SOUTH BEACHES WASTEWATER TREATMENT FACILITY

NON-BENEFICIAL SURFACE WATER DISCHARGE ELIMINATION PLAN

OCTOBER 2021

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Cover Sheet for Plan Submittal

Facility Name BCUD - South Beaches WWTF

Facility ID FL0040622

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;
X*	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	The plan does not eliminate the discharge – The discharge is into a stormwater management system and is subsequently withdrawn by a user for irrigation purposes;
	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.

* The plan does not eliminate the discharge. The discharge is an existing 0.11 MGD AADF surface water discharge to the Indian River Lagoon during Mechanical Integrity Testing (MIT) of the single Deep Injection Well at the South Beaches WWTF. No category for this in the table.

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.	**Reclaimed Water during MIT testing of DIW**	**Up to 0.11 MGD AADF per Permit**	**AWT and high-level disinfection are provided at the SBWWTF**
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.			
Discharge provides direct ecological or public water supply benefits.			

*** The plan does not eliminate the discharge. The discharge is an existing 0.11 MGD AADF surface water discharge to the Indian River Lagoon during Mechanical Integrity Testing (MIT) of the single Deep Injection Well at the South Beaches WWTF. No category for this in the table.**

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 BEACHES

WASTEWATER TREATMENT 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
SBWWTF	South Beaches Wastewater Treatment Facility
SCADA	Supervisory Control and Data Acquisition
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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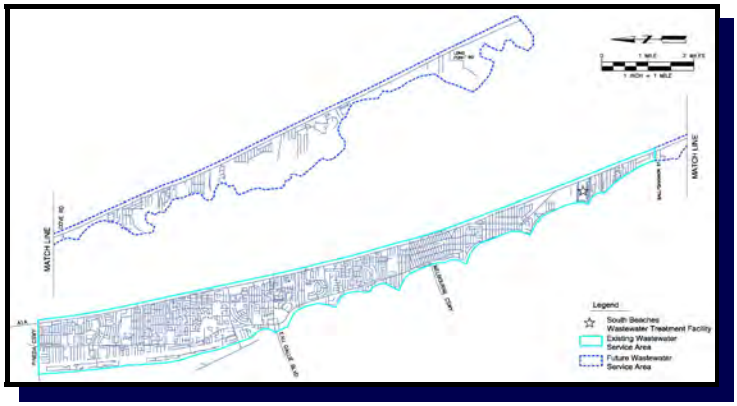
SECTION 1

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 Beaches WWTF (SBWWTF) to process all of the wastewater generated within its permitted service area. The treatment facility serves the residential subdivisions and commercial development 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 Beaches 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 SBWWRF's surface water discharge and its potential impacts to Indian River Lagoon and potential infrastructure improvements required at the South Beaches WWTF in accordance with the requirements of Section 403.064, "*Reuse of Reclaimed Water*", and Section 403.086, *"Sewage Disposal Facilities; Advanced and Secondary Waste Treatment"*, of the Florida Statutes.

This Non-Beneficial Surface Water Discharge Elimination Plan for the South Beaches WWTF includes the evaluation of the current FDEP-permitted surface water discharge to the Indian River Lagoon (only during MIT of the deep injection well), the amount of effluent discharged to the Deep Injection Well (DIW) System, the amount of reclaimed water utilized throughout the service area, 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 Beaches WWTF is classified as an 8.0 MGD AADF *Secondary Treatment plus Filtration* Facility (Category I, Class A), utilizing two (2) parallel wastewater treatment plants to treat the incoming raw wastewater from the service area, meets all Class II Reliability criteria and is currently operating under FDEP Permit No. FL0102679. The unit operations and processes currently employed are as follows:

Treatment Elements	Description
Primary Treatment	An automatic, continuous, self-cleaning, mechanical barscreen with a screenings compacting/dewatering screw system; a manual barscreen (back-up); and an odor control system. The grit removal system is currently out of service.
Secondary Treatment	**Carrousel Oxidation Ditch Treatment System (6.0 MGD AADF)** The "primary" biological treatment process at the SBWWTF. This system provides biological oxidation of the organic wastes in a dual-train oxidation ditch system operating in the extended aeration mode. Following treatment, the MLSS is conveyed to a pair of 102.5-foot diameter (12-foot sidewater depth) secondary clarifiers that are utilized for sedimentation of the solids. **Conventional Activated Sludge Process System (2.0 MGD AADF)** The "secondary" biological treatment process at the SBWWTF. This system provides biological oxidation of the organic wastes utilizing a single conventional activated sludge process (5-pass configuration) with aerobic and anoxic zones. Following treatment, flow is conveyed to a single 65-foot diameter (10-foot sidewater depth) secondary clarifier for sedimentation of the solids.
Tertiary Treatment	Tertiary filtration via three (3) dual-media filters (sand and anthracite). Each tertiary filter is rated at 1.0 MGD AADF. Only effluent that is being sent to the public access reuse system is filtered.
Disinfection	High-level disinfection of the effluent sent to the public access reuse and surface water discharge systems is accomplished through the use of bulk liquid NaOCl (chemical feed/storage systems) and a system of chlorine contact chambers.
Dechlorination	Dechlorination of the effluent that this discharged to the surface water disposal system, on an intermittent basis (during mechanical integrity testing of the deep injection well), is accomplished through the use of liquid sodium bisulfite.
Sludge Treatment	Sludge treatment consisting of a sludge holding tank; air compression system with coarse bubble diffusers; sludge pumping system; and a sludge dewatering system (2 belt filter presses). Dewatered sludge is transported to the local Class I Solid Waste Landfill for final disposal.

A high-quality effluent is produced at the facility and is used throughout the South Beaches WWTF Service area in accordance with the following disposal systems:

Disposal System	FDEP Designation	AADF Capacity (MGD)	Disposal System Description
Land Application (Reuse)	R-001	3.00	An existing slow-rate public access system. R-001 is a reuse system which consists of a reclaimed water transmission/distribution system for public access spray irrigation within the Reclaimed Water Service Area. Reclaimed water is also stored in an existing stormwater retention pond system located at the Spessard Holland Golf Course that has a combined storage capacity of 4.31 MG (seven interconnected ponds). The pond system has an intermittent discharge from Pond 6 to adjacent drainage features, which ultimately discharge to the Indian River Lagoon.

Disposal System	FDEP Designation	AADF Capacity (MGD)	Disposal System Description
Underground Injection System	U-001	9.00	An existing 9.00 MGD AADF permitted capacity Deep Injection Well (DIW) system consisting of one (1) Class I underground injection well (2,227 foot deep) permitted under Department Permit No. 0185898-004 discharging to a Class G-IV ground water.
Surface Water Discharge	D-001	0.11	An existing 0.110 MGD AADF discharge to the Indian River Lagoon, Class III Marine waters, (WBID# 2963A1). The 0.110 MGD discharge is authorized at discharge location D-001 for a period not to exceed five (5) days during the Mechanical Integrity Testing (MIT) of the facility's Deep Injection Well. The permitted discharge of 8.00 MGD over 5 days equates to an Annual Average Daily Flow of 0.11 MGD.

Surface water discharges from the South Beaches WWTF to the Indian River Lagoon occur during Mechanical Integrity Testing (MIT) of the Deep Injection Well and during intense rainfall events associated with tropical systems (Hurricane Matthew, Hurricane Irma, etc.) and severe localized thunderstorms (excessive infiltration/inflow leading to raw wastewater flows in excess of the permitted capacity of the facility).

The South Beaches WWTF is 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 South Beaches WWTF monthly operating data indicates the following:

- Only 22.5% of the annual average effluent flow was reused within the South Beaches Reclaimed Water Service area via the existing slow-rate public access reuse system (R-001). This is unlikely to vary significantly in the future as there are very few additional opportunities for expansion of the reuse system as the service area is almost completely built-out.

- Approximately 0.8% of the annual average effluent flow was been disposed of through the surface water discharge system (D-001) to the Indian River Lagoon. The main discharge events were due to MIT testing of the Deep Injection Well (DIW) and the large volumes of infiltration and inflow (I/I) received at the South Beaches WWTF in 2016 and 2017 due to Hurricanes Matthew and Irma. However, it should be noted that there has not been a surface water discharge from the facility to the Indian River Lagoon since October 2017.

- The majority of the effluent disposal, approximately 76.7% of the annual average effluent flow was disposed of through the Deep Injection Well system (U-001) at the South Beaches WWTF. This is due to the built-out condition within the barrier island service area and limited potential for public access reuse.

Therefore, the South Beaches WWTF Non-Beneficial Surface Water Elimination Plan, to be implemented in accordance with Section 403.064, F.S., and the need to meet the AWT regulatory requirements of Section 403.086, F.S., will require the County to implement one of the following infrastructure improvements alternatives based on a detailed engineering evaluation of each alternative and project capital and operating costs:

Potential SBWWTF Improvements Alternative No.	State of Florida Regulatory Requirements	
	Discharges to the Indian River Lagoon (IRL) must meet AWT Criteria	Non-Beneficial Surface Water Discharge Elimination Plan
	Section 403.086, F.S	Section 403.064, F.S.
	Implementation by July 1, 2025	Implementation by January 1, 2032
1	**Phase I: Conversion of the 2.0 MGD Conventional Activated Sludge WWTF to a 4-Stage BNR treatment system** capable of producing an effluent that meets the AWT Criteria. All reclaimed water utilized in the service area would have a low nutrient concentration (TN, TP). The surface water discharge (D-001; 0.11 MGD AADF) would be kept in place due to the MIT associated with the single existing DIW. However, after commissioning of the second DIW as part of the Phase II improvements, the surface water discharge would be reclassified as a "wet weather" discharge to be used during periods intense rainfall from tropical events and localized storms.	**Phase II: Installation of a second Deep Injection Well (DIW)** on the South Beaches WWTF site with a capacity of 9.0 MGD AADF. The second DIW would provides the County with the following advantages: ■ Provides Class I Reliability ■ Eliminates the need for surface water discharge of the effluent associated with MIT testing of a single DIW ■ Allows alternating operation of the DIW's As previously states, the surface water discharge would be reclassified as a wet "weather discharge" upon commissioning of the new DIW.
2	**Phase I: Conversion of the 2.0 MGD Conventional Activated Sludge WWTF to a 4-Stage BNR treatment system** capable of producing an effluent that meets the AWT Criteria. All reclaimed water utilized in the service area would have a low nutrient concentration (TN, TP). The surface water discharge (D-001 - 0.11 MGD AADF) would be kept in place due to the MIT associated with the single existing DIW.	**Phase II: Conversion of the 6.0 MGD Carrousel Oxidation Ditch WWTF to a 4-Stage or 5-Stage BNR treatment system** capable of producing an effluent that meets the AWT Criteria. Upon completion of the Phase II project all disposal methods (reuse, surface water discharge, DIW) would occur with an effluent having a low nutrient concentration (TN, TP).

1.5 POTENTIAL TREATMENT FACILITY IMPROVEMENTS

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**	1.5	Yes
TSS	**5**	0.7	Yes
Total Nitrogen (TN)	**3**	**7.8**	**No**
Total Phosphorus (TP)	**1**	**1.8**	**No**
pH	**6.0 - 8.5**	7.28	Yes

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

To meet the surface water discharge regulatory requirements mandated in 403.086, F.S., on a continual basis, conversion of the 2.0 MGD Conventional Activated Sludge Process to a 4-Stage BNR treatment system, at a minimum, is required as outlined in Section 4.1 of this document. The new BNR treatment system will be capable of generating a high-quality effluent that meets all AWT Criteria. Thus, water being delivered to the public access reuse system and the Spessard Holland Golf Course pond system (potential intermittent discharge to the Indian River Lagoon) would be very low in nutrients, meet AWT criteria and meet the regulatory requirements mandated in Section 403.086, F.S.

A thorough engineering evaluation of the potential improvements required at the South Beaches WWTF to meet the regulatory requirements mandated in 403.086, F.S. and 403.064, F.S., discussed in Section 4.1, will be conducted to determine the most reliable, energy-efficient, and cost-effective modifications to the treatment facility. The identified improvements will then be included in the County's Utility Capital Improvements Program (CIP) and a project schedule generated to ensure that design, construction, optimization and commissioning of said improvements are completed prior to the regulatory deadlines.

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 Beaches WWTF. 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 the South Beaches WWTF Plan by submitting the proposed modification(s) to the FDEP for review. However, the Plan 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 Beaches WWTF 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 Beaches WWTF has a permitted "intermittent" surface water discharge to the Indian River Lagoon (for a period of five days during Mechanical Integrity Testing of the facility's underground injection control well) 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 BEACHES WWTF - CURRENT DISPOSAL PRACTICES

Brevard County owns and operates the South Beaches Wastewater Treatment Facility (SBWWTF) which is classified as a *Secondary Treatment plus Filtration Facility* (Category I, Class A) utilizing two (2) parallel treatment plants and meets all Class II Reliability Criteria. The treatment plants include a 6.0 MGD AADF Carrousel Oxidation Ditch System (dual train) and a 2.0 MGD AADF Conventional Activated Sludge Process (aerobic/anoxic). The treatment facility consists of a mechanical influent screening systems, three (3) treatment trains with chemical feed facilities, secondary clarification, tertiary filtration, high-level disinfection, pumping systems, reclaimed water storage and a deep injection well.

Reclaimed water is produced at the facility and meet all FDEP requirements. The current permitted treatment capacity of the facility is 8.00 MGD AADF and the SBWWTF is operating under FDEP Operations Permit No. FL0040622 (a copy is provided in Appendix A). Biosolids are partially digested, dewatered, and then transported to a Class I solid waste 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	3.00	An existing slow-rate public access system. R-001 is a reuse system which consists of a reclaimed water transmission/distribution system for public access spray irrigation within the Reclaimed Water Service Area. Reclaimed water is also stored in an existing stormwater retention pond system located at the Spessard Holland Golf Course that has a combined storage capacity of 4.31 MG. The 4.31 MG stormwater retention pond system consists of seven (7) ponds that are interconnected with underground culvert pipes at the golf course. The pond system has an intermittent discharge from Pond 6 to adjacent drainage features, which ultimately discharge to the Indian River Lagoon.
Underground Injection System	U-001	9.00	An existing Deep Injection Well (DIW) system consisting of one (1) Class I underground injection well (2,227 foot deep) permitted under Department Permit No. 0185898-004 discharging to a Class G-IV ground water.
Surface Water Discharge	D-001	0.11	An existing discharge to the Indian River Lagoon, Class III Marine waters, (WBID# 2963A1). The 0.110 MGD discharge is authorized at discharge location D-001 for a period not to exceed five (5) days during the Mechanical Integrity Testing (MIT) of the facility's Deep Injection Well (DIW). The permitted discharge of 8.00 MGD over five (5) days equates to an Annual Average Daily Flow of 0.11 MGD.

During Mechanical Integrity Testing (MIT) of the Deep Injection Well, a portion of the effluent is diverted to an on-site Effluent Holding Pond. The Effluent Holding Pond, constructed with internal berms to provide plug flow and eliminate short-circuiting, is used to provide temporary effluent storage prior to any potential discharge to the Indian River Lagoon (D-001) via an overflow structure.

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SECTION 3

EXISTING FACILITY CONDITIONS

3.1 WASTEWATER MANAGEMENT SYSTEM SERVICE AREA

The South Beaches WWTF serves the area bounded by the Atlantic Ocean to the east, the Indian River Lagoon to the west, Patrick Air Force Base to the north and the south line of Section 28, Township 28 S, Range 28 E on the south as presented in Figure 3.1-1. The south boundary of the service area is also the north line of a barrier island included in the Coastal Barrier Resources Act (CBRA). Although depicted as a *future wastewater service area*, extension of wastewater service into the CBRA area is not likely due to the prohibition on the use of federal funds for development. The County does not currently plan to extend wastewater service south of the current limits of the service area. The City of Cocoa Beach currently serves Patrick Air Force Base and the base housing area in Satellite Beach.

The South Beaches Wastewater Management System Service Area encompasses the municipalities of Satellite Beach, Indian Harbour Beach, Indialantic, Melbourne Beach, a portion of the City of Melbourne, as well as several areas of unincorporated Brevard County. 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 Beaches Wastewater Management System Service Area.

The wastewater is collected and conveyed by a network of County-owned lift stations, private lift stations and forcemains to the South Beaches WWTF located at 2800 South Highway A1A, Melbourne Beach, FL. The facility provides high-level treatment and the production of a high-quality effluent that is disposed of via both slow-rate public access spray irrigation (R-001) and via a Deep Injection Well (U-001).

3.2 SOUTH BEACHES WASTEWATER TREATMENT FACILITY (SBWWTF)

The South Beaches WWTF is classified as a *Secondary Treatment plus Filtration Facility* (Category I, Class A), utilizing two (2) parallel wastewater treatment plants to treat the incoming raw wastewater from the service area and meets all Class II Reliability criteria. The treatment plants include a 6.0 MGD AADF Carrousel Oxidation Ditch System (dual train) and a 2.0 MGD AADF Conventional Activated Sludge Process (aerobic/anoxic).

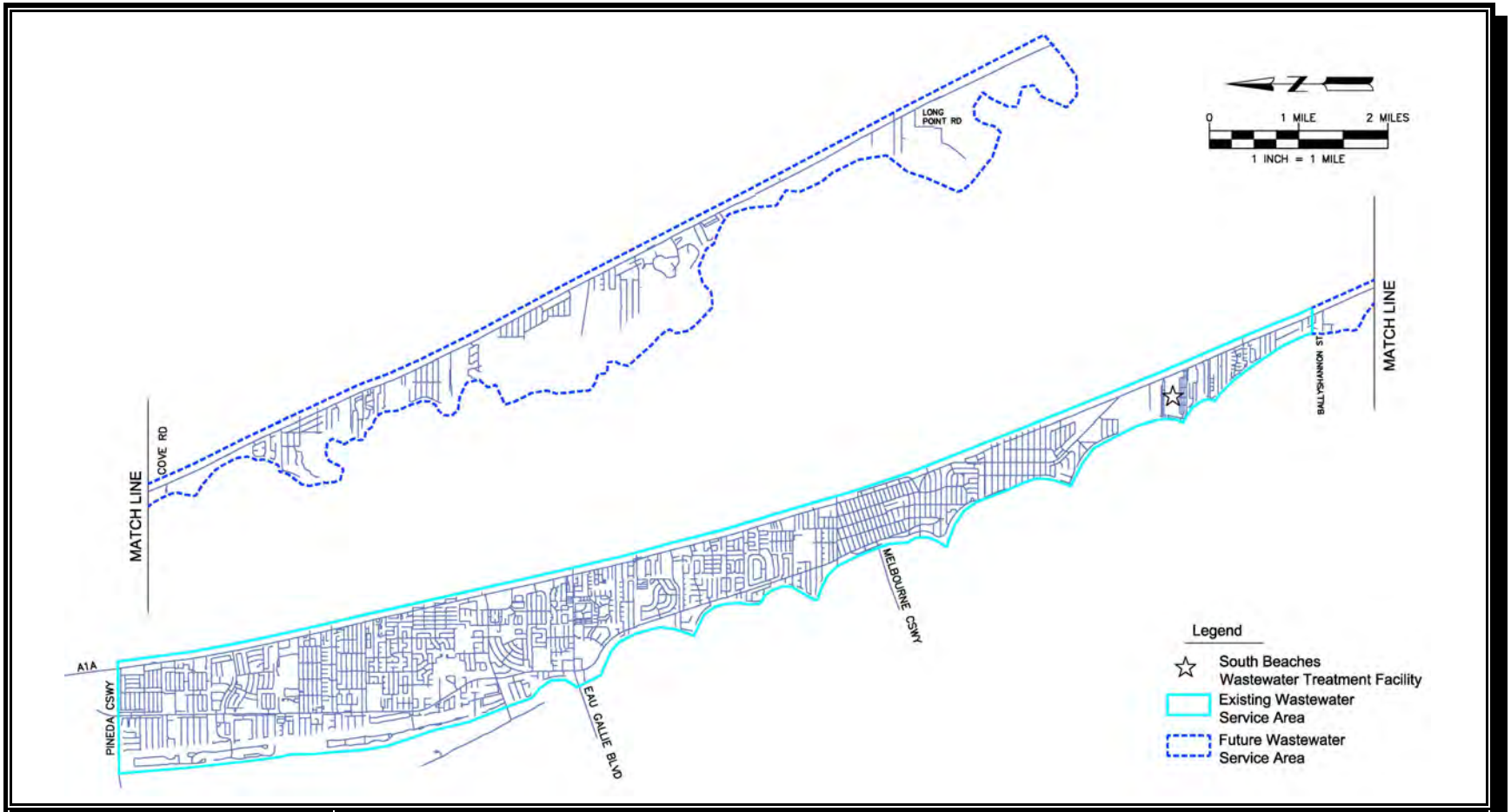

FIGURE 3.1-1 **SOUTH BEACHES WASTEWATER MANAGEMENT SYSTEM SERVICE AREA**

The oxidation ditch and conventional activated sludge process treatment systems are currently *on-line* and processing the incoming raw wastewater from the Service Area and are generating an effluent meeting all FDEP requirements. The South Beaches Wastewater Management System, Reclaimed Water System Service Areas and the South Beaches WWTF are currently permitted under FDEP Operations Permit No. FL0040622. 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 Beaches WWTF are presented in Figures 3.2-1 through 3.2-3, respectively.

The South Beaches WWTF Reclaimed Water Service Area is bounded by the Melbourne Causeway and the commercial area south of MacFarlane Street/Glengarry Avenue. The service area is 80 - 90% built-out with residential land use occupying approximately 70% of the total area. Reclaimed water is distributed to several small subdivisions to the south of the South Beaches WWTF and the Spessard Holland Golf Course. An aerial view of the South Beaches Reclaimed Water Service Area is presented in Figure 3.2-4. Effluent flow in excess of the reclaimed water demand is discharged to the Deep Injection Well (DIW) system.

The unit operations and processes currently employed at the South Beaches WWTF (2021) are divided into the following elements/categories:

Treatment Elements	Description
Primary Treatment	An automatic, continuous, self-cleaning, mechanical barscreen with a screenings compacting/dewatering screw system; a manual barscreen (back-up); and an odor control system. The grit removal system is currently out of service.
Secondary Treatment	**Carrousel Oxidation Ditch Treatment System (6.0 MGD AADF)** This system was constructed in 1991 and is the "primary" biological treatment process at the SBWWTF. Biological oxidation of the organic wastes occurs in the dual-train oxidation ditch system operating in the extended aeration mode. The system utilizes mechanical surface aerators to provide oxygenation and mixing of the MLSS. Following treatment, the MLSS is conveyed to a pair of 102.5-foot diameter (12-foot sidewater depth) secondary clarifiers that are utilized for sedimentation of the solids. A dedicated RAS/WAS pumping station is provided. **Conventional Activated Sludge Process System (2.0 MGD AADF)** This system was constructed in 1968 and is the "secondary" biological treatment process at the SBWWTF. Biological oxidation of the organic wastes occurs utilizing a single conventional activated sludge process (5-pass plug flow configuration) with aerobic and anoxic zones. The system utilizes centrifugal blowers and coarse bubble diffusers to provide oxygenation and mixing of the MLSS. Following treatment, flow is conveyed to a single 65-foot diameter (10-foot sidewater depth) secondary clarifier for sedimentation of the solids. Dedicated RAS and WAS pumping stations are provided.
Tertiary Treatment	Tertiary filtration via three (3) dual-media filters (sand and anthracite). Each tertiary filter is rated at 1.0 MGD AADF. Only effluent that is being sent to the public access reuse system is filtered.

FIGURE 3.2-1 **SOUTH BEACHES WWTF - AERIAL VIEW**

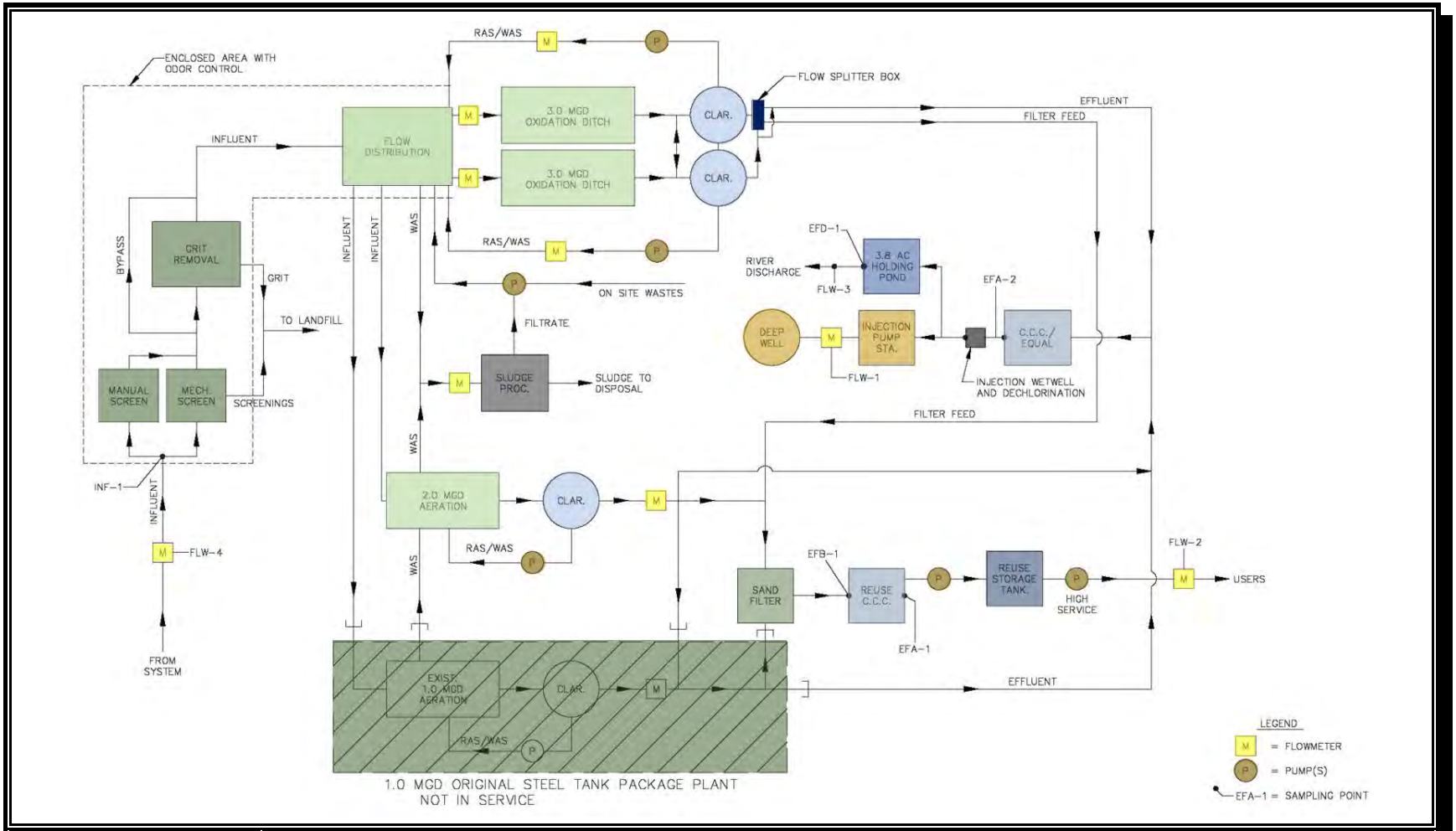

FIGURE 3.2-2 **SOUTH BEACHES WASTEWATER TREATMENT FACILITY: SCHEMATIC FLOW DIAGRAM**

FIGURE 3.2-3 **SOUTH BEACHES WWTF: FACILITY SITE PLAN**

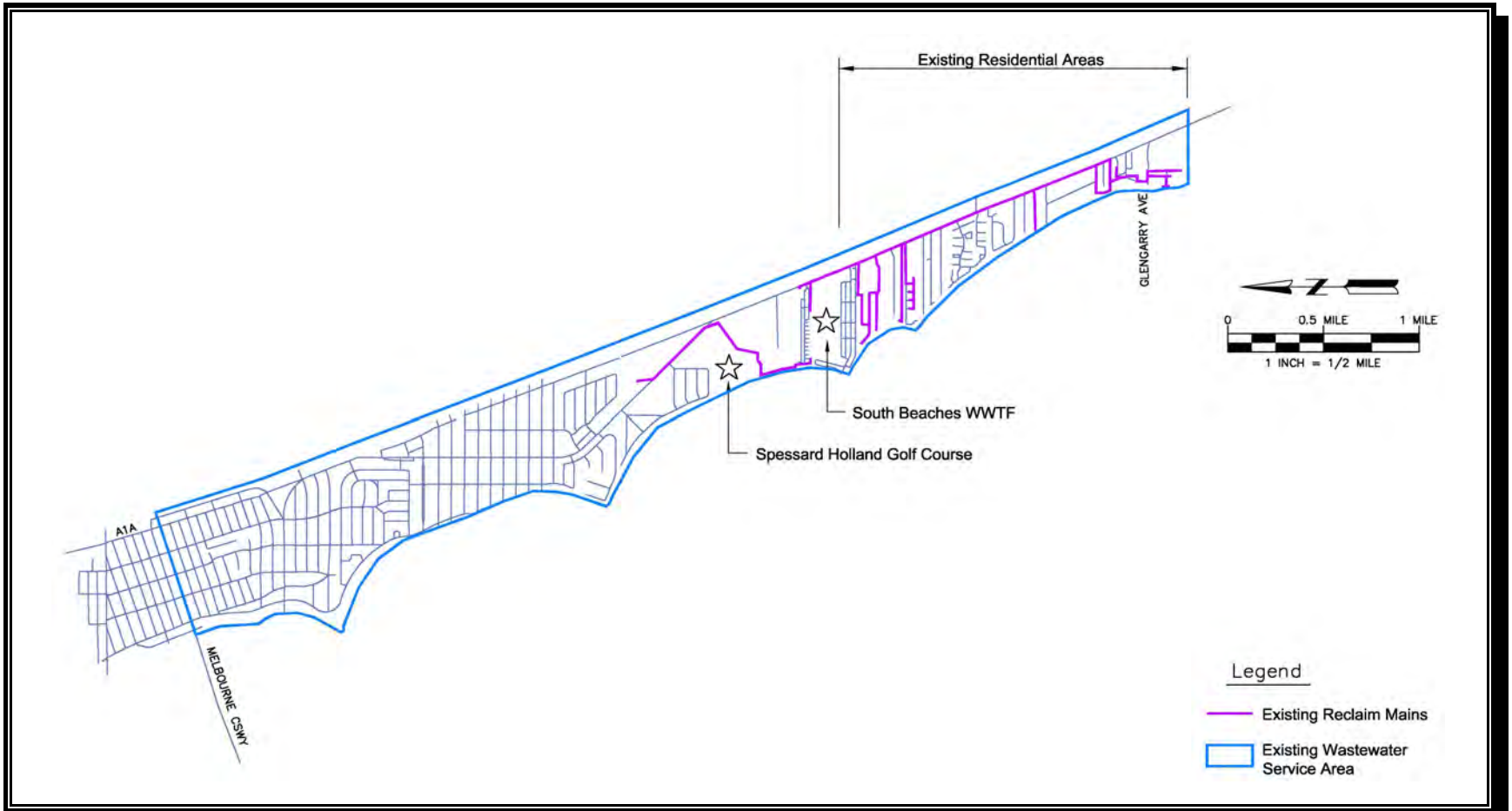

FIGURE 3.2-4 **SOUTH BEACHES RECLAIMED WATER SERVICE AREA**

Treatment Elements	Description
Disinfection	High-level disinfection of the effluent sent to the public access reuse and surface water discharge systems is accomplished through the use of bulk liquid NaOCl (chemical feed/storage systems) and a system of chlorine contact chambers.
Dechlorination	Dechlorination of the effluent that this discharged to the surface water disposal system, on an intermittent basis (during mechanical integrity testing of the deep injection well), is accomplished through the use of liquid sodium bisulfite ($NaHSO_3$).
Sludge Treatment	Sludge treatment consisting of a sludge holding tank; air compression system with coarse bubble diffusers; sludge pumping system; and a sludge dewatering system (2 belt filter presses). Dewatered sludge is transported to the local Class I Solid Waste Landfill for final disposal.

Design and current wastewater flows at the South Beaches WWTF are as follows:

Table 3.2-1: South Beaches WWTF Design and Current Wastewater Flows

Flow Condition	Wastewater Flow Rate (MGD)	
	Design*	Actual Operation**
Annual Average Daily Flow (AADF)	8.00	6.256
Maximum Daily Flow (MDF)	12.00	10.460
Peak Hourly Flow (PHF)	18.00	

* *Total Capacity of the combined systems (Carrousel and conventional ASP)* ** *Actual flow conditions from Calendar Year 2020.*

Influent and effluent design criteria for the South Beaches WWTF are presented below.

Table 3.2-2: South Beaches WWTF - Influent and Effluent Design Criteria

Parameter	Units	Influent	Tertiary Effluent
$CBOD_5$	mg/L	200	< 20
TSS	mg/L	200	< 5*
TKN**	mg/L	50	
TN	mg/L		< 10
TP**	mg/L	8	< 4
pH	S.U.	6.0 - 8.5	6.0 - 8.5

* *For Public Access Reuse only* ** *Assumed influent concentrations as influent sampling not required*

3.2.1 Primary Treatment System

Raw wastewater flows from the South Beaches Wastewater Management System Service Area enter the Pretreatment Building through a 30-inch DIP. The two-story Pretreatment Building consists of a cast-in-place concrete structure consisting of the following unit operations:

Pretreatment Building

- Fine screening
- Grit Removal System (*not currently operational*)

Raw wastewater flows entering the Pretreatment Building are conveyed into a box with two sluice gates. One sluice gate allows raw wastewater to be conveyed to the mechanical barscreen (step screen); the other allows wastewater to flow into a bypass channel with a manual barscreen. The screenings are collected and discharged into a dewatering screw conveyor to reduce the moisture content and volume of screenings material. Screenings are discharged into a discharge chute and deposited into a municipal dumpster at grade (landfill disposal).

Mechanical Barscreen

The two raw wastewater influent channels converge, following the barscreens, and the screened wastewater is conveyed to the Grit Removal System (sluice gates at the ends of both channels). A single vortex-type (centrifugal) grit separator unit is used to remove grit (heavy inorganic mineral matter) from the screened wastewater stream prior to conveyance to the secondary treatment systems. The grit removal system removes the grit particles and concentrates them in a sump at the bottom of the unit. The grit is then conveyed to a grit classifier, at grade, and the dewatered grit is discharged into a municipal dumpster (landfill disposal).

Grit Removal System

Screened and degritted wastewater is conveyed, in a covered channel, to the west side of the Pretreatment Building. Adjustable weirs are then used to divert the flow to each biological treatment system (Carrousel oxidation ditches and/or conventional activated sludge process) before being mixed with RAS.

Malodorous compounds generated within the Pretreatment Building are conveyed, via an induced draft, to an odor control system for processing.

3.2.2 Secondary Treatment System - Carrousel Oxidation Ditch System

Secondary treatment of raw, degritted wastewater, up to 6.00 MGD AADF, can be processed through the Carrousel Oxidation Ditch Treatment System (extended aeration mode). The dual oxidation ditches 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. Oxygenation and mixing are provided by a pair of mechanical surface aerators (100 hp) in each oxidation ditch. A portion of the flow, equal to the influent wastewater flow plus RAS, is discharged over an effluent weir structure and flows to the secondary clarifiers.

Carrousel Dual Oxidation Ditch System

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 II Reliability. Secondary clarification is provided by two (2) identical 102.5-foot diameter, 12-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 Flow Distribution Box as RAS or wasted to the Sludge Holding Tank as WAS.

Secondary Clarifiers - Ox. Ditch System

3.2.3 Secondary Treatment System - Conventional Activated Sludge System

Secondary treatment of raw, degritted wastewater, up to 2.00 MGD AADF, can be processed through the Conventional Activated Sludge Process Treatment System. The five-pass treatment process (aerobic/anoxic zones) contains heterotrophic bacteria (suspended growth) and provides the detention time and oxygen transfer required for oxidation of the influent

Conv. Activated Sludge Process System

organic compounds, nitrification, and phosphorus uptake. Oxygenation and mixing are provided by a system of centrifugal blowers and coarse bubble diffusers. The flow is discharged from the end of the Activated Sludge Process, through a 24-inch pipe in the wall, and flows to the secondary clarifier.

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 II Reliability. Secondary clarification is provided by a single 65-foot diameter, 10-foot sidewater depth, cast-in-place concrete clarifier with full-surface skimmers. The settled MLSS are removed in the secondary clarifier underflow and either returned to the first pass in the conventional ASP system as RAS or wasted to the Sludge Holding Tank as WAS.

Secondary Clarifier - Conv. ASP System

3.2.4 Tertiary Treatment System

Tertiary filtration of the treated secondary effluent is required to ensure protection of public health and enhance the disinfection process for the effluent that is being conveyed to the reclaimed water distribution system. Effluent that is to be sent to the Deep Injection Well (DIW) does not require filtration.

Tertiary Filters

Secondary effluent from the Carrousel Oxidation Ditch System can be conveyed to either the tertiary filters or the secondary effluent CCC/Equalization Tank through the clarifier flow splitter box. The splitter box has two (2) adjustable weirs that control the effluent flow. Likewise, secondary effluent from the conventional activated sludge process can also be routed to either the tertiary filters or the secondary effluent CCC/Equalization Tank.

Secondary Effluent CCC/Equalization Tank

Tertiary filtration is accomplished through the use of three (3) dual media (sand and anthracite) filtration units each with a surface area of 14 feet x 14 feet and treatment capacity of 1.0 MGD AADF. The tertiary filters can be backwashed using one of the following methods:

- Automatically based on the amount of time that the tertiary filters are in service (programable)
- Manually
- Through the use of high-level floats in the filtration system

Backwashing operations and equipment (valves, blowers and pumps) are controlled from the control panel located within the control console in the Tertiary Filter Room and/or from the SCADA console in the Operations Building. Backwash water is stored in the Backwash Water Storage Tank and is filled with reclaimed water from the Reclaimed Water Ground Storage Tank, as needed. Two (2) submersible pumps located in the Backwash Water Storage Tank supply the water for filter backwashing operations.

Flows discharged from the Tertiary Filtration System are conveyed as follows:

Conveyed To	Purpose	Description
Backwash Water Recovery Tank	For Further Treatment	Backwash water from the tertiary filter backwashing operations is conveyed to this tank for temporary storage and equalization. The water is then conveyed, by gravity, to the In-Plant Lift Station for conveyance to the Pretreatment Building for further treatment.
Chlorine Contact Chamber (CCC)	Reclaimed Water Production	Effluent is conveyed to the Chlorine Contact Chamber (CCC) for high-level disinfection and conveyance to the Reclaimed Water Ground Storage Tank.

3.2.5 Disinfection System

From the tertiary filters, the treated effluent that is to be conveyed to the public access reuse system flows, by gravity, to cast-in-place concrete Chlorine Contact Chambers (CCCs). The CCCs provide high-level disinfection of the effluent through the application of liquid sodium hypochlorite (NaOCl) via a flow-paced system. The Chlorine Contact Chambers are 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.

Chlorine Contact Chambers (CCCs)

3.2.6 Transfer Pump Station

After high-level disinfection, the tertiary filter effluent flows to the Transfer Pump Station. The pumps convey the reclaimed water to the Reclaimed Water Ground Storage Tank (0.6 MG) for eventual conveyance to the distribution system.

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

FDEP - Reclaimed Water Compliance Monitoring Locations	
Compliance Parameter	**Carrousel BNR System**
Turbidity	EFB-1 (After Filtration, prior to disinfection)
Total Residual Chlorine	EFA-1 (Following disinfection)
pH	EFA-1 (Following disinfection)

3.2.7 Reclaimed Water/Effluent Disposal System

The South Beaches WWTF effluent disposal systems, permitted by FDEP, are briefly described below:

Effluent Disposal Method	Description
Land Application System (R-001)	An existing 3.00 MGD AADF permitted capacity slow-rate public access system. R-001 is a reuse system which consists of a reclaimed water transmission/distribution system for public access spray irrigation within the Reclaimed Water Service Area. Reclaimed water is also stored in an existing stormwater retention pond system located at the Spessard Holland Golf Course that has a combined storage capacity of 4.31 MG. The 4.31 MG stormwater retention pond system consists of seven (7) ponds that are interconnected with underground culvert pipes at the golf course. The pond system has an intermittent discharge from Pond 6 to adjacent drainage features, which ultimately discharge to the Indian River Lagoon.
Underground Injection System (U-001)	An existing 9.00 MGD AADF permitted capacity Deep Injection Well (DIW) system consisting of one (1) Class I underground injection well (2,227 foot deep) permitted under Department Permit No. 0185898-004 discharging to a Class G-IV ground water.
Surface Water Discharge (D-001)	An existing 0.110 MGD AADF discharge to the Indian River Lagoon, Class III Marine waters, (WBID# 2963A1). The 0.110 MGD discharge is authorized at discharge location D-001 for a period not to exceed five (5) days during the Mechanical Integrity Testing (MIT) of the facility's Deep Injection Well (DIW). The permitted discharge of 8.00 MGD over five (5) days equates to an Annual Average Daily Flow of 0.11 MGD.

A. Public Access Reuse/Land Application System (R-001)

Reclaimed water meeting the Public Access Criteria is pumped from the Transfer Pump Station to the Reclaimed Water Ground Storage Tank (0.60 MG). The pre-stressed concrete storage tank is an *in-line equalization facility* that offers an effluent water quality buffer before it is pumped to the reclaimed water distribution system.

Reclaimed Water Ground Storage Tank

The Reclaimed Water Distribution Pump Station conveys reclaimed water from the Reclaimed Water Ground Storage Tank to the distribution system for final disposal at the following locations:

- Spessard Holland Golf Course
- A1A Condo Park
- Residential areas south of the treatment facility along SR A1A

Reclaimed (Reuse) Water Pump Station

All excess reclaimed water produced that is not pumped to the Reclaimed Water Ground Storage Tank overflows a weir and is conveyed to the Deep Injection Well (DIW) pump station for disposal.

B. Deep Injection Well System (U-001)

Treated effluent from the secondary clarifiers can be directed to the Equalization Basin/Chlorine Contact Chamber (EQB/CCC) and then to the Deep Injection Well (DIW) pump station. The EQB/CCC is designed to both enable adequate disinfection of the secondary effluent, if necessary, and also to equalize flow to the Deep Injection Well (DIW).

In addition, any reclaimed water that does not meet permit specifications will automatically shut-down the Transfer Pump Station Pumps causing the unacceptable/substandard water to be diverted to the Deep Injection Well (DIW) pump station. An alarm will sound in the Operations Building control room in the event of this substandard condition. The transfer pumps will not restart until such time that the reuse water is of acceptable quality and an Operator resets the alarm.

When the Deep Injection Well (DIW) is offline, such as for periodic Mechanical Integrity Testing (MIT), the EQB/CCC can be used to discharge treated effluent the Effluent Holding Pond and then to the Indian River Lagoon. The surface water discharge requires disinfection and dechlorination of the effluent. Sodium bisulfite can be injected into the effluent from the CCC/EQB for dechlorination purposes.

C. Surface Water Discharge (D-001)

As mentioned above, during Mechanical Integrity Testing (MIT) of the Deep Injection Well, a portion of the effluent is diverted to an on-site Effluent Holding Pond. The Effluent Holding Pond, constructed with internal berms to provide plug flow and eliminate short-circuiting, is used to provide temporary effluent storage prior to any potential discharge to the Indian River Lagoon (D-001). Sampling for analysis of Acute Whole Effluent Toxicity (AWET) must be conducted within thirty (30) days of the planned MIT.

During surface water discharges, monitoring of the following parameters is required:

- Flow Rate
- $CBOD_5$
- TSS
- pH
- Fecal Coliform Bacteria
- Enterococci
- Total Residual Chlorine (for disinfection and dechlorination)
- Total Nitrogen
- Total Phosphorous
- Dissolved Oxygen
- Acute Whole Effluent Toxicity (AWET)

As previously indicated, surface water discharges require disinfection (NaOCl) and dechlorination ($NaHSO_3$) of the effluent.

In case an emergency discharge to the Indian River Lagoon is necessary, due to the failure of the Deep Injection Well (DIW) pumps, the same operating procedures and monitoring used for the MIT are required. Discharge to the Indian River Lagoon is automatic in the event of a failure of the Deep Injection Well (DIW) and/or reuse pumps; hydraulic head in the DIW wet well increases to a point where it spills over a weir into the on-site Effluent Holding Pond. Once the Effluent Holding Pond stages up, it discharges to the Indian River Lagoon through FDEP discharge/monitoring point D-001.

3.2.8 Sludge Management System

The sludge management system at the South Beaches WWTF consists of the following infrastructure components/elements:

- Sludge Processing Building
- Sludge Holding Tank
- Sludge Holding Tank aeration and air diffusion system
- Sludge pumping system
- Belt Filter Press (BFP) sludge dewatering system
- Sludge loadout system

Sludge Processing Bldg/Sludge Holding Tank

Waste Activated Sludge (WAS) from the Carrousel Oxidation Ditch and Conventional Activated Sludge Process Treatment Systems is conveyed to the aerated Sludge Holding Tank. The Sludge Holding Tank is used to store and partially treat sludge until it can be pumped to the belt filter presses for dewatering.

Sludge feed pumps are used to convey partially stabilized sludge from the Sludge Holding Tank to the belt filter presses. Two (2) belt filter presses are utilized to dewater the sludge prior to shipment to a local Class I Solid Waste Landfill for final disposal. Dewatering reduces the volume and makes the handling and disposal of sludge easier.

Belt Filter Press

3.3 PERMITTED CAPACITY

The South Beaches WWTF (*Secondary Treatment plus Filtration*) is an 8.0 MGD AADF facility serving the County's residential and commercial areas along the barrier island as previously discussed in Article 3.1. 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 Beaches Reclaimed Water Service Area.

The design capacity of the South Beaches WWTF is as follows:

TREATMENT FACILITY	PERMITTED FLOW CONDITION (MGD)		
	AADF	MDF*	PHF
South Beaches WWTF	8.00	12.00	18.00

The County accomplishes effluent disposal through the following FDEP-approved reuse/effluent disposal methods outlined in Operations Permit No. FL0040622: (1) Slow-rate Public Access Reuse system (R-001); (2) Surface water discharge system (D-001) to the Indian River Lagoon; and (3) Deep Injection Well (U-001)

The County has, as previously described, implemented a system for the beneficial reuse of the reclaimed water produced from the South Beaches WWTF. The County began sending reclaimed water to the Spessard Holland Golf Course for public access spray irrigation in the 1980's. The reclaimed water system was expanded in the 1990's to include public access spray irrigation/land application of local residential neighborhoods. 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 Beaches 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-001	Residential Areas	Residential	0.300	35.9
PAA-002	Spessard Holland Golf Course	Golf Courses	0.993	80
		Total:	**1.293**	**115.9**

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

Reclaimed Water Storage Location	No. of Units	Total Storage Volume (MG)
South Beaches WWTF Ground Storage Tank	1	0.60
Spessard Holland Golf Course Storage Ponds	7	4.31
Total Reclaimed Water Storage Capacity:	**8**	**4.91**

The current effluent disposal capacity of the South Beaches Wastewater Management System is as follows:

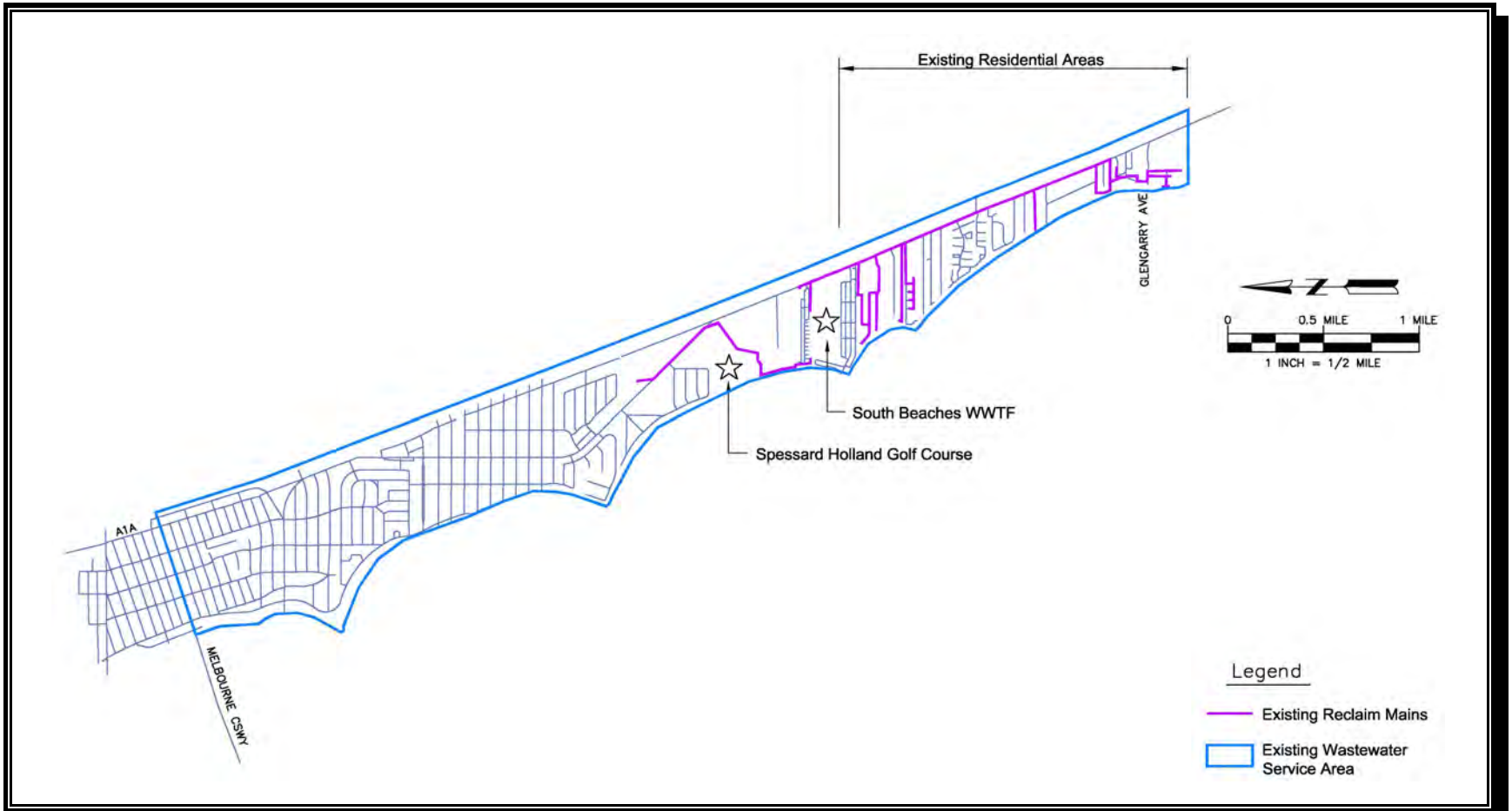

FIGURE 3.3-1 **SOUTH BEACHES RECLAIMED WATER SERVICE AREA - MAJOR USERS**

South Beaches WWTF Effluent Disposal System	ID	Effluent Disposal Capacity (MGD)
Slow-Rate Public Access System	R-001	3.00
Deep Injection Well (DIW) System	U-001	9.00
Surface Water Discharge (during MIT of the DIW)*	D-001	0.11
South Beaches WWTF - Total Effluent Disposal Capacity:		**12.00**

** Disposal Method only used when the DIW System is out of service for Mechanical Integrity Testing (not included in overall disposal capacity)*

3.4 HISTORICAL WASTEWATER FLOWS

Historical wastewater flows, including monthly ADF flows, three-month ADF flows and annual ADF flows, for the South Beaches WWTF for 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 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 Ratio	Maximum Month Peaking Factor
			Month	Flow (MGD)		
2016	6.997	9.030	November	7.705	1.101	1.291
2017*	7.048	11.884	November	9.937	1.410	1.686
2018	5.907	6.711	January	7.002	1.185	1.136
2019	6.402	7.317	December	6.922	1.081	1.143
2020	6.256	7.626	November	7.101	1.135	1.219
Five-Year Average Flow Ratios/Factors:					**1.183**	**1.295**
Max Flow Ratios Adjusted to Exclude Hurricane Irma Effects					**1.126**	**1.197**

The ratio of the maximum 3-month ADF to AADF averaged 1.183 and was found to vary over the five-year period (1.081 - 1.410). Likewise, the maximum month peaking factor averaged 1.295 and was also found to vary over the five-year period (1.136 - 1.686). The high ratios in 2017 were due to the effects of Hurricane Irma. Excluding the effects of Hurricane Irma, the adjusted Maximum 3-Month ADF to AADF and Maximum Month Peaking Factors are 1.126 and 1.197.

Table 3.4-1: South Beaches WWTF - Historical Wastewater Flows

Month	Year	Monthly ADF (MGD)	3-Month ADF (MGD)	AADF (MGD)
JANUARY	2015	6.529	6.431	6.776
FEBRUARY	2015	6.876	6.559	6.746
MARCH	2015	6.196	6.534	6.728
APRIL	2015	6.417	6.496	6.746
MAY	2015	6.443	6.352	6.728
JUNE	2015	6.593	6.484	6.755
JULY	2015	7.241	6.759	6.779
AUGUST	2015	7.629	7.154	6.860
SEPTEMBER	2015	**8.202**	7.690	**6.925**
OCTOBER	2015	7.261	**7.697**	6.846
NOVEMBER	2015	6.534	7.332	6.850
DECEMBER	2015	6.698	6.831	6.885
JANUARY	2016	7.105	6.779	6.933
FEBRUARY	2016	7.250	7.018	6.964
MARCH	2016	6.561	6.972	6.994
APRIL	2016	6.418	6.743	6.995
MAY	2016	7.194	6.724	7.057
JUNE	2016	7.516	7.043	**7.134**
JULY	2016	6.705	7.138	7.089
AUGUST	2016	6.178	6.800	6.968
SEPTEMBER	2016	7.773	6.885	6.933
OCTOBER	2016	**9.150**	7.700	7.090
NOVEMBER	2016	6.312	**7.745**	7.072
DECEMBER	2016	5.989	7.150	7.013

Table 3.4-1: South Beaches WWTF - Historical Wastewater Flows (Cont'd)

Month	Year	Monthly ADF (MGD)	3-Month ADF (MGD)	AADF (MGD)
JANUARY	2017	5.482	5.928	6.877
FEBRUARY	2017	5.755	5.742	6.753
MARCH	2017	5.507	5.581	6.665
APRIL	2017	5.580	5.614	6.595
MAY	2017	5.524	5.537	6.456
JUNE	2017	6.563	5.889	6.377
JULY	2017	6.923	6.337	6.395
AUGUST	2017	6.944	6.810	6.459
SEPTEMBER	2017	9.835	7.901	6.630
OCTOBER	2017	**11.884**	9.554	6.858
NOVEMBER	2017	8.091	**9.937**	7.006
DECEMBER	2017	6.421	8.799	**7.042**
JANUARY	2018	6.494	**7.002**	7.127
FEBRUARY	2018	5.850	6.255	7.135
MARCH	2018	5.656	6.000	7.147
APRIL	2018	5.676	5.727	7.155
MAY	2018	6.594	5.975	**7.244**
JUNE	2018	6.521	6.264	7.241
JULY	2018	**6.711**	6.609	7.223
AUGUST	2018	6.063	6.432	7.150
SEPTEMBER	2018	5.456	6.077	6.785
OCTOBER	2018	5.366	5.629	6.242
NOVEMBER	2018	5.173	5.332	5.998
DECEMBER	2018	5.306	5.282	5.906

Table 3.4-1: South Beaches WWTF - Historical Wastewater Flows (Cont'd)

Month	Year	Monthly ADF (MGD)	3-Month ADF (MGD)	AADF (MGD)
JANUARY	2019	5.490	5.323	5.822
FEBRUARY	2019	6.771	5.856	5.899
MARCH	2019	6.351	6.204	5.957
APRIL	2019	5.910	6.344	5.976
MAY	2019	6.406	6.223	5.960
JUNE	2019	6.127	6.148	5.928
JULY	2019	5.447	5.993	5.822
AUGUST	2019	7.023	6.199	5.902
SEPTEMBER	2019	6.555	6.342	5.994
OCTOBER	2019	**7.317**	6.965	6.156
NOVEMBER	2019	6.706	6.859	6.284
DECEMBER	2019	6.742	**6.922**	**6.404**
JANUARY	2020	5.940	6.463	**6.441**
FEBRUARY	2020	5.694	6.125	6.352
MARCH	2020	5.264	5.632	6.261
APRIL	2020	5.642	5.533	6.239
MAY	2020	5.819	5.575	6.190
JUNE	2020	6.735	6.065	6.240
JULY	2020	6.741	6.432	6.348
AUGUST	2020	5.963	6.480	6.260
SEPTEMBER	2020	6.480	6.395	6.254
OCTOBER	2020	7.196	6.547	6.243
NOVEMBER	2020	**7.626**	**7.101**	6.320
DECEMBER	2020	5.967	6.930	6.256

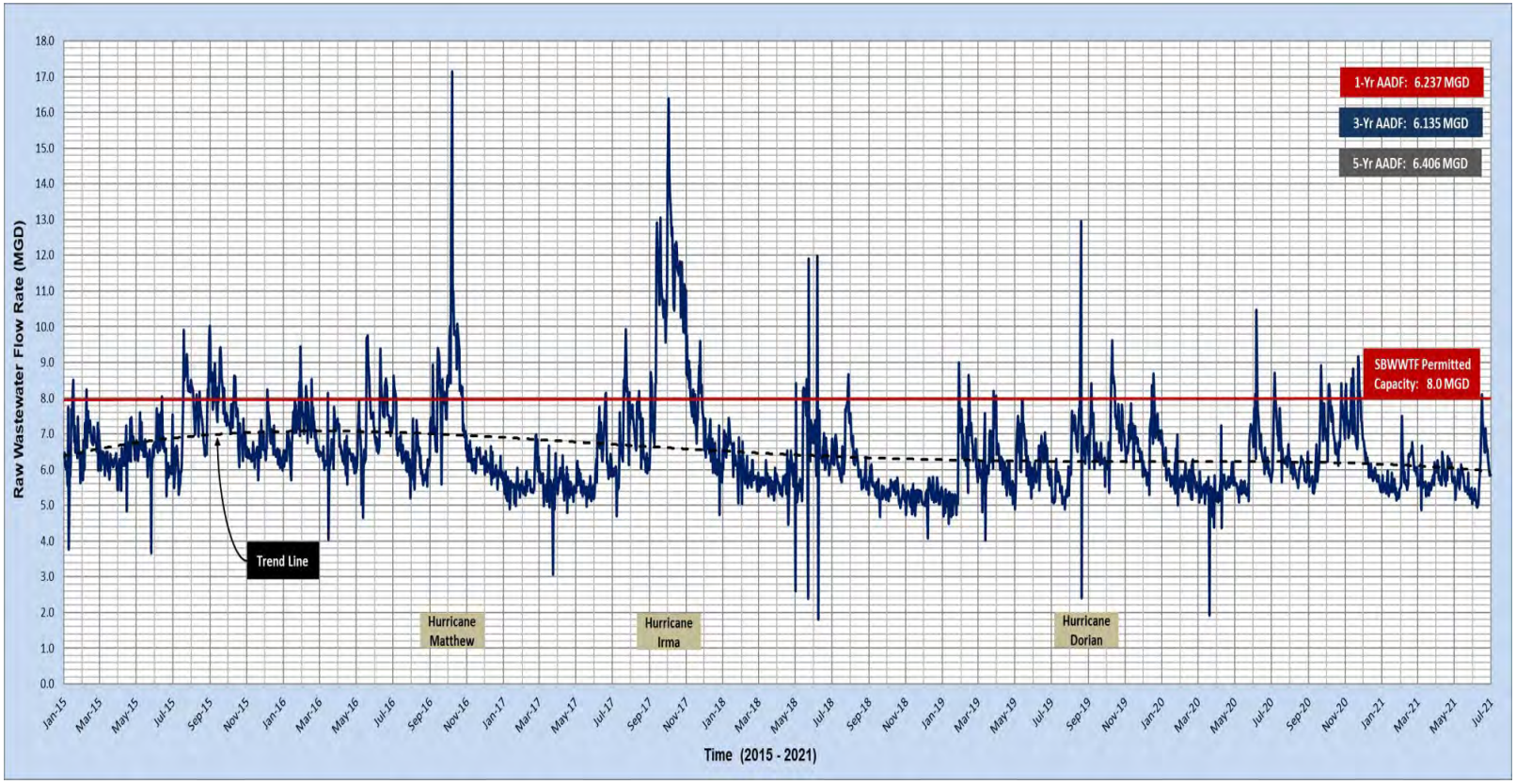

FIGURE 3.4-1 **SOUTH BEACHES WWTF: HISTORICAL WASTEWATER FLOWS (ADF)**

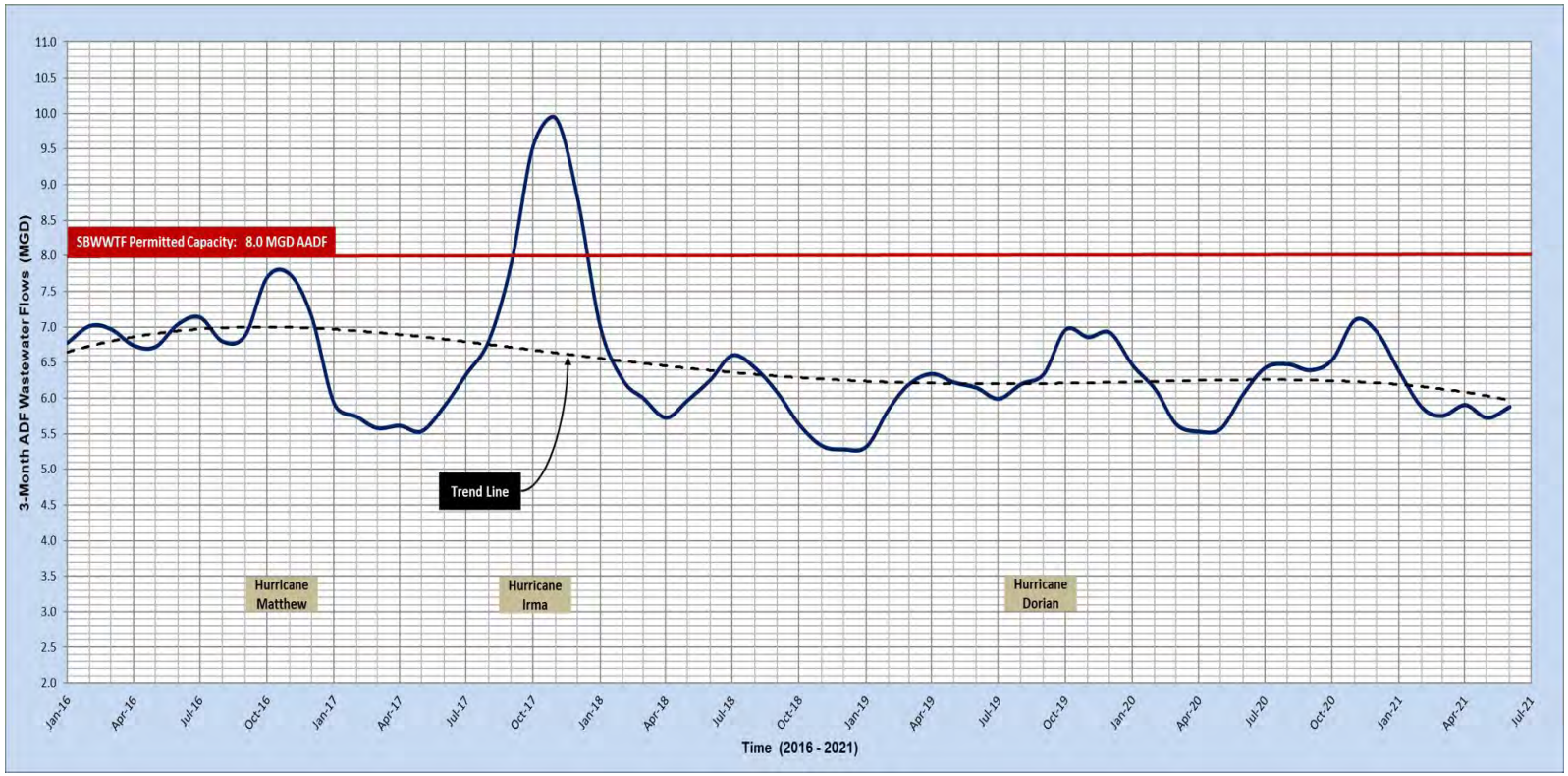

FIGURE 3.4-2 **SOUTH BEACHES WWTF: HISTORICAL WASTEWATER FLOWS (3-MONTH ADF)**

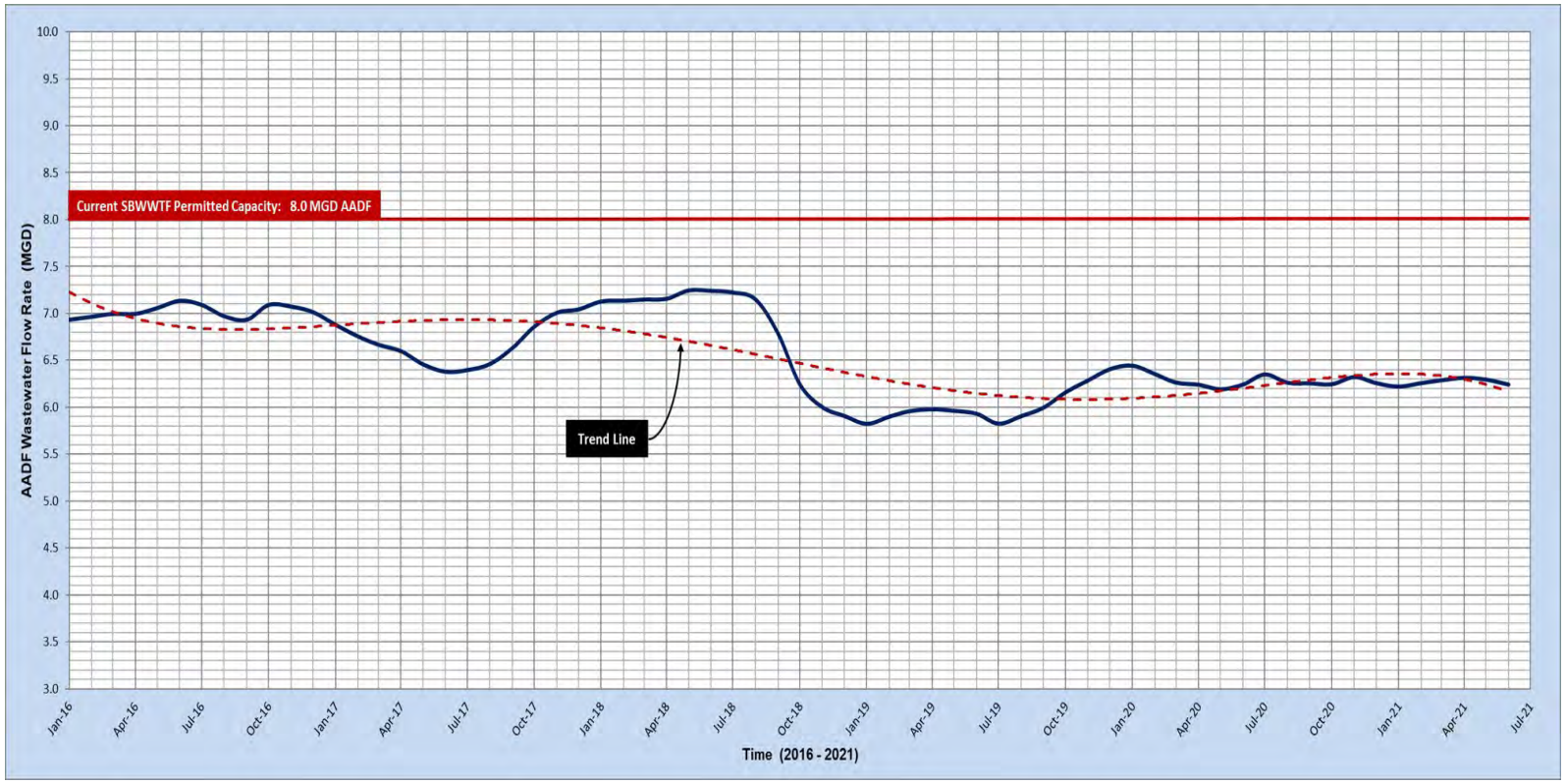

FIGURE 3.4-3 **SOUTH BEACHES WWTF: HISTORICAL WASTEWATER FLOWS (AADF)**

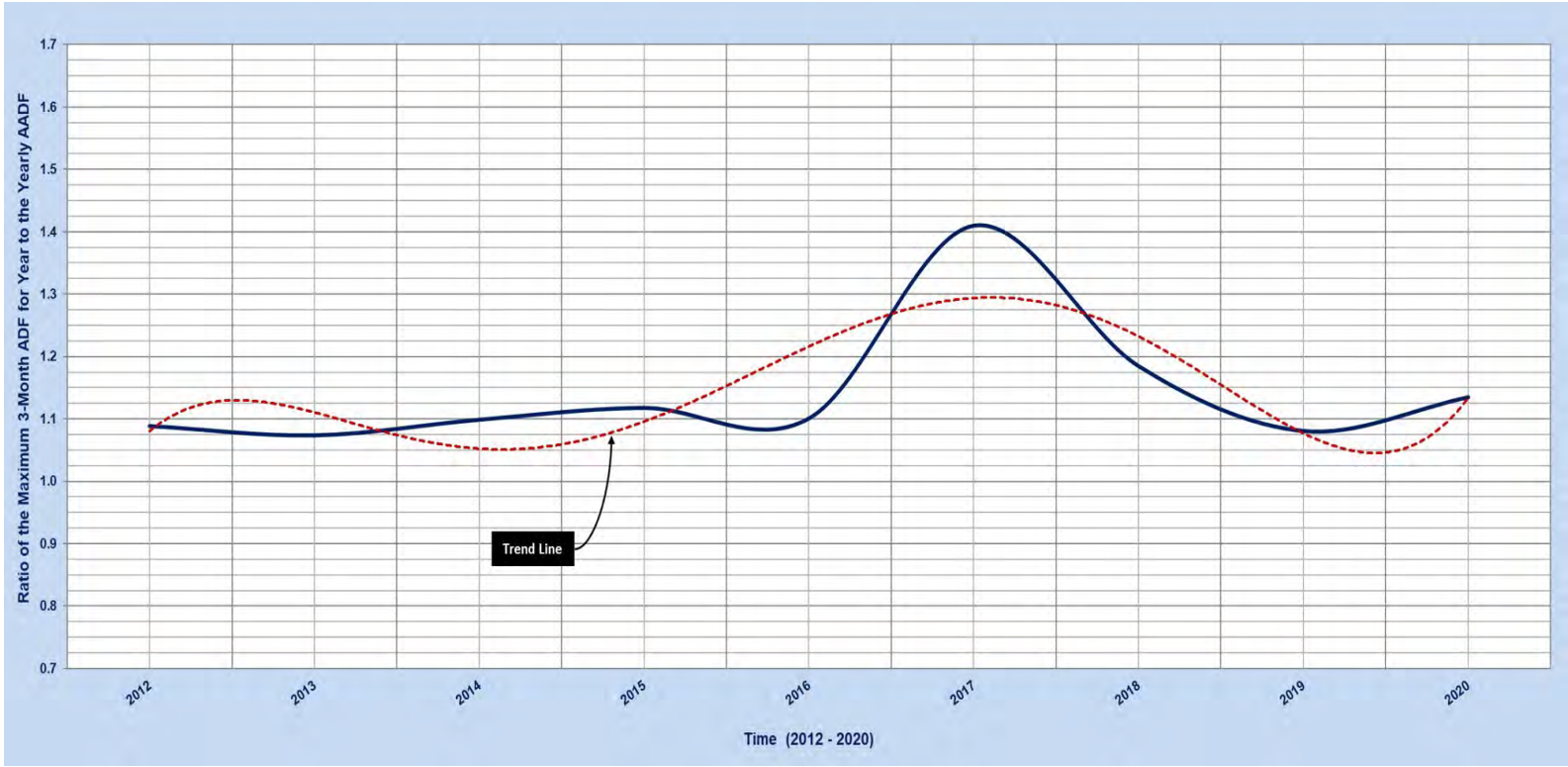

FIGURE 3.4-4 **SOUTH BEACHES WWTF: ANNUAL VARIATIONS IN FLOW**

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

Raw Wastewater Flow Condition	South Beaches WWTF Raw Wastewater Flow (MGD)	
	Jan 2016 - Dec 2020	Calendar Year 2020
Average Daily Flow	6.525	6.256
Maximum Day Flow	17.130	10.460
Minimum Day Flow	1.820	1.920
Monthly ADF Range	5.173 - 11.884	5.264 - 7.626
3-Month ADF Range	5.282 - 9.937	5.533 - 7.101
AADF Range (monthly rolling average)	5.821 - 7.244	6.190 - 6.441
% of Permitted Facility Capacity (ADF)	**81.6**	**78.2**

The South Beaches WWTF raw wastewater flows, during the last 5-Year period, were approximately 81.6% of the permitted capacity of the facility. The raw wastewater flow treated at the facility during Calendar Year 2020 was approximately 78.2% of the permitted capacity of the facility. Thus, flow rates are below the facility's permitted capacity (8.0 MGD AADF) and the South Beaches WWTF 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 3.2.7, treated effluent from the South Beaches WWTF can be discharged to any of the three (3) FDEP-permitted disposal systems:

Effluent Disposal System	Effluent Disposal Capacity (MGD AADF)
Land Application System (R-001)	3.00
Underground Injection System (U-001)	9.00
Surface Water Discharge (D-001)	0.11

The South Beaches WWTF effluent flows, by disposal system (R-001, U-001 and D-001), on a monthly and annual basis, for the period from Jan 2016 - Dec 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 Beaches WWTF - Effluent Disposal (2016 - 2020)			
Month/Year	**Public Access Reuse System Flow - R-001 (MGD)**	**Deep Injection Well (DIW) - U-001 (MGD)**	**Surface Water Discharge Flow to the IRL - D-001 (MGD)**
Jan 2016	1.221	5.240	0.000
Feb 2016	1.240	5.095	0.000
Mar 2016	1.140	4.671	0.000
Apr 2016	1.388	4.365	0.000
May 2016	1.609	4.892	0.000
Jun 2016	1.619	5.136	0.000
Jul 2016	1.707	4.297	0.000
Aug 2016	1.527	3.914	0.000
Sep 2016	1.261	5.731	0.000
Oct 2016*	1.076	6.750	0.034
Nov 2016	1.406	4.478	0.000
Dec 2016	1.358	3.875	0.000
2016 Average	**1.379**	**4.870**	**0.003**
Jan 2017	1.271	3.795	0.000
Feb 2017	1.333	3.973	0.000
Mar 2017	1.507	3.523	0.083
Apr 2017	1.618	3.314	0.000
May 2017	1.657	3.349	0.000
Jun 2017	1.531	4.655	0.000
Jul 2017	1.539	5.054	0.000
Aug 2017	1.505	5.205	0.000
Sep 2017	0.989	6.852	1.023
Oct 2017**	0.426	8.129	2.091
Nov 2017	1.080	6.251	0.000
Dec 2017	1.049	4.780	0.000
2017 Average	**1.292**	**4.907**	**0.266**

Table 3.5-1: South Beaches WWTF - Effluent Disposal (2016 - 2020)			
Month/Year	**Public Access Reuse System Flow - R-001 (MGD)**	**Deep Injection Well (DIW) - U-001 (MGD)**	**Surface Water Discharge Flow to the IRL - D-001 (MGD)**
Jan 2018	1.102	4.724	0.000
Feb 2018	1.227	4.070	0.000
Mar 2018	1.330	3.778	0.000
Apr 2018	1.232	3.917	0.000
May 2018	1.158	4.951	0.000
Jun 2018	1.252	4.874	0.000
Jul 2018	1.292	5.035	0.000
Aug 2018	1.515	4.917	0.000
Sep 2018	1.560	3.532	0.000
Oct 2018	1.521	3.427	0.000
Nov 2018	1.478	3.412	0.000
Dec 2018	1.341	3.627	0.000
2018 Average	**1.334**	**4.189**	**0.000**
Jan 2019	1.304	3.712	0.000
Feb 2019	1.110	5.079	0.000
Mar 2019	1.197	4.495	0.000
Apr 2019	1.226	4.268	0.000
May 2019	1.192	4.846	0.000
Jun 2019	1.250	4.277	0.000
Jul 2019	1.343	4.105	0.000
Aug 2019	1.079	5.398	0.000
Sep 2019	1.066	4.820	0.000
Oct 2019	1.288	5.203	0.000
Nov 2019	1.148	4.850	0.000
Dec 2019	0.935	5.043	0.000
2019 Average	**1.178**	**4.675**	**0.000**

Table 3.5-1: South Beaches WWTF - Effluent Disposal (2016 - 2020)			
Month/Year	**Public Access Reuse System Flow - R-001 (MGD)**	**Deep Injection Well (DIW) - U-001 (MGD)**	**Surface Water Discharge Flow to the IRL - D-001 (MGD)**
Jan 2020	1.164	4.029	0.000
Feb 2020	1.203	3.848	0.000
Mar 2020	1.542	3.229	0.000
Apr 2020	1.380	3.746	0.000
May 2020	1.372	3.910	0.000
Jun 2020	1.259	4.860	0.000
Jul 2020	1.257	4.987	0.000
Aug 2020	1.410	4.135	0.000
Sep 2020	1.527	4.699	0.000
Oct 2020	1.834	5.483	0.000
Nov 2020	2.138	5.998	0.000
Dec 2020	2.662	4.074	0.000
2020 Average	**1.562**	**4.417**	**0.000**

Effluent Disposal Percentage by Disposal System (2016 - 2020)						
Calendar Year	**Effluent Disposal System Flow (MGD AADF)**			**Overall Effluent Disposal (%)**		
	Public Access Reuse System - PAR (R-001)	**Deep Injection Well (U-001)**	**Surface Water Discharge (D-001)**	**PAR (R-001)**	**DIW (U-001)**	**SW Discharge (D-001)**
2016*	1.379	4.870	0.003	22.1%	77.9%	0.0%
2017**	1.292	4.907	0.266	20.0%	75.9%	4.1%
2018	1.334	4.189	0.000	24.2%	75.8%	0.0%
2019	1.178	4.675	0.000	20.1%	79.9%	0.0%
2020	1.562	4.417	0.000	26.1%	73.9%	0.0%
5-Yr Avg.	**1.349**	**4.612**	**0.054**	**22.5%**	**76.7%**	**0.8%**

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

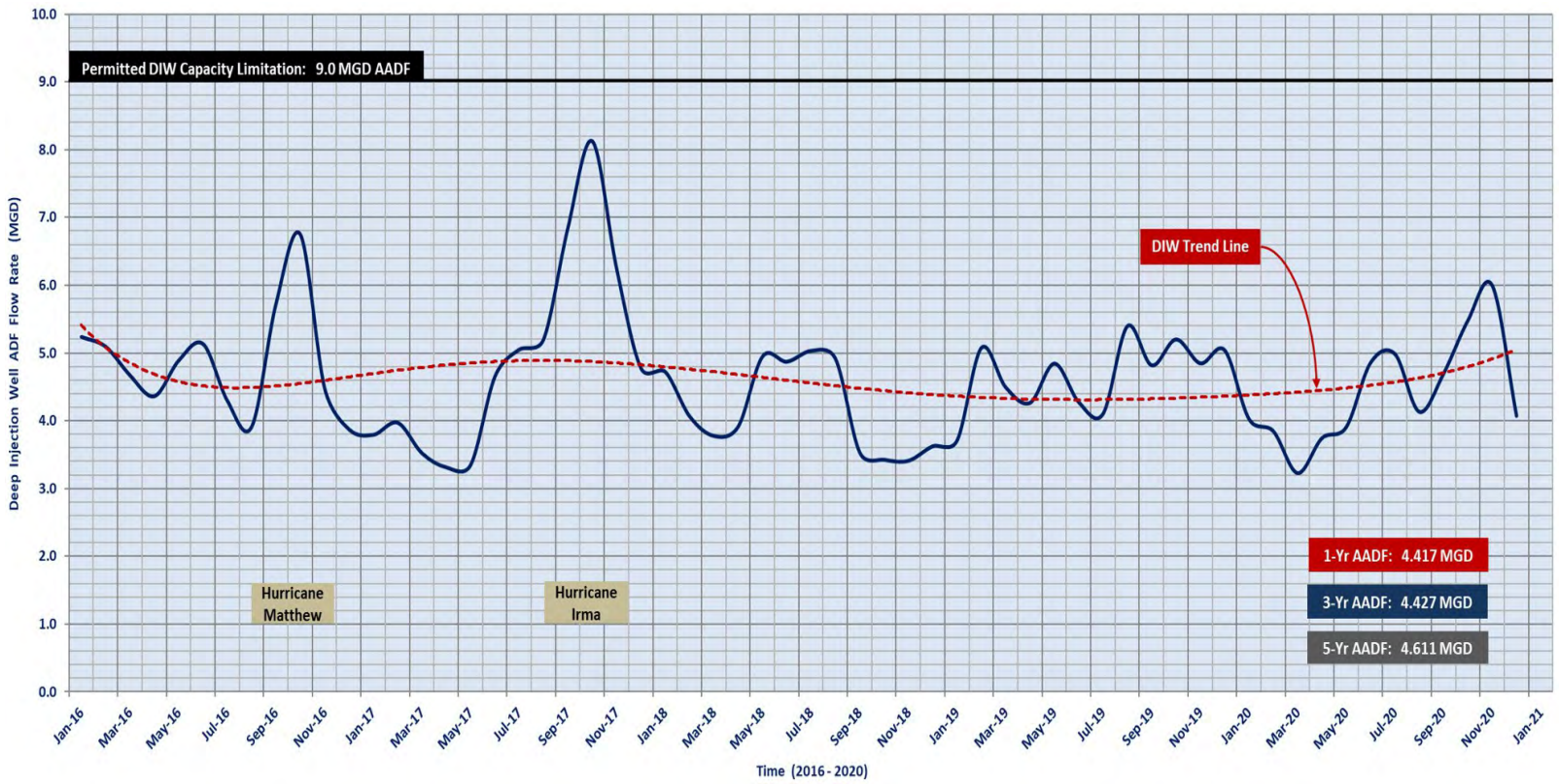

FIGURE 3.5-1

SOUTH BEACHES WWTF: DEEP INJECTION WELL (U-001) - HISTORICAL EFFLUENT MONTHLY ADF

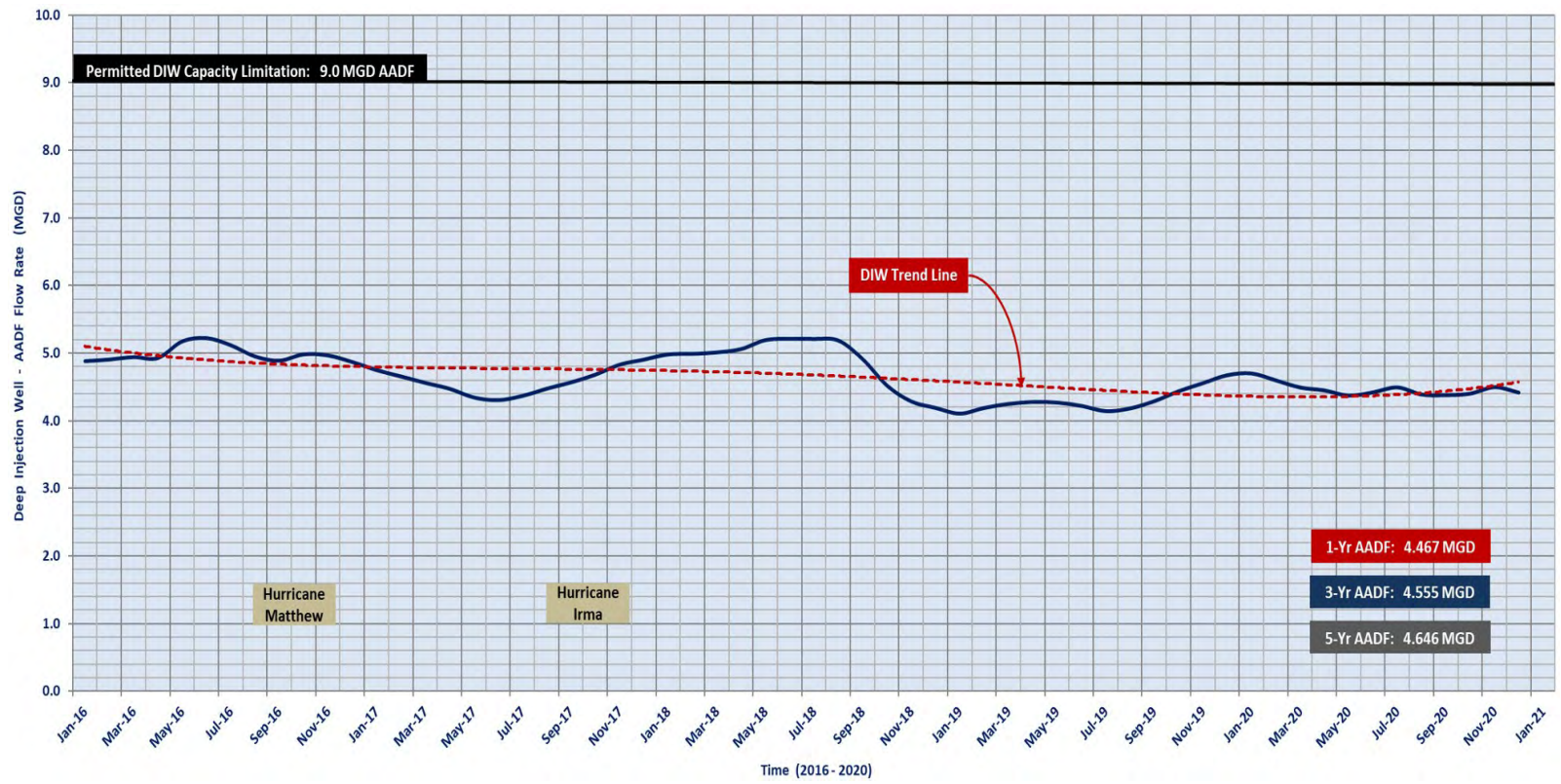

FIGURE 3.5-2

SOUTH BEACHES WWTF: DEEP INJECTION WELL (U-001) - HISTORICAL EFFLUENT AADF

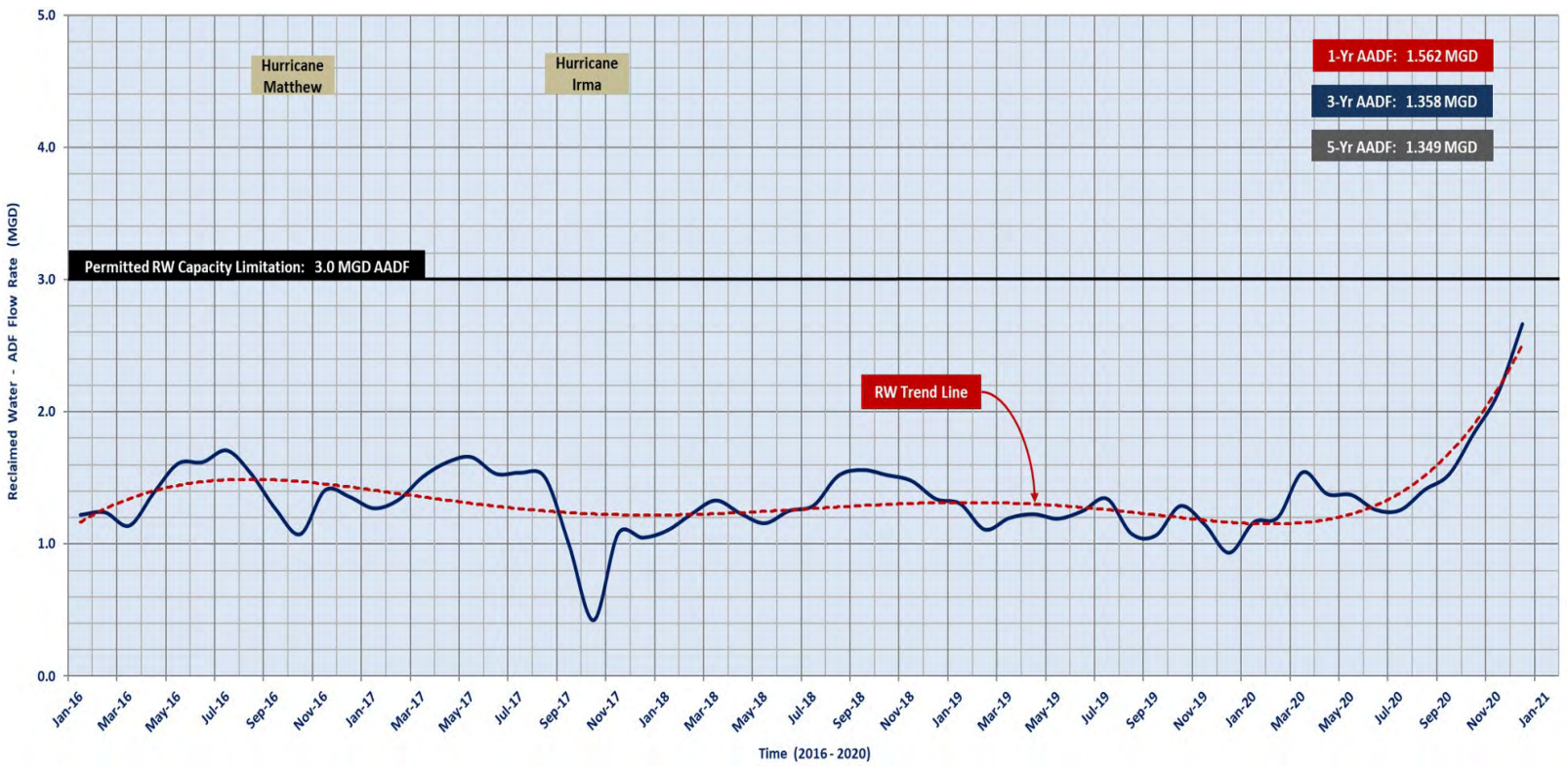

FIGURE 3.5-3

SOUTH BEACHES WWTF: RECLAIMED WATER SYSTEM (R-001) - HISTORICAL EFFLUENT MONTHLY ADF

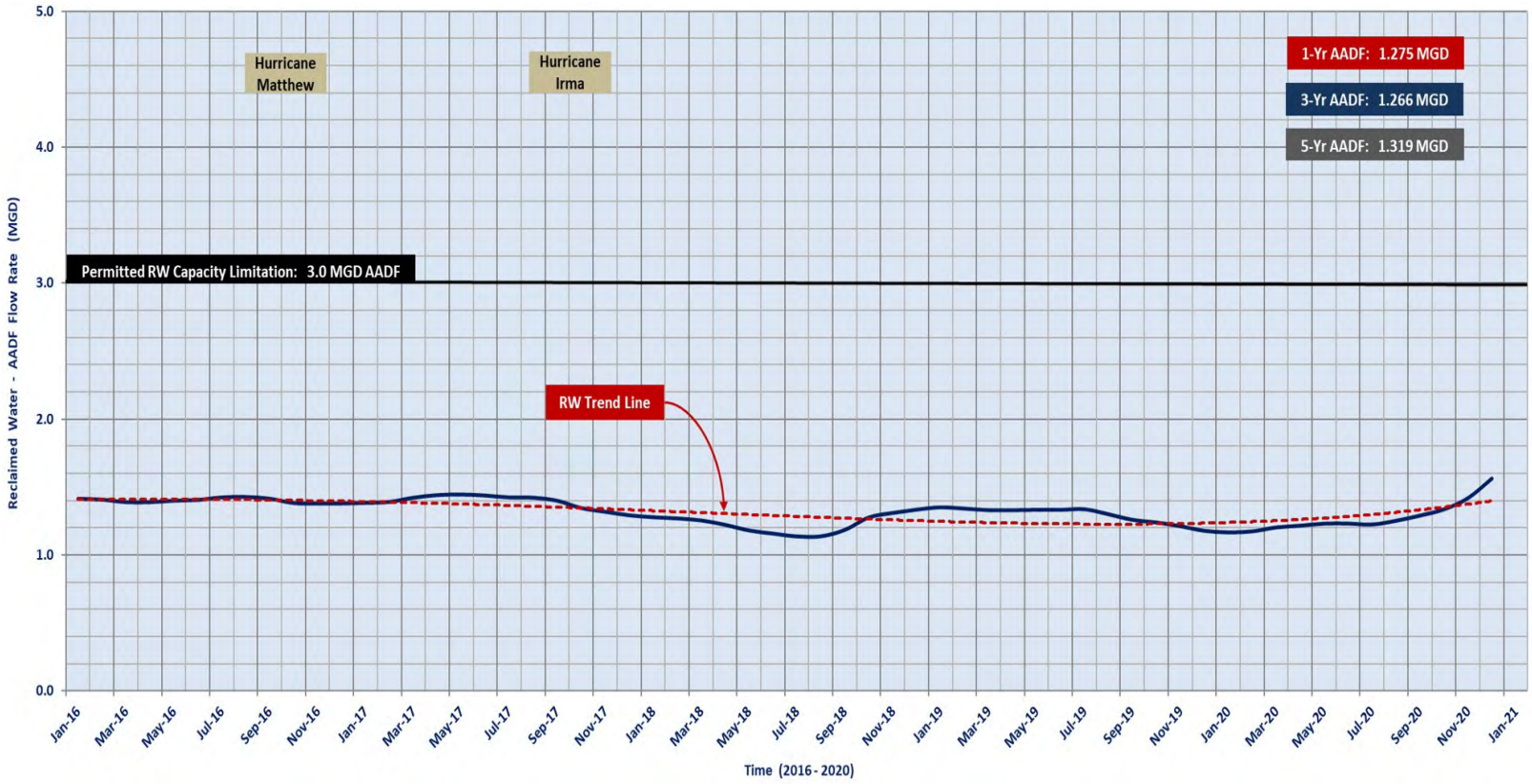

FIGURE 3.5-4

SOUTH BEACHES WWTF: RECLAIMED WATER SYSTEM (R-001) - HISTORICAL EFFLUENT AADF

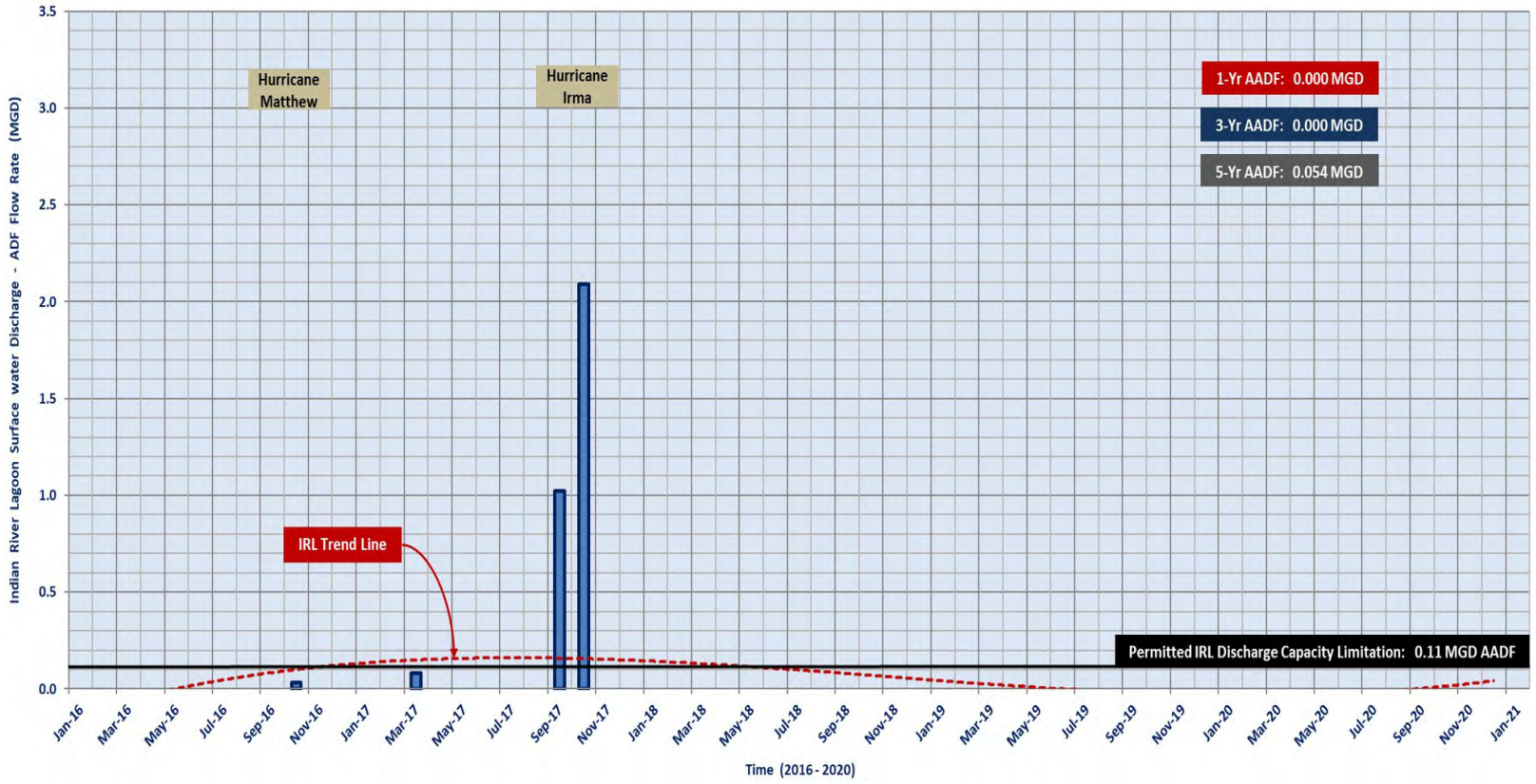

FIGURE 3.5-5

SOUTH BEACHES WWTF: SURFACE WATER DISCHARGE (D-001) TO THE INDIAN RIVER LAGOON (IRL) - HISTORICAL EFFLUENT MONTHLY ADF

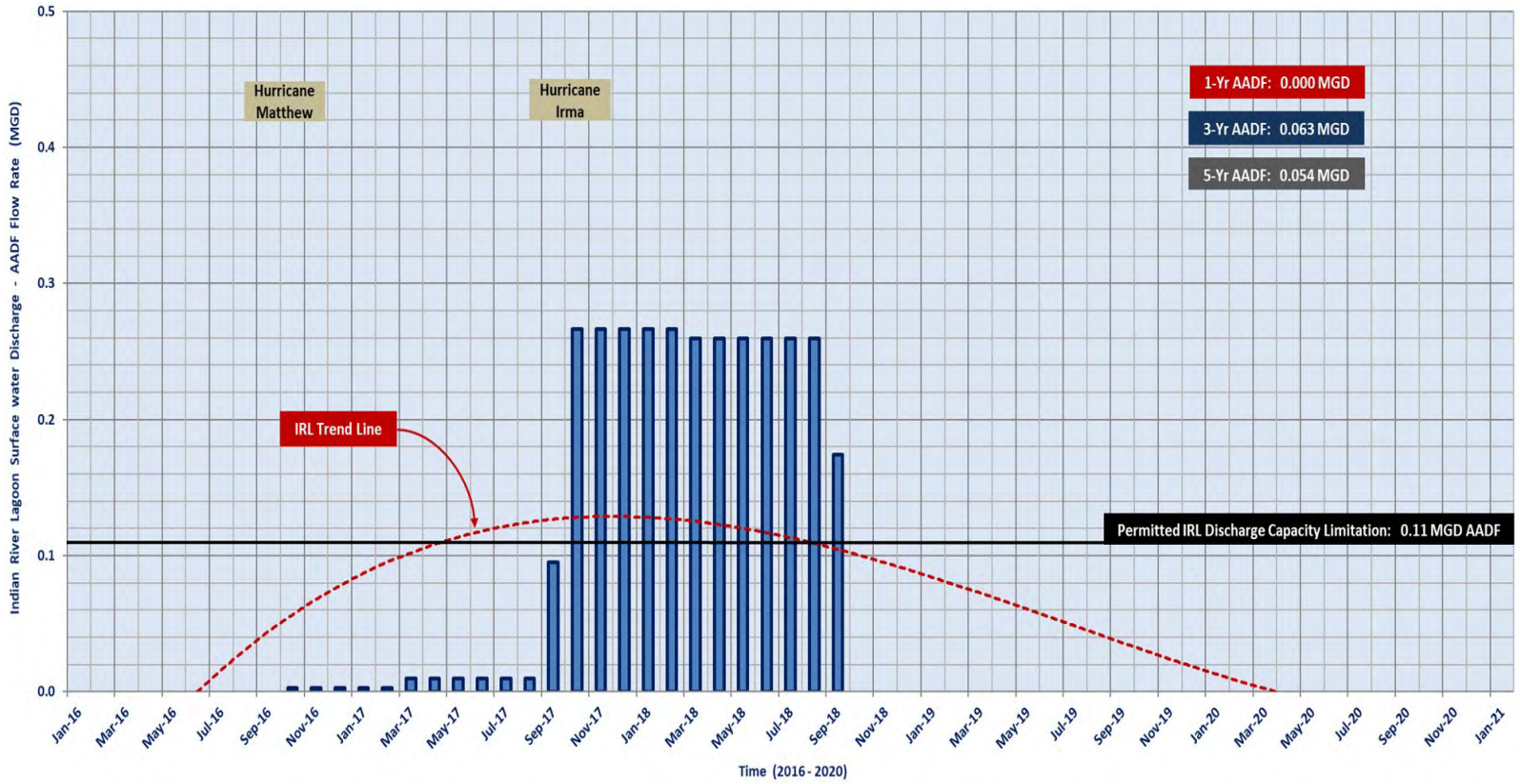

FIGURE 3.5-6

SOUTH BEACHES WWTF: SURFACE WATER DISCHARGE (D-001) TO THE INDIAN RIVER LAGOON (IRL) - HISTORICAL EFFLUENT AADF

The South Beaches WWTF has only reused approximately 22.5% of the facility's annual average effluent flow over the five-year period from 2016 - 2020. Approximately 0.8% of the effluent flow over this five year period were surface water discharges from the treatment facility to the Indian River Lagoon; these mainly due to discharges occurring from the intense rainfall events associated with tropical events (Hurricanes Matthew and Irma) and mechanical integrity testing of the Deep Injection Well (DIW). The majority of the South Beaches WWTF effluent (76.7%) was conveyed to the Deep Injection Well (DIW) for ultimate disposal.

3.6 FACILITY EFFLUENT QUALITY

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

South Beaches WWTF - 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
$CBOD_5$	39	2,111	1.5	83	2,029	90%	96.1%
TSS	19	1,012	0.7	35	977	90%	96.5%
TN**	50	2,721	7.8	422	2,299	80%	84.5%
TP**	8	435	1.8	99	336	70%	77.3%

* *AADF (2016 - 2020): 6.525 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 significantly below the values used in the design of the facility (200 mg/L). The South Beaches WWTF 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 Beaches WWTF - 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	2.0	0.6	4.4	1.3	7.30	< 1
Feb 2016	1.5	0.8	0.8	1.3	7.21	< 1
Mar 2016	1.9	0.9	10.8	3.2	7.05	< 1
Apr 2016	1.7	0.8	10.5	1.5	7.01	< 1
May 2016	2.0	0.7	6.0	1.0	7.18	< 1
Jun 2016	1.9	0.5	4.9	1.7	7.39	< 1
Jul 2016	1.4	0.5	6.4	2.0	7.43	< 1
Aug 2016	1.7	0.5	2.7	2.0	7.42	< 1
Sep 2016	1.3	0.5	8.8	1.9	7.25	< 1
Oct 2016	1.6	0.5	5.2	1.4	7.26	< 1
Nov 2016	1.4	0.5	8.1	1.9	7.21	< 1
Dec 2016	1.4	0.6	13.8	2.3	7.21	< 1
2016 Avg.	**1.6**	**0.6**	**6.9**	**1.8**	**7.24**	**< 1**
Jan 2017	1.7	0.5	8.3	2.5	7.17	< 1
Feb 2017	2.1	0.5	4.3	2.5	7.37	< 1
Mar 2017	2.2	0.6	17.5	2.7	7.24	< 1
Apr 2017	1.7	0.7	5.8	2.4	7.22	< 1
May 2017	1.8	0.6	10.6	2.6	7.17	< 1
Jun 2017	2.1	0.5	12.2	2.2	7.35	< 1
Jul 2017	4.6	0.5	2.1	1.3	7.33	< 1
Aug 2017	2.7	0.6	4.9	1.5	7.30	< 1
Sep 2017	1.3	0.5	4.0	0.7	7.47	< 1
Oct 2017	1.0	0.5	3.6	0.2	7.51	< 1
Nov 2017	1.1	0.5	5.2	2.5	7.33	< 1
Dec 2017	1.1	0.5	8.4	1.7	7.35	< 1
2017 Avg.	**1.9**	**0.6**	**7.2**	**1.9**	**7.32**	**< 1**

Table 3.6-1: South Beaches WWTF - 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	1.2	0.7	7.3	1.9	7.31	< 1
Feb 2018	1.1	0.5	8.8	2.2	7.11	< 1
Mar 2018	1.5	0.5	7.8	2.3	7.08	< 1
Apr 2018	1.2	0.5	9.3	2.2	7.14	< 1
May 2018	1.5	0.6	6.0	2.1	7.41	< 1
Jun 2018	1.4	0.5	6.5	1.4	7.31	< 1
Jul 2018	1.9	0.5	5.0	1.6	7.34	< 1
Aug 2018	1.5	0.5	7.7	1.5	7.35	< 1
Sep 2018	1.5	0.5	4.8	1.9	7.25	< 1
Oct 2018	1.0	0.5	6.4	2.0	7.33	< 1
Nov 2018	1.5	0.5	5.3	2.0	7.32	< 1
Dec 2018	1.8	0.6	9.8	2.0	7.13	< 1
2018 Avg.	**1.4**	**0.5**	**7.1**	**1.9**	**7.26**	**< 1**
Jan 2019	1.5	0.5	10.1	2.0	7.14	< 1
Feb 2019	1.8	0.7	6.9	1.8	7.06	< 1
Mar 2019	1.5	1.0	9.8	1.9	7.14	< 1
Apr 2019	1.9	1.2	6.1	2.0	7.05	< 1
May 2019	1.2	0.8	8.1	0.9	6.87	< 1
Jun 2019	1.5	0.6	8.2	1.3	7.08	< 1
Jul 2019	1.3	3.4	9.9	1.2	7.15	< 1
Aug 2019	1.1	1.2	7.1	1.2	7.38	< 1
Sep 2019	1.1	0.5	9.1	1.6	7.41	< 1
Oct 2019	1.3	0.5	9.6	2.0	7.55	< 1
Nov 2019	1.3	0.6	8.6	1.5	7.38	< 1
Dec 2019	2.1	0.6	9.6	2.1	7.31	< 1
2019 Avg.	**1.5**	**1.0**	**8.6**	**1.6**	**7.21**	**< 1**

Table 3.6-1: South Beaches WWTF - 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	1.3	0.5	9.3	1.9	7.23	< 1
Feb 2020	1.0	0.5	14.0	2.3	7.31	< 1
Mar 2020	1.1	0.6	1.2	2.5	7.32	< 1
Apr 2020	1.0	0.6	12.4	2.4	7.34	< 1
May 2020	1.0	0.5	12.0	2.0	7.34	< 1
Jun 2020	1.0	0.5	11.3	1.8	7.38	< 1
Jul 2020	1.2	0.5	7.6	1.0	7.43	< 1
Aug 2020	1.1	0.5	10.1	2.0	7.38	< 1
Sep 2020	1.2	0.7	7.9	1.8	7.37	< 1
Oct 2020	1.1	0.5	9.1	1.3	7.46	< 1
Nov 2020	1.3	0.7	7.2	1.5	7.36	< 1
Dec 2020	1.0	0.5	6.2	1.8	7.31	< 1
2020 Avg.	1.1	0.6	9.0	1.9	7.35	< 1
5-Year Avg.	1.5	0.7	7.8	1.8	7.28	< 1
5-Yr % Removal	96.1%	96.5%	84.5%	77.3%	---	---

The 5-Year $CBOD_5$ treatment (removal) efficiency averaged approximately 96.1%; which is greater than the design treatment efficiency of 90% and the minimum FDEP requirement of 85%. The $CBOD_5$ treatment (removal) efficiency in Calendar Year 2020 averaged 97.3% and the effluent $CBOD_5$ concentration from the facility has been significantly below the design value of 5 mg/L. ***Thus, the South Beaches WWTF 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 (200 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 96.5%; which is greater than the design treatment efficiency of 90% and the minimum FDEP requirement of 85%. The TSS treatment (removal) efficiency in Calendar Year 2020 averaged 98.4% and the effluent TSS concentration from the facility has been significantly below the design value of 5 mg/L. ***Thus, the South Beaches WWTF 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. 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 84.5%; which is greater than the design treatment efficiency of 80%. More recently, the TN treatment (removal) efficiency in Calendar Year 2020 averaged 81.9% with an average effluent TN concentration of 9.0 mg/L.

However, to meet the requirements of Section 403.086(1)(c), Florida Statutes, significant infrastructure improvements and upgrades will be required at the South Beaches WWTF to meet AWT Criteria. The infrastructure improvements must be operational by July 1, 2025 and designed to reduce the effluent TN concentration below 3.0 mg/L, on a consistent basis. To meet this regulatory deadline, design of the treatment facility improvements must begin within the next twelve (12) months.

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 facility. 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 treatment system effluent (enhancing TP removal via chemical precipitation).

The 5-Year TP treatment (removal) efficiency averaged approximately 77.3%; which is greater than the design treatment efficiency of 70%. More recently, the TP treatment (removal) efficiency in Calendar Year 2020 averaged 76.8% with an average effluent TP concentration of 1.9 mg/L.

However, to meet the requirements of Section 403.086(1)(c), Florida Statutes, significant infrastructure improvements and upgrades will be required at the South Beaches WWTF to meet AWT Criteria. The infrastructure improvements must be operational by July 1, 2025 and designed to reduce the effluent TP concentration below 1.0 mg/L, on a consistent basis. To meet this regulatory deadline, design of the treatment facility improvements must begin within the next twelve (12) months.

SECTION 4

NON-BENEFICIAL SURFACE WATER DISCHARGE ELIMINATION PLAN

4.1 THE SOUTH BEACHES WWTF DISCHARGE ELIMINATION PLAN

The South Beaches Wastewater Treatment Facility (SBWWTF), located at 2800 South Highway A1A, Melbourne Beach, FL, 32951 is an *Secondary Wastewater plus Filtration* Facility (Category I, Class A), utilizing two (2) parallel wastewater treatment plants to treat the incoming raw wastewater from the service area and meets all Class II Reliability criteria. The facility consists of primary, secondary and tertiary treatment systems to treat the raw wastewater from the South Beaches Wastewater Collection and Transmission System. Reclaimed water storage is located throughout the service area (4.91 MG, total) including a 0.6 MG ground storage tank at the SBWWTF and 4.31 MG of storage in the Spessard Holland Golf Course stormwater pond system.

Biosolids management at the SBWWTF consists of partial aerobic digestion of the waste activated sludge (WAS) followed by dewatering of the solids through the use of a system of belt filter presses. The dewatered sludge is conveyed to a Class I solid waste landfill for ultimate disposal.

The treatment facility discharges highly treated effluent to any of three FDEP-permitted disposal systems:

- Public Access Reuse System, R-001 (3.00 MGD AADF capacity)
- Deep Injection (DIW) Well System, U-001 (9.00 MGD AADF capacity)
- Surface Water Discharge System to the Indian River Lagoon, D-001 (0.11 MGD AADF capacity). This discharge is for a period not to exceed five (5) days during the Mechanical Integrity Testing (MIT) of the facility's deep injection well.

As previously presented in Section 3.5 of this document, an analysis of facility effluent flows by disposal system, over the last five Calendar Years (2016 - 2020), was conducted with the following results:

Effluent Disposal Percentage by Disposal System (2016 - 2020)						
Calendar Year	Effluent Disposal System Flow (MGD AADF)			Overall Effluent Disposal (%)		
	Public Access Reuse System - PAR (R-001)	Deep Injection Well (U-001)	Surface Water Discharge (D-001)	PAR (R-001)	DIW (U-001)	SW Discharge (D-001)
2016*	1.379	4.870	0.003	22.06%	77.90%	0.05%
2017**	1.292	4.907	0.266	19.98%	75.90%	4.11%
2018	1.334	4.189	0.000	24.15%	75.85%	0.00%
2019	1.178	4.675	0.000	20.13%	79.87%	0.00%
2020	1.562	4.417	0.000	26.12%	73.88%	0.00%
5-Yr Avg.	**1.349**	**4.612**	**0.054**	**22.49%**	**76.68%**	**0.83%**

* *Surface Water Discharges due to Hurricane Matthew* ** *Significant Surface Water Discharges due to Hurricane Irma*

The effluent disposal analysis, over the last five calendar year period (2016 - 2020), indicates the following:

- Only 22.5% of the annual average effluent flow was reused within the South Beaches Reclaimed Water Service area via the existing slow-rate public access reuse system (R-001). This is unlikely to vary significantly in the future as there are very few additional opportunities for expansion of the reuse system as the service area is almost completely built-out.

- Approximately 0.8% of the annual average effluent flow was been disposed of through the surface water discharge system (D-001) to the Indian River Lagoon. The main discharge events were due to MIT testing of the Deep Injection Well (DIW) and the large volumes of infiltration and inflow (I/I) received at the South Beaches WWTF in 2016 and 2017 due to Hurricanes Matthew and Irma. However, it should be noted that there has not been a surface water discharge from the facility to the Indian River Lagoon since October 2017.

- The majority of the effluent disposal, approximately 76.7% of the annual average effluent flow was disposed of through the Deep Injection Well system (U-001) at the South Beaches WWTF. This is due to the built-out condition within the barrier island service area and limited potential for public access reuse.

Therefore, the South Beaches WWTF Non-Beneficial Surface Water Elimination Plan, to be implemented in accordance with Section 403.064, F.S., and the need to meet the AWT regulatory requirements of Section 403.086, F.S., will require the County to implement one of the following infrastructure improvements alternatives based on a detailed engineering evaluation of each alternative and project capital and operating costs:

Potential SBWWTF Improvements Alternative No.	State of Florida Regulatory Requirements	
	Discharges to the Indian River Lagoon (IRL) must meet AWT Criteria	Non-Beneficial Surface Water Discharge Elimination Plan
	Section 403.086, F.S	Section 403.064, F.S.
	Implementation by July 1, 2025	Implementation by January 1, 2032
1	**Phase I: Conversion of the 2.0 MGD Conventional Activated Sludge WWTF to a 4-Stage BNR treatment system** capable of producing an effluent that meets the AWT Criteria. All reclaimed water utilized in the service area would have a low nutrient concentration (TN, TP). The surface water discharge (D-001; 0.11 MGD AADF) would be kept in place due to the MIT associated with the single existing DIW. However, after commissioning of the second DIW as part of the Phase II improvements, the surface water discharge would be reclassified as a "wet weather" discharge to be used during periods intense rainfall from tropical events and localized storms.	**Phase II: Installation of a second Deep Injection Well (DIW)** on the South Beaches WWTF site with a capacity of 9.0 MGD AADF. The second DIW would provides the County with the following advantages: ■ Provides Class I Reliability ■ Eliminates the need for surface water discharge of the effluent associated with MIT testing of a single DIW ■ Allows alternating operation of the DIW's As previously states, the surface water discharge would be reclassified as a wet "weather discharge" upon commissioning of the new DIW.
2	**Phase I: Conversion of the 2.0 MGD Conventional Activated Sludge WWTF to a 4-Stage BNR treatment system** capable of producing an effluent that meets the AWT Criteria. All reclaimed water utilized in the service area would have a low nutrient concentration (TN, TP). The surface water discharge (D-001 - 0.11 MGD AADF) would be kept in place due to the MIT associated with the single existing DIW.	**Phase II: Conversion of the 6.0 MGD Carrousel Oxidation Ditch WWTF to a 4-Stage or 5-Stage BNR treatment system** capable of producing an effluent that meets the AWT Criteria. Upon completion of the Phase II project all disposal methods (reuse, surface water discharge, DIW) would occur with an effluent having a low nutrient concentration (TN, TP).

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	Both alternatives identified in the table above will require the existing surface water discharge to remain as either a disposal option during MIT of the DIW or as a "wet weather discharge" due to intense storm events from tropical systems or localized storms.

Plan Information to Be Provided	Value	Explanation
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;	0.11 MGD AADF (maximum)	This is the permitted surface water discharge capacity in the current facility FDEP Operations Permit and will be used during MIT of the DIW or as a "wet weather discharge" depending upon the SBWWTF improvements alternative selected. Over the last 5 calendar years, the surface water discharge averaged 0.054 MGD and was mainly due to Hurricanes Matthew and Irma.
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)	Dependent upon the SBWWTF improvements alternative selected (Alternative No. 1 or Alternative No. 2), either one or both of the existing treatment systems (6.0 MGD Carrousel System; 2.0 MGD Conventional Activated Sludge Process System) will be converted to a BNR Treatment System(s) capable of generating an effluent/reclaimed water meeting AWT standards/levels

* *Modifications to the South Beaches WWTF Biological Treatment System(s) will be required to meet AWT Criteria/Sandards (BOD_5 < 5 mg/L; TSS < 5 mg/L; TN < 3 mg/L; and TP , 1 mg/L).*

4.2 CAPACITY AND EFFICIENCY OF THE SOUTH BEACHES WWTF

A detailed evaluation of the historical wastewater flows to the South Beaches WWTF 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 6.525 MGD, or 81.6% of the facility's treatment capacity. Therefore, the South Beaches WWTF has the hydraulic capacity and infrastructure 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 Beaches WWTF - Treatment System Efficiency (2016 - 2020)			
Parameter	Influent Conc. (mg/L)	Effluent Conc. (mg/L)	Parameter Removal
$CBOD_5$	39	1.5	96.1%
TSS	19	0.7	96.5%
TN	50	7.8	84.5%
TP	8	1.8	77.3%

Therefore, the unit operations and processes at the South Beaches WWTF are capable of treating the incoming raw wastewater and generating an effluent/reclaimed water product that is in compliance with the current FDEP Operations Permit.

4.3 ABILITY OF THE SOUTH BEACHES WWTF TO MEET "CURRENT" AND "FUTURE" NUTRIENT LIMITS

The wastewater treatment processes at the South Beaches WWTF consist of primary treatment unit operations, two distinct treatment trains each with their own secondary clarification system, and tertiary treatment unit operations 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**	1.5	Yes
TSS	**5**	0.7	Yes
Total Nitrogen (TN)	**3**	**7.8**	**No**
Total Phosphorus (TP)	**1**	**1.8**	**No**
pH	**6.0 - 8.5**	7.28	Yes

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

To meet the surface water discharge regulatory requirements mandated in 403.086, F.S., on a continual basis, conversion of the 2.0 MGD Conventional Activated Sludge Process to a 4-Stage BNR treatment system, at a minimum, is required as outlined in Section 4.1 of this document. The new BNR treatment system will be capable of generating a high-quality effluent that meets all AWT Criteria. Thus, water being delivered to the public access reuse system and the Spessard Holland Golf Course pond system (potential intermittent discharge to the Indian River Lagoon) would be very low in nutrients, meet AWT criteria and meet the regulatory requirements mandated in Section 403.086, F.S.

A thorough engineering evaluation of the potential improvements required at the South Beaches WWTF to meet the regulatory requirements mandated in 403.086, F.S. and 403.064, F.S., as outlined in Section 4.1, will be conducted to determine the most energy-efficient, cost-effective and reliable modifications to the treatment facility. The identified improvements will then be included in the County's Utility Capital Improvements Program (CIP) and a project schedule generated to ensure that design, construction, optimization and commissioning of said improvements are completed prior to the regulatory deadlines.

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APPENDIX A

SOUTH BEACHES WWTF:
"EXISTING" FDEP OPERATIONS PERMIT

OCTOBER 2021

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FLORIDA DEPARTMENT OF Environmental Protection

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

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

NOTICE OF PERMIT ISSUANCE

Edward Fontanin, PE, Director
2725 Judge Fran Jamieson Way, Bldg A-213
Melbourne, FL 32940-6605
edward.fontanin@brevardfl.gov

Brevard County - DW
BCUD South Beaches WWTF

Enclosed is Permit Number FL0040622 to operate a domestic wastewater facility issued under Sections 403.087 and 403.0885 of the Florida Statutes.

Monitoring requirements under this permit are effective on May 1, 2019. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements.

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, and telephone number of the petitioner; 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 are or 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. 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.

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.

BCUD South Beaches WWTF
Permit Renewal FL0040622-012

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Lu Burson
Environmental Administrator
Permitting and Waste Clean Up Section

LB/crl

Enclosures: Permit, DMR and SOB

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:

David Smicherko, DEP, david.smicherko@dep.state.fl.us
Mary Ann Kraus, DEP, mary.kraus@dep.state.fl.us
Kevin Lee, Mead Hunt, kevin.lee@meadhunt.com
Shelley Locklear, BCUD, shelley.locklear@brevardfl.gov
Mark Reagan, BCUD, mark.reagan@brevardfl.gov
Cassandra Cissell, Mead Hunt, Cassandra.Cissell@meadhunt.com
Megan Warr, DEP, megan.warr@dep.state.fl.us
Jason Seyfert, DEP, Jason.Seyfert@dep.state.fl.us

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

March 27, 2019
Date

FLORIDA DEPARTMENT OF
Environmental Protection

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

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

STATE OF FLORIDA
DOMESTIC WASTEWATER FACILITY PERMIT

PERMITTEE:
Brevard County Utility Services Department

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

PERMIT NUMBER: FL0040622 (Minor)
FILE NUMBER: FL0040622-012-DW1P/NR
EFFECTIVE DATE: **March 27, 2019**
EXPIRATION DATE: **March 26, 2024**

FACILITY:

BCUD/South Beaches WWTF
2800 S Highway A1A
Melbourne Beach, FL 32951-2811
Brevard County
Latitude: 28°2' 29.62" N Longitude: 80°32' 52.4" 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:

The facility is an existing 8.0 MGD annual average daily flow (AADF) activated sludge domestic wastewater treatment facility consisting of two (2) contiguous wastewater treatment plants (a 6.0 MGD dual train carrousel oxidation ditch and a 2.0 MGD activated sludge plant), connected in parallel with mechanical influent screening, grit removal, aeration, clarification, chemical feed facilities, disinfection by chlorination, tertiary filtration, dechlorination, and dewatering of biosolids.

PERMIT HISTORY:

The current wastewater permit for this facility FL0040622-007-DW1P was issued on March 13, 2014 and expires on March 12, 2019. Permit revision FL0040622-008 was issued on October 16, 2016 and required the facility to follow new electronic submittal requirements. Permit revision FL0040622-009 was issued on March 9, 2017 to level the onsite outfall storage pond and to construct a baffle berm to prevent premature discharge. Permit revision FL0040622-010 was issued on April 26, 2017 and allowed modifications to the clarifiers pumping systems and the chlorine feed systems. Permit revision FL0040622-011 was issued on August 8, 2017 to allow upgrading of the three reclaimed water high service pumps.

REUSE OR DISPOSAL:

Surface Water Discharge D-001: D-001 is an existing 0.11 MGD annual average daily flow discharge to Indian River Lagoon, Class III Marine waters, (WBID# 2963A1). This segment of the Indian River is designated as Water Body Identification (WBID) # 2963A1, which is identified for assessment purposes as Class II waters since the majority of the WBID is Class II waters to the *south* of the discharge point, but the point of discharge is not in Class II waters. The 0.110 MGD discharge is authorized at Discharge location D-001 for a period not to exceed five (5) days during the Mechanical Integrity Testing of the facility's underground injection control well, in accordance with Conditions I.A.9 through I.A.12 of this permit. The permitted discharge of 8.0 MGD over five (5) days equates to an Annual Average Daily Flow of 0.11 MGD. The point of discharge is located approximately at latitude 28°2' 31" N, longitude 80°33' 1" W.

Underground Injection U-001: U-001 is an existing 8.0 MGD annual average daily flow permitted capacity underground injection well system consisting of one (1) Class I underground injection well permitted under Department permit number(s) 0185898-004 discharging to Class G-IV ground water. The capacity of the well is being rerated in this permit to 9.0 MGD annual average daily flow permitted capacity to match the permit for the well. Underground Injection Well System U-001 is located approximately at latitude 28°2' 27" N, longitude 80°32' 49" W.

Land Application R-001: An existing 3.0 MGD annual average daily flow permitted capacity slow-rate public access system. R-001 is a reuse system which consists of a reclaimed water transmission/distribution system for public access irrigation within the Reuse Service Area, as shown on the attached map. Reclaimed water is stored in an existing stormwater retention pond system located at the Spessard Holland Golf Course that has a combined storage capacity of 4.31 mg. The 4.31 MG stormwater retention pond system consists of seven ponds that are interconnected with underground culvert pipes at the golf course. The pond system has an intermittent discharge from Pond 6 to adjacent drainage features, which ultimately discharges to the Indian River Lagoon. Discharge of reclaimed water to this stormwater retention pond system shall be in accordance with Condition IV.16. of this permit.

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 25 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 Indian River Lagoon. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.D.8. :

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (to D-001)	MGD	Max Max	0.11 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-3	See I.A.4
BOD, Carbonaceous 5 day, 20C	mg/L	Max	20	Single Sample	Daily; 24 hours	24-hr FPC	EFD-1	See I.A.6
Solids, Total Suspended	mg/L	Max	20	Single Sample	Daily; 24 hours	24-hr FPC	EFD-1	See I.A.6
Coliform, Fecal	#/100mL	Max Max Max	14 14 86	Annual Average Monthly Median Single Sample	5 Days/Week	Grab	EFA-2	See I.A.5
Enterococci	#/100mL	Max Max	35 130	Monthly Geometric Mean 90th Percentile	5 Days/Week	Grab	EFA-2	See I.A.8 and I.A.9
pH	s.u.	Max Min	8.5 6.5	Single Sample Single Sample	Continuous	Meter	EFA-2	See I.A.3
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	Continuous	Meter	EFA-2	See I.A.3 and I.A.7
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	Daily; 24 hours	Grab	EFD-1	
Nitrogen, Total	mg/L	Max	12.0	Single Sample	Daily; 24 hours	24-hr FPC	EFD-1	
Phosphorus, Total (as P)	mg/L	Max	4.0	Single Sample	Daily; 24 hours	24-hr FPC	EFD-1	
Oxygen, Dissolved (DO)	mg/L	Min	5.0	Single Sample	Daily; 24 hours	Grab	EFD-2	
Acute Whole Effluent Toxicity, 96 Hour LC50 (Ceriodaphnia dubia)	percent	Min	100	Single Sample	Once during discharge	Grab	EFD-1	See I.A.10
Acute Whole Effluent Toxicity, 96 Hour LC50 (Cyprinella leedsi)	percent	Min	100	Single Sample	Once during discharge	Grab	EFD-1	See I.A.10
Phosphorus, Total (as P)	lb/yr	Max Max	36.0 Report	Annual Total Monthly Total	Monthly	Calculated	EFD-1	See Note 1
Nitrogen, Total	lb/yr	Max Max	173.0 Report	Annual Total Monthly Total	Monthly	Calculated	EFD-1	See Note 1

Note 1: The annual average mass loadings given are based on the final DEP TMDL from Outfall D-001 to the Indian River Lagoon and are based on the calendar year (January through December).

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-3	Flow meter for discharge to river during mechanical integrity testing
EFD-1	Sampling point at the holding pond discharge control structure
EFD-2	Sampling point following the holding pond discharge control structure
EFA-2	Sampling point at chlorine contact chamber/equalization basin

3. 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)]*

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 effluent limitation for the monthly median for fecal coliform is only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly median shall be calculated and reported on the Discharge Monitoring Report to be used to calculate the annual average. *[62-600.440(7)(b)]*

6. In accordance with subsections 62-600.420(1) and (2), F.A.C., the monthly average effluent $CBOD_5$ and TSS concentrations shall not exceed 15% of their respective influent values (i.e., 85% removal). *[62-600.420(1) and (2)]*

7. Total residual chlorine must be maintained for a minimum contact time of 15 minutes based on peak hourly flow. *[62-600.440(5)(c), (6)(b), and (7)(c)]*

8. The effluent limitation for the monthly geometric mean for enterococci is only applicable if 10 or more values are reported. *[62-302.530(6)(c)]*

9. To report the "90th percentile,"
   a. Place the bacteria results in ascending order (from lowest to highest value) and assign each sample a number, 1 for the lowest value.
   b. Multiply the total number of samples by 0.9 to determine the 90th percentile level.
   c. Report the value of the sample that corresponds to the 90th percentile level (e.g., 10 samples x 0.9 = 9, report the value of the 9th sample). If the 90th percentile level is not a whole number, rounding or interpolation should be used to determine the 90th percentile. When rounding, round down to the nearest whole number if the decimal is 0.4 or lower and round up to the nearest whole number if the decimal is 0.5 or higher (e.g., 12 samples x 0.9 = 10.8, report the value of the 11th sample if rounding). *[62-302.530(6)(c)]*

10. The permittee shall comply with the following requirements to evaluate acute whole effluent toxicity of the discharge from outfall D-001.

    a. Effluent Limitation
       (1) In any routine or additional follow-up test for acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent. *[62-302.200(1), 62-302.500(1)(a)4., 62-4.244(3)(a), and 62-4.241, F.A.C.]*

    b. Monitoring Frequency
       (1) Routine toxicity tests shall be conducted once when there is a discharge from D-001. The test shall be collected the first time there is a discharge during the permit cycle.

    c. Sampling Requirements
       (1) All tests shall be conducted on a single grab sample of final effluent.

    d. Test Requirements

(1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five dilutions: **100%, 75%, 50%, 25%**, and **12.5%** effluent.
(2) The permittee shall conduct 96-hour acute static renewal multi-concentration toxicity tests using the daphnid, **Ceriodaphnia dubia**, and the bannerfin shiner, **Cyprinella leedsi**, concurrently.
(3) All test species, procedures and quality assurance criteria used shall be in accordance with **Methods for Measuring Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms**, 5th Edition, EPA-821-R-02-012. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct acute toxicity testing in accordance with the revised method.
(4) The control water and dilution water shall be moderately hard water as described in EPA-821-R-02-012, Table 7.

e. Quality Assurance Requirements
(1) A standard reference toxicant (SRT) quality assurance (QA) acute toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly acute toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.
(2) If the mortality in the control (0% effluent) exceeds 10% for either species in any test, the test for that species (including the control) shall be invalidated and the test repeated. The repeat test shall begin within 14 days after the last day of the invalid test.
(3) If 100% mortality occurs in all effluent concentrations for either species prior to the end of any test and the control mortality is less than 10% at that time, the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non-compliance.
(4) Routine and additional follow-up tests shall be evaluated for acceptability based on the concentration-response relationship, as required by EPA-821-R-02-012, Section 12.2.6.2., and included with the bioassay laboratory reports.

f. Reporting Requirements
(1) Results from all required tests shall be reported on the Discharge Monitoring Report (DMR) as follows:
(a) Routine Test Results: If an LC50 >100% effluent occurs in the test for the test species, ">100%" shall be entered on the DMR for that test species. If an LC50 <100% effluent occurs, the calculated LC50 effluent concentration shall be entered on the DMR for that test species.
(b) Additional Follow-up Test Results: For each additional test required, the calculated LC50 value shall be entered on the DMR for that test species.
(2) A bioassay laboratory report for the routine test shall be prepared according to EPA-821-R-02-012, Section 12, Report Preparation and Test Review, and mailed to the Department at the address below within 30 days after the last day of the test.
(3) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-012, Section 12, and mailed within 30 days after the last day of the second valid additional follow-up test.
(4) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.
(5) The same bioassay data shall not be reported as the results of more than one test.
(6) All bioassay laboratory reports shall be sent to:
Florida Department of Environmental Protection
Central District Office
3319 Maguire Blvd, Suite 232
Orlando, Florida 32803-3767

g. Test Failures
(1) A test fails when the test results do not meet the limits in 10.a.(1).
(2) Additional Follow-up Tests:

(a) If a routine test does not meet the acute toxicity limitation in 10.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 10.d.
(b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.
(c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 75%, 50%, 25%, and 12.5% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be statistically analyzed according to the procedures in EPA-821-R-02-012.

(3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.
(a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.
(b) The Department shall review and approve the plan before initiation.
(c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
(d) Progress reports shall be submitted quarterly to the Department at the address above.
(e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with10.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 10.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-012, a repeat test shall be initiated within 14 days after the last day of the invalid routine test.
(f) Upon completion of four consecutive quarterly valid routine tests that demonstrate compliance with the effluent limitation in 10.a.(1) above, the permittee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive quarterly valid routine whole effluent toxicity tests. If a test within the sequence of the four is deemed invalid but is replaced by a repeat valid test initiated within 14 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive quarterly valid routine tests for the purpose of terminating the plan.

(4) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for whole effluent toxicity failures. *[62-4.241, 62-620.620(3)]*

11. The permittee shall submit written notification to the Department, thirty (30) days prior to a scheduled underground injection well mechanical integrity test (MIT). Such notification must include the proposed date(s) for the test and indicate whether or not a discharge is expected due to the test. The performance of the MIT shall be contingent upon passing the toxicity tests required in Condition I.A.8. of this permit. *[62-4-070(3)]*

12. The surface water discharge can be continued after mechanical integrity testing has been performed, if the Department concurs in the prohibition of further injection well use due to technical problems identified during the test. If the discharge is continued beyond the period required for mechanical integrity testing, this permit may be modified to include more stringent effluent limitations as necessary to protect the water quality of the receiving water body and/or to include a compliance schedule for eliminating the surface water discharge. *[62-4-070(3)]*

13. The Total Maximum Daily Load (TMDL) for the Indian River Lagoon was finalized by DEP in March 2009. The TMDL includes a waste load allocation of:

173 lb/year for Total Nitrogen
36 lb/year for Total Phosphorus

If an alternate TMDL for this water body is established and adopted by rule, the Department may revise this permit to incorporate the final TMDL, pursuant to Rule 62-620.325, Florida Administrative Code.

B. Underground Injection Control Systems

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 to Underground Injection Well System U-001 located approximately at latitude 28º2'27", longitude 80º32'49". Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.D.8.:

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (to U-001)	MGD	Max Max	9.0 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-1	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-2	
Solids, Total Suspended	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	
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Daily	Grab	EFA-2	See I.B.3

2. Effluent 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-1	Flow meter for the injection well
EFA-2	Sampling point at chlorine contact chamber/equalization basin

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. Disinfection is not required for discharge to Class G-IV waters using Class I wells. However, the permittee must maintain the capability for disinfection at a level that is consistent with the alternate disposal mechanism approved for this facility pursuant to Rule 62-600.540(5), F.A.C. *[62-600.540(1)]*

C. 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 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.D.8.:

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (To Reuse)	MGD	Max Max	3.0 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-2	See I.C.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	
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	4 Days/Week	Grab	EFB-1	
Coliform, Fecal	#/100mL	Max	25	Single Sample	4 Days/Week	Grab	EFA-1	
Coliform, Fecal, % less than detection	percent	Min	75	Monthly Total	4 Days/Week	Calculated	EFA-1	See I.C.5
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFA-1	See I.C.3
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	Continuous	Meter	EFA-1	See I.C.6 and I.C.9
Turbidity	NTU	Max	Report	Single Sample	Continuous	Meter	EFB-1	See I.C.7 and I.C.9
Nitrogen, Total	mg/L	Max Max	Report Report	Annual Average Monthly Average	Monthly	Grab	EFA-1	See I.C.11
Phosphorus, Total (as P)	mg/L	Max Max	Report Report	Annual Average Monthly Average	Monthly	Grab	EFA-1	See I.C.11
Giardia	cysts/100L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFA-1	See I.C.10
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFA-1	See I.C.10

2. Reclaimed water 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-2	Flow meter for the reuse system and golf course irrigation
EFA-1	Sampling point at discharge of chlorine contact chamber
EFB-1	Sampling point after filtration and prior to disinfection

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: underground injection well system U-001. *[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. *[62-610.463(4)]*

11. Monitoring for total nitrogen (TN) and total phosphorus (TP) are required as allowed by Rule 62-600.650(3), FAC, to evaluate impacts of reclaimed water to ground and surface waters in an impaired water basin. *[62-600.650(3)]*

D. 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.D.8.:

			Limitations		Monitoring Requirements			
Parameter	Units	Max/Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (Total through facility)	MGD	Max Max Max	8.0 Report Report	Annual Average Monthly Average Quarterly Average	Continuous	Recording Flow Meter with Totalizer	FLW-4	See I.D.4
Percent Capacity, (TMADF/Permitted Capacity) x 100	percent	Max	Report	Monthly Average	Monthly	Calculated	FLW-4	
BOD, Carbonaceous 5 day, 20C (Influent)	mg/L	Max	Report	Single Sample	5 Days/Week	24-hr FPC	INF-1	See I.D.3
Solids, Total Suspended (Influent)	mg/L	Max	Report	Single Sample	5 Days/Week	24-hr FPC	INF-1	See I.D.3

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

Monitoring Site Number	Description of Monitoring Site
FLW-4	Influent flow meter at headworks
INF-1	Automatic sampler upstream of return activated sludge (RAS) line

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 Reuse Coordinator 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 (April 26, 2006)" 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 May 1, 2019.** 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
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 http://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. 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 http://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)]*

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 disposed of in a Class I solid waste landfill. *[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)]*

   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.D.8. *[62-640.650(5)(a)1]*

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

3. 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	Calculated (based on volume and percent solids). Reported in dry tons.

4. 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)]*

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

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

B. Disposal

7. 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. Receipt

8. If the permittee intends to accept biosolids from other facilities, a permit revision is required pursuant to paragraph 62-640.880(2)(d), F.A.C. *[62-640.880(2)(d)]*

III. GROUND WATER REQUIREMENTS

1. The permittee shall give at least 72-hours' 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)]*

5. 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]*

6. 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)]*

7. If the concentration for any constituent listed in Permit Condition III.10. 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)]*

8. During the period of operation authorized by this permit, the permittee shall continue to sample ground water at the monitoring wells identified in Permit Condition III.9., 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] [62-610.463]*

9. The following monitoring wells shall be sampled for Reuse System R-001. *[62-520.600] [62-610.463]*

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Latitude	Longitude	Depth (Feet)	Aquifer Monitored	Well Type	New or Existing
MWB-4	West Well at WWTP	28°33' 30"	80°33' 30"	20	Surficial	Background	Existing
MWC-1	North Well at WWTP	28°33' 30"	80°33' 30"	20	Surficial	Compliance	Existing
MWC-2	East Well at WWTP	28°33' 30"	80°33' 30"	20	Surficial	Compliance	Existing
MWC-3SP	MWC-3 Spessard Holland Golf Course	28°32' 29"	80°32' 40"	28	Surficial	Compliance	Existing
MWC-4SP	MWC-4 Spessard Holland Golf Course	28°32' 29"	80°32' 40"	14	Surficial	Compliance	Existing
MWI-3	South Well at WWTP	28°33' 30"	80°33' 30"	20	Surficial	Intermediate	Existing

10. The following parameters shall be analyzed for each monitoring well identified in Permit Condition III.9. *[62-520.600(11)(b)] [62-600.670] [62-600.650(3)] [62-520.310(5)]*

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
Sodium, Total Recoverable	160	mg/L	Grab	Quarterly

11. 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)] [62-610.463(3)(a)]*

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

13. 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)]*

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

15. 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)]*

16. The permittee shall sample the following monitoring well(s): MWC-1 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 III Public Access System(s)

1. 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-001	Residential Areas	Residential Developments	0.3	35.9
PAA-002	Spessard Holland Golf Course	Golf Courses	0.993	80
		Total	1.3	115.9

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

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

3. 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)]*

4. 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)]*

5. 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. *[62-555.350(3) and 62-555.360][62-620.610(20)]*

6. 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)]*

7. 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)]*

8. 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)]*

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

10. 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)]*

11. 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)]*

12. 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)]*

13. 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]*

14. 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)]*

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

16. 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)]*

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 24 hours/day for 7 days/week. The lead/chief operator must be a Class A operator. *[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)]*

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

1. **An updated capacity analysis report shall be submitted to the Department annually by December 1 of each year. The updated capacity analysis report shall be 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 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 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 the 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 the 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 permit;

f. A copy of the current operation and maintenance manual as required by Chapter 62-600, F.A.C.;

g. A copy of any required record drawings;

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, 62-602.650, 62-640.650(4)]*

VI. SCHEDULES

1. 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 treatment facilities or equipment no longer function as intended, are no longer safe in terms of public health and safety, or odor, noise, aerosol drift, or lighting adversely affects neighboring developed areas at the levels prohibited by Rule 62-600.400(2)(a), 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 Rule 62-296.320(2), F.A.C. *[62-600.410(5) and 62-640.400(6)]*

3. 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(3)]*

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

5. 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)]*

6. 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. *[62-600.400(2)(b)]*

7. 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)]*

8. 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)]*

9. 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)]*

10. 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. *[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's Central District Office 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.

    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 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 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's Central District Office 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's Central District Office shall waive the written report. *[62-620.610(20)]*

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

Lu Burson,
Environmental Administrator
Permitting and Waste Clean Up Program

PERMIT ISSUANCE DATE: March 27, 2019

Attachment(s):
Discharge Monitoring Report
"Pathogen Monitoring" Form

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME:	Brevard County Utility Services Department	PERMIT NUMBER:	FL0040622-012-DW1P	**Expiration Date**	March 26, 2024
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 Beaches WWTF	MONITORING GROUP NUMBER:	D-001		
LOCATION:	2800 S Highway A1A	MONITORING GROUP DESCRIPTION:	Class III Marine		
	Melbourne Beach, FL 32951-2811	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 (to D-001)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-3	Permit Requirement		0.11 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (to D-001)	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-3	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 1 Mon. Site No. EFD-1	Permit Requirement						20 (Max.)	mg/L		Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 1 Mon. Site No. EFD-1	Permit Requirement						20 (Max.)	mg/L		Daily; 24 hours	24-hr FPC
Coliform, Fecal	Sample Measurement										
PARM Code 74055 Y Mon. Site No. EFA-2	Permit Requirement					14 (An.Avg.)		#/100mL		5 Days/Week	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 A Mon. Site No. EFA-2	Permit Requirement					14 (Mo.Med.)	86 (Max.)	#/100mL		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 Beaches WWTF MONITORING GROUP NUMBER: D-001 PERMIT NUMBER: FL0040622-012-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Enterococci	Sample Measurement										
PARM Code 31639 A Mon. Site No. EFA-2	Permit Requirement					35 (Mo.Geo.Mn.)	130 (90th %)	#/100mL		5 Days/Week	Grab
pH	Sample Measurement										
PARM Code 00400 A Mon. Site No. EFA-2	Permit Requirement				6.5 (Min.)		8.5 (Max.)	s.u.		Continuous	Meter
Chlorine, Total Residual (For Disinfection)	Sample Measurement										
PARM Code 50060 A Mon. Site No. EFA-2	Permit Requirement				1.0 (Min.)			mg/L		Continuous	Meter
Chlorine, Total Residual (For Dechlorination)	Sample Measurement										
PARM Code 50060 1 Mon. Site No. EFD-1	Permit Requirement						0.01 (Max.)	mg/L		Daily; 24 hours	Grab
Nitrogen, Total	Sample Measurement										
PARM Code 00600 1 Mon. Site No. EFD-1	Permit Requirement						12.0 (Max.)	mg/L		Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 1 Mon. Site No. EFD-1	Permit Requirement						4.0 (Max.)	mg/L		Daily; 24 hours	24-hr FPC
Oxygen, Dissolved (DO)	Sample Measurement										
PARM Code 00300 1 Mon. Site No. EFD-2	Permit Requirement				5.0 (Min.)			mg/L		Daily; 24 hours	Grab
LC50 STATRE 96HOUR ACUTE Ceriodaphnia dubia (Routine)	Sample Measurement										
PARM Code TAN3B P Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		Once during discharge	Grab
LC50 STATRE 96HOUR ACUTE Ceriodaphnia dubia (Additional)	Sample Measurement										
PARM Code TAN3B Q Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		As needed	As required by the permit
LC50 STATRE 96HOUR ACUTE Ceriodaphnia dubia (Additional)	Sample Measurement										
PARM Code TAN3B R Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		As needed	As required by the permit

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Beaches WWTF MONITORING GROUP NUMBER: D-001 PERMIT NUMBER: FL0040622-012-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
LC50 STATRE 96HOUR ACUTE Cyprinella leedsi (Routine)	Sample Measurement										
PARM Code TAN6H P Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		Once during discharge	Grab
LC50 STATRE 96HOUR ACUTE Cyprinella leedsi (Additional)	Sample Measurement										
PARM Code TAN6H Q Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		As needed	As required by the permit
LC50 STATRE 96HOUR ACUTE Cyprinella leedsi (Additional)	Sample Measurement										
PARM Code TAN6H R Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		As needed	As required by the permit
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 P Mon. Site No. EFD-1	Permit Requirement	Report (Mo.Total)	36.0 (An.Total)	lb/yr						Monthly	Calculated
Nitrogen, Total	Sample Measurement										
PARM Code 00600 P Mon. Site No. EFD-1	Permit Requirement	Report (Mo.Total)	173.0 (An.Total)	lb/yr						Monthly	Calculated

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME:	Brevard County Utility Services Department	PERMIT NUMBER:	FL0040622-012-DW1P	**Expiration Date**	March 26, 2024
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 Beaches WWTF	MONITORING GROUP NUMBER:	R-001		
LOCATION:	2800 S Highway A1A	MONITORING GROUP DESCRIPTION:	Public Access Reuse System, with Influent		
	Melbourne Beach, FL 32951-2811	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 (To Reuse)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-2	Permit Requirement		3.0 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (To Reuse)	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-2	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
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
Coliform, Fecal	Sample Measurement										
PARM Code 74055 A Mon. Site No. EFA-1	Permit Requirement						25 (Max.)	#/100mL		4 Days/Week	Grab

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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)

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

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Beaches WWTF MONITORING GROUP NUMBER: R-001 PERMIT NUMBER: FL0040622-012-DW1P

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
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
pH	Sample Measurement										
PARM Code 00400 A Mon. Site No. EFA-1	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
Turbidity	Sample Measurement										
PARM Code 00070 B Mon. Site No. EFB-1	Permit Requirement						Report (Max.)	NTU		Continuous	Meter
Nitrogen, Total	Sample Measurement										
PARM Code 00600 Y Mon. Site No. EFA-1	Permit Requirement					Report (An.Avg.)		mg/L		Monthly	Grab
Nitrogen, Total	Sample Measurement										
PARM Code 00600 A Mon. Site No. EFA-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Monthly	Grab
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Y Mon. Site No. EFA-1	Permit Requirement					Report (An.Avg.)		mg/L		Monthly	Grab
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 A Mon. Site No. EFA-1	Permit Requirement						Report (Mo.Avg.)	mg/L		Monthly	Grab
Flow (Total through facility)	Sample Measurement										
PARM Code 50050 P Mon. Site No. FLW-4	Permit Requirement		8.0 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Total through facility)	Sample Measurement										
PARM Code 50050 Q Mon. Site No. FLW-4	Permit Requirement	Report (Qt.Avg.)	Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: BCUD/South Beaches WWTF MONITORING GROUP NUMBER: R-001 PERMIT NUMBER: FL0040622-012-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 1 Mon. Site No. FLW-4	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

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME:	Brevard County Utility Services Department	PERMIT NUMBER:	FL0040622-012-DW1P	**Expiration Date**	March 26, 2024
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 Beaches WWTF	MONITORING GROUP NUMBER:	U-001		
LOCATION:	2800 S Highway A1A	MONITORING GROUP DESCRIPTION:	underground injection well		
	Melbourne Beach, FL 32951-2811	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 (to U-001)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-1	Permit Requirement		9.0 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (to U-001)	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-1	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Y 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 A 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
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 Y Mon. Site No. EFA-2	Permit Requirement					20.0 (An.Avg.)		mg/L		5 Days/Week	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 A 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 Beaches WWTF

MONITORING GROUP NUMBER: U-001

PERMIT NUMBER: FL0040622-012-DW1P

MONITORING PERIOD From: ____________________ To: _______________

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
pH	Sample Measurement										
PARM Code 00400 A Mon. Site No. EFA-2	Permit Requirement				6.0 (Min.)		8.5 (Max.)	s.u.		Daily; 24 hours	Grab

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed submit this report to: http://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 Beaches WWTF
LOCATION: 2800 S Highway A1A
Melbourne Beach, FL 32951-2811
COUNTY: Brevard
OFFICE: Central District

PERMIT NUMBER: FL0040622-012-DW1P
LIMIT: Final
CLASS SIZE: MI
MONITORING GROUP NUMBER: RMP-Q
MONITORING GROUP DESCRIPTION: Biosolids Quantity
RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

REPORT FREQUENCY: Monthly
PROGRAM: Domestic

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

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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)

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

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0040622-012-DW1P Facility: BCUD/South Beaches WWTF
Monitoring Period From: _____ To: _____

	BOD, Carbonaceous 5 day, 20C mg/L	Chlorine, Total Residual (For Disinfection) mg/L	Coliform, Fecal #/100mL	Nitrogen, Total mg/L	Phosphorus, Total (as P) mg/L	pH s.u.	BOD, Carbonaceous 5 day, 20C mg/L	Chlorine, Total Residual (For Disinfection) mg/L	Coliform, Fecal #/100mL	Enterococci #/100mL	Solids, Total Suspended mg/L
Code	80082	50060	74055	00600	00665	00400	80082	50060	74055	31639	00530
Mon. Site	EFA-1	EFA-1	EFA-1	EFA-1	EFA-1	EFA-1	EFA-2	EFA-2	EFA-2	EFA-2	EFA-2
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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: _____

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0040622-012-DW1P Facility: BCUD/South Beaches WWTF
Monitoring Period From: _____ To: _____

	pH s.u. Min	pH s.u. Max	Solids, Total Suspended mg/L	Turbidity NTU	BOD, Carbonaceous 5 day, 20C mg/L	Chlorine, Total Residual (For Dechlorination) mg/L	Nitrogen, Total mg/L	Oxygen, Dissolved (DO) mg/L	Phosphorus, Total (as P) mg/L	Solids, Total Suspended mg/L	Flow (to U-001) MGD
Code	00400	00400	00530	00070	80082	50060	00600	00300	00665	00530	50050
Mon. Site	EFA-2	EFA-2	EFB-1	EFB-1	EFD-1	EFD-1	EFD-1	EFD-2	EFD-1	EFD-1	FLW-1
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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: _____

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0040622-012-DW1P Facility: BCUD/South Beaches WWTF
Monitoring Period From: _____ To: _____

	Flow (To Reuse) MGD	Flow (to D-001) MGD	BOD, Carbonaceous 5 day, 20C (Influent) mg/L	Solids, Total Suspended (Influent) mg/L	Flow (Total through facility) MGD						
Code	50050	50050	80082	00530	50050						
Mon. Site	FLW-2	FLW-3	INF-1	INF-1	FLW-4						
1											
2											
3											
4											
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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 Beaches WWTF
Permit Number: FL0040622-012-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWB-4
Well Type: Background
Description: West Well at WWTP
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				
Sodium, Total Recoverable	00923		Report	mg/L	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 Beaches WWTF
Permit Number: FL0040622-012-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-1
Well Type: Compliance
Description: North Well at WWTP
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				
Sodium, Total Recoverable	00923		160	mg/L	Grab	Quarterly				

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COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Beaches WWTF
Permit Number: FL0040622-012-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-2
Well Type: Compliance
Description: East Well at WWTP
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				
Sodium, Total Recoverable	00923		160	mg/L	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 Beaches WWTF
Permit Number: FL0040622-012-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-3SP
Well Type: Compliance
Description: MWC-3 Spessard Holland 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		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				
Sodium, Total Recoverable	00923		160	mg/L	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):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Beaches WWTF
Permit Number: FL0040622-012-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWC-4SP
Well Type: Compliance
Description: MWC-4 Spessard Holland 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		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				
Sodium, Total Recoverable	00923		160	mg/L	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):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: BCUD/South Beaches WWTF
Permit Number: FL0040622-012-DW1P
County: Brevard
Office: Central District

Monitoring Well ID: MWI-3
Well Type: Intermediate
Description: South Well at WWTP
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				
Sodium, Total Recoverable	00923		Report	mg/L	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: http://www.fldepportal.com/go/

PERMITTEE NAME: Brevard County Util Serv Department
MAILING ADDRESS: 2725 Judge Fran Jamieson Way
BLDG. A-213
Melbourne, Florida 32940-6605
FACILITY: BCUD/South Beaches WWTF
LOCATION: 2800 S Highway A1A
Melbourne Beach, FL 32951-2811

COUNTY: Brevard
OFFICE: Central District

PERMIT NUMBER: FL0040622-012-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 Beaches WWTF MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0040622-012-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 Beaches WWTF MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0040622-012-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 Beaches WWTF MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0040622-012-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 Beaches WWTF MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0040622-012-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 Beaches WWTF MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0040622-012-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 Beaches WWTF MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0040622-012-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 Beaches WWTF MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0040622-012-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 Beaches WWTF MONITORING GROUP NUMBER: RWS-A PERMIT NUMBER: FL0040622-012-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

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

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

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. Emailed to the DEP Central District Office (attention Domestic Wastewater Program) at dep_cd@dep.state.fl.us.

   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: **FL0040622**

   Wastewater facility name: BCUD/South Beaches

   Permittee name: Brevard County Util Serv 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: FL0040622
FACILITY NAME: BCUD/South Beaches
FACILITY ADDRESS: 2800 S Highway A1A, Melbourne Beach, FL 32951-2811
PERMITTEE NAME: Brevard County Util Serv 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: FL0040622-012 (Minor)

FACILITY NAME: BCUD/South Beaches

FACILITY LOCATION: 2800 S Highway A1A, Melbourne Beach, FL 32951-2811
Brevard County

NAME OF PERMITTEE: Brevard County Utility Services Department

PERMIT WRITER: Charles LeGros

1. SUMMARY OF APPLICATION

a. Chronology of Application

Application Number: FL0040622-012-DW1P

Application Submittal Date: September 7, 2018 and additional information December 5, 2018

b. Type of Facility

Domestic Wastewater Treatment Plant

Ownership Type: County

SIC Code: 4952

c. Facility Capacity

Existing Permitted Capacity:	8.0 MGD Annual Average Daily Flow
Proposed Increase in Permitted Capacity:	0 MGD Annual Average Daily Flow
Proposed Total Permitted Capacity:	8.0 MGD Annual Average Daily Flow

d. Description of Wastewater Treatment

An existing 8.0 MGD annual average daily flow (AADF) activated sludge domestic wastewater treatment facility consisting of two (2) contiguous wastewater treatment plants (a 6.0 MGD dual train carrousel oxidation ditch and a 2.0 MGD activated sludge plant), connected in parallel with mechanical influent screening, grit removal, aeration, clarification, chemical feed facilities, disinfection by chlorination, tertiary filtration, dechlorination, and dewatering of biosolids.

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

Surface Water Discharge D-001: An existing 0.110 MGD AADF permitted capacity discharge to Indian River Lagoon, Class III Marine waters. This segment of the Indian River is designated as Water Body Identification (WBID) # 2963A1, which is identified for assessment purposes as Class II waters since the majority of the WBID is Class II waters to the *south* of the discharge point, but the point of discharge is not in Class II waters. The 0.110

MGD discharge is authorized at Discharge location D-001 for a period not to exceed five (5) days during the Mechanical Integrity Testing of the facility's underground injection control well, in accordance with Conditions I.A.9 through I.A.12 of this permit. The permitted discharge of 8.0 MGD over five (5) days equates to an Annual Average Daily Flow of 0.11 MGD. The point of discharge is located approximately at latitude 28°2' 31" N, longitude 80°33' 1" W.

Underground Injection U-001: An existing 8.0 MGD AADF permitted capacity underground injection well system consisting of one (1) Class I underground injection well permitted under Department permit number 05-0185898-004 discharging to Class G-IV ground water. The capacity of the well is being rerated in this permit to 9.0 MGD annual average daily flow permitted capacity to match the permit for the well. Underground Injection Well System U-001 is located approximately at latitude 28°2' 27" N, longitude 80°32' 49" W.

Land Application R-001: An existing 3.0 MGD AADF permitted capacity slow-rate public access system. R-001 is a reuse system which consists of a reclaimed water transmission/distribution system for public access irrigation within the Reuse Service Area, as shown on the attached map. The existing reuse capacity is 1.293 MGD AADF, with a total anticipated reuse capacity of 3.0 MGD AADF, as listed in Condition IV.A.1. of this permit. Reclaimed water is stored in an existing stormwater retention pond system located at the Spessard Holland Golf Course that has a combined storage capacity of 4.31 mg. The 4.31 MG stormwater retention pond system consists of seven ponds that are interconnected with underground culvert pipes at the golf course. The pond system has an intermittent discharge from Pond 6 to adjacent drainage features, which ultimately discharges to the Indian River Lagoon. Discharge of reclaimed water to this stormwater retention pond system shall be in accordance with Condition IV.16. of this permit.

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.

Pollutants which are present in significant quantities or which are subject to permit limitations are as follows:

Parameters	**Reported Data from discharge Sept 2017 – October 2017***		
	Ann. Avg.	Lowest Monthly Avg.	Highest Monthly Avg.
Flow (River Discharge), MGD	0.268		2.091
$CBOD_5$ (effluent), mg/L – single sample maximum	NA		20.8
Total Suspended Solids (effluent), mg/L – single sample maximum	NA	<1.0	11.9
Fecal Coli. Bacteria, #/100 ml	0.4	0.7	8.1
Enterococci, #/100 ml	NA	3.1	5.3
TRC, (after dechlorination), mg/L - single sample maximum	NA		0.06
pH (single sample)	NA	7.2	7.6
Total Nitrogen, mg/L – single sample maximum	NA	5.8	7.7

Parameters	Reported Data from discharge Sept 2017 – October 2017*		
Total Phosphorus, mg/L	NA	0.8	1.4
Dissolved Oxygen, mg/L (single sample)	NA	3.3**	5.0

* The facility has had three discharge events. The March 2017 discharge event was associated with the Mechanical Integrity Testing of the Deep Injection Well. The discharge events in October 2016 and September through October 2017 were associated with two (2) Hurricanes and unseasonably high rainfall amounts. The surface water discharge that occurred October 8, 2016, to October 12, 2016, was associated with Hurricane Matthew. Influent flows to the WWTF ranged from 9.8 MGD to 11 MGD during this time. These flows exceed the capacity of the deep injection well and required surface water discharge. A surface water discharge occurred from September 11, 2017, to October 31, 2017, not associated with mechanical integrity testing of the deep injection well. This surface water discharge was associated with the high rainfall that occurred during and after Hurricane Irma. Elevated inflow, above 8.0 MGD AADF, persisted from September 10, 2017, through November 8, 2017. These high inflows can be assumed to be the result of Infiltration and Inflow in the collection system. The flow exceeded the capacity of the deep injection well (9.0 MGD) for 50 consecutive days, necessitating a surface water discharge event. The permitted limits on TRC (for disinfection) $CBOD_5$, TRC (for dechlorination), and Dissolved Oxygen were exceeded during Hurricane Irma when the total flow fluctuated from 8.4 MGD to 16.38 MGD. The suddenness of the flow increase and the day-to-day variation in flow made the operation of the biological and disinfection/dechlorination system difficult.

The county has implemented an intensive program to reduce inflow and infiltration and in their collection system and are under previously issued Consent Orders (issued during the last permit cycle) as noted in #9 below. The county is leveling the onsite outfall storage pond and constructing a baffle berm to be able to retain more water on site and prevent premature discharge. Longer detention in the pond during non-emergency conditions should also aid in lowering dechlorination levels.

**The facility has moved the dissolved oxygen (DO) sampling point to below the outfall weir which should result in higher DO and more adequately demonstrate the quality of water being discharged from D-001.

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 to Indian River Lagoon based on the following:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (to D-001)	MGD	Max	0.11	Annual Average	62-600.700(2)(b) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) FAC
BOD, Carbonaceous 5 day, 20C	mg/L	Max	20	Single Sample	90-262, Laws of FL 403.086(4)(a) FS BPJ,
Solids, Total Suspended	mg/L	Max	20	Single Sample	90-262, Laws of FL 403.086(4)(a) FS BPJ,
Coliform, Fecal	#/100mL	Max	14	Annual Average	62-600.440(7)(a)1. FAC
		Max	14	Monthly Median	62-600.440(7)(a)2. FAC
		Max	86	Single Sample	62-600.440(6)(c)2. FAC
Enterococci	#/100mL	Max	35	Monthly Geometric Mean	62-600.520(5) FAC
		Max	130	90th Percentile	62-600.520(5) FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
pH	s.u.	Max	8.5	Single Sample	62-600.430, 62-302.530(52) & 62-650 FAC
		Min	6.5	Single Sample	62-600.430, 62-302.530(52) & 62-650 FAC
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	62-600.440(7)(c) FAC
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	62-600.440(2) & 62-302.530(19) FAC
Nitrogen, Total	mg/L	Max	12.0	Single Sample	62-600.740(1)(b)2.b. FAC
Phosphorus, Total (as P)	mg/L	Max	4.0	Single Sample	62-600.740(1)(b)2.b. FAC
Oxygen, Dissolved (DO)	mg/L	Min	5.0	Single Sample	62-302.530(31) FAC
Acute Whole Effluent Toxicity, 96 Hour LC50 (Ceriodaphnia dubia)	percent	Min	100	Single Sample	62-302.200(1), 62-302.500(1)(a)4 & 62-4.241(1)(a) FAC
Acute Whole Effluent Toxicity, 96 Hour LC50 (Cyprinella leedsi)	percent	Min	100	Single Sample	62-302.200(1), 62-302.500(1)(a)4 & 62-4.241(1)(a) FAC
Phosphorus, Total (as P)	lb/yr	Max	36.0	Annual Total	62-304.520 FAC
		Max	Report	Monthly Total	62-304.520 FAC
Nitrogen, Total	lb/yr	Max	173.0	Annual Total	62-304.520 FAC
		Max	Report	Monthly Total	62-304.520 FAC

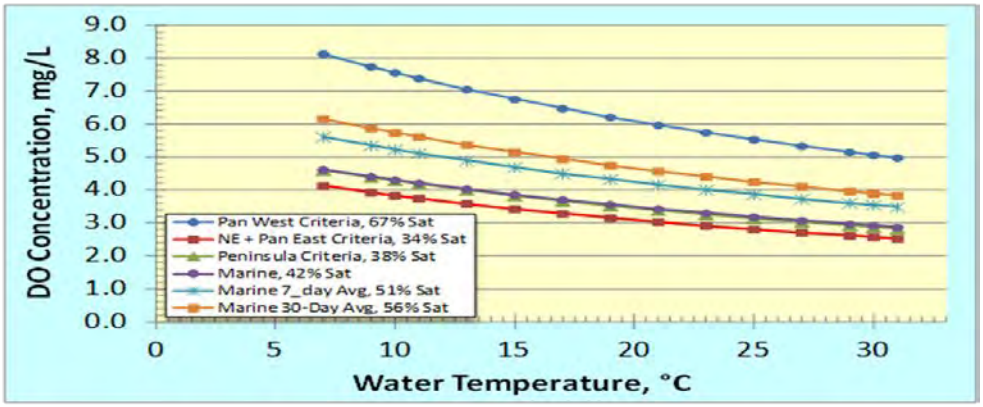
The proposed effluent limitations for Part I.A.1.will apply during the period when the Mechanical Integrity Test (MIT) for the injection well is performed. The discharge is limited to no more than five (5) days per five-year permit period, during the Mechanical Integrity Testing of the UIC well, if necessary.

In addition to the specified limits, the monthly average effluent concentration for total suspended solids shall not exceed 15% of the respective influent value (i.e., 85% removal). *[62-600.420(1) and (2)]* Because of the limited number of days for discharging, the sampling frequency for $CBOD_5$, TSS, fecal coliform, TN and TP is required to be daily (during discharge).

Enterococci Bacteria: New water quality criteria in Rule 62-302.530, F.A.C. has been revised and adopted to include Enterococci Bacteria. The facility previously had a monthly geometric mean limit. The new permit includes a new 90^{th} percentile limit. The new 90^{th} percentile limit 130 #/100mL in the rule will apply to the facility. The rule requires a minimum of 10 samples to calculate the value or the limit will not apply.

Because there is no established relationship between fecal coliform and enterococci bacteria, limitations based on both the disinfection requirements for fecal coliform from Rule 62-600.440, F.A.C., and based on the bacteriological water quality standards for enterococci for discharges to Class III predominately marine waters under Rule 62-302.530, F.A.C., have been included in the permit.

Dissolved Oxygen: The single sample dissolved oxygen (DO) minimum remains 5.0 in accordance with the new FDEP dissolved oxygen criteria (affective August 2013and accepted by EPA September 2013) which is based on saturation. The single sample limit of 5.0 is as stringent as or more stringent than the new criteria. As seen in the attached graph, the state peninsula (area) criteria at 38% saturation and marine criteria at 42% are always below a DO of 5.0 independent of the temperature.



Total Ammonia Nitrogen (TAN):

The new TAN effluent limit was not included in this permit since the facility did not previously have an ammonia limit and there is no new or expanded discharge.

Nutrient TMDL March 2009

The Total Maximum Daily Load (TMDL) for the Indian River Lagoon was adopted by DEP in March 2009 and finalized by EPA in April 2009. The TMDL includes a wasteload allocation of:

173 lb/year for Total Nitrogen
36 lb/year for Total Phosphorus

The BCUD South Beaches WWTF and the associated TMDL is listed in the January 2013 Indian River Lagoon Basin Central Indian River Lagoon Basin Action Management Plan (BMAP).

The WBID2963A1 - bacteria (shellfish harvesting classification). This waterbody is listed as impaired because the shellfish harvesting classification is not fully approved by the Shellfish Environmental Assessment Section (SEAS) of the Department of Agriculture. This parameter is being added to the 303(d) list.

The WBID2963A1 - fecal coliform. This parameter is being added to the verified list and the department is requesting addition to the 303(d) list.

Pollutants of concern were identified for WQBEL development based on an evaluation of all available information, including a characterization of the pollutants that may be discharged, fifth year inspection data, the sources of pollutants, existing controls on pollutants, available dilution, background pollutant levels in the receiving waters, and the toxicity of pollutants.

Unless otherwise noted, effluent limitations were developed by applying water quality criteria at the end of pipe.

This facility has provided reasonable assurance that the discharge will not adversely affect the designated use of the receiving water. Fifth year inspection data, as well as all other available data, have been evaluated in accordance with the Department's reasonable assurance procedures to ensure that no limits other than those included in this permit are needed to maintain Florida water quality standards.

This facility is authorized to discharge reclaimed water to Underground Injection Well System U-001 which consists of 1 Class I injection wells discharging to Class G-IV ground water based on the following:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (to U-001)*	MGD	Max	9.0	Annual Average	62-600.700(2)(b) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) FAC
BOD, Carbonaceous 5 day, 20C	mg/L	Max	20.0	Annual Average	62-600.540(1) & 62-600.420(3)(a)1. FAC
		Max	30.0	Monthly Average	62-600.420(3)(a)2. FAC
		Max	45.0	Weekly Average	62-600.420(3)(a)3. FAC
		Max	60.0	Single Sample	62-600.420(3)(a)4. FAC
Solids, Total Suspended	mg/L	Max	20.0	Annual Average	62-600.540(1) & 62-600.420(3)(b)1. FAC
		Max	30.0	Monthly Average	62-600.420(3)(b)2. FAC
		Max	45.0	Weekly Average	62-600.420(3)(b)3. FAC
		Max	60.0	Single Sample	62-600.420(3)(b)4. FAC
pH	s.u.	Min	6.0	Single Sample	62-600.445 FAC
		Max	8.5	Single Sample	62-600.445 FAC

*The capacity of the injection well was increased from 8.0 to 9.0 MGD AADF to match the FDEP Underground Injection Control (UIC) Program permit.

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 (To Reuse)	MGD	Max	3.0	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
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, % less than detection	percent	Min	75	Monthly 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
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
Nitrogen, Total	mg/L	Max	Report	Annual Average	62-600.650(3) FAC
		Max	Report	Monthly Average	62-600.650(3) FAC
Phosphorus, Total (as P)	mg/L	Max	Report	Annual Average	62-600.650(3) FAC
		Max	Report	Monthly Average	62-600.650(3) FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Giardia	cysts/100L	Max	Report	Single Sample	62-610.463(4) FAC
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	62-610.463(4) FAC

Other Limitations and Monitoring Requirements:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (Total through facility)	MGD	Max	8.0	Annual Average	62-600.700(2)(b) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) FAC
		Max	Report	Quarterly 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
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. DISCUSSION OF CHANGES TO PERMIT LIMITATIONS

The current wastewater permit for this facility FL0040622-007-DW1P was issued on March 13, 2014 and expires on March 12, 2019. Permit revision FL0040622-008 was issued on October 16, 2016 and required the facility to follow new electronic submittal requirements. Permit revision FL0040622-009 was issued on March 9, 2017 was issued to level the onsite outfall storage pond and to construct a baffle berm to prevent premature discharge. Permit revision FL0040622-010 was issued on April 26, 2017 and allowed modifications to the clarifiers pumping systems and the chlorine feed systems. Permit revision FL0040622-011 was issued on August 8, 2017 to allow upgrading of the three reclaimed water high service pumps.

Historical:

Subsection 2(3)(a) of Chapter 90-262 Laws of Florida., Indian River Lagoon Protection Act (ACT), allows discharge to the Indian River Lagoon if the facility provides at least advanced waste treatment (AWT). According to 403.086(4)(a) FS, the annual averages for CBOD5, TSS, TN and TP for an AWT facility are 5 mg/L, 5 mg/L, 3 mg/L and 1 mg/L, respectively. The proposed daily maximum limits for CBOD5, TSS, TN and TP are 20 mg/L, 20 mg/L, 12 mg/L and 4 mg/L, respectively and are derived from 25% (91 days /365 days) of a normal year discharge allowance for an AWT facility for a limited wet weather discharge period lasting 91 days. The proposed discharge period for this facility is for 5 days only during the mechanical integrity test (MIT) for the injection well. The proposed one-time single sample effluent limitations for CBOD5, TSS, TN and TP are equivalent to AWT multipliers. Since this permit authorizes only a 5 days discharge to the Indian River, the discharge loading allocation is more stringent than an AWT equivalent level. The proposed limits for CBOD5, TSS, TN and TP were previously allowed for the discharge from the

last MIT for this facility. It is the permit writer's Best Professional Judgment that the proposed limits are therefore consistent with the requirements of the ACT and with previous Department permitting policy and guidelines. These concentrations are still appropriate in conjunction with the loading limits described below.

The Total Maximum Daily Load (TMDL) for the Indian River Lagoon was finalized by EPA in April 2007 and adopted by DEP in March 2009. The TMDL includes a wasteload allocation of:

173 lb/year for Total Nitrogen
36 lb/year for Total Phosphorus

The point of discharge is clearly located in Class III marine waters, WBID 2963A1 (previously assessed as WBID 2963A). Although the WBID was revised to Class II waters during the Cycle 2 assessment, to better represent the watershed, the discharge point is located north of the Outstanding Florida Waters segment of the "Indian River – Malabar to Vero Beach Aquatic Preserve" and is north of Class II designated waters. However, the whole WBID is identified as Class II because of the large portion of the WBID within the Class II waters.

5. 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 (Landfilled)	dry tons	Max	Report	Monthly Total	62-640.650(5)(a)1. FAC
Monitoring Frequency		All Parameters			62-640.650(5)(a) FAC

6. 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.

Parameters Arsenic, Cadmium, Chromium, Sulfate and Lead are currently not included in the Ground Water Monitoring Plan (GWMP) because they are not believed to be present in the effluent. However, if the Department has any reasons in the future to believe that these metals are present in the effluent, they will be added to the Ground Water Monitoring Plan sampling list.

Total Trihalomethanes (TTHMs) were recorded in the Effluent Analysis Report at a concentration of 0.15 mg/l, which is above the MCL of 0.080 mg/l. TTHMs have been monitored in the groundwater monitoring wells in a past permit cycle and no exceedances have been recorded. Therefore, this parameter will not be added to the GWMP.

The permittee shall sample the following monitoring well(s): MWC-1 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)]

Please note that total dissolved solids, chloride, and sodium concentrations in the groundwater from the monitoring wells and in the effluent from the reclaimed water analysis continue to exceed their MCL concentrations even in the background well. Please continue to address the inflow and infiltration issues and reduce the total dissolved solids, chloride and sodium concentrations in the effluent as much as possible.

This location is a barrier island, which may cause the TDS, chloride and sodium in the groundwater to be above the groundwater standards.

7. PERMIT SCHEDULES

This permit does not include schedules.

8. 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.

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

This permit is not accompanied by an AO or CO. The permittee has entered into two COs with the Department during the last permit cycle. CO 18-0068 was executed on February 27, 2018 and was related to waste water spills in the collection system. CO 16-1352 was executed on November 18, 2016 and was also related to a large spill in the collection system.

The county has implemented a significant program to reduce inflow and infiltration and in their collection system.

10. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

No variances were requested for this facility.

11. 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:

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_FL0040622}&{Received+Date=_RG_(09-01-2018,01-23-2019)}&{Permit+Type=_EQ_DW+-+DOMESTIC+WASTEWATER+FACILITY}&{Facility+Type=_LK_DOMESTIC+WASTEWATER}

12. PROPOSED SCHEDULE FOR PERMIT ISSUANCE

Draft Permit and Public Notice to Applicant and EPA	January 24, 2019
Public Comment Period	Beginning: February 1, 2019 Ending: March 2, 2019
Proposed Permit to EPA	January 24, 2019
Notice of Intent to Issue	March 5, 2019

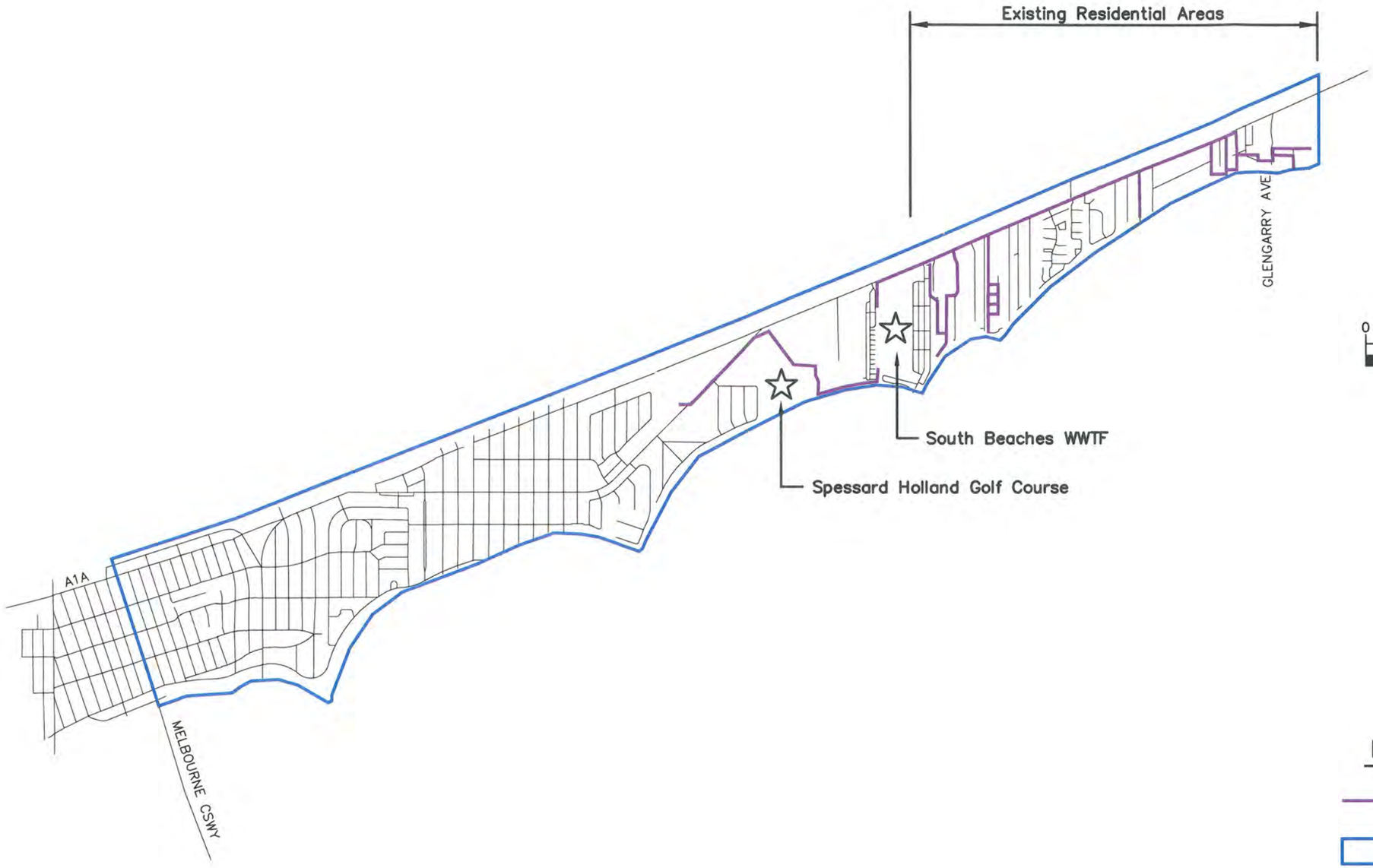
13. DEP CONTACT

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

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

3319 Maguire Blvd
Suite 232
Orlando, FL 32803-3767

Telephone No.: (407) 897-4158



QUENTIN L. HAMPTON ASSOCIATES, INC. CONSULTING ENGINEERS
P.O. DRAWER 290247 PORT ORANGE, FLORIDA 32129-0247 (386)761-6810 07/2013

SOUTH BEACHES RECLAIMED WATER SERVICE AREAS

FIGURE 2
CAPACITY ANALYSIS REPORT

S:\BC\BC013 South Beaches WRF FDEP Permit Renewal\Cad\Permits\BC013 Service Areas_FIG_2.dwg, Figure 2, 9/30/2013 1:29:23 PM, DWG To PDF.pc3, PEJ

GRAPHIC SCALE:

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

LOCATION MAP

SECTION 20
TOWNSHIP 28S
RANGE 38E

MELBOURNE EAST, FLA.
U S C & G QUADRANGLE

BREVARD COUNTY, FLORIDA
SOUTH BEACHES WASTEWATER
TREATMENT FACILITY

PROJECT #
1000701-181022.01
07/2018

Mead & Hunt

FIGURE #1

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