



IRON BRIDGE REGIONAL WATER RECLAMATION FACILITY



CLEAN WATERWAYS ACT

WASTEWATER TREATMENT PLAN



JANUARY 2024

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JANUARY 2024

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List of Abbreviations

AADF	Annual Average Daily Flow
ADF	Average Daily Flow
AWT	Advanced Wastewater Treatment
BFP	Belt Filter Press
BMAP	Basin Management Action Plan
BNR	Biological Nutrient Removal
BTF	Biosolids Treatment Facility
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
CY	Calendar Year
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
EPA	Environmental Protection Agency
EQ	Equalization
ERRWDS	Eastern Regional Reclaimed Water Distribution System
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
IBRWRF	Iron Bridge Regional WRF
lb/day	Pounds per day
MDF	Maximum Daily Flow
mg/L	Milligrams per Liter
MG	Million Gallons
MGD	Million Gallons per Day
MLSS	Mixed Liquor Suspended Solids
NH ₃ -N	Ammonia-Nitrogen
PAR	Public Access Reuse
PHF	Peak Hourly Flow
RAS	Return Activated Sludge
SSNOCWTA	South Seminole and North Orange County Wastewater Transmission Authority
TKN	Total Kjeldahl Nitrogen (Organic-N + NH ₃ -N)
TN	Total Nitrogen
TP	Total Phosphorus
WAS	Waste Activated Sludge
WRF	Water Reclamation Facility

SECTION 1

INTRODUCTION

1.1 GENERAL

The Clean Waterways Act of 2020 (Senate Bill 712), passed by the Florida Legislature and signed by Governor DeSantis on June 30, 2020, carries a wide range of water quality protection provisions aimed at:

- Minimizing the impact of known sources of nutrient pollution.
- Realigning the State's resources to enhance the protection of Florida's environment.
- Strengthening regulatory requirements.

The Clean Waterways Act is directed at protecting Florida's water resources and is expected to have several environmental, economic, and recreational benefits for the public. With more than 7,700 lakes, 10,550 miles of rivers, more than 1,000 springs, and 2,276 miles of tidal shoreline, water is Florida's most valuable resource, is an integral part of Florida's identity, and one of the key reasons so many people visit and move to the State. The Clean Waterways Act addresses several environmental issues, including several provisions focused on water quality improvement and oversight. Some of the primary components of the Clean Waterways Act include the following:

- Contingency plans for power outages to minimize discharges of untreated wastewater for all wastewater treatment and disposal facilities.
- Requires FDEP to adopt rules relating to domestic wastewater collection and transmission system pipe leakages and inflow and infiltration (I/I).
- Provision of financial records from all wastewater treatment and disposal facilities so that FDEP can ensure funds are being allocated to infrastructure upgrades, repairs, and maintenance that prevent systems from falling into states of disrepair.
- Regulation of septic tanks as a source of nutrients, transfer of oversight from the Department of Health (DOH) to the Florida Department of Environmental Protection (FDEP), and encouragement of septic-to-sewer conversions.

- Updating of biosolids rules and regulations.
- Detailed documentation of fertilizer use by agricultural operations to ensure compliance with Best Management Practices and aid in evaluation of their effectiveness.
- Updated stormwater rules and design criteria to improve the performance of stormwater systems statewide to specifically address nutrients.

With respect to wastewater treatment facilities, the Clean Waterways Act addresses a number of environmental issues including several provisions specifically related to water quality improvement to include the following:

Table 1.1-1: Florida Clean Waterways Act - Wastewater Provisions Summary	
Wastewater Treatment	
Requires local governments to create Wastewater Treatment Plans for certain Basin Management Action Plans (BMAPs) and authorizes different cost options for projects that meet pollution reduction requirements.	
Creates a wastewater grant program that allows FDEP to provide grants for projects within BMAPs, alternative restoration plans, or rural areas of opportunity that will reduce excess nutrient pollution. The Act prioritizes funding for certain wastewater projects in the grant program, the State Revolving Fund (SRF) Loan Program, and the Small Community Sewer Construction Assistance Program (SCSCAP).	
Prohibits, beginning July 1, 2025, wastewater treatment facilities from discharging into the Indian River Lagoon without providing advanced wastewater treatment (AWT).	
Imposes new requirements on wastewater facilities and FDEP to prevent sanitary sewer overflows (SSO's) and underground pipe leaks.	
Biosolids	
Requires enrollment in the Department of Agriculture and Consumer Services (DACS's) BMP program and prohibits the application of Class A or Class B biosolids within six (6) inches of the seasonal high water table, unless a Nutrient Management Plan (NMP) and water quality monitoring plan provide reasonable assurances that the application will not cause or contribute to water quality violations.	
Permits will have to comply with the statute within two (2) years and with FDEP's biosolids rule within two (2) years of it becoming effective. The Act allows local governments to keep any existing biosolids ordinances.	
Water Quality Monitoring	
Requires FDEP to establish a real-time water quality monitoring program, subject to appropriation.	
Golf Courses	
Requires FDEP to work with UF/IFAS and regulated entities to consider the adoption, by rule, of Best Management Practices (BMPs) for nutrient impacts from golf courses.	
Fines and Penalties	
Doubles the fines for wastewater violations and increases the cap on total administrative penalties that may be assessed by FDEP from \$10,000 to \$50,000 and the cap per violator from \$5,000 to \$10,000.	

1.2 IRON BRIDGE REGIONAL WRF

The City of Orlando owns and operates the Iron Bridge Regional Water Reclamation Facility (40 MGD AADF) which is classified as an Advanced Wastewater Treatment plus Filtration Facility (Category I, Class A) utilizing the 5-Stage Bardenpho Biological Nutrient Removal (BNR) Process and meets all Class I Reliability Criteria. The facility is located at 601 Iron Bridge Circle, Oviedo, FL and is operating under FDEP Operations Permit No. FL0037966 (copy provided in Appendix A). The high-quality reclaimed water is distributed to the following FDEP-permitted application sites:



- Public Access Reuse (PAR) System
- Orlando Easterly Wetlands (OEWS) System
- The Little Econlockhatchee River

The Iron Bridge Regional WRF and portions of its wastewater management system lie within the Lake Jesup BMAP as presented in Figures 1.1-1 and 1.1-2. Therefore, this Wastewater Treatment Plan is being submitted to FDEP in accordance with the Clean Waterways Act requirements.

1.3 THE CLEAN WATERWAYS ACT REQUIREMENTS

Subparagraph 403.067(7)(a)(9), Florida Statutes, specifies that local governments (counties and municipalities) within a Basin Management Action Plan (BMAP) must develop a Wastewater Treatment Plan containing specific information, if the Florida Department of Environmental Protection (FDEP) identifies domestic wastewater treatment facilities as contributors of at least twenty percent (20%) of point source or non-point source nutrient pollution or if the Department determines remediation is necessary to achieve the Total Maximum Daily Load (TMDL).

The Wastewater Treatment Plan must include the following:

- Description of the treatment facility and the unit operations and processes utilized.
- The facility's permitted treatment capacity and the historical flows received and treated over the last five years (minimum).



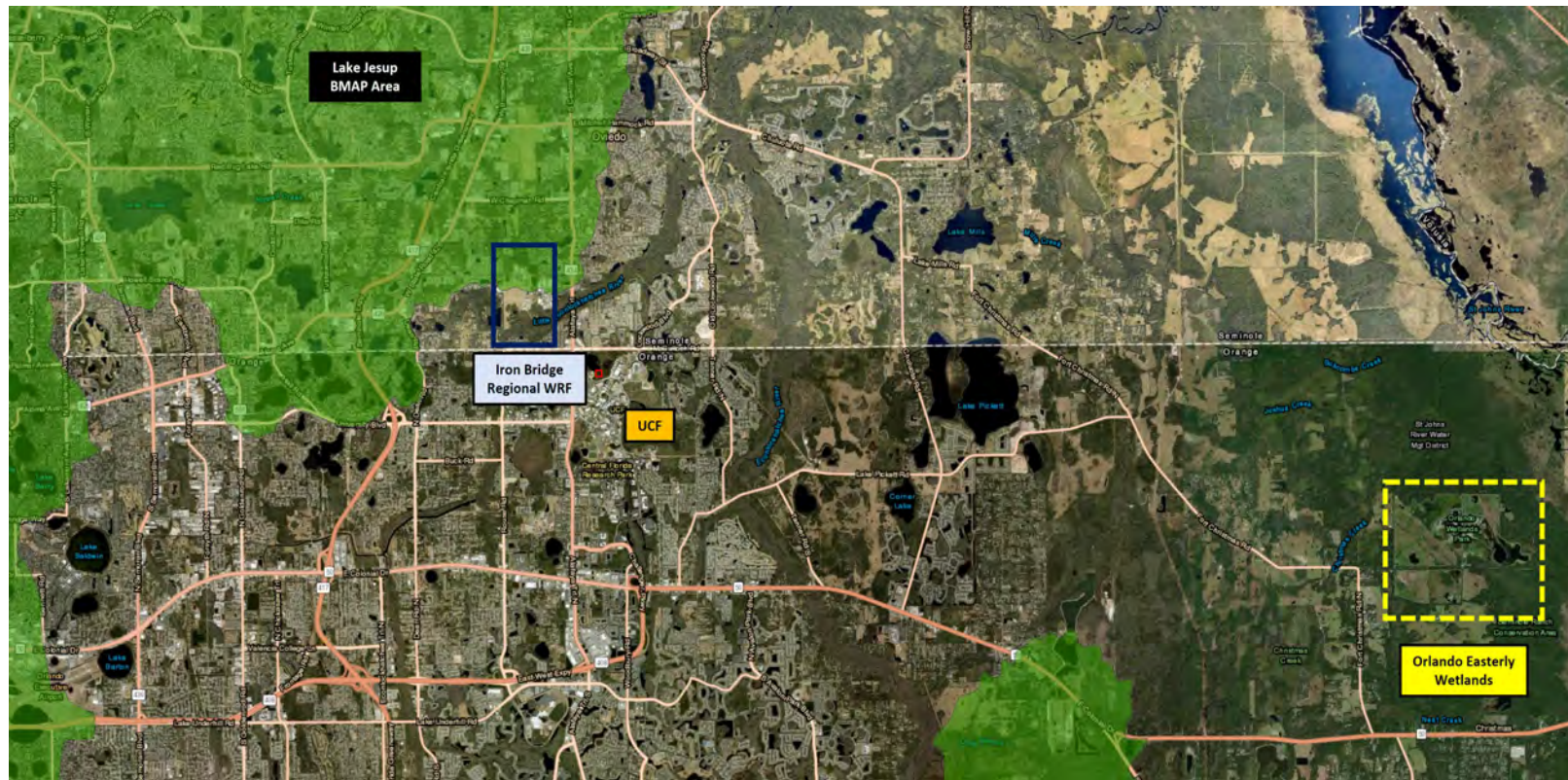


FIGURE 1.1-2

IRON BRIDGE REGIONAL WRF AND LAKE JESUP BMAP AREA LOCATION MAP

- The facility's permitted effluent limits.
- The facility's treatment performance over the last five years (minimum).
- Annual effluent loads discharged from the facility over the last five years (minimum).
- A capacity analysis for the treatment facility, considering future growth, for the twenty (20) year planning horizon.
- A list and ranking of facility improvements, expansion, or upgrades necessary to meet applicable nutrient water quality requirements (nutrient effluent limits in BMAP's and TMDL's, Florida Statutes, requirements, or other statutory or regulatory requirements), and the estimated costs of these facility improvements.
- A project schedule by which the construction of any facility improvements, including new/extended sewer lines, will begin and be completed and the date by which operations of the facility improvements will begin.

The Clean Waterways Act requires Wastewater Treatment Plans to be submitted to FDEP in accordance with the following schedule:

Form of Submittal	Submittal Deadline
"Draft" Wastewater Treatment Plan	February 1, 2024
"Final" Wastewater Treatment Plan*	August 1, 2024

* Based on addressing RAI comments from FDEP following submittal of the "Draft" Wastewater Treatment Plan

This Wastewater Treatment Plan for the Iron Bridge Regional WRF has been generated to meet the requirements of the Clean Waterways Act (Senate Bill 712) and provides all of the relevant information required.

SECTION 2

EXISTING FACILITY CONDITIONS

2.1 WASTEWATER MANAGEMENT SYSTEM SERVICE AREA

The Iron Bridge Regional WRF (IBRWRF) wastewater management system service area includes following contributing areas:

- Northeast Quadrant of the City of Orlando and Orange County
- Southeast Section of unincorporated Seminole County
- Portions of the City of Maitland
- Portions of the City of Winter Park
- Portions of the City of Casselberry

Portions of the City of Oviedo, the University of Central Florida (UCF) and the adjacent research and professional office parks discharge to the Seminole County Wastewater Transmission System. The IBRWRF Wastewater Management System Service Area, encompassing the areas described above, is graphically presented in Figure 2.1-1. The IBRWRF has a collection/transmission system interconnected with the Orlando Water Conserv I WRF and raw wastewater flows can be diverted to the Iron Bridge Regional WRF from both the Water Conserv I and Water Conserv II WRF service areas.

The wastewater is collected and conveyed, by a system of gravity collection mains and lift stations to the Iron Bridge Regional WRF located at 601 Iron Bridge Circle, Oviedo, FL. The facility generates a high-quality reclaimed water suitable for public access spray irrigation. The reclaimed water is used throughout the service area for irrigation of FDEP-permitted sites (R-001), including, but not limited to, the following: aesthetic purposes (decorative ponds/pools/fountains); agricultural irrigation (other than edible crops); athletic complexes and parks; business, commercial and industrial parks; construction dust control; edible crop irrigation; golf courses; industrial uses (cooling/process/wash water); landscape irrigation; residential development; retail nurseries/ferneries/sod farms; and universities. The facility also has an FDEP-permitted discharge to the Orlando Easterly Wetlands Treatment System (R-002), and surface water discharges to the Little Econlockhatchee River (D-001) and an unnamed ditch and thence the St. Johns River (D-002 and D-003).

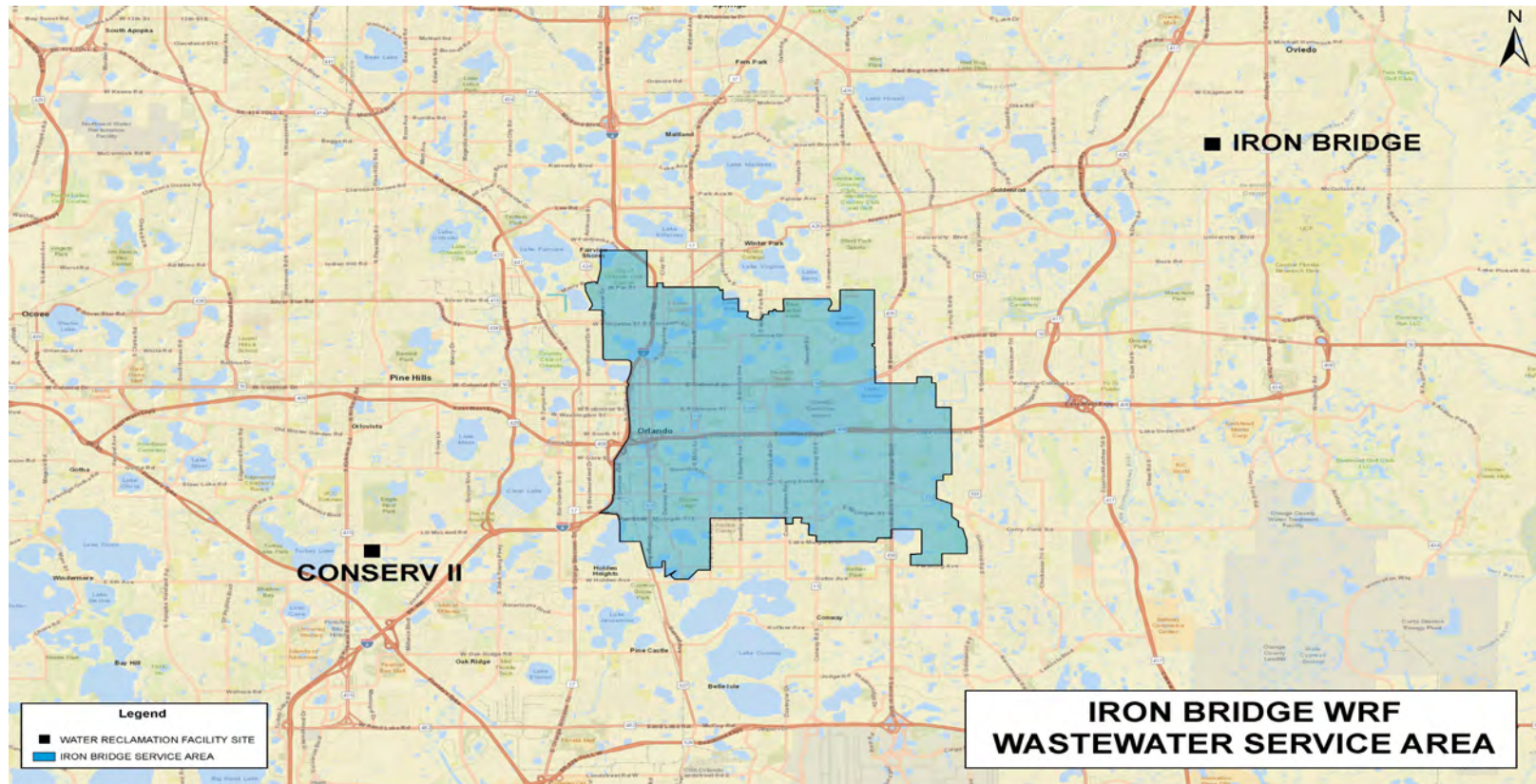


FIGURE 2.1-1

IRON BRIDGE REGIONAL WRF - WASTEWATER SERVICE AREA

2.2 IRON BRIDGE REGIONAL WATER RECLAMATION FACILITY

The Iron Bridge Regional WRF is classified as a 40 MGD AADF Advanced Wastewater Treatment plus Filtration Facility (Category I, Class A), utilizing the 5-Stage Bardenpho Biological Nutrient Removal (BNR) Process and meets all Class I Reliability criteria. Preliminary treatment (screening and grit removal) of the raw wastewater occurs in the Pretreatment Structure and Grit Removal Facility. The raw wastewater then flows to the 5-Stage Bardenpho Process consisting of two 20 MGD treatment trains, each with following treatment zones/basins: anaerobic; primary anoxic; aerobic basin; secondary anoxic; and reaeration. Following reaeration of the MLSS, the effluent is conveyed to secondary clarification, tertiary filtration, and high-level disinfection processes. A high-quality reclaimed water/effluent is produced at the Iron Bridge Regional WRF that meets AWT standards and FDEP requirements.

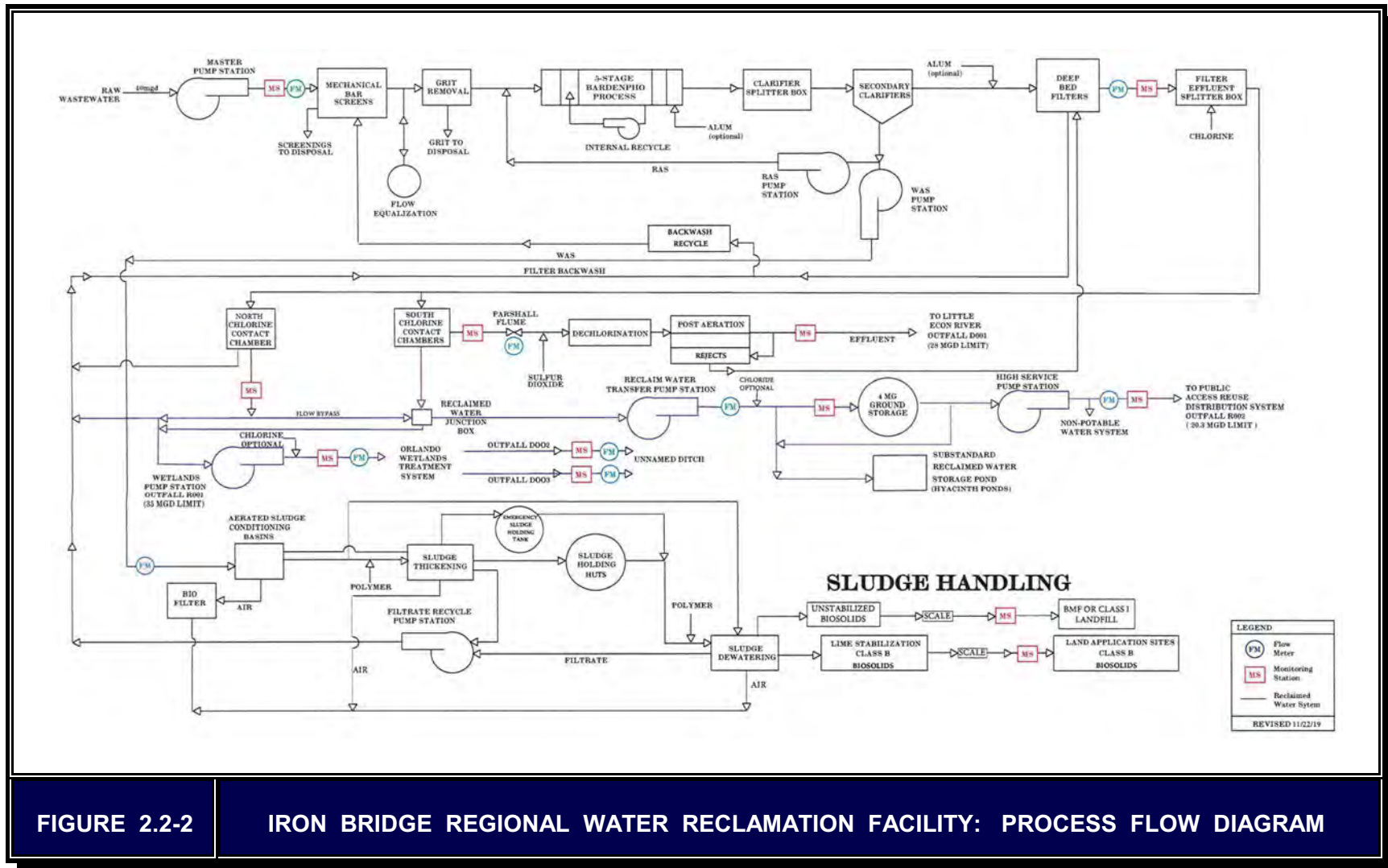
The Wastewater Management System Service Area, Reclaimed Water System Service Area and the Iron Bridge Regional WRF are currently permitted under FDEP Operations Permit No. FL0037966. An aerial view, process flow diagram, and facility site plan of the Iron Bridge Regional WRF are presented in Figures 2.2-1 through 2.2-3, respectively. The unit operations and processes currently employed at the Iron Bridge Regional WRF (2023) are as follows:

Treatment Elements	Description
Primary/Preliminary Treatment	■ Master Lift Station ■ Automatic, continuous, self-cleaning, mechanical barscreens ■ An induced vortex-type grit removal system ■ Flow equalization basin system ■ Odor control systems
Secondary/Advanced Treatment	■ 5-Stage Bardenpho BNR Treatment Trains ■ Secondary clarification system ■ RAS/WAS Pump Station
Tertiary Treatment	■ Deep bed sand filtration system ■ Backwash pump station
Disinfection and Dechlorination Systems	■ Chlorine contact chambers (high-level disinfection system) ■ Chemical storage, feed and control systems ■ Dechlorination System (surface water discharge system only) ■ Post-aeration system (for dechlorination and surface water discharge)
Biosolids Treatment	■ Aerated biosolids conditioning/holding bays ■ Gravity belt thickeners ■ Emergency temporary biosolids holding/storage tanks ■ Belt filter presses ■ Contracted treatment and disposal or alkaline treatment (back-up)
Ancillary Facilities	■ Chemical storage and feed systems ■ Plant Service Water Pump Station ■ Plant Drain and Collection System ■ Emergency Power Generation System



FIGURE 2.2-1

IRON BRIDGE REGIONAL WRF - AERIAL VIEW



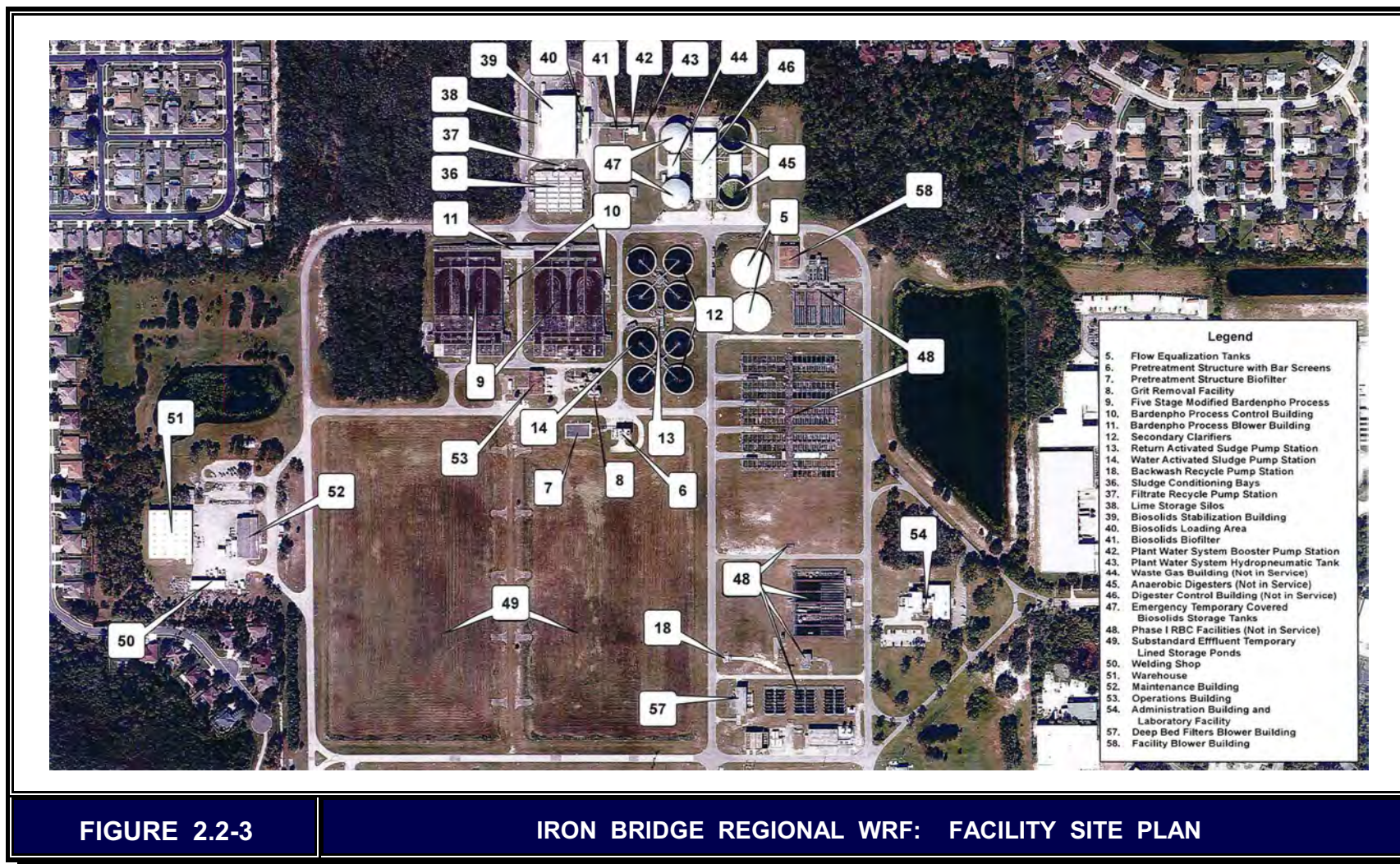


FIGURE 2.2-3

IRON BRIDGE REGIONAL WRF: FACILITY SITE PLAN

2.2.1 Preliminary Treatment System

Raw wastewater from the gravity collection system and force mains from the City of Orlando and the Seminole County Wastewater Transmission Authority enter the Iron Bridge Regional WRF through the Master Pump Station (MPS). The raw wastewater passes through a system of automatic, self-cleaning, mechanical barscreens (6 mm openings) for removal of large solids, floatables, and other debris. The screenings are collected, dewatered, and conveyed into a municipal dumpster for final disposal (landfill).

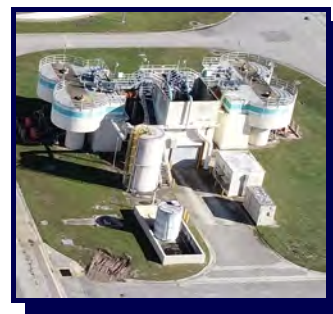
A pair of aerated flow equalization (EQ) basins (160 foot diameter, 2.0 MG volume, each) are used to attenuate the diurnal peak wastewater flows to the 5-Stage Bardenpho BNR treatment process. The EQ basin system is activated whenever the raw wastewater flow rate exceeds a Operator adjustable set-point value. The excess raw wastewater is conveyed to the EQ basins, stored, and aerated until being brought back through the treatment process during periods of low flow.



After initial screening at the Master Pump Station, the raw wastewater is pumped, via a system of eight (8) submersible pumps, through the east and west force mains to the Pretreatment Structure for fine screening. The cast-in-place concrete, elevated structure, consists of three (3) mechanical barscreens (2 duty; 1 high-level/bypass) and various slide/sludge gates to convey flow through the structure. An adjacent biofiltration system is utilized to treat and minimize the odors (hydrogen sulfide, mercaptans, skatole, etc.) generated.



Following this screening process, the raw wastewater flows, by gravity, to the cast-in-place concrete, elevated, Grit Removal Facility. The vortex-type grit chambers (four units, 18 foot diameter, 12 MGD AADF each) are used to remove heavy, inorganic suspended solids from the raw wastewater thereby reducing the potential for damage to downstream mechanical equipment and accumulation of grit in subsequent facility treatment processes. Accumulated grit is pumped by a system of grit pumps to two (2) grit cyclones. The grit slurry is discharged into a conveyor that dewateres and discharges the grit into a municipal dumpster for final disposal (landfill).



2.2.2 AWT/BNR Treatment System

The screened and dewatered wastewater is then conveyed to the 5-Stage Bardenpho BNR treatment process, utilizing various alternating treatment stages (anaerobic, anoxic, and aerobic) for the efficient removal of organic matter (CBOD₅) and nutrients. The 5-Stage Bardenpho BNR process consists of two parallel treatment systems (east and west), each consisting of two (2) treatment trains with the following characteristics:

Table 2.2-1: IBRWRF 5-Stage Bardenpho BNR Treatment System					
East BNR Treatment System			East BNR Treatment System		
No. of BNR Treatment Trains:		2	No. of BNR Treatment Trains:		2
Grit From:	Grit Removal Units No.'s 1 and 2		Grit From:	Grit Removal Units No.'s 3 and 4	
RAS From:	Secondary Clarifiers No.'s 1 - 4		RAS From:	Secondary Clarifiers No.'s 5 - 8	
Process Stages 5-Stage Bardenpho BNR Process	Stage 1: Anaerobic Basin		Process Stages 5-Stage Bardenpho BNR Process	Stage 1: Anaerobic Basin	
	Stage 2: Primary Anoxic Basin			Stage 2: Primary Anoxic Basin	
	Stage 3: Aerobic Basin			Stage 3: Aerobic Basin	
	Stage 4: Secondary Anoxic Basin			Stage 4: Secondary Anoxic Basin	
	Stage 5: Reaeration Basin			Stage 5: Reaeration Basin	
Total East BNR System Volume: 9.158 MG			Total West BNR System Volume: 9.158 MG		



The 5-Stage Bardenpho Process is a suspended growth, activated sludge process technology used to improve ammonia, nitrogen and phosphorus removal and meet AWT standards. It is an advanced modification of the activated sludge process consisting of multi-stage biological reactors. High levels of BOD₅, TSS, TN and TP removal are consistently achieved without the use of chemicals.

A detailed description of each Stage is presented in the table below:



Stage	Description
1	<u>Anaerobic Basin (Fermentation)</u> : Activated sludge, consisting of a broad spectrum of microbial organisms, is returned from the secondary clarifiers to the anaerobic (fermentation) basin (Stage 1). The activated sludge is contacted with raw wastewater to produce the appropriate stress condition that allows large quantities of phosphorus to be removed from the wastewater biologically in subsequent aerobic stages. Organic stress occurs in the absence of dissolved oxygen and nitrates. The liquid in this basin is mixed through the use of submersible mixers; no oxygen is added as it would inhibit the anaerobic process.
2	<u>Primary Anoxic (Denitrification) Basin</u> : Mixed liquor containing nitrates from the end of the aerobic basin (Stage 3) is recycled back to the head of the primary anoxic basin (Stage 2). It is mixed with conditioned sludge from the anaerobic basin in the absence of oxygen. Bacteria utilize BOD ₅ in the influent, reducing nitrates to nitrogen gas. Approximately 67% of the influent nitrogen is removed in this BNR stage. The liquid in this basin is mixed through the use of submersible mixers; no oxygen is added as it would inhibit the anoxic process.
3	<u>Aerobic (Nitrification) Basin</u> : Oxygen is introduced into the aerobic basin, through the use of both mechanical surface aeration, external blowers and a system of fine bubble diffusers located at the bottom of the basin, to oxidize BOD ₅ and ammonia. The BOD ₅ is converted to new cellular mass and carbon dioxide (CO ₂). Ammonia (NH ₃) in the wastewater is converted to nitrate (NO ₃ ⁻). Mixed liquor, containing the nitrates, is recycled back to the primary anoxic basin (Stage 2) and luxury uptake of phosphorus occurs in this stage.
4	<u>Secondary Anoxic (Denitrification) Basin</u> : Nitrate, not recycled to the primary anoxic basin, is conveyed into the secondary anoxic basin where it is reduced, in the absence of significant oxygen concentration, to nitrogen gas. This produces a liquid with a low nitrate (NO ₃ ⁻) concentration. The MLSS in this basin is mixed through the use of submersible mixers; no oxygen is added as it would inhibit the anoxic process.
5	<u>Reaeration (Aerobic) Basin</u> : When maintained in an aerobic environment, the mixed liquor from the Bardenpho Process contains 5 - 6% phosphorus. If the mixed liquor becomes anaerobic, phosphorus could be released in the secondary clarification system. Therefore, to prevent an anaerobic condition, the mixed liquor is reaerated through the use of an external blower system and coarse bubble diffusers, prior to the secondary clarification system. This reaeration process ensures that the mixed liquor remains aerobic, thus retaining phosphorus in the solids matrix.

MLSS from the BNR reaeration basins is conveyed to the secondary clarifier flow splitter boxes and distributed to the secondary clarifiers (East System to Clarifiers No.'s 1 - 4; West System to Clarifiers No.'s 5 - 8). Each secondary clarifier is 100 foot in diameter, with a 14-foot sidewater depth, energy dissipating inlet, and spiral scrapers. Secondary clarification of the biologically treated wastewater is provided to remove MLSS, flocculated suspended solids and chemical precipitates, and to meet the effluent criteria mandated by FDEP, EPA and Class I Reliability.



Each secondary clarifier has a dedicated RAS pump that removes settled activated sludge from the bottom at a pump-controlled rate. RAS flows from the clarifiers are conveyed to a common manifold and are then split evenly to the BNR anaerobic basins.

Secondary effluent from the clarifiers is then conveyed, by gravity, to the tertiary filtration system flow splitter box.

2.2.3 Tertiary Filtration System

Tertiary Filtration of the treated effluent is required to ensure protection of public health and enhance the disinfection process by removing suspended and colloidal solids, viruses and fecal coliforms via straining, sedimentation, adsorption, and flocculation. Tertiary Filtration is accomplished through the use of twelve (12) deep bed tertiary filtration units each with six (6) feet of coarse, high density silica sand, with an effective size of 2 - 3 mm, sitting on top of eighteen (18) inches of graded gravel ($\frac{1}{4}$ - 1 inch in diameter).

Each tertiary filter is rectangular in shape (10' x 60') with a surface area of 600 ft². Water passes through the filter media, where solids accumulate, and the hydraulic head increases as the filter run continues. The backwash pumping system uses tertiary effluent for backwash water to clean the collected solids from the media. The backwash water is collected and conveyed to the recycle backwash pump station where it is pumped to the Pretreatment Structure for processing/treatment.

2.2.4 High-Level Disinfection System

From the tertiary filters, the treated effluent flows to the high-level disinfection system consisting of a rapid-mixing system, two (2) chlorine contact chambers (CCC's), gaseous chlorine storage and feed system, and a chlorine scrubbing system. Liquid chlorine is added, mixed with the tertiary effluent and conveyed into the chlorine contact chambers where high-level disinfection is provided.

The north and south CCC's have peak treatment capacities of 40 MGD and 28 MGD, respectively, and provide a minimum contact time of sixteen (16) minutes at peak hourly flow (PHF).

Gaseous chlorine (ton cylinders) is stored in a Chemical Handling Building. There are two (2) banks of twelve (12) chlorine ton cylinders resting on scales. Each one (1) ton cylinder placed on the scale is equipped with an automatic shut-off/isolation valve for safety purposes. In the event of a chlorine leak, as indicated by the installed gas leak detectors, all on-line ton cylinder valves automatically close, and a chlorine gas scrubbing system is automatically started to scrub the gas from the building interior in accordance with regulatory requirements.

2.2.5 Dechlorination and Post-Aeration Systems

Dechlorination and post-aeration of effluent is required to meet the chlorine residual and dissolved oxygen limits, outlined in the facility's FDEP Operations Permit, for surface water discharges to the Little Econlockhatchee River (D-001). Sulfur dioxide (SO₂) is injected into the tertiary effluent being conveyed to the surface water discharge system, via a specialized injection system.

Gaseous sulfur dioxide is stored in a Chemical Handling Building. There are two (2) banks of six (6) sulfur dioxide ton cylinders resting on scales. Each ton cylinder placed on the scale is equipped with an automatic shut-off/isolation valve for safety purposes. In the event of a sulfur dioxide leak, as indicated by the installed gas leak detectors, all on-line ton cylinder valves automatically close, and a sulfur dioxide gas scrubbing system is automatically started to scrub the gas from the building interior in accordance with regulatory requirements.

The dechlorinated effluent is conveyed to the post-aeration structure consisting of three (3) cast-in-place, common wall, concrete tanks with floating surface aerators. The post-aeration tanks (150' L x 50' W x 8' SWD; 0.449 MG volume, each) provide a detention time of 129.3 minutes at a flow of 10.0 MGD AADF (two tanks operational) and increases the dissolved oxygen (DO) content of the effluent prior to discharge. The aerated effluent is then discharged to the Little Econlockhatchee River via a concrete outfall channel.

2.2.6 Reclaimed Water/Effluent Disposal Systems

The facility generates a high-quality reclaimed water, low in nutrients, suitable for public access spray irrigation (reuse) and surface water discharge. Reuse/effluent disposal is achieved by a combination of the following FDEP-permitted disposal systems:

Disposal System	FDEP Designation	AADF Capacity (MGD)	Description
Land Application (Reuse)	R-001	35.0	Orlando Easterly Wetlands (OEW) Treatment System
	R-002	20.3	Public Access Reuse (PAR) System
Surface Water Discharge	D-001	28.0	Little Econlockhatchee River Discharge
	D-002	---	Wetlands Discharge to Ditch, thence to the St. Johns River
	D-003	---	Wetlands Discharge to Ditch, thence to the St. Johns River

The reclaimed water is used throughout the service area for slow-rate, spray irrigation of the following FDEP-permitted sites (R-001 has a capacity of 25.0 MGD):

Agricultural irrigation (other than edible crops)	Residential development
Athletic complexes and parks	Golf courses
Industrial uses (cooling/process/wash water)	Edible crop irrigation
Industrial uses at the WRF (cooling/process/wash water)	Construction dust control
Retail nurseries, ferneries, and sod farms	Universities
Aesthetic Purposes (decorative ponds, pools, and fountains)	Other landscape irrigation
Business, Commercial, and Industrial Parks	

2.2.7 Biosolids Treatment System

Waste Activated Sludge (WAS) from the BNR treatment system is conveyed to the aerated biosolids holding tanks or conditioning bays. The tanks/bays are aerated to maintain solids freshness, prevent the generation of odors, prevent solids settling, condition the solids prior to thickening, and keep phosphorus bound within the solids matrix.

The sludge is then conveyed, by a system of feed pumps, to the gravity belt thickening system for processing (3 units). The thickened sludge is then conveyed to the belt filter press system (6 units) for dewatering operations or temporary storage. Dewatering releases free and bound water, through the action of gravity, pressure filtration, and shearing processes. The dewatering process significantly increases the total solids concentration prior to conveyance of the unstabilized, dewatered sludge into sludge trailers for transport to a Biosolids Treatment Facility (BTF) for further treatment or a Class I landfill for final disposal.

The Iron Bridge Regional WRF also has a Cemen Tech CSP-50 lime stabilization system that can be used, as a back-up biosolids treatment system, thereby maintaining Class I Reliability. If utilized, the lime stabilization of biosolids is accomplished to achieve pathogen and vector attraction reduction, in accordance with the criteria detailed in 40 CFR, Part 503, Chapter 62-640, F.A.C., and the requirements for a Process to Further Reduce Pathogens (PFRP) - Option 6. If this system is utilized, the lime stabilized biosolids would be removed from the system and beneficially reused at FDEP-permitted land application sites with a Nutrient Management Plan (NMP). The lime stabilized biosolids would be transported and land spread by a commercial hauler under contract to the City of Orlando.

2.3 DESIGN FLOW, CONCENTRATIONS, AND LOADING PARAMETERS

Design and current raw wastewater flows for the Iron Bridge Regional WRF are as follows:

Table 2.3-1: Iron Bridge Regional WRF Flows		Raw Wastewater Flow Rate (MGD)	
Wastewater Flow Condition		Facility Design	Actual WRF Operation*
Annual Average Daily Flow (AADF)		40.0	26.263
Maximum Daily Flow (MDF)		67.0	66.330
Maximum Month Flow (MMF)		48.0	41.113

* Actual flow conditions from November 2022 - October 2023. AADF and MMF are elevated due to Hurricanes Ian and Nicole.

The Iron Bridge Regional WRF treats incoming raw wastewater flows for removal of organic matter (CBOD₅), TSS, nitrogen and phosphorus. The treatment facility was originally designed with the following influent and effluent characteristics and loadings:

Table 2.3-2: Iron Bridge Regional WRF - Design Influent/Effluent Concentrations and Loadings				
Parameter	Raw Wastewater		Tertiary Effluent	
	Conc. (mg/L)	Loading (lb/day)	Conc. (mg/L)	Loading (lb/day)
CBOD ₅	215	71,724	5	1,668
Total Suspended Solids (TSS)	214	71,390	5	1,668
Total Kjeldahl Nitrogen (TKN)*	32	10,675	3	1,001
Total Phosphorus (TP)	6	2,002	1	334

* Tertiary Effluent Concentration is measured as Total Nitrogen (TN).

2.4 EFFLUENT DISPOSAL SYSTEMS AND LIMITATIONS

The Iron Bridge Regional WRF is currently permitted under FDEP Operations Permit No. FL0037966 and expires on October 21, 2025. 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	35.0	An existing permitted discharge to Orlando Easterly Wetlands (OEW) Treatment System encompassing 1,640 [±] acres, including berms and buffer zones (1,220 [±] acres wetted area) and consisting of eighteen (18) treatment cells. Reclaimed water from the created treatment/reuse wetland system overflows via two 48-inch reinforced concrete pipes (Outfalls D-002 and D-003) to an unnamed ditch thence to the St. Johns River (Class III fresh waters, WBID 28931), or sheet flows across an adjacent 640 [±] acre natural wetlands (Seminole Ranch) and thence to the St. Johns River. No chemical dechlorination is applied to the reclaimed water. Reclaimed water is pumped through a 48-inch force main for approximately 16 miles from the Iron Bridge Regional WRF to the influent structure of the Orlando Easterly Wetlands (OEW) Treatment System.
	R-002	20.3	An existing permitted slow-rate Public Access Reuse system (PAR) consisting of public access irrigation of residential lawns, golf courses, cemeteries, parks, landscape areas, highway medians, right-of-ways within the Eastern Regional Reclaimed Water Distribution System (ERRWDS) service area. The reuse system also includes an on-site 4.0 MG concrete ground storage tank, high service pump station, an off-site in-line booster pump station, reclaimed water transmission system, and 29 MG of reject storage provided by two (2) existing pond structures.
Surface Water Discharge	D-001	28.0	An existing discharge to Little Econlockhatchee River, Class III fresh waters, (WBID# 3001) via a concrete lined channel, which is approximately 670 feet in length and discharges at the shoreline at a depth of approximately 2.5 feet. The point of discharge is located approximately at latitude 28°37' 4" N, longitude 81°13' 2" W.
	D-002	---	Outfall D-002 is an existing permitted discharge from the OEW to an unnamed ditch and thence to the St. Johns River, Class III fresh waters, (WBID# 28931) which is approximately 118 feet in length and discharges at a depth of approximately 2.5 feet. The point of discharge is located approximately at latitude 28°35' 0" N, longitude 80°59' 16" W.
	D-003	---	Outfall D-003 is an existing permitted discharge from the OEW to an unnamed ditch and thence to the St. Johns River, Class III fresh waters, (WBID# 28931) which is approximately 118 feet in length and discharges at a depth of approximately 2.5 feet. The point of discharge is located approximately at latitude 28°35' 0" N, longitude 80°59' 54" W.

2.4.1 Orlando Easterly Wetlands System (R-001) - Effluent Limitations

Land Application System R-001 is an existing 35.0 MGD AADF treatment/reuse wetland system encompassing approximately 1,640[±] acres (1,220[±] acres wetted

area) and eighteen (18) treatment cells. The effluent limits for conveyance of reclaimed water to the Orlando Easterly Wetlands System (R-001) are as follows:

Table 2.4-1: Easterly Wetlands System - Reclaimed Water Limitations (R-001)		
Monitoring Location	Parameter	Discharge Limits
Land Application System R-001 Orlando Easterly Wetlands (OEWS) Treatment System	Flow ^{1,3}	35.0 MGD
	CBOD ₅ ^{1,3}	10 mg/L
	TSS ^{1,3}	15.5 mg/L
	pH ^{2,4,3}	6.0 - 8.5
	Fecal Coliforms ^{1,3}	200 / 100 mL
	Total Residual Chlorine ^{2,4}	0.5 mg/L
	Total Nitrogen ^{1,3}	6 mg/L
	Total Phosphorus ^{1,3}	0.75 mg/L
¹ Annual Average ² Single Sample ³ Maximum ⁴ Minimum		

2.4.2 Public Access Reuse System (R-002) - Effluent Limitations

Land Application System R-002 is an existing 20.3 MGD AADF slow-rate, public access reuse (PAR) system consisting of public access irrigation of residential lawns, golf courses, cemeteries, parks, landscape areas, highway medians, right-of-ways within the Eastern Regional Reclaimed Water Distribution System (ERRWDS) service area. The effluent limits for conveyance of reclaimed water into the public access reuse system (R-002) are as follows:

Table 2.4-2: Public Access Reuse System - Reclaimed Water Limitations (R-002)		
Monitoring Location	Parameter	Discharge Limits
Land Application System R-002 Public Access Reuse System	Flow ^{1,3}	20.3 MGD
	CBOD ₅ ^{1,3}	20 mg/L
	TSS ^{2,3}	5 mg/L
	pH ^{2,4,3}	6.0 - 8.5
	Fecal Coliforms ^{2,3}	25 / 100 mL
	Total Residual Chlorine ^{2,4}	1.0 mg/L
¹ Annual Average ² Single Sample ³ Maximum ⁴ Minimum		

2.4.3 Little Econlockhatchee River Discharge (D-001) - Effluent Limitations

Surface Water Discharge System D-001 is an existing 28.0 MGD AADF discharge from the Iron Bridge Regional WRF to the Little Econlockhatchee River via a concrete-lined channel. The effluent limits for conveyance of reclaimed water/effluent, via a surface water discharge, into the Little Econlockhatchee River, are as follows:

Table 2.4-3: Little Econ River Discharge - Effluent Limitations (D-001)		
Monitoring Location	Parameter	Discharge Limits
Surface Water Discharge System D-001 Little Econlockhatchee (Econ) River	Flow ^{1,3}	28.0 MGD
	CBOD ₅ ^{1,3}	4.28 mg/L
	CBOD ₅ ^{7,3}	1,000 lb/day
	TSS ^{1,3}	17.2 mg/L
	TSS ^{7,3}	4,000 lb/day
	pH ^{2,4,3}	6.0 - 8.5
	Fecal Coliforms ^{1,3}	200 / 100 mL
	E. Coli ^{5,3}	126 / 100 mL
	Total Residual Chlorine ^{2,4} (for disinfection)	0.5 mg/L
	Total Residual Chlorine ^{2,3} (for dechlorination)	0.01 mg/L
	Total Nitrogen ^{1,3}	3.08 mg/L
	Total Nitrogen ^{7,3}	720 lb/day
	Total Kjeldahl Nitrogen ^{1,3}	2.14 mg/L
	Total Kjeldahl Nitrogen ^{7,3}	500 lb/day
	Total Phosphorus ^{1,3}	0.94 mg/L
	Total Phosphorus ^{7,3}	220 lb/day
	Chronic Whole Effluent Toxicity ^{6,4}	100%
	Dissolved Oxygen ^{2,4}	6.1 mg/L
	Ultimate Oxygen Demand ^{7,3}	3,718 lb/day

¹ Annual Average

² Single Sample

³ Maximum

⁴ Minimum

⁵ Monthly Geometric Mean

⁶ Semi-Annual

⁷ Monthly Average

2.4.4 Wetlands Discharges To Unnamed Ditch (D-002, D-003) - Effluent Limitations

Surface Water Discharge Systems D-002 and D-003 are existing discharges of effluent from the Easterly Wetlands to an unnamed ditch and thence to the St. Johns River. The effluent limits for conveyance to the unnamed ditch are as follows:

Table 2.4-4: Easterly Wetlands Discharges - Effluent Limitations (D-002, D-003)		
Monitoring Location	Parameter	Discharge Limits
Land Application Systems D-002 and D-003 Easterly Wetlands Effluent Discharges to an Unnamed Ditch and thence the St. Johns River	CBOD ₅ ^{1,3}	10 mg/L
	TSS ^{1,3}	15 mg/L
	pH ^{2,4,3}	6.0 - 8.5
	Total Nitrogen ^{1,3}	2.31 mg/L
	Total Nitrogen ^{5,3}	674 lb/day
	Total Phosphorus ^{1,3}	0.20 mg/L
	Total Phosphorus ^{5,3}	58 lb/day
	Dissolved Oxygen ^{1,4}	3.8 mg/L

¹ Annual Average² Single Sample³ Maximum⁴ Minimum⁵ Monthly Average

2.5 HISTORICAL WASTEWATER FLOWS

Historical wastewater flows, including monthly ADF flows, three-month ADF flows and annual ADF flows, for the Iron Bridge Regional WRF for Calendar Years 2018 - 2023 are presented in Table 2.5-1 and are plotted as a function of time in Figures 2.5-1 through 2.5-3, respectively. Historical annual variations in raw wastewater flow are presented below.

Calendar Year	AADF (MGD)	Maximum Month Flow (MGD)	Maximum 3-Month ADF		Maximum 3-Month ADF to AADF Ratio	Maximum Month Peaking Factor
			Month	Flow (MGD)		
2018	22.592	28.313	September	27.741	1.228	1.253
2019	23.730	28.140	August	26.735	1.127	1.186
2020	21.717	27.645	October	26.193	1.206	1.273
2021	24.033	30.558	September	28.591	1.190	1.272
2022	29.424	41.113	November	38.821	1.319	1.397
2023	25.190	28.374	January	30.944	1.228	1.126
Average Flow Ratios/Factors:					1.216	1.251

Table 2.5-1: Iron Bridge Regional WRF - Historical Wastewater Flows

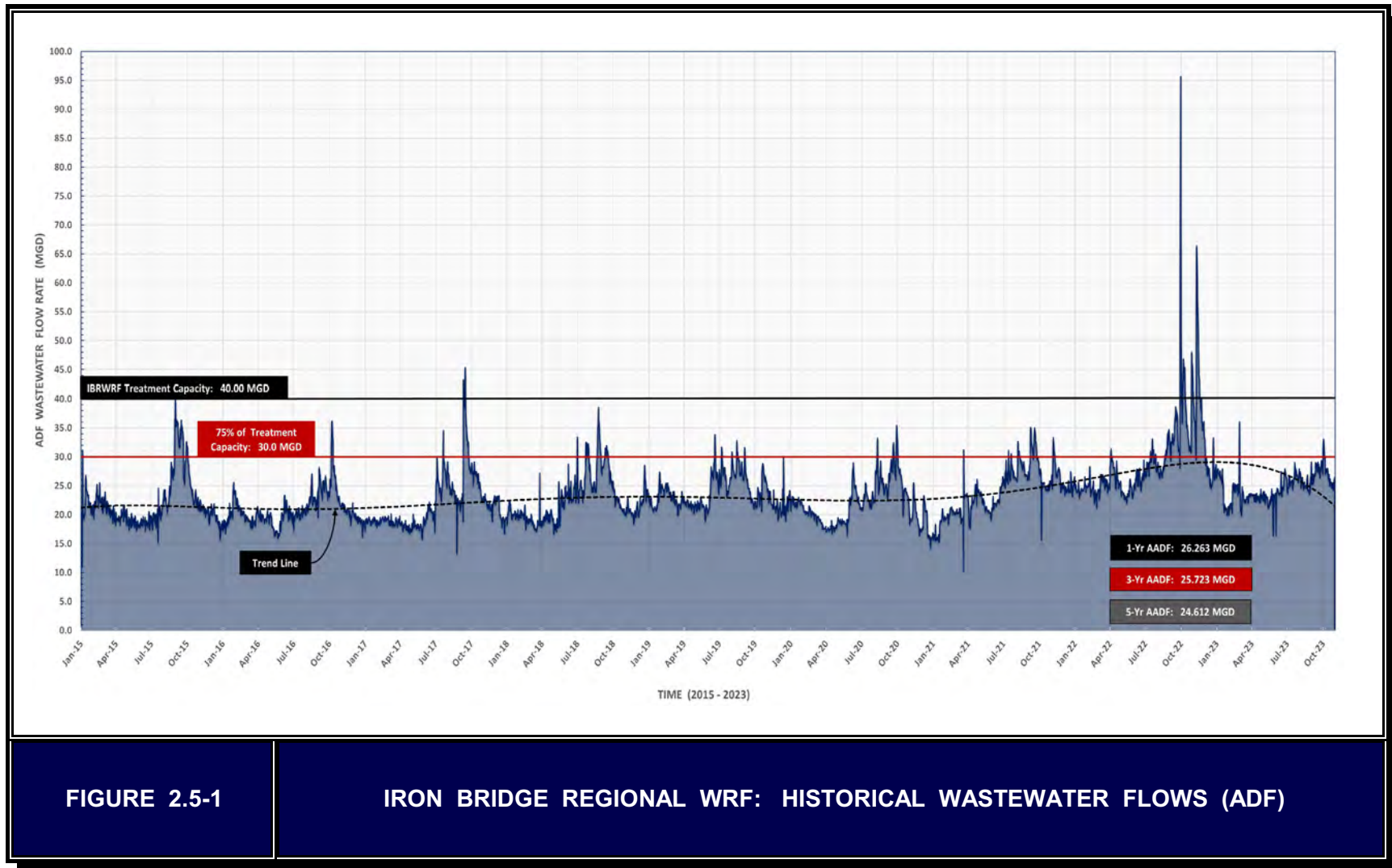
Month	Year	Monthly ADF (MGD)	3-Month ADF (MGD)	AADF (MGD)
JANUARY	2018	20.179	20.824	21.819
FEBRUARY	2018	19.611	20.084	21.866
MARCH	2018	18.637	19.476	21.863
APRIL	2018	19.557	19.269	22.003
MAY	2018	20.461	19.552	22.211
JUNE	2018	23.912	21.310	22.539
JULY	2018	26.635	23.669	22.583
AUGUST	2018	28.276	26.274	22.968
SEPTEMBER	2018	28.313	27.741	22.815
OCTOBER	2018	22.019	26.203	22.491
NOVEMBER	2018	20.409	23.580	22.373
DECEMBER	2018	22.864	21.764	22.573
JANUARY	2019	22.341	21.871	22.753
FEBRUARY	2019	24.291	23.165	23.143
MARCH	2019	22.191	22.941	23.439
APRIL	2019	21.699	22.727	23.618
MAY	2019	21.388	21.759	23.695
JUNE	2019	25.802	22.963	23.852
JULY	2019	26.263	24.484	23.821
AUGUST	2019	28.140	26.735	23.810
SEPTEMBER	2019	24.633	26.345	23.503
OCTOBER	2019	24.290	25.688	23.693
NOVEMBER	2019	22.029	23.651	23.828
DECEMBER	2019	21.726	22.682	23.733

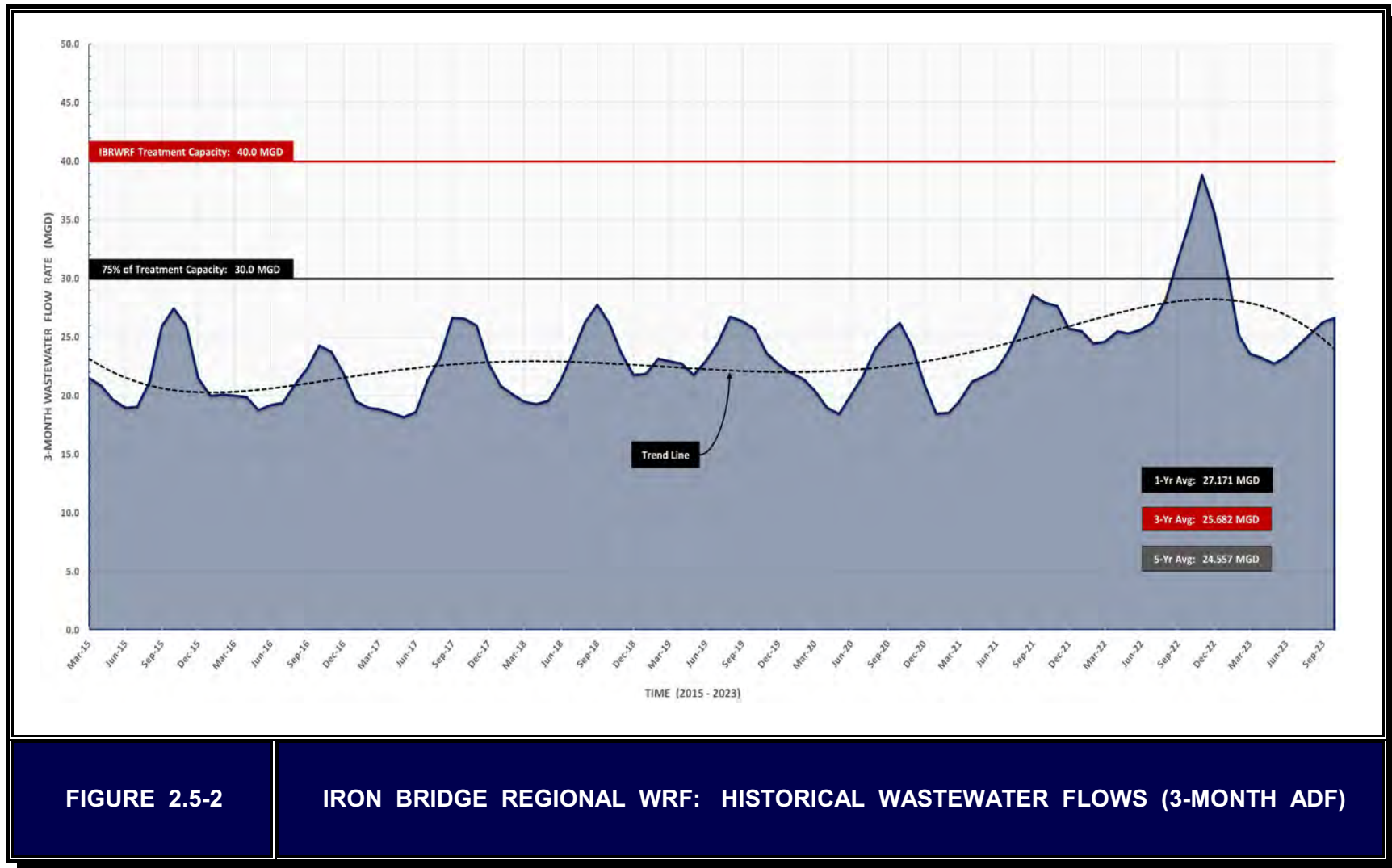
Table 2.5-1: Iron Bridge Regional WRF - Historical Wastewater Flows (Cont'd)

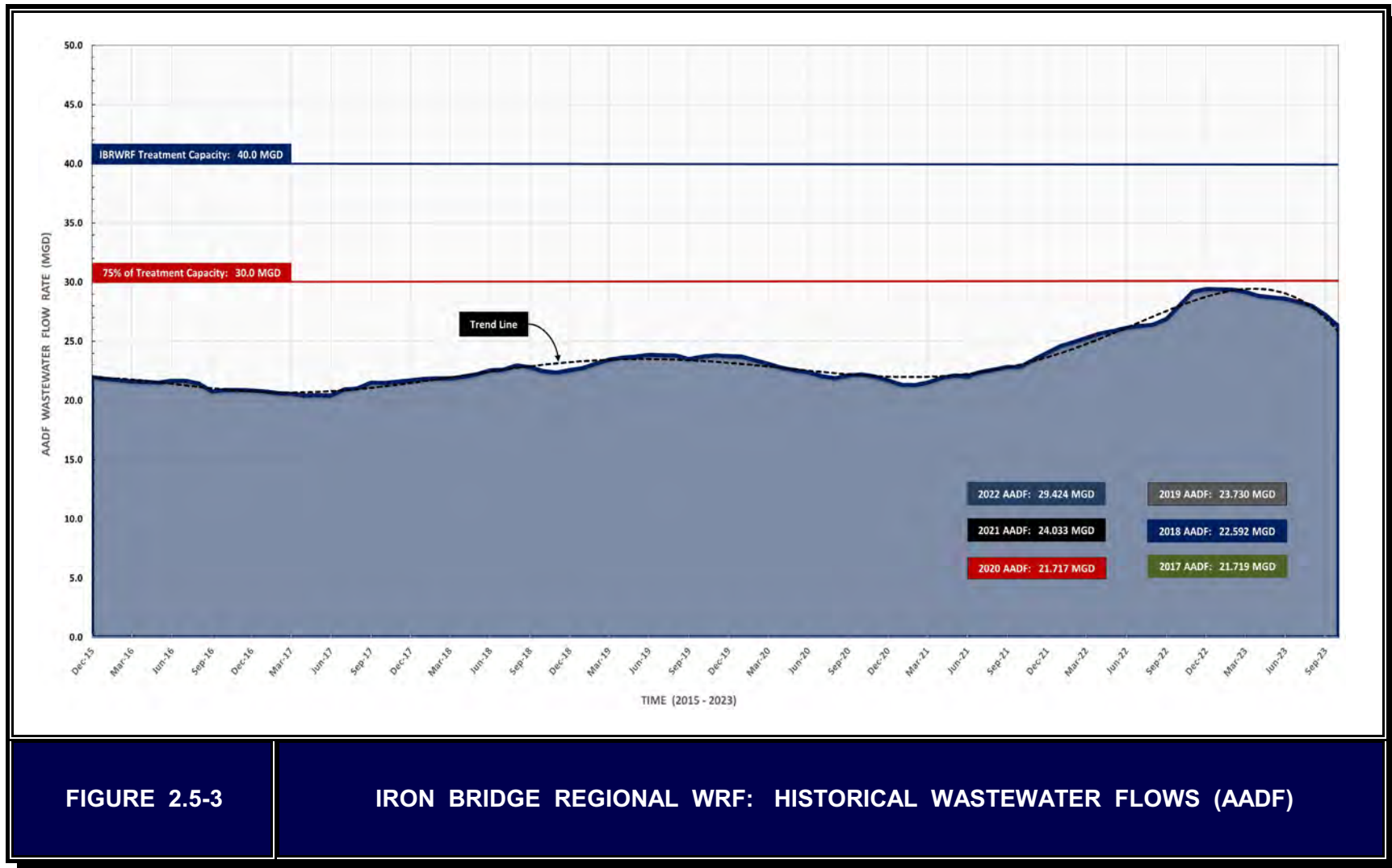
Month	Year	Monthly ADF (MGD)	3-Month ADF (MGD)	AADF (MGD)
JANUARY	2020	22.048	21.934	23.708
FEBRUARY	2020	20.489	21.421	23.392
MARCH	2020	18.737	20.425	23.104
APRIL	2020	17.660	18.962	22.767
MAY	2020	18.906	18.434	22.560
JUNE	2020	23.649	20.072	22.381
JULY	2020	22.579	21.711	22.074
AUGUST	2020	25.793	24.007	21.878
SEPTEMBER	2020	27.645	25.339	22.129
OCTOBER	2020	25.143	26.194	22.200
NOVEMBER	2020	19.878	24.222	22.021
DECEMBER	2020	18.060	21.027	21.716
JANUARY	2021	17.455	18.464	21.333
FEBRUARY	2021	20.091	18.535	21.300
MARCH	2021	21.117	19.554	21.498
APRIL	2021	22.387	21.198	21.892
MAY	2021	21.437	21.647	22.103
JUNE	2021	22.838	22.221	22.035
JULY	2021	27.014	23.763	22.405
AUGUST	2021	28.200	26.017	22.605
SEPTEMBER	2021	30.558	28.591	22.848
OCTOBER	2021	25.058	27.939	22.841
NOVEMBER	2021	27.324	27.647	23.462
DECEMBER	2021	24.760	25.714	24.020

Table 2.5-1: Iron Bridge Regional WRF - Historical Wastewater Flows (Cont'd)

Month	Year	Monthly ADF (MGD)	3-Month ADF (MGD)	AADF (MGD)
JANUARY	2022	24.411	25.498	24.600
FEBRUARY	2022	24.172	24.448	24.940
MARCH	2022	25.195	24.593	25.279
APRIL	2022	27.040	25.469	25.667
MAY	2022	23.672	25.302	25.853
JUNE	2022	26.221	25.644	26.135
JULY	2022	29.002	26.298	26.301
AUGUST	2022	29.275	28.166	26.391
SEPTEMBER	2022	36.718	31.665	26.904
OCTOBER	2022	38.631	34.875	28.035
NOVEMBER	2022	41.113	38.821	29.184
DECEMBER	2022	27.564	35.769	29.418
JANUARY	2023	24.156	30.944	29.397
FEBRUARY	2023	23.811	25.177	29.366
MARCH	2023	22.781	23.582	29.165
APRIL	2023	23.029	23.207	28.831
MAY	2023	22.368	22.726	28.722
JUNE	2023	24.559	23.318	28.584
JULY	2023	26.004	24.310	28.334
AUGUST	2023	25.307	25.290	28.003
SEPTEMBER	2023	27.508	26.273	27.236
OCTOBER	2023	27.084	26.633	26.273
NOVEMBER	2023			
DECEMBER	2023			







The ratio of the maximum 3-month ADF to AADF averaged 1.216 and was found to vary slightly over the six-year period (1.127 - 1.319). Likewise, the maximum month peaking factor averaged 1.251 and was also found to vary over the six-year period (1.126 - 1.397).

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

Raw Wastewater Flow Condition	Iron Bridge Regional WRF Raw Wastewater Flow (MGD)	
	Nov 2018 - Oct 2023	Nov 2022 - Oct 2023
Average Daily Flow	24.612	26.263
Maximum Day Flow	95.660	66.330
Minimum Day Flow	10.09	16.330
Monthly ADF Range	17.455 - 41.113	22.368 - 41.113
3-Month ADF Range	18.434 - 38.821	22.726 - 38.821
AADF Range (monthly rolling average)	21.300 - 29.418	26.273 - 29.418
% of Permitted Facility Capacity (ADF)	61.5%	65.7%

The Iron Bridge Regional WRF raw wastewater flows, during the period from November 2018 - October 2023 and in the last twelve (12) months, were approximately 61.5% and 65.7% of the permitted capacity of the facility, respectively. The last two (2) years have had significant rainfall amounts due to various hurricanes that have impacted the raw wastewater flows received at the Iron Bridge Regional WRF. However, raw wastewater flow rates are below the facility's permitted capacity (40.0 MGD AADF) and ***the Iron Bridge Regional WRF is capable of handling the raw wastewater hydraulic loadings anticipated over the 20-year planning horizon.***

2.6 FACILITY EFFLUENT FLOWS

As previously indicated, treated effluent from the Iron Bridge Regional WRF can be discharged to the following FDEP-permitted disposal systems:

Disposal System	FDEP Designation	AADF Capacity (MGD)	Effluent Disposal System Description
Wetlands	R-001	35.0	Orlando Easterly Wetlands (OEW) Treatment System
Reuse System	R-002	20.3	Local Public Access Reuse (PAR) System - ERRWDS
Surface Water	D-001	28.0	Discharge to the Little Econlockhatchee (Econ) River

The distribution of reclaimed water from the Iron Bridge Regional WRF to the FDEP-permitted effluent disposal system (Orlando Easterly Wetlands (OEW) treatment system, Public Access Reuse (PAR) system, and the surface water discharge to the Little Econlockhatchee (Econ) River), on an annual basis, for the period from January 2018 - October 2023 is presented in a tabularized form, in Table 2.6-1.

Table 2.6-1: Iron Bridge Regional WRF - Reclaimed Water/Effluent Distribution						
Calendar Year	Orlando Easterly Wetlands (OEW) Treatment System		Public Access Reuse (PAR) System		Surface Water Discharge to the Little Econ River	
	Flow Rate (MGD)	% of Total Effluent Flow	Flow Rate (MGD)	% of Total Effluent Flow	(MGD)	% of Total Effluent Flow
2018	15.747	63.1%	5.874	23.6%	3.321	13.3%
2019	16.395	62.6%	5.683	21.7%	4.119	15.7%
2020	15.652	64.4%	4.882	20.1%	3.767	15.5%
2021	16.416	69.6%	4.825	20.5%	2.340	9.9%
2022	19.693	75.6%	3.992	15.3%	2.351	9.0%
2023 ¹	15.455	70.0%	4.112	18.6%	2.518	11.4%
Average:	16.560	67.6%	4.895	20.0%	3.069	12.5%
Capacity:	35.0		20.3		28.0	

¹ Partial Year Data (January - October 2023)

The majority of the high-quality reclaimed water produced is conveyed to the Orlando Easterly Wetlands Treatment System (approximately 67.6% of the flow discharged from the Iron Bridge Regional WRF) for additional treatment and ultimate disposal. In addition, the effluent AADF to all disposal sites has been significantly below the FDEP-permitted maximum flow rates. The IBRWRF is providing both beneficial reuse (OEW and PAR systems) and ecological (Little Econ) benefits, that are sustainable, to the regional area.

2.7 FACILITY EFFLUENT QUALITY

The Iron Bridge Regional WRF utilizes screening, grit removal, a 5-Stage Bardenpho Biological Nutrient Removal (BNR) process, secondary clarification, tertiary filtration, and high-level disinfection, to treat the raw wastewater prior to discharge to its FDEP-permitted disposal sites.

The effluent water quality produced by the Iron Bridge Regional WRF that is discharged to the surface water disposal system (Little Econ River, D-001), on an annual basis, for the period from January 2018 - October 2023, is presented graphically in Figures 2.7-1 through 2.7-5 and is summarized in the table below.

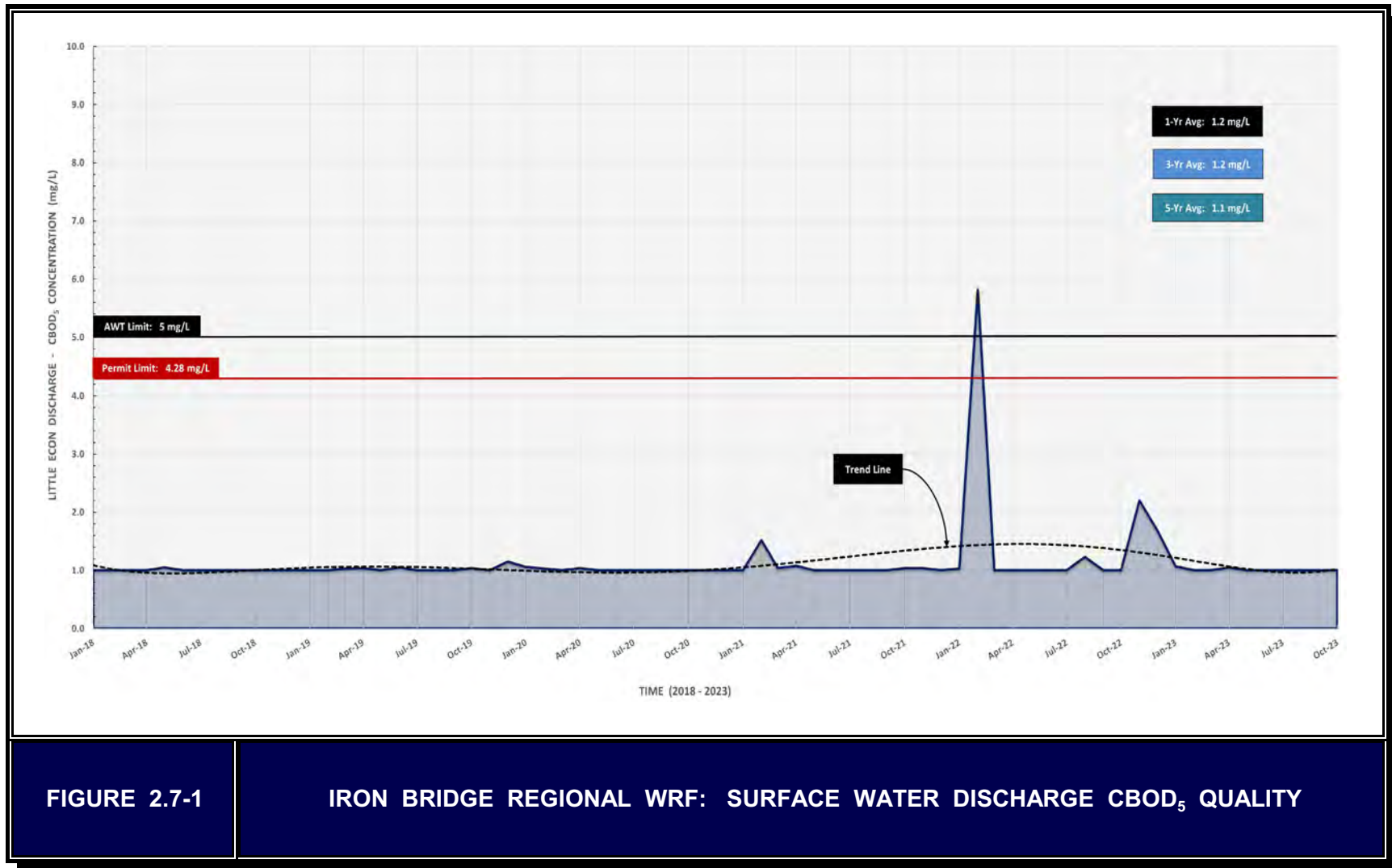
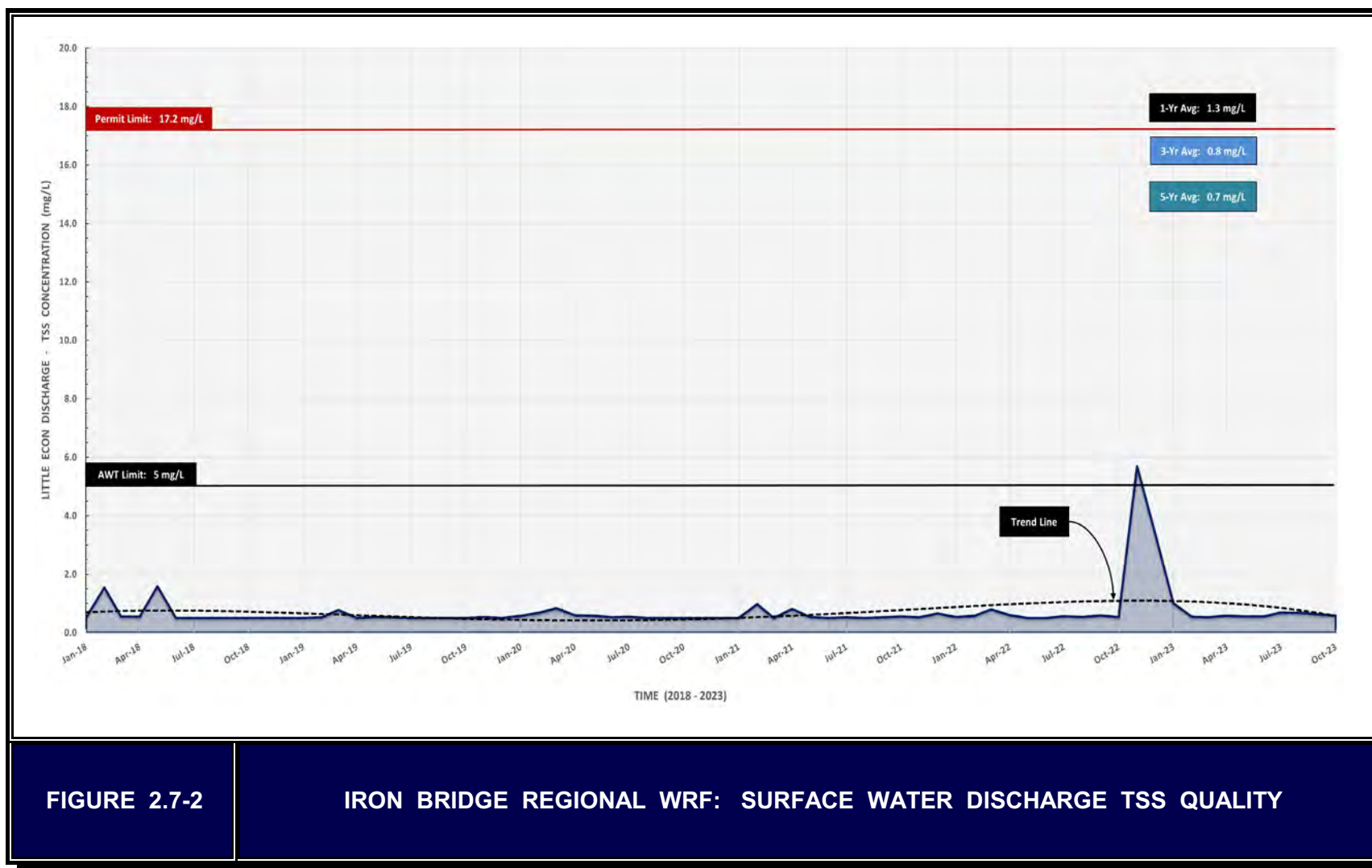
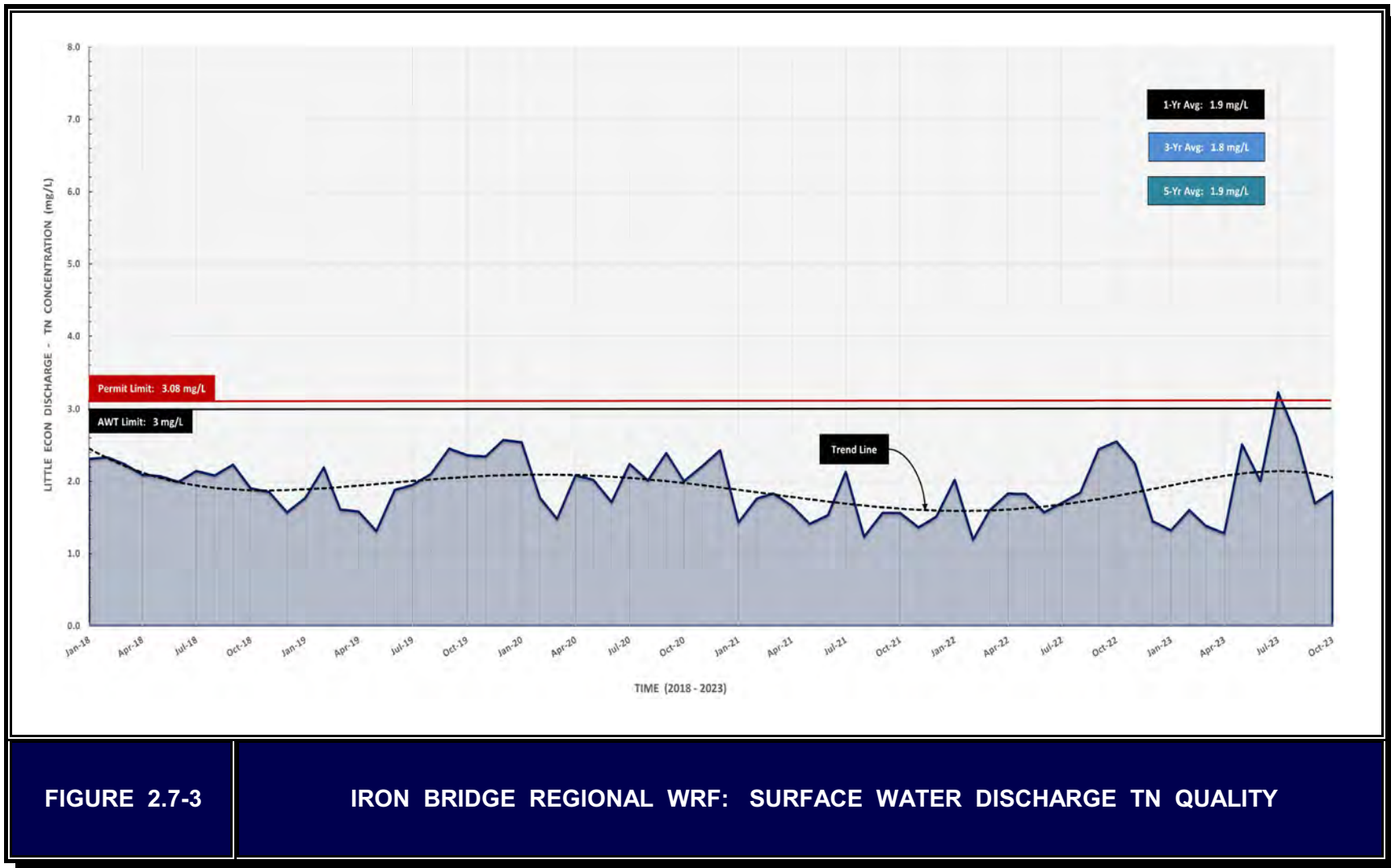
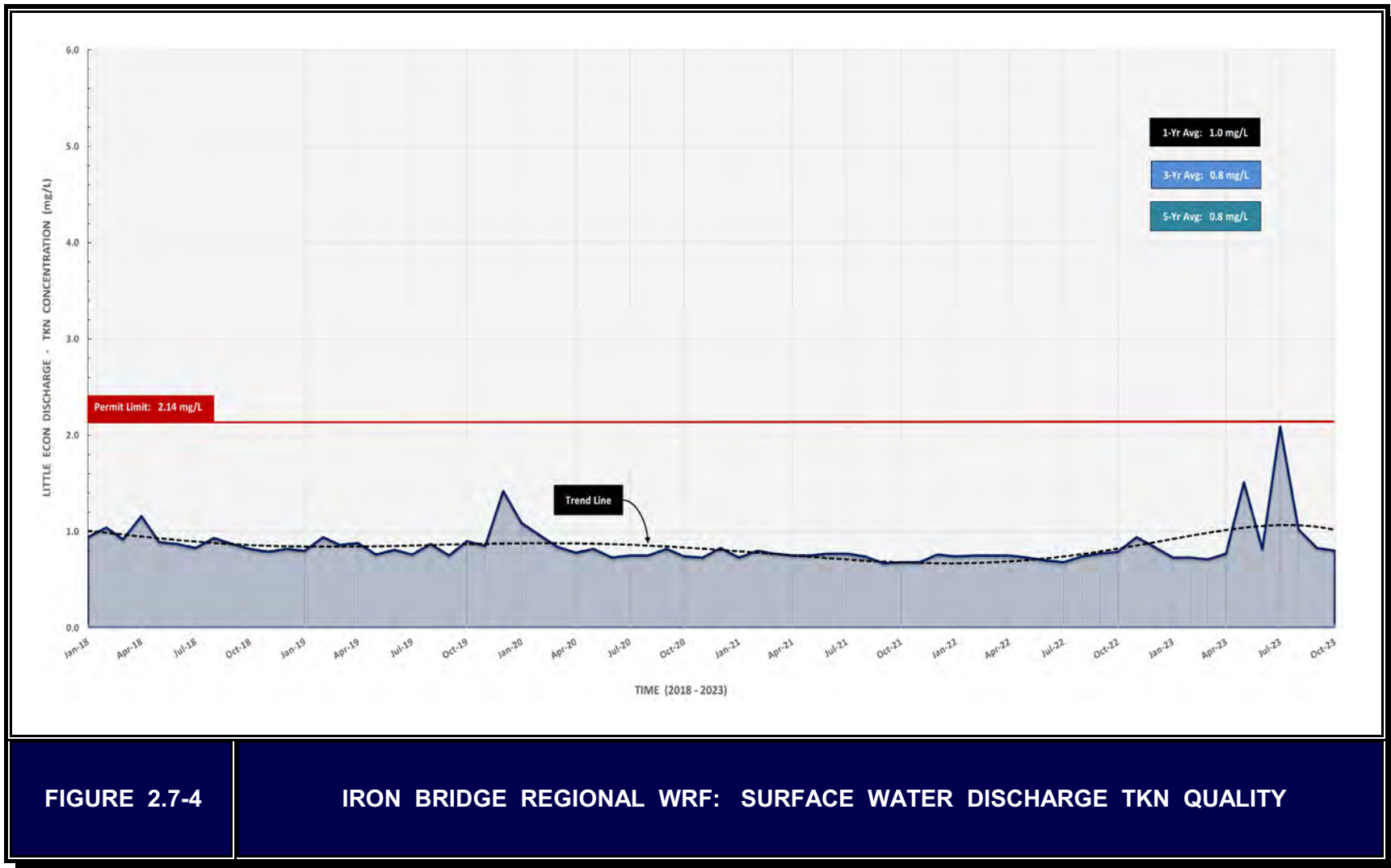


FIGURE 2.7-1

IRON BRIDGE REGIONAL WRF: SURFACE WATER DISCHARGE CBOD₅ QUALITY







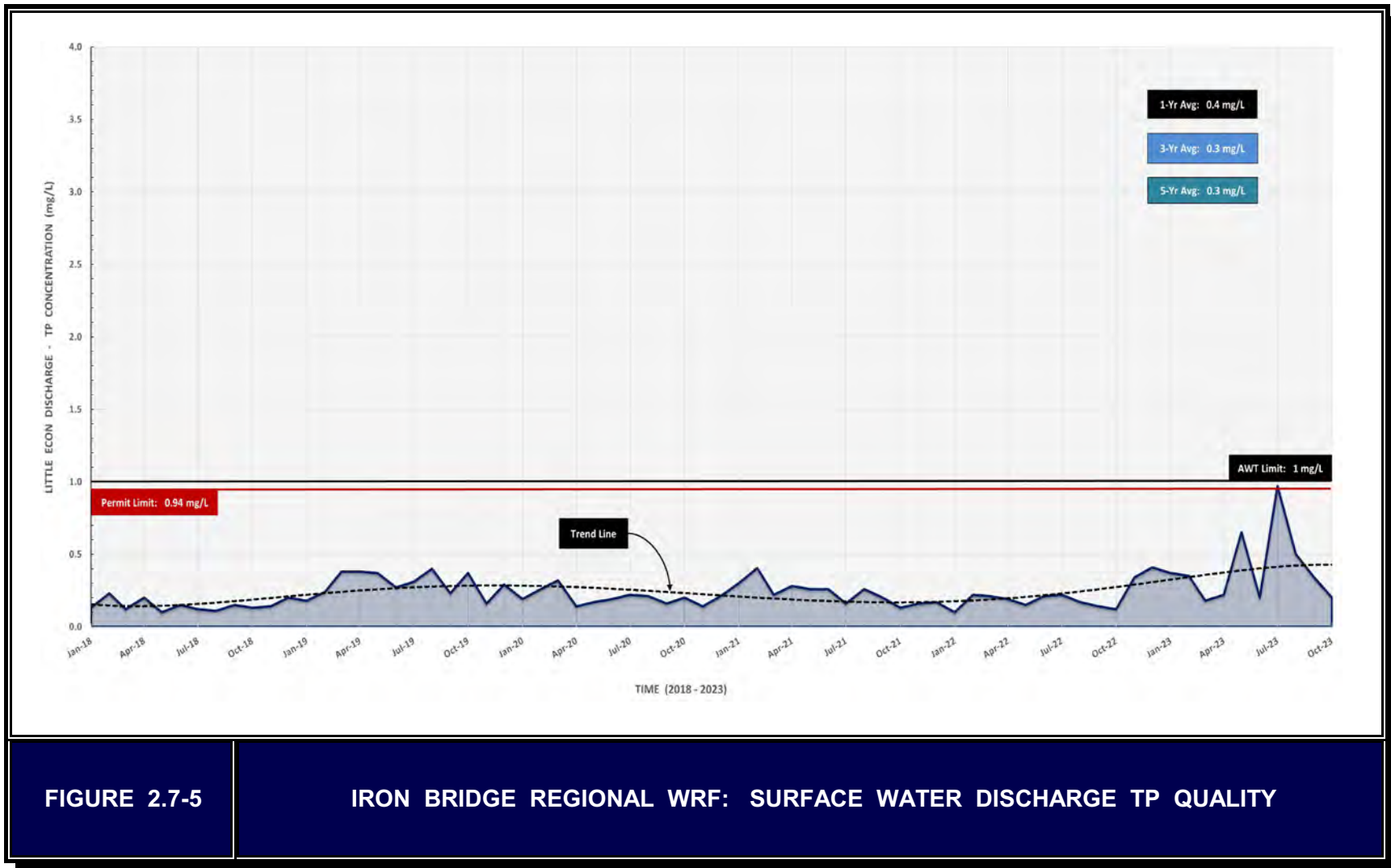


FIGURE 2.7-5

IRON BRIDGE REGIONAL WRF: SURFACE WATER DISCHARGE TP QUALITY

Calendar Year	Effluent Water Quality Concentration Discharged to the Little Econ River (mg/L)					
	CBOD ₅	TSS	TN	TKN	TP	Fecal Coliforms ¹
2018	1.00	0.68	2.07	0.91	0.15	< 1
2019	1.03	0.53	2.01	0.88	0.30	< 1
2020	1.01	0.57	2.07	0.82	0.20	< 1
2021	1.06	0.59	1.58	0.74	0.23	< 1
2022	1.58	1.23	1.86	0.77	0.21	< 1
2023 ²	1.01	0.63	1.95	1.00	0.40	< 1
5-Yr Avg:	1.12	0.71	1.92	0.85	0.25	< 1
Permit Limit:	4.28	17.20	3.08	2.14	0.94	200
AWT Std.:	5	5	3	---	1	---

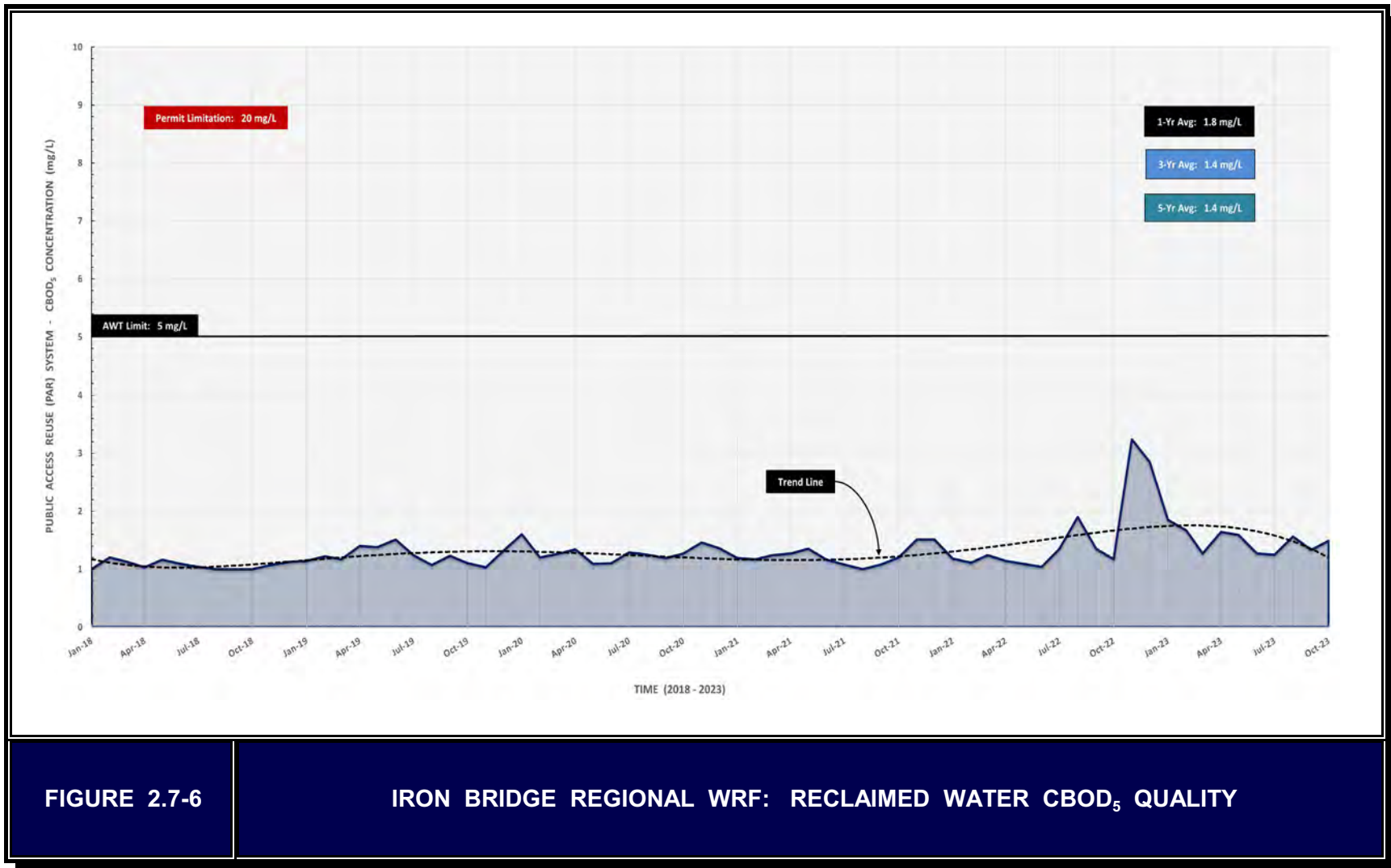
¹ Units for fecal coliforms are #/100 mL.² January - October 2023

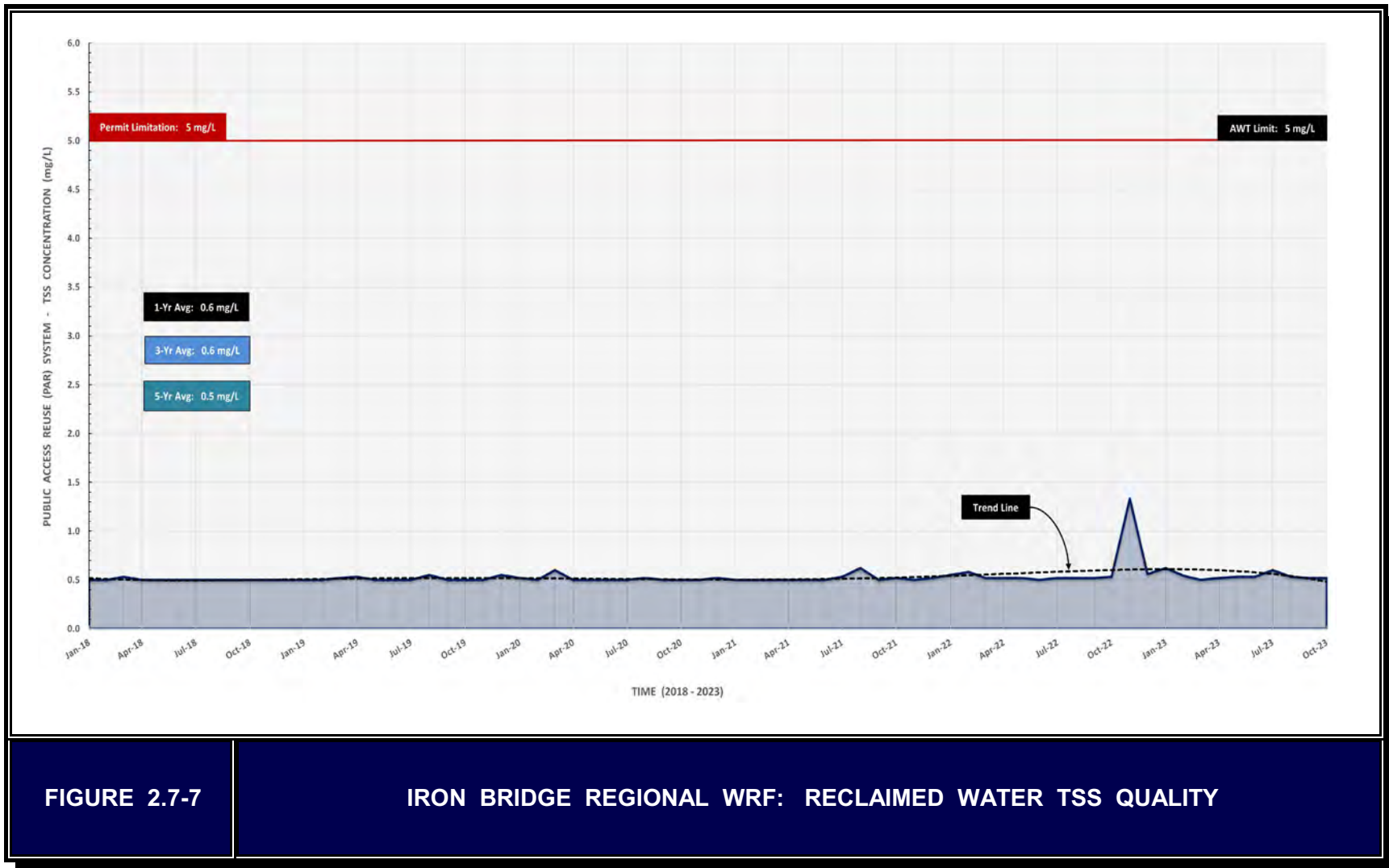
The reclaimed water quality produced by the Iron Bridge Regional WRF, on an annual basis, for the period from January 2018 - October 2023 is presented graphically in Figures 2.7-6 through 2.7-9 and summarized in the table below.

Calendar Year	Reclaimed Water Quality Concentration (mg/L)				
	CBOD ₅	TSS	TN	TP	Fecal Coliforms ¹
2018	1.07	0.50	2.28	0.14	< 1
2019	1.23	0.51	2.06	0.29	< 1
2020	1.28	0.51	2.14	0.20	< 1
2021	1.23	0.52	1.68	0.22	< 1
2022	1.56	0.60	1.86	0.22	< 1
2023 ²	1.50	0.54	1.90	0.39	< 1
5-Yr Avg:	1.31	0.53	1.99	0.24	< 1
Permit Limit:	20	5	---	---	0
AWT Std.:	5	5	3	1	---

¹ Units for fecal coliforms are #/100 mL.² January - October 2023

The reclaimed water generated by the Iron Bridge Regional WRF meets all effluent limitations defined in the facility's FDEP Operations Permit and AWT standards.





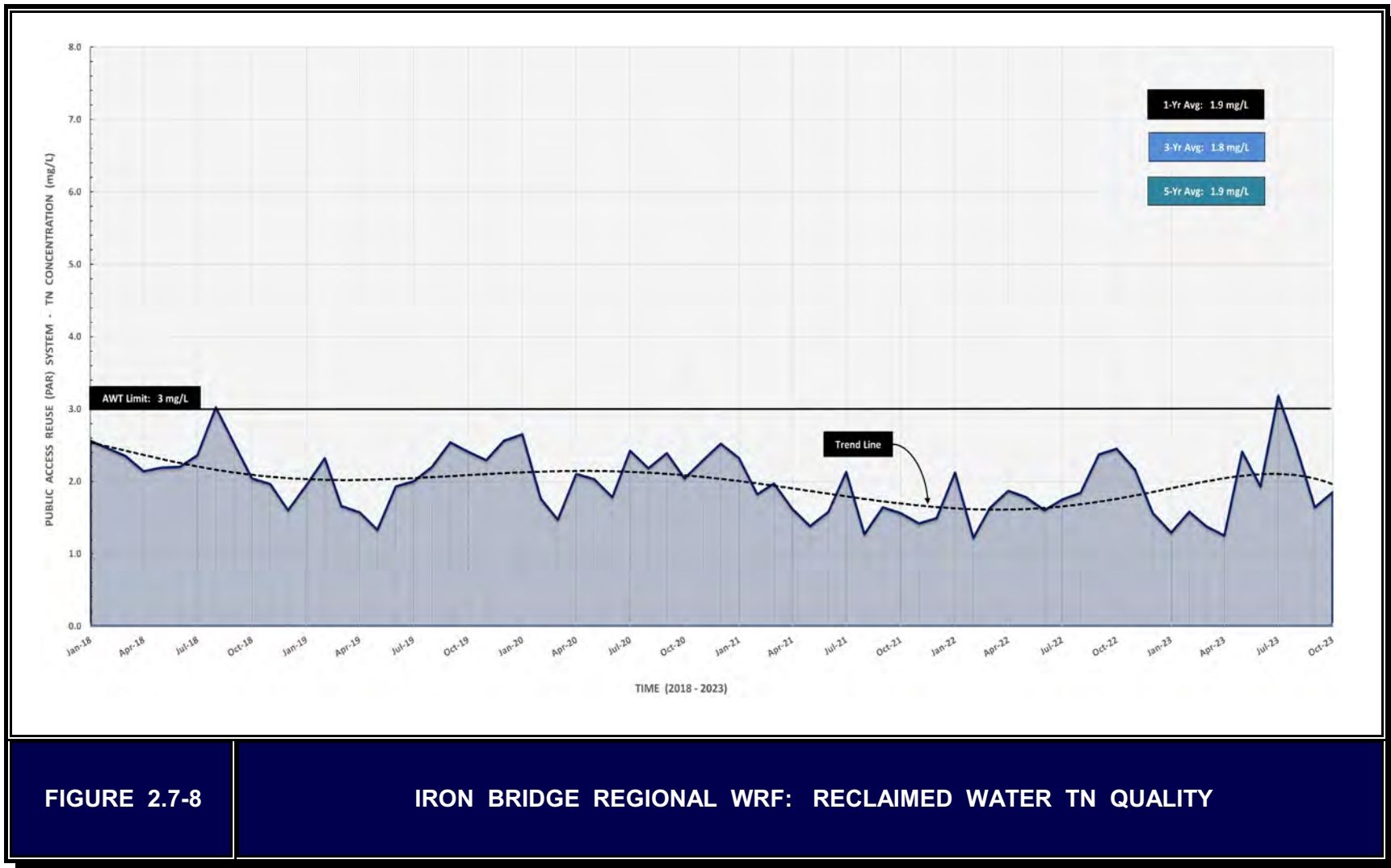


FIGURE 2.7-8

IRON BRIDGE REGIONAL WRF: RECLAIMED WATER TN QUALITY

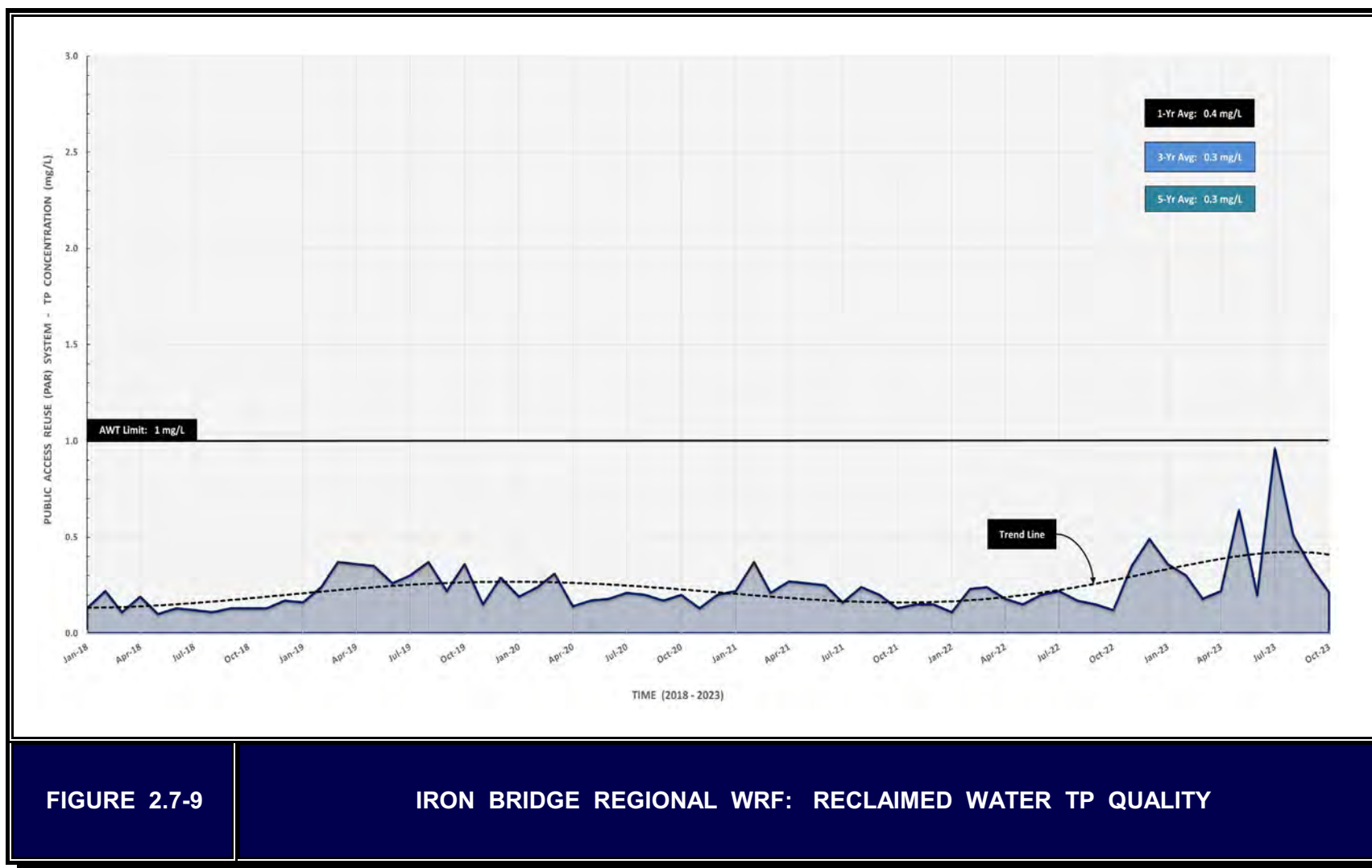


FIGURE 2.7-9

IRON BRIDGE REGIONAL WRF: RECLAIMED WATER TP QUALITY

Reclaimed water quality (CBOD₅, TSS, TKN/TN, and TP) generated by the Iron Bridge Regional WRF, over the period from January 2018 - October 2023, and treatment system (parameter removal) efficiencies are presented below in Table 2.7-1.

Parameter	Influent Conc. (mg/L)	Influent Loading (lb/day)	Effluent Conc. (mg/L)	Effluent Loading (lb/day)	Parameter Removal (lb/day)	Percent Removal	
						Design	Actual
CBOD ₅	215	43,642	1.3	266	43,376	97.7%	99.4%
TSS	246	49,937	0.5	108	49,829	97.7%	99.8%
TN ²	40	8,123	2.0	404	7,719	90.6%	95.0%
TP ²	6	1,218	0.2	49	1,170	83.3%	96.0%

¹ AADF (Jan 2018 - Oct 2023): 24.350 MGD

² Assumed influent concentration (not required by FDEP permit)

2.7.1 CBOD₅ Treatment (Removal) Efficiency

Over the period from January 2018 - October 2023, actual influent CBOD₅ concentrations were in the range of values used in the design of the facility. The Iron Bridge Regional WRF has the ability to operate efficiently between 50 mg/L and 450 mg/L by adjusting process operations.

The effluent CBOD₅ concentrations are significantly below the design values used for the facility, typical AWT standards (< 5 mg/L annual average), and meet the limitations identified in the current FDEP Operations Permit.

The treatment (removal) efficiency averaged 99.4%; which is slightly greater than the design treatment efficiency of 97.7% and significantly greater than the minimum FDEP requirement of 85%. Thus, ***the Iron Bridge Regional WRF is highly effective in removing organic matter (CBOD₅) from the raw wastewater and is capable of meeting all FDEP requirements and AWT standards.***

2.7.2 TSS Treatment (Removal) Efficiency

Over the period from January 2018 - October 2023, actual influent TSS concentrations were higher than the values used in the design of the facility. The Iron Bridge Regional WRF has the ability to operate efficiently between 40 mg/L and 500 mg/L by adjusting process operations.

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

The treatment (removal) efficiency averaged 99.8%; which is greater than the design treatment efficiency of 97.7% and significantly greater than the minimum FDEP requirement of 85%. Thus, ***the Iron Bridge Regional WRF is highly effective in removing TSS from the raw wastewater, as well as those generated in the treatment process, and is capable of meeting all FDEP requirements and AWT standards.***

2.7.3 TN Treatment (Removal) Efficiency

Over the period from January 2018 - October 2023, actual influent TKN concentrations were assumed to be higher than the value used in the design of the facility based on informational data. The facility has the ability to operate efficiently between 15 mg/L and 60 mg/L by adjusting process operations.

The effluent TN concentrations are significantly below the design values used for the facility, typical AWT standards (< 3 mg/L annual average) and meet the limitations identified in the current FDEP Operations Permit.

The treatment (removal) efficiency averaged 95.0%; which is greater than the design treatment efficiency of 90.6%. Thus, ***the Iron Bridge Regional WRF is highly effective in removing nitrogen from the raw wastewater and is capable of meeting all FDEP requirements and AWT standards.***

2.7.4 TP Treatment (Removal) Efficiency

Over the period from January 2018 - October 2023, actual influent TP concentrations were assumed to be slightly higher than the values used in the design of the Iron Bridge Regional WRF based on informational data. 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 biological treatment units (enhancing TP removal via chemical precipitation).

The effluent TP concentrations are significantly below the design values used for the facility, typical AWT standards (< 1 mg/L annual average) and meet the limitations identified in the current FDEP Operations Permit.

The TP treatment (removal) efficiency averaged 96.0%; which is greater than the design treatment efficiency of 83.3%. Thus, ***the Iron Bridge Regional WRF is highly effective in removing phosphorus from the raw wastewater and is capable of meeting all FDEP requirements and AWT standards.***

2.8 ORLANDO EASTERLY WETLANDS (OEW) TREATMENT SYSTEM

The Orlando Easterly Wetlands (OEW) is an existing FDEP-permitted land application and treatment system (R-001), located in Christmas, FL. The OEW is the primary effluent disposal site for the Iron Bridge Regional WRF, is used to provide additional nutrient removal, and is considered a beneficial and sustainable reuse system under FDEP regulations.

High-quality effluent, reclaimed water, from the Iron Bridge Regional WRF is pumped, approximately sixteen (16) miles through a 48-inch force main, to the OEW. The OEW treatment system consists of the following infrastructure:

- Influent Structure.
- 1,640[±] acre site (1,220[±] acres of wetted area)
- Eighteen (18) treatment cells
- Deep and mixed marsh wetlands systems, with numerous vegetative species to provide nutrient removal
- Outfall structures and pipelines

The effluent from the OEW discharges via two (2) outfall locations (D-002 and D-003) to an unnamed channel that eventually flows to the St. Johns River or sheet flows across an adjacent 640[±] acre natural wetlands (Seminole Ranch) thence to the St. Johns River.



2.8.1 Orlando Easterly Wetlands (R-001) - Applied Concentrations/Loadings

The average annual reclaimed water concentrations (CBOD₅, TSS, TN and TP) applied to the Orlando Easterly Wetlands (OEW), from the Iron Bridge Regional WRF, for the six (6) year period (2018 - 2023), are synopsized below in Table 2.8-1:

Table 2.8-1: Orlando Easterly Wetlands - Influent Concentrations (2018 - 2023)					
Calendar Year	Annual Flow Rate to the OEW (MGD)	Reclaimed Water Concentrations (mg/L) Applied to the OEW			
		CBOD ₅	TSS	TN	TP
2018	15.747	1.07	0.50	2.28	0.14
2019	16.395	1.23	0.51	2.06	0.29
2020	15.652	1.28	0.51	2.14	0.20
2021	16.416	1.23	0.52	1.68	0.22
2022	19.693	1.56	0.60	1.86	0.22
2023	15.455	1.49	0.54	1.90	0.39
Average:	16.560	1.31	0.53	1.99	0.24
Limit:	35.0	20.0	5.0	---	---

The reclaimed water quality applied to the Orlando Easterly Wetlands (OEW) meets all FDEP-permit requirements and AWT standards.

The average annual reclaimed water loadings (CBOD₅, TSS, TN and TP) applied to the Orlando Easterly Wetlands (OEW), from the Iron Bridge Regional WRF, for the six (6) year period (2018 - 2023), are synopsized below in Table 2.8-2:

Table 2.8-2: Orlando Easterly Wetlands - Influent Loadings (2018 - 2023)					
Calendar Year	Annual Flow Rate to the OEW (MGD)	Reclaimed Water Loadings (lb/day) Applied to the OEW			
		CBOD ₅	TSS	TN	TP
2018	15.747	141	66	299	18
2019	16.395	168	70	282	40
2020	15.652	167	67	279	26
2021	16.416	168	71	230	30
2022	19.693	256	99	305	36
2023	15.455	192	70	245	50
Average:	16.560	182	74	273	33

The reclaimed water constituent loadings applied to the Orlando Easterly Wetlands (OEW) are very low and synonymous with a high-quality product. The OEW is providing beneficial reuse and ecological benefits to the community and regional area.

2.9 PUBLIC ACCESS REUSE SYSTEM (R-002)

Land application system R-002 is an existing FDEP-permitted (20.3 MGD AADF) slow-rate, public access reuse system that is part of the Eastern Regional Reclaimed Water Distribution System (ERRWDS). The ERRWDS service area, piping system, and design demands are presented in Figures 2.9-1 and 2.9-2, respectively. The public access reuse system infrastructure at the Iron Bridge Regional WRF consists of the following:

- A transfer pump station
- A 4.0 MG reclaimed water ground storage tank
- A reclaimed water distribution pump station
- Earthen, lined, storage ponds for any substandard/reject water generated.

The PAR system consists of slow-rate, public access spray irrigation of residential lawns, golf courses, cemeteries, parks, landscaped areas, highway and road medians, right-of-ways, athletic complexes, agricultural irrigation, business/commercial/industrial parks, nurseries/ferneries/sod farms, and other public uses. The ERRWDS is also interconnected with the public access reuse distribution system for the City of Orlando's Water Conserv I WRF.

Major users of the public access reuse system include, but are not limited to, UCF, Orange County Utilities, the UCF Research Park, the City of Orlando, and Seminole County.

2.9.1 Public Access Reuse System (R-002) - Applied Concentrations/Loadings

The average annual reclaimed water quality concentrations (CBOD₅, TSS, TN and TP) applied to the Public Access Reuse System (PAR), from the Iron Bridge Regional WRF, for the six (6) year period (2018 - 2023), is presented below in Table 2.9-1.

The reclaimed water quality applied to the public access reuse system meets all FDEP-permit requirements and AWT standards.

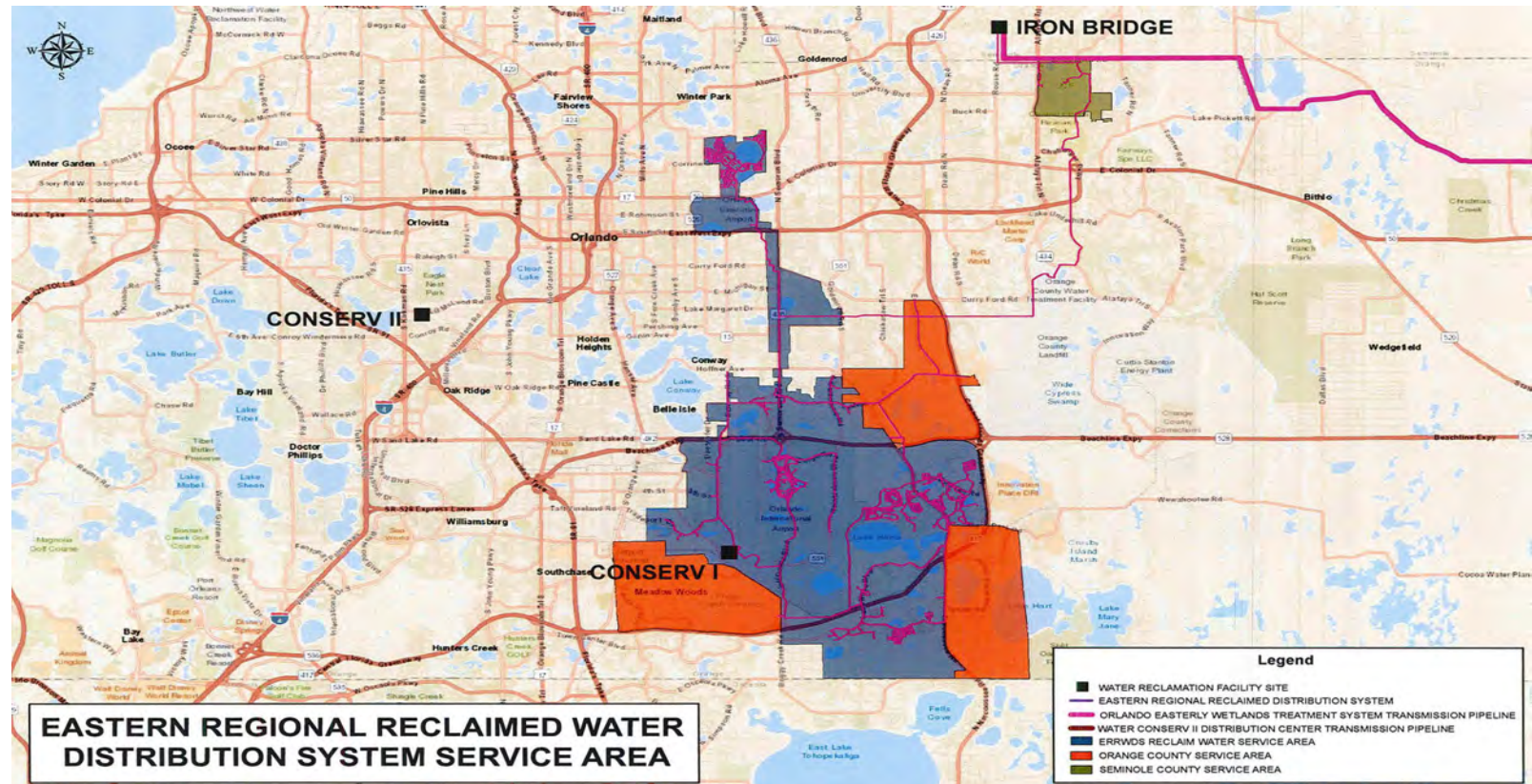


FIGURE 2.9-1

EASTERN REGIONAL RECLAIMED WATER DISTRIBUTION SYSTEM (ERRWDS) SERVICE AREA

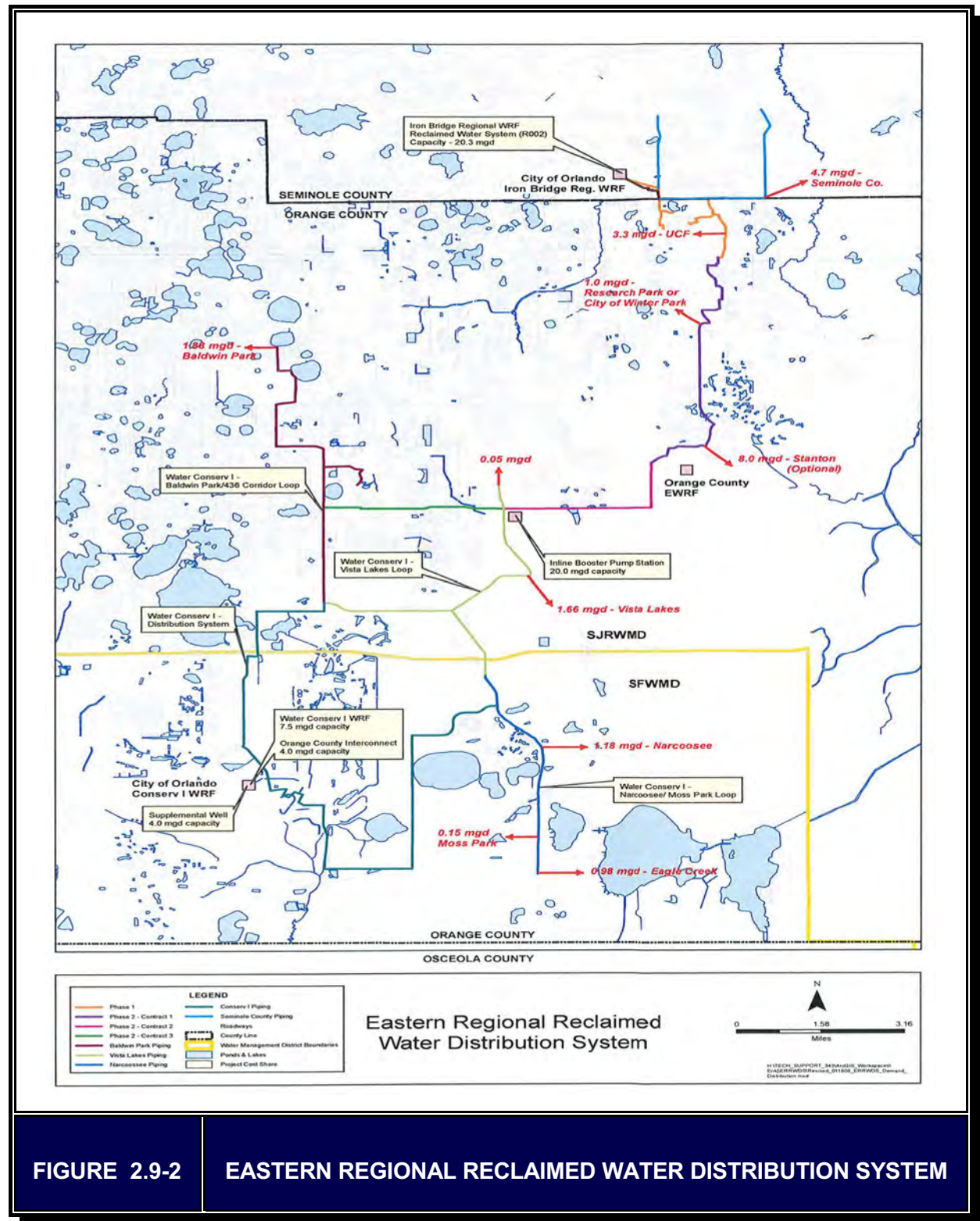


FIGURE 2.9-2

EASTERN REGIONAL RECLAIMED WATER DISTRIBUTION SYSTEM

Table 2.9-1: PAR System - Water Quality Concentrations (2018 - 2023)					
Calendar Year	Annual Flow Rate to the PAR (MGD)	Reclaimed Water Concentrations (mg/L) Applied to the PAR			
		CBOD ₅	TSS	TN	TP
2018	5.874	1.07	0.50	2.28	0.14
2019	5.683	1.23	0.51	2.06	0.29
2020	4.882	1.28	0.51	2.14	0.20
2021	4.825	1.23	0.52	1.68	0.22
2022	3.992	1.56	0.60	1.86	0.22
2023	4.112	1.49	0.54	1.90	0.39
Average:	4.895	1.31	0.53	1.99	0.24
Limit:	35.0	20.0	5.0	---	---

The average annual reclaimed water loadings (CBOD₅, TSS, TN and TP) applied to the Public Access Reuse System (R-002), from the Iron Bridge Regional WRF, for the six (6) year period (2018 - 2023), are synopsized below in Table 2.9-3:

Table 2.9-3: Public Access Reuse System - Constituent Loadings (2019 - 2023)					
Calendar Year	Flow Rate to the OEW (MGD)	Reclaimed Water Constituent Loadings (lb/day) to the PAR System			
		CBOD ₅	TSS	TN	TP
2018	5.874	52	24	112	7
2019	5.683	58	24	98	14
2020	4.882	52	21	87	8
2021	4.825	50	21	68	9
2022	3.992	52	20	62	2
2023	4.112	51	19	65	13
Average:	4.895	53	21	82	9

The reclaimed water constituent loadings applied to the Public Access Reuse System are very low and are synonymous with a high-quality product. The public access reuse system is reducing groundwater withdrawals within the service area and providing for beneficial reuse of the high-quality reclaimed water, produced at the Iron Bridge Regional WRF, throughout the regional area.

2.10 SURFACE WATER DISCHARGE SYSTEM TO THE LITTLE ECON RIVER (D-001)

The surface water discharge system (D-001) is an existing 28.0 MGD AADF conveyance of highly-treated effluent from the Iron Bridge Regional WRF to the Little Econlockhatchee River. The river is classified by the State as Class III fresh waters. Prior to discharge, the tertiary effluent must:

- Be dechlorinated such that the chlorine residual is no greater than 0.01 mg/L prior to discharge to the Little Econ River; and
- Pass through the post-aeration facilities such that the dissolved oxygen concentration is increased to a minimum concentration of 6.1 mg/L prior to discharge.
- Meet the water quality constituent limitations outlined in the facility's FDEP Operations Permit.

Upon passing through the post-aeration facilities, the reclaimed water/effluent is conveyed to the Little Econlockhatchee River through a 670-foot long concrete-lined channel that discharges along the shoreline, approximately 2.5 feet below the water level in the river.

The daily surface water discharge to the Little Econlockhatchee River provides the following ecological benefits:

- Maintains a minimum flow within the river
- Maintains a minimum water level within the river
- Keeps the river from running dry throughout the year
- Protects the biota within the rivers aquatic ecosystem

The daily surface water discharge, via D-001, has been evaluated by ecological and aquatic ecosystem experts/biologists and the findings show that there are no statistically significant impacts on the flora or fauna within the river ecosystem.

2.10.1 Surface Water Discharge System (D-001) - Applied Concentrations/Loadings

The average annual effluent concentrations (CBOD₅, TSS, TN and TP) in the reclaimed water/effluent discharged to the Little Econlockhatchee River, from the Iron Bridge Regional WRF, for the six (6) year period (2018 - 2023), are synopsized below in Table 2.10-1:

Table 2.10-1: Effluent Quality Discharged to the Little Econ River (2018 - 2023)						
Calendar Year	Flow Rate to River - D-001 (MGD)	Effluent Constituent Concentration Discharged to D-001 (mg/L)				
		CBOD ₅	TSS	TN	TKN	TP
2018	3.321	1.00	0.68	2.07	0.91	0.15
2019	4.119	1.03	0.53	2.01	0.88	0.30
2020	3.767	1.01	0.57	2.07	0.82	0.20
2021	2.340	1.06	0.59	1.58	0.74	0.23
2022	2.351	1.58	1.23	1.86	0.77	0.21
2023	2.518	1.01	0.63	1.95	1.00	0.40
Averages:	3.069	1.12	0.71	1.92	0.85	0.25
Limit:	28.0	4.28	17.20	3.08	2.14	0.94
% of Limit:	11.0%	26.1%	4.1%	62.4%	39.9%	26.4%

The reclaimed water/effluent quality applied to the Little Econlockhatchee River, via the surface water discharge system (D-001), signifies the following:

- The Iron Bridge Regional WRF is generating a very high-quality effluent
- The effluent concentrations are significantly below the limits allowed by FDEP (last row of the Table 2.10-1).
- The effluent being discharged to the Little Econlockhatchee River (D-001) meets all FDEP-permit requirements and AWT standards



The average annual reclaimed water/effluent loadings (CBOD₅, TSS, TN and TP) applied to the Little Econlockhatchee River, from the Iron Bridge Regional WRF, for the six (6) year period (2018 - 2023), are synopsized below in Table 2.10-2:

Table 2.10-2: Little Econ River - Constituent Loadings (2018 - 2023)						
Calendar Year	Flow Rate to River - D-001 (MGD)	Effluent Constituent Loadings (lb/day) to the Little Econ River				
		CBOD ₅	TSS	TN	TKN	TP
2018	3.321	28	19	57	25	4
2019	4.119	35	18	69	30	10
2020	3.767	32	18	65	26	6
2021	2.340	21	12	31	14	4
2022	2.351	31	24	36	15	4
2023	2.518	21	13	41	21	8
Averages:	3.069	28	17	50	22	6
Limit:	28.0	1,000	4,000	720	500	220
% of Limit:	11.0%	2.8%	0.4%	6.9%	4.4%	2.9%

The reclaimed water/effluent loadings applied to the surface water discharge system (Little Econ River) indicate the following:

- The Iron Bridge Regional WRF is generating a very high-quality effluent
- The effluent loadings are significantly below the limits allowed by FDEP as can be seen in the last row of the table.
- The effluent being discharged to the Little Econlockhatchee River (D-001) meets all FDEP-permit loading requirements
- There are no statistically significant impacts on the flora or fauna within the river ecosystem.

SECTION 3

FUTURE CONDITIONS

3.1 GENERAL CONDITIONS

As previously discussed in Article 2.1, the wastewater management system service area for the Iron Bridge Regional WRF encompasses the northeast quadrant of the City of Orlando and Orange County, the southeast section of unincorporated Seminole County, and portions of the City of Maitland, City of Winter Park, and City of Casselberry. Portions of the City of Oviedo, the University of Central Florida and the adjacent research and professional office parks discharge to the Seminole County Wastewater Transmission System. The IBRWRF collection and transmission system is interconnected with the Water Conserv I WRF and raw wastewater flows can be diverted to the Iron Bridge Regional WRF from both the Water Conserv I and Water Conserv II WRF service areas.

The growth within the Iron Bridge WRF Wastewater Management System Service Area, has been low to moderate and was expected to continue due to the general desirability of the Central Florida area. As growth continued, the demand for wastewater collection and transmission system, wastewater treatment facility, and reclaimed water distribution system improvements was required. The growth slowed considerably from 2009 - 2015 due to the financial instability in the economy. Residential and commercial construction trends have been in flux during the past couple of years and all signs were indicating that the economy was beginning to recover as residential and commercial construction in the local area had picked up slightly. However, the following factors have had an impact on the growth within the service area and the raw wastewater flows:

Reduction of infiltration and inflow (I/I) into the wastewater collection/transmission system

Impact of the COVID-19 pandemic and supply chain issues

Inflationary impacts on the costs of materials, labor, energy, and other commodities

Implementation of water conservation measures and devices

Relocation of users or shutting down of their operations

Zoning restrictions and development requirements

Limited development of existing local properties

3.2 WASTEWATER FLOW PROJECTIONS

Various wastewater flow projections/forecasts have been developed over the last fifteen (15) years and have overstated the realized/historical raw wastewater flows received at the Iron Bridge Regional WRF. The following information, provided by the City of Orlando management team, presents projected raw wastewater flows using the population projections set forth in the City's *Growth Management Plan* and the *Iron Bridge Regional WRF Capacity Analysis Report (2019)*.

Wastewater flow projections for the Iron Bridge Regional Wastewater Management System Service area are presented below in a tabular format in Table 3.2-1, and graphically in Figure 3.2-1. The projected raw wastewater flows are anticipated to increase to approximately 37.06 MGD AADF in Calendar Year 2045 based on the projections set forth in the City's Growth Management Plan and Capacity Analysis Report. The projected wastewater flow in Calendar Year (CY) 2045 is anticipated to be approximately 7.4% below the current FDEP-permitted capacity of the Iron Bridge Regional WRF (40.0 MGD AADF).

Design Year	Growth Management Plan Projections¹ (MGD AADF)	Annual Increase in Flow over the Previous 5-Year Period	3-Month Maximum Flow Rate (MGD)²	Monthly Maximum Flow Rate (MGD)³
2025	27.85	5.10%	32.58	34.81
2030	30.15	1.60%	35.28	37.69
2035	32.45	1.48%	37.97	40.56
2040	34.76	1.38%	40.67	43.45
2045	37.06	1.29%	43.36	46.33

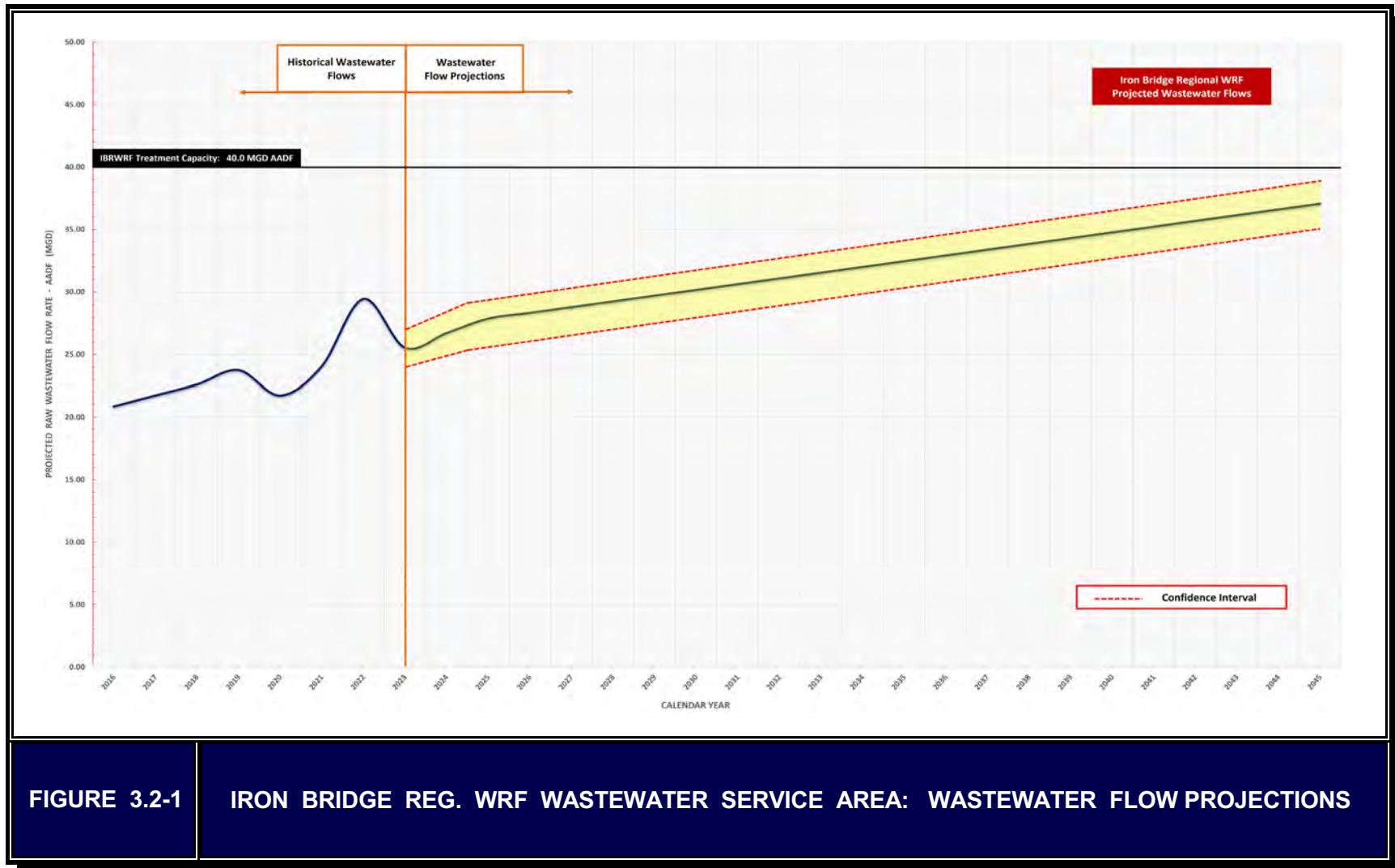
¹ Projections were provided by the City of Orlando from a previous flow forecast and projections set forth in the Growth Management Plan, as amended, and the Iron Bridge Regional WRF Capacity Analysis Report (2019).

² 3-month Maximum Flow Rate = $1.17 \times \text{AADF}$ (2019 IBRWRF Capacity Analysis Report)

³ Maximum Monthly Flow Rate = $1.25 \times \text{AADF}$ (2019 IBRWRF Capacity Analysis Report)

The average daily wastewater flow projections indicate a raw wastewater annual average daily flow (AADF) of 36.60 MGD in Design Year 2044 (20-year planning horizon), or 91.5% of the overall treatment capacity of the Iron Bridge Regional WRF. This will leave an available AADF treatment capacity of 3.40 MGD for future raw wastewater flows beyond Calendar Year 2044. It is anticipated that, over the 20-year planning horizon, that:

- Infiltration/inflow (I/I) reduction projects (slip-lining of pipes, pipe replacement, manhole and lift station wetwell rehabilitation) will be completed to reduce the raw wastewater flow being conveyed to the treatment facility.



- Additional treatment capacity improvements or treatment processes that increase capacity without constructing additional tankage will be evaluated and implemented at the treatment facility if the actual raw wastewater flows increase as projected.

Therefore, based on the facility's current FDEP-permitted capacity of 40.0 MGD AADF, ***the Iron Bridge Regional WRF treatment capacity is sufficient for the upcoming 20-Year planning horizon.***

SECTION 4

CAPITAL IMPROVEMENTS PLAN (CIP)

4.1 GENERAL

The primary objectives of the Iron Bridge Regional WRF management and operations staff are:

- Advanced treatment of the raw wastewater received at the Iron Bridge Regional WRF
- Production of a high-quality product that meets all regulatory requirements and AWT standards
- Sustainable operations and management
- Cost-effective treatment of the raw wastewater and distribution of the reclaimed water
- Beneficial reuse of the high-quality reclaimed produced through slow-rate, public access spray irrigation and the Orlando Easterly Wetlands



The Iron Bridge Regional WRF was originally commissioned in 1982 and serves the northeast quadrant of the City of Orlando and Orange County, the southeast section of unincorporated Seminole County, and portions of the City of Maitland, City of Winter Park, and City of Casselberry. Over the last forty-two (42) years, and numerous capital improvements projects, the facility is classified as a 40.0 MGD AADF Advanced Wastewater Treatment plus Filtration Facility (Category I, Class A), utilizing the 5-Stage Bardenpho



BNR process, secondary clarification, tertiary filtration, and high-level disinfection, and meets all Class I Reliability criteria.

Some of the facility infrastructure is aging and will need replacement over the 20-year planning period (2024 - 2044). Likewise, treatment efficiency and process/reliability improvements will also be required to meet future regulatory requirements and ensure long-term sustainability of the treatment facility and Utility.

Wastewater and reclaimed water user charges are adjusted to account for all City of Orlando Utility Capital Improvements Plan (CIP) Projects. The user charges are evaluated annually to ensure that the City is meeting its current and future CIP debt service responsibility and operation and maintenance costs.

4.2 IRON BRIDGE REGIONAL WRF CAPITAL IMPROVEMENTS PLAN (CIP)

Iron Bridge Regional WRF capital improvements projects are evaluated on an annual basis, at the project management level, to ensure the efficient, long-term, and sustainable operation of the treatment facility. The following Iron Bridge Regional WRF CIP infrastructure projects, project costs, and construction start/completion dates are provided below in Table 4.2-1 in accordance with the Clean Waterways Act requirements:

CIP Project No.	CIP Project Description	Estimated Project Cost	Construction Time Frame	
			Start	Completion
1	Biosolids Dewatering Improvements	\$15,200,000	2020	2024
2	Grit Removal System Improvements	\$18,279,000	2025	2027
3	Biosolids Treatment Improvements	\$15,000,000	2025	2026
4	EQ Basin Mixing & Secondary Clarifier Improvements	\$8,000,000	2025	2026
5	Biosolids Dewater System Ventilation Improvements	\$2,800,000	2024	2025
6	Reclaimed Water Pump Station Improvements	\$1,400,000	2026	2026
7	Power Generation Improvements	\$2,000,000	2026	2027

APPENDIX A

IRON BRIDGE REGIONAL WRF:
FDEP OPERATIONS PERMIT (FL0037966)



JANUARY 2024



FLORIDA DEPARTMENT OF Environmental Protection

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

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

Sent via email: David.Bass@cityoforlando.net

NOTICE OF PERMIT

In the Matter of an
Application for Permit by:
City of Orlando
5100 LB McLeod Road
Orlando, FL 32811-7407

Seminole County - DW
Orlando Iron Bridge WRF
Wastewater Permit Application
DEP File Number: FL0037966-027-DW1P/NR

ATTENTION David Bass, PE
Manager, Water Reclamation Division

Enclosed is Permit Number FL003766 to operate an existing domestic wastewater facility issued under Sections 403.087 and 403.0885 of the Florida Statutes.

Judicial Review

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68, F.S. by the filing of a notice of appeal under Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department of Environmental Protection in the Office of General Counsel (Mail 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 after this order is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

A handwritten signature in black ink, appearing to read "Reggie Phillips", is written over a faint, circular official stamp.

Reggie Phillips
Environmental Manager
Permitting and Waste Cleanup Program

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
Erik L. Melear, Orlando, erik.melear@cityoforlando.net
Athena C. Tipaldos, Orlando, Athena.tipaldos@cityoforlando.net
St. Johns River Water Management District, permitting@sjrwmd.com
Charles LeGros, DEP, charles.legros@dep.state.fl.us
Anil Desai, DEP, anil.desai@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

October 22, 2020
Date



FLORIDA DEPARTMENT OF Environmental Protection

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

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

STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

PERMITTEE:
Orlando, City of

RESPONSIBLE OFFICIAL:
David J Bass, PE, Manager, Water Reclamation Division
5100 L B McLeod Rd
Orlando, Florida 32811- 7407
(407) 246-3221
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PERMIT NUMBER: FL0037966 (Major)
FILE NUMBER: FL0037966-027-DW1P
ISSUANCE DATE: October 22, 2020
EFFECTIVE DATE: October 22, 2020
EXPIRATION DATE: October 21, 2025

FACILITY:
Orlando/Iron Bridge Regional WRF
601 Iron Bridge Cir
Oviedo, FL 32765-8283
Seminole County
Latitude: 28°37' 34.7434" N Longitude: 81°13' 13.843" W

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

WASTEWATER TREATMENT:

An existing 40 mgd annual average daily flow (AADF) wastewater treatment facility consisting of mechanical influent screening, grit removal, flow equalization, two (2) 20 mgd AADF biological nutrient removal (5-stage Bardenpho) treatment units with chemical feed facilities, secondary clarification, tertiary filtration, chlorination and a chlorine contact chamber with two chlorine contact chambers common to both treatment trains, dechlorination and post aeration facilities, with thickening, dewatering of biosolids to either a DEP approved biosolid treatment facility (BTF) or Class 1 landfill. Lime stabilization was retained as a back-up to produce Class B biosolids for land application. Biosolids storage is available onsite for wet weather events.

This facility has a collection transmission system interconnected with Orlando Conserv I WWTF. Flows can be diverted to the Iron Bridge Regional Water Reclamation Facility (WRF) from service areas for both the Water Conserv I and Water Conserv II WRFs.

REUSE OR DISPOSAL:

Surface Water Discharge D-001: An existing 28 MGD annual average daily flow (AADF) discharge capacity to Little Econlockhatchee River, Class III fresh waters, (WBID# 3001) via a concrete lined channel, which is approximately 670 feet in length and discharges at the shoreline at a depth of approximately 2.5 feet. The point of discharge is located approximately at latitude 28°37' 4" N, longitude 81°13' 2" W.

Land Application R-001: An existing permitted 35.0 mgd AADF capacity discharge to a created treatment/reuse wetland system (**R-001**) encompassing 1,640± acres, including berms and buffer zones (1,220± acres wetted area) and consisting of eighteen (18) treatment cells. Reclaimed water from wetland system R-001 overflows via two 48-inch reinforced concrete pipes (outfalls D-002 and D-003) to an unnamed ditch then to the St. Johns River (Class III fresh waters, WBID 28931), or

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sheet flows across an adjacent 640± acre natural wetlands (Seminole Ranch) then to the St. Johns River, in accordance with Condition I.A.18 of this permit.

No chemical dechlorination is applied to the reclaimed water. Reclaimed water is pumped through a 48-inch force main for approximately 16 miles from the wastewater treatment facility to the influent structure of the created wetlands.

Surface Water Discharge D-002: Outfall D-002 is an existing permitted discharge to an unnamed ditch and thence to the St. Johns River, Class III fresh waters, (WBID# 28931) which is approximately 118 feet in length and discharges at a depth of approximately 2.5 feet. The point of discharge is located approximately at latitude 28°35' 0" N, longitude 80°59' 16" W.

Surface Water Discharge D-003: Outfall D-003 is an existing permitted discharge to an unnamed ditch and thence to the St. Johns River, Class III fresh waters, (WBID# 28931) which is approximately 118 feet in length and discharges at a depth of approximately 2.5 feet. The point of discharge is located approximately at latitude 28°35' 0" N, longitude 80°59' 54" W.

Land Application R-002: An existing permitted 20.3 MGD annual average daily flow capacity slow-rate public access system. R-002 is a reuse system which consists of an existing permitted 20.3 MGD annual average daily flow capacity slow rate public access system. R-002 is a reuse system consisting of public access irrigation of residential lawns, golf courses, cemeteries, parks, landscape areas, highway medians, right-of-ways within the Eastern Regional Reclaimed Water Distribution System (ERRWDS) service area. The major users identified in the attached table. The reuse system also includes an onsite 4 mg concrete ground storage tank, high service pump station, an offsite in-line booster pump station, reclaimed water transmission system, and 29.0 MG of reject storage, provided by two existing pond structures (formerly the hyacinth ponds).

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 42 of this permit.

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I. RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Surface Water Discharges

- 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 the Little Econlockhatchee River. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.8. :

Parameter	Units	Max. /Min	Effluent Limitations		Monitoring Requirements			Notes
			Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	
Flow (To Little Econ River)	MGD	Max Max	28 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-1	See I.A.4
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	4.28 4.28 6.42 8.56	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-1	See I.A.6
Solids, Total Suspended	mg/L	Max Max Max Max	17.2 17.2 25.8 34.4	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-1	See I.A.6
Coliform, Fecal	#/100mL	Max Max Max	200 200 800	Monthly Geometric Mean Annual Average Single Sample	Daily; 24 hours	Grab	EFA-3	See I.A.7
E.coli	#/100mL	Max Max	126 410	Monthly Geometric Mean 90th Percentile	Daily; 24 hours	Grab	EFA-3	See I.A.7 and I.A.8
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFD-3	See I.A.3
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	Continuous	Meter	EFA-1	See I.A.3 and I.A.9
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	Continuous	Meter	EFD-4	

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			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Chronic Whole Effluent Toxicity, 7-Day IC25 (Ceriodaphnia dubia)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr TPC	EFD-1	See I.A.10
Chronic Whole Effluent Toxicity, 7-Day IC25 (Pimephales promelas)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr TPC	EFD-1	See I.A.10
Nitrogen, Total	mg/L	Max Max Max Max	3.08 3.08 4.62 6.16	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-1	
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max Max Max Max	2.14 2.14 3.21 4.28	Monthly Average Annual Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-1	
Phosphorus, Total (as P)	mg/L	Max Max Max Max	0.94 0.94 1.41 1.88	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-1	
Oxygen, Dissolved (DO)	mg/L	Min	6.1	Single Sample	Daily; 24 hours	Calculated	CAL-2	
Temperature (C), Water	Deg C	Max	Report	Single Sample	Daily; 24 hours	Calculated	CAL-2	
Oxygen demand*, Ultimate	lb/day	Max	3718	Monthly Average	Monthly	Calculated	EFD-1	
BOD**, Carbonaceous 5 day, 20C	lb/day	Max	1000.0	Monthly Average	Monthly	Calculated	EFD-1	See I.A.6
Solids**, Total Suspended	lb/day	Max	4000.0	Monthly Average	Monthly	Calculated	EFD-1	See I.A.6
Nitrogen**, Kjeldahl, Total (as N)	lb/day	Max	500.0	Monthly Average	Monthly	Calculated	EFD-1	
Nitrogen**, Total	lb/day	Max	720.0	Monthly Average	Monthly	Calculated	EFD-1	
Phosphorus**, Total (as P)	lb/day	Max	220.0	Monthly Average	Monthly	Calculated	EFD-1	

*UOD = 8.34 x Flow mgd x (1.43 x CBOD5 mg/L + 4.57 x TKN mg/L)

**The monthly average mass discharge to the Little Econlockhatchee River shall not be exceeded.

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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-1	Sonic flow meter after chlorine contact chamber.
EFD-1	Sampling point after post aeration basin.
EFA-3	Manhole (splitter box) that distributes effluent flows to D-001, R-001, and R-002
EFD-3	Analyzer after post aeration basin.
EFA-1	Analyzer at end of chlorine contact chamber.
EFD-4	Analyzer located just before concrete channel outfall
CAL-2	calculated using the daily average of three samples taken approximately eight hours apart; effluent samples taken at EFD-4

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 discharge shall not contain components that, alone or in combination with other substances or in combination with other components of the discharge:
- Settle to form putrescent deposits or otherwise create a nuisance; or
 - Float as debris, scum, oil, or other matter in such amounts as to form nuisances; or
 - Produce color, odor, taste, turbidity, or other conditions in such degree as to create a nuisance; or
 - Are acutely toxic; or
 - Are present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant, locally occurring, wildlife or aquatic species, unless specific standards are established for such components in subsection 62-302.500(2) or Rule 62-302.530, F.A.C.; or
 - Pose a serious danger to the public health, safety, or welfare.
- [62-302.500(1)(a)]*
6. In accordance with subsections 62-600.420(1) and (2), F.A.C., the monthly average effluent CBOD5 and TSS concentrations shall not exceed 15% of their respective influent values (i.e., 85% removal). *[62-600.420(1) and (2)]*
7. The effluent limitations for the monthly geometric means for fecal coliform and E. coli are only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly geometric means shall be calculated and reported on the Discharge Monitoring Report, but shall not be used to determine compliance with the limitations for the monthly geometric means. The monthly geometric mean for fecal coliform shall be used to calculate the annual average. All other fecal coliform and E. coli effluent limitations included in permit condition I.A.1 apply regardless of the number of values reported. *[62-600.440(5)(b)] [62-302.530]*
8. To report the "90th percentile,"

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- 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 $\times$ 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 $\times$ 0.9 = 10.8, report the value of the 11th sample if rounding).

[62-600.440(5)(a)3] [62-302.530]

9. 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)]

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

a. Effluent Limitation

- (1) In any routine or additional follow-up test for chronic whole effluent toxicity, the 25 percent inhibition concentration (IC25) for reproduction or growth shall not be less than 100% effluent. [Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.]
- (2) For acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent in any test. [Rule 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]

b. Monitoring Frequency

- (1) Routine toxicity tests shall be conducted once every six months, the first starting within 60 days of the effective date of this permit and lasting for the duration of this permit.

c. Sampling Requirements

- (1) For each routine test or additional follow-up test conducted, a total of three 24-hr composite samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-013, Section 8.
- (2) The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.
- (3) Samples for routine and additional follow-up tests shall not be collected on the same day.

d. Test Requirements

- (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: **100%, 50%, 25%, 12.5%, and 6.25%** final effluent.
- (2) The permittee shall conduct a daphnid, **Ceriodaphnia dubia**, Survival and Reproduction Test and a fathead minnow, **Pimephales promelas**, Larval Survival and Growth Test, concurrently.
- (3) All test species, procedures and quality assurance criteria used shall be in accordance with **Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms**, 4th Edition, EPA-821-R-02-013. 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 chronic 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-02-013, Section 7.2.3.

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e. Quality Assurance Requirements

- (1) A standard reference toxicant (SRT) quality assurance (QA) chronic 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 chronic 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 20% for either species in any test or the "test acceptability criteria" are not met, the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-013, Section 13.12 (**Ceriodaphnia dubia**) and Section 11.11 (**Pimephales promelas**). The repeat test shall begin within 21 days after the last day of the invalid test.
- (3) If 100% mortality occurs in all effluent concentrations for either test species prior to the end of any test and the control mortality is less than 20% 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 observed dose-response relationship as required by EPA-821-R-02-013, Section 10.2.6., and the evaluation shall be 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 and Additional Follow-up Test Results: The calculated IC25 for reproduction or growth for each test species shall be entered on the DMR.
- (2) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-013, Section 10, 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-02-013, Section 10, 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 chronic 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.

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- (c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, and 6.25% 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 analyzed according to the procedures in EPA-821-R-02-013.
- (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 with 10.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-02-013, a repeat test shall be initiated within 21 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 21 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) If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 10.a.(2), the Department may revise this permit to require acute definitive whole effluent toxicity testing.
- (5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity failures.

[62-4.241, 62-620.620(3)]

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11. 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-002 to an unnamed ditch and thence to the St. Johns River. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.8.:

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (D-002 outfall)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-3	See I.A.13
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	10.0 10.0 15.0 20.0	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-5	See I.A.15
Solids, Total Suspended	mg/L	Max Max Max Max	15.0 15.0 22.5 30.0	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-5	See I.A.15
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Daily; 24 hours	Grab	EFD-6	
Nitrogen, Total	mg/L	Max Max Max Max	2.31 2.31 3.47 4.62	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-5	
Phosphorus, Total (as P)	mg/L	Max Max Max Max	0.20 0.20 0.30 0.40	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-5	
Oxygen, Dissolved (DO)	mg/L	Min	3.8	Annual Average	Daily; 24 hours	Grab	EFD-6	
Nitrogen*, Total	lb/day	Max	674.0	Monthly Average	Daily; 24 hours	24-hr FPC	EFD-5	
Phosphorus*, Total (as P)	lb/day	Max	58.0	Monthly Average	Daily; 24 hours	24-hr FPC	EFD-5	

*D-002 and D-003 combined

12. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.11. and as described below:

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Monitoring Site Number	Description of Monitoring Site
FLW-3	Recording flow meter and totalizer at outfall structure (D-002)
EFD-5	automatic sampler at outfall structure (D-002)
EFD-6	Sampling point at outfall structure (D-002)

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

14. 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-003 to an unnamed ditch and thence to the St. Johns River. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.8. :

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (D-003 outfall)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-4	See I.A.17
BOD, Carbonaceous 5 day, 20C	mg/L	Max	10.0 10.0 15.0 20.0	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-7	See I.A.26
Solids, Total Suspended	mg/L	Max	15.0 15.0 22.5 30.0	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-7	See I.A.26
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Daily; 24 hours	24-hr FPC	EFD-8	See I.A.16
Nitrogen, Total	mg/L	Max Max Max Max	2.31 2.31 3.47 4.62	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-7	
Phosphorus, Total (as P)	mg/L	Max Max Max Max	0.20 0.20 0.30 0.40	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFD-7	
Oxygen, Dissolved (DO)	mg/L	Min	3.8	Annual Average	Daily; 24 hours	Grab	EFD-8	
Nitrogen, Total	lb/day	Max	674.0	Monthly Average	Daily; 24 hours	24-hr FPC	EFD-7	
Phosphorus, Total (as P)	lb/day	Max	58.0	Monthly Average	Daily; 24 hours	24-hr FPC	EFD-7	

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*D-002 and D-003 combined

15. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.14. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-4	Recording flow meter and totalizer at outfall structure (D-003)
EFD-7	Automatic sampler at outfall structure (D-003)
EFD-8	Sampling point at outfall structure (D-003)

16. 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)]

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

18. Reclaimed water discharge limitations for the combination of the discharge from the Iron Bridge wastewater treatment plant to the Little Econlockhatchee River (Outfall D-001) and from the man-made wetlands system (Outfalls D-002 and D-003) to the St. John's River and/or to the natural wetlands system, shall be in accordance with Compliance Agreement 84-1024 for total mass loadings of nitrogen (total nitrogen $\leq$ 720 lbs./day) and phosphorus (total phosphorus $\leq$ 220 lbs./day) to Lake Harney, except for an additional 60 lbs./day of total nitrogen which may be discharged from the man-made wetlands system. The additional nitrogen loading allowed is a credit for reduction of non-point source loading (cattle pasture) which previously discharged directly from existing drainage ditches. For compliance determination, flow into the man-made wetlands system and the concentrations leaving the man-made wetlands system shall be utilized to calculate discharged pounds. [62-650.300]

19. In addition to the limitations indicated in Condition I.A. 11. and 15., the monthly average mass discharge from the man-made wetlands system shall comply with the following limitations:

<u>Parameter</u>	<u>Maximum Mass Loading (Lbs./day)</u>
Total Nitrogen	674.0
Total Phosphorus	58.0

20. Non-compliance with the limitations indicated in Conditions I.A. 8., 11., 15., 19., 20., and any other parameters included in applicable parts of Chapter 62-302, F.A.C., may require modifications to the treatment system to prevent violations of water quality standards.

21. Flow shall not be diverted (sheet flow) across the Seminole Ranch Wetlands unless requested to do so by the St. Johns River Water Management District. If flow is diverted to the Seminole Ranch Wetlands, the City shall document such occurrence as an attachment to the monthly Discharge Monitoring Reports (DMR), as applicable.

22. Compliance with the terms and conditions of the Exclusive License Agreement between the City and the St. Johns River Water Management District, dated June 20, 1986 or as amended, is required.

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23. The Department may develop a Total Maximum Daily Load (TMDL) for the Little Econlockhatchee River and/or St Johns River during the life of this permit. Once a TMDL for this water body has been established and adopted by rule, the Department shall revise this permit to incorporate the final findings of the TMDL, pursuant to Rule 62-620.325, Florida Administrative Code. [62-620.610(8)]
24. **For facilities that discharge to surface waters, effluent testing shall be conducted for each outfall in accordance with the instructions provided in Sections 3.A.12., 13., and 14. of the application form. A minimum of three samples shall be taken within four and one-half years prior to the date of the permit application and must be representative of the seasonal variation in the discharge from each outfall.” [62-620.335(1) and (2)]**
25. For D-001, the minimum effluent dissolved oxygen concentration shall be the daily average of three samples taken approximately eight (8) hours apart according to the following sliding scale:
- | Concentration (mg/L) | Temp. (°C) | Concentration (mg/L) | Temp. (°C) |
|----------------------|------------|----------------------|------------|
| 7.0 | ≤22 | 6.5 | 27 |
| 6.9 | 23 | 6.3 | 28 |
| 6.8 | 24 | 6.2 | 29 |
| 6.7 | 25 | 6.1 | ≥30 |
| 6.6 | 26 | | |
26. In accordance with subsections 62-600.420(1) and (2), F.A.C., the monthly average effluent CBOD5 and TSS concentrations shall not exceed 15% of their respective influent values (i.e., 85% removal). The percent removal should be meet comparing the influent quality at the plant vs. the plant effluent quality (to D-001 and R-001). [62-600.420(1) and (2)]

B. Reuse and Land Application Systems

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

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (To wetlands)	MGD	Max Max	35.0 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-2	See I.B.4
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	10.0 10.0 15.0 20.0	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFA-2	

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Parameter	Units	Max. /Min	Reclaimed Water Limitations		Monitoring Requirements			Notes
			Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	
Solids, Total Suspended	mg/L	Max Max Max Max	15.5 15.5 22.5 30.0	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFA-2	
Coliform, Fecal	#/100mL	Max Max Max Max	200 200 400 800	Annual Average Monthly Geometric Mean 90th Percentile Single Sample	Daily; 24 hours	Grab	EFA-3	See I.B.5 and I.B.6
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFA-2	See I.B.3
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	Continuous	Meter	EFA-2	See I.B.7 and I.B.3
Nitrogen, Total	mg/L	Max Max Max Max	6.0 6.0 9.0 12.0	Monthly Average Annual Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFA-2	
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Monthly Average	Daily; 24 hours	24-hr FPC	EFA-2	
Phosphorus, Total (as P)	mg/L	Max Max Max Max	0.75 0.75 1.13 1.50	Annual Average Monthly Average Weekly Average Single Sample	Daily; 24 hours	24-hr FPC	EFA-2	
Oxygen, Dissolved (DO)	mg/L	Max	Report	Monthly Average	Daily; 24 hours	Grab	EFD-9	

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

Monitoring Site Number	Description of Monitoring Site
FLW-2	Magnetic flow meter at wetland pumping station
EFA-2	Junction Box "D"
EFA-3	Manhole (splitter box) that distributes effluent flows to D-001, R-001 and R-002
EFD-9	Influent structure to the wetlands pumping station

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)]

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5. The effluent limitation for the monthly geometric mean for fecal coliform is only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly geometric mean shall be calculated and reported on the Discharge Monitoring Report to be used to calculate the annual average. All other fecal coliform effluent limitations included in permit condition I.B.1 apply regardless of the number of values reported. [62-600.440(5)(b)]
6. 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).

[62-600.440(5)(a)3]
7. Total residual chlorine must be maintained for a minimum contact time of 15 minutes based on peak hourly flow. [62-610.410][62-600.440(5)(c) and (6)(b)]
8. During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to direct reclaimed water to Reuse System R-002. Such reclaimed water shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.8.:

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (Public access reuse)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-5	See I.B.11
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	Daily; 24 hours	24-hr FPC	EFA-3	
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	Daily; 24 hours	Grab	EFA-3	
Coliform, Fecal	#/100mL	Max	25	Single Sample	Daily; 24 hours	Grab	EFA-3	
Coliform, Fecal, % less than detection	percent	Min	75	Monthly Total	Daily; 24 hours	Calculated	EFA-3	See I.B.12
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFA-3	See I.B.10

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			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Chlorine, Total Residual (For Disinfection)	mg/L	Min	1.0	Single Sample	Continuous	Meter	EFA-3	See I.B.13 and I.B.16
Turbidity	NTU	Max	Report	Single Sample	Continuous	Meter	EFB-1	See I.B.14 and I.B.16
Giardia	cysts/100 L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFA-3	See I.B.17
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFA-3	See I.B.17
Nitrogen, Total	mg/L	Max Max	Report Report	Annual Average Monthly Average	Monthly	24-hr FPC	EFA-3	See I.B.18
Phosphorus, Total (as P)	mg/L	Max Max	Report Report	Annual Average Monthly Average	Monthly	24-hr FPC	EFA-3	See I.B.18

9. Reclaimed water samples shall be taken at the monitoring site locations listed in Permit Condition I.B.8. and as described below:

Monitoring Site Number	Description of Monitoring Site
EFA-3	Manhole (splitter box) that distributes effluent flows to D-001, R-001, and R-002

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

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

12. 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)]

13. 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)]

14. 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)]

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15. 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: D-001 or R-001. [62-610.320(6) and 62-610.463(2)]
16. 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)]
17. Intervals between sampling for Giardia and Cryptosporidium shall not exceed two years. [62-610.463(4)]
18. Monitoring for Total Nitrogen and Total Phosphorus in the reclaimed water is being required state-wide to determine the impact of reclaimed water irrigation on surface and ground waters. [62-600.650(3)]

C. Other Limitations and Monitoring and Reporting Requirements

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

			Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (Total through plant)	MGD	Max Max Max	40 Report Report	Annual Average Monthly Average Quarterly Average	Continuous	Recording Flow Meter with Totalizer	INF-1	See I.C.4
Percent Capacity, (TMADE/Permitted Capacity) x 100	percent	Max	Report	Monthly Average	Monthly	Calculated	INF-1	
BOD, Carbonaceous 5 day, 20C (Influent)	mg/L	Max	Report	Single Sample	Daily; 24 hours	24-hr FPC	INF-2	See I.C.3
Solids, Total Suspended (Influent)	mg/L	Max	Report	Single Sample	Daily; 24 hours	24-hr FPC	INF-2	See I.C.3

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

Monitoring Site Number	Description of Monitoring Site
INF-1	Influent meter outside the master pump station
INF-2	Automatic sampler at master pump station.

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)]

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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 December 1, 2022.** 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	28 th day of following month
Once Every Two Months	January 1 - February 28/29	March 28

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REPORT Type on DMR	Monitoring Period	Submit by
	March 1 - April 30 May 1 - June 30 July 1 - August 31 September 1 - October 31 November 1 - December 31	May 28 July 28 September 28 November 28 January 28
Quarterly	January 1 - March 31 April 1 - June 30 July 1 - September 30 October 1 - December 31	April 28 July 28 October 28 January 28
Semiannual	January 1 - June 30 July 1 - December 31	July 28 January 28
Annual	January 1 - December 31	January 28

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

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

9. During the period of operation authorized by this permit, reclaimed water or effluent shall be monitored annually for the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., (except for asbestos, total coliform, color, odor, and residual disinfectants). These monitoring results shall be reported to the Department annually on the DMR. During years when a permit is not renewed, a certification stating that no new non-domestic wastewater dischargers have been added to the collection system since the last reclaimed water or effluent analysis was conducted may be submitted with the signed DMR in lieu of performing the analysis. When such a certification is submitted with the DMR, monitoring not required this period should be noted on the DMR. The annual reclaimed water or effluent analysis report, and certification if applicable, shall be completed and submitted in a timely manner so as to be received by the Department at the address identified on the DMR by January 28 of each year. Approved analytical methods identified in Rule 62-620.100(3)(j), F.A.C., shall be used for the analysis. If no method is included for a parameter, methods specified in Chapter 62-550, F.A.C., shall be used. [62-600.660(2) and (3)(d)][62-600.680(2)][62-610.300(4)]
10. The permittee shall submit an Annual Reuse Report using DEP Form 62-610.300(4)(a)2. on or before January 1 of each year. [62-610.870(3)]
11. Operating protocol(s) shall be reviewed and updated periodically to ensure continuous compliance with the minimum treatment and disinfection requirements. Updated operating protocols shall be submitted to the Department's Central District Office for review and approval upon revision of the operating protocol(s) and with each permit application. [62-610.320(6)][62-610.463(2)]
12. The permittee shall maintain an inventory of storage systems. The inventory shall be submitted to the Department's Central District Office at least 30 days before reclaimed water will be introduced into any new storage system. The inventory of storage systems shall be attached to the annual submittal of the Annual Reuse Report. [62-610.464(5)]
13. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Central District Office at the address specified below:

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Electronic submittals sending to DEP_CD@dep.state.fl.us.

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

Phone Number - (407)897-4100

[62-620.305]

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

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Little Econlockhatchee River and St. John's River Water Quality Monitoring Requirements

15. During the period beginning on the issuance date and lasting through the expiration date of this permit, water quality monitoring shall be performed by the permittee in the Little Econlockhatchee River and the St. Johns River as specified below:

			Monitoring Requirements							
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Depth
Flow (River)	MGD	Max.	—	—	—	Report	Monthly	USGS DATA	Near SWB-1, SWD-2 and SWU-3	0.6 depth
pH	std. units	Min./Max.	—	—	—	Report	Monthly	Grab	Each sampling station	Mid-depth
Carbonaceous Biochemical Oxygen Demand (5 day)	mg/L	Max.	—	—	—	Report	Monthly	Grab	Each sampling station	Mid-depth
Conductivity	uhmos	Max.	—	—	—	Report	Monthly	Grab	Each sampling station	Mid-depth
Oxygen, Dissolved (DO), Field	mg/L	Min.	—	—	—	Report	Monthly	Grab	Each sampling station	Mid-depth
NH ₃ -Nitrogen, Total as N	mg/L	Max.	—	—	—	Report	Monthly	Grab	Each sampling station	Mid-depth
Unionized Ammonia as N	mg/L	Max.	—	—	—	Report	Monthly	Calculated	Each sampling station	-
Total Kjeldahl Nitrogen as N	mg/L	Max.	—	—	—	Report	Monthly	Grab	Each sampling station	Mid-depth
Nitrite- Nitrate as N	mg/L	Max.	—	—	—	Report	Monthly	Grab	Each sampling station	Mid-depth
Phosphorus, Total as P	mg/L	Max.	—	—	—	Report	Monthly	Grab	Each sampling station	Mid-depth
Temperature	°(C)	Report	—	—	—	Report	Monthly	Reading	Each sampling station	Mid-depth
Chlorophyll-a	mg/m3	Report	—	—	—	Report	Monthly	Grab	Each sampling station	Mid-secchi

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16. In-stream surface water samples shall be taken at each of the monitoring site locations described below:

Monitoring Location Site Number	Description of Monitoring Location
SWB-1	Station R-1 at S.R. 50 bridge over the St. Johns River.
SWD-2	Station R-5 downstream of S.R. 46 bridge over the St. Johns River.
SWU-3	Station #3 at a point upstream from discharge Outfall D-001.
SWD-4	Station #4 at a point downstream from discharge Outfall D-001.
SWB-Background SWD-Downstream SWP-Upstream	

[62-650.500(5)(a)1 and 62-611.700(1)]

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Man-made Wetlands Water Quality Monitoring

17. During the period beginning on the issuance date and lasting through the expiration date of this permit, water quality monitoring shall be performed by the permittee within the man-made wetlands as specified below, as a minimum:

			Monitoring Requirements							
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Temperature	°(C)	Report	–	–	–	Report	Monthly	Reading	Each sampling station	See Cond I.C.18.
pH	std. units	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Alkalinity	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Oxygen, Dissolved (DO), Field	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Conductivity	uhmos	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
TOC	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Carbonaceous Biochemical Oxygen Demand (5 day)	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Total Suspended Solids	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Phosphorus, Total as P	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Ortho-Phosphorus, Total as P	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Nitrogen, Total as N	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Unionized Ammonia as N	mg/L	Report	–	–	–	Report	Monthly	Calculated	Each sampling station	See Cond I.C.18.
Ammonia Nitrogen, as N	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.

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Man-made Wetlands Water Quality Monitoring (cont.)

			Monitoring Requirements							
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Total Kjeldahl Nitrogen as N	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
(NO ₃ + NO ₂) Nitrogen, Total as N	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Chloride /Sulfate	mg/L	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
Chlorophyll-a	mg/m3	Report	–	–	–	Report	Monthly	Grab	Each sampling station	See Cond I.C.18.
* Heavy Metals (Cu, Pb, Zn, Hg, Cr (Total), Cd, Fe, Al, Sb, As, Ba, Be, B, Mn, Ni, Se, Ag, Tl)	mg/L	Report	–	–	–	Report	Semi-annually	Grab	Each sampling station	See Cond I.C.18.
Hardness, total	mg/L as CaCO ₃	Report	–	–	–	Report	Semi-annually	Grab	Each sampling station	See Cond I.C.18.
Pesticide Scan	mg/L	Report	–	–	–	Report	Semi-annually	Grab	Each sampling station	See Cond I.C.18.
Purgeable Organic Halides	mg/L	Report	–	–	–	Report	Semi-annually	Grab	Each sampling station	See Cond I.C.18.
Flow	mgd	Report	–	–	–	Report	Continuous	Flow Meter	Inlet & Outlet of Man-made Wetlands	See Cond I.C.18.
Rainfall	inches	Report	–	–	–	Report	Daily	Gauge	Outlet of Man-made Wetlands	See Cond I.C.18.

* For those parameters where the water quality limit is hardness based, Chapter 62-302, F.A.C. specifies a calculation in which $\ln H$ is the natural logarithm of the total hardness expressed as mg/l CaCO₃. The hardness value resulting from the monitoring requirements above shall be used. The equations can only be applied for hardness in the range of 25 mg/l to 400 mg/l as CaCO₃. If analysis of the effluent reveals a Total Hardness less than 25 mg/l CaCO₃, use 25 mg/l for Total Hardness. If the Total Hardness is above 400 mg/l CaCO₃, then use 400 mg/l in the calculation. If the reported effluent value for the above referenced total recoverable metal exceeds the calculated values, then it shall constitute a violation of the effluent limitation.

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18. Surface water samples shall be taken at the each of the monitoring site locations described below:

Monitoring Location Site Number	Description of Monitoring Location
SWU-1	Station WP1: Inflow to the man-made wetlands system
SWD-1	Station WP2: Discharge from the deep marsh
SWD-2	Station MM7: Discharge from the mixed marsh
SWD-3	Station HS9: Floating site on Lake Searcy
SWD-5	Station HS10: Discharge from the man-made wetlands system

19. An annual report on the monitoring program specified in Permit Conditions I.C.15 and I.C.17., shall be prepared and submitted to the Department and to the St. Johns River Water Management District. [62-611.700(1)]
20. Operational monitoring of the man-made wetlands system shall be conducted in accordance with Conditions I.C.17. of this permit and the previously approved quality assurance plans. [62-611.700(1)]

II. BIOSOLIDS MANAGEMENT REQUIREMENTS

A. Basic Requirements

- Biosolids generated by this facility may be either lime stabilized to comply with Class B requirements and land applied, transferred to Shelley's BTF, Florida N-Viro BTF, nuTerra SE Organics BTF, Compost USA BTF, or Solar Organite BTF, transferred to Shelley's BTF, Florida N-Viro BTF, nuTerra SE Organics BTF, Compost USA BTF, or Solar Organite BTF, or disposed of in a Class I solid waste landfill. Transferring biosolids to an alternative biosolids treatment facility does not require a permit modification. However, use of an alternative biosolids treatment facility requires submittal of a copy of the agreement pursuant to Rule 62-640.880(1)(c), F.A.C., along with a written notification to the Department at least 30 days before transport of the biosolids. [62-620.320(6), 62-640.880(1)]
- 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.C.8.

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

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

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

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Monitoring Site Number	Description of Monitoring Site Calculations
RMP-1	Biosolids after final treatment or leaving the facility.

- 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)]
- Storage of biosolids or other solids at this facility shall be in accordance with the Facility Biosolids Storage Plan. [62-640.300(4)]
- Biosolids shall not be spilled from or tracked off the treatment facility site by the hauling vehicle. [62-640.400(9)]

B. Treatment and Monitoring Requirements

- The permittee is authorized to produce Class B biosolids.
- The permittee shall achieve Class B pathogen reduction by meeting the pathogen reduction requirements in section 503.32(b)(3) (Use of PSRP (Processes to Significantly Reduce Pathogens)-Lime Stabilization) of Title 40 CFR Part 503. [62-640.600(1)(b)]
- The permittee shall achieve vector attraction reduction for Class A or B biosolids by meeting the vector attraction reduction requirements in section 503.33(b)(6) (Add alkaline materials to raise the pH under specified conditions) of Title 40 CFR Part 503. [62-640.600(2)(a)]
- PH and time shall be routinely monitored to demonstrate compliance with pathogen reduction requirements specified in Rule 62-640.600, F.A.C. [62-640.650(3)(a)2]
- PH and time shall be routinely monitored to demonstrate compliance with vector attraction reduction requirements specified in Rule 62-640.600, F.A.C. [62-640.650(3)(a)2]
- Treatment of liquid biosolids or septage for the purpose of meeting the pathogen reduction or vector attraction reduction requirements set forth in Rule 62-640.600, F.A.C., shall not be conducted in the tank of a hauling vehicle. Treatment of biosolids or septage for the purpose of meeting pathogen reduction or vector attraction reduction requirements shall take place at the permitted facility. [62-640.400(7)]
- Class B biosolids shall comply with the limits and be monitored by the permittee as specified below. Results shall be reported on the permittee's Discharge Monitoring Report in accordance with Permit Condition I.C.8. Biosolids shall not be land applied if a single sample result for any parameter exceeds the following:

Parameter	Units	Max. /Min	Biosolids Limitation		Monitoring Requirements			Notes
			Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	
Nitrogen, Sludge, Tot, Dry Wt (as N)	percent	Max	Report	Single Sample	Monthly	Composite	RMP-B	
Phosphorus, Sludge, Tot, Dry Wt (as P)	percent	Max	Report	Single Sample	Monthly	Composite	RMP-B	
Potassium, Sludge, Tot, Dry Wt (as K)	percent	Max	Report	Single Sample	Monthly	Composite	RMP-B	
Arsenic Total, Dry Weight, Sludge	mg/kg	Max	75.0	Single Sample	Monthly	Composite	RMP-B	
Cadmium, Sludge, Tot, Dry Weight (as Cd)	mg/kg	Max	85.0	Single Sample	Monthly	Composite	RMP-B	

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Parameter	Units	Max. /Min	Biosolids Limitation		Monitoring Requirements			Notes
			Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	
Copper, Sludge, Tot, Dry Wt. (as Cu)	mg/kg	Max	4300.0	Single Sample	Monthly	Composite	RMP-B	
Lead, Dry Weight, Sludge	mg/kg	Max	840.0	Single Sample	Monthly	Composite	RMP-B	
Mercury, Dry Weight, Sludge	mg/kg	Max	57.0	Single Sample	Monthly	Composite	RMP-B	
Molybdenum, Dry Weight, Sludge	mg/kg	Max	75.0	Single Sample	Monthly	Composite	RMP-B	
Nickel, Dry Weight, Sludge	mg/kg	Max	420.0	Single Sample	Monthly	Composite	RMP-B	
Selenium Sludge Solid	mg/kg	Max	100.0	Single Sample	Monthly	Composite	RMP-B	
Zinc, Dry Weight, Sludge	mg/kg	Max	7500.0	Single Sample	Monthly	Composite	RMP-B	
pH	s.u.	Max	Report	Single Sample	Monthly	Grab	RMP-B	
Solids, Total, Sludge, Percent	percent	Max	Report	Single Sample	Monthly	Composite	RMP-B	
Calcium Carbonate Equivalent	percent	Max	Report	Single Sample	Bi-monthly; every 2 months	Composite	RMP-B	

[62-640.650(3)(a)(3) and 62-640.700(5)(a)]

8. Sampling and analysis shall be conducted in accordance with 40 CFR Part 503.8 and the U.S. Environmental Protection Agency publication - POTW Sludge Sampling and Analysis Guidance Document, August 1989. In cases where conflicts exist between 40 CFR 503.8 and the POTW Sludge Sampling and Analysis Guidance Document, the requirements in 40 CFR Part 503.8 will apply. [62-640.650(3)(a)1]
9. All samples shall be representative and shall be taken after final treatment of the biosolids but before land application or distribution and marketing. [62-640.650(3)(a)5]
10. Biosolids samples shall be taken at the monitoring site locations listed in Permit Condition II.7 and as described below:

Monitoring Site Number	Description of Monitoring Site
RMP-B	Final biosolids after stabilization.

C. Land Application at Permitted Sites

1. Land application of biosolids at the site shall be in accordance with the site permit, the Nutrient Management Plan, and the requirements of Chapter 62-640, F.A.C. [62-640]
2. The biosolids from this facility shall only be land applied at sites identified on the Treatment Facility Biosolids Plan, Form 62-640.210(2)(a), submitted with the permit application or revised in accordance with condition II.3 below, which is incorporated as part of this permit. [62-640.300(2)]
3. The permittee shall notify the Department at least 24 hours before beginning biosolids application at a site not listed in the Treatment Facility Biosolids Plan Form 62-640.210(2)(a). The facility's Treatment Facility Biosolids Plan shall be revised to include the new site and submitted to the Department within 30 days of using the site. The revised Treatment Facility Biosolids Plan shall become part of the treatment facility permit. [62-640.300(2)(c) & 62-640.650(6)(a)]

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4. Land application of "other solids" as defined in Chapter 62-640, F.A.C., is only allowed if specifically addressed in the Nutrient Management Plan(s) approved for the site where the other solids will be applied. [62-640.860]
5. The permittee shall maintain hauling records to track the transport of biosolids between the treatment facility and the application site. The hauling records for each party shall contain the following information:

Treatment Facility Permittee

1. Date and time shipped and shipment ID
2. Amount of biosolids shipped
3. Concentration of parameters & date of analysis
4. Name and ID number of permitted application site
5. Class of biosolids shipped
6. Signature of certified operator or designee
7. Signature of hauler and name of hauling firm

Site Permittee

1. Date and time received and shipment ID
2. Name and ID number of treatment facility from which biosolids are received
3. Signature of hauler
4. Signature of site manager

A copy of the treatment facility hauling records for each shipment shall be provided upon delivery of the biosolids to the biosolids site manager. The permittee shall report to the Department within 24 hours of discovery of any discrepancy in the delivery of biosolids leaving the treatment facility and arriving at the permitted application site. Treatment facility permittees shall notify the Department, site manager, and site permittee within 24 hours of discovery of sending biosolids that did not meet the requirements of Rule 62-640.600, F.A.C., or subsection 62-640.700(5), F.A.C., to a land application site.

[62-640.650(4) & (5)]

6. The permittee shall maintain copies of the Biosolids Application Site Annual Summaries, received from site permittees in accordance with 62-640.650(5)(e), F.A.C., indefinitely. [62-640.650(4)(d)]
7. The permittee shall submit a Treatment Facility Biosolids Annual Summary to the Department's Central District Office on Department Form 62-640.210(2)(b). The summary shall include all biosolids shipped during the period January 1 through December 31 and shall be submitted to the Department by February 19 of the year following the year of application. [62-640.650(5)(c)]

D. Disposal

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

E. Transfer

1. The permittee shall not be held responsible for treatment and management violations that occur after its biosolids have been accepted by a permitted biosolids treatment facility with which the source facility has an agreement in accordance with subsection 62-640.880(1)(c), F.A.C., for further treatment, management, or disposal. [62-640.880(1)(b)]
2. The permittee shall keep hauling records to track the transport of biosolids between the facilities. The hauling records shall contain the following information:

Source Facility

1. Date and time shipped
2. Amount of biosolids shipped

Biosolids Treatment Facility or Treatment Facility

1. Date and time received
2. Amount of biosolids received

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- | Source Facility | Biosolids Treatment Facility or Treatment Facility |
|--|---|
| 3. Degree of treatment (if applicable) | 3. Name and ID number of source facility |
| 4. Name and ID Number of treatment facility | 4. Signature of hauler |
| 5. Signature of responsible party at source facility | 5. Signature of responsible party at treatment facility |
| 6. Signature of hauler and name of hauling firm | |

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

[62-640.880(4)]

F. Receipt

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

III. GROUND WATER REQUIREMENTS

A. Construction Requirements

1. The permittee shall give at least 72-hour notice to the Department's Central District Office, prior to the installation of any monitoring wells. [62-520.600(6)(h)]
2. Before construction of new ground water monitoring wells, a soil boring shall be made at each new monitoring well location to properly determine monitoring well specifications such as well depth, screen interval, screen slot, and filter pack. [62-520.600(6)(g)]
3. Within 30 days after installation of a monitoring well, the permittee shall submit to the Department's Central District Office well completion reports and soil boring/lithologic logs on the attached DEP Form(s) 62-520.900(3), Monitoring Well Completion Report. [62-520.600(6)(j) and .900(3)]
4. All piezometers and monitoring wells not part of the approved ground water monitoring plan shall be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C., unless future use is intended. [62-532.500(5)]

B. Operational Requirements

1. For the Part II land application system(s), all ground water quality criteria specified in Chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge. The zone of discharge for Land Application Site R-001 shall extend horizontally 100 feet from the application site and vertically to the base of the surficial aquifer. [62-520.200(27)] [62-520.465]

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2. 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)]
3. If the concentration for any constituent listed in Permit Condition III.6. 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)]
4. 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.5., below in accordance with this permit and the approved ground water monitoring plan prepared in accordance with Rule 62-520.600, F.A.C. [62-520.600] [62-610.412]
5. The following monitoring wells shall be sampled for Reuse System R-001 located at Land Application Site RAA-001.

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Latitude	Longitude	Depth (Feet)	Aquifer Monitored	Well Type	New or Existing
MWB-1	#6758, surficial existing, 11ft deep	28°33' 50"	81°0' 47"	11	Surficial	Background	Existing
MWC-2R	#6757, surficial, existing, 12ft deep	28°35' 1"	80°59' 50"	12	Surficial	Compliance	Existing
MWC-3	#6756, surficial, existing, 15ft deep	28°34' 59"	80°59' 14"	15	Surficial	Compliance	Existing
MWC-4	#6755, surficial, existing, 8ft deep	28°34' 27"	80°58' 58"	8	Surficial	Compliance	Existing
MWC-5R	IRON BRIDGE-WETLANDS/COMPLIANCE MW-5	28°33' 0"	81°26' 0"	20	Surficial	Compliance	Existing

[62-520.600] [62-610.412]

6. The following parameters shall be analyzed for each monitoring well identified in Permit Condition III.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)	945	mg/L	Grab	Quarterly
Chloride (as Cl)	400	mg/L	Grab	Quarterly
Coliform, Fecal	4	#/100mL	Grab	Quarterly
pH	6.5-8.5	s.u.	Grab	Quarterly
Turbidity	Report	NTU	Grab	Quarterly

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

7. Water levels shall be recorded before evacuating each well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NAVD allowable) at a precision of plus or minus 0.01 foot. [62-520.600(11)(c)] [62-610.412(2)(c)]
8. Ground water monitoring wells shall be purged prior to sampling to obtain representative samples. [62-160.210] [62-600.670(3)]
9. 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)]

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10. Ground water monitoring test results shall be submitted on Part D of Form 62-620.910(10) in accordance with Permit Condition I.C.8. [62-520.600(11)(b)] [62-600.670] [62-600.680(1)] [62-620.610(18)]
11. 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)]
12. The permittee shall sample the following monitoring well(s): MWC-3 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. Use of reclaimed water is authorized within the general service area identified in the attached map. The following uses of reclaimed water are authorized within this general service area:

Aesthetic Purposes (Decorative Ponds, Pools, and Fountains)
Agricultural Irrigation (Other Than Edible Crops)
Athletic Complexes and Parks
Business, Commercial and Industrial Parks
Construction Dust Control
Edible Crop Irrigation
Golf Courses
Industrial Uses (Cooling Water, Process Water, and Wash Water at Industrial Facilities)
Industrial Uses at the WWTP (Cooling Water, Process Water, and Wash Water)
Other Landscape Irrigation
Residential Developments
Retail Nurseries, Ferneries, and Sod Farms
Universities

[62-620.630(10)(a)]

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

Site Number	User Name	User Type	Capacity (MGD)	Acreage
PAA-1	University of Central Florida	Universities	3.3	0
PAA-002N	Orange County Utilities	General Service Area	4.0	0
PAA-002P	UCF Research Park	Business, Commercial and Industrial Parks	1.0	0
PAA-002Q	City of Orlando	General Service Area	7.3	0
RAA-002R	Seminole County	General Service Area	4.7	0
Total			20.3	0

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

3. The permittee shall maintain an inventory of commercial agricultural operations using reclaimed water to irrigate edible crops. An updated inventory shall be submitted to the Central District Office at least 30 days prior to addition of an agricultural operation and with the annual reuse report required by Permit Condition I.I.C.I.C.8. *[62-610.475(5) and 62-610.870(3)]*
4. New major users of reclaimed water (i.e., using 0.1 MGD or more) may be added to the reuse system using the general permit described in Rule 62-610.890, F.A.C., if the requirements in this rule are complied with. Application for use of this general permit shall be made using Form 62-610.300(4)(a)1. *[62-610.890]*
5. Cross-connections to the potable water system are prohibited. *[62-610.469(7)]*
6. 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)]*
7. 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)]*
8. If an actual or potential (e.g. no dual check device on residential connections served by a reuse system) cross-connection between the potable and reclaimed water systems is discovered, the permittee shall:
 - a. Immediately discontinue potable water and/or reclaimed water service to the affected area if an actual cross-connection is discovered.
 - b. If the potable water system is contaminated, clear the potable water lines.
 - c. Eliminate the cross-connection and install a backflow prevention device as required by the Rule 62-555.360, F.A.C.
 - d. Test the affected area for other possible cross-connections.
 - e. Within 24 hours, notify the Department's Central District Office's domestic wastewater and drinking water programs.
 - f. Within 5 days of discovery of an actual or potential cross-connection, submit a written report to the Department's Central District Office detailing: a description of the cross-connection, how the cross-connection was discovered, the exact date and time of discovery, approximate time that the cross-connection existed, the location, the cause, steps taken to eliminate the cross-connection, whether reclaimed water was consumed, and reports of possible illness, whether the drinking water system was contaminated and the steps taken to clear the drinking water system, when the cross-connection was eliminated, plan of action for testing for other possible cross-connections in the area, and an evaluation of the cross-connection control and inspection program to ensure that future cross-connections do not occur.

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

9. 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)]*
10. 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)]*

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11. 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)]*
12. Reclaimed water shall not be used to fill swimming pools, hot tubs, or wading pools. *[62-610.469(4)]*
13. 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)]*
14. 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)]*
15. 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)]*
16. 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]*
17. 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)]*
18. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required. *[62-610.414(8)]*
19. 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

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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. The application to renew this permit shall include an updated capacity analysis report prepared in accordance with Rule 62-600.405, F.A.C. [62-600.405(5)]
2. The application to renew this permit shall include a detailed operation and maintenance performance report prepared in accordance with Rule 62-600.735, F.A.C. [62-600.735(1)]

C. Recordkeeping Requirements

1. The permittee shall maintain the following records and make them available for inspection 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 this permit for at least three years from the date the report was prepared;
 - c. Records of all data, including reports and documents, used to complete the application for this permit for at least three years from the date the application was filed;
 - d. Monitoring information, including a copy of the laboratory certification showing the laboratory certification number, related to the residuals use and disposal activities for the time period set forth in Chapter 62-640, F.A.C., for at least three years from the date of sampling or measurement;
 - e. A copy of the current wastewater facility permit;
 - f. Copies of the current operation and maintenance manuals for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee as required by Chapters 62-600 and 62-604, F.A.C.;
 - g. A copy of any required record drawings for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee;
 - h. Copies of the licenses of the current certified operators;
 - i. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules. The logs shall, at a minimum, include identification of the plant; the signature and license number of the operator(s) and the signature of the person(s) making any entries; date and time in and out; specific operation and maintenance activities, including any preventive maintenance or repairs made or requested; results of tests performed and samples taken, unless documented on a laboratory sheet; and notation of any notification or reporting completed in accordance with Rule 62-602.650(3), F.A.C. The logs shall be maintained on-site in a location accessible to 24-hour inspection, protected from weather damage, and current to the last operation and maintenance performed; and
 - j. Records of biosolids quantities, treatment, monitoring, and hauling for at least five years.

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

VI. SCHEDULES

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

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Improvement Action	Completion Date
1. The permittee shall submit the first set of expanded effluent results*.	By July 31, 2022
2. The permittee shall submit the second set of expanded effluent results*.	By Oct 31, 2023
3. The permittee shall submit the third set of expanded effluent results*.	By December 21, 2024
4. Contact FDEP DEAR section regarding revised river sampling locations and incorporate new sampling locations and additional biological sampling into your river sampling plan.	Within 12 months of permit issuance

***The Facility is not required to force a discharge for the sole purpose of collecting samples, so samples should be collected early in date range when discharging.**

[62-620.320(6)]

2. 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.

Please note, effluent testing shall be conducted for each outfall in accordance with the instructions provided in Sections 3.A.12., 13., and 14. of the application form. A minimum of three samples shall be taken within four and one-half years prior to the date of the permit application and must be representative of the seasonal variation in the discharge from each outfall. [62-620.335(1) - (4)]

VII. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

A. Implementation Requirements

1. The permittee shall function as the Control Authority and shall be responsible for the performance of all pretreatment program requirements contained in Chapter 62-625, F.A.C. The permittee shall be subject to enforcement actions, penalties, and other remedies by the Department or other appropriate parties. The permittee shall implement and enforce its Approved Pretreatment Program. The permittee's Approved Pretreatment Program is hereby made an enforceable condition of this permit. The Department may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements. [62-625.500]
2. The permittee shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Act. The permittee shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of new industrial users, upon commencement of the discharge. [62-625.410]
3. The permittee shall perform the pretreatment functions as required in Chapter 62-625, F.A.C., including, but not limited to, the following:
 - a. Implementing the necessary legal authorities as provided in Rule 62-625.500(2)(a), F.A.C. This includes, among other things, the authority to require compliance with applicable pretreatment standards, which includes general prohibitions listed in Rule 62-625.400(1), F.A.C., specific prohibitions in Rule 62-625.400(2), F.A.C., locally developed limits as required by Rules 62-625.400(3) and (4), F.A.C., and national categorical limits in accordance with Rule 62-625.410, F.A.C.;
 - b. Implementing the programmatic functions as required under Rule 62-625.500(2)(b), F.A.C.;
 - c. Providing the required funding, equipment, and personnel to implement the pretreatment program as provided in Rules 62-625.500(2), (3), and (4), F.A.C.; and

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- d. Providing a written technical evaluation that local limits have been developed in accordance with Rule 62-625.400(3)(a), F.A.C. The evaluation shall verify whether existing local limits protect the wastewater facilities, and if not, the permittee shall develop new local limits as part of the evaluation in accordance with Rule 62-625.600(16), F.A.C. For new local limits, a plan of study shall be submitted to the Department prior to initiating sampling required to develop the new local limits. This evaluation shall be submitted to the Department at the address in the condition below within 180 days after permit renewal.

[62-625.400 and .500]

4. As required by Rules 62-625.600(8) and (12), F.A.C., the permittee shall submit a signed copy of the annual report for pretreatment activities, including DMRs for Monitoring Site Numbers PRT-I, PRT-E, and PRT-R for this facility and for all facilities covered by the permittee's pretreatment program, to the Department at the following address:

Florida Department of Environmental Protection
Domestic Wastewater Section, Mail Station 3540
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

The annual report shall contain the information required in accordance with Rule 62-625.600(8), F.A.C., except section (8)(f) as noted below, and shall describe the permittee's pretreatment activities, including those of all covered facilities, for the reporting year. In the event that the permittee is not in compliance with any conditions or requirements of the pretreatment program, then the permittee shall also include the reasons for noncompliance and state how and when the permittee shall comply with such conditions and requirements.

In order to comply with Rule 62-625.600(8)(f), F.A.C., the permittee shall submit annual DMRs with the analytical results of influent, effluent, and residuals for those pollutants listed on the DMRs. For any other nonpriority pollutants which the permittee believes may be causing or contributing to interference, pass through, or adversely impacting residuals quality, the annual report shall provide a summary of all analytical results of influent, effluent, and residuals. The annual report and DMRs are due on May 1 of each year, to cover a period between January 1 to December 31. *[62-625.600(8) and (12)]*

5. In addition to the Orlando/Iron Bridge Regional WRF (FL0037966), the following facilities are covered by the Orlando/Iron Bridge Regional WRF pretreatment program:

Orlando - Conserv II WRF
Orlando/Conserv I WWTF

6. Samples for Monitoring Site Numbers PRT-I, PRT-E, and PRT-R shall be taken at the monitoring site locations described below:

Monitoring Location Site Number	Description of Monitoring Location
PRT-I	Influent to WWTF
PRT-E	Effluent from chlorine contact chamber
PRT-R	Biosolids prior to stabilization

VIII. OTHER SPECIFIC CONDITIONS

- 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)]*
- In the event that the wastewater facilities or equipment, including collection/transmission systems, no longer function as intended, are no longer safe in terms of public health and safety (including inactive or abandoned

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facilities), or odor, noise, aerosol drift, or lighting adversely affects neighboring developed areas at the levels prohibited by paragraphs 62-600.400(2)(a) and 62-604.400(2)(c), F.A.C., corrective action (which may include additional maintenance or modifications of the permitted facilities) shall be taken by the permittee. Other corrective action may be required to ensure compliance with rules of the Department. Additionally, the treatment, management, use or land application of residuals shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. [62-600.410(5), 62-604.500(3) and 62-640.400(6)]

3. All collection/transmission systems shall be operated and maintained so as to provide uninterrupted service. [62-604.500(2)]
4. The deliberate introduction of stormwater in any amount into collection/transmission systems designed solely for the introduction (and conveyance) of domestic/industrial wastewater; or the deliberate introduction of stormwater into collection/transmission systems designed for the introduction or conveyance of combinations of storm and domestic/industrial wastewater in amounts which may reduce the efficiency of pollutant removal by the treatment plant is prohibited, except as provided by Rule 62-610.472, F.A.C. [62-604.130(3)]
5. Cross-connection, as defined in Rule 62-550.200, F.A.C., between the wastewater facility, including the collection/transmission system, and a potable water system is prohibited. [62-550.360][62-604.130(3)]
6. The collection/transmission operation and maintenance manual shall be maintained and revised periodically in accordance with subsection 62-604.500(4), F.A.C., to reflect any alterations performed or to reflect experience resulting from operation. However, a new operation and maintenance manual is not required to be developed for each project if there is already an existing manual that is applicable to the facilities being constructed. [62-604.500(4)]
7. Collection/transmission system overflows shall be reported to the Department in accordance with Permit Condition IX. 20. [62-604.550] [62-620.610(20)]
8. The operating authority of a collection/transmission system and the permittee of a treatment plant are prohibited from accepting connections of wastewater discharges which have not received necessary pretreatment or which contain materials or pollutants (other than normal domestic wastewater constituents):
 - a. Which may cause fire or explosion hazards; or
 - b. Which may cause excessive corrosion or other deterioration of wastewater facilities due to chemical action or pH levels; or
 - c. Which are solid or viscous and obstruct flow or otherwise interfere with wastewater facility operations or treatment; or
 - d. Which result in the wastewater temperature at the introduction of the treatment plant exceeding 40°C or otherwise inhibiting treatment; or
 - e. Which result in the presence of toxic gases, vapors, or fumes that may cause worker health and safety problems.[62-604.130(5)]
9. The treatment facility, storage ponds for Part II systems, rapid infiltration basins, and/or infiltration trenches shall be enclosed with a fence or otherwise provided with features to discourage the entry of animals and unauthorized persons. [62-610.418(1) and 62-600.400(2)(b)]
10. Screenings and grit removed from the wastewater facilities shall be collected in suitable containers and hauled to a Department approved Class I landfill or to a landfill approved by the Department for receipt/disposal of screenings and grit. [62-701.300(1)(a)]

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11. Where required by Chapter 471 or Chapter 492, F.S., applicable portions of reports that must be submitted under this permit shall be signed and sealed by a professional engineer or a professional geologist, as appropriate. [62-620.310(4)]
12. The permittee shall provide verbal notice to the Department's Central District Office as soon as practical after discovery of a sinkhole or other karst feature within an area for the management or application of wastewater, wastewater residuals (sludges), or reclaimed water. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department's Central District Office in a written report within 7 days of the sinkhole discovery. [62-620.320(6)]

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

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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

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and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

- a. A description of the anticipated noncompliance;
- b. The period of the anticipated noncompliance, including dates and times; and
- c. Steps being taken to prevent future occurrence of the noncompliance.

[62-620.610(17)]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246 and Chapters 62-160, 62-600, and 62-610, F.A.C., and 40 CFR 136, as appropriate.
 - a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.
 - b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
 - c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
 - d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.
 - e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.
 - f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220, and 62-160.330, F.A.C.

[62-620.610(18)]

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. [62-620.610(19)]
20. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. For noncompliance events related to sanitary sewer overflows or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (sanitary sewer overflows or bypass events), type of sewer overflow (e.g., manhole), discharge volumes by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. The written submission may be provided electronically using the Department's Business Portal at <http://www.fldepportal.com/go/> (via "Submit" followed by "Report" or "Registration/Notification"). Notice required under paragraph (d) may be provided together with the written submission using the Business Portal. All noncompliance events related to sanitary sewer overflows or bypass events submitted after December 21, 2020 shall be submitted electronically.

(a) The following shall be included as information which must be reported within 24 hours under this condition:

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1. Any unanticipated bypass which causes any reclaimed water or the effluent to exceed any permit limitation or results in an unpermitted discharge,
2. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
3. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
4. Any unauthorized discharge to surface or ground waters.

(b) Oral reports as required by this subsection shall be provided as follows:

1. For unauthorized releases or spills of treated or untreated wastewater reported pursuant to subparagraph (a)4. that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WATCH OFFICE TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Watch Office:
 - a. Name, address, and telephone number of person reporting;
 - b. Name, address, and telephone number of permittee or responsible person for the discharge;
 - c. Date and time of the discharge and status of discharge (ongoing or ceased);
 - d. Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
 - e. Estimated amount of the discharge;
 - f. Location or address of the discharge;
 - g. Source and cause of the discharge;
 - h. Whether the discharge was contained on-site, and cleanup actions taken to date;
 - i. Description of area affected by the discharge, including name of water body affected, if any; and
 - j. Other persons or agencies contacted.
2. Oral reports, not otherwise required to be provided pursuant to subparagraph (b)1. above, shall be provided to the Department within 24 hours from the time the permittee becomes aware of the circumstances.

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

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

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

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

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

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- 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.

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STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

A handwritten signature in black ink, appearing to read 'Reggie Phillips', is written over a faint, circular official stamp.

Reggie Phillips
Environmental Administrator
Permitting and Waste Cleanup Program

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME:	Orlando, City of	PERMIT NUMBER:	FL0037966-027-DW1P	Expiration Date:	October 21, 2025
MAILING ADDRESS:	5100 L B McLeod Rd Orlando, Florida 32811- 7407	LIMIT:	Final	REPORT FREQUENCY:	Monthly
		CLASS SIZE:	MA	PROGRAM:	Domestic
FACILITY:	Orlando/Iron Bridge Regional WRF	MONITORING GROUP NUMBER:	D-001		
LOCATION:	601 Iron Bridge Cir Oviedo, FL 32765-8283	MONITORING GROUP DESCRIPTION:	Discharge to Little Econ River		
		RE-SUBMITTED DMR:	☐		
		NO DISCHARGE FROM SITE:	☐		
COUNTY:	Seminole	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 Little Econ River)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-1	Permit Requirement		28 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (To Little Econ River)	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. EFD-1	Permit Requirement				4.28 (An.Avg.)		mg/L			Daily; 24 hours	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 1 Mon. Site No. EFD-1	Permit Requirement				8.56 (Max.)	6.42 (Max.Wk.Avg.)	4.28 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 Y Mon. Site No. EFD-1	Permit Requirement					17.2 (An.Avg.)		mg/L		Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 1 Mon. Site No. EFD-1	Permit Requirement				34.4 (Max.)	25.8 (Max.Wk.Avg.)	17.2 (Mo.Avg.)	mg/L		Daily; 24 hours	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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP D-001

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Coliform, Fecal	Sample Measurement										
PARM Code 74055 Y Mon. Site No. EFA-3	Permit Requirement				200 (An.Avg.)			#/100mL		Daily; 24 hours	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 A Mon. Site No. EFA-3	Permit Requirement				200 (Mo.Geo.Mn.)	800 (Max.)		#/100mL		Daily; 24 hours	Grab
E.coli	Sample Measurement										
PARM Code 51040 A Mon. Site No. EFA-3	Permit Requirement				126 (Mo.Geo.Mn.)	410 (90th %)		#/100mL		Daily; 24 hours	Grab
pH	Sample Measurement										
PARM Code 00400 1 Mon. Site No. EFD-3	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				0.5 (Min.)			mg/L		Continuous	Meter
Chlorine, Total Residual (For Dechlorination)	Sample Measurement										
PARM Code 50060 1 Mon. Site No. EFD-4	Permit Requirement					0.01 (Max.)		mg/L		Continuous	Meter
7-DAY CHRONIC STATRE Ceriodaphnia dubia (Routine)	Sample Measurement										
PARM Code TRP3B P Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		Semi-Annually; twice per year	24-hr TPC
7-DAY CHRONIC STATRE Ceriodaphnia dubia (Additional)	Sample Measurement										
PARM Code TRP3B Q Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		As needed	As required by the permit
7-DAY CHRONIC STATRE Ceriodaphnia dubia (Additional)	Sample Measurement										
PARM Code TRP3B R Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		As needed	As required by the permit
7-DAY CHRONIC STATRE Pimephales promelas (Routine)	Sample Measurement										
PARM Code TRP6C P Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		Semi-Annually; twice per year	24-hr TPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP D-001

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
7-DAY CHRONIC STATRE Pimephales promelas (Additional)	Sample Measurement										
PARM Code TRP6C Q Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		As needed	As required by the permit
7-DAY CHRONIC STATRE Pimephales promelas (Additional)	Sample Measurement										
PARM Code TRP6C R Mon. Site No. EFD-1	Permit Requirement				100 (Min.)			percent		As needed	As required by the permit
Nitrogen, Total	Sample Measurement										
PARM Code 00600 Y Mon. Site No. EFD-1	Permit Requirement					3.08 (An.Avg.)		mg/L		Daily; 24 hours	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 1 Mon. Site No. EFD-1	Permit Requirement				6.16 (Max.)	4.62 (Max.Wk.Avg.)	3.08 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Nitrogen, Kjeldahl, Total (as N)	Sample Measurement										
PARM Code 00625 Y Mon. Site No. EFD-1	Permit Requirement					2.14 (An.Avg.)		mg/L		Daily; 24 hours	24-hr FPC
Nitrogen, Kjeldahl, Total (as N)	Sample Measurement										
PARM Code 00625 1 Mon. Site No. EFD-1	Permit Requirement				4.28 (Max.)	3.21 (Max.Wk.Avg.)	2.14 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Y Mon. Site No. EFD-1	Permit Requirement					0.94 (An.Avg.)		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				1.88 (Max.)	1.41 (Max.Wk.Avg.)	0.94 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Oxygen, Dissolved (DO)	Sample Measurement										
PARM Code 00300 P Mon. Site No. CAL-2	Permit Requirement				6.1 (Min.)			mg/L		Daily; 24 hours	Calculated
Temperature (C), Water	Sample Measurement										
PARM Code 00010 P Mon. Site No. CAL-2	Permit Requirement						Report (Max.)	Deg C		Daily; 24 hours	Calculated

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

D-001

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Oxygen demand, Ultimate	Sample Measurement										
PARM Code 00181 1 Mon. Site No. EFD-1	Permit Requirement		3718 (Mo.Avg.)	lb/day						Monthly	Calculated
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 P Mon. Site No. EFD-1	Permit Requirement		1000.0 (Mo.Avg.)	lb/day						Monthly	Calculated
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 P Mon. Site No. EFD-1	Permit Requirement		4000.0 (Mo.Avg.)	lb/day						Monthly	Calculated
Nitrogen, Kjeldahl, Total (as N)	Sample Measurement										
PARM Code 00625 P Mon. Site No. EFD-1	Permit Requirement		500.0 (Mo.Avg.)	lb/day						Monthly	Calculated
Nitrogen, Total	Sample Measurement										
PARM Code 00600 P Mon. Site No. EFD-1	Permit Requirement		720.0 (Mo.Avg.)	lb/day						Monthly	Calculated
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 P Mon. Site No. EFD-1	Permit Requirement		220.0 (Mo.Avg.)	lb/day						Monthly	Calculated

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final
CLASS SIZE: MA
MONITORING GROUP NUMBER: D-002
MONITORING GROUP DESCRIPTION: Discharge from wetlands Cell 17

REPORT FREQUENCY: Monthly
PROGRAM: Domestic

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow (D-002)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-3	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (D-002)	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 Y Mon. Site No. EFD-5	Permit Requirement					10.0 (An.Avg.)		mg/L		Daily; 24 hours	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 1 Mon. Site No. EFD-5	Permit Requirement				20.0 (Max.)	15.0 (Max.Wk.Avg.)	10.0 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 Y Mon. Site No. EFD-5	Permit Requirement					15.0 (An.Avg.)		mg/L		Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 1 Mon. Site No. EFD-5	Permit Requirement				30.0 (Max.)	22.5 (Max.Wk.Avg.)	15.0 (Mo.Avg.)	mg/L		Daily; 24 hours	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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

D-002

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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 1 Mon. Site No. EFD-6	Permit Requirement				6.0 (Min.)		8.5 (Max.)	s.u.		Daily; 24 hours	Grab
Nitrogen, Total	Sample Measurement										
PARM Code 00600 Y Mon. Site No. EFD-5	Permit Requirement					2.31 (An.Avg.)		mg/L		Daily; 24 hours	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 1 Mon. Site No. EFD-5	Permit Requirement				4.62 (Max.)	3.47 (Max.Wk.Avg.)	2.31 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Y Mon. Site No. EFD-5	Permit Requirement					0.20 (An.Avg.)		mg/L		Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 1 Mon. Site No. EFD-5	Permit Requirement				0.40 (Max.)	0.30 (Max.Wk.Avg.)	0.20 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Oxygen, Dissolved (DO)	Sample Measurement										
PARM Code 00300 Y Mon. Site No. EFD-6	Permit Requirement				3.8 (Min.An.Avg.)			mg/L		Daily; 24 hours	Grab
Nitrogen, Total	Sample Measurement										
PARM Code 00600 P Mon. Site No. EFD-5	Permit Requirement		674.0 (Mo.Avg.)	lb/day						Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 P Mon. Site No. EFD-5	Permit Requirement		58.0 (Mo.Avg.)	lb/day						Daily; 24 hours	24-hr FPC

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final
CLASS SIZE: MA
MONITORING GROUP NUMBER: D-003
MONITORING GROUP DESCRIPTION: Discharge from wetland Cell 13

REPORT FREQUENCY: Monthly
PROGRAM: Domestic

RE-SUBMITTED DMR: ☐

NO DISCHARGE FROM SITE: ☐

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow (D-003 outfall)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-4	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (D-003 outfall)	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-4	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Y Mon. Site No. EFD-7	Permit Requirement				10.0 (An.Avg.)		mg/L			Daily; 24 hours	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 1 Mon. Site No. EFD-7	Permit Requirement				20.0 (Max.)	15.0 (Max.Wk.Avg.)	10.0 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 Y Mon. Site No. EFD-7	Permit Requirement				15.0 (An.Avg.)		mg/L			Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 1 Mon. Site No. EFD-7	Permit Requirement				30.0 (Max.)	22.5 (Max.Wk.Avg.)	15.0 (Mo.Avg.)	mg/L		Daily; 24 hours	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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

D-003

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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 1 Mon. Site No. EFD-8	Permit Requirement				6.0 (Min.)		8.5 (Max.)	s.u.		Daily; 24 hours	Grab
Nitrogen, Total	Sample Measurement										
PARM Code 00600 Y Mon. Site No. EFD-7	Permit Requirement					2.31 (An.Avg.)		mg/L		Daily; 24 hours	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 1 Mon. Site No. EFD-7	Permit Requirement				4.62 (Max.)	3.47 (Max.Wk.Avg.)	2.31 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Y Mon. Site No. EFD-7	Permit Requirement					0.20 (An.Avg.)		mg/L		Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 1 Mon. Site No. EFD-7	Permit Requirement				0.40 (Max.)	0.30 (Max.Wk.Avg.)	0.20 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Oxygen, Dissolved (DO)	Sample Measurement										
PARM Code 00300 Y Mon. Site No. EFD-8	Permit Requirement				3.8 (Min.An.Avg.)			mg/L		Daily; 24 hours	Grab
Nitrogen, Total	Sample Measurement										
PARM Code 00600 P Mon. Site No. EFD-7	Permit Requirement		674.0 (Mo.Avg.)	lb/day						Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 P Mon. Site No. EFD-7	Permit Requirement		58.0 (Mo.Avg.)	lb/day						Daily; 24 hours	24-hr FPC

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final
CLASS SIZE: MA
MONITORING GROUP NUMBER: R-001
MONITORING GROUP DESCRIPTION: Discharge to wetlands, including Influent

REPORT FREQUENCY: Monthly
PROGRAM: Domestic

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow (To wetlands)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-2	Permit Requirement		35.0 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (To wetlands)	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-2	Permit Requirement				10.0 (An.Avg.)		mg/L			Daily; 24 hours	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 A Mon. Site No. EFA-2	Permit Requirement				20.0 (Max.)	15.0 (Max.Wk.Avg.)	10.0 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 Y Mon. Site No. EFA-2	Permit Requirement				15.5 (An.Avg.)		mg/L			Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 A Mon. Site No. EFA-2	Permit Requirement				30.0 (Max.)	22.5 (Max.Wk.Avg.)	15.5 (Mo.Avg.)	mg/L		Daily; 24 hours	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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP R-001

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Coliform, Fecal	Sample Measurement										
PARM Code 74055 Y Mon. Site No. EFA-3	Permit Requirement				200 (An.Avg.)			#/100mL		Daily; 24 hours	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 A Mon. Site No. EFA-3	Permit Requirement				800 (Max.)	400 (90th %)	200 (Mo.Geo.Mn.)	#/100mL		Daily; 24 hours	Grab
pH	Sample Measurement										
PARM Code 00400 A Mon. Site No. EFA-2	Permit Requirement				6.0 (Min.)		8.5 (Max.)	s.u.		Continuous	Meter
Chlorine, Total Residual (For Disinfection)	Sample Measurement										
PARM Code 50060 A Mon. Site No. EFA-2	Permit Requirement				0.5 (Min.)			mg/L		Continuous	Meter
Nitrogen, Total	Sample Measurement										
PARM Code 00600 Y Mon. Site No. EFA-2	Permit Requirement				6.0 (An.Avg.)			mg/L		Daily; 24 hours	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 A Mon. Site No. EFA-2	Permit Requirement				12.0 (Max.)	9.0 (Max.Wk.Avg.)	6.0 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Nitrogen, Kjeldahl, Total (as N)	Sample Measurement										
PARM Code 00625 A Mon. Site No. EFA-2	Permit Requirement						Report (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Y Mon. Site No. EFA-2	Permit Requirement				0.75 (An.Avg.)			mg/L		Daily; 24 hours	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 A Mon. Site No. EFA-2	Permit Requirement				1.50 (Max.)	1.13 (Max.Wk.Avg.)	0.75 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Oxygen, Dissolved (DO)	Sample Measurement										
PARM Code 00300 1 Mon. Site No. EFD-9	Permit Requirement						Report (Mo.Avg.)	mg/L		Daily; 24 hours	Grab

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final
CLASS SIZE: MA
MONITORING GROUP NUMBER: R-002
MONITORING GROUP DESCRIPTION: Public access reuse, with Influent

REPORT FREQUENCY: Monthly
PROGRAM: Domestic

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow (Public access reuse)	Sample Measurement										
PARM Code 50050 Y Mon. Site No. FLW-5	Permit Requirement		Report (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Public access reuse)	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-5	Permit Requirement		Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Y Mon. Site No. EFA-3	Permit Requirement				20.0 (An.Avg.)			mg/L		Daily; 24 hours	24-hr FPC
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 A Mon. Site No. EFA-3	Permit Requirement				60.0 (Max.)	45.0 (Max.Wk.Avg.)	30.0 (Mo.Avg.)	mg/L		Daily; 24 hours	24-hr FPC
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 B Mon. Site No. EFB-1	Permit Requirement						5.0 (Max.)	mg/L		Daily; 24 hours	Grab
Coliform, Fecal	Sample Measurement										
PARM Code 74055 A Mon. Site No. EFA-3	Permit Requirement						25 (Max.)	#/100mL		Daily; 24 hours	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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

R-002

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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-3	Permit Requirement				75 (Min.Mo.Total)			percent		Daily; 24 hours	Calculated
pH	Sample Measurement										
PARM Code 00400 A Mon. Site No. EFA-3	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-3	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-3	Permit Requirement					Report (An.Avg.)		mg/L		Monthly	24-hr FPC
Nitrogen, Total	Sample Measurement										
PARM Code 00600 A Mon. Site No. EFA-3	Permit Requirement						Report (Mo.Avg.)	mg/L		Monthly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 Y Mon. Site No. EFA-3	Permit Requirement					Report (An.Avg.)		mg/L		Monthly	24-hr FPC
Phosphorus, Total (as P)	Sample Measurement										
PARM Code 00665 A Mon. Site No. EFA-3	Permit Requirement						Report (Mo.Avg.)	mg/L		Monthly	24-hr FPC
Flow (Total through plant)	Sample Measurement										
PARM Code 50050 G Mon. Site No. INF-1	Permit Requirement		40 (An.Avg.)	MGD						Continuous	Flow Totalizer
Flow (Total through plant)	Sample Measurement										
PARM Code 50050 P Mon. Site No. INF-1	Permit Requirement	Report (Qt.Avg.)	Report (Mo.Avg.)	MGD						Continuous	Flow Totalizer

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

R-002

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____ To: _____

To:

[illegible]

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final
CLASS SIZE: MA
MONITORING GROUP NUMBER: RMP-B
MONITORING GROUP DESCRIPTION: Final biosolids after stabilization.

REPORT FREQUENCY: Monthly
PROGRAM: Domestic

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Nitrogen, Sludge, Tot, Dry Wt (as N)	Sample Measurement										
PARM Code 78470 + Mon. Site No. RMP-B	Permit Requirement		Report (Max.)	percent						Monthly	Composite
Phosphorus, Sludge, Tot, Dry Wt (as P)	Sample Measurement										
PARM Code 78478 + Mon. Site No. RMP-B	Permit Requirement		Report (Max.)	percent						Monthly	Composite
Potassium, Sludge, Tot, Dry Wt (as K)	Sample Measurement										
PARM Code 78472 + Mon. Site No. RMP-B	Permit Requirement		Report (Max.)	percent						Monthly	Composite
Arsenic Total, Dry Weight, Sludge	Sample Measurement										
PARM Code 49565 + Mon. Site No. RMP-B	Permit Requirement					75.0 (Max.)	mg/kg			Monthly	Composite
Cadmium, Sludge, Tot, Dry Weight (as Cd)	Sample Measurement										
PARM Code 78476 + Mon. Site No. RMP-B	Permit Requirement					85.0 (Max.)	mg/kg			Monthly	Composite
Copper, Sludge, Tot, Dry Wt. (as Cu)	Sample Measurement										
PARM Code 78475 + Mon. Site No. RMP-B	Permit Requirement					4300.0 (Max.)	mg/kg			Monthly	Composite

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

RMP-B

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Lead, Dry Weight, Sludge	Sample Measurement										
PARM Code 78468 + Mon. Site No. RMP-B	Permit Requirement					840.0 (Max.)	mg/kg			Monthly	Composite
Mercury, Dry Weight, Sludge	Sample Measurement										
PARM Code 78471 + Mon. Site No. RMP-B	Permit Requirement					57.0 (Max.)	mg/kg			Monthly	Composite
Molybdenum, Dry Weight, Sludge	Sample Measurement										
PARM Code 78465 + Mon. Site No. RMP-B	Permit Requirement					75.0 (Max.)	mg/kg			Monthly	Composite
Nickel, Dry Weight, Sludge	Sample Measurement										
PARM Code 78469 + Mon. Site No. RMP-B	Permit Requirement					420.0 (Max.)	mg/kg			Monthly	Composite
Selenium Sludge Solid	Sample Measurement										
PARM Code 61518 + Mon. Site No. RMP-B	Permit Requirement					100.0 (Max.)	mg/kg			Monthly	Composite
Zinc, Dry Weight, Sludge	Sample Measurement										
PARM Code 78467 + Mon. Site No. RMP-B	Permit Requirement					7500.0 (Max.)	mg/kg			Monthly	Composite
pH	Sample Measurement										
PARM Code 00400 + Mon. Site No. RMP-B	Permit Requirement					Report (Max.)	s.u.			Monthly	Grab
Solids, Total, Sludge, Percent	Sample Measurement										
PARM Code 61553 + Mon. Site No. RMP-B	Permit Requirement					Report (Max.)	percent			Monthly	Composite

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final REPORT FREQUENCY: Once Every Two Months
CLASS SIZE: MA PROGRAM: Domestic

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

MONITORING GROUP NUMBER: RMP-B
MONITORING GROUP DESCRIPTION: Final biosolids after stabilization.

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐

COUNTY: Seminole
OFFICE: Central District

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Calcium Carbonate Equivalent	Sample Measurement										
PARM Code B0010 + Mon. Site No. RMP-B	Permit Requirement					Report (Max.)		percent		Bi-monthly; every 2 months	Composite

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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):

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final
CLASS SIZE: MA
MONITORING GROUP NUMBER: RMP-Q
MONITORING GROUP DESCRIPTION: Biosolids Quantity

REPORT FREQUENCY: Monthly
PROGRAM: Domestic

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Biosolids Quantity (Received)	Sample Measurement										
PARM Code B0002 + Mon. Site No. RMP-1	Permit Requirement		Report (Mo.Total)	dry tons						Monthly	Calculated
Biosolids Quantity (Land-Applied)	Sample Measurement										
PARM Code B0006 + Mon. Site No. RMP-1	Permit Requirement		Report (Mo.Total)	dry tons						Monthly	Calculated
Biosolids Quantity (Transferred)	Sample Measurement										
PARM Code B0007 + Mon. Site No. RMP-1	Permit Requirement		Report (Mo.Total)	dry tons						Monthly	Calculated
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):

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final
CLASS SIZE: MA
MONITORING GROUP NUMBER: PRT-I
MONITORING GROUP DESCRIPTION: Influent Pretreatment

REPORT FREQUENCY: Annually
PROGRAM: Domestic

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
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 G Mon. Site No. PRT-I	Permit Requirement				Report (Min.)		Report (Max.)	s.u.		Annually	Grab
Oil and Grease, hexane extr method	Sample Measurement										
PARM Code 00552 G Mon. Site No. PRT-I	Permit Requirement					Report (An.Avg.)	Report (Max.)	mg/L		Annually	Grab
Benzene	Sample Measurement										
PARM Code 34030 G Mon. Site No. PRT-I	Permit Requirement					Report (An.Avg.)	Report (Max.)	ug/L		Annually	Grab
Bromoform	Sample Measurement										
PARM Code 32104 G Mon. Site No. PRT-I	Permit Requirement					Report (An.Avg.)	Report (Max.)	ug/L		Annually	Grab
Carbon tetrachloride	Sample Measurement										
PARM Code 32102 G Mon. Site No. PRT-I	Permit Requirement					Report (An.Avg.)	Report (Max.)	ug/L		Annually	Grab
Chlorobenzene	Sample Measurement										
PARM Code 34301 G Mon. Site No. PRT-I	Permit Requirement					Report (An.Avg.)	Report (Max.)	ug/L		Annually	Grab

*FOR THOSE PARAMETERS THAT ARE SAMPLED ANNUALLY, THE MAXIMUM AND AVERAGE CONCENTRATIONS ARE EQUIVALENT AND SHALL BE REPORTED AS SUCH ON THE DMR.

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

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Chlorodibromomethane	Sample Measurement										
PARM Code 34306 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Chloroethane	Sample Measurement										
PARM Code 85811 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
2-chloroethyl vinyl ether (mixed)	Sample Measurement										
PARM Code 34576 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Chloroform	Sample Measurement										
PARM Code 32106 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Dichlorobromomethane	Sample Measurement										
PARM Code 32101 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,2-dichlorobenzene	Sample Measurement										
PARM Code 34536 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,3-dichlorobenzene	Sample Measurement										
PARM Code 34566 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,4-dichlorobenzene	Sample Measurement										
PARM Code 34571 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,1-dichloroethane	Sample Measurement										
PARM Code 34496 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,2-dichloroethane	Sample Measurement										
PARM Code 32103 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
1,1-dichloroethylene	Sample Measurement										
PARM Code 34501 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,2-dichloropropane	Sample Measurement										
PARM Code 34541 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,3-dichloropropene	Sample Measurement										
PARM Code 77163 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Ethylbenzene	Sample Measurement										
PARM Code 34371 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Methyl bromide	Sample Measurement										
PARM Code 34413 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Methyl chloride	Sample Measurement										
PARM Code 34418 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Methylene chloride	Sample Measurement										
PARM Code 34423 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,1,2,2-tetrachloroethane	Sample Measurement										
PARM Code 34516 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Tetrachloroethylene	Sample Measurement										
PARM Code 34475 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Toluene	Sample Measurement										
PARM Code 34010 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
1,2-trans-dichloroethylene	Sample Measurement										
PARM Code 34546 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,1,1-trichloroethane	Sample Measurement										
PARM Code 34506 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,1,2-trichloroethane	Sample Measurement										
PARM Code 34511 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Trichloroethylene	Sample Measurement										
PARM Code 39180 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Vinyl chloride	Sample Measurement										
PARM Code 39175 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
2-chlorophenol	Sample Measurement										
PARM Code 34586 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4-dichlorophenol	Sample Measurement										
PARM Code 34601 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4-dimethylphenol	Sample Measurement										
PARM Code 34606 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4,6-dinitro-o-cresol	Sample Measurement										
PARM Code 34657 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4-dinitrophenol	Sample Measurement										
PARM Code 34616 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
2-nitrophenol	Sample Measurement										
PARM Code 34591 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4-nitrophenol	Sample Measurement										
PARM Code 34646 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
p-chloro-m-cresol	Sample Measurement										
PARM Code 82627 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Pentachlorophenol	Sample Measurement										
PARM Code 39032 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Phenol, Single Compound	Sample Measurement										
PARM Code 34694 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4,6-trichlorophenol	Sample Measurement										
PARM Code 34621 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Acenaphthene	Sample Measurement										
PARM Code 34205 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Acenaphthylene	Sample Measurement										
PARM Code 34200 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Anthracene	Sample Measurement										
PARM Code 34220 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzidine	Sample Measurement										
PARM Code 39120 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Benzo(a)anthracene	Sample Measurement										
PARM Code 34526 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzo(a)pyrene	Sample Measurement										
PARM Code 34247 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzo(b)fluoranthene (3,4-benzo)	Sample Measurement										
PARM Code 79531 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzo(ghi)perylene	Sample Measurement										
PARM Code 34521 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzo(k)fluoranthene	Sample Measurement										
PARM Code 34242 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Bis (2-chloroethoxy) methane	Sample Measurement										
PARM Code 34278 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Bis (2-chloroethyl) ether	Sample Measurement										
PARM Code 34273 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Bis (2-chloroisopropyl) ether	Sample Measurement										
PARM Code 34283 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Bis (2-ethylhexyl) phthalate	Sample Measurement										
PARM Code 39100 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4-bromophenyl phenyl ether	Sample Measurement										
PARM Code 34636 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Butyl benzyl phthalate	Sample Measurement										
PARM Code 34292 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2-chloronaphthalene	Sample Measurement										
PARM Code 34581 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4-chlorophenyl phenyl ether	Sample Measurement										
PARM Code 34641 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Chrysene	Sample Measurement										
PARM Code 34320 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Dibenzo (a,h) anthracene	Sample Measurement										
PARM Code 34556 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
3,3'-dichlorobenzidine	Sample Measurement										
PARM Code 34631 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Diethyl phthalate	Sample Measurement										
PARM Code 34336 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Dimethyl phthalate	Sample Measurement										
PARM Code 34341 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Di-n-butyl phthalate	Sample Measurement										
PARM Code 39110 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4-dinitrotoluene	Sample Measurement										
PARM Code 34611 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
2,6-dinitrotoluene	Sample Measurement										
PARM Code 34626 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Di-n-octyl phthalate	Sample Measurement										
PARM Code 34596 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
1,2-diphenylhydrazine	Sample Measurement										
PARM Code 34346 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Fluoranthene	Sample Measurement										
PARM Code 34376 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Fluorene	Sample Measurement										
PARM Code 34381 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Hexachlorobenzene	Sample Measurement										
PARM Code 39700 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Hexachlorobutadiene	Sample Measurement										
PARM Code 39702 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Hexachlorocyclopentadiene	Sample Measurement										
PARM Code 34386 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Hexachloroethane	Sample Measurement										
PARM Code 34396 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Indeno (1,2,3-Cd) pyrene	Sample Measurement										
PARM Code 34403 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Isophorone	Sample Measurement										
PARM Code 34408 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Naphthalene	Sample Measurement										
PARM Code 34696 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Nitrobenzene	Sample Measurement										
PARM Code 34447 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
N-nitrosodimethylamine	Sample Measurement										
PARM Code 34438 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
N-nitrosodi-n-propylamine	Sample Measurement										
PARM Code 34428 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
N-nitrosodiphenylamine	Sample Measurement										
PARM Code 34433 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Phenanthrene	Sample Measurement										
PARM Code 34461 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Pyrene	Sample Measurement										
PARM Code 34469 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
1,2,4-trichlorobenzene	Sample Measurement										
PARM Code 34551 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Aldrin	Sample Measurement										
PARM Code 39330 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Alpha-bhc	Sample Measurement										
PARM Code 39336 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
B-bhc-beta	Sample Measurement										
PARM Code 39338 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Gamma BHC (Lindane)	Sample Measurement										
PARM Code 39782 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Delta benzene hexachloride	Sample Measurement										
PARM Code 34259 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Chlordane (tech mix. and metabolites)	Sample Measurement										
PARM Code 39350 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4,4'-DDT (p,p'-DDT)	Sample Measurement										
PARM Code 39300 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4,4'-DDE (p,p'-DDE)	Sample Measurement										
PARM Code 39320 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4,4'-DDD (p,p'-DDD)	Sample Measurement										
PARM Code 39310 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Dieldrin	Sample Measurement										
PARM Code 39380 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
A-endosulfan-alpha	Sample Measurement										
PARM Code 34361 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
B-endosulfan-beta	Sample Measurement										
PARM Code 34356 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Endosulfan sulfate	Sample Measurement										
PARM Code 34351 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Endrin	Sample Measurement										
PARM Code 39390 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Endrin aldehyde	Sample Measurement										
PARM Code 34366 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Heptachlor	Sample Measurement										
PARM Code 39410 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Heptachlor epoxide	Sample Measurement										
PARM Code 39420 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1242	Sample Measurement										
PARM Code 39496 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1254	Sample Measurement										
PARM Code 39504 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1221	Sample Measurement										
PARM Code 39488 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1232	Sample Measurement										
PARM Code 39492 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
PCB-1248	Sample Measurement										
PARM Code 39500 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1260	Sample Measurement										
PARM Code 39508 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1016	Sample Measurement										
PARM Code 34671 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Toxaphene	Sample Measurement										
PARM Code 39400 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Antimony, Total Recoverable	Sample Measurement										
PARM Code 01268 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Arsenic, Total Recoverable	Sample Measurement										
PARM Code 00978 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Beryllium, Total Recoverable	Sample Measurement										
PARM Code 00998 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Cadmium, Total Recoverable	Sample Measurement										
PARM Code 01113 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Chromium, Total Recoverable	Sample Measurement										
PARM Code 01118 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Copper, Total Recoverable	Sample Measurement										
PARM Code 01119 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP
NUMBER:
MONITORING PERIOD

PRT-I

PERMIT NUMBER: FL0037966-027-DW1P

From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Lead, Total Recoverable	Sample Measurement										
PARM Code 01114 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Mercury, Total Recoverable	Sample Measurement										
PARM Code 71901 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Nickel, Total Recoverable	Sample Measurement										
PARM Code 01074 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Selenium, Total Recoverable	Sample Measurement										
PARM Code 00981 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Silver, Total Recoverable	Sample Measurement										
PARM Code 01079 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Thallium, Total Recoverable	Sample Measurement										
PARM Code 00982 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Zinc, Total Recoverable	Sample Measurement										
PARM Code 01094 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Cyanide, Total Recoverable	Sample Measurement										
PARM Code 78248 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Phenolic Compounds, Total Recoverable	Sample Measurement										
PARM Code 70029 G Mon. Site No. PRT-I	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final
CLASS SIZE: MA
MONITORING GROUP NUMBER: PRT-E
MONITORING GROUP DESCRIPTION: Effluent Pretreatment

REPORT FREQUENCY: Annually
PROGRAM: Domestic

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
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 1 Mon. Site No. PRT-E	Permit Requirement				Report (Min.)		Report (Max.)	s.u.		Annually	Grab
Oil and Grease, hexane extr method	Sample Measurement										
PARM Code 00552 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)		Report (Max.)	mg/L		Annually	Grab
Benzene	Sample Measurement										
PARM Code 34030 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)		Report (Max.)	ug/L		Annually	Grab
Bromoform	Sample Measurement										
PARM Code 32104 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)		Report (Max.)	ug/L		Annually	Grab
Carbon tetrachloride	Sample Measurement										
PARM Code 32102 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)		Report (Max.)	ug/L		Annually	Grab
Chlorobenzene	Sample Measurement										
PARM Code 34301 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)		Report (Max.)	ug/L		Annually	Grab

*FOR THOSE PARAMETERS THAT ARE SAMPLED ANNUALLY, THE MAXIMUM AND AVERAGE CONCENTRATIONS ARE EQUIVALENT AND SHALL BE REPORTED AS SUCH ON THE DMR.

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Chlorodibromomethane	Sample Measurement										
PARM Code 34306 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Chloroethane	Sample Measurement										
PARM Code 85811 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
2-chloroethyl vinyl ether (mixed)	Sample Measurement										
PARM Code 34576 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Chloroform	Sample Measurement										
PARM Code 32106 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Dichlorobromomethane	Sample Measurement										
PARM Code 32101 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,2-dichlorobenzene	Sample Measurement										
PARM Code 34536 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,3-dichlorobenzene	Sample Measurement										
PARM Code 34566 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,4-dichlorobenzene	Sample Measurement										
PARM Code 34571 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,1-dichloroethane	Sample Measurement										
PARM Code 34496 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,2-dichloroethane	Sample Measurement										
PARM Code 32103 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
1,1-dichloroethylene	Sample Measurement										
PARM Code 34501 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,2-dichloropropane	Sample Measurement										
PARM Code 34541 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,3-dichloropropene	Sample Measurement										
PARM Code 77163 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Ethylbenzene	Sample Measurement										
PARM Code 34371 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Methyl bromide	Sample Measurement										
PARM Code 34413 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Methyl chloride	Sample Measurement										
PARM Code 34418 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Methylene chloride	Sample Measurement										
PARM Code 34423 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,1,2,2-tetrachloroethane	Sample Measurement										
PARM Code 34516 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Tetrachloroethylene	Sample Measurement										
PARM Code 34475 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Toluene	Sample Measurement										
PARM Code 34010 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
1,2-trans-dichloroethylene	Sample Measurement										
PARM Code 34546 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,1,1-trichloroethane	Sample Measurement										
PARM Code 34506 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
1,1,2-trichloroethane	Sample Measurement										
PARM Code 34511 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Trichloroethylene	Sample Measurement										
PARM Code 39180 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Vinyl chloride	Sample Measurement										
PARM Code 39175 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
2-chlorophenol	Sample Measurement										
PARM Code 34586 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4-dichlorophenol	Sample Measurement										
PARM Code 34601 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4-dimethylphenol	Sample Measurement										
PARM Code 34606 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4,6-dinitro-o-cresol	Sample Measurement										
PARM Code 34657 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4-dinitrophenol	Sample Measurement										
PARM Code 34616 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
2-nitrophenol	Sample Measurement										
PARM Code 34591 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4-nitrophenol	Sample Measurement										
PARM Code 34646 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
p-chloro-m-cresol	Sample Measurement										
PARM Code 82627 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Pentachlorophenol	Sample Measurement										
PARM Code 39032 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Phenol, Single Compound	Sample Measurement										
PARM Code 34694 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4,6-trichlorophenol	Sample Measurement										
PARM Code 34621 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Acenaphthene	Sample Measurement										
PARM Code 34205 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Acenaphthylene	Sample Measurement										
PARM Code 34200 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Anthracene	Sample Measurement										
PARM Code 34220 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzidine	Sample Measurement										
PARM Code 39120 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Benzo(a)anthracene	Sample Measurement										
PARM Code 34526 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzo(a)pyrene	Sample Measurement										
PARM Code 34247 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzo(b)fluoranthene (3,4-benzo)	Sample Measurement										
PARM Code 79531 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzo(ghi)perylene	Sample Measurement										
PARM Code 34521 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Benzo(k)fluoranthene	Sample Measurement										
PARM Code 34242 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Bis (2-chloroethoxy) methane	Sample Measurement										
PARM Code 34278 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Bis (2-chloroethyl) ether	Sample Measurement										
PARM Code 34273 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Bis (2-chloroisopropyl) ether	Sample Measurement										
PARM Code 34283 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Bis (2-ethylhexyl) phthalate	Sample Measurement										
PARM Code 39100 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4-bromophenyl phenyl ether	Sample Measurement										
PARM Code 34636 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Butyl benzyl phthalate	Sample Measurement										
PARM Code 34292 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2-chloronaphthalene	Sample Measurement										
PARM Code 34581 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4-chlorophenyl phenyl ether	Sample Measurement										
PARM Code 34641 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Chrysene	Sample Measurement										
PARM Code 34320 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Dibenzo (a,h) anthracene	Sample Measurement										
PARM Code 34556 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
3,3'-dichlorobenzidine	Sample Measurement										
PARM Code 34631 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Diethyl phthalate	Sample Measurement										
PARM Code 34336 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Dimethyl phthalate	Sample Measurement										
PARM Code 34341 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Di-n-butyl phthalate	Sample Measurement										
PARM Code 39110 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
2,4-dinitrotoluene	Sample Measurement										
PARM Code 34611 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
2,6-dinitrotoluene	Sample Measurement										
PARM Code 34626 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Di-n-octyl phthalate	Sample Measurement										
PARM Code 34596 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
1,2-diphenylhydrazine	Sample Measurement										
PARM Code 34346 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Fluoranthene	Sample Measurement										
PARM Code 34376 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Fluorene	Sample Measurement										
PARM Code 34381 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Hexachlorobenzene	Sample Measurement										
PARM Code 39700 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Hexachlorobutadiene	Sample Measurement										
PARM Code 39702 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Hexachlorocyclopentadiene	Sample Measurement										
PARM Code 34386 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Hexachloroethane	Sample Measurement										
PARM Code 34396 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Indeno (1,2,3-Cd) pyrene	Sample Measurement										
PARM Code 34403 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Isophorone	Sample Measurement										
PARM Code 34408 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Naphthalene	Sample Measurement										
PARM Code 34696 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Nitrobenzene	Sample Measurement										
PARM Code 34447 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
N-nitrosodimethylamine	Sample Measurement										
PARM Code 34438 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
N-nitrosodi-n-propylamine	Sample Measurement										
PARM Code 34428 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
N-nitrosodiphenylamine	Sample Measurement										
PARM Code 34433 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Phenanthrene	Sample Measurement										
PARM Code 34461 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Pyrene	Sample Measurement										
PARM Code 34469 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
1,2,4-trichlorobenzene	Sample Measurement										
PARM Code 34551 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Aldrin	Sample Measurement										
PARM Code 39330 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Alpha-bhc	Sample Measurement										
PARM Code 39336 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
B-bhc-beta	Sample Measurement										
PARM Code 39338 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Gamma BHC (Lindane)	Sample Measurement										
PARM Code 39782 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Delta benzene hexachloride	Sample Measurement										
PARM Code 34259 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Chlordane (tech mix. and metabolites)	Sample Measurement										
PARM Code 39350 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4,4'-DDT (p,p'-DDT)	Sample Measurement										
PARM Code 39300 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4,4'-DDE (p,p'-DDE)	Sample Measurement										
PARM Code 39320 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
4,4'-DDD (p,p'-DDD)	Sample Measurement										
PARM Code 39310 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Dieldrin	Sample Measurement										
PARM Code 39380 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
A-endosulfan-alpha	Sample Measurement										
PARM Code 34361 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
B-endosulfan-beta	Sample Measurement										
PARM Code 34356 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Endosulfan sulfate	Sample Measurement										
PARM Code 34351 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Endrin	Sample Measurement										
PARM Code 39390 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Endrin aldehyde	Sample Measurement										
PARM Code 34366 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Heptachlor	Sample Measurement										
PARM Code 39410 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Heptachlor epoxide	Sample Measurement										
PARM Code 39420 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1242	Sample Measurement										
PARM Code 39496 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1254	Sample Measurement										
PARM Code 39504 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1221	Sample Measurement										
PARM Code 39488 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1232	Sample Measurement										
PARM Code 39492 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
PCB-1248	Sample Measurement										
PARM Code 39500 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1260	Sample Measurement										
PARM Code 39508 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
PCB-1016	Sample Measurement										
PARM Code 34671 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Toxaphene	Sample Measurement										
PARM Code 39400 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Antimony, Total Recoverable	Sample Measurement										
PARM Code 01268 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Arsenic, Total Recoverable	Sample Measurement										
PARM Code 00978 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Beryllium, Total Recoverable	Sample Measurement										
PARM Code 00998 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Cadmium, Total Recoverable	Sample Measurement										
PARM Code 01113 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Chromium, Total Recoverable	Sample Measurement										
PARM Code 01118 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Copper, Total Recoverable	Sample Measurement										
PARM Code 01119 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-E

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Lead, Total Recoverable	Sample Measurement										
PARM Code 01114 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Mercury, Total Recoverable	Sample Measurement										
PARM Code 71901 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Nickel, Total Recoverable	Sample Measurement										
PARM Code 01074 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Selenium, Total Recoverable	Sample Measurement										
PARM Code 00981 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Silver, Total Recoverable	Sample Measurement										
PARM Code 01079 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Thallium, Total Recoverable	Sample Measurement										
PARM Code 00982 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Zinc, Total Recoverable	Sample Measurement										
PARM Code 01094 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	24-hr FPC
Cyanide, Total Recoverable	Sample Measurement										
PARM Code 78248 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab
Phenolic Compounds, Total Recoverable	Sample Measurement										
PARM Code 70029 1 Mon. Site No. PRT-E	Permit Requirement				Report (An.Avg.)	Report (Max.)	ug/L			Annually	Grab

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT: Final
CLASS SIZE: MA
MONITORING GROUP NUMBER: PRT-R
MONITORING GROUP DESCRIPTION: Residuals Pretreatment

REPORT FREQUENCY: Annually
PROGRAM: Domestic

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Arsenic Total, Dry Weight, Sludge	Sample Measurement										
PARM Code 49565 + Mon. Site No. PRT-R	Permit Requirement				Report (An.Avg.)	Report (Max.)		mg/kg		Annually	Composite
Cadmium, Sludge, Tot. Dry Wt. (Cd)	Sample Measurement										
PARM Code 78476 + Mon. Site No. PRT-R	Permit Requirement				Report (An.Avg.)	Report (Max.)		mg/kg		Annually	Composite
Copper, Sludge, Tot. Dry Wt. (as Cu)	Sample Measurement										
PARM Code 78475 + Mon. Site No. PRT-R	Permit Requirement				Report (An.Avg.)	Report (Max.)		mg/kg		Annually	Composite
Lead, Dry Weight	Sample Measurement										
PARM Code 78468 + Mon. Site No. PRT-R	Permit Requirement				Report (An.Avg.)	Report (Max.)		mg/kg		Annually	Composite
Mercury, Dry Weight	Sample Measurement										
PARM Code 78471 + Mon. Site No. PRT-R	Permit Requirement				Report (An.Avg.)	Report (Max.)		mg/kg		Annually	Composite
Molybdenum, Dry Weight	Sample Measurement										
PARM Code 78465 + Mon. Site No. PRT-R	Permit Requirement				Report (An.Avg.)	Report (Max.)		mg/kg		Annually	Composite

*FOR THOSE PARAMETERS THAT ARE SAMPLED ANNUALLY, THE MAXIMUM AND AVERAGE CONCENTRATIONS ARE EQUIVALENT AND SHALL BE REPORTED AS SUCH ON THE DMR.

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

PRT-R

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

MONITORING PERIOD

From: _____ To: _____

To:

[illegible]

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0037966-022-DW1P

Facility: Orlando/Iron Bridge Regional WRF

Monitoring Period From: _____ To: _____

	Chlorine, Total Residual (For Disinfection) mg/L	BOD, Carbonaceous 5 day, 20C mg/L	Chlorine, Total Residual (For Disinfection) mg/L	Coliform, Fecal #/100mL	Nitrogen, Kjeldahl, Total (as N) mg/L	Nitrogen, Total mg/L	Phosphorus, Total (as P) mg/L	Solids, Total Suspended mg/L	pH s.u. (Min.)	pH s.u. (Max.)
Code	50060	80082	50060	74055	00625	00600	00665	00530	00400	00400
Mon. Site	EFA-1	EFA-3	EFA-3	EFA-3	EFA-3	EFA-3	EFA-3	EFA-3	EFA-3	EFA-3
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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: _____

DAILY SAMPLE RESULTS - PART B

Permit Number:
Monitoring Period

FL0037966-022-DW1P

From: _____ To: _____

Facility: Orlando/Iron Bridge Regional WRF

	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. (Min.)	pH s.u. (Max.)	Solids, Total Suspended mg/L	Turbidity NTU
Code	80082	50060	74055	00600	00665	00400	00400	00530	00070
Mon. Site	EFA-3	EFA-3	EFA-3	EFA-3	EFA-3	EFA-3	EFA-3	EFB-1	EFB-1
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: _____

DAILY SAMPLE RESULTS - PART B

Permit Number:
Monitoring Period

FL0037966-022-DW1P

From: _____ To: _____

Facility: Orlando/Iron Bridge Regional WRF

	BOD, Carbonaceous 5 day, 20C mg/L	Nitrogen, Kjeldahl, Total (as N) mg/L	Nitrogen, Total mg/L	Phosphorus, Total (as P) mg/L	Solids, Total Suspended mg/L	Coliform, Fecal #/100mL	pH s.u. (Min.)	pH s.u. (Max.)	Chlorine, Total Residual (For Dechlorination) mg/L
Code	80082	00625	00600	00665	00530	74055	00400	00400	50060
Mon. Site	EFD-1	EFD-1	EFD-1	EFD-1	EFD-1	EFD-3	EFD-3	EFD-3	EFD-4
1									
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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: _____

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0037966-022-DW1P

Facility: Orlando/Iron Bridge Regional WRF

Monitoring Period From: _____ To: _____

	BOD, Carbonaceous 5 day, 20C mg/L	Nitrogen, Total lb/day	Phosphorus, Total (as P) mg/L	Solids, Total Suspended mg/L	Oxygen, Dissolved (DO) mg/L	pH s.u. (min)	pH s.u. (max)	BOD, Carbonaceous 5 day, 20C mg/L	Nitrogen, Total lb/day	Nitrogen, Total mg/L
Code	80082	00600	00665	00530	00300	00400	00400	80082	00600	00600
Mon. Site	EFD-5	EFD-5	EFD-5	EFD-5	EFD-6	EFD-6	EFD-6	EFD-7	EFD-7	EFD-7
1										
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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:
Monitoring Period

FL0037966-022-DW1P
From: _____ To: _____

Facility: Orlando/Iron Bridge Regional WRF

	Phosphorus, Total (as P) lb/day	Solids, Total Suspended mg/L	Oxygen, Dissolved (DO) mg/L	pH s.u. (min)	pH s.u. (max)	Oxygen, Dissolved (DO) mg/L	Flow (To Little Econ River) MGD	Flow (to Wetlands) MGD	Flow (D-002 outfall) MGD	Flow (Outfall D-003) MGD
Code	00665	00530	00300	00400	00400	00300	50050	50050	50050	50050
Mon. Site	EFD-7	EFD-7	EFD-8	EFD-8	EFD-8	EFD-9	FLW-1	FLW-2	FLW-3	FLW-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: _____

DAILY SAMPLE RESULTS - PART B

Permit Number: FL0037966-022-DW1P Facility: Orlando/Iron Bridge Regional WRF
Monitoring Period From: _____ To: _____

	Flow (Public access reuse) MGD	Flow (Total through plant) MGD	BOD, Carbonaceous 5 day, 20C (Influent) mg/L	Solids, Total Suspended (Influent) mg/L	E.coli #/100mL	Oxygen, Dissolved (DO)	Temperature (C), Water		
Code	50050	50050	80082	00530	51040	00300	00010		
Mon. Site	FLW-5	INF-1	INF-2	INF-2	EFA-3	CAL-2	CAL-2		
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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: Orlando/Iron Bridge Regional WRF
 Permit Number: FL0037966-027-DW1P
 County: Seminole

Monitoring Well ID: MWB-1
 Well Type: Background
 Description: #6758, surficial
 existing, 11ft deep
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Domestic

Office: Central District

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___ Yes ___ No

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

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Orlando/Iron Bridge Regional WRF
 Permit Number: FL0037966-027-DW1P
 County: Seminole

Monitoring Well ID: MWC-2R
 Well Type: Compliance
 Description: #6757, surficial,
 existing, 12ft deep
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Domestic

Office: Central District

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		945	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		400	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		4	#/100mL	Grab	Quarterly				
pH	00400		6.5-8.5	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Orlando/Iron Bridge Regional WRF
 Permit Number: FL0037966-027-DW1P
 County: Seminole

Monitoring Well ID: MWC-3
 Well Type: Compliance
 Description: #6756, surficial,
 existing, 15ft deep
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Domestic

Office: Central District

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		945	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		400	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		4	#/100mL	Grab	Quarterly				
pH	00400		6.5-8.5	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Orlando/Iron Bridge Regional WRF
 Permit Number: FL0037966-027-DW1P
 County: Seminole

Monitoring Well ID: MWC-4
 Well Type: Compliance
 Description: #6755, surficial,
 existing, 8ft deep
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Domestic

Office: Central District

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		945	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		400	mg/L	Grab	Quarterly				
Coliform, Fecal	74055		4	#/100mL	Grab	Quarterly				
pH	00400		6.5-8.5	s.u.	Grab	Quarterly				
Turbidity	00070		Report	NTU	Grab	Quarterly				

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

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Orlando/Iron Bridge Regional WRF
 Permit Number: FL0037966-027-DW1P
 County: Seminole

Monitoring Well ID: MWC-5R
 Well Type: Compliance
 Description: IRON BRIDGE-
 WETLANDS/COMPLI
 ANCE MW-5

Report Frequency: Quarterly
 Program: Domestic

Office: Central District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
Solids, Total Dissolved (TDS)	70295		945	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		400	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				

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):

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.

CBOD₅: Enter the average CBOD₅ of the reclaimed water discharged during the period shown in duration of discharge.

TKN: Enter the average TKN of the reclaimed water discharged during the period shown in duration of discharge.

Actual Rainfall: Enter the actual rainfall for each day on Part B. Enter the actual cumulative rainfall to date for this calendar year and the actual total monthly rainfall on Part A. The cumulative rainfall to date for this calendar year is the total amount of rain, in inches, that has been recorded since January 1 of the current year through the month for which this DMR contains data.

Rainfall During Average Rainfall Year: On Part A, enter the total monthly rainfall during the average rainfall year and the cumulative rainfall for the average rainfall year. The cumulative rainfall for the average rainfall year is the amount of rain, in inches, which fell during the average rainfall year from January through the month for which this DMR contains data.

No. of Days LWWD Activated During Calendar Year: Enter the cumulative number of days that the limited wet weather discharge was activated since January 1 of the current year.

Reason for Discharge: Attach to the DMR a brief explanation of the factors contributing to the need to activate the limited wet weather discharge.

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

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

PERMITTEE NAME: Orlando, City of
MAILING ADDRESS: 5100 L B McLeod Rd
Orlando, Florida 32811- 7407

FACILITY: Orlando/Iron Bridge Regional WRF
LOCATION: 601 Iron Bridge Cir
Oviedo, FL 32765-8283

COUNTY: Seminole
OFFICE: Central District

PERMIT NUMBER: FL0037966-027-DW1P

LIMIT:
CLASS SIZE:
MONITORING GROUP NUMBER:
MONITORING GROUP DESCRIPTION:
RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE: ☐
MONITORING NOT REQUIRED:* ☐
MONITORING PERIOD From: _____ To: _____

Final
MA
RWS-A
Annual Reclaimed Water or Effluent Analysis
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:

ISSUANCE/REISSUANCE DATE: October 22, 2020

DMR EFFECTIVE DATE: 1st day of the 2nd month following effective date of permit - Permit expiration

DEP Form 62-620.910(10), Effective Nov. 29, 1994

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

RWS-A

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

RWS-A

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

RWS-A

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

RWS-A

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

RWS-A

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

RWS-A

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

RWS-A

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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: Orlando/Iron Bridge Regional WRF

MONITORING GROUP

RWS-A

PERMIT NUMBER: FL0037966-027-DW1P

NUMBER:

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.

CBOD₅: Enter the average CBOD₅ of the reclaimed water discharged during the period shown in duration of discharge.

TKN: Enter the average TKN of the reclaimed water discharged during the period shown in duration of discharge.

Actual Rainfall: Enter the actual rainfall for each day on Part B. Enter the actual cumulative rainfall to date for this calendar year and the actual total monthly rainfall on Part A. The cumulative rainfall to date for this calendar year is the total amount of rain, in inches, that has been recorded since January 1 of the current year through the month for which this DMR contains data.

Rainfall During Average Rainfall Year: On Part A, enter the total monthly rainfall during the average rainfall year and the cumulative rainfall for the average rainfall year. The cumulative rainfall for the average rainfall year is the amount of rain, in inches, which fell during the average rainfall year from January through the month for which this DMR contains data.

No. of Days LWWD Activated During Calendar Year: Enter the cumulative number of days that the limited wet weather discharge was activated since January 1 of the current year.

Reason for Discharge: Attach to the DMR a brief explanation of the factors contributing to the need to activate the limited wet weather discharge.



Florida Department of Environmental Protection

Twin Towers Office Bldg., 2600 Blair Stone Road, Tallahassee, Florida 32399-2400

PATHOGEN MONITORING

Part I - Instructions

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

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

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

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

If subsequent re-sampling is required by Item 9 in Part I of this form, this form shall be submitted for the subsequent re-sampling(s) in accordance with the schedule established in Item 9 in Part I of this form.
2. Submit one copy of this form and a copy of the laboratory's final report for the analysis of *Giardia* and *Cryptosporidium* to each of the following two addresses:
 - a. The appropriate DEP district office (attention Domestic Wastewater Program). Addresses for the DEP district offices are available at www.dep.state.fl.us/secretary/dist/default.htm.
 - b. DEP Water Reuse Coordinator
Mail Station 3540
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
3. Please type or print legibly.
4. In Part II, Items 7 through 12 need to be completed only if this is the first submittal of this report, if the information in Items 7 through 12 has changed since the last submittal, or if the information in any of these questions has not been previously provided.
5. Part III is to be used when sampling for *Giardia* and *Cryptosporidium* at the treatment plant. Part III is also to be used when sampling for *Giardia* and *Cryptosporidium* in a supplemental water supply (see Rule 62-610.472, F.A.C.).

6. For each sample, record the sample volume obtained in liters.
7. For *Giardia*, record the concentrations in cysts per 100 liters. For *Cryptosporidium*, record the concentrations in oocysts per 100 liters. Sufficient sample volumes shall be collected and processed such that the detection limit is no greater than 5 cysts or oocysts per 100 liters. Detection levels on the order of 1 cyst or oocyst per 100 liters are recommended. If an observation is less than the detection limit, make an entry in the form "<2" (where 2 per 100 liters is the detection limit in this example). The actual detection limit will be dictated by the volumes of sample obtained, filtered, and processed. Do NOT record nondetectable values as zero.
8. EPA Method 1623 or other approved methods for reclaimed water or nonpotable waters, adjusted appropriately to accommodate the detection limit requirements, shall be used. Methods previously allowed for EPA's Information Collection Rule (ICR) shall not be used. The full requirements of the approved method, including quality assurance and quality control, are to be met. Quality assurance and sampling requirements in Chapter 62-160, F.A.C., shall apply.

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

- a. Total cysts and oocysts shall be enumerated using EPA Method 1623 or other approved methods.
 - b. Potentially viable cysts and oocysts shall be enumerated using the DAPI staining technique contained in EPA Method 1623 or similar enumeration techniques included in other approved methods. Cysts and oocysts that are stained DAPI positive or show internal structure by D.I.C. shall be considered as being potentially viable. If the laboratory reports separate values for DAPI positive and for cysts or oocysts having internal structure, the larger of the two concentrations will be reported as being potentially viable.
9. If the number of potentially viable cysts of *Giardia* reported exceeds 5 per 100 liters, a subsequent sample shall be taken and analyzed using EPA Method 1623 or other approved methods and reported using this form. If the number of potentially viable oocysts of *Cryptosporidium* reported exceeds 22 per 100 liters, a subsequent sample shall be taken and analyzed using EPA Method 1623 or other approved methods and reported using this form. This subsequent sample shall be collected within 90 days of the date the initial sample was taken, analyzed for both *Giardia* and *Cryptosporidium*, and the results of the subsequent analysis shall be submitted to DEP using this form within 60 days of sample collection.
 10. Rule 62-160.300, F.A.C., requires that all laboratories generating environmental data for submission to the DEP shall hold certification from the Department of Health's (DOH) Environmental Laboratory Certification Program (ELCP). Certification by the ELCP for analysis of *Giardia* and *Cryptosporidium* using EPA Method 1623 for non-potable waters is required. If other approved methods are used, certification by the ELCP is required for the specific method and for the test matrix. Lists of certified laboratories can be found at www.dep.state.fl.us/labs/cgi-bin/aams/index.asp
 11. Samples shall be collected during peak flow periods (normally between the hours of 8:00 a.m. and 6:00 p.m.).
 12. Recognizing that concentrations of these pathogens generally increase during the late summer through fall period, it is recommended that utilities sample during the August through October time period.
 13. If the wastewater treatment facility uses chlorination for disinfection, samples obtained for analysis of *Giardia* and *Cryptosporidium* shall be dechlorinated.
 14. When sampling at the treatment facility, obtain a grab sample for total suspended solids (TSS) that is representative of the water leaving the filters at the treatment facility during the period when pathogen

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

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

Part II - General Information

1. DEP wastewater facility identification number: **FL0037966**

Wastewater facility name: Orlando/Iron Bridge Regional WRF

Permittee name: Orlando, City of

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: FL0037966

FACILITY NAME: Orlando/Iron Bridge Regional WRF

FACILITY ADDRESS: 601 Iron Bridge Cir, Oviedo, FL 32765-8283

PERMITTEE NAME: Orlando, City of

MAILING ADDRESS: 5100 L B McLeod Rd, Orlando, Florida 32811- 7407

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		
<i>Giardia</i> , total count * PARM Code GIARD				total cysts/100 L
<i>Giardia</i> , potentially viable cysts * PARM Code VGIAR				potentially viable cysts/100 L
<i>Cryptosporidium</i> , total count * PARM Code CRYPT				total oocysts/100 L
<i>Cryptosporidium</i> , 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		
<i>Giardia</i> (total count) * PARM Code GIARD				total cysts/100 L
<i>Giardia</i> , potentially viable cysts * PARM Code VGIAR				potentially viable cysts/100 L
<i>Cryptosporidium</i> , total count * PARM Code CRYPT				total oocysts/100 L
<i>Cryptosporidium</i> , 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: FL0037966-027 (Major)

FACILITY NAME: Iron Bridge Regional WRF

FACILITY LOCATION: 601 Iron Bridge Cir, Oviedo, FL 32765-8283
Seminole County

NAME OF PERMITTEE: City of Orlando

PERMIT WRITER: Charles R. LeGros

1. SUMMARY OF APPLICATION

a. Chronology of Application

Application Number: FL0037966-027-DW1P

Application Submittal Date: December 17, 2019

Additional Information Date: May 8 and 20, 2020

b. Type of Facility

Domestic Wastewater Treatment Plant

Ownership Type: Municipal

SIC Code: 4952

c. Facility Capacity

Existing Permitted Capacity:	40.0 MGD Annual Average Daily Flow
Proposed Increase in Permitted Capacity:	0 MGD Annual Average Daily Flow
Proposed Total Permitted Capacity:	40.0 MGD Annual Average Daily Flow

d. Description of Wastewater Treatment

An existing 40 mgd annual average daily flow (AADF) wastewater treatment facility consisting of mechanical influent screening, grit removal, flow equalization, two (2) 20 mgd AADF biological nutrient removal (5-stage Bardenpho) treatment units with chemical feed facilities, secondary clarification, tertiary filtration, chlorination and a chlorine contact chamber with two chlorine contact chambers common to both treatment trains, dechlorination and post aeration facilities, with thickening, dewatering of biosolids to either a DEP approved biosolid treatment facility (BTF) or Class 1 landfill. Lime stabilization was retained as a back-up to produce Class B biosolids for land application. Biosolids storage is available onsite for wet weather events.

This facility has a collection transmission system interconnected with Orlando Conserv I WWTF. Flows can be diverted to the Iron Bridge Regional Water Reclamation Facility (WRF) from service areas for both the Water Conserv I and Water Conserv II WRFs.

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

Surface Water Discharge D-001: An existing 28 MGD annual average daily flow (AADF) discharge capacity to Little Econlockhatchee River, Class III fresh waters, (WBID# 3001) via a concrete lined channel, which is approximately 670 feet in length and discharges at the shoreline at a depth of approximately 2.5 feet. The point of discharge is located approximately at latitude 28°37' 4" N, longitude 81°13' 2" W.

Land Application R-001: An existing permitted 35.0 mgd AADF capacity discharge to a created treatment/reuse wetland system (R-001) encompassing 1,640± acres, including berms and buffer zones (1,220± acres wetted area) and consisting of eighteen (18) treatment cells. Reclaimed water from wetland system R-001 overflows via two 48-inch reinforced concrete pipes (outfalls D-002 and D-003) to an unnamed ditch then to the St. Johns River (Class III fresh waters, WBID 28931), or sheet flows across an adjacent 640± acre natural wetlands (Seminole Ranch) then to the St. Johns River, in accordance with Condition I.A.18 of this permit.

No chemical dechlorination is applied to the reclaimed water. Reclaimed water is pumped through a 48-inch force main for approximately 16 miles from the wastewater treatment facility to the influent structure of the created wetlands.

Surface Water Discharge D-002: Outfall D-002 is an existing permitted discharge to an unnamed ditch and thence to the St. Johns River, Class III fresh waters, (WBID# 28931) which is approximately 118 feet in length and discharges at a depth of approximately 2.5 feet. The point of discharge is located approximately at latitude 28°35' 0" N, longitude 80°59' 16" W.

Surface Water Discharge D-003: Outfall D-003 is an existing permitted discharge to an unnamed ditch and thence to the St. Johns River, Class III fresh waters, (WBID# 28931) which is approximately 118 feet in length and discharges at a depth of approximately 2.5 feet. The point of discharge is located approximately at latitude 28°35' 0" N, longitude 80°59' 54" W.

Land Application R-002: An existing permitted 20.3 MGD annual average daily flow capacity slow-rate public access system. R-002 is a reuse system which consists of an existing permitted 20.3 MGD annual average daily flow capacity slow rate public access system. R-002 is a reuse system consisting of public access irrigation of residential lawns, golf courses, cemeteries, parks, landscape areas, highway medians, right-of-ways within the Eastern Regional Reclaimed Water Distribution System (ERRWDS) service area. The major users identified in the attached table. The reuse system also includes an onsite 4 mg concrete ground storage tank, high service pump station, an offsite in-line booster pump station, reclaimed water transmission system, and 29.0 MG of reject storage, provided by two existing pond structures (formerly the hyacinth ponds).

Monitoring Group D-001:

To the Little Econlockhatchee River, Class III Fresh Waters

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

(Dec 2018- Nov 2019):

Parameter	Units	Max/Min	Limit	Reported Value	Statistical Basis
Flow	MGD	Max	28	4.07	Annual Average

Parameter	Units	Max/Min	Limit	Reported Value	Statistical Basis
BOD, Carbonaceous 5 day, 20C	mg/L	Max	4.28	1.05	Monthly Average
Solids, Total Suspended	mg/L	Max	17.2	0.77	Monthly Average
pH	s.u.	Max	8.5	7.5	Single Sample
pH	s.u.	Min	6.0	6.2	Single Sample
Chlorine, Total Residual	mg/L	Min	0.5	1.2	Single Sample
Chlorine, Total Residual	mg/L	Max	0.01	0	Single Sample
Nitrogen, Total	mg/L	Max	3.08	2.45	Monthly Average
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	2.14	0.94	Monthly Average
Phosphorus, Total (as P)	mg/L	Max	0.94	0.38	Monthly Average
Oxygen, Dissolved (DO)	mg/L	Min	6.1	6.5	Single Sample
Oxygen demand, Ultimate	lb/day	Max	3718	308	Monthly Average
BOD, Carbonaceous 5 day, 20C	lb/day	Max	1000	39.7	Monthly Average
Solids, Total Suspended	lb/day	Max	4000	22.7	Monthly Average
Nitrogen, Kjeldahl, Total (as N)	lb/day	Max	500	39.3	Monthly Average
Nitrogen, Total	lb/day	Max	720	92.9	Monthly Average
Phosphorus, Total (as P)	lb/day	Max	220	17.8	Monthly Average

Monitoring Group D-002:

To an unnamed ditch and thence to the St. John's River, Class III Fresh Waters

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

(Dec 2018- Nov 2019):

Parameter	Units	Max/Min	Limit	Reported Value	Statistical Basis
Flow	MGD	Max	Report	21.8	Annual Average
BOD, Carbonaceous 5 day, 20C	mg/L	Max	10.0	1.24	Monthly Average
Solids, Total Suspended	mg/L	Max	15.0	2.67	Monthly Average
pH	s.u.	Max	8.5	7.7	Single Sample
pH	s.u.	Min	6.0	6.3	Single Sample
Nitrogen, Total	mg/L	Max	2.31	0.67	Monthly Average
Phosphorus, Total (as P)	mg/L	Max	0.20	0.124	Monthly Average

Parameter	Units	Max/Min	Limit	Reported Value	Statistical Basis
Oxygen, Dissolved (DO)	mg/L	Min	5.0	5.0	Single Sample
Nitrogen, Total	Lb/day	Min	674.0	99	Monthly Average
Phosphorus, Total (as P)	Lb/day	Max	58.0	17.9	Monthly Average

Monitoring Group D-003:

To an unnamed ditch and thence to the St. Johns River, Class III Fresh Waters

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

(Dec 2018- Nov 2019):

During this period, there were no discharges. D-003 is a backup discharge point which is very rarely used.

2. SUMMARY OF SURFACE WATER DISCHARGE

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

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

3. BASIS FOR PERMIT LIMITATIONS AND MONITORING REQUIREMENTS

This facility is authorized to discharge effluent from Outfall D-001 to the Econlockhatchee River based on the following:

Parameter	Units	Max/Min	Limit	Statistical Basis	Rationale
Flow (To Little Econ River)	MGD	Max	28	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	4.28	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	4.28	Monthly Average	62-650 FAC
		Max	6.42	Weekly Average	62-600.740(2)(b)3. FAC
		Max	8.56	Single Sample	62-600.740(1)(b)1.d. FAC
Solids, Total Suspended	mg/L	Max	17.2	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	17.2	Monthly Average	62-650 FAC
		Max	25.8	Weekly Average	62-600.740(2)(b)3. FAC
		Max	34.4	Single Sample	62-600.740(2)(b)4. FAC
Coliform, Fecal	#/100mL	Max	200	Monthly Geometric Mean	62-600.440(5)(a)2. FAC
		Max	200	Annual Average	62-600.440(5)(a)1. FAC
		Max	800	Single Sample	62-600.440(5)(a)4. FAC
E.coli	#/100mL	Max	126	Monthly Geometric Mean	62-302.530(6)(b) FAC
		Max	410	90th Percentile	62-302.530(6)(b) FAC
pH	s.u.	Min	6.0	Single Sample	62-600.430, 62-302.530(52) & 62-650 FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
		Max	8.5	Single Sample	62-600.430, 62-302.530(52) & 62-650 FAC
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	62-600.440(5)(c) FAC
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	62-600.440(2) & 62-302.530(18) FAC
Chronic Whole Effluent Toxicity, 7-Day IC25 (Pimephales promelas)	percent	Min	100	Single Sample	62-302.530(20) & (62) FAC and 62-4.241(1)(b)
Acute Whole Effluent Toxicity, 96 Hour LC50 (Cyprinella leedsi)	percent	Min	100	Single Sample	62-302.530(20) & (62) FAC and 62-4.241(1)(b)
Nitrogen, Total	mg/L	Max	3.08	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	3.08	Monthly Average	62-650 FAC
		Max	4.62	Weekly Average	62-600.740(2)(b)3. FAC
		Max	6.16	Single Sample	62-600.740(2)(b)4. FAC
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	2.14	Monthly Average	62-650 FAC
		Max	2.14	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	3.21	Weekly Average	62-600.740(2)(b)3. FAC
		Max	4.28	Single Sample	62-600.740(2)(b)4. FAC
Phosphorus, Total (as P)	mg/L	Max	0.94	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	0.94	Monthly Average	62-650 FAC
		Max	1.41	Weekly Average	62-600.740(2)(b)3. FAC
		Max	1.88	Single Sample	62-600.740(2)(b)4. FAC
Oxygen, Dissolved (DO)	mg/L	Min	6.1	Single Sample	62-650 FAC
Temperature (C), Water	Deg C	Max	Report	Single Sample	62-650 FAC
Oxygen demand, Ultimate	lb/day	Max	3718	Monthly Average	62-650 FAC
BOD, Carbonaceous 5 day, 20C	lb/day	Max	1000.0	Monthly Average	Previous permits
Solids, Total Suspended	lb/day	Max	4000.0	Monthly Average	Previous permits
Nitrogen, Kjeldahl, Total (as N)	lb/day	Max	500.0	Monthly Average	62-302.531 FAC
Nitrogen, Total	lb/day	Max	720.0	Monthly Average	62-302.531 FAC
Phosphorus, Total (as P)	lb/day	Max	220.0	Monthly Average	62.302.531 FAC

Because there is no established relationship between fecal coliform and E. coli bacteria, limitations based on both the disinfection requirements for fecal coliform from subsection 62-600.440(5), F.A.C., and based on the bacteriological water quality standards for E. coli for discharges to Class III predominately fresh waters under Rule 62-302.530, F.A.C., have been included in the permit.

This facility has provided reasonable assurance that the discharge will not adversely affect the designated use of the receiving water. The facility has been meeting the current loading limits. The Department has reasonable assurance that the facility is in compliance with the new Numeric Nutrient Criteria (NNC) based on the very stringent effluent permit limits for nutrients. During the permit renewal, river sampling and effluent data were extensively evaluated. The data showed the facility is meeting the permit loading limits. The sample results are below the nutrient thresholds for the nutrient criteria for TN and TP listed in 62-302.531(2)(c) 2. FAC. 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.

The receiving water body for this discharge (WBID 3001) has a Total Maximum Daily Load (TMDL) for fecal coliform (September 2009), Rule 62-304.505(8)(a), F.A.C. The Wasteload Allocation (WLA) for the Iron Bridge Regional Water Reclamation Facility (FL0037966) is in agreement with the existing NPDES permit limits.

This facility is required to conduct chronic toxicity testing for this discharge. Results of past WET tests showed **no significant toxicity** caused by the discharge. Based on these results, the frequency of the WET tests shall continue to be required only **once every six months**. The sampling for the testing shall occur any time during a six month period when the facility is actually discharging to surface waters, unless the permittee notifies the Department in writing that for the last six months there has not been any surface water discharge. Department guidelines require the use of freshwater test species to demonstrate unacceptable toxicity ("at the end of the discharge pipe") when the effluent salinity is less than 1.0 part per thousand measured as conductivity or when the discharge is to predominantly fresh waters.

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

This facility is authorized to discharge effluent from Outfall D-002 to an unnamed ditch and thence to the St. John's River based on the following:

Parameter	Units	Max/Min	Limit	Statistical Basis	Rationale
Flow (D-002)	MGD	Max	Report	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	10.0	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	10.0	Monthly Average	62-650 FAC
		Max	15.0	Weekly Average	62-600.740(1)(b)2.c. FAC
		Max	20.0	Single Sample	62-600.740(1)(b)2.d. FAC
Solids, Total Suspended	mg/L	Max	15.0	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	15.0	Monthly Average	62-650 FAC
		Max	22.5	Weekly Average	62-600.740(1)(b)2.c. FAC
		Max	30.0	Single Sample	62-600.740(1)(b)2.d. FAC
pH	s.u.	Max	6.0	Single Sample	62-600.430, 62-302.530(52) & 62-650 FAC
		Min	8.5	Single Sample	62-600.430, 62-302.530(52) & 62-650 FAC
Nitrogen, Total	mg/L	Max	2.31	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	2.31	Monthly Average	62-650 FAC
		Max	3.47	Weekly Average	62-600.740(2)(b)3. FAC
		Max	4.62	Single Sample	62-600.740(2)(b)4. FAC
Phosphorus, Total (as P)	mg/L	Max	0.20	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	0.20	Monthly Average	62-650 FAC
		Max	0.30	Weekly Average	62-600.740(2)(b)3. FAC
		Max	0.40	Single Sample	62-600.740(2)(b)4. FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Oxygen, Dissolved (DO)	mg/L	Min	3.8	Annual Average	62-302.533 and BPJ
Nitrogen, Total	lb/day	Max	674.0	Monthly Average	62-302.531 FAC
Phosphorus, Total (as P)	lb/day	Max	58.0	Monthly Average	62-302.531 FAC

This facility is authorized to discharge effluent from Outfall D-003 to an unnamed ditch and thence to the St. Johns River based on the following:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (D-003 outfall)	MGD	Max	Report	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	10.0	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	10.0	Monthly Average	62-650 FAC
		Max	15.0	Weekly Average	62-600.740(1)(b)2.c. FAC
		Max	20.0	Single Sample	62-600.740(1)(b)2.d. FAC
Solids, Total Suspended	mg/L	Max	15.0	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	15.0	Monthly Average	62-650 FAC
		Max	22.5	Weekly Average	62-600.740(1)(b)2.c. FAC
		Max	30.0	Single Sample	62-600.740(1)(b)2.d. FAC
pH	s.u.	Min	6.0	Single Sample	62-600.430, 62-302.530(52) & 62-650 FAC
		Max	8.5	Single Sample	62-600.430, 62-302.530(52) & 62-650 FAC
Nitrogen, Total	mg/L	Max	2.31	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	2.31	Monthly Average	62-650 FAC
		Max	3.47	Weekly Average	62-600.740(2)(b)3. FAC
		Max	4.62	Single Sample	62-600.740(2)(b)4. FAC
Phosphorus, Total (as P)	mg/L	Max	0.20	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	0.20	Monthly Average	62-650 FAC
		Max	0.30	Weekly Average	62-600.740(2)(b)3. FAC
		Max	0.40	Single Sample	62-600.740(2)(b)4. FAC
Oxygen, Dissolved (DO)	mg/L	Min	3.8	Annual Average	BPJ
Nitrogen, Total	lb/day	Max	674.0	Monthly Average	62-302.531 FAC
Phosphorus, Total (as P)	lb/day	Max	58.0	Monthly Average	62-302.531 FAC

D-002 and D-003 are both effluent discharge outfalls from the created wetland (R-001). There are two so that maintenance can occur as necessary. The second discharge point to the un-named ditch (D-003) was temporarily removed from service in March 2010 for maintenance of the various treatment cells for the north flow train.

Effluent is being naturally de-chlorinated and buffered due to the retention time in the pipeline to the created wetland and in the wetland itself through dilution, turbulence, and aeration, and by ultraviolet radiation from the sun. Chemical dechlorination is not required by this permit. As in previous permits, monitoring for pH is required, but is reduced to a daily grab sample rather than continuous metering.

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. The facility has been meeting the current loading limits. The Department has reasonable assurance that the facility is in compliance with the new Numeric Nutrient Criteria (NNC) based on the stringent effluent limits for nutrients in the permit. During the permit renewal, annual river sampling and effluent data were evaluated. The data showed the facility is meeting the permit loading limits, and that there were Total Nitrogen and Total Phosphorus concentration reductions from upstream to downstream sampling locations. The facility sample results are below the nutrient thresholds for the nutrient criteria for TN and TP listed in 62-302.531(2)(c) 2. FAC. 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.

Toxicity Testing is not required for the discharge from the created wetland system.

This facility is authorized to direct reclaimed water to Reuse System R-001, a created wetland system, based on the following:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (To wetlands)	MGD	Max	35.0	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	10.0	Annual Average	62-610.410 & 62-600.420(3)(a)1. FAC
		Max	10.0	Monthly Average	62-610.410 & 62-600.420(3)(a)2. FAC
		Max	15.0	Weekly Average	62-610.410 & 62-600.420(3)(a)3. FAC
		Max	20.0	Single Sample	62-610.410 & 62-600.420(3)(a)4. FAC
Solids, Total Suspended	mg/L	Max	15.5	Annual Average	62-610.410 & 62-600.420(3)(b)1. FAC
		Max	15.5	Monthly Average	62-610.410 & 62-600.420(3)(b)2. FAC
		Max	22.5	Weekly Average	62-610.410 & 62-600.420(3)(b)3. FAC
		Max	30.0	Single Sample	62-610.410 & 62-600.420(3)(b)4. FAC
Coliform, Fecal	#/100mL	Max	200	Annual Average	62-62-600.440(5)(a)1 FAC
		Max	200	Monthly Geometric Mean	62-62-600.440(5)(a)2 FAC
		Max	400	90th Percentile	62-62-600.440(5)(a)3 FAC
		Max	800	Single Sample	62-62-600.440(5)(a)4 FAC
pH	s.u.	Min	6.0	Single Sample	62-600.445 FAC
		Max	8.5	Single Sample	62-600.445 FAC
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	62-610.410 & 62-600.440(5)(c) FAC
Nitrogen, Total	mg/L	Max	6.0	Monthly Average	62-650 FAC
		Max	6.0	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	9.0	Weekly Average	62-600.740(1)(b)2.c. FAC
		Max	12.0	Single Sample	62-600.740(1)(b)2.d. FAC
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Monthly Average	62-650 FAC
Phosphorus, Total (as P)	mg/L	Max	0.75	Annual Average	62-600.740(1)(b)2.a. FAC
		Max	0.75	Monthly Average	62-650 FAC
		Max	1.13	Weekly Average	62-600.740(1)(b)2.c. FAC
		Max	1.50	Single Sample	62-600.740(1)(b)2.d. FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Oxygen, Dissolved (DO)	mg/L	Max	Report	Monthly Average	62-650 FAC

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

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (Public access reuse)	MGD	Max	Report	Annual Average	62-600.700(2)(b) & 62-610.810(5) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) & 62-610.810(5) FAC
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
		Max	5.0	Single Sample	62-610.460(1) & 62-600.440(6)(a)3. FAC
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	62-610.460(1) & 62-600.440(6)(a)3. FAC
Coliform, Fecal	#/100mL	Max	25	Single Sample	62-610.460 & 62-600.440(6)(a)2. FAC
Coliform, Fecal, % less than detection	percent	Min	75	Minimum Total	62-610.460 & 62-600.440(6)(a)1. FAC
pH	s.u.	Min	6.0	Single Sample	62-600.445 FAC
		Max	8.5	Single Sample	62-600.445 FAC
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
Giardia	cysts/100L	Max	Report	Single Sample	62-610.463(4) FAC
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	62-610.463(4) FAC
Nitrogen, Total	mg/L	Max	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

Monitoring for Total Nitrogen and Total Phosphorus in the reclaimed water is continued to be required state-wide to determine the impact of reclaimed water irrigation on surface and ground waters. [62-600.650(3)]

Other Limitations and Monitoring Requirements:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow (Total through plant)	MGD	Max	40	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

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
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. IMPAIRMENT STATUS OF RECEIVING WATERS

D-001, WBID 3001, Copper - This waterbody is impaired for this parameter based on the number of exceedances for the sample size.

D-002/003, WBID #28931 – DEP is developing TMDL for this WBID.

D-002/003, WBID #28931, Total Nitrogen - The waterbody is impaired for this parameter based on the annual geometric mean exceeding the nutrient threshold more than once in a three-year period; however, this parameter is being placed in assessment category 4d based on insufficient supporting biological data. This parameter is being added to the 303(d) list for the waterbody.

D-002/003, WBID #28931, Iron - The waterbody is impaired for this parameter based on the number of exceedances for the sample size and is being added to the 303(d) list for the waterbody.

D-002/003, WBID #28931, D.O. - This waterbody is impaired for this parameter based on the number of exceedances for the sample size and Nutrients were identified as the causative pollutant. Nutrients were identified as the causative pollutant in cycle 1. Nutrients remain a causative pollutant in cycle 3. This parameter will remain on the 303(d) list. Dissolved oxygen grab samples used in this analysis were assessed against a time of day adjustment as described in Rule 62-303.420(9), F.A.C.

D-002/003 Silver- This waterbody is impaired for this parameter based on the number of exceedances for the sample size. Fewer than twenty samples can be used to identify a waterbody as impaired if there are at least five exceedances, per Rule 62-303.420(7)(a) F.A.C. This parameter will remain on the 303(d) List.

5. DISCUSSION OF CHANGES TO PERMIT LIMITATIONS

The new wastewater permit for this facility FL0037966-027-DW1P expires on October 21, 2025.

Based on changes to Rule 62-302.530, F.A.C., bacteriological water quality standards for E. coli for discharges to D-001 (Class III predominately fresh waters) have been included in the permit.

Previous permits for this facility included a dissolved oxygen limit of 3.8 mg/L for water being discharged from the wetland (D-002 and D-003). The last permit FL0037966-022 revised the limit to 5.0 mg/l for the new dissolved oxygen standard for direct discharges from the facility. Since these discharge points D-002 and D-003 are not direct discharges from the facility but are from a created/treatment wetland, the limit is being revised back to 3.8 mg/L.

The permit is conditioned to require modifications to the facility's continuing river sampling program. The permittee must propose two new sample points in the Little Econlockhatchee River, one sample point in close proximity to the discharge (near field) and one sample point downstream of the discharge (far field). During the next permit cycle, Stream Condition Index (SCI) survey testing will be required at these locations. Please coordinate with Daryll Joyner, Program Administrator of the Water Quality Standards Program, and the Department's Central District office for development and review of the additional sampling requirements and to receive approval prior to conducting the sampling.

The permittee shall sample the following monitoring well(s): MWC-3 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 at least 180 days before submittal of the renewal application. [62-520.600(5)(b)]

For D-001 (historical – from 2010 permit)

In addition to the limitations indicated above, the monthly average mass discharge to the Little Econlockhatchee River shall not exceed the following limitations:

Parameter	Maximum Mass Loading (Lbs/day)
CBOD5	1,000.0
Total Suspended Solids	4,000.0
Total Kjeldahl Nitrogen (TKN)	500.0
Total Nitrogen	720.0
Total Phosphorus	220.0

In-stream surface water samples shall be taken at the monitoring site locations listed in the permit.

A Basin Management Action Plan was adopted by the Department for fecal coliform for the Little and Big Econlockhatchee water bodies, but it was determined that the wastewater effluent was not contributing to the impairment and existing effluent limits are adequate.

For D-002 and D-003 (historical - from 2010 permit)

Effluent is being naturally de-chlorinated and buffered due to the retention time in the created wetland, dilution, turbulence, aeration, and ultraviolet radiation. Chemical dechlorination is not required by this permit. As required in previous permits, monitoring for pH is required, but is reduced to a daily grab sample rather than continuous monitoring.

In addition to the limitations indicated above, the monthly average mass discharge from the created wetlands system shall comply with the following limitations:

Parameter	Maximum Mass Loading (Lbs/day)
Total Nitrogen	674
Total Phosphorus	58
Dissolved Oxygen	3.8 mg/L (annual average) 1.5 mg/L (rainy season only)

Flow shall not be diverted (sheet flow) across the Seminole Ranch Wetlands unless requested to do so by the St. Johns River Water Management District. If flow is diverted to the Seminole Ranch Wetlands, the City shall document such occurrence in the monthly Discharge Monitoring Reports (DMR), as appropriate.

Reclaimed water discharge limitations for the combination of the discharge from the Iron Bridge wastewater treatment plant to the Little Econlockhatchee River (Outfall D-001) and from the created wetlands system (Outfalls D-002 and D-003), shall be in accordance with Compliance Agreement 84-1024 (executed in 1984 when the system was first constructed) for total mass loadings of nitrogen (total nitrogen - 720 lbs/day) and phosphorus (total phosphorus - 220 lbs/day) to Lake Harney, except for an additional 60 lbs/day of total nitrogen which may be discharged from the created wetlands system. The additional nitrogen loading allowed is a credit for reduction of non-point source loading (cattle pasture) which previously discharged directly from existing drainage ditches. Provisions for reporting of these loadings are included in the Discharge Monitoring Report issued with the permit. This segment of the St. Johns River is included on the 1998 303d planning list for nutrients and mercury (based on fish consumption advisory).

The downstream segment of the St. Johns River at Lake Harney is listed as impaired for DO and nutrients; and the FDEP adopted a TMDL and BMAP for the Middle St. Johns River effective October 15, 2009, that included both Lake Harney (nutrients) and the Little Econlockhatchee River (fecal coliforms). The TMDL for Lake Harney required reductions in nutrient loading upstream but did not specifically address domestic wastewater wasteload allocations (WLAs) as they are located far upstream in the watershed and provide very low levels of nutrients in the discharges. The TMDL for the Little Econlockhatchee just required that the facility discharge meet its existing NPDES permit limits for fecal coliform. Therefore, the current discharge limits are considered to be protective of the water body.

6. BIOSOLIDS MANAGEMENT REQUIREMENTS

Biosolids generated by this facility may be land applied or disposed of in a Class I solid waste landfill. Storage of biosolids in “locked out” trailers has been previously approved for this facility.

See the table below for the rationale for the Class B biosolids limits and monitoring requirements.

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Nitrogen, Sludge, Tot, Dry Wt (as N)	percent	Max	Report	Single Sample	62-640.650(1)(b) FAC
Phosphorus, Sludge, Tot, Dry Wt (as P)	percent	Max	Report	Single Sample	62-640.650(1)(b) FAC
Potassium, Sludge, Tot, Dry Wt (as K)	percent	Max	Report	Single Sample	62-640.650(1)(b) FAC
Arsenic Total, Dry Weight, Sludge	mg/kg	Max	75.0	Single Sample	62-640.650(1)(b) & 700(1), FAC
Cadmium, Sludge, Tot, Dry Weight (as Cd)	mg/kg	Max	85.0	Single Sample	62-640.650(1)(b) & 700(1), FAC
Copper, Sludge, Tot, Dry Wt. (as Cu)	mg/kg	Max	4300.0	Single Sample	62-640.650(1)(b) & 700(1), FAC
Lead, Dry Weight, Sludge	mg/kg	Max	840.0	Single Sample	62-640.650(1)(b) & 700(1), FAC

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Mercury, Dry Weight, Sludge	mg/kg	Max	57.0	Single Sample	62-640.650(1)(b) & 700(1), FAC
Molybdenum, Dry Weight, Sludge	mg/kg	Max	75.0	Single Sample	62-640.650(1)(b) & 700(1), FAC
Nickel, Dry Weight, Sludge	mg/kg	Max	420.0	Single Sample	62-640.650(1)(b) & 700(1), FAC
Selenium Sludge Solid	mg/kg	Max	100.0	Single Sample	62-640.650(1)(b) & 700(1), FAC
Zinc, Dry Weight, Sludge	mg/kg	Max	7500.0	Single Sample	62-640.650(1)(b) & 700(1), FAC
pH	s.u.	Max	Report	Single Sample	62-640.650(1)(b) FAC
Solids, Total, Sludge, Percent	percent	Max	Report	Single Sample	62-640.650(1)(b) FAC
Calcium Carbonate Equivalent	percent	Max	Report	Single Sample	62-640.650(3)(a)3. FAC
Monitoring Frequency	All Parameters				62-640.650(3)(a)4. FAC
Pathogen and vector attraction reduction monitoring	All Parameters				62-640.600 & 650(3)(a)1. FAC

***Biosolids monitoring was previously reduced to every two months due to ample amount of historic data provided.**

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

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

7. GROUND WATER MONITORING REQUIREMENTS

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

The Department approves the September 29, 2020 request to increase the Total Dissolved Solids (TDS) and chlorides limits in the compliance wells based on background sample results and extensive sampling. TDS has been increased to 945 mg/L and chlorides has been increased to 400 mg/L.

The Department has been adding the following condition to large facilities (permit condition III.B.12):

The permittee shall sample the following monitoring well(s): MWC-3 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)]

8. PERMIT SCHEDULES

See Permit.

9. INDUSTRIAL PRETREATMENT REQUIREMENTS

The permittee has an active, approved industrial pretreatment program. The permit includes standard conditions requiring implementation and enforcement of the existing program.

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

This permit is not accompanied by an AO or CO.

11. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

No variances were requested for this facility.

12. THE ADMINISTRATIVE RECORD

The administrative record including application, draft permit, fact sheet, public notice (after release), comments received and additional information is available for public inspection during normal business hours at the location specified in item 14. Copies will be provided at a minimal charge per page. You can also view these documents in Oculus, the Department's electronic filing system, at the following link:

[https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=hitlist&\[freeText=\]&\[folderName=\]&\[profile=Permitting_Authorization\]&\[creator=\]&\[entityType=any\]&\[createdDateTo=\]&\[catalog=38\]&\[searchBy=Profile\]&\[sortBy=Document+Date\]&\[createdDate=\]&\[County= EQ_SEMINOLE\]&\[District= EQ_CD\]&\[Facility-Site+ID= EQ_FL0037966\]&\[Received+Date= RG_\(12-18-2019,07-28-2020\)\]&\[Permit+Type= EQ_DW+-+DOMESTIC+WASTEWATER+FACILITY\]&\[Facility+Type= LK_DOMESTIC+WASTEWATER\].](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_SEMINOLE]&[District= EQ_CD]&[Facility-Site+ID= EQ_FL0037966]&[Received+Date= RG_(12-18-2019,07-28-2020)]&[Permit+Type= EQ_DW+-+DOMESTIC+WASTEWATER+FACILITY]&[Facility+Type= LK_DOMESTIC+WASTEWATER].)

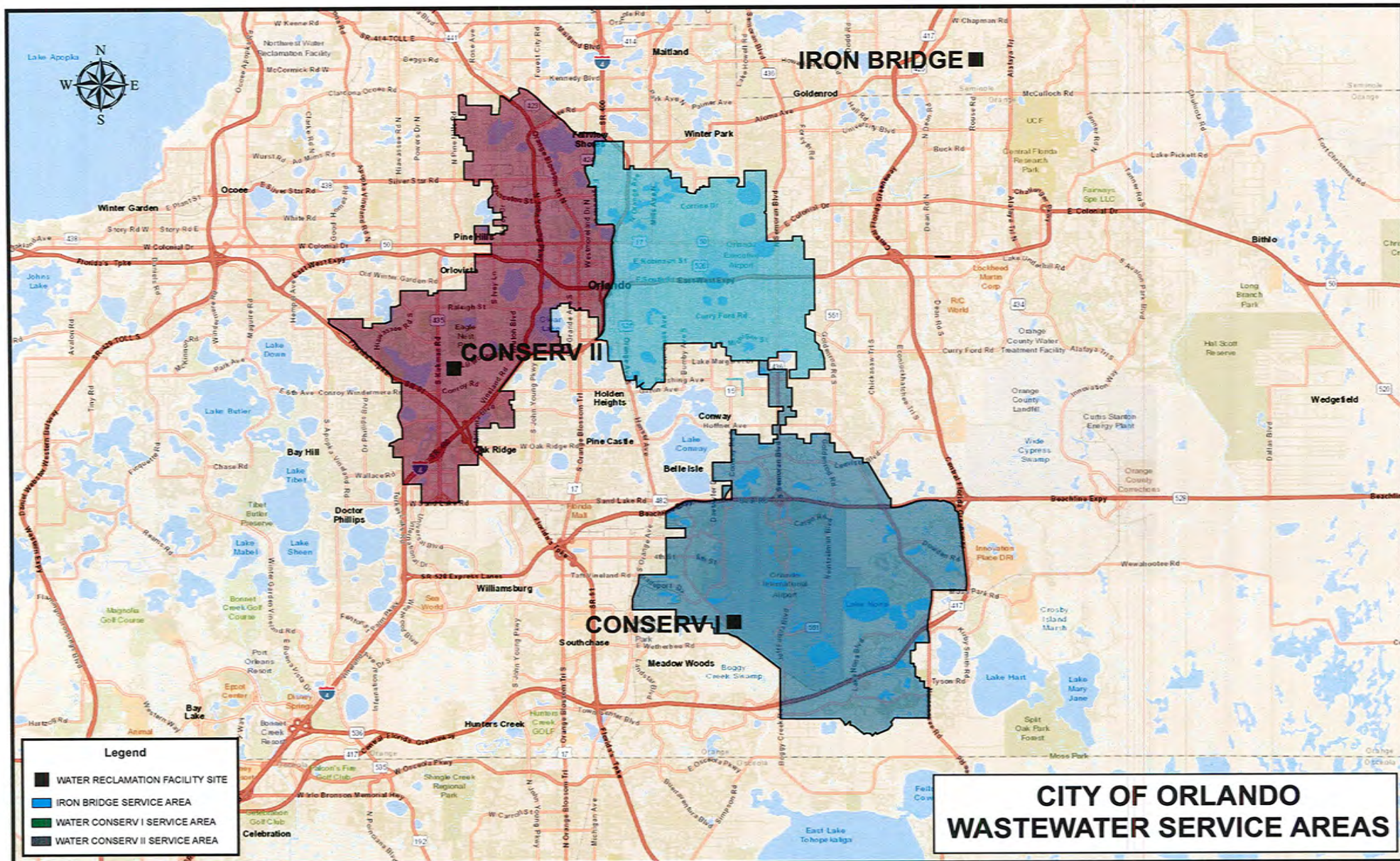
13. PROPOSED SCHEDULE FOR PERMIT ISSUANCE

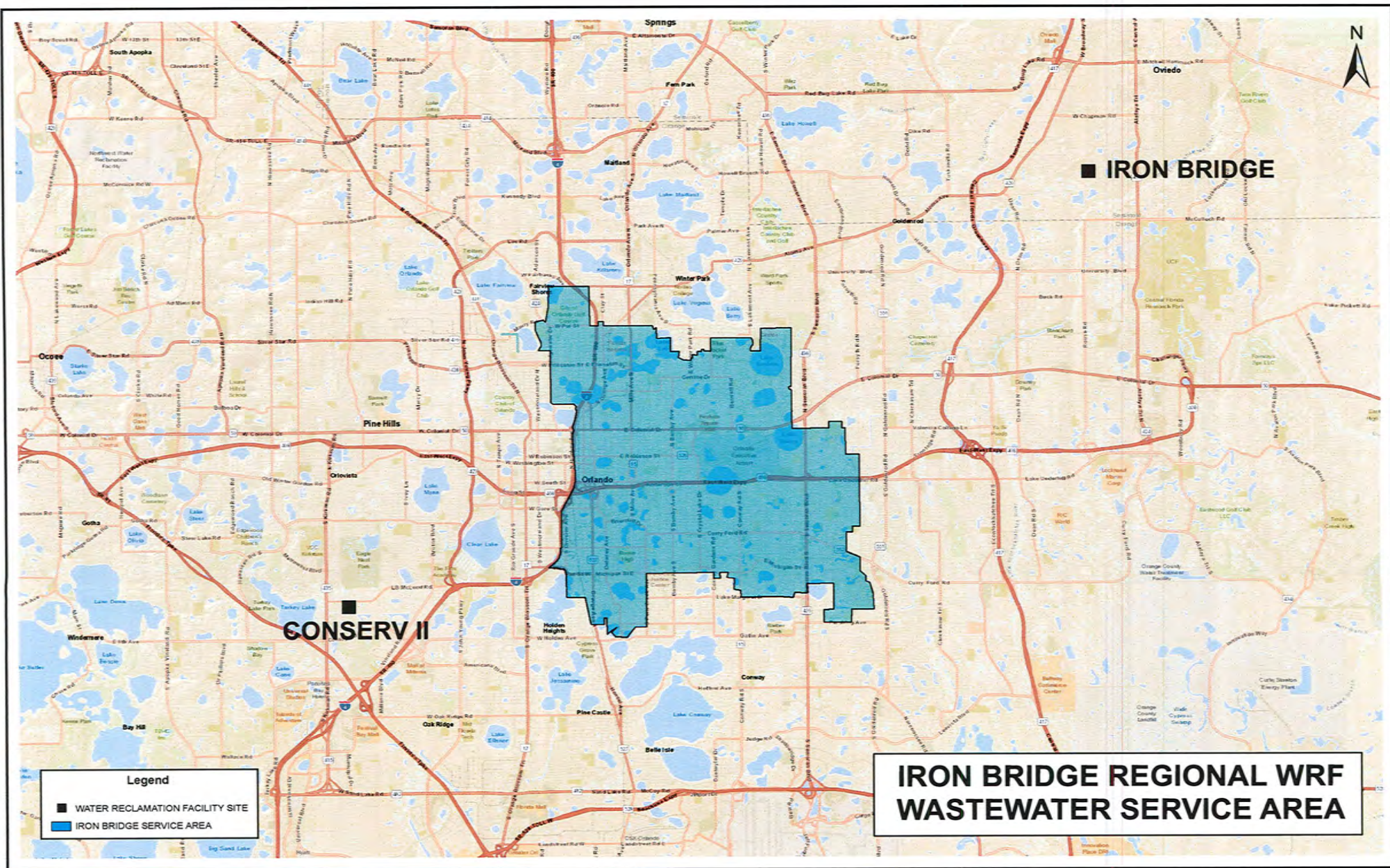
Draft Permit and Public Notice to Applicant and EPA	July 31, 2020
Public Comment Period	Beginning: August 15, 2020 Ending: September 14, 2020
Proposed Permit to EPA	July 29, 2020
Notice of Intent to Issue	September 15, 2020
Notice of Permit Issuance	October 22, 2020

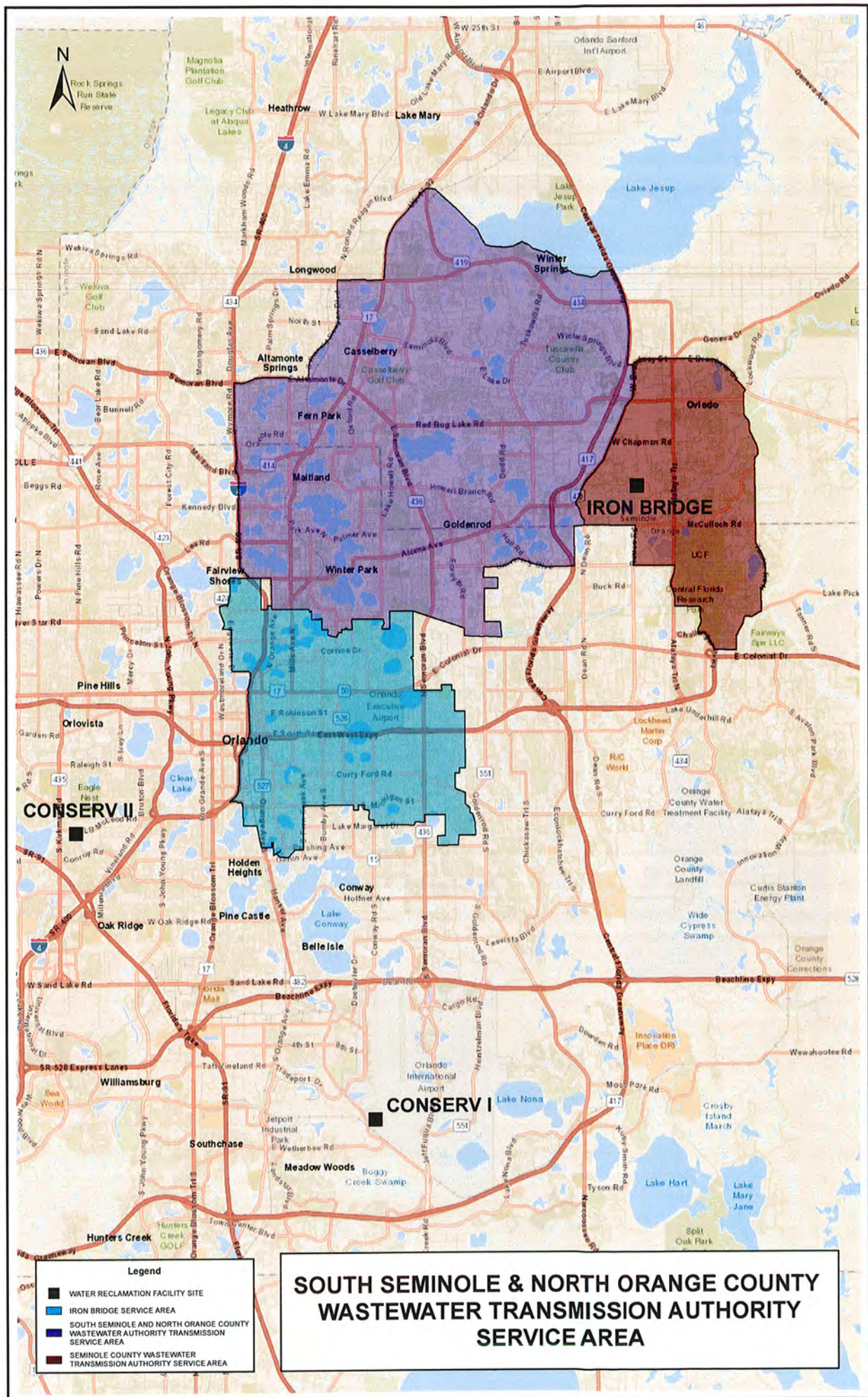
14. DEP CONTACT

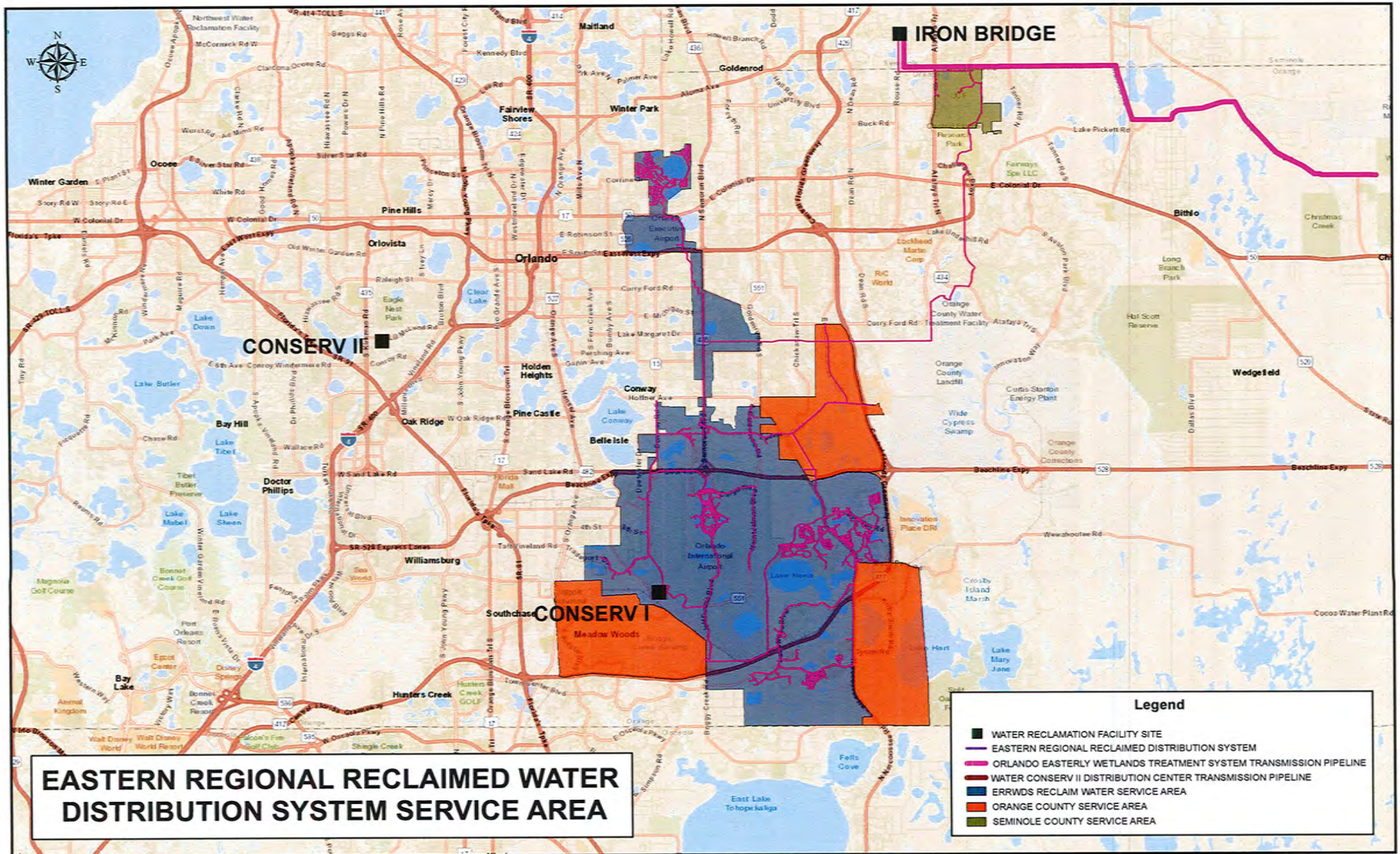
Additional information concerning the permit and proposed schedule for permit issuance may be obtained during normal business hours from:

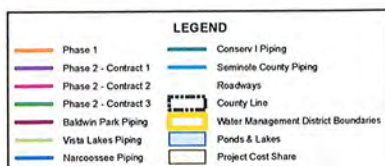
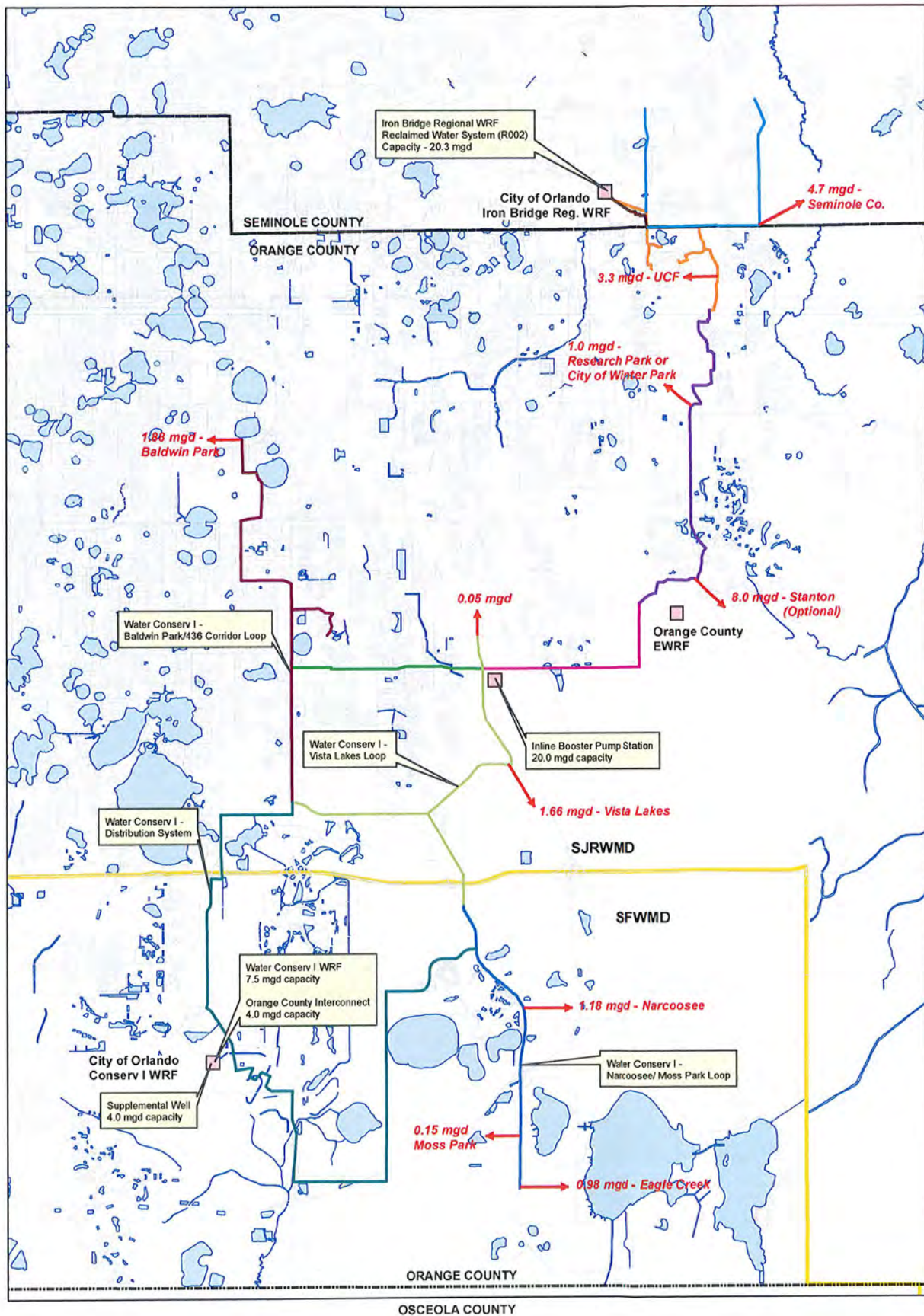
Charles LeGros
Environmental Consultant
Charles.legros@dep.state.fl.us
Central District Office
3319 Maguire Blvd
Suite 232
Orlando, FL 32803-3767
Telephone No.: (407) 897-4158



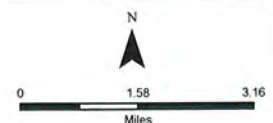








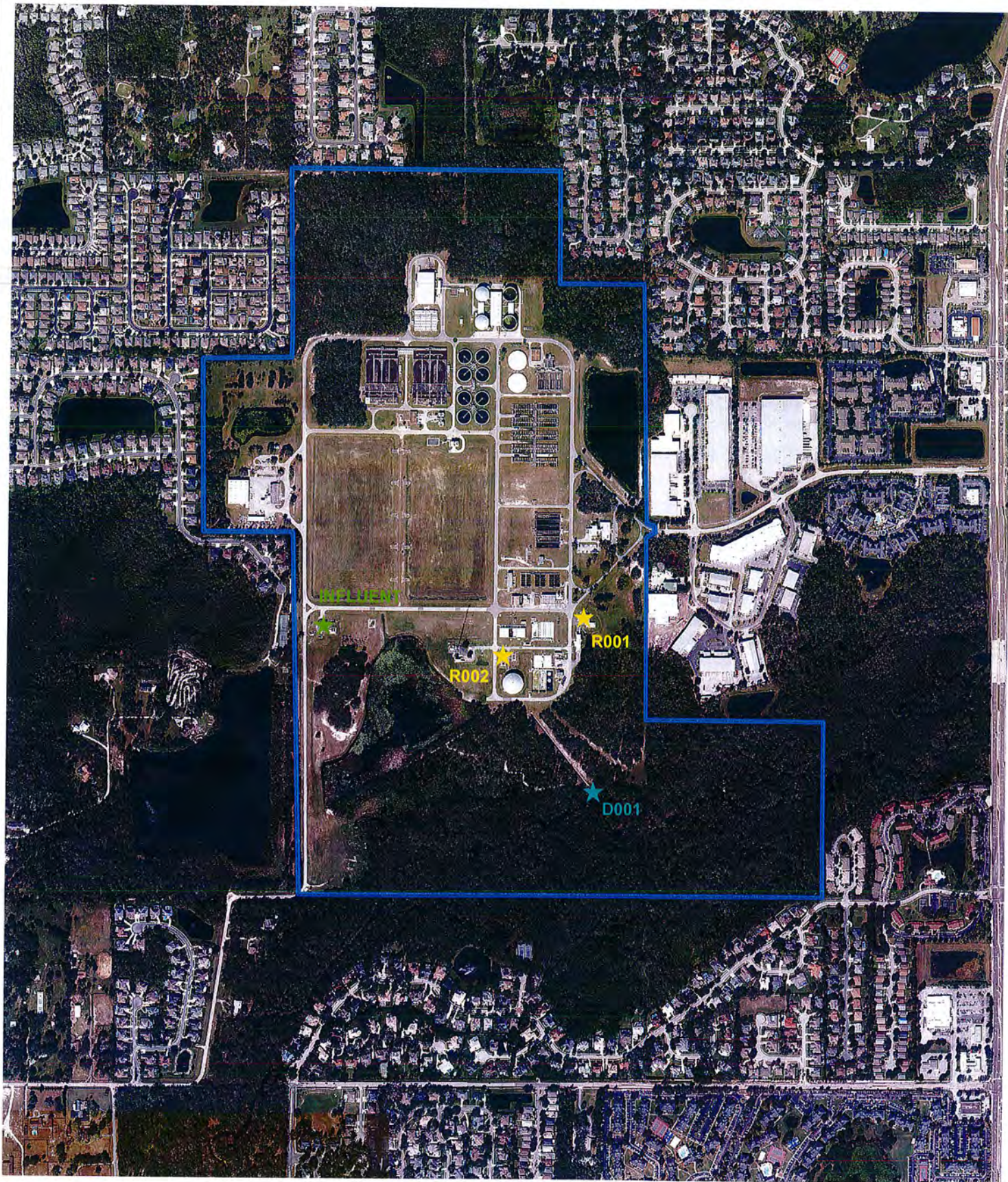
Eastern Regional Reclaimed Water Distribution System



H:\TECH_SUPPORT_343\ArcGIS_Workspace\EA\ERW\ERW03\Revised_011808_ERW03_Demand_Distribution.mxd



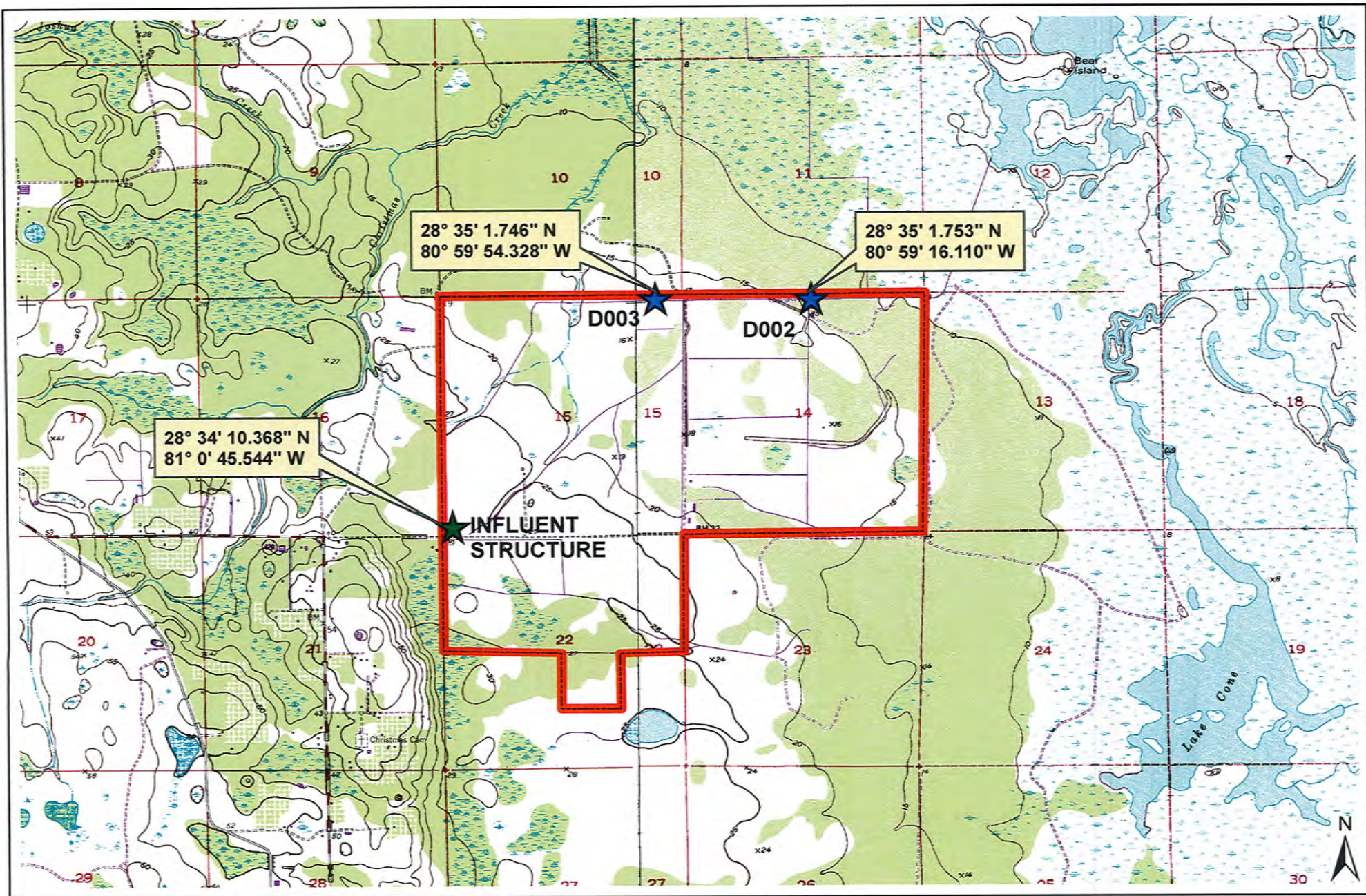
IRON BRIDGE REGIONAL WRF TOPOGRAPHIC MAP



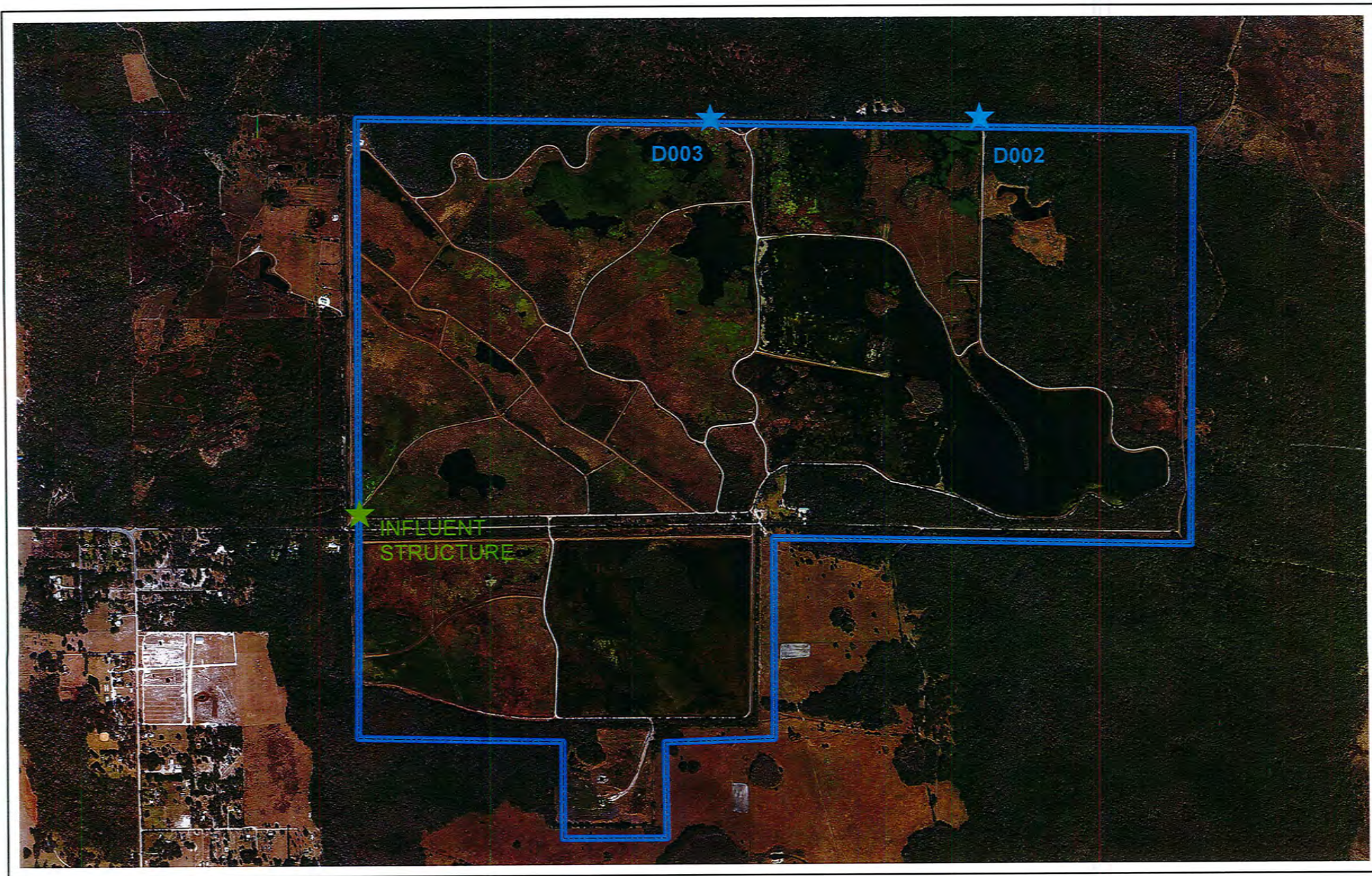
0 750 1,500
Feet

IRON BRIDGE REGIONAL WRF AERIAL MAP





**ORLANDO EASTERLY WETLANDS TREATMENT SYSTEM
TOPOGRAPHIC MAP**



0 1,150 2,300
Feet

ORLANDO EASTERLY WETLANDS TREATMENT SYSTEM AERIAL

