   Was the sample dechlorinated in the field? ☐ Yes ☐ No

   Was the sample refrigerated or kept on ice during shipment to the laboratory? ☐ Yes ☐ No

   Date samples delivered to laboratory: _____

   Date analytical work was done: _____

   Laboratory doing the analysis: _____

   Laboratory's DOH Identification Number: _____

   Approved method used:

   ☐ EPA Method 1623

   ☐ Other approved method: _____

   Contact person at the laboratory: _____

   Email address of the lab contact person: _____

4. Is this the first time that this form has been submitted for the facility?

   ☐ Yes [Please complete Questions 7 through 16.]

   ☐ No [Proceed to Question 5.]

5. Is this a report of "subsequent re-sampling" required by Item 9 in Part I of this form based on concentrations of potentially viable cysts or oocysts in a previous sampling?

☐ No [Proceed to Question 6.]

☐ Yes [Attach a description of any facility or operational changes made to the treatment facilities since the time of the previous sampling and proceed to Question 6.]

6. Has the information requested in Questions 7 through 12 (below) changed since the last submittal of this form?

☐ Yes [Please complete Questions 7 through 16.]

☐ No [Proceed to Questions 13 through 16 of Part II of this form. You do not need to complete Questions 7 through 12.]

7. Type of secondary treatment system:

☐ Conventional activated sludge ☐ Extended aeration

☐ Contact stabilization ☐ Biological nutrient removal (such as Bardenpho)

☐ Other: _____

8. Does this treatment facility nitrify (convert ammonia nitrogen to nitrate)? ☐ Yes ☐ No

9. Filter type:

☐ Deep bed, single media ☐ Deep bed, multiple media

☐ Shallow bed, automatic backwash ☐ Upflow (including Dynasand)

☐ Slow rate sand filter ☐ Diatomaceous earth filter

☐ Fabric filter ☐ Cartridge filter

☐ Membranes (microfiltration, ultrafiltration, membrane bioreactor, reverse osmosis)

☐ Other: _____

10. Filter Media (complete for each type of media provided):

Top layer of media: Media type: _____

Effective size: _____ mm

Uniformity coefficient: _____

Bed depth: _____ inches

Middle layer of media: Media type: _____

Effective size: _____ mm

Uniformity coefficient: _____

Bed depth: _____ inches

Bottom layer of media: Media type: _____

Effective size: _____ mm

Uniformity coefficient: _____

Bed depth: _____ inches

11. Filter backwash water:

☐ Backwash water is returned to the headworks of the treatment plant.

☐ Backwash water is returned to the aeration basin.

☐ Other. Please describe: _____

12. Disinfection system:

☐ Chlorination, gas ☐ Hypochlorite

☐ Chlorine dioxide ☐ Chlorination, other _____

☐ Ultraviolet ☐ Ozone

☐ Other: _____

13. Is chlorine added before the filters? ☐ No ☐ Yes Dose: _____ mg/L

14. During the period that samples were taken, did you add a coagulant, coagulant aid, polyelectrolyte, or other chemical to enhance filtration?

☐ No

☐ Yes. Please list the chemicals being added and their dose.

Chemical 1 - Name: _____ Dose: _____ mg/L

Chemical 2 - Name: _____ Dose: _____ mg/L

Chemical 3 - Name: _____ Dose: _____ mg/L

15. Wastewater treatment plant permitted capacity: _____ MGD

16. Wastewater flow being treated at the time samples were collected: _____ MGD

PART III - PATHOGEN MONITORING REPORT

FACILITY ID: FL0102679
FACILITY NAME: BCUD/South Central Regional
FACILITY ADDRESS: 10001 N Wickham Rd, Melbourne, FL 32940-6604
PERMITTEE NAME: Brevard County Utility Services Department
MAILING ADDRESS: 2725 Judge Fran Jamieson Way, BLDG. A-213, Melbourne, Florida 32940- 6605
DATE OF SAMPLING: _____

Parameter	Quantity or Loading		Quality or Concentration	
	Sample Measurement	Units	Sample Measurement	Units
Treatment Plant: After Filter Monitoring Site No.				
Turbidity PARM Code 00070				NTU
TSS PARM Code 00530				mg/L
Treatment Plant: After Disinfection Monitoring Site No.				
Total Chlorine Residual PARM Code 50060				mg/L
Volume Collected PARM Code 71994		Liters		
Giardia, total count * PARM Code GIARD				total cysts/100 L
Giardia, potentially viable cysts * PARM Code VGIAR				potentially viable cysts/100 L
Cryptosporidium, total count * PARM Code CRYPT				total oocysts/100 L
Cryptosporidium, potentially viable oocysts * PARM Code VCRYP				potentially viable oocysts/100 L
Supplemental Water Supply (surface water or stormwater): After Treatment & Disinfection Monitoring Site No.				
TSS PARM Code 00530				mg/L
Total Chlorine Residual PARM Code 50060				mg/L
Volume Collected PARM Code 71994		Liters		
Giardia (total count) * PARM Code GIARD				total cysts/100 L
Giardia, potentially viable cysts * PARM Code VGIAR				potentially viable cysts/100 L
Cryptosporidium, total count * PARM Code CRYPT				total oocysts/100 L
Cryptosporidium, potentially viable oocysts * PARM Code VCRYP				potentially viable oocysts/100 L

* Data entries must be made for both total and potentially viable cysts and oocysts.

PART IV - CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein; and based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name/Title of Principle Executive Officer or Authorized Agent (Type or Print)	Signature of Principle Executive Officer or Authorized Agent	Telephone No.	Date (YY/MM/DD)
	Email Address		

FACT SHEET
FOR
STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

PERMIT NUMBER: FL0102679-018 (Minor)

FACILITY NAME: BCUD/South Central Regional

FACILITY LOCATION: 10001 N Wickham Rd, Melbourne, FL 32940-6604
Brevard County

NAME OF PERMITTEE: Brevard County Utility Services Department

PERMIT WRITER: Charles R. LeGros

1. SUMMARY OF APPLICATION

a. Chronology of Application

Application Number: FL0102679-018-DW1P

Application Submittal Date: November 4, 2020 and additional information Feb 24, 2021

b. Type of Facility

Domestic Wastewater Treatment Plant

Ownership Type: Municipal

SIC Code: 4952

c. Facility Capacity

Existing Permitted Capacity:	12.0 MGD Annual Average Daily Flow
Proposed Increase in Permitted Capacity:	0 MGD Annual Average Daily Flow
Proposed Total Permitted Capacity:	12.0 MGD Annual Average Daily Flow

d. Description of Wastewater Treatment

An existing 12.0 million gallon per day (MGD) annual average daily flow (AADF) permitted capacity activated sludge advanced wastewater treatment (AWT) plant utilizing the IFAS BNR and Carrousel BNR Treatment Process. The plant consists of a mechanical bar screen and de-gritter assembly, 5-stage IFAS BNR and 4-stage Carrousel BNR Process (anaerobic tanks, first anoxic tanks, extended oxidation ditches, second anoxic tanks, re-aeration tanks), clarifiers, chemical feed facilities, filters and chlorination, with aerobic digestion and belt-thickening of biosolids. The facility utilizes electronic sensors and automatic diversion valves, two (2) 1.0 million gallon on-site reclaimed water covered ground storage tank and associated high service pump station, and a standby power generator. The facility includes a Septage and Grease receiving station with flow metering, mechanical screening, and a holding tank with a submersible mixer. The facility may supplement the reclaimed water production with storm water introduced into the collection system of the facility.

e. Description of Effluent Disposal and Land Application Sites (as reported by applicant)

Surface Water Discharge D-001: An existing 0.990 MGD annual average daily flow discharge to 4-Mile Canal, Class III Fresh Waters, (WBID# 2893N) which is approximately 128 feet in length and discharges at a depth of approximately 0 feet. The outfall pipe is a 60" diameter concrete culvert that discharges to the 4-Mile Canal. The point of discharge is located approximately at latitude 28°13' 48" N, longitude 80°46' 14" W.

Land Application R-001: An existing 8.2 MGD annual average daily flow permitted capacity slow-rate public access system. R-001 is a reuse system which consists of on-site irrigation at the plant, and within the approved Reuse Service Area, as shown on the attached map, and identified in Section IV of this permit

Reclaimed water is discharged into stormwater storage lake system(s) D-002 located at the Indian River Colony Club Golf Course. The reclaimed water is stored in an existing stormwater retention pond with a storage capacity of 4.5 million gallons, which has an intermittent discharge to adjacent drainage features (6-Mile Canal), which ultimately discharges to the St. Johns River. Discharge of reclaimed water to this stormwater retention pond shall be in accordance with Condition I.B. 12 of this permit.

Stormwater from the following sources may be introduced into the sanitary sewerage system to augment the supply of reclaimed water: The facility may introduce storm water from a retention pond into the collection system at the wet well of Lift Station W-09 (Silver Pines Subdivision).

Land Application R-002: An existing 2.5 MGD annual average daily flow permitted capacity slow-rate restricted public access system. R-002 is a reuse system which consists of Created Wetlands with 200± acres (163± total wetted acres) comprising four (4) cells and an interior lake. The detention time through this created wetland system is approximately 53 days, and is located approximately at latitude 28°13' 47" N, longitude 80°46' 18" W.

Monitoring Group D-001:

4-Mile Canal, Class III Fresh Waters

Pollutants which are present in significant quantities or which are subject to permit limitations are as follows (Data October 2018 through September 2020)(one discharge event in last two years - 19 days in 2020 due to heavy rains):

Parameter	Units	Max/Min	Reported Value	Statistical Basis
Flow	MGD	-	0.71	Annual Average
BOD, Carbonaceous 5 day, 20C	mg/L	-	5.15	Monthly Average
BOD, Carbonaceous 5 day, 20C	lb/mth	-	43	Monthly Total
Solids, Total Suspended	mg/L	-	1.58	Monthly Average
pH	s.u.	Max	7.99	Single sample
pH	s.u.	Min	6.52	Single sample
Nitrogen, Total	mg/L	-	2.1	Monthly average
Nitrogen, Kjeldahl, Total (as N)	mg/L	-	1.44	Monthly average
Nitrogen, Ammonia, Total (as N)	mg/L	-	0.19	Monthly average
Ammonia, Unionized (as NH3)	mg/L	-	0.01	Monthly average
Phosphorus, Total (as P)	mg/L	-	0.07	Monthly average
Phosphorus, Total (as P)	lb/mth	-	0.58	Monthly average
Oxygen, Dissolved (DO)	mg/L	Min	3.83	Single sample

2. SUMMARY OF SURFACE WATER DISCHARGE

This facility does not have a new or expanded discharge to surface waters.

The Department does not anticipate adverse impacts on threatened or endangered species as a result of permit issuance.

3. BASIS FOR PERMIT LIMITATIONS AND MONITORING REQUIREMENTS

This facility is authorized to discharge effluent from Outfall D-001 to4-Mile Canal based on the following:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (Outfall D-001)	MGD	Max	0.990	Annual Average	62-600.700(2)(b) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) FAC
		Max	Report	Daily Maximum	62-601.300(6) FAC
BOD, Carbonaceous 5 day, 20C	mg/L	Max	3.0	Annual Average	62-600.430. FAC
		Max	3.75	Monthly Average	62-600.740(1)(b) 2.b. FAC
		Max	4.5	Weekly Average	62-600.740(1)(b) 2.c. FAC
		Max	6.0	Single Sample	62-600.740(1)(b) 2.d. FAC
BOD, Carbonaceous 5 day, 20C	lb/yr	Max	2000	Single Sample	62-304.510(1)(a) FAC
BOD, Carbonaceous 5 day, 20C	lb/mth	Max	Report	Monthly Total	62-304.510(1)(a) FAC
Solids, Total Suspended	mg/L	Max	3.0	Annual Average	62-600.430. FAC
		Max	3.75	Monthly Average	62-600.740(1)(b) 2.b. FAC
		Max	4.5	Weekly Average	62-600.740(1)(b) 2.c. FAC
		Max	6.0	Single Sample	62-600.740(1)(b) 2.d. FAC
Coliform, Fecal	#/100mL	Max	Report	Weekly Average	62-611 FAC & 62-302 FAC
pH	s.u.	Min	6.5	Single Sample	62-302.530(52) FAC
		Max	8.0	Single Sample	62-302.530(52) FAC
Nitrogen, Total	mg/L	Max	2.0	Monthly Average	62-600.740(1)(b) 2.b. FAC
		Max	2.4	Weekly Average	62-600.740(1)(b) 2.c. FAC
		Max	3.2	Single Sample	62-600.740(1)(b) 2.d. FAC
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Monthly Average	62-302 FAC
Nitrite plus Nitrate, Total 1 det. (as N)	mg/L	Max	Report	Monthly Average	62-302 FAC
Nitrogen, Ammonia, Total (as N) (Effluent)	mg/L	Max	Report	Monthly Average	62-302.530(7) FAC
Nitrogen, Ammonia, Total (as N) (calculated limit)	mg/L	Max	Report	Monthly Average	62-302.530(7) FAC
Nitrogen, Ammonia, Total (as N) (effluent minus calculated limit)	mg/L	Max	0.00	Monthly Average	62-302.530(7) FAC
Nitrogen, Ammonia, Total (as N)	mg/L	Max	2.5	Single Sample	62-302.530(7) FAC
Phosphorus, Total (as P)	mg/L	Max	0.2	Monthly Average	62-600.740(1)(b) 2.b. FAC
		Max	0.24	Weekly Average	62-600.740(2)(b) 3. FAC
		Max	0.32	Single Sample	62-600.740(2)(b)4. FAC
Phosphorus, Total (as P)	lb/yr	Max	46	Single Sample	62-304.510(1)(a) FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Phosphorus, Total (as P)	lb/mth	Max	Report	Monthly Total	62-304.510(1)(a) FAC
Phosphate, Ortho (as P)	mg/L	Max	Report	Monthly Average	62-302 FAC
Sulfate, Total	mg/L	Max	Report	Monthly Average	62-302 FAC
Chloride (as Cl)	mg/L	Max	Report	Monthly Average	62-302 FAC
Alkalinity, Total (as CaCO3)	mg/L	Max	Report	Monthly Average	62-302 FAC
Specific Conductance	umhos/cm	Max	Report	Monthly Average	62-302 FAC
Temperature (C), Water	Deg C	Max	Report	Monthly Average	62-302 FAC
Oxygen, Dissolved (DO)	mg/L	Max	Report	Monthly Average	62-302 FAC
Water Level at samp. collection time	ft	Max	Report	Monthly Average	62-611.700(1) FAC

Because this is a discharge from a wetland, monitoring chlorine residual is not required in the permit for D-001 as in previous permits. The previous permit required 5 day per week monitoring of fecal coliform and reporting of the weekly average. Monitoring for E. Coli was not added to the permit since this is not a direct discharge with disinfection requirements.

Toxicity testing is not required for this discharge.

This facility is authorized to direct reclaimed water to Reuse System R-001, a slow-rate public access system, based on the following:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (Public access reuse)	MGD	Max	8.2	Annual Average	62-600.700(2)(b) & 62-610.810(5) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) & 62-610.810(5) FAC
BOD, Carbonaceous 5 day, 20C	mg/L	Max	20.0	Annual Average	62-610.460 & 62-600.420(3)(a)1. FAC
		Max	30.0	Monthly Average	62-610.460 & 62-600.420(3)(a)2. FAC
		Max	45.0	Weekly Average	62-610.460 & 62-600.420(3)(a)3. FAC
		Max	60.0	Single Sample	62-610.460 & 62-600.420(3)(a)4. FAC
BOD, Carbonaceous 5 day, 20C	mg/L	Max	20.0	Annual Average	62-610.460 & 62-600.420(3)(a)1. FAC
		Max	30.0	Monthly Average	62-610.460 & 62-600.420(3)(a)2. FAC
		Max	45.0	Weekly Average	62-610.460 & 62-600.420(3)(a)3. FAC
		Max	60.0	Single Sample	62-610.460 & 62-600.420(3)(a)4. FAC
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	62-610.460(1) & 62-600.440(6)(a)3. FAC
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	62-610.460(1) & 62-600.440(6)(a)3. FAC
Coliform, Fecal	#/100mL	Max	25	Single Sample	62-610.460 & 62-600.440(6)(a)2. FAC
Coliform, Fecal	#/100mL	Max	25	Single Sample	62-610.460 & 62-600.440(6)(a)2. FAC
Coliform, Fecal, % less than detection	percent	Min	75	Minimum Total	62-610.460 & 62-600.440(6)(a)1. FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Coliform, Fecal, % less than detection	percent	Min	75	Minimum Total	62-610.460 & 62-600.440(6)(a)1. FAC
pH	s.u.	Min	6.0	Single Sample	62-600.445 FAC
		Max	8.5	Single Sample	62-600.445 FAC
pH	s.u.	Min	6.0	Single Sample	62-600.445 FAC
		Max	8.5	Single Sample	62-600.445 FAC
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	62-600.440(6)(b), 62-610.460(2), & 62-610.463(2) FAC
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	62-600.440(6)(b), 62-610.460(2), & 62-610.463(2) FAC
Turbidity	NTU	Max	Report	Single Sample	62-610.463(2) FAC
Turbidity	NTU	Max	Report	Single Sample	62-610.463(2) FAC
Giardia	cysts/100L	Max	Report	Single Sample	62-610.463(4) FAC
Giardia	cysts/100L	Max	Report	Single Sample	62-610.463(4) FAC
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	62-610.463(4) FAC
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	62-610.463(4) FAC
Nitrogen, Total*	mg/L	Max	10.0	Annual Average	FDEP Final Order 21-0082
		Max	Report	Monthly Average	FDEP Final Order 21-0082
Nitrogen, Total*	mg/L	Max	10.0	Annual Average	FDEP Final Order 21-0082
		Max	Report	Monthly Average	FDEP Final Order 21-0082
Phosphorus, Total (as P) *	mg/L	Max	6.0	Annual Average	62-600.650(3) FAC
		Max	Report	Monthly Average	62-600.650(3) FAC
Phosphorus, Total (as P) *	mg/L	Max	6.0	Annual Average	62-600.650(3) FAC
		Max	Report	Monthly Average	62-600.650(3) FAC
Flow (Baytree Golf Course Pond)	MGD	Max	Report	Annual Average	62-600.400(3)(b) FAC
		Max	Report	Monthly Average	62-600.400(3)(b) FAC
Flow (Viera Golf Course Pond)	MGD	Max	Report	Annual Average	62-600.400(3)(b) FAC
		Max	Report	Monthly Average	62-600.400(3)(b) FAC
Flow (Indian River Colony Club)	MGD	Max	Report	Annual Average	62-600.400(3)(b) FAC
		Max	Report	Monthly Average	62-600.400(3)(b) FAC
Flow (Duran Golf Course)	MGD	Max	Report	Annual Average	62-600.400(3)(b) FAC
		Max	Report	Monthly Average	62-600.400(3)(b) FAC

*The Department adopted a Basin Management Action Plan (BMAP) for the Indian River North BMAP on February 17, 2021. This permit has been revised to include an annual average limit of 10.0 mg/l of Total Nitrogen and 6.0 mg/l of Total Phosphorus in the reclaimed water. [FDEP Final Order 21-0082]

This facility is authorized to direct reclaimed water to Reuse System R-002, a slow-rate/restricted public access system, based on the following:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (wetlands)	MGD	Max	2.5	Annual Average	62-600.700(2)(b) & 62-610.810(5) FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
		Max	Report	Monthly Average	62-600.700(2)(b) & 62-610.810(5) FAC
BOD, Carbonaceous 5 day, 20C	mg/L	Max	5.0	Annual Average	BPJ
		Max	6.25	Monthly Average	62-600.740(1)(b) 1.b. FAC
		Max	7.5	Weekly Average	62-610.410 & 62-600.420(3)(a)3. FAC
		Max	10.0	Single Sample	62-610.410 & 62-600.420(3)(a)4. FAC
BOD, Carbonaceous 5 day, 20C	mg/L	Max	5.0	Annual Average	BPJ
		Max	6.25	Monthly Average	62-600.740(1)(b) 1.b. FAC
		Max	7.5	Weekly Average	62-610.410 & 62-600.420(3)(a)3. FAC
		Max	10.0	Single Sample	62-610.410 & 62-600.420(3)(a)4. FAC
Solids, Total Suspended	mg/L	Max	5.0	Annual Average	BPJ
		Max	6.25	Monthly Average	62-610.410 & 62-600.420(3)(b)2. FAC
		Max	7.5	Weekly Average	62-610.410 & 62-600.420(3)(b)3. FAC
		Max	10.0	Single Sample	62-610.410 & 62-600.420(3)(b)4. FAC
Solids, Total Suspended	mg/L	Max	5.0	Annual Average	BPJ
		Max	6.25	Monthly Average	62-610.410 & 62-600.420(3)(b)2. FAC
		Max	7.5	Weekly Average	62-610.410 & 62-600.420(3)(b)3. FAC
		Max	10.0	Single Sample	62-610.410 & 62-600.420(3)(b)4. FAC
Coliform, Fecal	#/100mL	Max	200	Monthly Geometric Mean	62-610.410 & 62-600.440(5)(a)2. FAC
		Max	200	Annual Average	62-610.410 & 62-600.440(5)(a)1. FAC
		Max	800	Single Sample	62-610.410 & 62-600.440(5)(a)4. FAC
Coliform, Fecal	#/100mL	Max	200	Monthly Geometric Mean	62-610.410 & 62-600.440(5)(a)2. FAC
		Max	200	Annual Average	62-610.410 & 62-600.440(5)(a)1. FAC
		Max	800	Single Sample	62-610.410 & 62-600.440(5)(a)4. FAC
pH	s.u.	Min	6.0	Single Sample	62-600.445 FAC
		Max	8.5	Single Sample	62-600.445 FAC
pH	s.u.	Min	6.0	Single Sample	62-600.445 FAC
		Max	8.5	Single Sample	62-600.445 FAC
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	62-600.510 FAC
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	62-600.510 FAC
Nitrogen, Total	mg/L	Max	6.0	Annual Average	BPJ
		Max	7.5	Monthly Average	62-600.740(1)(b) 2.b. FAC
		Max	9.0	Weekly Average	62-600.740(1)(b) 2.c. FAC
		Max	12.0	Single Sample	62-600.740(1)(b) 2.d. FAC
Nitrogen, Total	mg/L	Max	6.0	Annual Average	BPJ
		Max	7.5	Monthly Average	62-600.740(1)(b) 2.b. FAC
		Max	9.0	Weekly Average	62-600.740(1)(b) 2.c. FAC
		Max	12.0	Single Sample	62-600.740(1)(b) 2.d. FAC
Phosphorus, Total (as P)	mg/L	Max	0.75	Annual Average	BPJ
		Max	0.94	Monthly Average	62-600.740(1)(b) 2.b. FAC
		Max	1.125	Weekly Average	62-600.740(1)(b) 2.c. FAC
		Max	1.5	Single Sample	62-600.740(1)(b) 2.d. FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Phosphorus, Total (as P)	mg/L	Max	0.75	Annual Average	BPJ
		Max	0.94	Monthly Average	62-600.740(1)(b) 2.b. FAC
		Max	1.125	Weekly Average	62-600.740(1)(b) 2.c. FAC
		Max	1.5	Single Sample	62-600.740(1)(b) 2.d. FAC
Flow	MGD	Max	Report	Annual Average	62-600.700(2)(b) & 62-610.810(5) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) & 62-610.810(5) FAC

Other Limitations and Monitoring Requirements:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (Total Through Plant)	MGD	Max	12.0	Annual Average	62-600.700(2)(b) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) FAC
		Max	Report	3-Month Rolling Average	62-600.700(2)(b) FAC
Percent Capacity, (TMADF/Permitted Capacity) x 100	percent	Max	Report	Monthly Average	62-600.405(4) FAC
BOD, Carbonaceous 5 day, 20C (Influent)	mg/L	Max	Report	Single Sample	62-600.660(1) FAC
Solids, Total Suspended (Influent)	mg/L	Max	Report	Single Sample	62-600.660(1) FAC
Rainfall	in	Max	Report	Single Sample	BPJ
Monitoring Frequencies and Sample Types	-	-	-	All Parameters	62-600 FAC & 62-699 FAC and/or BPJ of permit writer
Sampling Locations	-	-	-	All Parameters	62-600, 62-610.412, 62-610.463(1), 62-610.568, 62-610.613 FAC and/or BPJ of permit writer

4. IMPAIRMENT STATUS OF RECEIVING WATERS

Under Section 303(d) of the Clean Water Act, the Department is required to submit lists of impaired waters to EPA. The direct receiving water bodies for this facility's discharge to surface waters are not listed on the 303(d) list.

5. DISCUSSION OF CHANGES TO PERMIT LIMITATIONS

The current wastewater permit for this facility FL0102679-012-DW1P issued April 08, 2016 and expires on May 4, 2021. Permit revision FL0102679-013 was to allow expansion of the treatment facility (not discharge) and rolled into the renewal FL0102679-012. Permit revision FL0102679-014 issued September 15, 2016 was to allow the introduction of supplemental stormwater into the collection system. Permit revision FL0102679-015 issued October 18, 2016 was to require electronic submittal of discharge monitoring reports through EZDMR. Permit revision FL0102679-016 issued February 7, 2018 was to modify the expansion construction schedule in the permit. Permit revision FL0102679-017 issued July 21, 2020 was to allow construction of offsite force main to tie into the influent force main. The new wastewater permit for this facility FL0102679-018-DW1P expires on July 11, 2026.

The Department adopted a Basin Management Action Plan (BMAP) for the Indian River North BMAP on February 17, 2021. This permit has been revised to include an annual average limit of 10.0 mg/l of Total Nitrogen and 6.0 mg/l of Total Phosphorus in the reclaimed water. [FDEP Final Order 21-0082]

The facility had previously requested a reduction in the existing discharge to less than 1.0 MGD AADF permitted capacity. The facility is not required to have an industrial pretreatment program and the facility has been reclassified as a minor discharger.

The limit for unionized ammonia water quality criteria has been replaced with total ammonia nitrogen (TAN) criterion for fresh water. (62-302.530(7) FAC)

For the public access reuse system (R-001), TSS and fecal coliform sampling is reduced to 4 days/week in accordance with Rule 62-600.660(1), footnote 4 FAC.

For the public access reuse system (R-001), $CBOD_5$ sampling is 5 days/week in accordance with the previous permit, rule 62-600.650(3) FAC, and BPJ.

Historical:

The WQBEL's for discharge to this section of the St. Johns River for $CBOD_5$, TSS, Total Nitrogen (TN) and Total Phosphorus (TP) (3.0, 3.0, 1.6, 0.16 mg/L, respectively), were established by the Department during the issuance of State Permit DC05-252530 for the construction of the Titusville/South/Blue Heron created wetlands system (issued on October 4, 1994). The effluent limitations for nutrients for that facility were established based on background levels observed in the Upper St. Johns River.

Since the BCUD South Central created wetland system also discharges to the Upper St. Johns River, the Titusville/South/Blue Heron created wetlands system effluent limitations referenced in the paragraph above were also appropriate for this created wetland discharge. Rule 62-620.620(2)(d)(2), FAC, required that annual, monthly, weekly and single sample concentration limits be stated in the permit, with the additional effluent limitations created using the multipliers in Rule 62-600.740(1)(b)2. (a, b, c and d), FAC., but due to the consistent reductions in discharge, revisions were made to omit the annual average limits. Color is omitted from the permit because there is no numeric criterion. The WQBEL for TP is replaced by the wasteload allocation in the Total Maximum Daily Load, ***as described below***. The TN limits are retained and provide reasonable assurance that the discharge will not cause or contribute to exceedances of the Numeric Nutrient Criteria (NNC) in the receiving or downstream waters.

The Total Maximum Daily Load (TMDL) for various lakes in the Upper St. Johns River has been finalized by the Department. It recommends that this facility keep its current discharge loadings; no load reduction is required. As stated in the TMDL documentation, "The TMDL includes a waste load allocation (WLA) of 0.023 tons/year for Total Phosphorus (TP) and 1.0 ton BOD/year. These were the highest loads produced by this facility based on data from 2001 to 2004." These annual load limits are retained in this permit, along with a monthly reporting requirement. The TMDL for USJR adopted by DEP is a site specific NNC for TP under 62-302.531(2)(a), FAC, and protects downstream waters as required by 62-302.531, FAC.

Because of the limited discharge during this permit cycle, there has been only one scan of the priority pollutants listed in the "Expanded Effluent Testing" section of the permit application, Form 2A. The facility has requested a reduction in the permitted capacity of the discharge to less than 1 MGD AADF, and does not have a pretreatment program, therefore, no additional testing of the effluent shall be required.

The Water Quality Based Effluent Limitation (WQBEL) Level I Analysis was performed for this permit renewal to ensure the discharge will not adversely impact the receiving water body. The created wetland system serves as a back-up discharge mechanism for the County's extensive public access reuse system. As stated in the application package, "discharge from the wetlands will occur primarily during periods of sustained wet weather." During these periods, river flows will be high and the detention time for the riverine lakes will be low. Under these conditions, the impacts of the nutrient loadings will be at their minimum."

The reclaimed water discharged from the created wetland shall be sampled for 48-hour dissolved oxygen water level at sample collection time and temperature (at four hour intervals from dawn to dusk) on a monthly basis when there is a discharge. The new DO criteria for % DO saturation has not been incorporated because the discharge from the wetland is very intermittent and development of a limit is not needed to provide reasonable assurance to protect the receiving water.

Monitoring for total chlorine residual for dechlorination is no longer included because the effluent is naturally de-chlorinated due to the long detention time (approximately 53 days) in the created wetlands system and underlying soils.

6. BIOSOLIDS MANAGEMENT REQUIREMENTS

Biosolids generated by this facility may be disposed of in a Class I solid waste landfill.

See the table below for the rationale for the biosolids quantities monitoring requirements.

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Biosolids Quantity (Received)	dry tons	Max	Report	Monthly Total	62-640.650(5)(a)1. FAC
Biosolids Quantity (Landfilled)	dry tons	Max	Report	Monthly Total	62-640.650(5)(a)1. FAC
Biosolids Quantity (Transferred)	dry tons	Max	Report	Monthly Total	62-640.650(5)(a)1. FAC
Monitoring Frequency		All Parameters			62-640.650(5)(a) FAC

7. GROUND WATER MONITORING REQUIREMENTS

Ground water monitoring requirements have been established in accordance with Chapters 62-520, 532, 600, 610, and 620, F.A.C.

8. PERMIT SCHEDULES

See permit.

9. INDUSTRIAL PRETREATMENT REQUIREMENTS

At this time, the facility is not required to develop an approved industrial pretreatment program. However, the Department reserves the right to require an approved program if future conditions warrant.

10. ADMINISTRATIVE ORDERS (AO) AND CONSENT ORDERS (CO)

This permit is accompanied by CO OGC#21-0180, effective March 25, 2021, which includes a schedule of compliance. The consent order is to address issues with the effluent discharge. The CO is hereby incorporated by reference.

11. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

No variances were requested for this facility.

12. THE ADMINISTRATIVE RECORD

The administrative record including application, draft permit, fact sheet, public notice (after release), comments received and additional information is available for public inspection at this link to the Department's online document storage system:

https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=hitlist&[freeText=]&[folderName=]&[profile=Permitting_Authorization]&[creator=]&[entityType=any]&[createdDateTo=]&[catalog=38]&[searchBy=Profile]&[sortBy=Document+Date]&[createdDate=]&{County=_EQ_BREVARD}&{District=_EQ_CD}&{Facility-Site+ID=_EQ_FL0102679}&{Received+Date=_RG_(11-01-2020,04-01-2022)}&{Permit+Type=_EQ_DW+-+DOMESTIC+WASTEWATER+FACILITY}&{Facility+Type=_LK_DOMESTIC+WASTEWATER}

13. PROPOSED SCHEDULE FOR PERMIT ISSUANCE

Draft Permit and Public Notice to Applicant and EPA	May 14, 2021
Notice of Intent to Issue	June 22, 2021
Notice of Permit Issuance	July 12, 2021

14. DEP CONTACT

Additional information concerning the permit and proposed schedule for permit issuance may be obtained during normal business hours from:

Charles LeGros
Environmental Consultant
Charles.legros@dep.state.fl.us
Central District Office

3319 Maguire Blvd
Suite 232
Orlando, FL 32803-3767

Telephone No.: (407) 897-4158

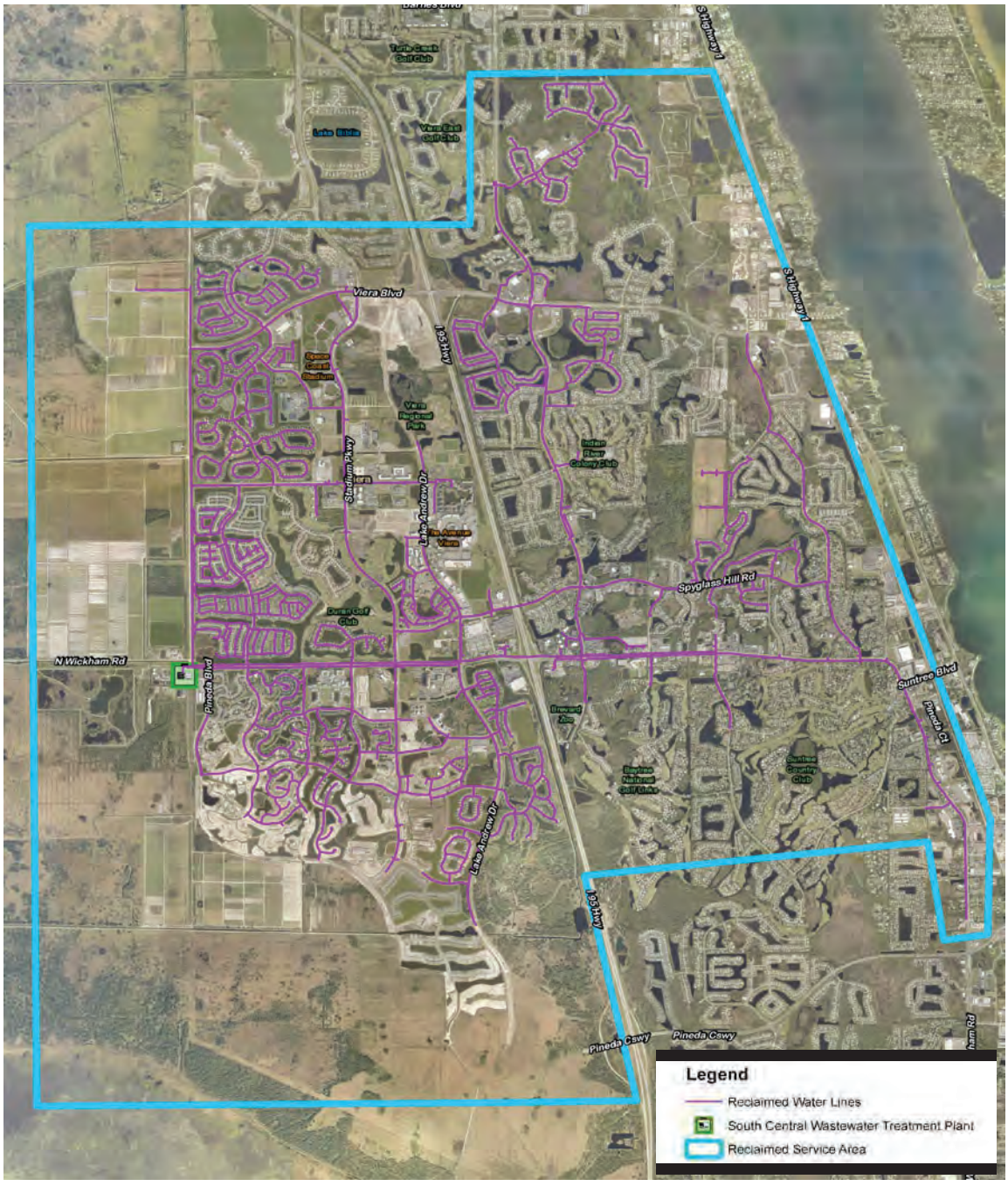

FIGURE 3.6-2

SOUTH CENTRAL REGIONAL RECLAIMED WATER SYSTEM SERVICE AREA

N
W E
S

0 300 600 1,200

1 Inch = 600 Feet

Brevard County South Central Surface Water Discharge

Date: 2/12/2021

Brevard COUNTY
Utility Services
Phone: 321-633-2089

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