ORLANDO EASTERLY WETLANDS

ANNUAL REPORT 2024

Compliance and Performance Review

CITY OF ORLANDO
WATER RECLAMATION

MESSAGE FROM THE MAYOR

In its role as a municipal government, the City of Orlando is committed to providing residents and visitors with top-rate services and amenities. The Orlando Easterly Wetlands are unique because they allow us to provide both at the same time.

One of the world's first large-scale, manmade wetlands designed for the advanced treatment of reclaimed water, the Orlando Easterly Wetlands also serves as a home for countless wildlife species and a location for recreation activities for residents and those visiting our community. The facility is 1,650 acres in size and guests can participate in hiking, wildlife viewing, biking, horseback riding and guided tours. In 2024, more than 80,000 people visited the wetlands.

We are proud that the Orlando Easterly Wetlands has won numerous environmental and engineering awards over the years. As a city, we are also proud that the wetlands represent a cost-effective and sustainable solution for wastewater treatment. I hope you find this annual report informative.

Sincerely,

Buddy Dyer
Mayor

Orlando Easterly Wetlands Compliance and Performance Review for the City of Orlando's Easterly Wetlands Treatment System

2024 Annual Report

April 2025

Prepared for
Florida Department of Environmental Protection
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803

Prepared by
Matthew Mosquera
Orlando Easterly Wetlands
Public Works Department – Water Reclamation Division
25155 Wheeler Road
Christmas, Florida 32709

Cover Photo Taken by
Randy Snyder

Table of Contents

Tables

Tables

Figures

Figures

Appendices

A 2024 USGS St. Johns River Gage Height and Discharge Data

B 2024 St. Johns River and Little Econlockhatchee River Monthly Water Quality Data

C 2024 OEW Monthly Water Quality and Performance Data

D 2024 OEW Semiannual Metals, Organochlorine Pesticides, PCB’s and Volatile Organic Compound Data

Introduction

The City of Orlando's Orlando Easterly Wetlands (OEW) Annual Report summarizes the operational data of the calendar year 2024 and fulfills the requirements of Chapter 62-611.700 (1) detailed in the Florida Department of Environmental Protection (FDEP) Domestic Wastewater Facility Permit No. FL0037966. The report includes a review of historical data and trends as they relate to the operation of the OEW.

The purposes of the City of Orlando Easterly Wetlands (OEW) Annual Report include:

- Summarize the operational and monitoring data for Calendar Year 2024.
- Comply with the requirements set forth in Chapter 62-611.700(1), F.A.C. and (FDEP) Domestic Wastewater Facility Permit (No. FL 0037966) for the Iron Bridge Regional Water Reclamation Facility (WRF).
- Review historical data and performance trends related to the operation and maintenance of the OEW during Calendar Year 2024.
- Provide a compliance and performance review of the operations of the Orlando Easterly Wetlands treatment system.
- Summarize the Orlando Easterly Wetlands public outreach and volunteer programs during Calendar Year 2024.

1 Background

1.1 Iron Bridge Regional Water Reclamation Facility

The Iron Bridge Regional Water Reclamation Facility (Iron Bridge) was built in 1982 in Oviedo, Florida (Figure 1-1). It is owned and managed by the City of Orlando and provides service to approximately 400,000 people in the Cities of Orlando, Winter Park, Maitland, Casselberry as well as parts of unincorporated Orange and Seminole Counties. Iron Bridge is permitted to receive 40 million gallons per day (MGD) of wastewater. Once treated, the effluent is distributed to public access reuse, the Little Econlockhatchee River as well as the man-made Orlando Easterly Wetlands (OEW).

Nutrients are removed and reduced as the reclaimed water passes through the wetland system by biological and chemical processes, including plant uptake, assimilation into the plant matter and roots, adsorption into the soil, and nitrification/denitrification. Careful operation and regulation of flows, water levels, and hydrological cycle are essential to avoid the potential release of sequestered nutrients within plant matter and soils back into the water column and flow stream.

1.2 Orlando Easterly Wetlands

Iron Bridge is permitted to send an annual average daily flow up to 35 MGD of treated, reclaimed water through 17 miles of force main pipeline to the OEW located in Christmas, Florida (Figure 1-2). OEW's primary purpose is to provide additional nutrient removal to a

portion of the water discharged by Iron Bridge. Prior to being created, the land was historically used for agriculture.

OEW was originally intended to have three vegetative communities: a 410 acre of deep marsh primarily comprised of cattail (*Typha* spp) and bulrush (*Schoenoplectus* spp) designed to accomplish nutrient removal; a 380-acre mixed marsh comprised of over 60 submerged and emergent herbaceous species designed to provide wildlife habitat and additional nutrient removal; and a 400-acre area originally planted as a hardwood swamp with an herbaceous understory. The trees in the hardwood swamp did not establish as planned and the area is now managed as a mixed marsh habitat. An approximately 90-acre lake (Lake Searcy) is located within the final treatment areas (Cells 16 and Cell 17). The lake was constructed to provide fill material for the 18 miles of earthen levees and to enhance wildlife habitat. Because of the environmental enhancement provided by the varied wildlife habitats and the recreation of lost wetland habitats, the OEW is considered a beneficial reuse system under FDEP rules.

OEW was originally designed to receive 20 MGD; however, FDEP limited flows to 13 MGD because it was one of the first systems of its kind implemented in Florida. Flows were gradually increased to the full 20 MGD. After more than eight years of proven performance, testing began in 1997 through early 1998, to simulate higher flows through the OEW system. Three simulations were performed that involved loadings at approximately 10, 14 and 15 MGD through one-third of the wetlands to simulate flows of 30, 40 and 45 MGD, respectively. The testing results were included in the 1997 OEW Monitoring Report. Based on the results, the FDEP permit was modified on September 4, 2001, to increase the OEW capacity to 35 MGD.

The OEW was originally designed with 17 treatments cells and one outfall (D002). In 2003, following approval of FDEP, Cell 18 and a second outfall (D003) were added to accommodate the higher capacity and provide greater flexibility in managing the system. An additional berm was created between Lake Searcy and Cell 17 in 2007. Two control structures (WLLS1 and WLLS2) were constructed along the new berm, allowing greater hydraulic control. A map of the individual treatment cells is presented in Figure 1-3.

In 2015, the City of Orlando upgraded Iron Bridge's Wetland Pump Station that supplies water to the OEW. Thirty-one (31) air release valves (ARVs) were replaced along with the Wetland's pipeline. The Wetland Pump Station was renovated and equipped with new pumps and electrical gear. D002's outfall pipe began leaking and causing erosion behind the articulating concrete block channel that was installed in 2017. In May 2018, D002 outfall's pipe was lined to prevent erosion and leaking.

Figure 1-1 Map of Iron Bridge Regional Water Reclamation Facility

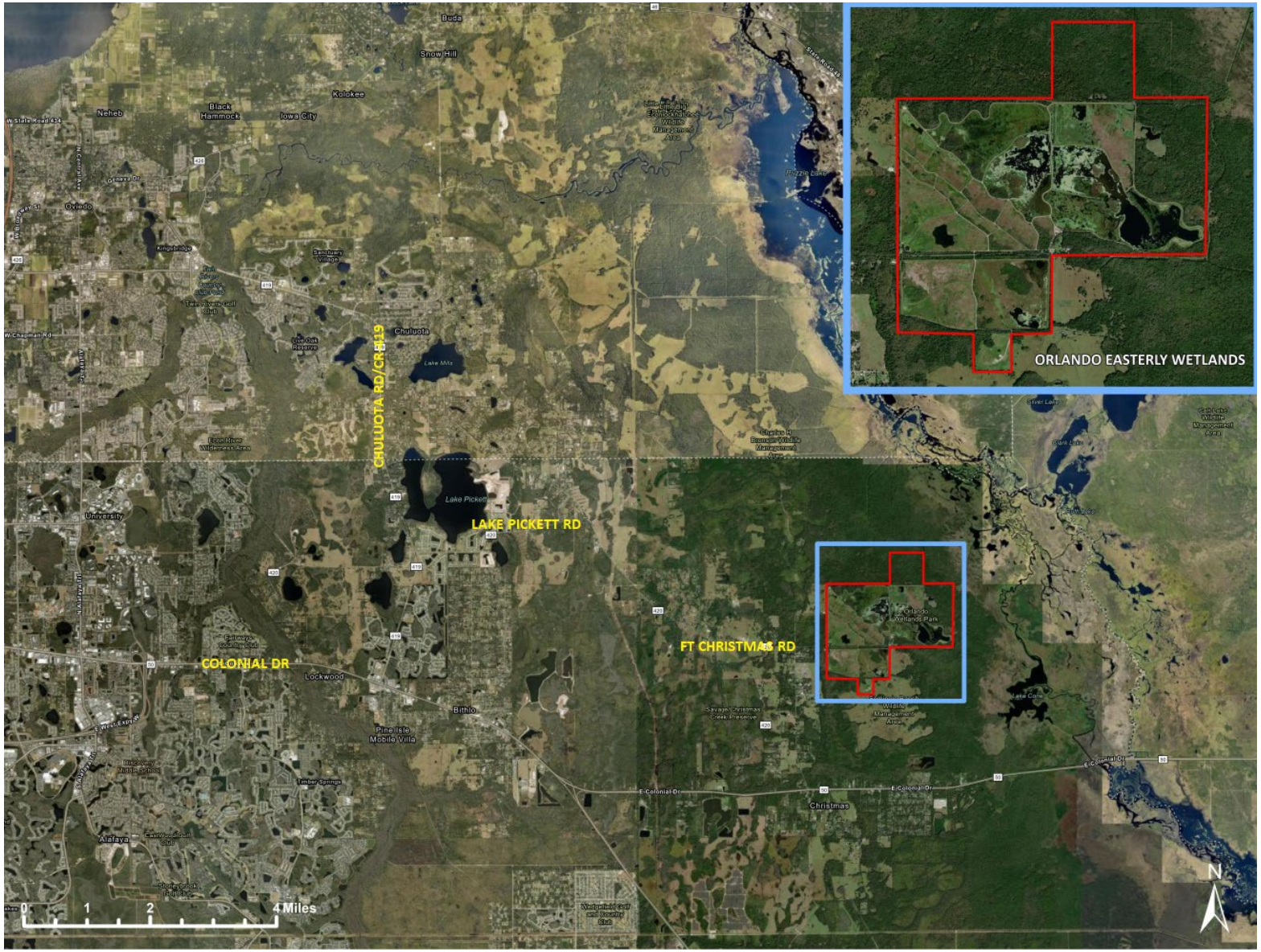

Figure 1-2 Map of Orlando Easterly Wetlands

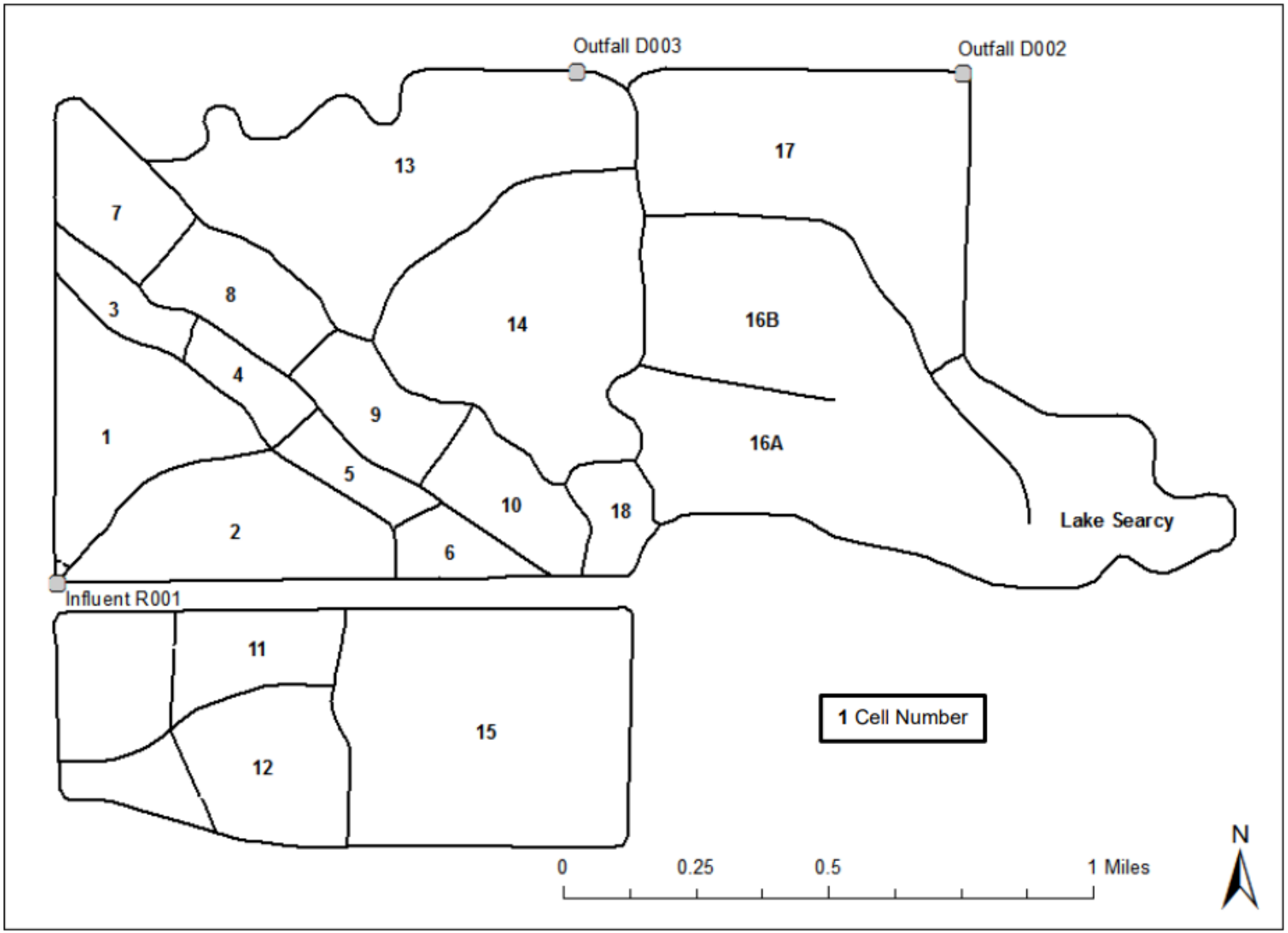

Figure 1-3 Orlando Easterly Wetlands Site Map

2 Iron Bridge Regional Water Reclamation Facility and the Little Econlockhatchee River

2.1 General Overview

The City of Orlando monitors the Little Econlockhatchee River at an upstream (Econ Up), downstream (Econ Down), and far field location (Econ A) from Iron Bridge. A map of the sampling sites and Iron Bridge are depicted in Figure 2-1. In 2024, there were no adequate USGS discharge monitoring sites for the Little Econlockhatchee River near the Econ Up sampling station. The river, however, is monitored downstream of Iron Bridge near Econ A at USGS Station 02233475. The station is in Seminole County, Florida on the downstream side of State Road 434 Bridge, 3.5 miles south of Oviedo and 3.8 miles from Little Econlockhatchee River's mouth. Discharge and gage heights are collected daily at the USGS station. Monthly water quality samples are collected by the City of Orlando at Econ Up, Econ Down, and Econ A (Appendix B).

Iron Bridge's discharge site (D001) is monitored daily by the City of Orlando. In 2024, D001 annual average flow was 2.48 MGD with a total nitrogen (TN) concentration of 2.07 mg/L and a total phosphorus (TP) of 0.280 mg/L. Water quality data for Econ Up, Econ Down and Econ A monitoring stations are included in Appendix B and summarized in Table 2-1. A bar chart comparison of the parameters, both upstream and downstream of Iron Bridge discharge is depicted in Figure 2-2. Figure 2-3 depicts monthly flow rates (in MGD) at D001 and its downstream location on the Little Econlockhatchee River. Figure 2-4 indicates the percent flow comparison of Iron Bridge and the Little Econlockhatchee River. In 2024, Iron Bridge discharge comprised 3.47% of the Little Econlockhatchee River flow. The highest proportions occurred in April and May, with 6.0% and 7.0% flow, respectively.

Table 2-1 Summary of 2024 Little Econlockhatchee River Water Quality Data Upstream and Downstream of the Iron Bridge Regional Water Reclamation Facility Discharge

Parameter	Upstream of Iron Bridge WRF: Econ Up	Downstream of Iron Bridge WRF: Econ Down (Near Field)	Downstream of Iron Bridge WRF: Econ A (Far Field)
Total Ammonia (mg/L)	0.03	0.04	0.04
Total Kjeldahl Nitrogen (mg/L)	0.64	0.77	0.71
Nitrate/Nitrite (mg/L)	0.15	0.19	0.19
Total Nitrogen (mg/L)	0.78	0.96	0.90
Total Phosphorus (mg/L)	0.08	0.11	0.10
Carbonaceous Biochemical Oxygen Demand (mg/L)	2.38	2.24	2.17
Dissolved Oxygen (mg/L)	6.32	5.98	6.16
Chlorophyll-a (mg/m^3)	5.56	7.40	5.26

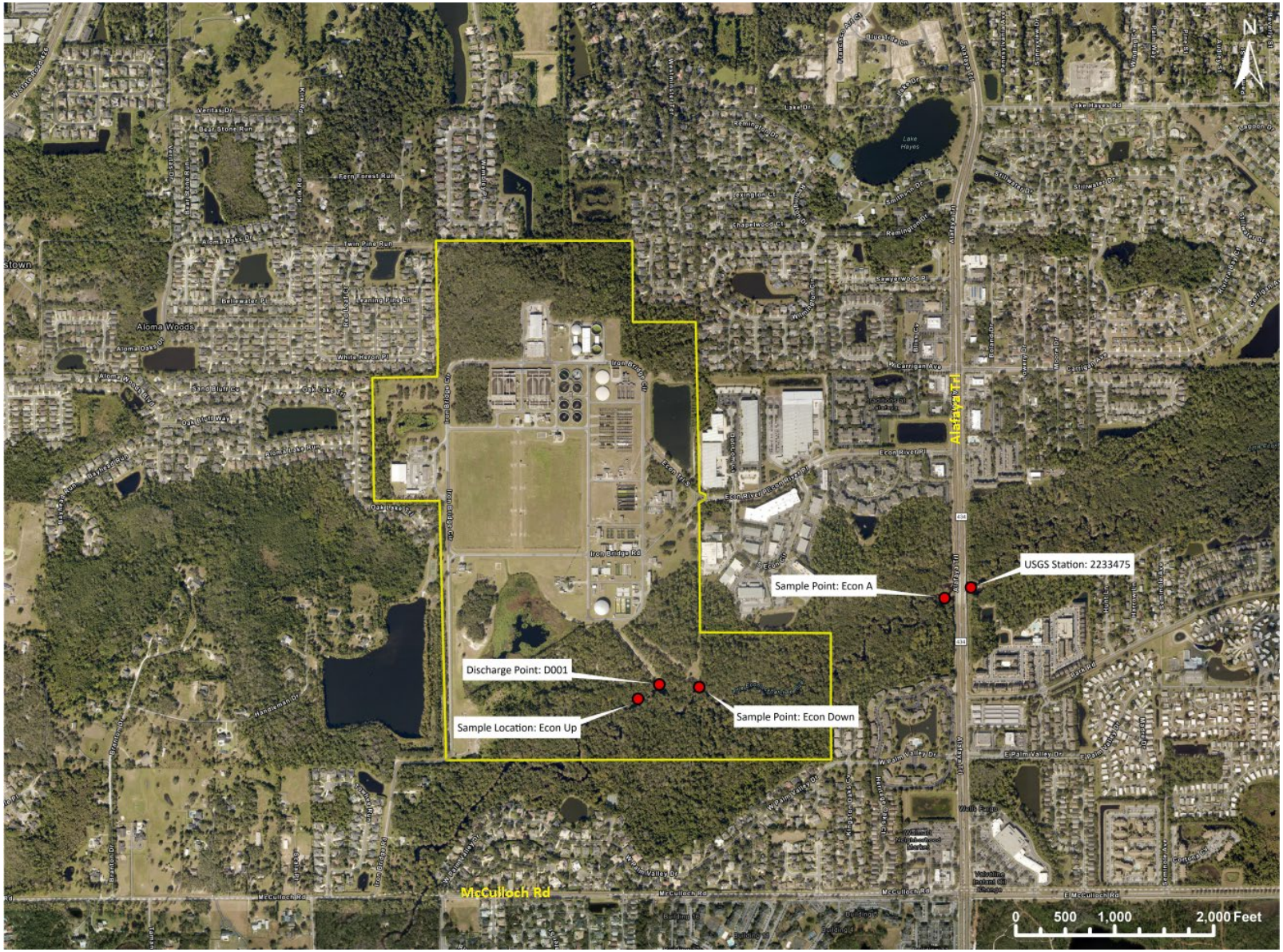

Figure 2-1 Little Econlockhatchee River – Water Quality Sampling Locations

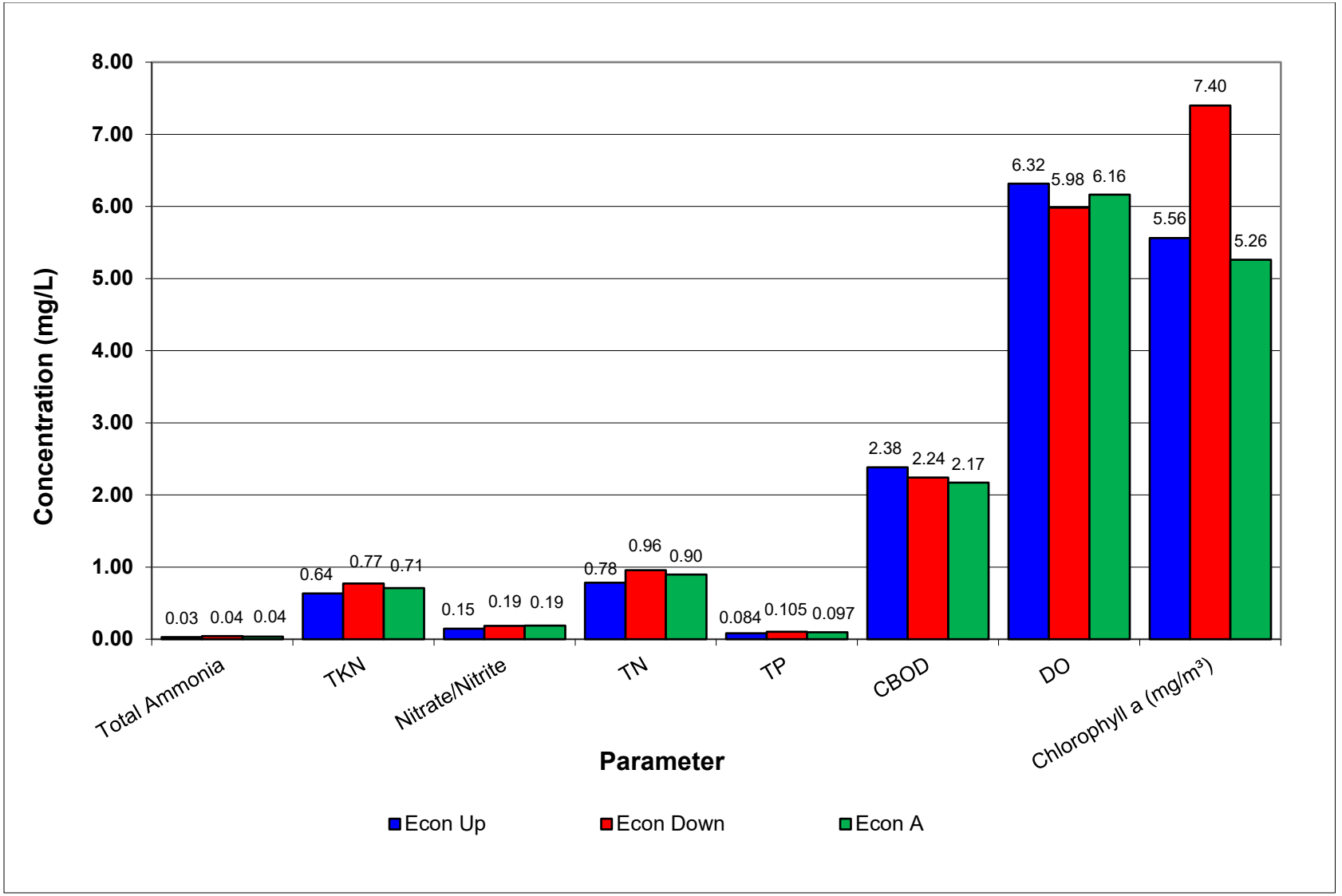

Figure 2-2 2024 Monthly Average Water Quality Parameters Across Little Econlockhatchee River Monitoring Stations

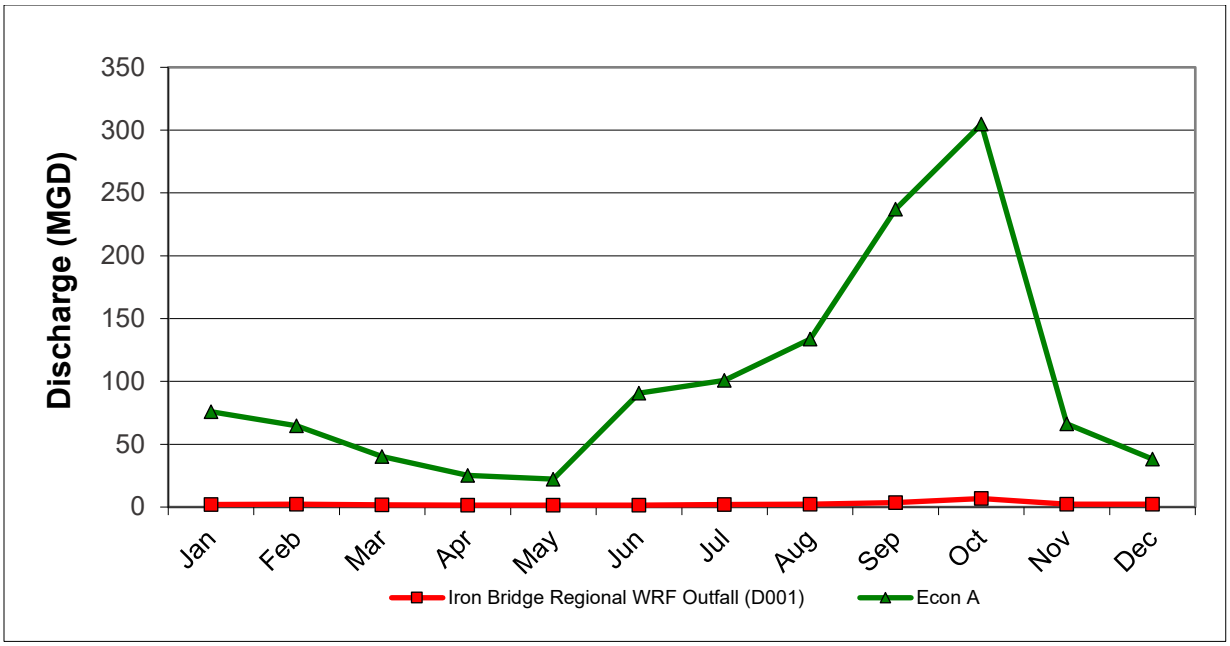

Figure 2-3 2024 Monthly Discharge Averages of the Little Econlockhatchee River and Iron Bridge Regional Water Reclamation Facility Outfall (D001)

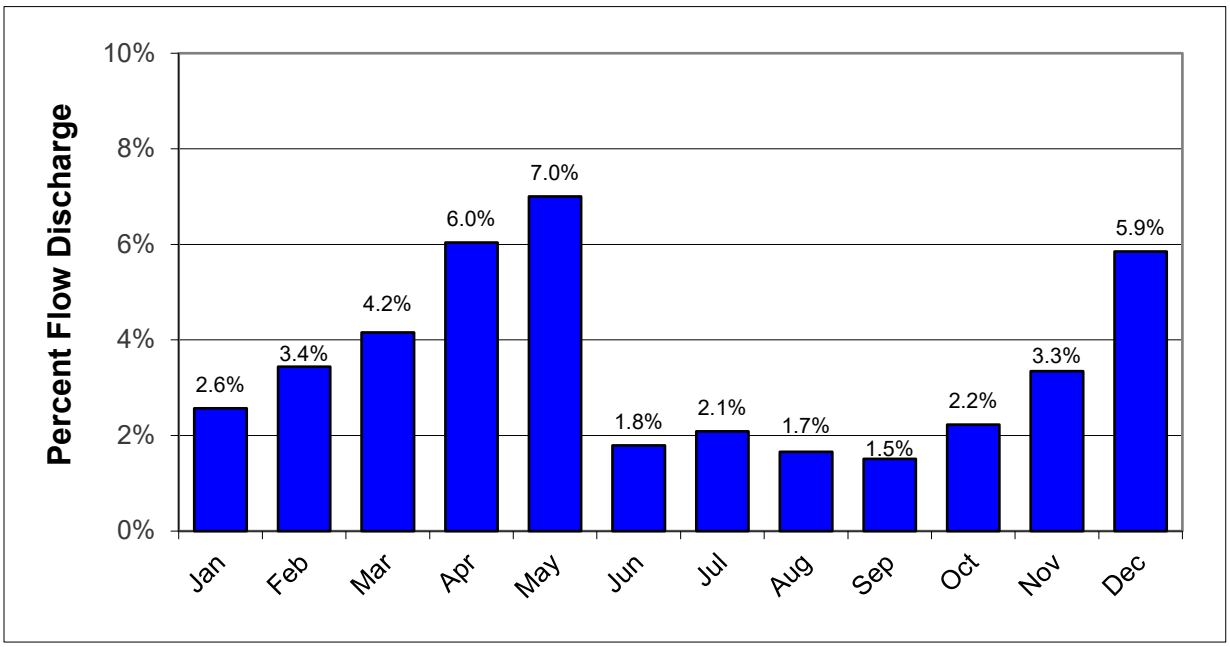

Figure 2-4 2024 Percent Flow from Iron Bridge Regional Water Reclamation Facility Discharge (D001) to the Little Econlockhatchee River

3 Orlando Easterly Wetlands and the St. Johns River

3.1 General Overview

The City of Orlando monitors the St. Johns River upstream and downstream of the OEW monthly. The river is monitored upstream of OEW at State Road 50 near Christmas, Florida at USGS station 02232500 (City Identifier SJR1) and is approximately 3.9 miles south of where OEW discharge canal reaches the St. Johns River. USGS 02234000 (City Identifier SJR5) is located at State Road 46 upstream of Lake Harney and is approximately 9.2 miles north from where the OEW discharge canal reaches the St. Johns River. A map of the sampling sites and OEW are depicted in Figure 3-1. River discharge and gage heights are collected daily at the USGS stations, and monthly water quality data is collected by the City of Orlando (Appendix A and B, respectively). The St. Johns River gage heights and flow at SJR1 are summarized in Table 3-1. The 2024 OEW average annual discharge was 15.97 MGD, while SJR1 and SJR5 had an annual average discharge of 855 MGD and 1465 MGD, respectively. Figure 3-2 depicts 2024 monthly flow rates (in MGD) of SJR1, SJR5, and OEW. The OEW's and St. Johns River's peak monthly discharge rates occurred in October 2024. Peak monthly discharge for the OEW was measured at 27.73 MGD, while SJR1 and SJR5 saw peak monthly discharge rates of 2412 MGD, and 4113 MGD, respectively (Table 3-4). Figure 3-3 illustrates the average annual discharge of the St. Johns River and the Orlando Easterly Wetlands. Historically, the Orlando Easterly Wetlands has had very little impact regarding the discharge of flow to the St. Johns River, at SJR5. Throughout Calander Year 2024, discharge from the OEW to the St. Johns River accounted for 1.09% of the total annual average flow of the river, at SJR5. In May 2024, the OEW contributed its highest monthly proportional flow to the St. Johns River, accounting for 5.3% of the river's total flow (Figure 3-4). Table 3-2 indicates the monthly discharge rates of SJR5 and OEW.

The Orlando Easterly Wetlands effluent had an annual average total nitrogen (TN) concentration of 0.72 mg/L, and 0.097 mg/L total phosphorus (TP). Annual average nutrient loadings from the OEW effluent to the St. Johns River amounted to 95.90 lbs/day total nitrogen, and 12.92 lbs/day total phosphorous. TN and TP concentrations at SJR1, SJR5, and OEW effluent are listed in Table 3-3 and depicted graphically in Figure 3-5 and Figure 3-6. Additionally, Table 3-4 shows a comparison between the TP loadings from the OEW, SJR1, and SJR5.

3.2 Iron Bridge Regional WRF and Orlando Easterly Wetlands Combined Nutrient Loadings

The combined annual TN and TP concentrations of the outfall at Iron Bridge Regional WRF to the Little Econ and the OEW outfall to the St. Johns River were well below the FDEP permit limits. In 2024, Iron Bridge discharge (D001) was 2.48 MGD with an annual average TN concentration of 2.07 mg/L and TP concentration of 0.280 mg/L. OEW discharged 15.97 MGD with an annual average TN concentration of 0.72 mg/L and TP concentration of 0.097 mg/L. The FDEP permit allows 780 lbs/day of TN and 220 lbs/day of TP combined discharge from Iron Bridge and OEW to the St. Johns River system. The 2024 combined outfall loadings for TN and TP were, 138.69 lbs/day and 18.71 lbs/day, respectively. Iron Bridge Regional WRF and the OEW were well within FDEP permit for combined nutrient loadings, with TN loadings reaching 17.78%, and TP loadings reaching 8.51%, of the FDEP maximum allowable loadings to the St. Johns River system. The combined average daily discharge (18.45 MGD) from Iron Bridge and the OEW was 29.28% of the 63 MGD permitted total discharge capacity. This data illustrates that the combined discharge from Iron Bridge and OEW is well below the permitted nutrient loadings set by FDEP (Table 3-5 and Figure 3-7).

Table 3-1 Comparison of St. Johns River Gage Heights and Discharge Rates with Orlando Easterly Wetlands Discharge Flows

Year	Station SJR1[(a)]		OEW Discharge (MGD)
	Gage Height (ft)	Discharge Rate (MGD)	
2001	4.07	829	16.76
2002	4.78	1073	16.59
2003	5.11	956	22.51
2004	4.81	1098	24.87
2005	6.35	1488	25.25
2006	3.39	354	17.59
2007	3.37	329	14.62
2008	4.46	1049	15.06
2009	3.93	625	15.39
2010	3.66	468	18.96
2011	3.80	796	17.18
2012	4.65	1073	18.11
2013	4.45	1044	19.18
2014	4.96	1083	18.55
2015	4.54	598	16.57
2016	5.62	991	16.16
2017	4.73	1323	23.94
2018	4.53	916	26.02
2019	3.79	824	21.84
2020	4.81	780	21.40
2021	4.60	588	19.91
2022	5.11	928	22.39
2023	4.74	687	16.18
2024	4.92	855	15.97
Average	4.55	865	19.21

[(a)] Gage height and discharge rates at the SJR1 sample station (USGS Station 02232500) are based on data provided by the United States Geological Survey (USGS) (Appendix A).

Table 3-2 2024 Monthly discharge rates at SJR5 and Orlando Easterly Wetlands

Month	SJR5 Discharge (MGD)	OEW Discharge (MGD)
January	1994	17.14
February	1593	14.16
March	1160	11.07
April	392	9.55
May	148	7.78
June	478	16.65
July	550	15.92
August	826	21.85
September	1947	24.25
October	4113	27.73
November	3172	14.65
December	1296	11.19

Table 3-3 Total Nitrogen and Total Phosphorous Concentrations of the Orlando Easterly Wetlands and St. Johns River

Year	TN (mg/L)			TP (mg/L)		
	D002/D003	SJR1	SJR5	D002/D003	SJR1	SJR5
2001[a]	0.88	2.23	1.91	0.070	0.070	0.110
2002	0.77	2.16	1.77	0.075	0.083	0.116
2003	0.78	1.98	1.51	0.070	0.071	0.078
2004	0.92	1.98	1.49	0.060	0.099	0.092
2005	0.84	1.78	1.37	0.088	0.077	0.080
2006	0.94	2.19	1.76	0.129	0.087	0.104
2007	0.98	2.28	1.73	0.066	0.116	0.100
2008	1.20	2.68	2.35	0.062	0.113	0.106
2009	1.16	2.87	2.14	0.041	0.106	0.093
2010	1.01	2.84	1.92	0.041	0.120	0.088
2011	1.00	2.58	2.10	0.036	0.093	0.088
2012	0.96	2.31	1.99	0.036	0.085	0.084
2013	0.89	2.07	1.86	0.037	0.072	0.073
2014	0.88	1.65	1.42	0.079	0.086	0.088
2015	0.95	1.83	1.19	0.075	0.080	0.046
2016	0.80	1.55	1.28	0.051	0.082	0.075
2017	0.87	1.66	1.42	0.068	0.109	0.106
2018	0.78	1.96	1.29	0.049	0.097	0.059
2019	0.61	1.70	1.28	0.053	0.083	0.061
2020	0.65	1.57	1.18	0.050	0.077	0.068
2021	0.62	1.70	1.32	0.037	0.086	0.070[b]
2022	0.60	1.52	1.09	0.046	0.139	0.105
2023	0.66	1.57	1.32	0.080	0.086	0.079
2024	0.72	1.68	1.41	0.097	0.087	0.082
Average	**0.85**	**2.01**	**1.59**	**0.062**	**0.092**	**0.085**

[a] HS10 – OEW discharge (daily composite sample) TN and TP concentrations are annual averages based on data presented in the monthly DMRs. In 2006, TN and TP Concentrations began being measured as weighted averages between D002 and D003.

[b] Average does not include October 2021 grab sample, due to site being closed for construction.

Table 3-4 2024 Average Monthly Total Phosphorus Loadings of the Orlando Easterly Wetlands Effluent and St. Johns River

Month	OEW Wetlands Effluent			SJR1			SJR5		
	TP (mg/L)	Flow (MGD)	TP (Lbs)	TP (mg/L)	Flow (MGD)	TP (Lbs)	TP (mg/L)	Flow (MGD)	TP (Lbs)
January	0.172	17.14	24.56	0.044	1386	508	0.041	1994	682
February	0.168	14.16	19.80	0.050	1252	522	0.058	1593	771
March	0.161	11.07	14.86	0.064	783	418	0.055	1160	532
April	0.063	9.55	4.98	0.105	201	176	0.076	392	248
May	0.047	7.78	3.07	0.093	55	42	0.100	148	123
June	0.079	16.65	11.01	0.101	100	84	0.071	478	283
July	0.071	15.92	9.39	0.093	153	118	0.083	550	381
August	0.052	21.85	9.44	0.112	377	352	0.092	826	634
September	0.084	24.25	17.00	0.064	1004	536	0.131	1947	2127
October	0.094	27.73	21.66	0.075	2412	1509	0.086	4113	2950
November	0.108	14.65	13.24	0.116	1832	1773	0.098	3172	2593
December	0.117	11.19	10.89	0.122	765	779	0.094	1296	1016

Table 3-5 2024 Nutrient Loading from the Iron Bridge Regional Water Reclamation Facility and Orlando Easterly Wetlands

	Average Daily Discharge Rate (MGD)	Average Daily Total Nitrogen (mg/L)	Average Daily Total Nitrogen (lbs)	Average Daily Total Phosphorus (mg/L)	Average Daily Total Phosphorus (lbs)
From Iron Bridge Regional WRF to Little Econ	2.48	2.07	42.79	0.280	5.79
From OEW to St. Johns River[a]	15.97	0.72	95.90	0.097	12.92
Combined Total Discharge From IB and OEW	18.45		138.69		18.71
FDEP Permit	63		780		220

[a] Flow discharged from the OEW system (D002 and D003).

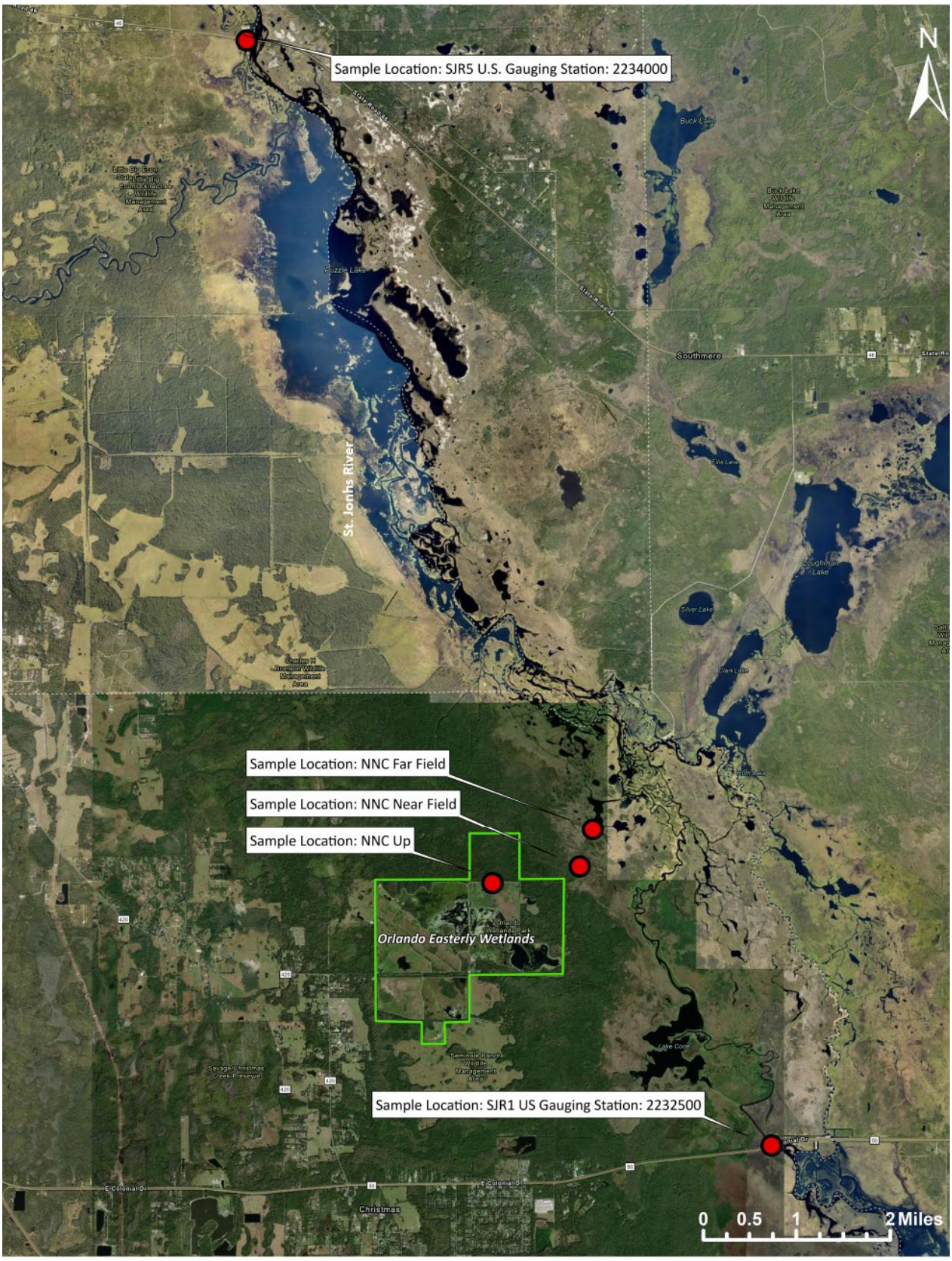

Figure 3-1 St. Johns River – Water Quality Sampling Locations

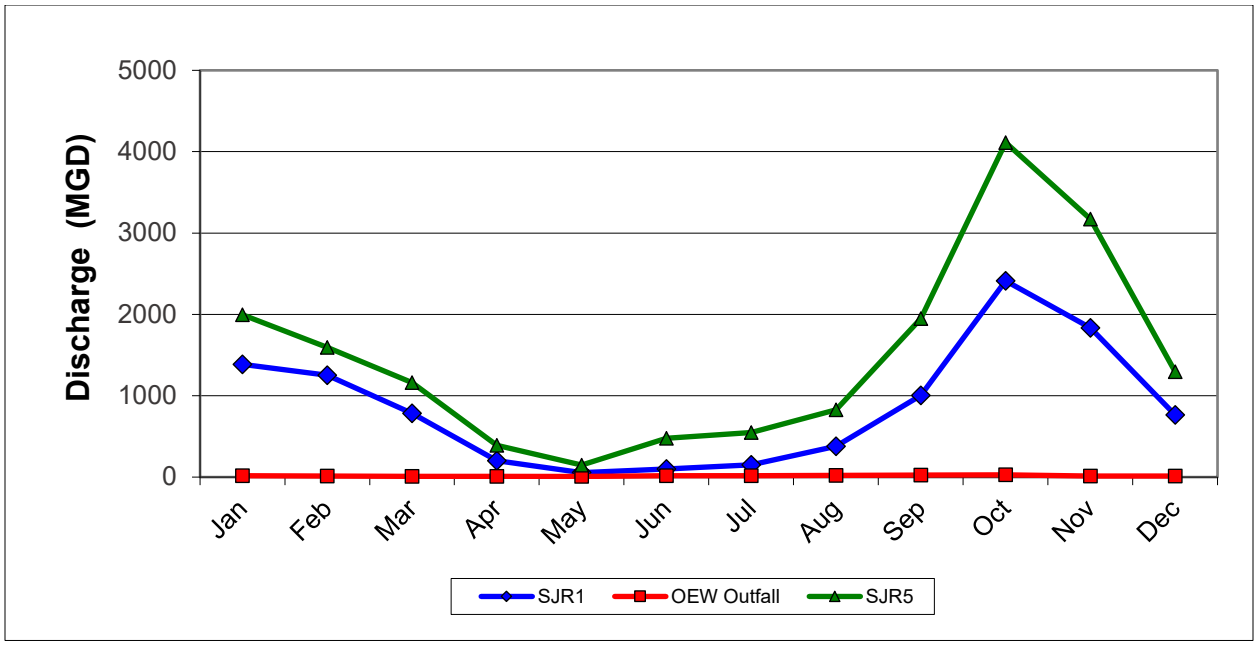

Figure 3-2 2024 Monthly Discharge Averages of the St. Johns River and Orlando Easterly Wetlands Outfall

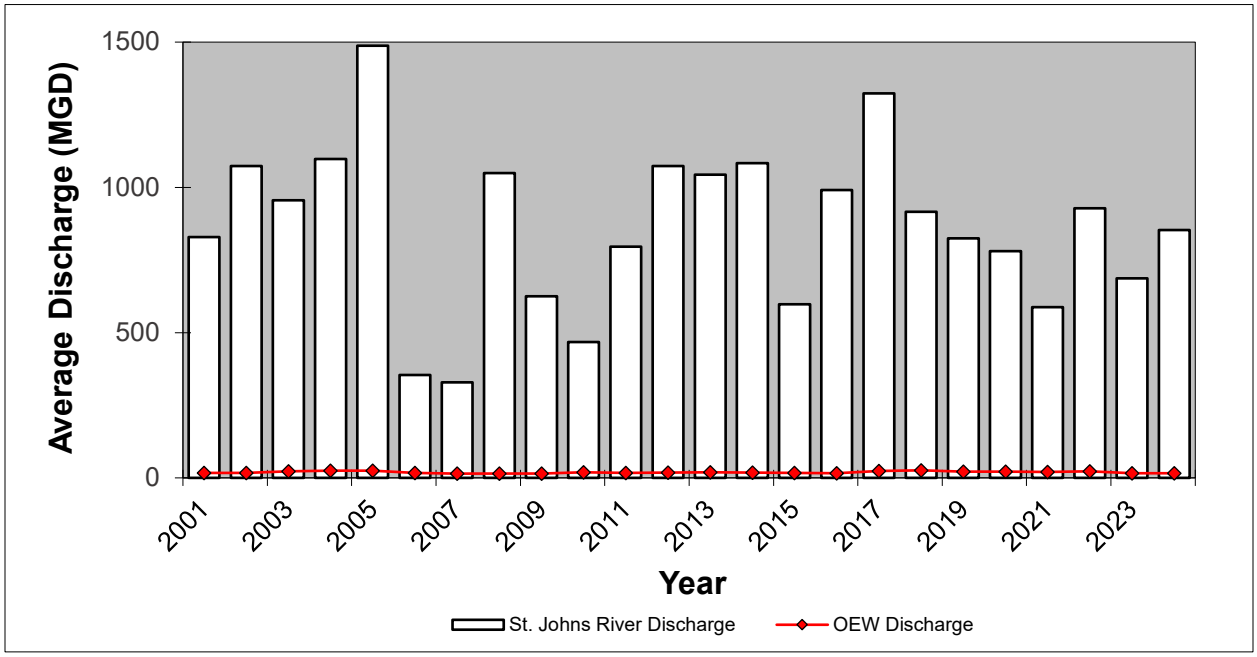

Figure 3-3 Annual Average Discharge of the St. Johns River at SJR1 and Orlando Easterly Wetlands

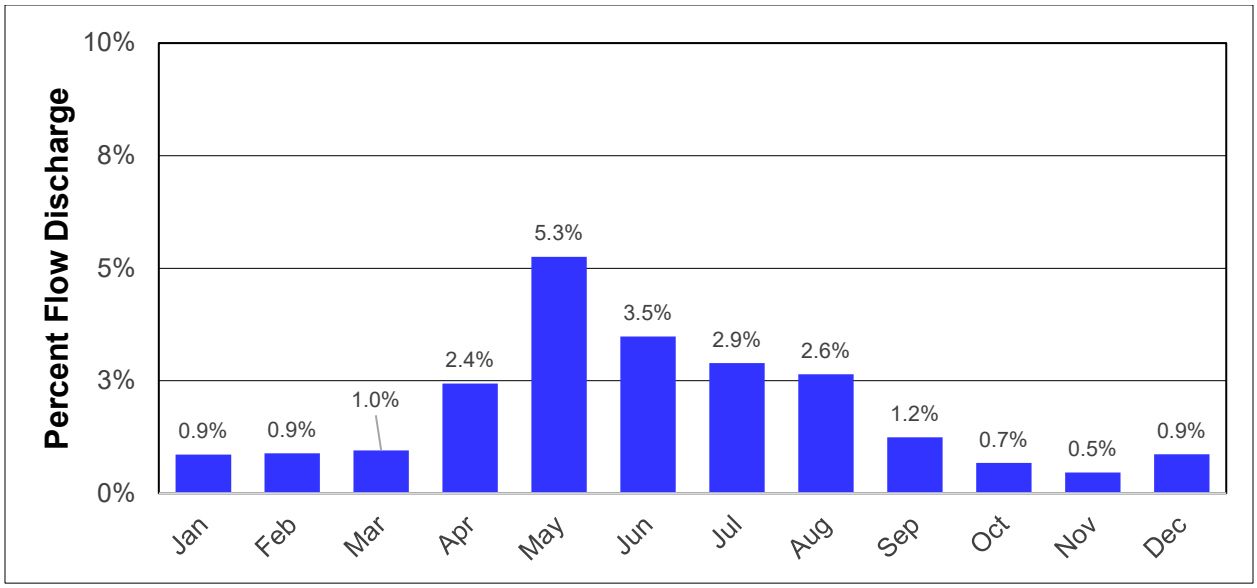

Figure 3-4 2024 Percent Flow Discharge from the Orlando Easterly Wetlands to the St. Johns River

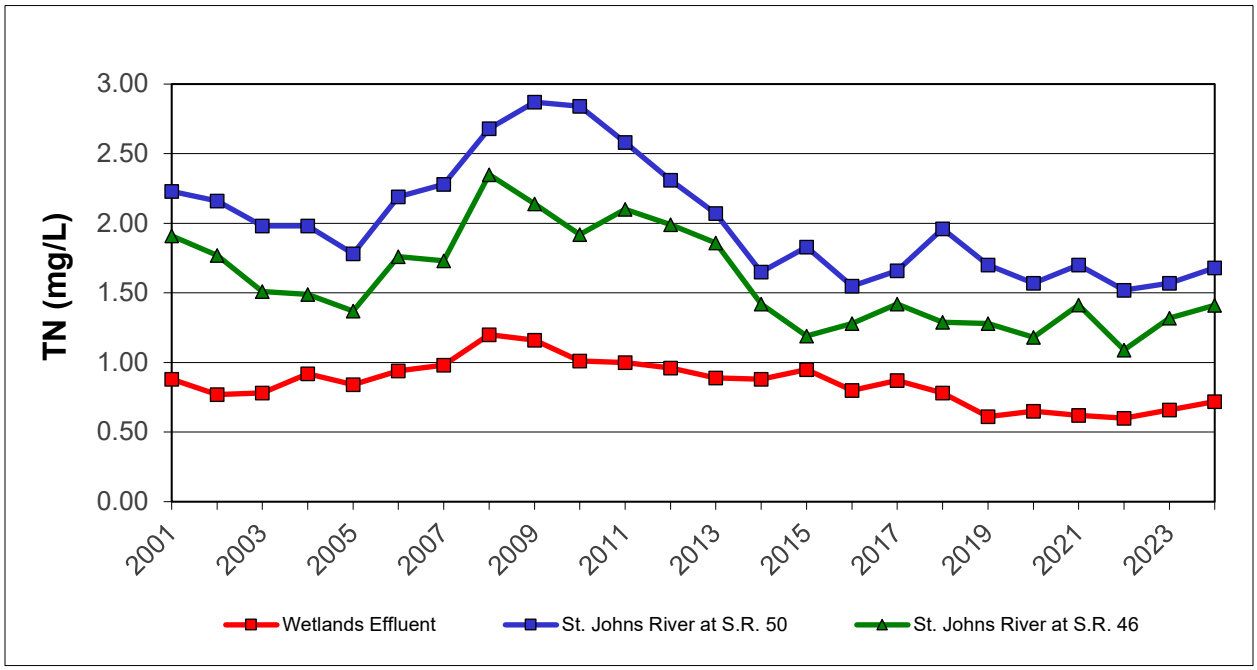

Figure 3-5 Total Nitrogen Concentrations within the St. Johns River and Orlando Easterly Wetlands Effluent

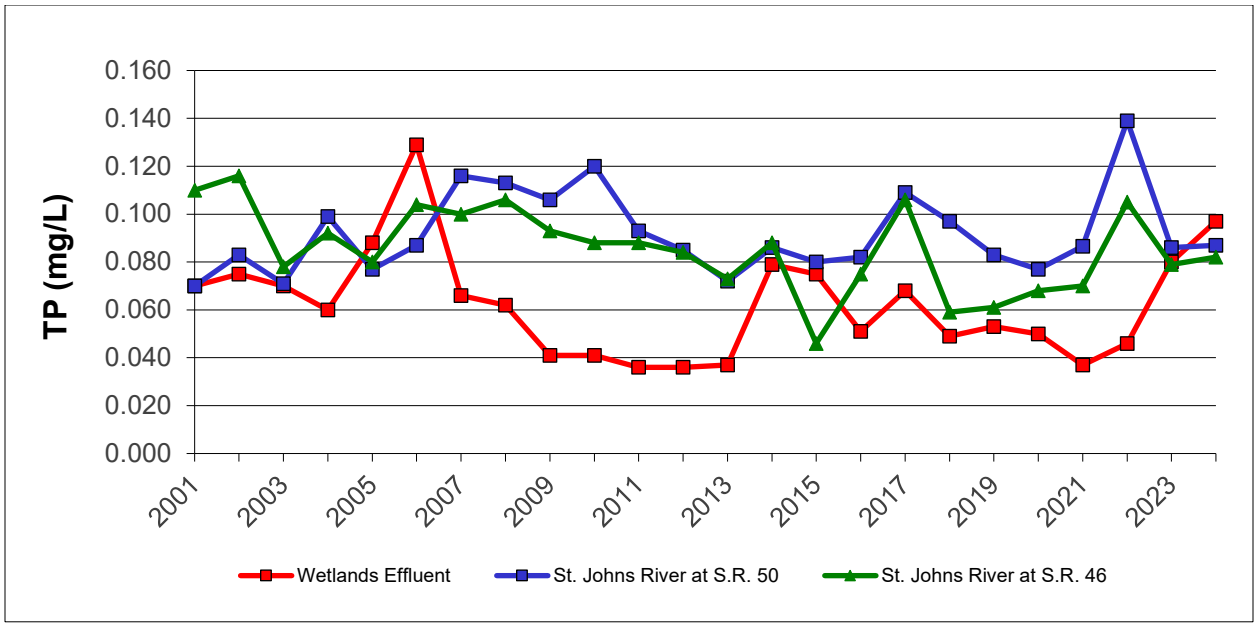

Figure 3-6 Total Phosphorus Concentrations within the St. Johns River and Orlando Easterly Wetlands Effluent

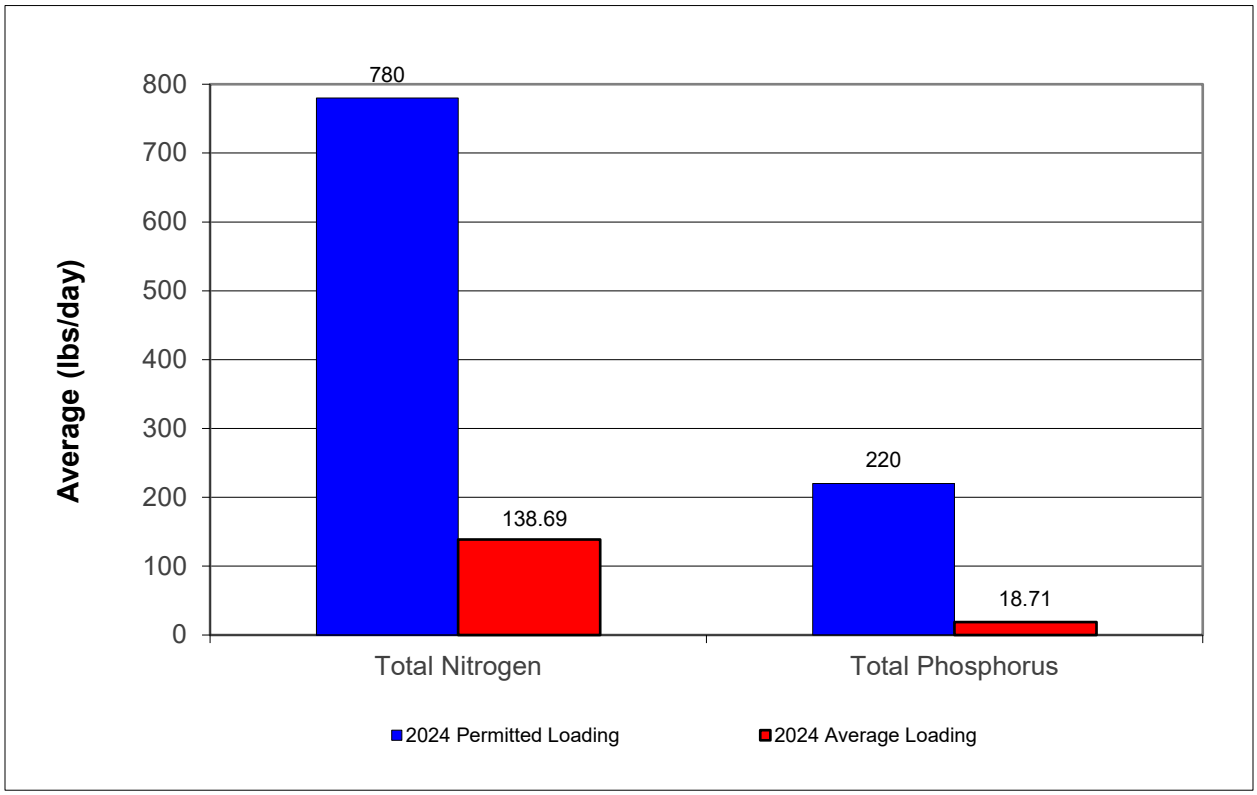

Figure 3-7 2024 Combined Nutrient Loadings from Iron Bridge Regional Water Reclamation Facility and Orlando Easterly Wetlands

4 Orlando Easterly Wetlands

4.1 OEW Management

The OEW has 67 control structures, including bidirectional flow control structures, which allow water to be diverted across the OEW (Figure 4-1). Several of these control structures and groundwater sampling wells are listed in the FDEP domestic wastewater facility permit as compliance sampling locations. The FDEP required compliance sampling stations associated with each of the 5 strata are as follows:

- Station WP1 (referred to as stations R001 in the FDEP permit) represents the OEW influent.
- Stratum 1 includes Cells 1, 2, 11 and 12. The FDEP operating permit is sampled at WP2 (WL11X) and WP3 (WL1Y).
- Stratum 2 includes Cell 3, 4, 5 and 6. The FDEP operating permit is sampled at WP4 (WL4X) and WP5 (WL3A)
- Stratum 3 includes Cell 7, 8, 9, 10 and 15. The FDEP operating permit is sampled at WP6 (WL8X) and MM7 (WL15X)
- Stratum 4 includes Cell 13, 14 and 18. The FDEP operating permit is sampled and is sampled at MM8 (WL13X)
- Stratum 5 includes Cells 16A, 16B, 17 and Lake Searcy. The FDEP operating permit is sampled at WLHS9 (Lake Searcy).
- Station WLHS10 (referred to as station D002 in the FDEP permit) represents the OEW outfall.

OEW is divided into 3 distinct flow paths: northern, central, and southern flow train (Figure 4-2). All the flow entering the OEW can be diverted through any of the three flow paths. Typically, all three flow paths are open and receive 1/3 of the flow entering the OEW. Several times a year, the weir control structures at OEW are cleared of vegetation and debris. Certain cells, which have numerous dead trees, are often cleared of limbs, branches, and logs to ensure proper flow of water through the OEW. Vegetation and invasive species management played a vital role in the management of the Wetlands. Means of treatment for aquatic and terrestrial plant management included herbicide application and prescribed fire.

Herbicide spraying was used across the wetlands to quickly and effectively manage vegetation and invasive species. Water entering the Wetlands from IB contained relatively high nutrient levels that promoted rapid growth of aquatic vegetation. In 2024, 400 hours were spent in herbicide application. Herbicide application focused on berms, cells, control structures, and the outfall ditch. Methods of application included an airboat, drone, utility task vehicle, hand sprayer, hack and squirt, and hand spreader. In 2024, Glyphosate and Diquat accounted for the vast majority of active ingredients applied across the facility.

In 2024, prescribed burns were used as a method of vegetation control and land management. Prescribed burns in the Orlando Wetlands are typically carried out during the cooler months—late fall to early spring—when humidity is higher, and weather conditions are more predictable. At the OEW, two prescribed burns were conducted during 2024. These burns were carefully planned and monitored with the intention to control invasive species, promote biodiversity, reduce accumulation of dead and dying biomass, reduce the risk of wildfires, and maintain

habitat quality. In February 2024, Cells 2, 5, 6, 7 and 10 were burned. Within these cells approximately 60-70% of the area burned completely. The remaining 30-40% did not burn due to a lack of dead fuel to support the advancing fire. Vegetation control through the use of prescribed fire not only promoted diverse habitat but ensure a healthy system for water quality standards.

When a treatment cell begins to release high concentrations of nutrients, and mechanical harvesting, herbicide application, and prescribed burning no longer become viable means of improving water quality, demucking of a cell becomes mandatory. During dumucking renovations, a cell is drained, the accumulated organic material is dried and removed, the cell is then reflooded, and beneficial plants are reintroduced. Figure 4-3 depicts when each cell was last demucked. Over time, Cell 1 had acummilated sediments and decayed vegetation on the bottom substrate, forming a layer of detritus and muck that reduces the cell's ability to treat reclaimed water effectively. Being one of the first treatment areas in the flow path, Cell 1 had accumulated a significant amount (approximately 18") of muck and detritus, requiring restoration to maintain system performance. On August 1st, 2023, the process to begin demucking Cell 1 began. Over the course of approximately 6 months, approximately 175,000 cubic yards of material were dried and removed from Cell 1. Following muck removal, the area was regraded, reflooded, and replanted with 10,000 giant bulrush (Schoenoplectus californicus) to support healthy vegetation and wildlife habitat. Demucking of Cell 1 was successfully completed in February of 2024.

4.2 Analytes and Nutrients

The OEW performance data for January 2024 through December 2024, are presented in Appendix C. Appendix D includes semiannual metals, volatile organic compounds (VOC), polychlorinated biphenyls (PCB) and organochlorine pesticide monitoring data. The FDEP operating permit designates these samples to be collected at locations: WP1, WL11X, WL15X, HS9 and HS10.

Semiannual metal sampling events were conducted on May 21 and November 19, 2024. Results from semiannual metals sampling events show the presence of boron, barium, calcium, magnesium, and nickel throughout the year in at least 80% of the sampling sites, across both sampling dates. Manganese was only present in the first sampling event at WP1 (2.3 ug/L), WL11X (6.9 ug/L), WL15X (5.3 ug/L), and HS10 (2.5 ug/L), and not present in either sampling event at HS9. Iron was present during both sampling events at WP1 (56.2 ug/L, 47.5 ug/L). Chromium was detected in the second sampling event at WL11X (1.2 ug/L). Selenium was present in both sampling dates at WL15X (5.4 ug/L, 5.5 ug/L). Selenium was also found in the second sampling event at WP1 (5.6 ug/L), WL11X (5.9 ug/L), and HS10 (5.1 ug/L). WP1 was found to have Zinc (11.4 mg/L, 15.9 mg/L) during both sampling events of 2024.

Semiannual organochlorine pesticides, VOC, and PCB sampling events were conducted on March 18 and September 30, 2024. Using EPA Method# 608.3, there was no indicated presence of organochlorine pesticides and PCBs at the Orlando Easterly Wetlands, except for alpha-BHC (0.0011 ug/L) on the second sampling event at WL15X. VOCs sampling, using EPA Method# 624.1, indicated a presence of Chlorodibromomethane (7.3 ug/L, 11.0 ug/L), chloroform (190 ug/L, 160 ug/L), and Dichlorobromomethane (43 ug/L, 57 ug/L) at WP1 during both sampling events. No other volatile organic compounds were found to be present in either sampling date across sampling locations WL11X, WL15X, HS9, and HS10.

4.2.1 Nitrogen

Historical TN loadings and reduction performance within the OEW are presented in Table 4-2. TN data are summarized in Tables 4-3, 4-4 and 4-5 for the northern, southern, and central flow trains, respectively.

Water discharged from Iron Bridge to the OEW Influent (R001) was sampled daily throughout calendar year 2024. In 2024, R001 experienced a typical year with an annual average TN concentration of 1.90 mg/L. Throughout 2024, TN at R001 rarely exceeded the average annual permitted concentration limit of 6 mg/L, set by FDEP. There were only 8 occurrences in which TN at R001 was above the permitted average annual concertation limit, 6 of which occurred in April. There were 0 occurrences during 2024 where TN at R001 exceeded the daily, single sample, permitted limit of 12 mg/L. R001 experienced the highest monthly average concentration of TN of 3.13 mg/L during the month of April. May was R001's best performing month with a monthly average TN concentration of 1.33 mg/L. Although TN concentrations were relatively normal during 2024, R001 did experience relatively high TN loadings. Average annual TN loadings at R001 were calculated at 311.69 lbs/day. In 2024, R001 saw the 2th highest average annual TN loadings in the OEW, since 2001 (Table 4-2). Although TN concentrations at R001 were typical in 2024, abnormally high flows likely resulted in above-average TN loadings. The historical TN average and 2024 TN average concentration profiles through the OEW flow trains are illustrated in Figure 4-3, 4-4 and 4-5. The northern and southern flow trains historical averages are collected from 2001 through 2022. The central flow train's historical average is calculated from 2002 through 2022; the years that the central flow train has been monitored.

Discharge from OEW (D002) saw an annual average TN concentration of 0.72 mg/L, comfortably below the average annual FDEP permitted concentration limit of 2.31 mg/L. In 2024, D002 discharged its 2nd best annual average TN loadings since 2001. Annual average TN loadings discharged at D002, in 2024, were calculated at 95.90 lbs/day. This average fell well below the permitted monthly average TN loading limit of 674.00 lbs/day. In 2024, the OEW had its greatest percent reduction in TN loadings, from the influent to the effluent (D002), since 2001. The annual average reduction in TN loadings for the OEW in 2024 was 69.2% (Table 4-6). In 2024, both the annual average TN concentration, and loadings, discharged from the OEW to the St. Johns River system fell well below the FDEP permitted limits. Nutrient data gathered at the OEW continues to support the consistency of the OEW performance over time.

4.2.2 Phosphorus

Historical TP loadings and reduction performances are presented in Table 4-6. Water quality data related to TP for the northern, southern, and central flow train are summarized in Tables 4-7, 4-8 and 4-9, respectively.

In 2024, R001 experienced a typical year with an annual average TP concentration of 0.288 mg/L. Throughout 2024, there were 21 days with TP concentrations above the annual permittable average of 0.75mg/L. There were a total of 2 days in 2024 when the daily concentration of TP at R001 were above the daily limit of 1.50mg/L. R001 experienced the highest monthly average concentration of TP of 0.469 mg/L during the month of August. January was R001's best performing month with a monthly average TP concentration of 0.171 mg/L. The

TP concentration profiles for northern, southern, and central flow trains are measured at specific distances throughout the OEW. All three flow paths are depicted in Figures 4-7, 4-8 and 4-9. The monthly average concentration of TP entering and exiting the OEW during 2024 is depicted in Figure 4-10. Although TP concentrations were relatively normal during 2024, R001 did experience relatively high TP loadings. Average annual TP loadings at R001 was calculated at 47.25 lbs/day. In 2024, R001 saw the 4th highest average annual TP loadings in the OEW, since (Table 4-6).

Discharge from OEW (D002) had an unusually high annual average TP concentration of 0.097 mg/L. This average still managed to fall well below the FDEP concentration limit of 0.200 mg/L. In 2024, D002 discharged an annual average TP loading of 12.92 lbs/day. This average still managed to fall well below the monthly average permitted TP loading limit of 58.00 lbs/day. From influent to effluent, the OEW saw an annual average 72.7% reduction in TP loadings in calendar year 2024 (Table 4-6). In 2024, both the annual average TP concentration, and loadings, discharged from the OEW to the St. Johns River system fell well below the FDEP permitted limits. Nutrient data gathered at the OEW continues to support the consistency of the OEW performance over time.

4.2.3 Dissolved Oxygen

The average monthly dissolved oxygen (DO) concentrations for the OEW are shown in Table 4-10. The measurements were collected daily at D002. The daily measurements that were used to calculate the monthly DO originate from the Discharge Monitoring Reports that were submitted to FDEP throughout the year. In 2024, the annual average DO concentration was 4.9 mg/L.

Figure 4-11 further depicts D002's daily DO concentration in comparison to the FDEP target concentration. Since October 22, 2020, FDEP permit renewal date of issuance, the DO minimum annual average concentration is 3.8 mg/L. In 2024, DO at the OEW went below the minimum concentration threshold on 23 different occasions. All 23 occurrences took place between the dates of September 7th and October 31st. Low daily DO concentrations could possibly be associated with cloudy/rainy conditions.

4.3 Water Budget

The 2024 water budget for the OEW was estimated using the following water balance equation.

OEW Discharge = OEW Influent + Rainfall – Evapotranspiration-Percolation

Rainfall data for 2024 is presented in Table 4-11. In 2017, rainfall data began being collected using the St. Johns River Water Management District's WSR-88 NexRad Radar data for the Orlando Easterly Wetlands perimeter. OEW's 2024 total rainfall was 56.41 inches falling over the 1,190-acre wetland property, which equates to an average of approximately 4.99 MGD. Approximately 22% (12.21 in) of OEW's 2024 annual rainfall occurred in June (Table 4-11). Losses from the OEW occur through evapotranspiration and percolation. Soils at the OEW have low permeability, therefore the primary mechanism for water loss are evaporation and

transpiration. Using the water balance equation, there was a net decrease of 8.69 MGD in 2024(Table 4-12).

Table 4-1 2024 Orlando Easterly Wetlands Control Structure Weir Board and Gate Manipulations

Date	Weir Board(WL)/Gate	Reason
3/7/2024	1X, 1C, 1Y	Installed one board to prepare control structures for flooding of Cell 1 after demucking
3/8/2024	D002 Gate	Raised weir gate to increase water retention time and reduce total phosphorus
3/8/2024	13Y	Installed one board to increase water retention time and reduce total phosphorus
3/8/2024	13Y	Installed one board to increase water retention time and reduce total phosphorus
3/12/2024	Northern, Central, and Southern Influent Gates	All influent gates set to 24" to open Northern Flow Train, reflood Cell 1, and return flow from influent to pre-demucking levels
3/13/2024	2A	Installed two boards to stop flow to 2A after demucking Cell 1
3/13/2024	D002 Gate	Raised weir gate approximately 3" to increase water retention time and reduce total phosphorus
3/14/2024	1C	Installed two boards to return flow of water leaving Cell 1 to pre-demucking levels
3/14/2024	1B	Installed two boards to return flow of water leaving Cell 1 to pre-demucking levels
3/14/2024	1X	Installed one board to return flow of water leaving Cell 1 to pre-demucking levels
3/14/2024	D002 Gate	Ultrasonic low meter reattached to weir gate, and recalibrated, to ensure accurate flow measurements at D002
3/21/2024	1X	Installed one board to return flow of water leaving Cell 1 to pre-demucking levels
3/21/2024	1C	Installed one board to return flow of water leaving Cell 1 to pre-demucking levels
3/21/2024	1Y	Installed one board to return flow of water leaving Cell 1 to pre-demucking levels
3/25/2024	1X, 1C, 1Y, 8C	Installed one board to return Northern Flow Train flows back to pre-demucking levels
3/26/2024	15X	Installed one board to increase water retention time and reduce total phosphorus
4/2/2024	3X	Installed one board to return Northern Flow Train flows back to pre-demucking levels
4/2/2024	3C, 3A	Removed one board to return Northern Flow Train flows back to pre-demucking levels
4/24/2024	1B, 1X, 1C, 1Y	Removed one board to lower water level in Cell 1 for bulrush planting
6/4/2024	D002 Gate	Raised weir gate approximately 2" to reduce total suspended solids at outfall
6/5/2024	D002 Gate	Raised weir gate to maximum height to stop all flow at D002 and reduce total suspended solids at outfall

Date	Weir Board(WL)/Gate	Reason
6/6/2024	D002 Gate	Lowered weir gate approximately 3" to return outfall flow at D002
6/7/2024	13X	Removed one board to return Cell 13 to normal flow
6/10/2024	D002 Gate	Lowered weir gate approximately 1.5" to lower the water level in Cell 17.
6/14/2024	D002 Gate	Lowered weir gate approximately 2" to lower the water level in Cell 17.
6/14/2024	1A	Installed three boards to return flow to 1X
6/18/2024	D002 Gate	Lowered weir gate approximately 1.5" to lower the water level in Cell 17.
6/18/2024	1Y	Installed one board to allow even flow across 1B, 1C, 1X, 1Y
6/18/2024	1B	Installed one board to allow even flow across 1B, 1C, 1X, 1Y
7/10/2024	13Y	Installed one board to increase water retention time and reduce total phosphorus
7/10/2024	13X, 13Y	Installed one board to increase water retention time and reduce total phosphorus
7/12/2024	13Y	Installed one board to increase water retention time and reduce total phosphorus
7/15/2024	D003 Gate	Raised weir gate to maximum height to prevent flow out of D003 after increasing water level in cell 13
7/15/2024	13X, 13Y	Installed one board to increase water retention time and reduce total phosphorus
7/17/2024	14A	Installed two boards to increase water retention time and reduce total phosphorus
7/17/2024	13X, 13Y	Installed one board to increase water retention time and reduce total phosphorus
7/29/2024	13X, 13Y	Installed one board to increase water retention time and reduce total phosphorus
7/29/2024	14C	Removed two boards to divert flow away from 13X & 13Y and lower water level in Cell 13
7/29/2024	13B	removed two boards to divert flow away from 13X & 13Y and lower water level in Cell 13
7/29/2024	8X, 8Y	Installed one board to reduce Flow into Cell 13
7/29/2024	14A	Installed two boards to increase water retention time and reduce total phosphorus
8/12/2024	D002 Gate	Lowered weir gate to lower water level in Cell 17.
8/28/2024	14A	Removed one board to divert flow of water away from Cell 16 and lower water level in Cell 16

Date	Weir Board(WL)/Gate	Reason
8/29/2024	14A	Removed one board to divert flow of water away from Cell 16 and lower water level in Cell 16
8/29/2024	13X, 13Y	Removed two boards to divert flow of water away from Cell 16 and lower water level in Cell 16
8/29/2024	D002 Gate	Lowered weir gate approximately 2" to lower the water level in Cell 17 and Cell 16
8/29/2024	14C	Installed one board to divert flow of water away from Cell 16 and lower water level in Cell 16
9/3/2024	14A	Removed one board to divert flow of water away from Cell 16 and lower water level in Cell 16
9/3/2024	13B, 14C	Installed one board to stop flow of water from Cell 13 into Cell 14 to reduce volume of water entering Cell 16
9/6/2024	D002 Gate	Lowered weir gate approximately 4" to lower the water level in Cell 17 and Cell 16
9/10/2024	D002 Gate	Lowered weir gate approximately 3" to lower the water level in Cell 17 and Cell 16
10/7/2024	13B, 14C	Installed two boards to stop flow of water from Cell 13 into Cell 14 to reduce volume of water entering Cell 16
10/7/2024	14A	Removed one board to divert flow of water away from Cell 16 in preparation for Hurricane Milton
10/7/2024	13X, 13Y	Removed one board to increase water volume flowing out of Cell 13 in preparation for Hurricane Milton
10/28/2024	8Y	Removed one board to improve sheet flow across Cell 8 and Cell 13
11/12/2024	14A	Installed two boards to increase water retention time and reduce total phosphorus
11/13/2024	13X, 13Y	Installed one board to increase water retention time and reduce total phosphorus
11/13/2024	13B	Removed three boards to divert flow away from Cell 17 and into Cell 14
11/13/2024	14C	Removed two boards to divert flow away from Cell 17 and into Cell 14
11/14/2024	13B, 14C	Installed one board to increase water retention time and reduce total phosphorus and increase flow through 13X and 13Y
12/4/2024	13B, 14C	Removed one board to divert flow away from Cell 17 and into Cell 14
12/19/2024	13Y	Installed one board to divert flow away from Cell 17 and into Cell 14

Table 4-2 Historical Total Nitrogen Loadings and Reductions Within the Orlando Easterly Wetlands

Year	Influent Flow (MGD)	Influent Conc. (mg/L)	Loading In (lbs/day)	Effluent Flow (MGD)	Effluent Conc. (mg/L)	Loading Out (lbs/day)	Percent Reduction from Influent to Effluent
2001	17.86	2.14	318.76	16.76	0.88	123.00	61.4%
2002	16.59	1.42	196.47	22.51	0.77	144.55	26.4%
2003	17.36	1.23	178.08	24.87	0.78	161.78	9.2%
2004	17.20	1.44	206.57	21.48	0.92	164.81	20.2%
2005	18.27	1.67	254.46	25.25	0.84	176.89	30.5%
2006[a]	12.68	1.61	170.26	17.63	0.94	138.21	18.8%
2007	12.33	2.38	244.74	14.62	0.98	119.49	51.2%
2008	12.17	2.25	228.37	15.06	1.20	150.72	34.0%
2009	14.14	1.90	224.06	15.39	1.16	148.89	33.6%
2010	15.29	1.94	247.39	18.96	1.01	159.71	35.4%
2011	15.17	2.07	261.89	17.18	1.00	143.28	45.3%
2012	14.33	1.77	211.54	18.11	0.96	145.00	31.5%
2013	14.16	1.70	200.76	19.18	0.89	142.37	29.1%
2014	14.32	1.40	167.20	18.55	0.88	136.14	18.6%
2015	11.80[b]	1.35	132.86	16.57	0.95	131.28	1.2%
2016	12.95	1.66	179.28	16.16	0.80	107.82	39.9%
2017	15.30	2.07	264.14	23.94	0.87	173.70	34.2%
2018	15.75	2.00	262.71	26.02	0.78	169.27	35.6%
2019	16.40	1.88	257.14	21.84	0.61	111.11	56.8%
2020	15.65	1.94	253.21	21.40	0.65	116.01	54.2%
2021	16.42	1.51	206.78	19.91	0.620	102.95	50.2%
2022	19.69	1.75	287.41	22.02	0.600	110.19	61.7%
2023	16.29	1.87	254.06	16.18	0.659	88.93	65.0%
2024	19.67	1.90	311.69	15.97	0.72	95.90	69.2%
Average	**15.49**	**1.79**	**229.99**	**19.40**	**0.85**	**135.92**	**38.0%**

[a] In 2006, effluent flow and effluent concentrations began being measured as the weighted averages of D002 and D003.

[b] On 3/11/2015, R001 flow was collected, however, there was no sample collected thus flow was not added to this MGD average.

Table 4-3 Summary of Total Nitrogen Concentration Profile Through the Northern Flow Train (mg/L)

Year	Station					
	Influent	Stratum 1	Stratum 2	Stratum 3	Stratum 4	Final Outfall
	WP1	WP3	WP4/5[a]	WP6	MM8	HS10
2001	2.14	1.15	1.02	1.30	1.04	0.88
2002[b]	1.42	0.80	0.73	0.80	0.97	0.77
2003	1.23	0.72	0.77	0.95	1.12	0.78
2004	1.44	1.20	1.09	0.92	1.04	0.92
2005	1.67	1.13	1.19	1.17	0.96	0.84
2006[c]	1.61	1.03	0.95	1.02	1.08	0.94
2007	2.38	0.80	0.86	0.96	0.97	0.98
2008[d]	2.25	1.03	1.08	1.10	ND[i]	1.20
2009[d][e]	1.90	1.10	1.07	1.17	ND[i]	1.16
2010	1.94	0.95	0.99	1.24	1.68	1.01
2011	2.07	0.92	0.97	1.04	1.19	1.00
2012	1.77	0.87	0.85	0.91	1.26	0.96
2013[f]	1.70	0.87	0.87	0.91	1.05	0.89
2014[g]	1.40	0.69	0.70	0.75	0.88	0.88
2015	1.35	0.69	0.76	0.78	1.06	0.95
2016	1.66	0.67	0.69	0.70	0.90	0.80
2017	2.07	0.60	0.63	0.76	0.86	0.87
2018	2.00	0.76	0.72	0.89	0.86	0.78
2019[h]	1.88	0.65	0.65	0.00	0.00	0.61
2020	1.94	0.56	0.55	0.61	0.73	0.65
2021	1.51	0.53	0.53	0.63	0.83	0.62
2022	1.75	0.69	0.55	0.56	0.76	0.60
2023	1.87	0.54	0.67	0.70	0.83	0.66
2024	1.90	1.60	1.21	0.83	1.20	0.72
Average	**1.79**	**0.86**	**0.84**	**0.90**	**1.01**	**0.85**

[a] WP4/5 represents the average of stations WP4 and WP5, assuming equal flow through each control structure.

[b] The northern flow train was offline during much of 2002.

[c] In 2006, TN concentrations began being measured as the weighted averages between D002 and D003.

[d] Stratum 4 was offline, D003 was flowing.

[e] TN results do not include data collected for the drawdown experiment.

[f] TN results do not include data collected for the pulsing study from May through December 2013.

[g] Beginning in 2014, TN results for strata are compiled by averaging monthly concentrations from all its tested control structures.

[h] Stratums 3 and 4 were offline from April through December 2019 due to Cell 13 renovation project.

[i] ND – No Discharge

Table 4-4 Summary of Total Nitrogen Concentration Profile Through the Southern Flow Train (mg/L)

Year	Station				
	Influent	Stratum 1	Stratum 3	Lake	Final Outfall
	WP1	WP2	MM7	HS9	HS10
2001	2.14	0.86	0.77	0.92	0.88
2002	1.42	1.01	0.71	0.90	0.77
2003	1.23	1.15	0.79	0.93	0.78
2004	1.44	0.96	0.74	0.84	0.92
2005	1.67	1.09	0.69	0.93	0.84
2006[a]	1.61	0.88	0.89	1.06	0.94
2007	2.38	0.90	0.78	1.40	0.98
2008	2.25	1.26	1.12	2.83	1.20
2009	1.90	1.17[b]	1.18	1.18	1.16
2010	1.94	0.89	0.95	1.01	1.01
2011	2.07	1.06	0.99	0.98	1.00
2012	1.77	1.01	1.03	0.80	0.96
2013[c]	1.70	1.10	0.86	1.12	0.89
2014[d]	1.40	1.13	1.96	1.30	0.88
2015	1.35	0.94	0.84	1.22	0.95
2016[e]	1.66	0.00	0.00	1.05	0.80
2017	2.07	0.67	0.68	0.95	0.87
2018	2.00	0.83	0.79	1.07	0.78
2019	1.88	0.77	0.70	0.81	0.61
2020[f]	1.94	0.57	1.15	0.71	0.65
2021	1.51	0.66	0.76	0.76	0.62
2022	1.75	0.69	0.85	0.77	0.60
2023	1.87	0.59	0.68	0.79	0.66
2024	1.90	0.72	0.78	0.79	0.72
Average	**1.79**	**0.91**	**0.90**	**1.05**	**0.85**

[a] In 2006, TN concentrations began being measures at HS10 as the weighted averages between D002 and D003.

[b] WP2 was offline from January 2009 through June 2009, due to the renovation project.

[c] TN results do not include data collected for the pulsing study from May through December 2013.

[d] Beginning in 2014, TN results for strata are compiled by averaging monthly concentrations from all its tested control structures.

[e] Southern Flow Train was offline from November 2015 through November 2016, due to demucking Cell 15.

[f] Cell 11 was offline in 2020, due to a biogeochemistry study. Mean TN was from WL12X and WL12Y.

Table 4-5 Summary of Total Nitrogen Concentration Profile Through the Central Flow Train (mg/L)

Year	Station						
	Influent WP1	Stratum 1	Stratum 2	Stratum 3	Stratum 4	Stratum 5	Final Outfall HS10
2002	1.42	0.80	0.73	0.80	0.97	0.90	0.77
2003	1.23	0.72	0.64	0.67	0.88	0.93	0.78
2004	1.44	0.69	0.67	0.69	1.09	0.84	0.92
2005	1.67	0.76	0.72	0.65	0.93	0.93	0.84
2006[a]	1.61	0.71	0.68	0.64	0.97	1.06	0.94
2007	2.38	0.83	0.77	0.68	0.94	1.40	0.98
2008	2.25	1.08	1.19	1.06	1.28	2.83	1.20
2009[b]	1.90	1.11	1.00	0.91	1.08	1.18	1.16
2010	1.94	1.20	1.01	1.01	1.24	1.01	1.01
2011	2.07	1.14	1.07	0.94	1.14	0.98	1.00
2012	1.77	0.99	0.92	0.88	0.96	0.80	0.96
2013[c]	1.70	0.97	0.92	0.88	1.06	1.12	0.89
2014[d]	1.40	0.78	0.80	0.80	0.96	1.30	0.88
2015	1.35	0.68	0.70	0.71	0.92	1.22	0.95
2016	1.66	0.76	0.68	0.66	0.81	1.05	0.80
2017	2.07	0.64	0.60	0.60	0.79	0.95	0.87
2018[e]	2.00	0.82	0.81	0.79	ND[f]	1.07	0.78
2019	1.88	0.58	0.61	0.66	0.82	0.81	0.61
2020	1.94	0.54	0.53	0.50	0.84	0.71	0.65
2021	1.51	0.57	0.58	0.59	0.82	0.76	0.62
2022	1.75	0.69	0.55	0.56	0.76	0.77	0.60
2023	1.87	0.69	0.58	0.55	0.74	0.79	0.66
2024	1.90	1.21	0.92	0.85	0.84	0.79	0.72
Average	**1.77**	**0.82**	**0.77**	**0.74**	**0.95**	**1.05**	**0.85**

[a] In 2006, TN concentrations began being measured at HS10 as the weighted averages between D002 and D003.

[b] TN results do not include data collected for the drawdown experiment.

[c] TN results do not include data collected for the pulsing study from May through December 2013.

[d] Beginning in 2014, TN results for strata are compiled by averaging monthly concentrations from all its tested control structures.

[e] Stratum 4 (Cell 14) was offline from April 2018 through January 2019 due to the demucking project.

[f] ND – No Discharge

Table 4-6 Total Phosphorus Loadings and Reductions Within the Orlando Easterly Wetlands

Year	Influent Flow (mgd)	Influent Conc. (mg/L)	Loading In (lbs/day)	Effluent Flow (mgd)	Effluent Conc. (mg/L)	Loading Out (lbs/day)	Percent Reduction from Influent to Effluent
2001	17.86	0.240	35.75	16.76	0.070	9.78	72.6%
2002	16.59	0.235	32.51	22.51	0.075	14.08	56.7%
2003	17.36	0.207	29.97	24.87	0.070	14.52	51.6%
2004	17.20	0.240	34.48	21.48	0.060	10.75	68.8%
2005	18.27	0.401	61.10	25.25	0.088	18.53	69.7%
2006[a]	12.68	0.333	35.22	17.63	0.129	18.97	46.1%
2007	12.33	0.276	28.38	14.62	0.066	8.05	71.6%
2008	12.17	0.210	21.31	15.06	0.062	7.79	63.5%
2009	14.14	0.153	18.04	15.39	0.041	5.26	70.8%
2010	15.29	0.134	17.09	18.96	0.041	6.48	62.1%
2011	15.17	0.159	20.12	17.18	0.036	5.16	74.4%
2012	14.33	0.194	23.19	18.11	0.036	5.44	76.5%
2013	14.16	0.285	33.66	19.18	0.037	5.92	82.4%
2014	14.32	0.464	55.41	18.55	0.079	12.22	77.9%
2015	11.80[b]	0.247	24.31	16.57	0.075	10.36	57.4%
2016	12.95	0.295	31.86	16.16	0.051	6.87	78.4%
2017	15.30	0.146	18.63	23.94	0.068	13.58	27.1%
2018	15.75	0.154	20.23	26.02	0.049	10.63	47.4%
2019	16.40	0.311	42.54	21.84	0.053	9.65	77.3%
2020	15.65	0.208	27.15	21.40	0.050	8.92	67.1%
2021	16.42	0.237	32.46	19.91	0.037	6.14	81.1%
2022	19.69	0.238	39.09	22.02	0.052	9.55	75.6%
2023	16.29	0.390	53.00	16.18	0.080	10.75	79.7%
2024	19.67	0.288	47.25	15.97	0.097	12.92	72.7%
Average	**15.49**	**0.252**	**32.61**	**19.40**	**0.063**	**10.10**	**67.0%**

[a] In 2006, effluent flow and effluent concentrations began being measured as the weighted averages of D002 and D003.

[b] On 3/11/2015, R001 flow was collected, however, there was no sample collected. The flow was not added to this MGD average.

Table 4-7 Summary of Total Phosphorus Concentration Profile Through the Northern Flow Train (mg/L)

Year	Station					
	Influent	Stratum 1	Stratum 2	Stratum 3	Stratum 4	Final Outfall
	WP1	WP3	WP4/5[a]	WP6	MM8	HS10
2001	0.24	0.21	0.19	0.31	0.07	0.07
2002[b]	0.235	0.200	0.170	0.170	0.130	0.075
2003	0.207	0.030	0.030	0.030	0.055	0.070
2004	0.240	0.165	0.106	0.040	0.050	0.060
2005	0.401	0.275	0.315	0.210	0.100	0.088
2006[c]	0.333	0.236	0.194	0.133	0.190	0.129
2007	0.276	0.139	0.146	0.089	0.101	0.066
2008[d]	0.210	0.140	0.123	0.081	ND[i]	0.062
2009[d][e]	0.153	0.103	0.087	0.080	ND[i]	0.041
2010	0.134	0.069	0.049	0.072	0.117	0.041
2011	0.159	0.013	0.062	0.043	0.080	0.036
2012	0.194	0.177	0.128	0.054	0.053	0.036
2013[f]	0.284	0.338	0.351	0.230	0.042	0.037
2014[g]	0.464	0.426	0.328	0.280	0.201	0.079
2015	0.247	0.310	0.282	0.229	0.309	0.075
2016	0.295	0.261	0.246	0.182	0.144	0.051
2017	0.146	0.171	0.152	0.142	0.137	0.068
2018	0.154	0.126	0.117	0.104	0.100	0.049
2019[h]	0.311	0.258	0.228	ND[i]	ND[i]	0.053
2020	0.208	0.145	0.124	0.140	0.073	0.050
2021	0.237	0.259	0.227	0.208	0.038	0.037
2022	0.238	0.242	0.214	0.184	0.068	0.046
2023	0.390	0.373	0.465	0.357	0.226	0.080
2024	0.288	0.179	0.181	0.176	0.172	0.097
Average	**0.252**	**0.202**	**0.188**	**0.154**	**0.117**	**0.062**

[a] WP4/5 represents the average of stations WP4 and WP5, assuming equal flow through each control structure.

[b] The northern flow train was offline during much of 2002.

[c] In 2006, TP concentrations began being measured as the weighted averages between D002 and D003.

[d] Stratum 4 was offline, D003 was flowing.

[e] TP results do not include data collected for the drawdown experiment.

[f] TP results do not include data collected for the pulsing study from May through December 2013.

[g] Beginning in 2014, TP results for strata are compiled by averaging monthly concentrations from all its tested control structures.

[h] Stratums 3 and 4 were offline due to Cell 13 renovation project from April through December 2019.

[i] ND – No Discharge

Table 4-8 Summary of Total Phosphorus Concentration Profile Through the Southern Flow Train (mg/L)

Year	Station				
	Influent	Stratum 1	Stratum 3	Lake	Final Outfall
	WP1	WP2	MM7	HS9	HS10
2001	0.24	0.19	0.11	0.10	0.07
2002	0.235	0.134	0.117	0.078	0.075
2003	0.207	0.141	0.103	0.076	0.070
2004	0.240	0.150	0.130	0.040	0.060
2005	0.401	0.350	0.180	0.060	0.088
2006[a]	0.333	0.335	0.264	0.219	0.129
2007	0.276	0.314	0.124	0.172	0.066
2008	0.210	0.246	0.119	0.275	0.062
2009	0.153	0.045[b]	0.112	0.056	0.041
2010	0.134	0.032	0.039	0.037	0.041
2011	0.159	0.042	0.037	0.033	0.036
2012	0.194	0.046	0.038	0.035	0.036
2013[c]	0.284	0.126	0.084	0.056	0.037
2014[d]	0.464	0.244	0.416	0.104	0.079
2015	0.284	0.263	0.278	0.070	0.075
2016[e]	0.295	ND[g]	ND[g]	0.048	0.051
2017	0.146	0.089	0.043	0.065	0.068
2018	0.154	0.083	0.030	0.043	0.049
2019	0.311	0.245	0.058	0.038	0.053
2020	0.208	0.157[f]	0.144	0.035	0.050
2021	0.237	0.153	0.076	0.050	0.037
2022	0.238	0.237	0.214	0.056	0.046
2023	0.390	0.375	0.177	0.037	0.080
2024	0.288	0.282	0.162	0.060	0.097
Average	**0.253**	**0.186**	**0.133**	**0.077**	**0.062**

[a] In 2006, TP began being measured at HS10 as the weighted averages of D002 and D003.

[b] WP2 was offline during renovation project from January 2009 through June 2009.

[c] TP results do not include data collected for the pulsing study from May through December 2013.

[d] Beginning in 2014, TP results for strata are compiled by averaging monthly concentrations from all its tested control structures.

[e] Southern Flow Train was offline for renovation project from November 2015 through November 2016.

[f] Cell 11 was offline in 2020, due to a biogeochemistry study. Mean TN was from WL12X and WL12Y.

[g] ND – No Discharge

Table 4-9 Summary of Total Phosphorus Concentration Profile Through the Central Flow Train (mg/L)

Year	Station						
	Influent	Stratum	Stratum	Stratum	Stratum	Stratum	Final Outfall
	WP1	1	2	3	4	5	HS10
2002	0.235	0.198	0.172	0.169	0.129	0.078	0.075
2003	0.207	0.150	0.135	0.100	0.080	0.076	0.070
2004	0.240	0.184	0.170	0.140	0.130	0.040	0.060
2005	0.401	0.327	0.295	0.258	0.208	0.064	0.088
2006[a]	0.333	0.346	0.284	0.214	0.226	0.219	0.129
2007	0.276	0.254	0.215	0.205	0.163	0.172	0.066
2008	0.210	0.045	0.179	0.109	0.120	0.275	0.062
2009[b]	0.153	0.048	0.043	0.045	0.056	0.056	0.041
2010	0.134	0.073	0.055	0.056	0.050	0.037	0.041
2011	0.159	0.081	0.081	0.067	0.058	0.033	0.036
2012	0.194	0.114	0.097	0.112	0.056	0.035	0.036
2013[c]	0.284	0.201	0.152	0.196	0.167	0.056	0.037
2014[d]	0.464	0.395	0.377	0.340	0.265	0.102	0.079
2015	0.247	0.291	0.317	0.213	0.230	0.070	0.075
2016	0.295	0.265	0.267	0.220	0.199	0.048	0.051
2017	0.146	0.155	0.189	0.168	0.124	0.065	0.068
2018[e]	0.154	0.110	0.098	0.086	ND[f]	0.043	0.049
2019	0.311	0.282	0.253	0.208	0.076	0.038	0.053
2020	0.208	0.148	0.132	0.119	0.138	0.035	0.050
2021	0.237	0.246	0.224	0.213	0.169	0.050	0.037
2022	0.238	0.237	0.235	0.193	0.099	0.056	0.046
2023	0.390	0.348	0.360	0.337	0.141	0.037	0.080
2024	0.288	0.288	0.249	0.241	0.130	0.060	0.097
Average	**0.252**	**0.208**	**0.199**	**0.174**	**0.137**	**0.076**	**0.062**

[a] In 2006, total phosphorus concentrations began being measured at HS10 as the weighted averages between D002 and D003.

[b] TP results do not include data collected for the drawdown experiment.

[c] TP results do not include data collected for the pulsing study from May through December 2013.

[d] Beginning in 2014, TP results for strata are compiled by averaging monthly concentrations from all its tested control structures.

[e] Cell 14 was offline for renovation project from April 2018 through January 2019.

[f] ND – No Discharge

Table 4-10 Comparison of 2024 Average Monthly Dissolved Oxygen (DO) Concentrations in Orlando Easterly Wetlands Effluents and FDEP Minimum Annual Average Permit Limit (mg/L)

Month	D002	D003	FDEP Annual Average Permit Limit
January	6.2	ND[a]	3.8
February	6.2	ND[a]	3.8
March	5.2	ND[a]	3.8
April	5.3	ND[a]	3.8
May	4.6	ND[a]	3.8
June	4.4	ND[a]	3.8
July	4.2	ND[a]	3.8
August	4.1	ND[a]	3.8
September	3.8	ND[a]	3.8
October	4.0	ND[a]	3.8
November	4.8	ND[a]	3.8
December	6.2	ND[a]	3.8
Average	**4.9**		

[a] ND – No discharge

Table 4-11 2024 Monthly Rainfall at the Orlando Easterly Wetlands [a]

Month	Rainfall (inches)
January	1.55
February	3.17
March	0.87
April	1.35
May	3.60
June	12.21
July	7.87
August	8.44
September	8.99
October	6.03
November	0.67
December	1.66
Total Annual	**56.41**

[a] Data compiled by St. Johns River Management District's WSR-88D NexRad Radar. Average using IDs 114624, 114625, and 114150.

Table 4-12 Orlando Easterly Wetlands Historical Flow and Rainfall Data

Year	Influent (MGD)	Discharge (MGD)	Rainfall (in/yr)	Rainfall[a] (MGD)	Evapotranspiration/ Percolation[b] (MGD)
2001	17.86	16.76	54.75	4.85	5.95
2002	16.59	22.51	59.57	5.27	-0.65
2003	17.36	24.87	41.10	3.64	-3.87
2004	17.20	26.80	60.58	5.36	-4.24
2005	18.27	25.25	59.90	5.30	-1.68
2006	12.68	17.63	38.05	3.37	-1.58
2007	12.33	14.62	34.90	3.09	0.80
2008	12.17	15.06	48.68	4.31	1.42
2009	14.14	15.39	43.49	3.62	2.37
2010[c]	15.29	18.96	44.49	3.94	0.27
2011	15.17	17.18	57.00	5.05	3.04
2012	14.33	18.11	48.54	4.30	0.52
2013	14.16	19.18	41.99	3.72	-1.30
2014	14.32	18.55	62.97	5.57	1.34
2015	11.80	16.57	49.00	4.34	-0.43
2016	12.95	16.16	52.21	4.62	1.41
2017[d]	15.30	23.94	51.24	4.54	-4.10
2018	15.75	26.02	63.56	5.63	-4.64
2019	16.40	21.84	60.24	5.33	-0.11
2020	15.65	21.40	55.48	4.91	-0.84
2021	16.42	19.91	54.70	4.84	1.35
2022	19.69	22.39	59.17	5.24	2.54
2023	16.29	16.18	64.57	5.72	5.83
2024	19.67	15.97	56.41	4.99	8.69
Average	**15.49**	**19.64**	**52.61**	**4.65**	**0.50**

[a] Rainfall data conversion is based on even distribution over OEW's 1,190-acres.

[b] Evaporation/Percolation estimated based upon influent minus effluent flow plus rainfall.

[c] Locations with closer proximity to OEW began being used for average rainfall information.

[d] Data compiled by St. Johns River Water Management District's WSR-88D NexRad Radar rainfall data (in/year).

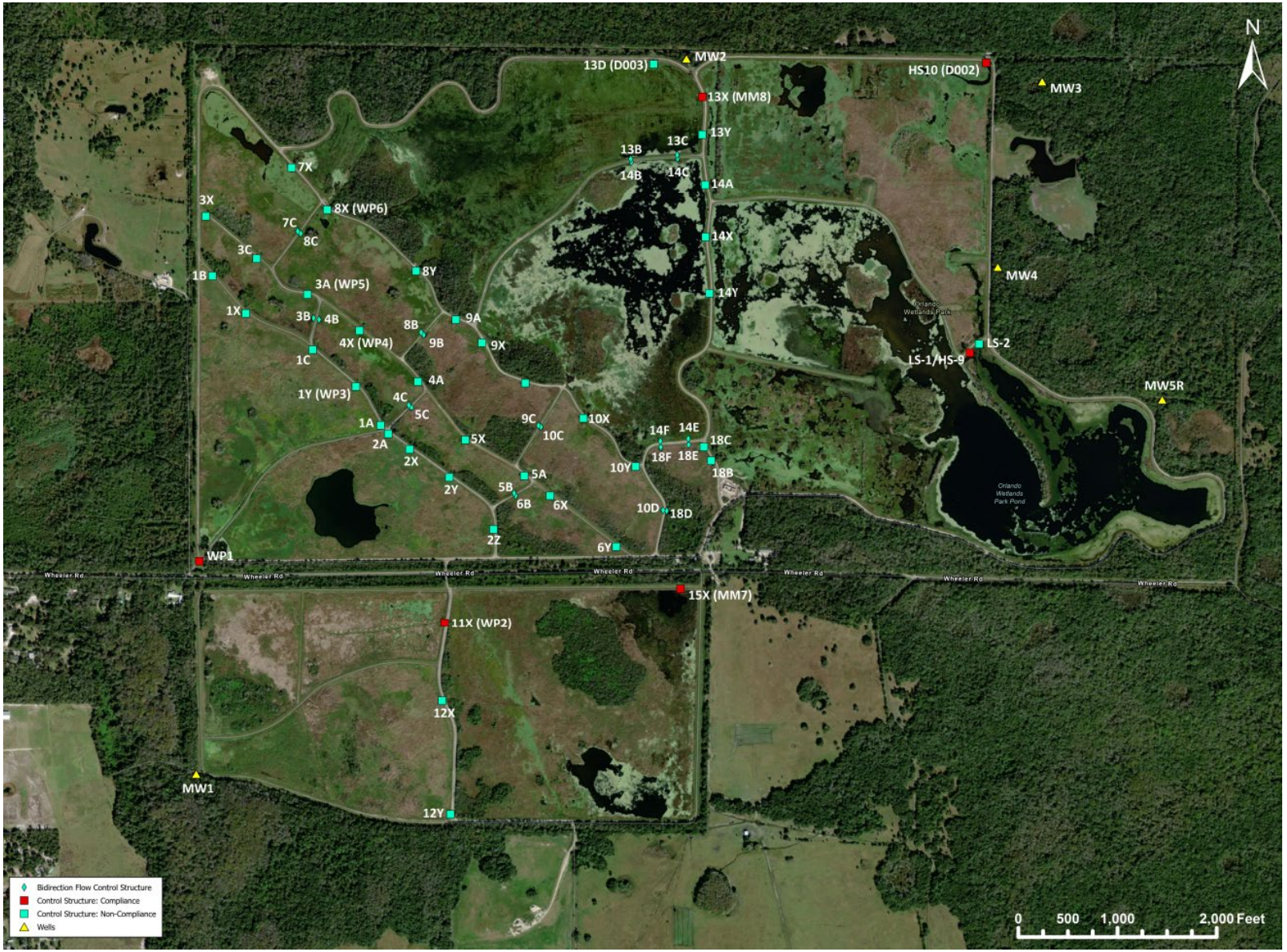

Figure 4-1 Orlando Easterly Wetlands – Sampling Stations

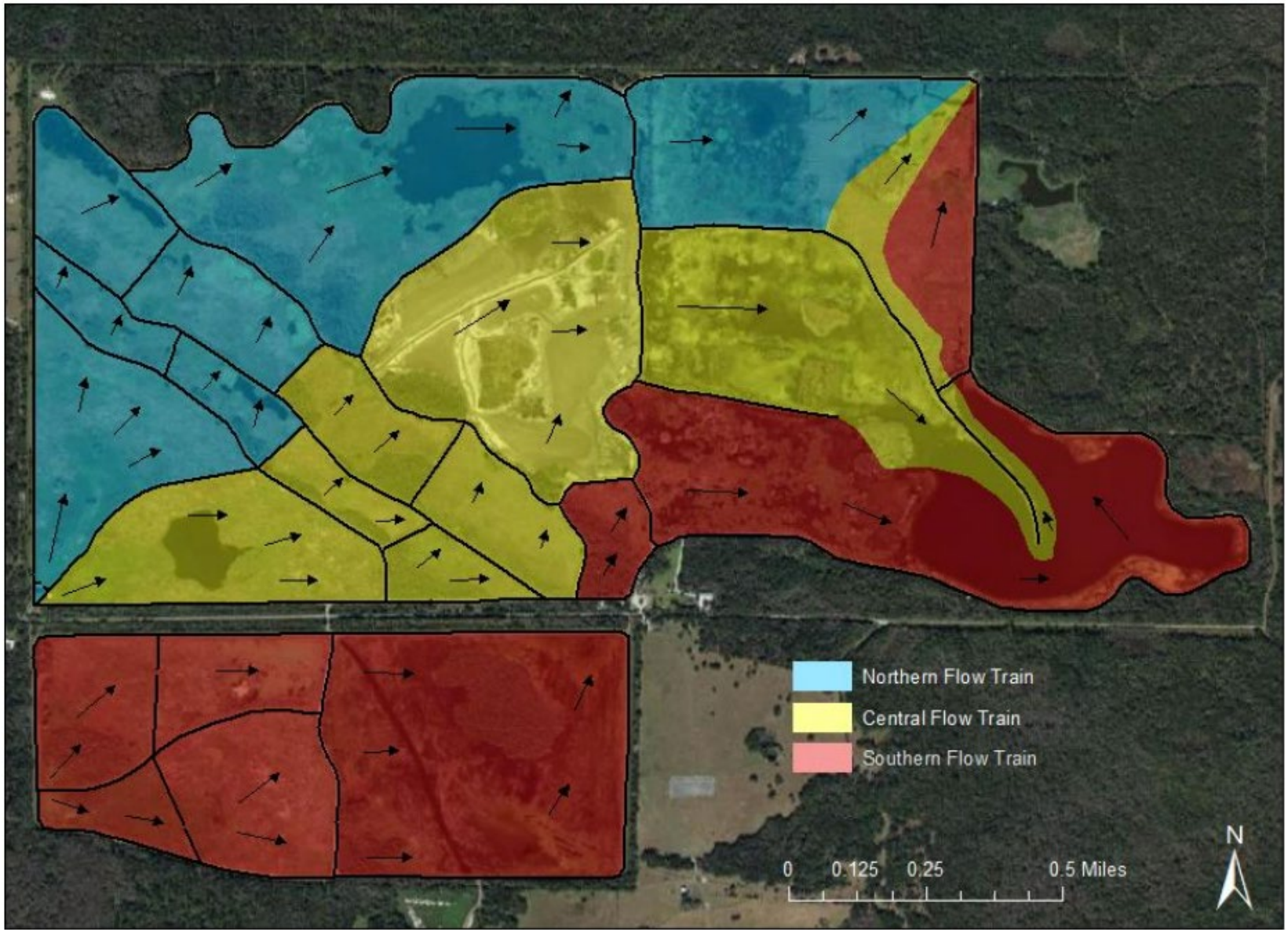

Figure 4-2 Orlando Easterly Wetlands – Flow Train Schematic

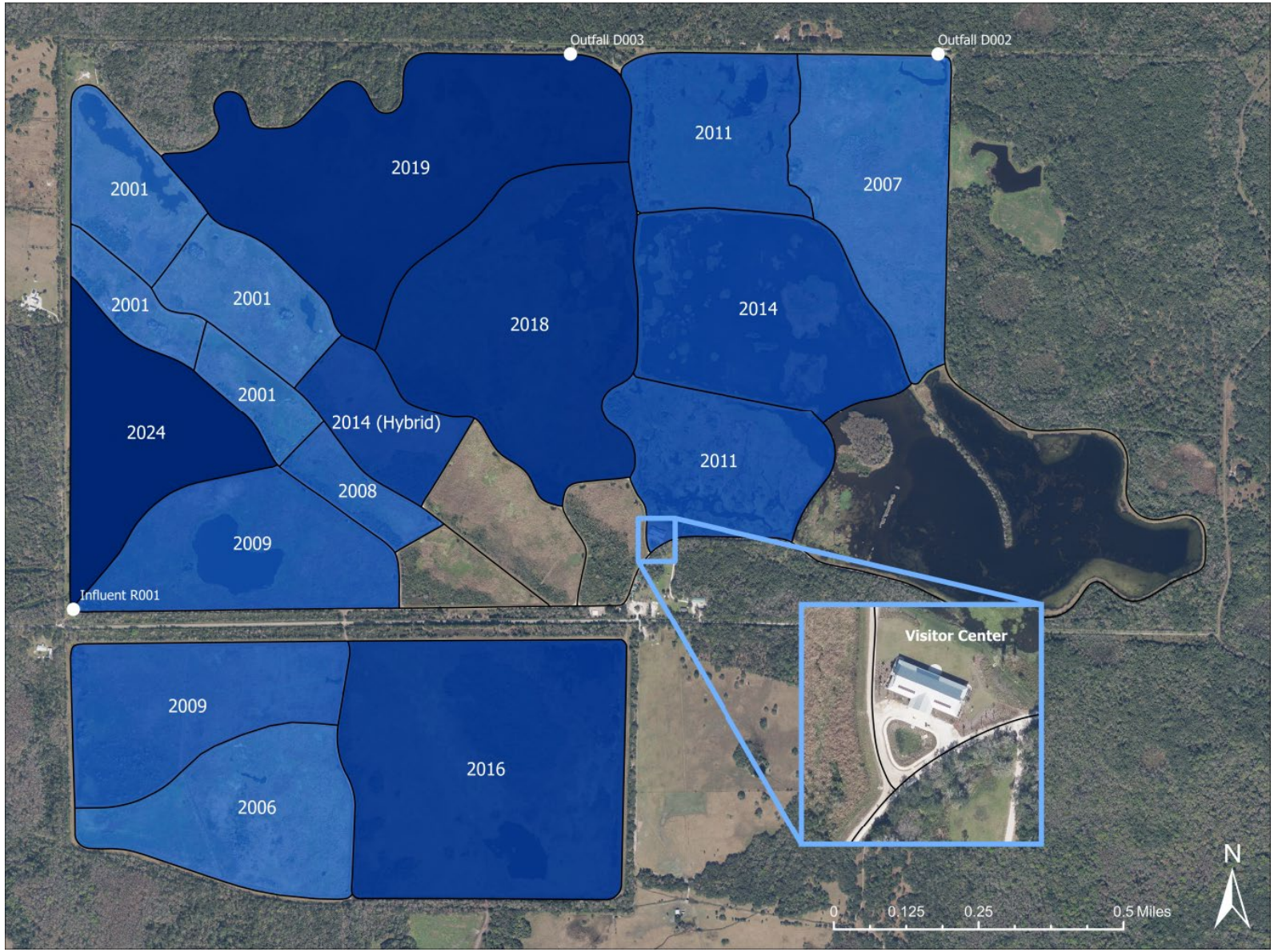

Figure 4-3 Orlando Easterly Wetlands – Demucked Areas and Visitor Center

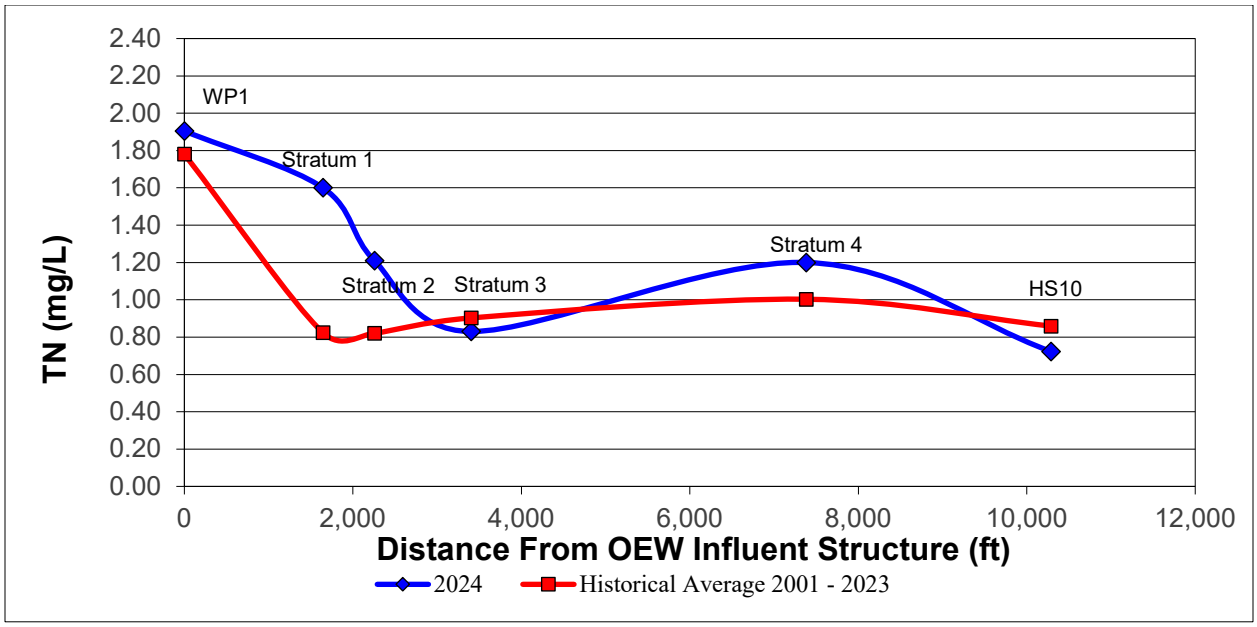

Figure 4-4 Total Nitrogen Profile Through the Northern Flow Train

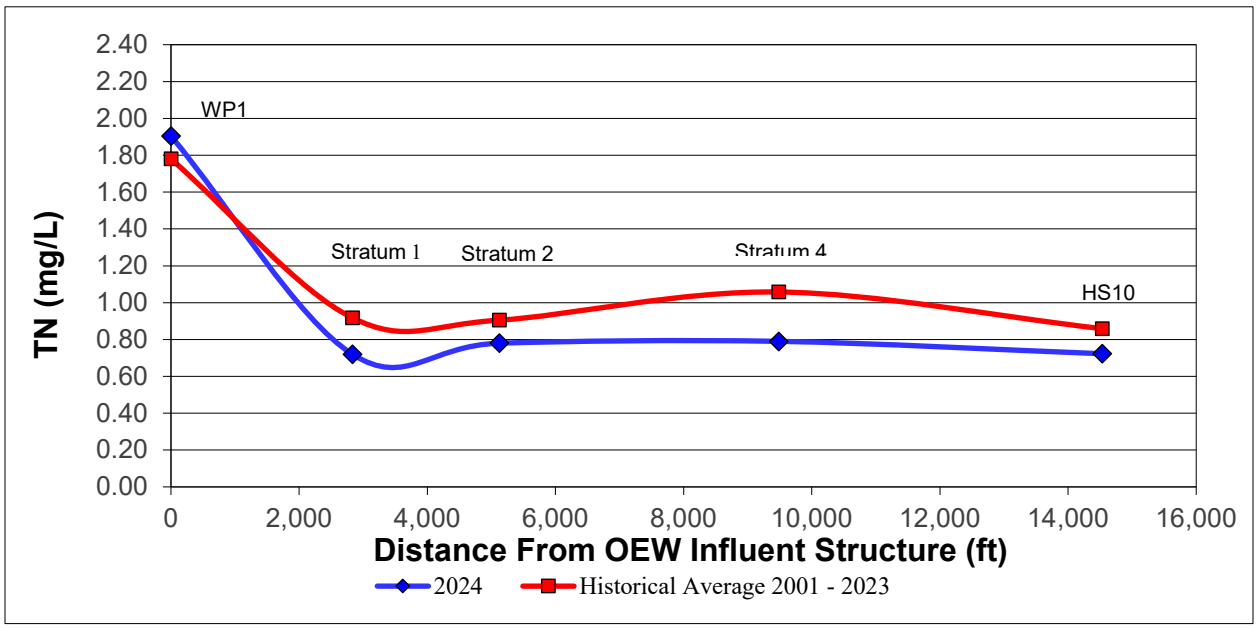

Figure 4-5 Total Nitrogen Profile Through the Southern Flow Train[(a)]

[(a)] Stratum 3 not historically depicted.

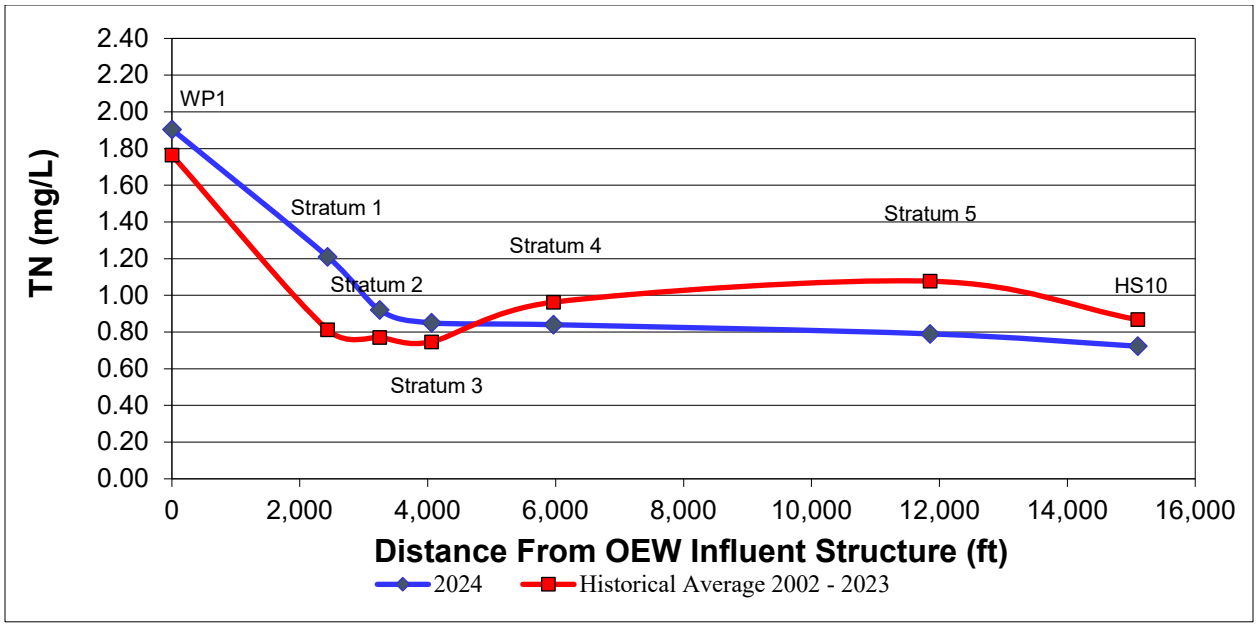

Figure 4-6 Total Nitrogen Profile Through the Central Flow Train

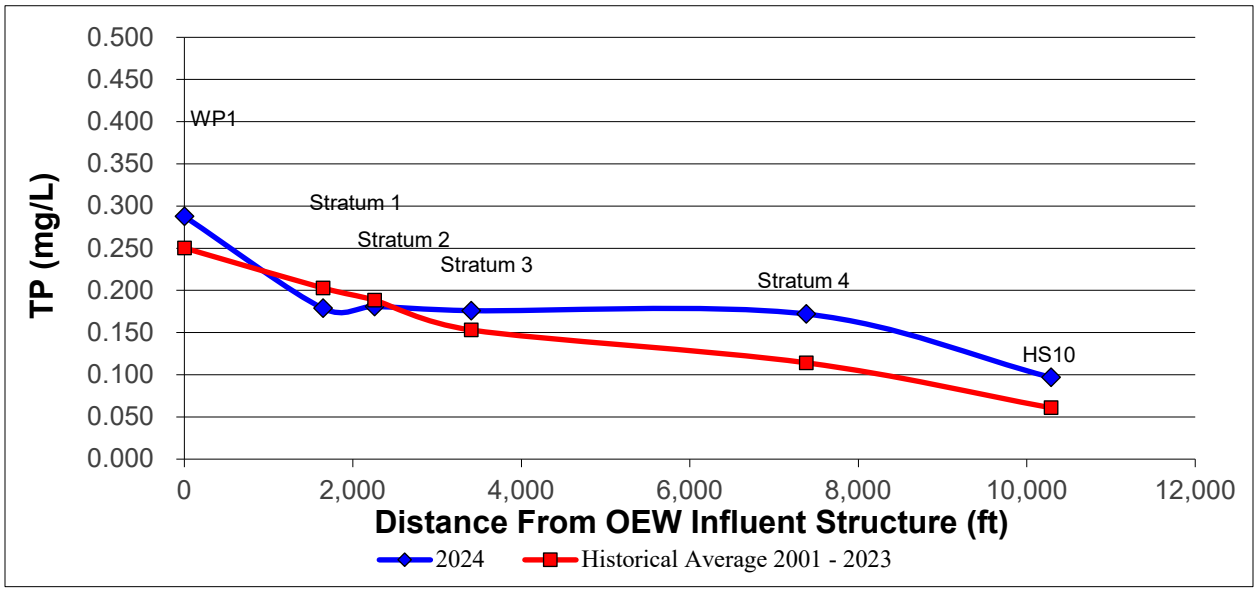

Figure 4-7 Total Phosphorus Profile Through the Northern Flow Train

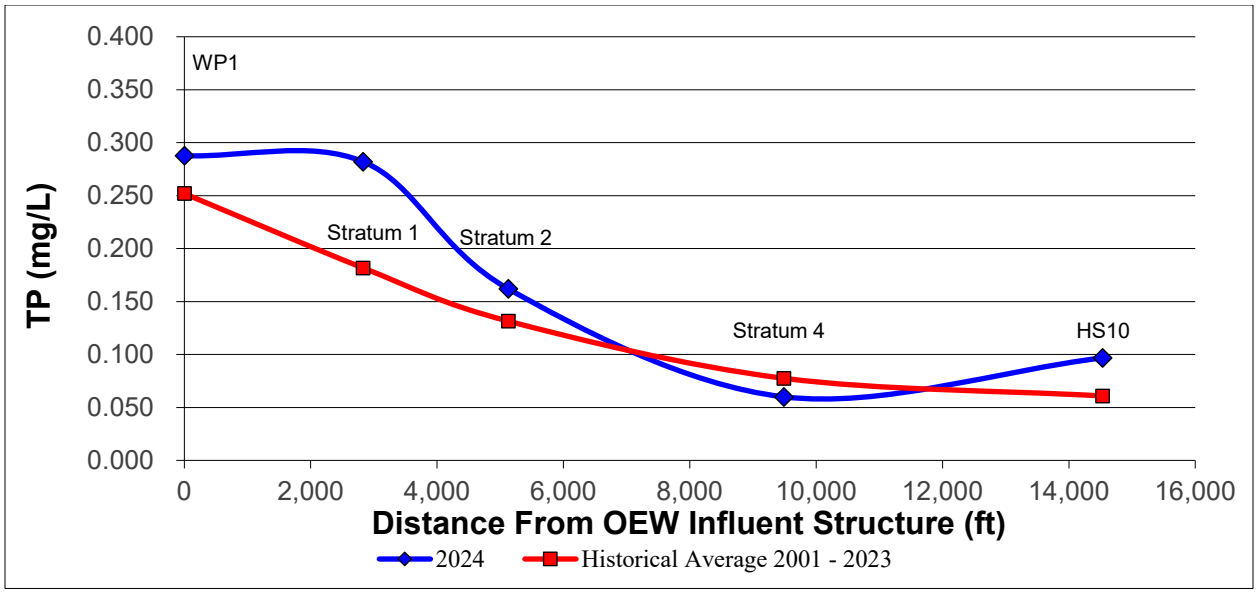

Figure 4-8 Total Phosphorus Profile Through the Southern Flow Train[(a)]

(a) Stratum 3 not historically depicted.

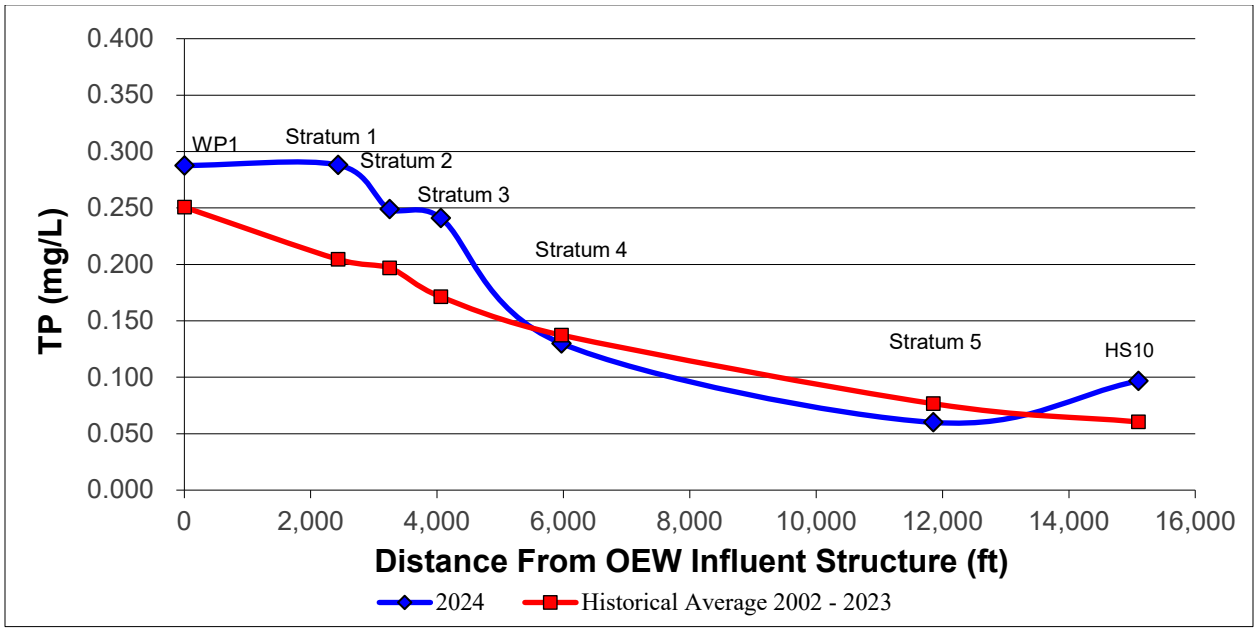

Figure 4-9 Total Phosphorus Profile Through the Central Flow Train

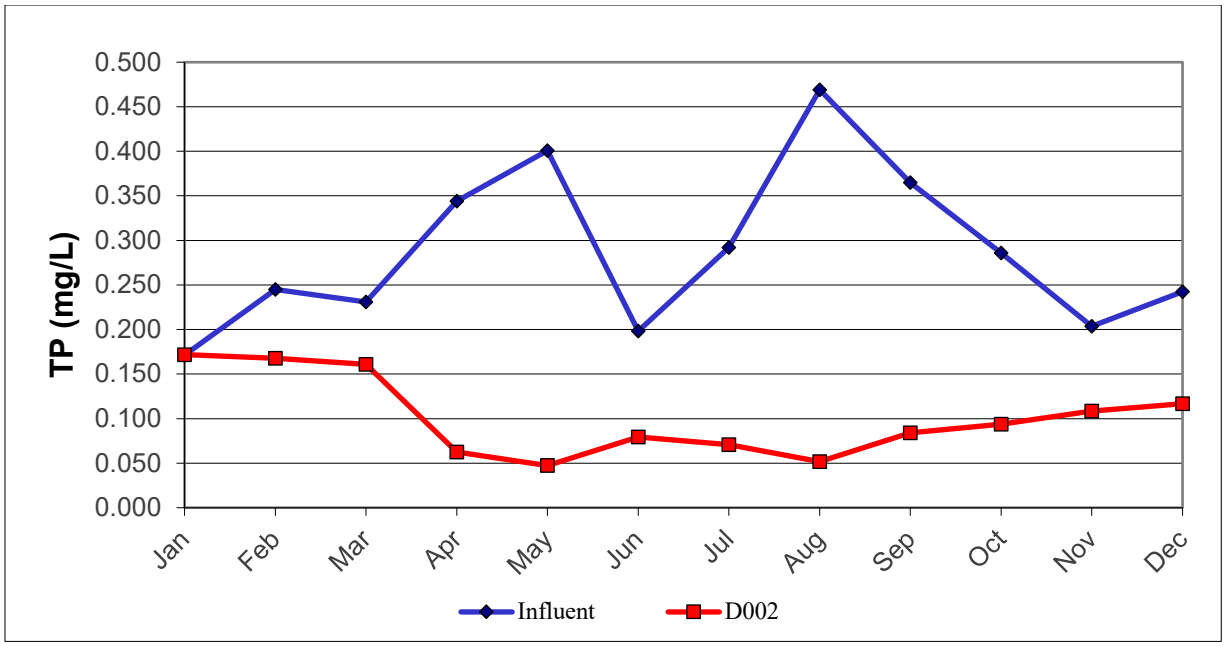

Figure 4-10 2024 Average Monthly Total Phosphorus Concentration Entering and Exiting the Orlando Easterly Wetlands

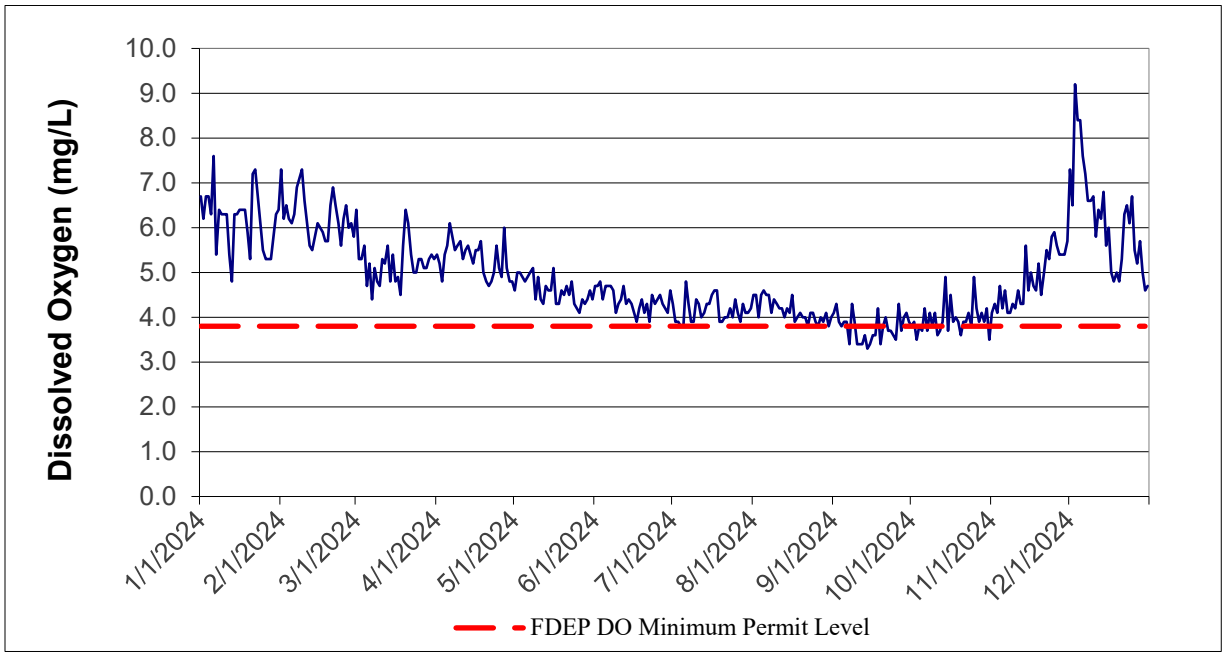

Figure 4-11 Dissolved Oxygen Profile at the Orlando Easterly Wetlands Final Discharge D002

5 Public Outreach

5.1 General Overview

One of the three main goals of the OEW is to serve the Public. Since the early 1990s, the OEW has been open to the public for passive recreational use. Visitors to the facility are free to partake in photography, wildlife viewing, hiking, cycling, and horseback riding.

The introduction of public access to the facility brought forth the inception of the Orlando Wetlands Public Outreach Program. The program began with a small group of dedicated volunteers and grew to incorporate City of Orlando staff. Over the years, the program has steadily grown in both size and scope. The program's mission is to provide public awareness of the Orlando Wetlands and support the facility's primary management goals to remove excess nitrogen and phosphorus from reclaimed water, create and maintain healthy wetland ecology and habitat for wildlife, and provide a public recreational space and educational programming.

In October of 2023, significant changes were made that impacted public awareness and outreach. The facility underwent a name change and became the Orlando Wetlands by dropping the word "park" from its name. The name change was done to reorient public perception around the facility's primary management goals and reduce people mistaking the facility for a traditional Parks & Recreation space. Additionally, the Orlando Wetlands began closing to the public on Mondays to enable staff to better carryout management activities safely and without public impediment and to give the infrastructure and wildlife a reprieve from increased visitor traffic.

5.2 Visitor Traffic to the Orlando Easterly Wetlands

OEW has been tracking the number of visitors to the facility via visitor sign-in logs since 2007. Initially the facility was closed November through February due to the original property owners retaining hunting rights when the City of Orlando first purchased the property. However, in 2015 the hunting rights were purchased by the City of Orlando and the OEW opened year-round to visitors beginning in 2016 which resulted in an influx of visitors in the cooler months and migratory bird season. Year-by-year data on estimated visitors to the OEW since 2007 is summarized in Table 5-1. In 2024, the Orlando Easterly Wetlands saw an estimated 80,055 visitors (extrapolated amount based on actual sign-ins from log sheets). Figure 5-1 depicts the comparison of annual visitor volume from 2016 through 2024. There was a noticeable increase in visitors from December 2022 through all of 2023 which is believed to be associated with the opening of the Cypress Boardwalk in December of 2022 and the Orlando Wetlands Festival held in February of 2023. While visitor volume dropped slightly in 2024 compared to 2023, the overall upward trend of increasing visitorship has remained constant year-over-year. Year-over-year data shows that winter and spring months are generally accompanied by increased traffic to the OEW. The comparison of monthly visitor volume to the OEW is depicted in Figure 5-2.

The OEW attracted many guests beyond the residents of the City of Orlando, during 2024. Within the state of Florida, residents of the City of Orlando account for 25% of visitors to OEW, while residents of other Florida cities accounted for 37% of total traffic to the facility. Other

states in the US accounted for 24% of total guests to the OEW (Figure 5-3). The largest concentration of visitors traveling from other US states were primarily from California, New York, Ohio, Michigan, and Pennsylvania (Figure 5-4). While international visitors accounted for only 8% of total guests, they represented a total of 62 different nations. (Figure 5-5). 7% of visitors did not specify which location they were visiting from (Figure 5-3).

5.3 Outreach and Volunteer Programs

The outreach program provided educational events, presentations, and tours for a variety of audiences in 2024. The continued growth of the wetlands volunteer program reflects the success of the outreach program and its ability to reach larger audiences. Public awareness and outreach programs continued an upward track in parallel with visitor numbers. Programs included reserved guided tours, public tram tours, and various onsite and offsite outreach events. Through these programs, staff and volunteers reached a total of 14,424 people in 2024.

The Friends of the Orlando Wetlands (FOWs) volunteer group continued to grow and expand. The earliest available record of volunteer hours goes back to 2009. Table 5-2 shows the year-by-year summary of the number of hours volunteers reported and the number of volunteers that reported those hours. By end of 2024 the FOWs had 64 members with 13 of them being new applicants within 2024. Of the volunteers that reported hours, a total of 8,744.15 hours were logged by 45 volunteers. Considering an estimated value of $31.61 per hour in Florida (per the 2024 Value of Volunteer Time report from Independent Sector), volunteer contribution to the OEW amounted to $276,402.58 in services. Of volunteers that reported hours, 58% individually contributed over 104 hours in 2024; the equivalent of contributing 4 hours every two weeks. It is estimated that volunteers have contributed many more hours than were reported. Volunteer activities include public tram tours, gardening work, data entry, help with the Wetlands Festival and other outreach events, contributing photographs, and other various administrative and facility maintenance tasks. Staff continues to provide and improve volunteer management, training materials, organized social events, continued education, and recognition opportunities for volunteers. Public tram tours were offered by the FOWs and were given on a first come, first served basis. FOWs have been recording the number of tours and people on these tours since 2011. Table 5-3 provides a year-by-year summary of tour numbers and visitors on FOW tours since 2011. In 2024, volunteers led a total of 1,682 of these tours to a total of 11,114 people; a 5% increase from 2023 and nearly a 128% increase from 2022.

The OEW has been delivering reserved tours and outreach programs since opening to the public. The Orlando Wetlands Festival began in 1999 to engage the local community and assuage concerns about the OEW as a water reclamation facility. Since then, it has been held annually until 2018, when it began to be held biennially. Estimated numbers of attendees to the Festival have steadily increased since its inception and it is estimated that 4,000 people attended the previous Festival in 2023. Earliest available recorded data on all OEW outreach programs began in 2015. A year-by-year summary of staff-led tours and outreach programs (excluding the Orlando Wetlands Festival) can be seen in Table 5-4. In 2024, a total of 3,310 people were reached through 85 tours and/or outreach programs. Notable groups that came for reserved tours include a group of delegates from multiple African countries accompanied by District 6 City of

Orlando Commissioner Samuel Ings, Government Finance Officers Association Conference, City of Orlando Office of Sustainability & Resilience, Poder LatinX, Strasbourg Amities USA, Blue Origin Sustainability Committee, North Shore Birding Festival, Rollins College, University of Central Florida, and a tour organized by Orange Audubon delivered in Spanish.

Other outreach programs included various community festivals, school and group presentations, and other special programs; some of which included the Florida Fire Fest at Little Big Econ Forest, City of Orlando's Earth Day Work Day, Valencia College Earth Day, City of Orlando Mayor's City Academy, City Neighborhood Centers, Audubon Society, Native Plant Society, and several local school science fairs and STEM programs. New and continued interpretive projects/multi-media/publications produced in 2024 include the quarterly online newsletter, wayfinding and interpretive signage around high traffic areas and the entrance pavilion, planning and coordination for the next Wetlands Festival in 2025, collaboration on GIS mapping projects for public and internal use, development of hands-on learning materials for tour and outreach programs, rebuilding the mesocosm area into an outdoor learning station complete with hands-on activity based lessons, continued work on interpretive materials and furnishings for new Visitors Center, and continued website updates.

Public participation in outreach programs through the Orlando Wetlands grew in 2024 and is anticipated to continue growing. Through these programs, the Orlando Wetlands mission is to inspire and create meaningful connections between people and the public works and water reclamation system, natural water resources and waterways, wetland ecosystems and the environment at large. Through this, the Orlando Wetlands aims to educate and create an informed citizenry that will engage in environmental stewardship and have a better appreciation of water reclamation processes.

Table 5-1 Estimated Yearly Number of Visitors to Orlando Easterly Wetlands From 2007 Through 2024

Year	Estimated No. of Visitors
2007	16524
2008	17901
2009	19746
2010	19383
2011	18231
2012	21837
2013	25293
2014	21288
2015	27171
2016	36399
2017	47931
2018	48603
2019	53292
2020	54747
2021	52341
2022	54822
2023	112578
2024	80055

Table 5-2 Yearly Number of Volunteers Reporting Hours and Total Number of Volunteer Hours Reported From 2009 Through 2024

Year	No. of Volunteers that Reported Hours	Reported Volunteer Hours
2009	3	323.25
2010	10	1403.5
2011	16	1159.83
2012	19	1404.5
2013	24	2325.25
2014	27	2965.75
2015	31	3398.75
2016	41	3542.25
2017	40	6312.00
2018	41	5399.25
2019	49	6985.5
2020	52	2609.75[a]
2021	19[a][b]	2983.45[a][b]
2022	28[b]	5746.8[b]
2023	57	7374.91
2024	45	8744.15

[a] Low number of reported hours and low number of volunteers reporting their hours likely due to Pandemic related closures and precautions.

[b] Low number of reported hours and low number of volunteers reporting their hours likely due to difficulty in adopting and transitioning volunteers to new online hours reporting system.

Table 5-3 Summary of Total Number of Friends of the Orlando Wetlands Tours and Visitors on Friends of the Orlando Wetlands Tours

Year	No. of FOW Tours	No. of Visitors on FOW Tours
2011	39	223
2012	146	547
2013	231	885
2014	341	1356
2015	225	774
2016	475	2435
2017[a]	270	1373
2018	832	4499
2019	1075	6138
2020[b]	371	2012
2021[b]	420	1791
2022	1001	4879
2023	1654	10575
2024	1682	11114

[a] Reported only from July – December 2017.

[b] Decreased traffic related to Covid-19 closures and safety precautions.

Table 5-4 Summary of the Number of Orlando Easterly Wetlands Outreach Programs and Participants[a]

Year	No. OEW Outreach Programs	No. of Participants in OEW Outreach Programs
2015	16	326
2016	62	3216
2017	53	1815
2018	58	2445
2019	42	2095
2020[b]	0	0
2021[b]	7	308
2022	40	1591
2023	59	2390
2024	85	3310

[a] Does not include estimated numbers of Orlando Wetlands Festival attendees.

[b] Decreased number of OEW outreach programs and participants related to Covid-19 closures and safety precautions.

Figure 5-1 Annual Visitor Volume From 2016 Through 2024

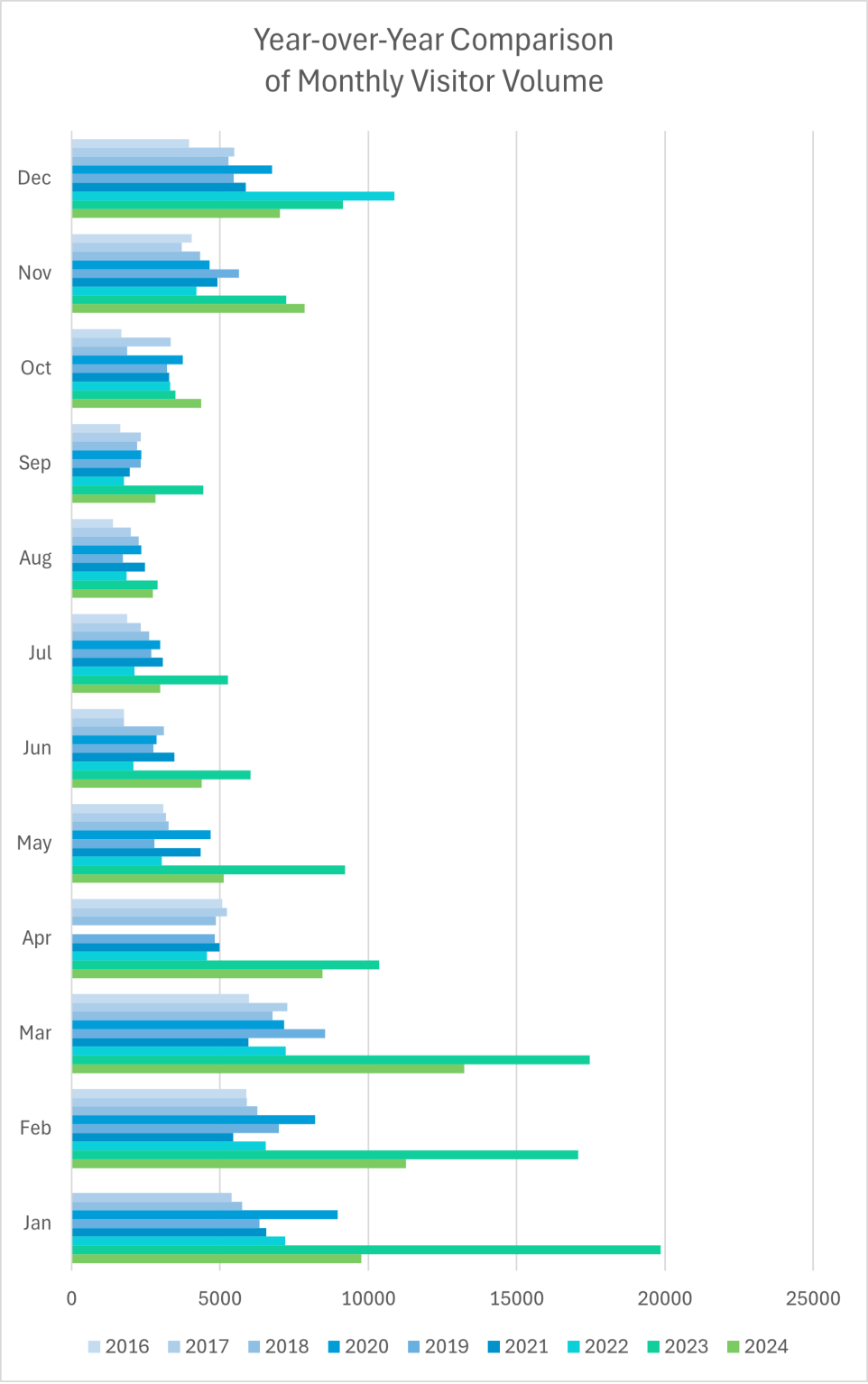

Figure 5-2 Year-Over-Year Comparison of Monthly Visitor Volume to the Orlando Easterly Wetlands

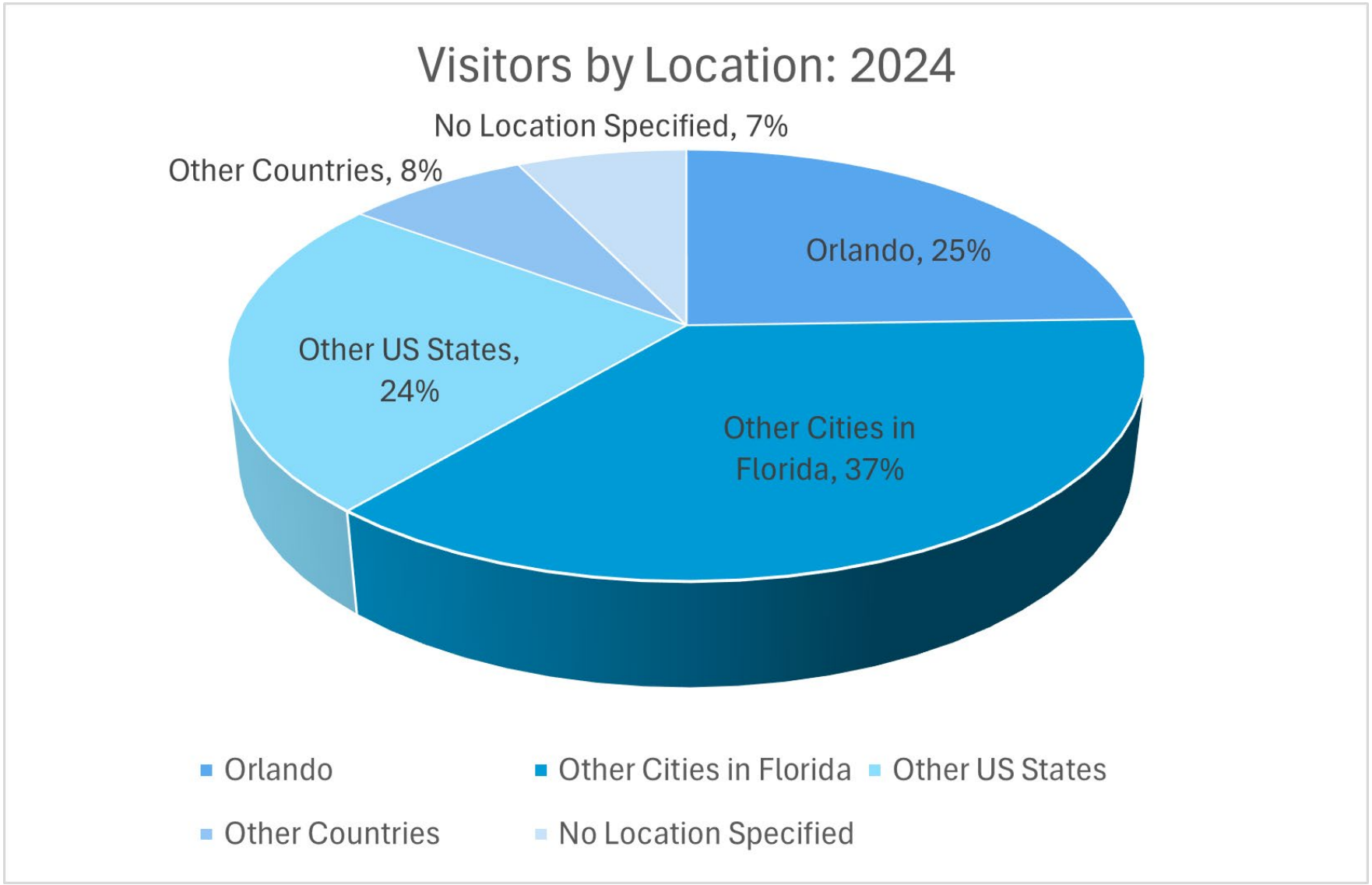

Figure 5-3 Percentage of Visitors to the Orlando Easterly Wetlands by Location in 2024

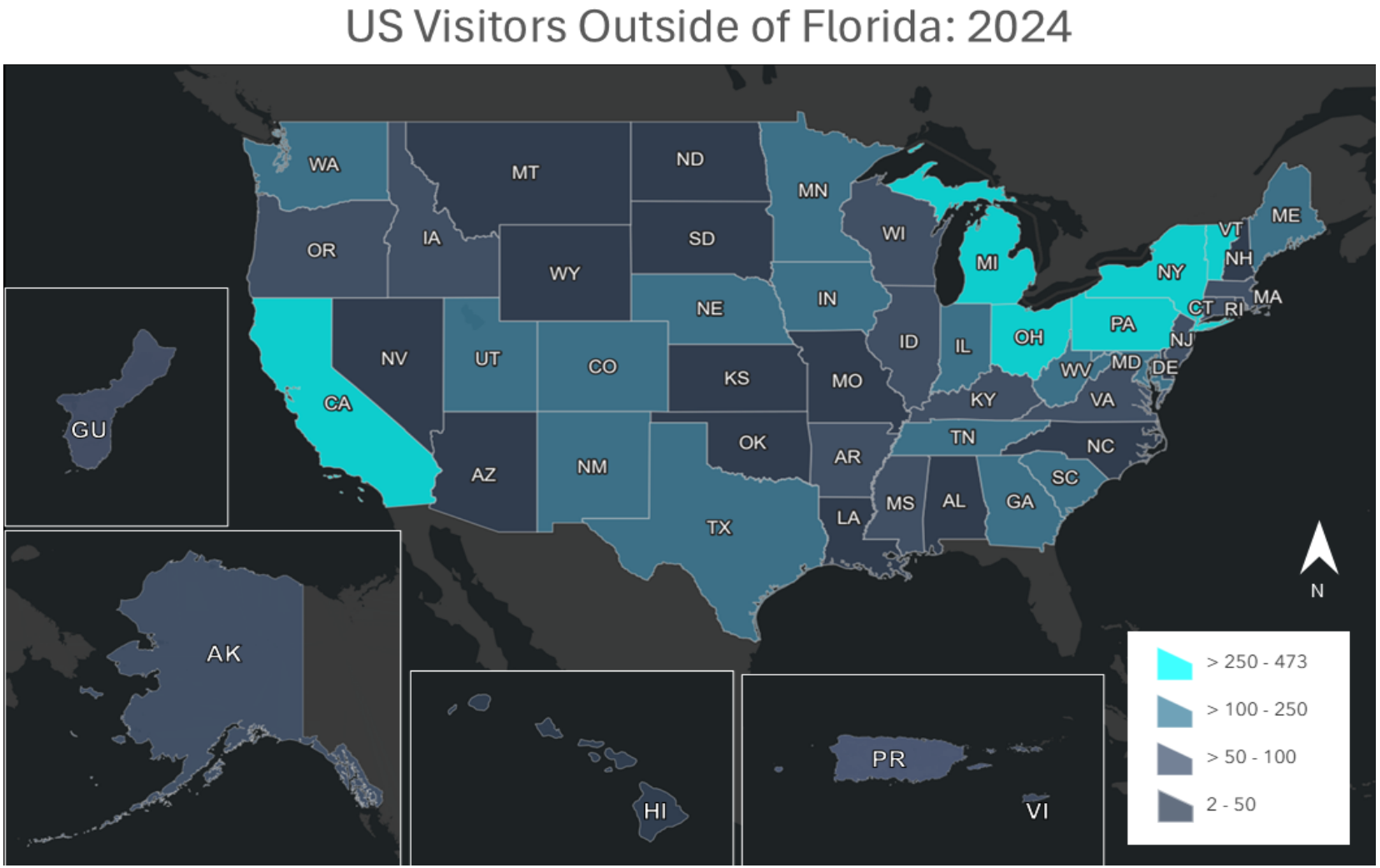

Figure 5-4 2024 Density Map of Visitors to the Orlando Easterly Wetlands from US States and Territories Outside of Florida

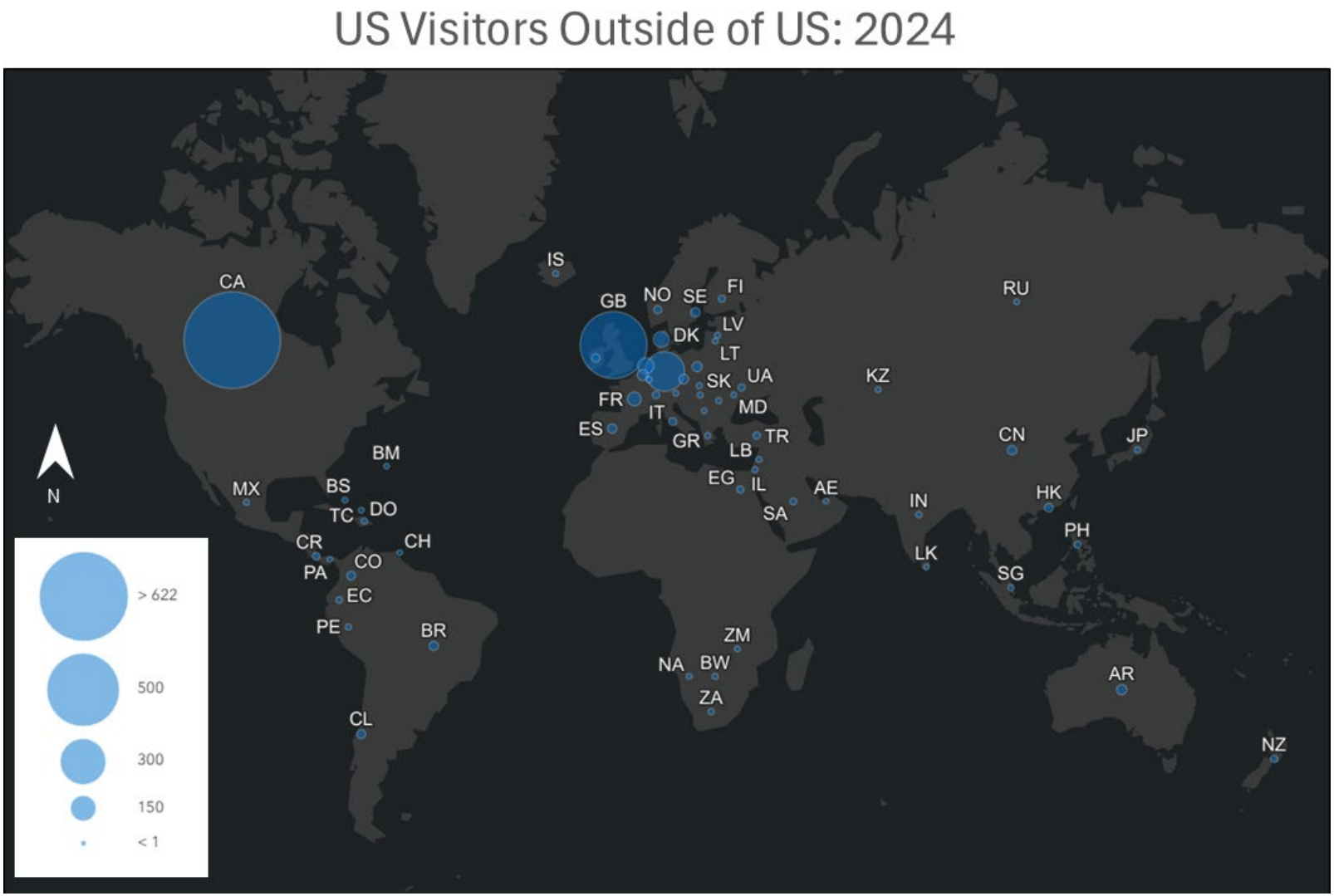

Figure 5-5 2024 Density Map of Visitors to the Orlando Easterly Wetlands Who Traveled from A Country Outside of the US

Conclusion

The 2024 Orlando Easterly Wetlands Annual Report summarizes the water quality, land management, and public outreach goals and efficacy. The OEW remained in compliance with all permit-specific parameters of concern in the FDEP Domestic Wastewater Facility Permit (FL0037966) issued on October 22, 2020. The OEW is one of the permitted discharge locations for the Iron Bridge Regional WRF. In 2024, the OEW discharge continued to satisfy all monthly permit conditions as outlined by the FDEP operating permit. Nutrient removal performance for the Iron Bridge Regional WRF combined with the OEW in 2024 was exceptional, utilizing only 17.78% of the maximum allowable loading for TN. Within the OEW, there was a 69.2% reduction in TN loading - the highest recorded percent reductions since 2001. The Iron Bridge Regional WRF combined with the OEW also utilized only 8.51% of the maximum allowable loading for TP. The OEW achieved a 72.7% loading reduction of TP. Additionally, the OEW continues to be efficient in removing other analytes such as VOCs, metals, herbicide and pesticide residuals to below laboratory method detection limits.

While the data presented within this report serves to comply with FDEP permit requirements, it also serves as a unique and invaluable management tool. This data is used by staff to guide management decisions such as prescribed burns, demucking projects, and aquatic herbicide applications. This quantifiable data informs and helps to determine wetland performance and effectiveness of the system.

The OEW continues to demonstrate its ability to polish nutrient loadings from reclaimed water prior to its discharge to the St. Johns River system. The OEW continues to provide nutrient removal, diverse habitats, a wide array of wildlife species, and facilitate educational recreation opportunities to its more than 80,000 annual visitors, thus providing a multifaceted beneficial reuse project which positively impacts Florida’s environment and the general public.

Appendix A

2024 USGS Little Econlockhatchee River and St. Johns River Gage Height and Discharge Data

USGS Gauge Height and Discharge Data

USGS 02233475 LITTLE ECONLOCKHATCHEE R. AT SR 434 NR OVIEDO, FL

Date	Gauge Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
1/1/2024	30.15	147.0	95.0
1/2/2024	29.95	139.0	89.8
1/3/2024	29.76	132.0	85.3
1/4/2024	29.61	126.0	81.4
1/5/2024	29.45	120.0	77.6
1/6/2024	29.54	124.0	80.1
1/7/2024	30.15	147.0	95.0
1/8/2024	30.03	142.0	91.8
1/9/2024	29.79	133.0	86.0
1/10/2024	30.44	158.0	102.1
1/11/2024	30.49	160.0	103.4
1/12/2024	30.24	150.0	96.9
1/13/2024	30.08	144.0	93.1
1/14/2024	29.81	134.0	86.6
1/15/2024	29.58	125.0	80.8
1/16/2024	29.50	122.0	78.8
1/17/2024	29.40	119.0	76.9
1/18/2024	29.18	111.0	71.7
1/19/2024	29.26	113.0	73.0
1/20/2024	29.26	114.0	73.7
1/21/2024	29.06	106.0	68.5
1/22/2024	28.90	101.0	65.3
1/23/2024	28.78	96.3	62.2
1/24/2024	28.70	93.4	60.4
1/25/2024	28.62	90.9	58.7
1/26/2024	28.57	88.9	57.5
1/27/2024	28.52	87.4	56.5
1/28/2024	28.45	84.8	54.8
1/29/2024	28.32	80.4	52.0
1/30/2024	28.19	76.2	49.2
1/31/2024	28.14	74.4	48.1
2/1/2024	28.03	71.0	45.9
2/2/2024	27.97	68.8	44.5
2/3/2024	27.92	67.2	43.4
2/4/2024	27.89	66.4	42.9
2/5/2024	28.10	73.1	47.2
2/6/2024	27.98	69.3	44.8
2/7/2024	27.79	63.2	40.8
2/8/2024	27.72	60.8	39.3
2/9/2024	27.71	60.7	39.2
2/10/2024	27.70	60.2	38.9
2/11/2024	27.66	59.0	38.1

USGS Gauge Height and Discharge Data

USGS 02233475 LITTLE ECONLOCKHATCHEE R. AT SR 434 NR OVIEDO, FL

Date	Gauge Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
2/12/2024	27.67	59.2	38.3
2/13/2024	27.61	57.5	37.2
2/14/2024	27.49	53.6	34.6
2/15/2024	27.51	54.3	35.1
2/16/2024	27.51	54.4	35.2
2/17/2024	27.85	65.2	42.1
2/18/2024	30.57	165.0	106.6
2/19/2024	32.41	262.0	169.3
2/20/2024	32.21	248.0	160.3
2/21/2024	31.32	195.0	126.0
2/22/2024	30.55	162.0	104.7
2/23/2024	29.99	141.0	91.1
2/24/2024	30.01	142.0	91.8
2/25/2024	29.56	125.0	80.8
2/26/2024	29.16	111.0	71.7
2/27/2024	28.88	101.0	65.3
2/28/2024	28.68	93.7	60.6
2/29/2024	28.54	89.1	57.6
3/1/2024	28.41	84.9	54.9
3/2/2024	28.29	81.0	52.4
3/3/2024	28.22	78.5	50.7
3/4/2024	28.23	79.1	51.1
3/5/2024	28.24	79.6	51.4
3/6/2024	28.23	79.3	51.3
3/7/2024	28.15	76.5	49.4
3/8/2024	28.00	72.0	46.5
3/9/2024	27.90	68.8	44.5
3/10/2024	27.88	68.2	44.1
3/11/2024	27.83	66.6	43.0
3/12/2024	27.65	61.0	39.4
3/13/2024	27.54	57.5	37.2
3/14/2024	27.47	55.3	35.7
3/15/2024	27.39	53.0	34.3
3/16/2024	27.37	52.6	34.0
3/17/2024	27.31	51.0	33.0
3/18/2024	27.25	49.2	31.8
3/19/2024	27.22	48.2	31.2
3/20/2024	27.18	47.2	30.5
3/21/2024	27.10	45.0	29.1
3/22/2024	27.53	58.6	37.9
3/23/2024	28.39	86.8	56.1
3/24/2024	27.93	71.5	46.2

USGS Gauge Height and Discharge Data

USGS 02233475 LITTLE ECONLOCKHATCHEE R. AT SR 434 NR OVIEDO, FL

Date	Gauge Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
3/25/2024	27.55	59.2	38.3
3/26/2024	27.35	53.1	34.3
3/27/2024	27.24	49.8	32.2
3/28/2024	27.21	49.0	31.7
3/29/2024	27.17	47.9	31.0
3/30/2024	27.16	47.7	30.8
3/31/2024	27.18	48.3	31.2
4/1/2024	27.16	47.7	30.8
4/2/2024	27.13	47.0	30.4
4/3/2024	27.10	46.2	29.9
4/4/2024	27.82	69.0	44.6
4/5/2024	27.61	62.3	40.3
4/6/2024	27.22	50.0	32.3
4/7/2024	26.99	43.4	28.0
4/8/2024	26.89	40.5	26.2
4/9/2024	26.84	39.2	25.3
4/10/2024	26.79	37.7	24.4
4/11/2024	26.82	38.7	25.0
4/12/2024	27.62	63.3	40.9
4/13/2024	27.37	55.6	35.9
4/14/2024	27.00	44.2	28.6
4/15/2024	26.81	38.9	25.1
4/16/2024	26.74	36.8	23.8
4/17/2024	26.66	34.8	22.5
4/18/2024	26.62	33.6	21.7
4/19/2024	26.57	32.5	21.0
4/20/2024	26.53	31.5	20.4
4/21/2024	26.50	30.7	19.8
4/22/2024	26.47	29.9	19.3
4/23/2024	26.43	28.9	18.7
4/24/2024	26.42	28.6	18.5
4/25/2024	26.38	27.7	17.9
4/26/2024	26.36	27.3	17.6
4/27/2024	26.35	26.9	17.4
4/28/2024	26.34	26.6	17.2
4/29/2024	26.31	25.9	16.7
4/30/2024	26.29	25.2	16.3
5/1/2024	26.29	25.4	16.4
5/2/2024	26.27	24.7	16.0
5/3/2024	26.30	25.5	16.5
5/4/2024	26.29	25.4	16.4
5/5/2024	26.42	28.8	18.6

USGS Gauge Height and Discharge Data

USGS 02233475 LITTLE ECONLOCKHATCHEE R. AT SR 434 NR OVIEDO, FL

Date	Gauge Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
5/6/2024	26.36	27.3	17.6
5/7/2024	26.31	26.0	16.8
5/8/2024	26.29	25.3	16.4
5/9/2024	26.36	27.2	17.6
5/10/2024	26.25	24.4	15.8
5/11/2024	26.62	34.7	22.4
5/12/2024	27.37	56.7	36.6
5/13/2024	26.92	43.0	27.8
5/14/2024	26.70	36.6	23.7
5/15/2024	27.30	55.6	35.9
5/16/2024	28.02	79.0	51.1
5/17/2024	27.33	56.5	36.5
5/18/2024	27.05	47.9	31.0
5/19/2024	26.99	45.9	29.7
5/20/2024	26.89	43.1	27.9
5/21/2024	26.66	36.3	23.5
5/22/2024	26.51	32.0	20.7
5/23/2024	26.40	29.2	18.9
5/24/2024	26.36	28.0	18.1
5/25/2024	26.31	26.7	17.3
5/26/2024	26.28	25.8	16.7
5/27/2024	26.25	25.0	16.2
5/28/2024	26.20	23.7	15.3
5/29/2024	26.52	32.3	20.9
5/30/2024	26.28	25.9	16.7
5/31/2024	26.18	23.2	15.0
6/1/2024	26.06	20.1	13.0
6/2/2024	26.01	18.9	12.2
6/3/2024	26.00	18.6	12.0
6/4/2024	25.98	18.2	11.8
6/5/2024	25.95	17.4	11.2
6/6/2024	26.18	23.8	15.4
6/7/2024	32.57	294.0	190.0
6/8/2024	30.89	190.0	122.8
6/9/2024	28.53	96.6	62.4
6/10/2024	27.66	67.1	43.4
6/11/2024	29.10	117.0	75.6
6/12/2024	29.28	124.0	80.1
6/13/2024	31.64	222.0	143.5
6/14/2024	30.65	176.0	113.7
6/15/2024	29.85	145.0	93.7
6/16/2024	29.31	125.0	80.8

USGS Gauge Height and Discharge Data

USGS 02233475 LITTLE ECONLOCKHATCHEE R. AT SR 434 NR OVIEDO, FL

Date	Gauge Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
6/17/2024	28.47	94.3	60.9
6/18/2024	27.91	75.2	48.6
6/19/2024	27.71	68.6	44.3
6/20/2024	28.48	94.7	61.2
6/21/2024	28.75	104.0	67.2
6/22/2024	28.66	101.0	65.3
6/23/2024	28.50	95.4	61.7
6/24/2024	29.56	134.0	86.6
6/25/2024	29.35	126.0	81.4
6/26/2024	33.45	379.0	244.9
6/27/2024	33.86	423.0	273.4
6/28/2024	33.12	327.0	211.3
6/29/2024	32.50	271.0	175.1
6/30/2024	31.98	240.0	155.1
7/1/2024	31.50	214.0	138.3
7/2/2024	30.67	177.0	114.4
7/3/2024	29.91	147.0	95.0
7/4/2024	29.72	140.0	90.5
7/5/2024	29.28	123.0	79.5
7/6/2024	28.83	107.0	69.2
7/7/2024	28.47	94.3	60.9
7/8/2024	28.20	85.0	54.9
7/9/2024	31.18	203.0	131.2
7/10/2024	30.74	180.0	116.3
7/11/2024	29.62	136.0	87.9
7/12/2024	28.99	113.0	73.0
7/13/2024	28.59	98.4	63.6
7/14/2024	29.02	114.0	73.7
7/15/2024	32.89	311.0	201.0
7/16/2024	33.76	406.0	262.4
7/17/2024	33.25	341.0	220.4
7/18/2024	31.84	233.0	150.6
7/19/2024	30.53	171.0	110.5
7/20/2024	29.68	138.0	89.2
7/21/2024	29.14	118.0	76.3
7/22/2024	28.82	107.0	69.2
7/23/2024	28.78	105.0	67.9
7/24/2024	28.56	97.2	62.8
7/25/2024	28.38	91.3	59.0
7/26/2024	28.55	97.1	62.8
7/27/2024	29.33	126.0	81.4
7/28/2024	30.17	157.0	101.5

USGS Gauge Height and Discharge Data

USGS 02233475 LITTLE ECONLOCKHATCHEE R. AT SR 434 NR OVIEDO, FL

Date	Gauge Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
7/29/2024	29.88	146.0	94.4
7/30/2024	29.76	141.0	91.1
7/31/2024	29.29	124.0	80.1
8/1/2024	28.87	108.0	69.8
8/2/2024	28.75	104.0	67.2
8/3/2024	29.65	137.0	88.5
8/4/2024	29.89	146.0	94.4
8/5/2024	31.84	234.0	151.2
8/6/2024	33.30	347.0	224.3
8/7/2024	33.74	404.0	261.1
8/8/2024	32.89	305.0	197.1
8/9/2024	32.21	253.0	163.5
8/10/2024	31.81	231.0	149.3
8/11/2024	31.84	232.0	149.9
8/12/2024	32.31	259.0	167.4
8/13/2024	31.47	213.0	137.7
8/14/2024	31.09	195.0	126.0
8/15/2024	31.38	209.0	135.1
8/16/2024	30.44	168.0	108.6
8/17/2024	29.63	136.0	87.9
8/18/2024	29.28	123.0	79.5
8/19/2024	28.91	110.0	71.1
8/20/2024	28.70	102.0	65.9
8/21/2024	29.05	116.0	75.0
8/22/2024	31.26	203.0	131.2
8/23/2024	30.55	172.0	111.2
8/24/2024	29.64	137.0	88.5
8/25/2024	30.19	160.0	103.4
8/26/2024	33.30	343.0	221.7
8/27/2024	32.80	296.0	191.3
8/28/2024	31.84	233.0	150.6
8/29/2024	31.33	207.0	133.8
8/30/2024	32.54	274.0	177.1
8/31/2024	32.22	254.0	164.2
9/1/2024	31.43	211.0	136.4
9/2/2024	33.44	363.0	234.6
9/3/2024	32.70	288.0	186.1
9/4/2024	32.07	252.0	162.9
9/5/2024	34.75	611.0	394.9
9/6/2024	34.94	661.0	427.2
9/7/2024	34.78	618.0	399.4
9/8/2024	34.65	587.0	379.4

USGS Gauge Height and Discharge Data

USGS 02233475 LITTLE ECONLOCKHATCHEE R. AT SR 434 NR OVIEDO, FL

Date	Gauge Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
9/9/2024	34.48	545.0	352.2
9/10/2024	35.00	678.0	438.2
9/11/2024	35.04	693.0	447.9
9/12/2024	34.88	645.0	416.9
9/13/2024	34.64	585.0	378.1
9/14/2024	34.23	492.0	318.0
9/15/2024	33.83	418.0	270.2
9/16/2024	33.47	365.0	235.9
9/17/2024	33.03	314.0	202.9
9/18/2024	32.49	271.0	175.1
9/19/2024	32.04	243.0	157.1
9/20/2024	31.68	224.0	144.8
9/21/2024	31.37	208.0	134.4
9/22/2024	30.99	190.0	122.8
9/23/2024	30.62	175.0	113.1
9/24/2024	30.37	165.0	106.6
9/25/2024	30.25	160.0	103.4
9/26/2024	30.82	183.0	118.3
9/27/2024	30.82	183.0	118.3
9/28/2024	30.87	186.0	120.2
9/29/2024	32.42	266.0	171.9
9/30/2024	31.72	226.0	146.1
10/1/2024	31.56	222.0	143.5
10/2/2024	33.79	412.0	266.3
10/3/2024	33.11	323.0	208.8
10/4/2024	32.54	274.0	177.1
10/5/2024	31.93	237.0	153.2
10/6/2024	31.47	213.0	137.7
10/7/2024	32.45	269.0	173.9
10/8/2024	32.77	291.0	188.1
10/9/2024	33.13	364.0	235.3
10/10/2024	37.73	2280.0	1473.6
10/11/2024	37.33	1910.0	1234.4
10/12/2024	36.40	1290.0	833.7
10/13/2024	35.75	965.0	623.7
10/14/2024	35.26	765.0	494.4
10/15/2024	34.83	627.0	405.2
10/16/2024	34.42	527.0	340.6
10/17/2024	33.95	432.0	279.2
10/18/2024	33.49	363.0	234.6
10/19/2024	33.05	313.0	202.3
10/20/2024	32.72	284.0	183.5

USGS Gauge Height and Discharge Data

USGS 02233475 LITTLE ECONLOCKHATCHEE R. AT SR 434 NR OVIEDO, FL

Date	Gauge Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
10/21/2024	32.52	269.0	173.9
10/22/2024	32.35	259.0	167.4
10/23/2024	32.10	244.0	157.7
10/24/2024	31.74	224.0	144.8
10/25/2024	31.43	207.0	133.8
10/26/2024	31.17	194.0	125.4
10/27/2024	30.90	183.0	118.3
10/28/2024	30.74	176.0	113.7
10/29/2024	30.77	177.0	114.4
10/30/2024	30.51	167.0	107.9
10/31/2024	30.32	159.0	102.8
11/1/2024	30.21	155.0	100.2
11/2/2024	30.15	152.0	98.2
11/3/2024	30.03	148.0	95.7
11/4/2024	29.88	142.0	91.8
11/5/2024	29.86	141.0	91.1
11/6/2024	29.74	136.0	87.9
11/7/2024	29.86	141.0	91.1
11/8/2024	29.98	145.0	93.7
11/9/2024	29.61	131.0	84.7
11/10/2024	29.36	121.0	78.2
11/11/2024	29.22	116.0	75.0
11/12/2024	29.08	111.0	71.7
11/13/2024	28.94	106.0	68.5
11/14/2024	28.84	102.0	65.9
11/15/2024	28.74	98.3	63.5
11/16/2024	28.61	93.6	60.5
11/17/2024	28.49	89.4	57.8
11/18/2024	28.40	86.1	55.6
11/19/2024	28.32	83.1	53.7
11/20/2024	28.28	81.7	52.8
11/21/2024	28.22	79.5	51.4
11/22/2024	28.11	75.6	48.9
11/23/2024	28.01	72.1	46.6
11/24/2024	27.96	70.3	45.4
11/25/2024	27.92	69.0	44.6
11/26/2024	27.90	68.1	44.0
11/27/2024	27.88	67.2	43.4
11/28/2024	27.85	66.3	42.8
11/29/2024	27.82	65.0	42.0
11/30/2024	27.84	65.6	42.4
12/1/2024	27.77	63.3	40.9

USGS Gauge Height and Discharge Data

USGS 02233475 LITTLE ECONLOCKHATCHEE R. AT SR 434 NR OVIEDO, FL

Date	Gauge Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
12/2/2024	27.69	60.5	39.1
12/3/2024	27.64	58.8	38.0
12/4/2024	27.60	57.3	37.0
12/5/2024	27.61	57.4	37.1
12/6/2024	27.57	56.3	36.4
12/7/2024	27.55	55.4	35.8
12/8/2024	27.52	54.4	35.2
12/9/2024	27.47	52.8	34.1
12/10/2024	27.45	52.0	33.6
12/11/2024	27.46	52.2	33.7
12/12/2024	27.45	51.6	33.3
12/13/2024	27.38	49.5	32.0
12/14/2024	27.36	48.7	31.5
12/15/2024	27.43	50.7	32.8
12/16/2024	27.45	51.1	33.0
12/17/2024	27.77	61.2	39.6
12/18/2024	27.96	67.0	43.3
12/19/2024	27.81	62.0	40.1
12/20/2024	27.74	59.7	38.6
12/21/2024	27.63	56.2	36.3
12/22/2024	27.50	52.2	33.7
12/23/2024	27.45	50.3	32.5
12/24/2024	27.44	50.0	32.3
12/25/2024	27.45	50.3	32.5
12/26/2024	27.40	48.7	31.5
12/27/2024	27.41	48.7	31.5
12/28/2024	27.40	48.4	31.3
12/29/2024	27.48	50.9	32.9
12/30/2024	29.08	104.0	67.2
12/31/2024	28.86	96.1	62.1
Average	**29.31**	**154.8**	**100.0**

ND – Not Documented

USGS Gage Height and Discharge Data

USGS 02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY NR GENEVA, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
1/1/2024	6.00	3550	2294
1/2/2024	5.95	3460	2236
1/3/2024	5.89	3480	2249
1/4/2024	5.84	3370	2178
1/5/2024	5.77	3400	2197
1/6/2024	5.73	3360	2172
1/7/2024	5.70	3240	2094
1/8/2024	5.64	3300	2133
1/9/2024	5.60	3290	2126
1/10/2024	5.60	3140	2029
1/11/2024	5.56	3190	2062
1/12/2024	5.53	3180	2055
1/13/2024	5.52	3090	1997
1/14/2024	5.49	3140	2029
1/15/2024	5.46	3120	2016
1/16/2024	5.43	3080	1991
1/17/2024	5.40	3010	1945
1/18/2024	5.37	3040	1965
1/19/2024	5.35	3020	1952
1/20/2024	5.31	2940	1900
1/21/2024	5.27	2940	1900
1/22/2024	5.24	3020	1952
1/23/2024	5.22	2960	1913
1/24/2024	5.19	2910	1881
1/25/2024	5.16	2860	1848
1/26/2024	5.12	2850	1842
1/27/2024	5.07	2830	1829
1/28/2024	5.03	2770	1790
1/29/2024	4.98	2720	1758
1/30/2024	4.93	2720	1758
1/31/2024	4.87	2660	1719
2/1/2024	4.80	2650	1713
2/2/2024	4.75	2610	1687
2/3/2024	4.71	2590	1674
2/4/2024	4.65	2560	1655
2/5/2024	4.62	2490	1609
2/6/2024	4.57	2360	1525
2/7/2024	4.51	2470	1596
2/8/2024	4.47	2480	1603
2/9/2024	4.45	2420	1564
2/10/2024	4.43	2390	1545
2/11/2024	4.40	2350	1519

USGS Gage Height and Discharge Data

USGS 02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY NR GENEVA, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
2/12/2024	4.37	2330	1506
2/13/2024	4.35	2250	1454
2/14/2024	4.30	2260	1461
2/15/2024	4.25	2240	1448
2/16/2024	4.20	2200	1422
2/17/2024	4.20	2210	1428
2/18/2024	4.38	2310	1493
2/19/2024	4.52	2490	1609
2/20/2024	4.62	2610	1687
2/21/2024	4.68	2640	1706
2/22/2024	4.71	2680	1732
2/23/2024	4.72	2670	1726
2/24/2024	4.75	2590	1674
2/25/2024	4.73	2620	1693
2/26/2024	4.70	2580	1667
2/27/2024	4.65	2540	1642
2/28/2024	4.61	2480	1603
2/29/2024	4.57	2410	1558
3/1/2024	4.51	2460	1590
3/2/2024	4.46	2360	1525
3/3/2024	4.43	2350	1519
3/4/2024	4.41	2350	1519
3/5/2024	4.37	2320	1499
3/6/2024	4.34	2280	1474
3/7/2024	4.28	2240	1448
3/8/2024	4.22	2210	1428
3/9/2024	4.15	2170	1402
3/10/2024	4.12	2090	1351
3/11/2024	4.05	2080	1344
3/12/2024	3.96	2040	1318
3/13/2024	3.89	1970	1273
3/14/2024	3.83	1950	1260
3/15/2024	3.78	1910	1234
3/16/2024	3.73	1860	1202
3/17/2024	3.63	1810	1170
3/18/2024	3.57	1760	1137
3/19/2024	3.51	1700	1099
3/20/2024	3.40	1570	1015
3/21/2024	3.31	1490	963
3/22/2024	3.25	1500	969
3/23/2024	3.19	1340	866
3/24/2024	3.11	1340	866

USGS Gage Height and Discharge Data

USGS 02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY NR GENEVA, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
3/25/2024	3.02	1440	931
3/26/2024	2.94	1350	873
3/27/2024	2.88	1220	788
3/28/2024	2.84	1140	737
3/29/2024	2.78	1180	763
3/30/2024	2.72	1120	724
3/31/2024	2.67	1050	679
4/1/2024	2.61	1050	679
4/2/2024	2.55	1030	666
4/3/2024	2.50	977	631
4/4/2024	2.49	966	624
4/5/2024	2.39	965	624
4/6/2024	2.28	977	631
4/7/2024	2.17	946	611
4/8/2024	2.04	887	573
4/9/2024	1.92	854	552
4/10/2024	1.80	824	533
4/11/2024	1.72	640	414
4/12/2024	1.73	610	394
4/13/2024	1.67	723	467
4/14/2024	1.59	683	441
4/15/2024	1.49	604	390
4/16/2024	1.39	571	369
4/17/2024	1.28	542	350
4/18/2024	1.19	446	288
4/19/2024	1.10	415	268
4/20/2024	1.05	386	249
4/21/2024	1.01	322	208
4/22/2024	1.02	357	231
4/23/2024	1.00	364	235
4/24/2024	1.04	294	190
4/25/2024	1.08	262	169
4/26/2024	1.07	300	194
4/27/2024	1.01	358	231
4/28/2024	0.96	305	197
4/29/2024	0.95	288	186
4/30/2024	0.94	246	159
5/1/2024	0.93	259	167
5/2/2024	0.90	260	168
5/3/2024	0.86	252	163
5/4/2024	0.82	224	145
5/5/2024	0.82	218	141

USGS Gage Height and Discharge Data

USGS 02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY NR GENEVA, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
5/6/2024	0.81	221	143
5/7/2024	0.80	212	137
5/8/2024	0.78	229	148
5/9/2024	0.78	139	90
5/10/2024	0.80	213	138
5/11/2024	0.79	220	142
5/12/2024	0.74	213	138
5/13/2024	0.68	279	180
5/14/2024	0.69	139	90
5/15/2024	0.86	224	145
5/16/2024	0.98	258	167
5/17/2024	1.00	336	217
5/18/2024	1.03	286	185
5/19/2024	1.08	302	195
5/20/2024	1.15	279	180
5/21/2024	1.22	280	181
5/22/2024	1.31	171	111
5/23/2024	1.39	151	98
5/24/2024	1.45	169	109
5/25/2024	1.44	202	131
5/26/2024	1.40	191	123
5/27/2024	1.35	199	129
5/28/2024	1.32	254	164
5/29/2024	1.27	245	158
5/30/2024	1.21	253	164
5/31/2024	1.14	224	145
6/1/2024	1.06	232	150
6/2/2024	1.02	170	110
6/3/2024	1.02	169	109
6/4/2024	1.01	170	110
6/5/2024	1.00	148	96
6/6/2024	0.99	157	101
6/7/2024	1.09	122	79
6/8/2024	1.09	256	165
6/9/2024	1.08	337	218
6/10/2024	1.07	356	230
6/11/2024	1.25	792	512
6/12/2024	1.34	877	567
6/13/2024	1.39	967	625
6/14/2024	1.53	1090	704
6/15/2024	1.65	1170	756
6/16/2024	1.70	1090	704

USGS Gage Height and Discharge Data

USGS 02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY NR GENEVA, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
6/17/2024	1.68	1030	666
6/18/2024	1.63	978	632
6/19/2024	1.58	874	565
6/20/2024	1.57	708	458
6/21/2024	1.72	766	495
6/22/2024	1.78	883	571
6/23/2024	1.85	963	622
6/24/2024	1.95	1110	717
6/25/2024	1.93	1070	692
6/26/2024	1.89	1050	679
6/27/2024	1.89	1090	704
6/28/2024	1.89	1160	750
6/29/2024	1.91	1200	776
6/30/2024	1.90	1220	788
7/1/2024	1.88	1170	756
7/2/2024	1.82	1050	679
7/3/2024	1.75	977	631
7/4/2024	1.69	880	569
7/5/2024	1.65	811	524
7/6/2024	1.58	772	499
7/7/2024	1.51	674	436
7/8/2024	1.45	542	350
7/9/2024	1.44	477	308
7/10/2024	1.44	566	366
7/11/2024	1.47	744	481
7/12/2024	1.45	672	434
7/13/2024	1.42	632	408
7/14/2024	1.45	665	430
7/15/2024	1.45	686	443
7/16/2024	1.58	881	569
7/17/2024	1.85	1260	814
7/18/2024	1.90	1270	821
7/19/2024	1.89	1260	814
7/20/2024	1.84	1200	776
7/21/2024	1.78	1100	711
7/22/2024	1.69	957	619
7/23/2024	1.59	843	545
7/24/2024	1.50	779	503
7/25/2024	1.43	738	477
7/26/2024	1.38	661	427
7/27/2024	1.35	581	376
7/28/2024	1.40	695	449

USGS Gage Height and Discharge Data

USGS 02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY NR GENEVA, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
7/29/2024	1.52	879	568
7/30/2024	1.60	947	612
7/31/2024	1.66	1010	653
8/1/2024	1.69	975	630
8/2/2024	1.71	926	598
8/3/2024	1.71	868	561
8/4/2024	1.71	901	582
8/5/2024	1.75	1120	724
8/6/2024	1.92	967	625
8/7/2024	2.08	1300	840
8/8/2024	2.21	1430	924
8/9/2024	2.37	1470	950
8/10/2024	2.44	1470	950
8/11/2024	2.47	1430	924
8/12/2024	2.48	1380	892
8/13/2024	2.47	1370	885
8/14/2024	2.45	1410	911
8/15/2024	2.41	1370	885
8/16/2024	2.37	1330	860
8/17/2024	2.33	1250	808
8/18/2024	2.27	1170	756
8/19/2024	2.22	1060	685
8/20/2024	2.18	987	638
8/21/2024	2.15	988	639
8/22/2024	2.16	1070	692
8/23/2024	2.21	1180	763
8/24/2024	2.26	1170	756
8/25/2024	2.38	1180	763
8/26/2024	2.56	1290	834
8/27/2024	2.69	1480	957
8/28/2024	2.77	1610	1041
8/29/2024	2.88	1690	1092
8/30/2024	2.99	1820	1176
8/31/2024	3.08	1960	1267
9/1/2024	3.14	1930	1247
9/2/2024	3.20	1870	1209
9/3/2024	3.26	1940	1254
9/4/2024	3.32	2020	1306
9/5/2024	3.49	1960	1267
9/6/2024	3.75	2140	1383
9/7/2024	3.98	2410	1558
9/8/2024	4.25	2530	1635

USGS Gage Height and Discharge Data

USGS 02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY NR GENEVA, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
9/9/2024	4.62	2800	1810
9/10/2024	4.93	3050	1971
9/11/2024	5.21	3250	2100
9/12/2024	5.44	3460	2236
9/13/2024	5.60	3600	2327
9/14/2024	5.70	3660	2365
9/15/2024	5.79	3670	2372
9/16/2024	5.84	3650	2359
9/17/2024	5.88	3670	2372
9/18/2024	5.90	3670	2372
9/19/2024	5.90	3580	2314
9/20/2024	5.87	3530	2281
9/21/2024	5.82	3440	2223
9/22/2024	5.78	3350	2165
9/23/2024	5.73	3300	2133
9/24/2024	5.67	3230	2088
9/25/2024	5.61	3160	2042
9/26/2024	5.57	3380	2184
9/27/2024	5.51	2890	1868
9/28/2024	5.46	2940	1900
9/29/2024	5.44	3010	1945
9/30/2024	5.50	3280	2120
10/1/2024	5.48	3190	2062
10/2/2024	5.49	3190	2062
10/3/2024	5.52	3350	2165
10/4/2024	5.57	3540	2288
10/5/2024	5.64	3700	2391
10/6/2024	5.73	3800	2456
10/7/2024	5.91	3960	2559
10/8/2024	6.02	4070	2630
10/9/2024	6.31	4260	2753
10/10/2024	7.50	4190	2708
10/11/2024	8.50	6520	4214
10/12/2024	9.30	7920	5119
10/13/2024	9.78	8240	5326
10/14/2024	10.02	8200	5300
10/15/2024	10.12	8330	5384
10/16/2024	10.11	7740	5002
10/17/2024	10.05	8220	5313
10/18/2024	10.01	8370	5410
10/19/2024	9.96	8200	5300
10/20/2024	9.88	7920	5119

USGS Gage Height and Discharge Data

USGS 02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY NR GENEVA, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
10/21/2024	9.80	7970	5151
10/22/2024	9.72	7880	5093
10/23/2024	9.64	7610	4918
10/24/2024	9.55	7600	4912
10/25/2024	9.46	7430	4802
10/26/2024	9.35	7310	4724
10/27/2024	9.26	7230	4673
10/28/2024	9.15	6870	4440
10/29/2024	9.05	6920	4472
10/30/2024	8.97	6830	4414
10/31/2024	8.86	6700	4330
11/1/2024	8.75	6460	4175
11/2/2024	8.66	6290	4065
11/3/2024	8.57	6270	4052
11/4/2024	8.48	6230	4026
11/5/2024	8.39	6160	3981
11/6/2024	8.30	6030	3897
11/7/2024	8.19	5800	3749
11/8/2024	8.10	5670	3665
11/9/2024	8.00	5570	3600
11/10/2024	7.90	5490	3548
11/11/2024	7.81	5280	3412
11/12/2024	7.72	5180	3348
11/13/2024	7.60	5110	3303
11/14/2024	7.50	5020	3244
11/15/2024	7.38	4680	3025
11/16/2024	7.27	4670	3018
11/17/2024	7.17	4600	2973
11/18/2024	7.07	4440	2870
11/19/2024	6.98	4350	2811
11/20/2024	6.89	4200	2714
11/21/2024	6.78	3990	2579
11/22/2024	6.63	3940	2546
11/23/2024	6.51	3850	2488
11/24/2024	6.41	3750	2424
11/25/2024	6.31	3670	2372
11/26/2024	6.22	3580	2314
11/27/2024	6.12	3490	2256
11/28/2024	6.02	3390	2191
11/29/2024	5.93	3240	2094
11/30/2024	5.81	3140	2029
12/1/2024	5.70	3120	2016

USGS Gage Height and Discharge Data

USGS 02234000 ST. JOHNS RIVER ABOVE LAKE HARNEY NR GENEVA, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
12/2/2024	5.60	3040	1965
12/3/2024	5.49	2920	1887
12/4/2024	5.39	2900	1874
12/5/2024	5.29	2800	1810
12/6/2024	5.20	2700	1745
12/7/2024	5.09	2650	1713
12/8/2024	4.98	2600	1680
12/9/2024	4.88	2530	1635
12/10/2024	4.77	2450	1583
12/11/2024	4.68	2330	1506
12/12/2024	4.58	2250	1454
12/13/2024	4.47	2030	1312
12/14/2024	4.38	1920	1241
12/15/2024	4.29	1880	1215
12/16/2024	4.21	1790	1157
12/17/2024	4.15	1760	1137
12/18/2024	4.05	1710	1105
12/19/2024	3.98	1670	1079
12/20/2024	3.92	1570	1015
12/21/2024	3.84	1620	1047
12/22/2024	3.75	1490	963
12/23/2024	3.68	1520	982
12/24/2024	3.62	1460	944
12/25/2024	3.52	1430	924
12/26/2024	3.46	1380	892
12/27/2024	3.39	1370	885
12/28/2024	3.32	1350	873
12/29/2024	3.28	1310	847
12/30/2024	3.30	1290	834
12/31/2024	3.27	1300	840
Average	**3.88**	**2267**	**1465**

ND – Not Documented

USGS Gage Height and Discharge Data

USGS 02232500 ST. JOHNS RIVER NR CHRISTMAS, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
1/1/2024	7.02	2200	1422
1/2/2024	6.98	2150	1390
1/3/2024	6.95	2140	1383
1/4/2024	6.91	2090	1351
1/5/2024	6.89	2060	1331
1/6/2024	6.89	2010	1299
1/7/2024	6.87	2100	1357
1/8/2024	6.88	2150	1390
1/9/2024	6.89	2030	1312
1/10/2024	6.88	2140	1383
1/11/2024	6.90	2190	1415
1/12/2024	6.90	2140	1383
1/13/2024	6.88	2150	1390
1/14/2024	6.87	2180	1409
1/15/2024	6.89	2170	1402
1/16/2024	6.89	2140	1383
1/17/2024	6.87	2180	1409
1/18/2024	6.88	2180	1409
1/19/2024	6.89	2200	1422
1/20/2024	6.87	2190	1415
1/21/2024	6.85	2170	1402
1/22/2024	6.87	2170	1402
1/23/2024	6.88	2150	1390
1/24/2024	6.86	2140	1383
1/25/2024	6.85	2160	1396
1/26/2024	6.83	2150	1390
1/27/2024	6.83	2170	1402
1/28/2024	6.80	2150	1390
1/29/2024	6.77	2180	1409
1/30/2024	6.78	2120	1370
1/31/2024	6.75	2110	1364
2/1/2024	6.74	2100	1357
2/2/2024	6.73	2100	1357
2/3/2024	6.72	2090	1351
2/4/2024	6.73	2100	1357
2/5/2024	6.72	2090	1351
2/6/2024	6.64	1970	1273
2/7/2024	6.65	2030	1312
2/8/2024	6.65	2010	1299
2/9/2024	6.64	1970	1273
2/10/2024	6.62	1970	1273
2/11/2024	6.60	1930	1247

USGS Gage Height and Discharge Data

USGS 02232500 ST. JOHNS RIVER NR CHRISTMAS, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
2/12/2024	6.58	1910	1234
2/13/2024	6.54	1930	1247
2/14/2024	6.52	1930	1247
2/15/2024	6.50	1880	1215
2/16/2024	6.47	1820	1176
2/17/2024	6.46	1830	1183
2/18/2024	6.56	1910	1234
2/19/2024	6.62	1990	1286
2/20/2024	6.64	1990	1286
2/21/2024	6.63	1950	1260
2/22/2024	6.64	1930	1247
2/23/2024	6.62	1850	1196
2/24/2024	6.59	1910	1234
2/25/2024	6.57	1890	1222
2/26/2024	6.55	1840	1189
2/27/2024	6.51	1780	1150
2/28/2024	6.46	1730	1118
2/29/2024	6.41	1760	1137
3/1/2024	6.41	1710	1105
3/2/2024	6.35	1670	1079
3/3/2024	6.41	1770	1144
3/4/2024	6.41	1740	1125
3/5/2024	6.35	1660	1073
3/6/2024	6.29	1590	1028
3/7/2024	6.23	1570	1015
3/8/2024	6.18	1520	982
3/9/2024	6.11	1420	918
3/10/2024	6.03	1430	924
3/11/2024	5.96	1420	918
3/12/2024	5.90	1340	866
3/13/2024	5.83	1290	834
3/14/2024	5.76	1260	814
3/15/2024	5.70	1220	788
3/16/2024	5.62	1200	776
3/17/2024	5.56	1160	750
3/18/2024	5.48	1120	724
3/19/2024	5.38	1110	717
3/20/2024	5.32	1030	666
3/21/2024	5.23	991	640
3/22/2024	5.19	969	626
3/23/2024	5.10	964	623
3/24/2024	5.03	933	603

USGS Gage Height and Discharge Data

USGS 02232500 ST. JOHNS RIVER NR CHRISTMAS, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
3/25/2024	4.98	920	595
3/26/2024	4.89	853	551
3/27/2024	4.78	817	528
3/28/2024	4.67	795	514
3/29/2024	4.57	755	488
3/30/2024	4.43	692	447
3/31/2024	4.30	659	426
4/1/2024	4.18	617	399
4/2/2024	4.04	580	375
4/3/2024	3.91	557	360
4/4/2024	3.84	565	365
4/5/2024	3.69	512	331
4/6/2024	3.53	463	299
4/7/2024	3.38	424	274
4/8/2024	3.25	411	266
4/9/2024	3.15	388	251
4/10/2024	3.08	375	242
4/11/2024	3.03	367	237
4/12/2024	3.03	385	249
4/13/2024	2.86	324	209
4/14/2024	2.70	287	185
4/15/2024	2.60	280	181
4/16/2024	2.53	269	174
4/17/2024	2.46	246	159
4/18/2024	2.39	248	160
4/19/2024	2.31	241	156
4/20/2024	2.24	230	149
4/21/2024	2.15	207	134
4/22/2024	2.06	191	123
4/23/2024	1.96	159	103
4/24/2024	1.90	161	104
4/25/2024	1.89	156	101
4/26/2024	1.88	155	100
4/27/2024	1.85	134	87
4/28/2024	1.87	143	92
4/29/2024	1.85	137	89
4/30/2024	1.79	134	87
5/1/2024	1.73	132	85
5/2/2024	1.66	123	79
5/3/2024	1.60	119	77
5/4/2024	1.55	108	70
5/5/2024	1.53	98	63

USGS Gage Height and Discharge Data

USGS 02232500 ST. JOHNS RIVER NR CHRISTMAS, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
5/6/2024	1.53	102	66
5/7/2024	1.48	91	59
5/8/2024	1.43	88	57
5/9/2024	1.37	108	70
5/10/2024	1.33	81	52
5/11/2024	1.25	79	51
5/12/2024	1.20	68	44
5/13/2024	1.20	56	36
5/14/2024	1.29	83	54
5/15/2024	1.44	102	66
5/16/2024	1.43	126	81
5/17/2024	1.33	82	53
5/18/2024	1.31	101	65
5/19/2024	1.28	71	46
5/20/2024	1.22	72	46
5/21/2024	1.17	74	48
5/22/2024	1.14	52	34
5/23/2024	1.13	59	38
5/24/2024	1.11	51	33
5/25/2024	1.09	77	50
5/26/2024	1.12	60	39
5/27/2024	1.14	104	67
5/28/2024	1.12	83	53
5/29/2024	1.11	76	49
5/30/2024	1.06	50	33
5/31/2024	1.01	51	33
6/1/2024	0.99	47	30
6/2/2024	1.00	58	37
6/3/2024	1.00	49	31
6/4/2024	0.98	53	34
6/5/2024	0.95	33	21
6/6/2024	0.93	56	36
6/7/2024	0.92	69	45
6/8/2024	0.90	81	53
6/9/2024	0.85	78	51
6/10/2024	0.87	65	42
6/11/2024	1.30	77	50
6/12/2024	1.71	157	101
6/13/2024	2.66	296	191
6/14/2024	2.85	309	200
6/15/2024	2.71	285	184
6/16/2024	2.79	301	195

USGS Gage Height and Discharge Data

USGS 02232500 ST. JOHNS RIVER NR CHRISTMAS, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
6/17/2024	2.52	210	136
6/18/2024	2.20	160	103
6/19/2024	2.01	146	94
6/20/2024	2.10	188	122
6/21/2024	2.15	186	120
6/22/2024	2.23	196	127
6/23/2024	2.45	234	151
6/24/2024	2.36	207	134
6/25/2024	2.16	173	112
6/26/2024	1.98	170	110
6/27/2024	1.90	170	110
6/28/2024	1.92	157	101
6/29/2024	2.14	204	132
6/30/2024	2.24	221	143
7/1/2024	2.26	230	149
7/2/2024	2.23	214	138
7/3/2024	2.13	198	128
7/4/2024	2.03	186	120
7/5/2024	1.93	166	107
7/6/2024	1.85	152	98
7/7/2024	1.78	146	94
7/8/2024	1.73	141	91
7/9/2024	1.74	156	101
7/10/2024	1.95	222	143
7/11/2024	2.07	209	135
7/12/2024	2.14	249	161
7/13/2024	2.19	228	147
7/14/2024	2.25	237	153
7/15/2024	2.25	234	151
7/16/2024	2.28	231	149
7/17/2024	2.54	279	180
7/18/2024	2.64	285	184
7/19/2024	2.68	291	188
7/20/2024	2.66	288	186
7/21/2024	2.57	275	178
7/22/2024	2.46	248	160
7/23/2024	2.36	237	153
7/24/2024	2.37	238	154
7/25/2024	2.32	224	145
7/26/2024	2.22	224	145
7/27/2024	2.17	225	145
7/28/2024	2.32	267	173

USGS Gage Height and Discharge Data

USGS 02232500 ST. JOHNS RIVER NR CHRISTMAS, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
7/29/2024	2.65	328	212
7/30/2024	2.89	348	225
7/31/2024	2.96	368	238
8/1/2024	2.98	362	234
8/2/2024	2.92	338	218
8/3/2024	2.80	309	200
8/4/2024	2.75	288	186
8/5/2024	2.91	316	204
8/6/2024	3.18	383	248
8/7/2024	3.37	427	276
8/8/2024	3.46	439	284
8/9/2024	3.54	442	286
8/10/2024	3.53	441	285
8/11/2024	3.54	463	299
8/12/2024	3.76	524	339
8/13/2024	3.99	590	381
8/14/2024	4.09	611	395
8/15/2024	4.11	613	396
8/16/2024	4.06	607	392
8/17/2024	3.99	572	370
8/18/2024	3.92	550	355
8/19/2024	3.83	527	341
8/20/2024	3.77	529	342
8/21/2024	3.79	551	356
8/22/2024	3.95	601	388
8/23/2024	4.19	694	449
8/24/2024	4.40	757	489
8/25/2024	4.54	803	519
8/26/2024	4.66	838	542
8/27/2024	4.76	853	551
8/28/2024	4.80	851	550
8/29/2024	4.87	864	558
8/30/2024	4.99	948	613
8/31/2024	5.11	1000	646
9/1/2024	5.17	1010	653
9/2/2024	5.32	1120	724
9/3/2024	5.71	1330	860
9/4/2024	5.87	1380	892
9/5/2024	5.94	1420	918
9/6/2024	6.03	1430	924
9/7/2024	6.08	1410	911
9/8/2024	6.10	1360	879

USGS Gage Height and Discharge Data

USGS 02232500 ST. JOHNS RIVER NR CHRISTMAS, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
9/9/2024	6.25	1490	963
9/10/2024	6.54	1690	1092
9/11/2024	6.65	1790	1157
9/12/2024	6.66	1820	1176
9/13/2024	6.60	1790	1157
9/14/2024	6.57	1720	1112
9/15/2024	6.58	1710	1105
9/16/2024	6.55	1690	1092
9/17/2024	6.54	1650	1066
9/18/2024	6.54	1670	1079
9/19/2024	6.54	1700	1099
9/20/2024	6.51	1650	1066
9/21/2024	6.46	1590	1028
9/22/2024	6.42	1560	1008
9/23/2024	6.40	1520	982
9/24/2024	6.37	1500	969
9/25/2024	6.37	1530	989
9/26/2024	6.43	1610	1041
9/27/2024	6.39	1500	969
9/28/2024	6.39	1600	1034
9/29/2024	6.45	1660	1073
9/30/2024	6.50	1700	1099
10/1/2024	6.54	1760	1137
10/2/2024	6.71	2070	1338
10/3/2024	6.88	2300	1486
10/4/2024	7.10	2680	1732
10/5/2024	7.24	2840	1835
10/6/2024	7.31	2980	1926
10/7/2024	7.41	3120	2016
10/8/2024	7.46	3060	1978
10/9/2024	7.68	3450	2230
10/10/2024	8.16	3850	2488
10/11/2024	8.68	5150	3328
10/12/2024	8.96	4960	3206
10/13/2024	9.16	4610	2979
10/14/2024	9.31	4280	2766
10/15/2024	9.41	4200	2714
10/16/2024	9.45	3950	2553
10/17/2024	9.49	4130	2669
10/18/2024	9.49	4290	2773
10/19/2024	9.45	4210	2721
10/20/2024	9.42	4100	2650

USGS Gage Height and Discharge Data

USGS 02232500 ST. JOHNS RIVER NR CHRISTMAS, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
10/21/2024	9.39	4150	2682
10/22/2024	9.34	4190	2708
10/23/2024	9.28	4090	2643
10/24/2024	9.22	4030	2605
10/25/2024	9.15	3990	2579
10/26/2024	9.08	3960	2559
10/27/2024	9.01	3910	2527
10/28/2024	8.94	3900	2521
10/29/2024	8.88	3900	2521
10/30/2024	8.83	3830	2475
10/31/2024	8.75	3770	2437
11/1/2024	8.66	3640	2353
11/2/2024	8.61	3660	2365
11/3/2024	8.55	3620	2340
11/4/2024	8.49	3590	2320
11/5/2024	8.43	3590	2320
11/6/2024	8.37	3470	2243
11/7/2024	8.29	3360	2172
11/8/2024	8.21	3270	2113
11/9/2024	8.14	3280	2120
11/10/2024	8.08	3220	2081
11/11/2024	8.01	3050	1971
11/12/2024	7.94	3030	1958
11/13/2024	7.87	3020	1952
11/14/2024	7.79	2890	1868
11/15/2024	7.69	2790	1803
11/16/2024	7.61	2750	1777
11/17/2024	7.55	2710	1751
11/18/2024	7.47	2590	1674
11/19/2024	7.40	2530	1635
11/20/2024	7.32	2420	1564
11/21/2024	7.22	2310	1493
11/22/2024	7.15	2290	1480
11/23/2024	7.08	2210	1428
11/24/2024	7.02	2180	1409
11/25/2024	6.95	2070	1338
11/26/2024	6.88	2040	1318
11/27/2024	6.81	1970	1273
11/28/2024	6.75	1910	1234
11/29/2024	6.68	1870	1209
11/30/2024	6.60	1800	1163
12/1/2024	6.55	1750	1131

USGS Gage Height and Discharge Data

USGS 02232500 ST. JOHNS RIVER NR CHRISTMAS, FL

Date	Gage Height (ft)	Stream Flow (ft^3/s)	Discharge (MGD)
12/2/2024	6.49	1690	1092
12/3/2024	6.42	1630	1053
12/4/2024	6.37	1590	1028
12/5/2024	6.31	1530	989
12/6/2024	6.24	1500	969
12/7/2024	6.18	1460	944
12/8/2024	6.13	1420	918
12/9/2024	6.07	1380	892
12/10/2024	6.01	1330	860
12/11/2024	5.93	1260	814
12/12/2024	5.84	1270	821
12/13/2024	5.79	1240	801
12/14/2024	5.73	1180	763
12/15/2024	5.65	1150	743
12/16/2024	5.58	1130	730
12/17/2024	5.53	1120	724
12/18/2024	5.52	1120	724
12/19/2024	5.46	1090	704
12/20/2024	5.38	1060	685
12/21/2024	5.30	1020	659
12/22/2024	5.22	977	631
12/23/2024	5.15	956	618
12/24/2024	5.07	921	595
12/25/2024	5.00	904	584
12/26/2024	4.92	870	562
12/27/2024	4.86	858	555
12/28/2024	4.81	825	533
12/29/2024	4.76	786	508
12/30/2024	4.82	854	552
12/31/2024	4.80	829	536
Average	**4.92**	**1323**	**855**

ND – Not Documented

Appendix B

2024 Little Econlockhatchee River and St. Johns River Monthly Water Quality Data

Orlando Easterly Wetlands
Monthly River Water Quality Sampling
January – December 2024

Station	Date	Sample Time	Unionized Ammonia (mg/L)	Total Ammonia (mg/L)	TKN (mg/L)	Nitrate/Nitrite (mg/L)	Total N (mg/L)	Total P (mg/L)	CBOD (mg/L)	Chlorophyll a (mg/m3)	pH (s.u.)	Dissolved O2 (mg/L)	Conductivity (uS/cm)	Temp (°C)	Depth (in)	Secchi Depth (in)
R1	1/10/2024	0805	< 0.01	< 0.02	1.1	< 0.01	1.10	0.044	5.9	1.07	6.45	7.31	554	17.3	42.0	34.0
R1	2/14/2024	0800	< 0.01	< 0.02	1.39	0.02	1.41	0.050	< 2.0	< 0.80	6.45	6.60	513	18.5	38.0	28.5
R1	3/13/2024	0810	< 0.01	< 0.02	1.3	0.02	1.32	0.064	< 2.0	< 0.80	7.05	6.02	621	21.7	31.0	31.0
R1	4/10/2024	0755	< 0.01	0.17	1.95	0.12	2.07	0.105	< 2.0	2.67	7.10	5.15	762	22.6	5.0	5.0
R1	5/8/2024	0800	< 0.01	0.20	1.81	0.21	2.02	0.093	< 2.0	2.67	7.27	5.37	1390	27.7	4.0	4.0
R1	6/12/2024	0750	< 0.02	0.52	2.26	0.29	2.55	0.101	< 2.0	3.74	6.88	6.03	1700	27.6	41.0	19.0
R1	7/10/2024	0755	< 0.02	0.17	1.98	0.09	2.07	0.093	< 2.0	12.80	7.36	6.52	1880	30.2	29.0	17.0
R1	8/14/2024	0815	< 0.02	0.19	1.85	0.04	1.89	0.112	< 2.0	2.67	5.93	4.39	1340	30.2	39.0	22.0
R1	9/11/2024	0750	< 0.02	< 0.02	1.4	0.01	1.41	0.064	< 2.0	2.14	6.14	2.68	241	26.7	37.0	19.0
R1	10/23/2024	0755	< 0.02	< 0.02	1.49	< 0.01	1.49	0.075	< 2.0	1.07	6.78	3.02	362	23.3	47.0	24.0
R1	11/6/2024	0750	< 0.02	< 0.02	1.45	0.01	1.46	0.116	< 2.0	2.67	6.98	3.51	417	24.3	48.0	24.0
R1	12/11/2024	0800	< 0.02	0.03	1.29	0.06	1.35	0.122	< 2.0	< 0.80	6.97	5.00	489	19.1	37.0	17.0
Average			**< 0.02**	**0.12**	**1.61**	**0.07**	**1.68**	**0.087**	**2.3**	**2.83**	**6.78**	**5.13**	**856**	**24.1**	**33.2**	**20.4**

Orlando Easterly Wetlands
Monthly River Water Quality Sampling
January – December 2024

Station	Date	Sample Time	Unionized Ammonia (mg/L)	Total Ammonia (mg/L)	TKN (mg/L)	Nitrate/Nitrite (mg/L)	Total N (mg/L)	Total P (mg/L)	CBOD (mg/L)	Chlorophyll a (mg/m3)	pH (s.u.)	Dissolved O2 (mg/L)	Conductivity (uS/cm)	Temp (°C)	Depth (in)	Secchi Depth (in)
R5	1/10/2024	0855	< 0.01	< 0.02	0.87	0.03	0.90	0.041	< 2.0	1.07	6.74	6.22	444	16.7	92.0	39.0
R5	2/14/2024	0850	< 0.01	< 0.02	1.33	0.03	1.36	0.058	< 2.0	< 0.80	6.80	7.50	636	18.4	72.0	38.5
R5	3/13/2024	0900	< 0.01	< 0.02	1.23	0.05	1.28	0.055	< 2.0	< 0.80	7.10	5.70	770	21.7	68.0	32.0
R5	4/10/2024	0850	< 0.01	0.04	1.29	0.11	1.40	0.076	< 2.0	6.41	7.30	7.10	1210	22.7	41.0	33.0
R5	5/8/2024	0850	< 0.01	0.09	1.87	0.12	1.99	0.1	3.6	26.20	7.72	61.00	1830	26.8	28.0	22.0
R5	6/12/2024	0835	< 0.02	0.26	1.69	0.10	1.79	0.071	< 2.0	10.70	7.06	5.83	2160	27.4	34.0	28.0
R5	7/10/2024	0840	< 0.02	0.09	1.60	0.11	1.71	0.083	< 2.0	6.41	7.12	5.48	1960	29.7	35.0	32.0
R5	8/14/2024	0900	< 0.02	0.07	1.07	0.10	1.17	0.092	< 2.0	1.07	6.61	5.44	616	29.3	47.0	27.0
R5	9/11/2024	0845	< 0.02	< 0.02	1.21	0.02	1.23	0.131	< 2.0	< 0.80	6.36	2.06	453	27.6	79.0	17.0
R5	10/23/2024	0840	< 0.02	0.02	1.11	0.03	1.14	0.086	< 2.0	1.07	6.75	1.67	225	23.5	135.0	25.0
R5	11/6/2024	0825	< 0.02	0.04	1.46	0.05	1.51	0.098	< 2.0	< 0.80	6.98	1.62	399	24.5	119.0	18.0
R5	12/11/2024	0838	< 0.02	0.03	1.37	0.11	1.48	0.094	< 2.0	< 0.80	6.98	6.98	561	18.7	75.0	22.0
Average			**< 0.02**	**0.06**	**1.34**	**0.07**	**1.41**	**0.082**	**2.1**	**4.74**	**6.96**	**9.72**	**939**	**23.9**	**68.8**	**27.8**

Orlando Easterly Wetlands
Monthly River Water Quality Sampling
January – December 2024

Station	Date	Sample Time	Unionized Ammonia (mg/L)	Total Ammonia (mg/L)	TKN (mg/L)	Nitrate/Nitrite (mg/L)	Total N (mg/L)	Total P (mg/L)	CBOD (mg/L)	Chlorophyll a (mg/m3)	pH (s.u.)	Dissolved O2 (mg/L)	Conductivity (uS/cm)	Temp (°C)	Depth (in)	Secchi Depth (in)
Econ Up	1/10/2024	1025	< 0.01	0.03	0.64	0.14	0.78	0.074	< 2.0	< 0.80	6.75	8.47	158	17.2	42.0	42.0
Econ Up	2/14/2024	1010	< 0.01	< 0.02	0.60	0.16	0.76	0.067	< 2.0	1.07	6.93	8.20	184	19.2	34.0	34.0
Econ Up	3/13/2024	1020	< 0.01	< 0.02	0.58	0.16	0.74	0.07	< 2.0	1.07	6.96	6.30	208	23.5	37.0	37.0
Econ Up	4/10/2024	1005	< 0.01	< 0.02	0.32	0.08	0.40	0.055	< 2.0	< 0.80	6.88	7.07	211	22.3	34.0	34.0
Econ Up	5/8/2024	1010	< 0.01	< 0.02	1.07	0.17	1.24	0.07	4.3	50.20	7.08	5.29	256	26.0	19.0	19.0
Econ Up	6/12/2024	1010	< 0.02	0.04	0.64	0.07	0.71	0.089	< 2.0	4.81	7.05	6.14	179	28.2	43.0	43.0
Econ Up	7/10/2024	1005	< 0.02	0.04	0.49	0.16	0.65	0.098	< 2.0	3.20	6.94	6.24	137	28.5	42.0	42.0
Econ Up	8/14/2024	1010	< 0.02	0.02	0.64	0.13	0.77	0.087	< 2.0	< 0.80	6.55	6.50	156	29.1	45.0	45.0
Econ Up	9/11/2024	1015	< 0.02	< 0.02	0.71	0.13	0.84	0.095	< 2.0	1.60	6.71	5.32	152	27.9	42.0	29.0
Econ Up	10/23/2024	1005	< 0.02	< 0.02	0.73	0.15	0.88	0.089	< 2.0	< 0.80	6.99	4.25	177	24.1	49.0	34.0
Econ Up	11/6/2024	0945	< 0.02	0.06	0.74	0.20	0.94	0.119	< 2.0	< 0.80	7.09	4.32	195	24.3	53.0	28.0
Econ Up	12/11/2024	1000	< 0.02		0.47	0.22	0.69	0.094	4.3	< 0.80	7.07	7.68	207	19.0	25.0	25.0
Average			**< 0.02**	**0.03**	**0.64**	**0.15**	**0.78**	**0.084**	**2.4**	**5.56**	**6.92**	**6.32**	**185**	**24.1**	**38.8**	**34.3**

Orlando Easterly Wetlands
Monthly River Water Quality Sampling
January – December 2024

Station	Date	Sample Time	Unionized Ammonia (mg/L)	Total Ammonia (mg/L)	TKN (mg/L)	Nitrate/Nitrite (mg/L)	Total N (mg/L)	Total P (mg/L)	CBOD (mg/L)	Chlorophyll a (mg/m3)	pH (s.u.)	Dissolved O2 (mg/L)	Conductivity (uS/cm)	Temp (ºC)	Depth (in)	Secchi Depth (in)
Econ Down	1/10/2024	1040	< 0.01	0.03	0.67	0.17	0.84	0.082	< 2.0	1.07	6.75	8.51	171	17.4	42.0	42.0
Econ Down	2/14/2024	1040	< 0.01	< 0.02	0.53	0.17	0.70	0.061	< 2.0	< 0.80	6.88	8.19	185	19.3	28.5	28.5
Econ Down	3/13/2024	1035	< 0.01	< 0.02	0.59	0.21	0.80	0.090	< 2.0	< 0.80	7.03	6.26	230	22.4	25.0	25.0
Econ Down	4/10/2024	1020	< 0.01	0.15	0.64	0.22	0.86	0.087	< 2.0	< 0.80	6.99	7.07	248	22.5	11.0	11.0
Econ Down	5/8/2024	1030	< 0.01	< 0.02	1.10	0.20	1.30	0.082	4.4	57.70	6.92	5.81	280	25.9	8.0	8.0
Econ Down	6/12/2024	1020	< 0.02	0.07	0.70	0.09	0.79	0.086	< 2.0	5.87	7.00	8.25	190	28.3	42.0	42.0
Econ Down	7/10/2024	1015	< 0.02	0.04	0.72	0.19	0.91	0.132	< 2.0	3.74	6.83	6.31	149	28.6	47.0	47.0
Econ Down	8/14/2024	1030	< 0.02	0.02	0.68	0.15	0.83	0.107	< 2.0	< 0.80	6.50	6.43	171	29.2	45.0	45.0
Econ Down	9/11/2024	1030	< 0.02	< 0.02	0.88	0.14	1.02	0.126	< 2.0	1.07	6.53	5.00	161	28.0	40.0	34.0
Econ Down	10/23/2024	1010	< 0.02	0.04	0.82	0.16	0.98	0.100	< 2.0	1.60	7.03	4.61	186	24.2	41.0	35.0
Econ Down	11/6/2024	0955	< 0.02	0.04	0.86	0.25	1.11	0.127	< 2.0	< 0.80	7.11	4.23	218	24.5	50.0	28.0
Econ Down	12/11/2024	1010	< 0.02	< 0.02	0.73	0.25	0.98	0.115	< 2.0	< 0.80	7.11	5.86	246	19.6	18.0	18.0
Average			**< 0.02**	**0.04**	**0.77**	**0.19**	**0.96**	**0.105**	**2.2**	**7.40**	**6.91**	**5.98**	**208**	**25.3**	**32.7**	**29.3**

Orlando Easterly Wetlands
Monthly River Water Quality Sampling
January – December 2024

Station	Date	Sample Time	Unionized Ammonia (mg/L)	Total Ammonia (mg/L)	TKN (mg/L)	Nitrate/Nitrite (mg/L)	Total N (mg/L)	Total P (mg/L)	CBOD (mg/L)	Chlorophyll a (mg/m3)	pH (s.u.)	Dissolved O2 (mg/L)	Conductivity (uS/cm)	Temp (°C)	Depth (in)	Secchi Depth (in)
Econ A	1/10/2024	0950	< 0.01	< 0.02	0.52	0.16	0.68	0.071	< 2.0	< 0.80	6.60	8.43	168	17.5	37.0	32.0
Econ A	2/14/2024	0940	< 0.01	< 0.02	0.57	0.20	0.77	0.065	< 2.0	< 0.80	6.70	7.62	219	19.5	23.0	23.0
Econ A	3/13/2024	0945	< 0.01	< 0.02	0.56	0.22	0.78	0.079	< 2.0	< 0.80	7.10	6.80	233	21.9	18.0	18.0
Econ A	4/10/2024	0940	< 0.01	0.08	0.61	0.29	0.9	0.080	< 2.0	< 0.80	7.09	6.48	252	22.1	5.0	5.0
Econ A	5/8/2024	0945	< 0.01	0.02	1.10	0.20	1.3	0.089	3.7	39.00	7.14	5.00	286	25.7	7.0	7.0
Econ A	6/12/2024	0935	< 0.02	0.05	0.65	0.09	0.74	0.085	< 2.0	5.34	7.13	6.07	192	28.3	32.0	32.0
Econ A [a]	7/10/2024	0935	< 0.02	0.04	0.68	0.20	0.88	0.125	< 2.0	2.67	7.06	6.80	148	28.6	50.0	48.0
Econ A	8/14/2024	0950	< 0.02	0.02	0.66	0.15	0.81	0.092	< 2.0	< 0.80	6.67	6.85	173	29.6	46.0	46.0
Econ A [b]	9/11/2024	0950	< 0.02	< 0.02	0.79	0.13	0.92	0.098	< 2.0	< 0.80	6.72	4.30	152	27.7	37.0	28.0
Econ A	10/23/2024	0945	< 0.02	< 0.02	0.78	0.17	0.95	0.090	< 2.0	< 0.80	7.07	4.50	184	24.0	51.0	28.0
Econ A	11/6/2024	0925	< 0.02	0.06	0.75	0.22	0.97	0.124	< 2.0	< 0.80	7.18	6.22	206	24.5	38.0	27.0
Econ A	12/11/2024	0930	< 0.02	< 0.02	0.51	0.22	0.73	0.111	< 2.0	< 0.80	7.17	8.60	236	19.4	15.0	15.0
Average			**< 0.02**	**0.04**	**0.71**	**0.19**	**0.90**	**0.097**	**2.2**	**5.26**	**7.03**	**6.16**	**206**	**25.2**	**29.9**	**25.4**

[a] Sample was taken approximately 50 feet upstream of standard sampling point. High water levels and debris did not allow for grab sample to be collected at the standard sampling point.

[b] Sample was taken approximately 50 feet south of standard sampling point. High water levels did not allow for grab sample to be collected at the standard sampling point.

Appendix C

2024 Orlando Easterly Wetlands Monthly Water Quality and Performance Data

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WLWP1

Date	ALK-B	CBOD-B	CHLORO	CL-B	CON-B	DO-B	NH3-B	NH3U-B	NOX-B	OP-B	PH-B	SO4-B	STOC-B	TDS	TEMP-B	TKN-B	TN	TP-B	TSS-B
1/8/2024	113	< 2.0	< 0.80	80.5	543	7.08	< 0.02	< 0.01	1.25	0.300	6.45	28.4	7.08	304	24.6	0.81	2.06	0.320	< 1.0
2/12/2024	124	< 2.0	< 0.80	74.7	553	7.53	< 0.02	< 0.01	1.26	0.070	6.85	28.4	6.46	330	24.6	0.93	2.19	0.095	< 1.0
3/11/2024	126	< 2.0	< 0.80	74.9	613	7.63	< 0.02	< 0.01	0.44	0.381	6.92	27.7	6.33	326	26.1	0.88	1.32	0.381	< 1.0
4/8/2024	140	< 2.0	< 0.80	83.7	711	6.50	6.62	0.08	1.93	0.670	7.22	25.9	7.44	318	26.4	8.89	10.80	0.648	< 1.0
5/6/2024	126	< 2.0	< 0.80	89.1	703	6.09	0.03	< 0.01	0.95	0.573	6.75	30.4	7.18	310	28.8	0.63	1.58	0.557	< 1.0
6/10/2024	125	< 2.0	< 0.80	80.8	585	7.16	< 0.02	< 0.02	0.51	0.266	7.05	26.3	6.94	310	30.5	0.66	1.17	0.256	< 1.0
7/8/2024	126	< 2.0	< 0.80	76.9	588	7.25	< 0.02	< 0.02	1.6	0.186	7.07	27.9	6.42	304	31.0	0.87	2.47	0.200	< 1.0
8/12/2024	112	< 2.0	< 0.80	66.4	599	6.80	< 0.02	< 0.02	1.77	0.118	6.87	27.2	6.82	270	30.8	0.86	2.63	0.140	< 1.0
9/9/2024	113	< 2.0	< 0.80	53.9	565	6.40	3.38	0.03	0.82	0.854	6.91	31.5	8.51	256	30.2	4.76	5.58	0.865	< 1.0
10/21/2024	86.5	< 2.0	< 0.80	62.4	431	4.30	0.24	< 0.02	1.16	0.395	6.85	29.9	7.74	226	27.8	1.17	2.33	0.402	< 1.0
11/4/2024	105	< 2.0	< 0.80	62.5	566	5.97	0.05	< 0.02	0.7	0.158	7.22	27.7	6.62	264	28.0	0.70	1.40	0.163	< 1.0
12/9/2024	117	< 2.0	< 0.80	67.9	585	6.62	< 0.02	< 0.02	1.22	0.112	7.33	27.1	6.63	284	24.9	0.67	1.89	0.103	< 1.0
Average	**118**	**< 2.0**	**< 0.80**	**72.8**	**587**	**6.61**	**0.87**	**< 0.02**	**1.13**	**0.340**	**6.96**	**28.2**	**7.01**	**292**	**27.8**	**1.82**	**2.95**	**0.344**	**< 1.0**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL1X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024[a]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2/12/2024[a]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3/11/2024[a]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4/8/2024[b]	2.1	10.10	651	8.62	2.12	0.99	0.313	8.28	22.9	5.29	6.28	0.379	4.6	27.3
5/6/2024[c]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
6/10/2024[c]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7/8/2024	< 2.0	3.20	469	9.51	< 0.02	< 0.01	0.003	9.01	31.8	1.13	1.13	0.033	1.5	26.7
8/12/2024	< 2.0	4.27	518	6.10	< 0.02	< 0.01	0.003	7.99	30.7	0.67	0.67	< 0.030	< 1.0	26.9
9/9/2024	3.3	29.40	542	5.25	< 0.02	< 0.01	0.341	8.41	29.9	1.10	1.10	0.422	2.8	26.9
10/21/2024	< 2.0	10.70	388	5.94	0.05	0.17	0.140	8.95	23.4	0.92	1.09	0.188	2.4	26.9
11/4/2024	< 2.0	3.20	504	3.70	0.08	0.01	0.183	8.16	24.8	1.07	1.08	0.248	1.4	26.8
12/9/2024	< 2.0	2.14	451	20.60	0.03	0.06	0.010	9.17	16.2	0.62	0.68	< 0.030	< 1.0	26.8
Average	**2.2**	**9.00**	**503**	**8.53**	**0.33**	**0.18**	**0.142**	**8.57**	**25.7**	**1.54**	**1.72**	**0.190**	**2.1**	**26.9**

[a]WL1X sampling paused due to demucking of Cell 1
[b]WL1X sampling resumed after the demucking of Cell 1 was completed
[c]WL1X did not flow and was not sampled
NS – Not sampled

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL1Y

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024[a]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2/12/2024[a]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3/11/2024[a]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4/8/2024[b]	4.9	28.30	635	8.70	1.40	0.77	0.229	8.70	22.4	5.05	5.82	0.319	5.7	27.3
5/6/2024	< 2.0	3.20	703	7.01	< 0.02	< 0.01	0.032	8.33	27.5	1.00	1.00	0.097	2.9	26.4
6/10/2024	< 2.0	3.20	605	6.36	0.02	< 0.01	0.041	7.99	30.5	1.03	1.03	0.072	2.2	26.3
7/8/2024	< 2.0	3.74	493	7.44	< 0.02	< 0.01	0.004	8.63	32.0	0.97	0.97	0.043	1.2	26.7
8/12/2024	2.2	4.27	469	5.11	< 0.02	< 0.01	0.003	8.67	30.6	0.92	0.92	< 0.030	1.3	26.9
9/9/2024	3.3	29.40	568	5.77	0.03	0.14	0.517	7.66	29.8	1.29	1.43	0.592	3.4	27.0
10/21/2024	< 2.0	15.00	408	7.30	0.04	0.07	0.118	8.90	23.3	1.02	1.09	0.161	2.9	27.0
11/4/2024	< 2.0	3.74	522	4.60	0.06	< 0.01	0.158	7.90	24.5	0.69	0.69	0.187	1.6	26.8
12/9/2024	< 2.0	1.60	477	9.82	0.02	0.03	0.017	8.49	15.3	0.58	0.61	< 0.030	< 1.0	26.8
Average	**2.5**	**10.27**	**542**	**6.90**	**0.18**	**0.12**	**0.124**	**8.36**	**26.2**	**1.39**	**1.51**	**0.170**	**2.5**	**26.8**

[a]WL1Y sampling paused due to demucking of Cell 1
[b]WL1Y sampling resumed after the demucking of Cell 1 was completed
NS – Not sampled

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL2X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	3.20	538	2.19	0.08	0.36	0.295	6.94	21.1	0.92	1.28	0.322	2.4	27.4
2/13/2024	< 2.0	3.74	565	1.93	0.07	0.35	0.132	6.81	22.6	1.04	1.39	0.149	3.0	27.2
3/12/2024	< 2.0	1.60	572	3.09	0.07	0.10	0.294	6.72	22.2	0.80	0.90	0.324	1.7	27.3
4/9/2024	< 2.0	2.67	663	1.71	4.31	0.41	0.433	6.82	22.9	5.24	5.65	0.518	4.0	27.3
5/7/2024	2.2	5.87	692	1.13	0.18	< 0.01	0.172	6.79	26.7	1.14	1.14	0.219	2.2	27.2
6/11/2024	< 2.0	9.61	540	1.44	0.15	< 0.01	0.168	6.83	28.6	0.82	0.82	0.213	2.3	27.4
7/9/2024	< 2.0	< 0.80	578	2.31	0.09	< 0.01	0.092	6.63	29.2	0.80	0.80	0.111	< 1.0	27.3
8/13/2024	< 2.0	1.07	582	4.96	0.13	< 0.01	0.172	6.59	29.1	0.87	0.87	0.207	2.9	27.4
9/10/2024	< 2.0	< 0.80	535	4.23	1.74	< 0.01	0.761	6.54	28.6	2.72	2.72	0.755	< 1.0	27.6
10/22/2024	< 2.0	2.14	424	0.97	0.13	0.24	0.397	6.92	25.6	0.87	1.11	0.406	< 1.0	27.6
11/5/2024	< 2.0	5.34	540	1.45	0.17	< 0.01	0.256	7.05	25.4	0.86	0.86	0.274	2.5	27.4
12/10/2024	< 2.0	11.70	539	1.66	0.04	0.29	0.176	6.97	20.1	1.16	1.45	0.200	1.0	27.2
Average	**< 2.0**	**4.05**	**564**	**2.26**	**0.60**	**0.15**	**0.279**	**6.80**	**25.2**	**1.44**	**1.58**	**0.308**	**2.1**	**27.4**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL2Y

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	1.60	539	0.90	0.07	0.23	0.222	6.85	20.3	0.82	1.05	0.253	< 1.0	27.2
2/13/2024	< 2.0	3.20	564	1.23	0.07	0.12	0.176	6.73	21.9	0.86	0.98	0.167	2.0	27.1
3/12/2024	< 2.0	1.60	562	3.75	0.06	0.03	0.258	6.73	21.4	0.79	0.82	0.253	1.4	27.1
4/9/2024	< 2.0	3.20	648	1.00	3.54	0.20	0.372	6.80	22.1	4.50	4.70	0.440	2.1	27.1
5/7/2024	< 2.0	4.81	689	1.47	0.20	< 0.01	0.187	7.00	26.2	0.91	0.91	0.221	2.1	27.1
6/11/2024	< 2.0	9.08	554	0.52	0.17	< 0.01	0.189	6.69	28.1	0.80	0.80	0.216	2.7	27.2
7/9/2024	< 2.0	1.60	580	2.96	0.13	< 0.01	0.127	6.70	29.1	0.71	0.71	0.130	1.0	27.1
8/13/2024	< 2.0	1.60	580	4.25	0.14	< 0.01	0.172	6.52	28.8	0.82	0.82	0.197	< 1.0	27.2
9/10/2024	2.0	< 0.80	529	4.11	1.17	< 0.01	0.623	6.57	28.2	2.01	2.01	0.601	1.1	27.4
10/22/2024	< 2.0	1.60	425	1.47	0.20	0.06	0.431	6.90	25.6	0.90	0.96	0.422	< 1.0	27.4
11/5/2024	< 2.0	1.07	536	2.54	0.25	< 0.01	0.265	7.05	25.1	0.88	0.88	0.263	< 1.0	27.3
12/10/2024	< 2.0	6.94	530	1.76	0.07	0.19	0.180	6.95	19.5	0.91	1.10	0.180	< 1.0	27.1
Average	**< 2.0**	**3.09**	**561**	**2.16**	**0.51**	**0.07**	**0.267**	**6.79**	**24.7**	**1.24**	**1.31**	**0.279**	**1.5**	**27.2**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL2Z

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	< 0.80	538	0.89	0.02	0.10	0.199	6.78	18.8	0.71	0.81	0.218	< 1.0	27.1
2/13/2024	< 2.0	< 0.80	566	1.65	< 0.02	0.01	0.275	6.84	19.4	0.75	0.76	0.260	< 1.0	27.3
3/12/2024	< 2.0	1.07	523	4.36	< 0.02	< 0.01	0.247	6.71	17.7	0.69	0.69	0.229	< 1.0	27.1
4/9/2024	< 2.0	1.60	588	1.40	< 0.02	< 0.01	0.185	6.75	19.2	0.72	0.72	0.210	< 1.0	27.0
5/7/2024	< 2.0	< 0.80	664	1.42	0.04	< 0.01	0.136	6.76	23.3	0.54	0.54	0.147	< 1.0	26.9
6/11/2024	2.0	7.48	498	1.48	< 0.02	< 0.01	0.414	6.73	25.8	0.72	0.72	0.409	2.3	27.1
7/9/2024	< 2.0	< 0.80	593	2.70	< 0.02	< 0.01	0.221	6.68	27.3	0.59	0.59	0.219	< 1.0	26.9
8/13/2024	< 2.0	< 0.80	566	4.30	< 0.02	< 0.01	0.184	6.61	27.2	0.70	0.70	0.191	< 1.0	27.1
9/10/2024	< 2.0	< 0.80	518	4.45	0.10	< 0.01	0.637	6.64	27.0	0.63	0.63	0.619	< 1.0	27.3
10/22/2024	< 2.0	1.60	426	0.70	0.17	< 0.01	0.378	6.85	24.0	0.82	0.82	0.378	< 1.0	22.3
11/5/2024	< 2.0	< 0.80	517	1.10	0.17	< 0.01	0.272	6.98	23.9	0.70	0.70	0.266	< 1.0	27.3
12/10/2024	< 2.0	< 0.80	497	2.11	0.07	0.13	0.197	6.94	16.6	0.85	0.98	0.190	< 1.0	26.8
Average	**< 2.0**	**1.51**	**541**	**2.21**	**0.1**	**0.03**	**0.279**	**6.77**	**22.5**	**0.70**	**0.72**	**0.278**	**1.1**	**26.7**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL3X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	< 2.0	1.07	527	7.26	< 0.02	0.04	0.307	6.93	14.8	0.82	0.86	0.319	2.2	21.9
2/12/2024	< 2.0	< 0.80	565	4.99	< 0.02	0.02	0.225	6.99	20.3	0.79	0.81	0.210	3.0	21.9
3/11/2024	< 2.0	< 0.80	510	7.52	< 0.02	< 0.01	0.203	7.10	17.2	0.80	0.80	0.221	2.7	21.8
4/8/2024	2.2	7.48	617	4.90	1.68	0.68	0.249	7.52	20.4	3.12	3.80	0.304	5.0	22.2
5/6/2024	< 2.0	1.60	692	2.40	0.04	0.04	0.055	7.06	26.2	0.90	0.94	0.104	3.0	22.1
6/10/2024	< 2.0	< 0.80	636	4.88	0.02	0.06	0.069	6.79	28.9	0.73	0.79	0.061	4.6	22.1
7/8/2024	< 2.0	1.07	471	1.51	0.13	0.03	0.024	6.76	29.4	1.01	1.04	0.048	1.3	22.0
8/12/2024	< 2.0	< 0.80	485	3.55	< 0.02	0.02	0.031	6.75	28.7	0.68	0.70	0.041	2.4	22.2
9/9/2024	< 2.0	8.01	536	3.88	< 0.02	0.04	0.291	7.20	29.0	0.89	0.93	0.329	3.2	22.2
10/21/2024	< 2.0	1.75	430	1.77	0.03	0.35	0.233	7.24	23.2	2.38	2.73	0.457	16.2	22.3
11/4/2024	< 2.0	2.14	528	1.33	0.06	0.11	0.212	7.25	23.5	0.73	0.84	0.212	4.1	22.2
12/9/2024	< 2.0	2.67	482	6.40	0.04	0.48	0.057	7.47	15.1	0.58	1.06	0.065	1.4	22.1
Average	**< 2.0**	**2.42**	**540**	**4.20**	**0.18**	**0.16**	**0.163**	**7.09**	**23.1**	**1.12**	**1.28**	**0.198**	**4.1**	**22.1**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL4X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	< 2.0	1.60	542	4.40	0.05	0.39	0.167	6.76	18.9	0.78	1.17	0.186	2.0	22.9
2/12/2024	< 2.0	< 0.80	559	2.64	0.05	0.38	0.127	6.85	22.5	1.01	1.39	0.123	1.0	23.0
3/11/2024	< 2.0	< 0.80	574	5.03	0.04	0.16	0.169	6.92	22.3	0.86	1.02	0.192	2.4	22.9
4/8/2024	2.4	9.61	600	3.23	0.85	0.40	0.159	7.09	19.9	2.10	2.50	0.200	5.8	22.7
5/6/2024	< 2.0	2.14	699	0.37	0.08	0.03	0.046	6.85	26.6	0.96	0.99	0.099	3.0	22.7
6/10/2024	< 2.0	< 0.80	613	2.45	0.06	< 0.01	0.085	6.80	30.2	0.85	0.85	0.094	1.1	22.7
7/8/2024	< 2.0	3.74	482	2.10	0.15	0.02	0.047	6.75	30.8	1.12	1.14	0.079	1.6	22.7
8/12/2024	< 2.0	2.14	469	4.54	0.08	0.02	0.035	6.60	29.5	1.03	1.05	0.062	2.0	22.8
9/9/2024	2.2	10.70	558	3.88	0.06	0.07	0.504	6.90	29.2	1.14	1.21	0.545	3.3	22.9
10/21/2024	< 2.0	18.70	399	3.76	0.07	0.10	0.123	8.47	23.1	0.98	1.08	0.169	2.8	22.9
11/4/2024	< 2.0	1.60	514	2.60	0.09	0.03	0.167	7.36	24.4	0.77	0.80	0.185	1.6	22.8
12/9/2024	< 2.0	1.07	466	8.64	0.03	0.02	0.020	8.51	16.0	0.58	0.60	0.035	1.0	22.7
Average	**2.1**	**4.48**	**539.6**	**3.64**	**0.13**	**0.14**	**0.137**	**7.16**	**24.5**	**1.02**	**1.15**	**0.164**	**2.3**	**22.8**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL5X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	1.60	536	0.79	< 0.02	0.27	0.214	6.87	19.5	0.68	0.95	0.228	2.1	23.4
2/13/2024	< 2.0	< 0.80	566	0.72	0.03	0.13	0.201	6.66	21.3	0.79	0.92	0.177	1.2	23.3
3/12/2024	< 2.0	< 0.80	556	3.20	0.03	0.03	0.236	6.70	20.9	0.77	0.80	0.229	1.0	23.4
4/9/2024	< 2.0	1.07	625	0.64	2.89	0.08	0.369	6.80	21.0	4.06	4.14	0.387	2.7	23.4
5/7/2024	< 2.0	2.14	676	1.80	0.19	< 0.01	0.197	6.80	25.1	0.59	0.59	0.205	2.6	23.3
6/11/2024	< 2.0	9.61	542	3.27	0.19	< 0.01	0.247	6.66	27.6	0.62	0.62	0.250	2.5	23.4
7/9/2024	< 2.0	1.07	580	2.20	0.12	< 0.01	0.154	6.72	28.6	0.69	0.69	0.165	< 1.0	23.4
8/13/2024	< 2.0	< 0.80	576	4.57	0.13	< 0.01	0.182	6.67	28.3	0.82	0.82	0.194	< 1.0	21.5
9/10/2024	< 2.0	< 0.80	519	3.32	0.91	< 0.01	0.540	7.55	27.6	1.44	1.44	0.526	< 1.0	23.6
10/22/2024	< 2.0	1.07	426	1.48	0.18	0.06	0.411	6.92	25.3	0.92	0.98	0.413	1.2	23.6
11/5/2024	< 2.0	1.07	535	1.21	0.22	< 0.01	0.272	7.06	25.0	0.99	0.99	0.256	1.9	24.6
12/10/2024	< 2.0	3.74	521	1.67	0.05	0.18	0.206	6.98	18.8	0.72	0.90	0.195	< 1.0	23.3
Average	**< 2.0**	**2.05**	**555**	**2.07**	**0.41**	**0.07**	**0.269**	**6.87**	**24.1**	**1.09**	**1.15**	**0.269**	**1.6**	**23.4**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL6X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	< 0.80	538	3.60	< 0.02	0.09	0.185	7.01	18.4	0.62	0.71	0.203	< 1.0	23.9
2/13/2024	< 2.0	< 0.80	564	4.07	< 0.02	0.02	0.263	6.88	19.8	0.71	0.73	0.236	< 1.0	23.8
3/12/2024	< 2.0	1.07	522	5.64	< 0.02	< 0.01	0.207	6.71	18.0	0.66	0.66	0.209	1.7	23.8
4/9/2024	< 2.0	< 0.80	588	3.65	< 0.02	< 0.01	0.152	6.88	19.4	0.78	0.78	0.173	2.3	23.6
5/7/2024	< 2.0	< 0.80	654	2.52	0.02	< 0.01	0.080	6.87	23.5	0.26	0.26	0.091	1.1	23.6
6/11/2024	< 2.0	2.67	485	1.09	0.02	< 0.01	0.228	6.65	25.7	0.51	0.51	0.227	2.5	23.9
7/9/2024	< 2.0	< 0.80	596	3.73	< 0.02	< 0.01	0.126	6.83	27.4	0.71	0.71	0.132	4.0	23.5
8/13/2024	< 2.0	< 0.80	566	4.97	< 0.02	0.01	0.177	6.78	26.9	0.78	0.79	0.197	2.6	23.8
9/10/2024	< 2.0	2.67	511	3.99	< 0.02	0.01	0.569	6.69	26.8	0.66	0.67	0.556	1.2	24.1
10/22/2024	< 2.0	< 0.80	424	1.82	0.07	0.04	0.328	6.93	23.6	0.76	0.80	0.329	1.5	24.1
11/5/2024	< 2.0	< 0.80	509	1.37	0.06	0.05	0.232	7.03	23.5	0.88	0.93	0.224	2.8	23.9
12/10/2024	< 2.0	< 0.80	494	3.91	0.05	0.12	0.175	7.03	16.3	0.61	0.73	0.178	< 1.0	23.7
Average	**< 2.0**	**1.13**	**538**	**3.36**	**0.03**	**0.03**	**0.227**	**6.86**	**22.4**	**0.66**	**0.69**	**0.230**	**1.9**	**23.8**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL7X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	< 2.0	1.07	521	6.09	< 0.02	< 0.01	0.339	6.84	15.2	0.52	0.52	0.316	< 1.0	20.4
2/12/2024	< 2.0	< 0.80	566	4.33	< 0.02	< 0.01	0.206	7.00	19.9	0.87	0.87	0.197	< 1.0	20.4
3/11/2024	< 2.0	< 0.80	542	5.02	< 0.02	< 0.01	0.171	6.98	19.4	0.77	0.77	0.189	< 1.0	20.3
4/8/2024	< 2.0	1.07	587	4.01	< 0.02	< 0.01	0.032	7.17	19.1	0.83	0.83	0.051	1.5	20.2
5/6/2024	< 2.0	1.60	683	2.26	0.04	< 0.01	0.017	6.74	25.4	0.72	0.72	0.052	2.0	20.3
6/10/2024	< 2.0	1.07	660	1.04	0.02	< 0.01	0.015	6.57	28.4	0.83	0.83	< 0.030	1.0	20.2
7/8/2024	< 2.0	2.14	501	1.39	< 0.02	< 0.01	0.020	6.42	28.7	0.87	0.87	0.031	< 1.0	20.3
8/12/2024	< 2.0	1.60	477	3.23	< 0.02	< 0.01	0.046	6.54	28.0	0.75	0.75	0.058	< 1.0	20.5
9/9/2024	< 2.0	1.60	502	4.10	0.03	< 0.01	0.170	6.77	27.8	0.89	0.89	0.193	3.7	20.6
10/21/2024	< 2.0	3.20	429	1.43	0.05	< 0.01	0.402	6.97	22.3	0.81	0.81	0.404	< 1.0	20.0
11/4/2024	6.3	3.20	523	0.86	0.21	< 0.01	0.487	6.99	22.9	0.94	0.94	0.474	1.5	20.5
12/9/2024	< 2.0	5.87	474	5.90	0.03	0.12	0.059	7.42	14.5	0.59	0.71	0.060	< 1.0	20.4
Average	**2.4**	**2.00**	**539**	**3.31**	**0.04**	**0.02**	**0.164**	**6.87**	**22.6**	**0.78**	**0.79**	**0.171**	**1.39**	**20.3**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL8X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	< 2.0	1.07	532	4.57	< 0.02	0.13	0.210	6.70	16.4	0.79	0.92	0.213	1.7	20.4
2/12/2024	< 2.0	< 0.80	558	2.73	0.03	0.07	0.154	6.93	20.8	0.88	0.95	0.140	2.9	20.4
3/11/2024	< 2.0	< 0.80	534	5.04	< 0.02	0.01	0.141	6.77	19.2	0.78	0.79	0.148	3.7	20.4
4/8/2024	< 2.0	< 0.80	578	3.05	< 0.02	< 0.01	0.048	7.11	18.4	1.12	1.12	0.056	2.0	20.3
5/6/2024	< 2.0	< 0.80	674	0.98	0.02	< 0.01	0.018	6.52	24.8	0.50	0.50	0.040	1.2	20.3
6/10/2024	< 2.0	< 0.80	647	3.02	< 0.02	< 0.01	0.009	6.50	27.7	0.81	0.81	< 0.030	1.8	20.3
7/8/2024	< 2.0	3.74	504	1.99	< 0.02	< 0.01	0.014	6.42	28.2	0.73	0.73	0.036	6.4	20.3
8/12/2024	< 2.0	< 0.80	472	4.43	< 0.02	< 0.01	0.056	6.37	28.1	0.70	0.70	0.074	1.1	20.8
9/9/2024	< 2.0	1.60	534	3.75	< 0.02	< 0.01	0.303	6.72	28.0	0.82	0.82	0.325	5.4	19.9
10/21/2024	< 2.0	3.20	428	3.06	0.02	< 0.01	0.475	7.01	22.5	0.80	0.80	0.449	1.0	21.0
11/4/2024	5.7	9.08	520	0.80	0.09	< 0.01	0.512	7.03	23.0	1.58	1.58	0.557	9.9	20.7
12/9/2024	< 2.0	1.60	470	3.76	0.07	0.01	0.116	7.21	14.2	0.57	0.58	0.098	< 1.0	20.6
Average	**2.3**	**2.09**	**538**	**3.10**	**0.03**	**0.03**	**0.171**	**6.77**	**22.6**	**0.84**	**0.86**	**0.181**	**3.2**	**20.5**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL9X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	1.07	537	2.38	< 0.02	0.13	0.205	6.95	18.6	0.62	0.75	0.210	1.2	20.4
2/13/2024	< 2.0	1.07	571	1.92	< 0.02	0.07	0.251	6.73	19.5	0.67	0.74	0.222	1.1	20.4
3/12/2024	< 2.0	3.20	516	4.70	< 0.02	0.01	0.182	6.79	17.0	0.53	0.54	0.183	< 1.0	20.4
4/9/2024	< 2.0	2.14	601	1.36	1.71	0.12	0.286	6.93	19.2	2.71	2.83	0.274	1.7	20.3
5/7/2024	< 2.0	1.60	661	3.71	0.02	0.06	0.146	6.92	23.7	0.20	0.20	0.157	< 1.0	20.3
6/11/2024	< 2.0	4.81	442	2.20	0.03	< 0.01	0.211	6.68	25.8	0.39	0.39	0.206	1.3	20.6
7/9/2024	< 2.0	< 0.80	572	2.96	< 0.02	0.04	0.131	6.80	27.5	0.55	0.59	0.129	< 1.0	20.3
8/13/2024	< 2.0	< 0.80	554	5.03	< 0.02	0.05	0.165	6.73	27.1	0.72	0.77	0.175	< 1.0	20.5
9/10/2024	< 2.0	< 0.80	509	2.89	0.34	0.02	0.558	6.62	26.9	1.07	1.09	0.541	< 1.0	20.7
10/22/2024	< 2.0	< 0.80	421	1.78	< 0.02	0.10	0.359	6.97	23.4	0.74	0.84	0.336	1.2	20.6
11/5/2024	< 2.0	< 0.80	516	1.09	0.05	0.10	0.278	7.07	23.6	0.74	0.84	0.261	< 1.0	20.4
12/10/2024	< 2.0	2.14	492	3.14	< 0.02	0.15	0.189	7.03	16.2	0.57	0.72	0.177	< 1.0	20.3
Average	**< 2.0**	**1.67**	**533**	**2.76**	**0.19**	**0.07**	**0.247**	**6.85**	**22.4**	**0.79**	**0.86**	**0.239**	**1.1**	**20.4**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL9Y

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	< 0.80	536	3.44	< 0.02	0.18	0.197	6.97	18.9	0.39	0.57	0.205	< 1.0	20.4
2/13/2024	< 2.0	< 0.80	565	2.51	< 0.02	0.13	0.248	6.77	19.8	0.67	0.80	0.223	< 1.0	20.4
3/12/2024	< 2.0	3.74	513	7.05	< 0.02	0.02	0.207	6.94	17.1	0.58	0.60	0.198	1.4	20.4
4/9/2024	< 2.0	2.14	607	1.58	2.26	0.12	0.343	6.96	19.5	3.24	3.36	0.346	1.7	20.5
5/7/2024	< 2.0	1.07	656	1.70	0.05	0.01	0.177	6.99	23.4	0.25	0.26	0.173	< 1.0	20.4
6/11/2024	< 2.0	3.74	505	2.57	0.07	0.02	0.314	6.77	26.2	0.46	0.48	0.289	1.1	20.7
7/9/2024	< 2.0	< 0.80	579	2.90	< 0.02	0.04	0.162	6.87	27.2	0.56	0.60	0.151	1.0	20.4
8/13/2024	< 2.0	< 0.80	563	5.60	< 0.02	0.05	0.187	6.81	26.9	0.69	0.74	0.196	< 1.0	20.6
9/10/2024	< 2.0	< 0.80	510	3.78	0.56	0.06	0.548	6.69	26.8	1.27	1.33	0.541	< 1.0	20.7
10/22/2024	< 2.0	< 0.80	422	2.54	0.03	0.16	0.385	7.02	23.7	0.62	0.78	0.390	< 1.0	20.8
11/5/2024	< 2.0	< 0.80	516	1.75	0.05	0.13	0.279	7.13	23.7	0.55	0.68	0.258	< 1.0	20.5
12/10/2024	< 2.0	1.60	503	4.20	< 0.02	0.21	0.215	7.13	17.2	0.77	0.98	0.201	< 1.0	20.4
Average	**< 2.0**	**1.49**	**540**	**3.30**	**0.26**	**0.09**	**0.272**	**6.92**	**22.5**	**0.84**	**0.93**	**0.264**	**1.1**	**20.5**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL10X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	< 0.80	530	3.33	< 0.02	0.05	0.199	6.86	17.3	0.67	0.72	0.210	< 1.0	21.2
2/13/2024	< 2.0	< 0.80	564	3.80	< 0.02	0.02	0.286	6.88	19.3	0.80	0.82	0.335	2.9	21.1
3/12/2024	< 2.0	1.07	511	5.22	< 0.02	< 0.01	0.154	6.82	17.1	0.61	0.61	0.162	1.1	21.0
4/9/2024	< 2.0	< 0.80	580	2.65	0.67	0.02	0.132	6.94	18.9	1.18	1.20	0.154	< 1.0	21.0
5/7/2024	< 2.0	< 0.80	643	2.40	0.03	< 0.01	0.063	6.98	23.0	0.63	0.63	0.089	3.2	20.8
6/11/2024	< 2.0	4.27	465	1.40	< 0.02	< 0.01	0.103	6.68	25.9	0.55	0.55	0.135	5.6	21.3
7/9/2024	< 2.0	< 0.80	591	4.24	< 0.02	< 0.01	0.110	6.82	27.5	0.67	0.67	0.120	5.2	20.7
8/13/2024	< 2.0	< 0.80	563	4.66	< 0.02	< 0.01	0.153	6.81	26.7	0.34	0.34	0.150	1.3	21.1
9/10/2024	< 2.0	< 0.80	502	4.90	< 0.02	0.01	0.499	6.75	26.4	0.71	0.72	0.491	< 1.0	21.5
10/22/2024	< 2.0	< 0.80	421	3.08	< 0.02	0.05	0.283	6.94	23.1	0.64	0.69	0.294	1.9	21.5
11/5/2024	< 2.0	< 0.80	512	1.14	0.06	0.11	0.287	7.07	23.4	0.96	1.07	0.309	7.2	21.2
12/10/2024	< 2.0	< 0.80	489	4.43	0.02	0.11	0.178	7.09	15.8	0.82	0.93	0.176	1.3	21.0
Average	**< 2.0**	**1.11**	**531**	**3.44**	**0.08**	**0.04**	**0.204**	**6.89**	**22.0**	**0.72**	**0.75**	**0.219**	**2.7**	**21.1**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL11X

Date	ALK-B	CBOD-B	CHLORO	CL-B	CON-B	DO-B	NH3-B	NH3U-B	NOX-B	OP-B	PH-B	SO4-B	STOC-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	113	< 2.0	2.14	79.5	521	0.39	0.03	< 0.01	< 0.01	0.182	6.70	29.2	6.23	15.8	0.61	0.61	0.197	< 1.0	27.5
2/13/2024	127	< 2.0	1.07	78.4	561	1.19	< 0.02	< 0.01	< 0.01	0.161	6.68	27.9	6.70	18.2	0.78	0.78	0.214	< 1.0	27.4
3/12/2024	130	< 2.0	4.27	79.1	528	3.10	0.06	< 0.01	< 0.01	0.305	6.53	24.2	6.92	18.9	0.76	0.76	0.314	1.1	27.4
4/9/2024	128	< 2.0	1.60	88.6	563	0.71	< 0.02	< 0.01	< 0.01	0.083	6.58	28.7	6.78	18.6	0.80	0.80	0.118	1.0	27.4
5/7/2024	133	< 2.0	2.67	95.1	643	0.25	0.06	< 0.01	< 0.01	0.100	6.74	20.1	8.10	22.7	0.70	0.70	0.130	< 1.0	27.3
6/11/2024	115	< 2.0	12.30	78.5	518	0.52	0.10	< 0.02	< 0.01	0.162	6.37	16.2	7.48	25.7	0.60	0.60	0.185	1.2	27.7
7/9/2024	139	< 2.0	1.60	82.2	587	3.52	0.10	< 0.02	< 0.01	0.147	6.52	19.6	7.82	27.6	0.58	0.58	0.139	< 1.0	27.4
8/13/2024	122	< 2.0	< 0.80	72.6	565	4.28	0.10	< 0.02	< 0.01	0.229	6.52	14.1	7.65	27.3	0.72	0.72	0.239	< 1.0	27.5
9/10/2024	105	< 2.0	1.07	60.7	503	3.40	0.11	< 0.02	0.01	0.555	6.45	24.7	7.81	26.6	0.90	0.91	0.565	< 1.0	27.7
10/22/2024	87	< 2.0	1.60	53.2	416	0.89	< 0.02	< 0.02	< 0.01	0.233	6.73	34.9	8.10	22.6	0.68	0.68	0.251	< 1.0	27.6
11/5/2024	107	< 2.0	2.67	63.8	496	0.50	0.07	< 0.02	< 0.01	0.229	6.85	23.2	7.02	22.8	0.71	0.71	0.252	< 1.0	27.5
12/10/2024	116	< 2.0	1.07	74.1	481	1.95	0.06	< 0.02	< 0.01	0.051	6.78	33.4	5.92	15.0	0.99	0.99	0.070	< 1.0	27.4
Average	**118**	**< 2.0**	**2.74**	**75.5**	**532**	**1.73**	**0.06**	**< 0.02**	**< 0.01**	**0.203**	**6.62**	**24.7**	**7.21**	**21.8**	**0.74**	**0.74**	**0.223**	**< 1.0**	**27.5**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL12X

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	< 0.80	529	0.98	0.04	0.02	0.263	6.74	17.3	0.61	0.63	0.264	< 1.0	27.6
2/13/2024	< 2.0	1.07	559	1.28	< 0.02	< 0.01	0.331	6.61	19.5	0.76	0.76	0.378	< 1.0	27.5
3/12/2024	< 2.0	< 0.80	528	3.50	< 0.02	< 0.01	0.219	6.63	18.7	0.61	0.61	0.219	< 1.0	27.5
4/9/2024	< 2.0	1.07	585	1.87	< 0.02	< 0.01	0.110	6.65	19.1	0.68	0.68	0.168	< 1.0	27.5
5/7/2024	< 2.0	< 0.80	646	2.75	0.02	< 0.01	0.179	6.78	22.8	0.82	0.82	0.173	< 1.0	27.4
6/11/2024	< 2.0	3.20	529	1.25	0.05	< 0.01	0.280	6.48	25.7	0.78	0.78	0.272	1.3	27.7
7/9/2024	< 2.0	< 0.80	609	4.01	0.02	< 0.01	0.252	6.76	27.1	0.60	0.60	0.258	< 1.0	27.4
8/13/2024	< 2.0	< 0.80	580	3.80	0.06	0.01	0.371	6.67	26.8	0.82	0.83	0.361	< 1.0	27.5
9/10/2024	< 2.0	< 0.80	511	3.47	0.07	< 0.01	0.701	6.64	26.3	0.81	0.81	0.689	< 1.0	27.7
10/22/2024	< 2.0	2.14	422	1.74	0.02	< 0.01	0.310	6.85	22.8	0.68	0.68	0.296	< 1.0	27.6
11/5/2024	< 2.0	1.60	495	0.76	0.07	< 0.01	0.431	6.94	22.5	0.66	0.66	0.412	< 1.0	27.5
12/10/2024	< 2.0	1.07	479	3.40	0.07	< 0.01	0.096	6.86	15.2	0.66	0.66	0.101	< 1.0	27.4
Average	**< 2.0**	**1.25**	**539**	**2.40**	**0.04**	**< 0.01**	**0.295**	**6.72**	**22.0**	**0.71**	**0.71**	**0.299**	**< 1.0**	**27.5**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL12Y

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	< 2.0	< 0.80	522	1.34	0.04	0.02	0.259	6.64	16.5	0.57	0.59	0.242	< 1.0	27.5
2/13/2024	< 2.0	< 0.80	566	1.70	< 0.02	< 0.01	0.404	6.58	19.0	0.73	0.73	0.437	< 1.0	27.4
3/12/2024	< 2.0	< 0.80	519	2.50	< 0.02	< 0.01	0.393	6.68	18.1	0.66	0.66	0.380	< 1.0	28.7
4/9/2024	< 2.0	< 0.80	576	0.61	< 0.02	< 0.01	0.131	6.65	18.9	0.65	0.65	0.169	< 1.0	27.4
5/7/2024	< 2.0	< 0.80	668	1.33	0.02	< 0.01	0.244	6.80	23.2	0.63	0.63	0.260	1.2	27.3
6/11/2024	< 2.0	5.87	530	0.31	0.06	< 0.01	0.423	6.30	25.6	0.89	0.89	0.437	1.4	29.0
7/9/2024	< 2.0	< 0.80	618	5.38	0.02	< 0.01	0.321	6.59	27.2	0.78	0.78	0.292	2.1	27.2
8/13/2024	< 2.0	< 0.80	574	4.75	0.07	< 0.01	0.330	6.64	26.5	0.84	0.84	0.323	1.5	27.4
9/10/2024	< 2.0	1.07	496	1.83	0.05	< 0.01	0.668	6.57	26.1	0.79	0.79	0.650	< 1.0	27.7
10/22/2024	< 2.0	< 0.80	423	1.18	0.04	< 0.01	0.288	6.80	22.5	0.69	0.69	0.268	< 1.0	27.6
11/5/2024	< 2.0	1.07	491	0.81	0.05	< 0.01	0.338	6.91	22.3	0.75	0.75	0.338	< 1.0	27.5
12/10/2024	< 2.0	< 0.80	476	1.69	0.06	< 0.01	0.088	6.72	15.0	0.64	0.64	0.095	< 1.0	27.4
Average	**< 2.0**	**1.27**	**538**	**1.95**	**0.04**	**< 0.01**	**0.324**	**6.66**	**21.7**	**0.72**	**0.72**	**0.324**	**1.2**	**27.7**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL13B

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
8/12/2024[(a)]	< 2.0	5.34	457	3.40	0.27	< 1.00	0.070	6.21	27.5	1.23	1.23	0.106	1.1	18.4
Average	**< 2.0**	**5.34**	**457**	**3.40**	**0.27**	**< 1.00**	**0.070**	**6.21**	**27.5**	**1.23**	**1.23**	**0.106**	**1.1**	**18.4**

(a) Cell 13 flow was temporarily redirected into Cell 14 instead of Cell 17, and bilateral control structures were sampled instead of Control Structures 13X and 13Y.

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL13C

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
8/12/2024[(a)(b)]	2.1	10.70	503	3.33	0.49	< 1.00	0.171	6.29	27.6	1.70	1.70	0.223	4.0	18.3
Average	**2.1**	**10.70**	**503**	**3.33**	**0.49**	**< 1.00**	**0.171**	**6.29**	**27.6**	**1.70**	**1.70**	**0.223**	**4.0**	**18.3**

(a) Cell 13 flow was temporarily redirected into Cell 14 instead of Cell 17, and bilateral control structures were sampled instead of Control Structures 13X and 13Y.

(a) Prior to sampling, an alligator stirred the water column

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL13X

Date	ALK-B	CBOD-B	CHLORO	CL-B	CON-B	DO-B	NH3-B	NH3U-B	NOX-B	OP-B	PH-B	SO4-B	STOC-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	106	< 2.0	2.67	75.3	524	0.72	< 0.02	< 0.01	< 0.01	0.244	7.00	28.4	6.89	16.5	0.64	0.64	0.250	< 1.0	16.5
2/12/2024	132	< 2.0	3.20	78.7	573	0.60	< 0.02	< 0.01	< 0.01	0.364	7.01	30.5	7.42	19.3	0.94	0.94	0.359	< 1.0	16.4
3/11/2024[(a)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4/8/2024[(a)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
5/6/2024[(a)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
6/10/2024	156	4.8	9.61	105.0	684	1.80	0.15	< 0.02	< 0.01	0.086	6.24	12.8	12.10	26.4	1.31	1.31	0.114	1.2	16.8
7/8/2024	136	7.1	10.70	87.7	582	1.92	0.80	< 0.02	< 0.01	0.267	6.49	< 2.0	11.70	27.7	1.99	1.99	0.286	1.3	16.9
8/12/2024[(a)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
9/9/2024	93	< 2.0	12.80	61.1	492	3.30	0.25	< 0.02	< 0.01	0.091	6.48	11.0	7.94	27.4	1.24	1.24	0.129	1.5	18.1
10/21/2024	102	< 2.0	5.34	55.3	425	2.37	0.07	< 0.02	< 0.01	0.099	7.10	17.8	8.26	22.9	0.86	0.86	0.144	1.4	17.7
11/4/2024	114	2.5	16.00	60.7	515	2.30	0.07	< 0.02	< 0.01	0.199	7.18	21.3	9.00	24.1	1.14	1.14	0.249	4.3	17.6
12/9/2024	130	5.2	74.80	74.2	495	1.80	0.31	< 0.02	< 0.01	0.040	7.24	33.8	11.40	14.8	1.53	1.53	0.138	7.6	17.8
Average	**121**	**3.5**	**16.89**	**74.8**	**536**	**1.85**	**0.21**	**< 0.02**	**< 0.01**	**0.174**	**6.84**	**19.7**	**9.34**	**22.4**	**1.21**	**1.21**	**0.209**	**2.4**	**17.2**

(a)WL13X did not flow and was not sampled
NS – Not sampled

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL13Y

Date	ALK-B	CBOD-B	CHLORO	CL-B	CON-B	DO-B	NH3-B	NH3U-B	NOX-B	OP-B	PH-B	SO4-B	STOC-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	114	< 2.0	2.14	78.1	526	2.15	< 0.02	< 0.01	< 0.01	0.259	6.58	29.2	6.91	16.6	0.68	0.68	0.256	< 1.0	16.6
2/12/2024	129	< 2.0	1.07	79.3	570	0.84	0.02	0.02	< 0.01	0.165	7.10	28.7	7.83	19.0	1.09	1.09	0.178	< 1.0	16.5
3/11/2024	125	< 2.0	2.14	78.4	541	3.96	0.03	0.03	< 0.01	0.140	6.78	22.0	8.98	20.0	1.00	1.00	0.163	< 1.0	16.9
4/8/2024	127	< 2.0	3.74	90.1	573	0.70	< 0.02	< 0.02	< 0.01	0.032	7.00	34.2	8.23	18.3	0.86	0.86	0.046	1.3	17.1
5/6/2024	137	< 2.0	6.41	100.0	673	0.18	0.04	0.04	< 0.01	0.023	6.73	13.6	9.59	24.1	1.02	1.02	0.078	2.2	17.0
6/10/2024	163	4.7	18.20	100.0	676	0.60	0.17	0.17	< 0.01	0.058	6.33	2.2	12.10	26.4	1.33	1.33	0.085	3.0	16.9
7/8/2024	138	4.9	8.54	89.6	584	3.25	0.38	0.38	< 0.01	0.135	6.54	< 2.0	11.60	27.7	1.55	1.55	0.180	< 1.0	16.9
8/12/2024[(a)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
9/9/2024	95	2.2	15.00	60.6	594	3.18	0.32	0.32	< 0.01	0.105	6.47	9.8	8.52	27.4	1.46	1.46	0.154	1.9	18.2
10/21/2024	102	2.0	16.00	57.7	429	1.80	0.03	0.03	< 0.01	0.116	7.05	23.2	8.74	22.7	1.01	1.01	0.184	3.2	17.7
11/4/2024[(a)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
12/9/2024	129	5.6	105.00	76.7	496	3.50	0.14	0.14	< 0.01	0.008	7.40	34.0	11.30	15.0	1.48	1.48	0.099	9.8	17.8
Average	**126**	**2.9**	**17.82**	**81.1**	**566**	**2.02**	**0.12**	**0.12**	**< 0.01**	**0.104**	**6.80**	**19.9**	**9.38**	**21.7**	**1.15**	**1.15**	**0.142**	**2.5**	**17.2**

(a)WL13Y did not flow and was not sampled
NS – Not sampled

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL14X

Date	ALK-B	CBOD-B	CHLORO	CL-B	CON-B	DO-B	NH3-B	NH3U-B	NOX-B	OP-B	PH-B	SO4-B	STOC-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	115	< 2.0	1.60	80.1	517	5.22	< 0.02	< 0.01	< 0.01	0.219	6.68	30.5	6.24	17.4	0.59	0.59	0.225	< 1.0	17.4
2/12/2024	125	< 2.0	< 0.80	79.4	558	5.05	< 0.02	< 0.01	< 0.01	0.150	6.92	31.0	6.81	18.2	0.75	0.75	0.142	< 1.0	17.3
3/11/2024	132	< 2.0	1.07	79.0	541	4.10	< 0.02	< 0.01	< 0.01	0.231	6.98	28.5	7.66	19.9	0.81	0.81	0.238	< 1.0	17.4
4/8/2024	125	< 2.0	1.07	87.6	557	2.70	< 0.02	< 0.01	< 0.01	0.026	7.15	30.5	7.52	18.5	0.77	0.77	0.042	< 1.0	17.3
5/6/2024	135	< 2.0	3.74	93.2	680	0.53	0.08	< 0.01	< 0.01	0.045	6.88	12.1	8.48	23.6	0.82	0.82	0.083	1.8	17.2
6/10/2024	157	3.5	30.40	96.7	682	1.35	0.28	< 0.02	< 0.01	0.081	6.28	3.4	9.84	25.5	1.24	1.24	0.098	1.8	17.2
7/8/2024	138	< 2.0	11.20	75.8	581	2.11	0.05	< 0.02	< 0.01	0.029	6.74	21.1	9.95	27.6	1.15	1.15	0.062	< 1.0	17.1
8/12/2024	89	2.1	6.94	71.2	495	4.00	0.26	< 0.02	< 0.01	0.126	6.46	13.4	9.53	27.8	1.37	1.37	0.166	1.5	18.3
9/9/2024	109	< 2.0	3.20	60.9	530	3.25	0.07	< 0.02	< 0.01	0.307	6.60	16.9	7.73	27.3	0.86	0.86	0.332	1.2	18.0
10/21/2024[(a)]	98	< 2.0	1.07	53.9	429	1.89	0.07	< 0.02	< 0.01	0.124	6.93	37.5	8.35	21.8	0.68	0.68	0.149	< 1.0	17.8
11/4/2024	104	< 2.0	2.67	62.0	497	1.41	0.08	< 0.02	< 0.01	0.138	6.91	29.5	7.84	23.0	0.73	0.73	0.154	< 1.0	17.4
12/9/2024	129	3.5	33.10	74.3	489	4.80	0.02	< 0.02	< 0.01	0.054	7.18	36.2	8.82	14.6	0.78	0.78	0.105	4.4	17.7
Average	**121**	**2.3**	**8.07**	**76.2**	**546**	**3.03**	**0.08**	**< 0.02**	**< 0.01**	**0.128**	**6.81**	**24.2**	**8.23**	**22.1**	**0.88**	**0.88**	**0.150**	**1.5**	**17.5**

(a) Control structure 14X cleared of vegetation before sampling

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL14Y

Date	ALK-B	CBOD-B	CHLORO	CL-B	CON-B	DO-B	NH3-B	NH3U-B	NOX-B	OP-B	PH-B	SO4-B	STOC-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	114	< 2.0	1.60	78.6	524	4.09	< 0.02	< 0.01	< 0.01	0.124	6.78	15.6	7.21	17.4	0.71	0.71	0.135	< 1.0	17.4
2/12/2024	130	< 2.0	< 0.80	80.6	566	2.81	< 0.02	< 0.01	< 0.01	0.093	6.92	24.4	8.20	19.3	0.88	0.88	0.092	< 1.0	17.3
3/11/2024	130	< 2.0	3.20	77.2	531	3.92	< 0.02	< 0.01	< 0.01	0.137	6.94	27.0	9.16	19.2	0.74	0.74	0.161	< 1.0	17.4
4/8/2024	127	< 2.0	5.34	87.4	557	1.47	< 0.02	< 0.01	< 0.01	0.007	7.15	12.2	9.96	18.3	0.98	0.98	< 0.030	3.9	17.2
5/6/2024[a]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
6/10/2024[a]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7/8/2024[a]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
8/12/2024	118	< 2.0	3.20	69.0	548	3.70	0.08	< 0.02	< 0.01	0.122	6.49	13.2	8.90	27.6	0.88	0.88	0.150	1.2	18.2
9/9/2024	113	< 2.0	3.20	62.4	530	3.50	0.09	< 0.02	< 0.01	0.134	6.60	7.7	9.20	27.2	0.98	0.98	0.161	1.9	18.0
10/21/2024	90	< 2.0	1.07	55.9	419	1.23	0.02	< 0.02	< 0.01	0.023	6.83	27.3	8.25	21.9	0.53	0.53	0.049	< 1.0	17.7
11/4/2024	104	< 2.0	2.14	63.4	491	1.01	0.09	< 0.02	< 0.01	0.039	6.86	22.3	8.61	22.5	0.70	0.70	0.056	< 1.0	17.4
12/9/2024	123	< 2.0	8.01	76.1	481	4.30	< 0.02	< 0.02	< 0.01	0.095	7.07	37.1	7.11	14.2	0.70	0.70	0.098	1.4	17.7
Average	**117**	**< 2.0**	**3.17**	**72.3**	**516**	**2.89**	**0.04**	**< 0.02**	**< 0.01**	**0.086**	**6.85**	**20.8**	**8.51**	**20.8**	**0.79**	**0.79**	**0.104**	**1.5**	**17.6**

[a]WL14Y did not flow and was not sampled
NS – Not sampled

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL15X

Date	ALK	CBOD-B	CHLORO	CL-B	CON-B	DO-B	NH3-B	NH3U-B	NOX-B	OP-B	PH-B	SO4-B	STOC-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/9/2024	113	< 2.0	1.07	79.5	518	3.45	0.03	< 0.01	< 0.01	0.326	6.70	30.5	6.41	16.50	0.59	0.59	0.308	< 1.0	24.5
2/13/2024	129	< 2.0	< 0.80	77.9	573	4.13	0.03	< 0.01	< 0.01	0.262	6.55	31.5	6.72	19.70	0.74	0.74	0.288	< 1.0	24.4
3/12/2024	138	< 2.0	1.07	76.9	552	4.45	< 0.02	< 0.01	< 0.01	0.484	6.93	12.7	7.64	20.20	0.88	0.88	0.493	< 1.0	24.4
4/9/2024	120	< 2.0	< 0.80	87.9	571	5.71	< 0.02	< 0.01	< 0.01	0.025	6.72	30.3	7.60	20.80	0.79	0.79	0.069	< 1.0	24.8
5/7/2024	133	< 2.0	1.07	99.6	683	1.82	0.05	< 0.01	< 0.01	0.048	6.75	18.3	9.24	25.10	0.76	0.76	0.079	< 1.0	24.8
6/11/2024	114	< 2.0	6.94	76.3	545	0.18	0.09	< 0.02	< 0.01	0.031	6.35	11.6	8.52	27.30	0.84	0.84	0.057	1.4	25.4
7/9/2024	134	< 2.0	1.07	81.8	584	3.05	0.03	< 0.02	< 0.01	0.021	6.32	18.9	8.82	28.30	0.89	0.89	0.043	< 1.0	24.7
8/13/2024	126	< 2.0	< 0.80	72.9	560	3.60	0.08	< 0.02	< 0.01	0.020	6.83	7.0	8.76	27.90	0.85	0.85	0.053	< 1.0	24.9
9/10/2024	106	< 2.0	< 0.80	58.1	495	1.42	0.07	< 0.02	< 0.01	0.276	6.54	19.8	7.49	26.80	0.84	0.84	0.273	< 1.0	25.3
10/22/2024	93	< 2.0	< 0.80	51.7	424	5.20	< 0.02	< 0.02	< 0.01	0.067	6.72	35.9	7.92	22.90	0.67	0.67	0.078	< 1.0	25.1
11/5/2024	101	< 2.0	< 0.80	62.8	481	1.28	0.04	< 0.02	< 0.01	0.123	6.88	28.8	7.48	22.80	0.72	0.72	0.124	< 1.0	25.0
12/10/2024	112	< 2.0	1.60	76.6	495	3.05	0.03	< 0.02	< 0.01	0.074	6.74	37.7	6.28	15.40	0.78	0.78	0.081	< 1.0	24.9
Average	**118**	**< 2.0**	**1.47**	**75.2**	**540**	**3.11**	**0.04**	**< 0.02**	**< 0.01**	**0.146**	**6.67**	**23.6**	**7.74**	**22.81**	**0.78**	**0.78**	**0.162**	**< 1.0**	**24.9**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL18B

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	< 2.0	< 0.80	525	7.66	< 0.02	0.02	0.242	6.88	18.0	0.56	0.58	0.250	1.2	18.0
2/12/2024	< 2.0	< 0.80	564	6.42	< 0.02	0.02	0.217	7.09	19.8	0.72	0.74	0.212	1.0	17.9
3/11/2024	< 2.0	< 0.80	554	6.49	< 0.02	0.03	0.508	7.23	20.5	0.70	0.73	0.501	< 1.0	17.9
4/8/2024	< 2.0	1.07	559	6.71	< 0.02	0.01	0.035	7.39	19.7	0.70	0.71	0.045	1.5	17.8
5/6/2024	< 2.0	1.07	671	4.58	0.04	0.03	0.047	6.87	24.6	0.40	0.43	0.066	1.3	17.8
6/10/2024	< 2.0	1.60	664	3.98	0.04	0.07	0.049	6.85	27.7	1.00	1.07	0.069	2.9	17.6
7/8/2024	< 2.0	< 0.80	578	5.56	0.05	0.07	0.033	7.02	28.3	0.95	1.02	0.055	1.4	17.7
8/12/2024	< 2.0	< 0.80	570	4.50	0.03	0.04	0.026	6.88	28.3	0.67	0.71	0.044	< 1.0	18.2
9/9/2024	< 2.0	< 0.80	528	4.95	< 0.02	0.03	0.240	6.93	27.6	0.76	0.79	0.256	2.3	18.2
10/21/2024	< 2.0	< 0.80	420	3.11	0.05	0.02	0.062	7.01	22.1	0.71	0.73	0.075	< 1.0	18.2
11/4/2024	< 2.0	< 0.80	482	3.56	0.08	0.04	0.110	7.13	22.7	0.54	0.58	0.122	1.1	18.1
12/9/2024	< 2.0	< 0.80	474	8.12	0.03	0.02	0.070	7.37	14.1	0.65	0.67	0.067	< 1.0	17.8
Average	**< 2.0**	**0.91**	**549**	**5.47**	**0.04**	**0.03**	**0.137**	**7.05**	**22.8**	**0.70**	**0.73**	**0.147**	**1.4**	**17.9**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WL18F

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	< 2.0	< 0.80	524	9.08	< 0.02	0.02	0.229	7.10	17.8	0.65	0.67	0.222	3.4	17.8
2/12/2024	< 2.0	< 0.80	563	7.30	< 0.02	0.02	0.228	7.45	19.3	0.87	0.89	0.234	1.4	17.7
3/11/2024	< 2.0	< 0.80	504	7.57	< 0.02	< 0.01	0.473	7.42	16.4	0.69	0.69	0.482	< 1.0	17.7
4/8/2024	< 2.0	5.87	538	6.44	< 0.02	< 0.01	0.091	7.52	16.4	0.63	0.63	0.093	7.8	17.6
5/6/2024	< 2.0	1.07	676	4.83	0.04	0.02	0.114	6.99	24.2	0.86	0.88	0.135	1.4	17.5
6/10/2024[(a)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7/8/2024[(a)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
8/12/2024[(a)]	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
9/9/2024	< 2.0	1.07	523	4.60	< 0.02	0.01	0.180	6.95	26.6	0.84	0.85	0.199	1.5	18.1
10/21/2024	< 2.0	< 0.80	422	3.71	0.05	0.01	0.060	7.22	21.7	0.73	0.74	0.086	2.9	18.1
11/4/2024	< 2.0	< 0.80	474	3.35	0.05	0.09	0.093	7.35	21.8	0.79	0.88	0.100	1.4	17.9
12/9/2024	< 2.0	1.07	466	7.24	< 0.02	0.02	0.063	7.52	13.0	0.82	0.84	0.071	2.7	17.7
Average	**< 2.0**	**1.45**	**521**	**6.01**	**0.03**	**0.02**	**0.170**	**7.28**	**19.7**	**0.76**	**0.79**	**0.180**	**2.6**	**17.8**

(a)WL18F did not flow and was not sampled
NS – Not sampled

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WLLS2

Date	CBOD-B	CHLORO	CON-B	DO-B	NH3-B	NOX-B	OP-B	PH-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	< 2.0	< 0.80	523	9.32	< 0.02	0.01	0.059	7.57	16.3	0.57	0.58	0.084	< 1.0	16.3
2/12/2024	< 2.0	< 0.80	534	10.50	< 0.02	0.02	0.107	8.52	20.0	0.79	0.81	0.121	< 1.0	16.1
3/11/2024	< 2.0	1.07	522	8.52	< 0.02	0.02	0.083	8.97	22.5	0.71	0.73	0.096	< 1.0	16.0
4/8/2024	< 2.0	2.67	549	8.80	< 0.02	0.01	0.045	9.29	22.7	0.81	0.82	0.049	2.0	16.0
5/6/2024	< 2.0	1.60	610	6.92	0.02	0.04	0.010	8.97	27.1	0.26	0.30	< 0.030	1.4	15.9
6/10/2024	< 2.0	1.60	557	1.89	0.05	< 0.01	0.027	7.31	29.8	0.91	0.91	0.032	1.0	15.9
7/8/2024	2.4	4.27	537	2.71	0.03	< 0.01	0.020	7.06	29.9	0.99	0.99	0.043	< 1.0	16.4
8/12/2024	< 2.0	2.67	531	2.23	0.05	< 0.01	0.017	6.63	29.6	0.75	0.75	0.038	< 1.0	17.6
9/9/2024	< 2.0	4.27	589	7.06	< 0.02	< 0.01	0.010	7.13	28.7	0.86	0.86	0.032	1.8	17.7
10/21/2024	< 2.0	4.27	426	3.44	0.04	0.11	0.039	7.49	23.1	0.73	0.84	0.068	1.0	17.1
11/4/2024	< 2.0	4.27	492	3.00	0.08	0.09	0.041	7.60	24.6	0.79	0.88	0.060	1.4	16.9
12/9/2024	< 2.0	17.10	477	7.55	0.03	0.01	0.038	8.19	15.8	0.91	0.92	0.074	3.0	17.0
Average	**< 2.0**	**3.78**	**529**	**6.00**	**0.03**	**0.03**	**0.041**	**7.89**	**24.2**	**0.76**	**0.78**	**0.061**	**1.4**	**16.6**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WLHS9

Date	ALK-B	CBOD-B	CHLORO	CL-B	CON-B	DO-B	NH3-B	NH3U-B	NOX-B	OP-B	PH-B	SO4-B	STOC-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	118	< 2.0	1.60	77.9	521	9.71	< 0.02	< 0.01	0.01	0.061	7.74	19.0	6.46	16.4	0.75	0.76	0.079	< 1.0	16.4
2/12/2024	122	< 2.0	< 0.80	74.8	538	10.80	< 0.02	< 0.01	< 0.01	0.104	8.61	28.4	7.08	20.0	0.79	0.79	0.096	< 1.0	16.1
3/11/2024	110	< 2.0	< 0.80	74.9	522	7.69	< 0.02	< 0.01	0.02	0.085	8.94	27.5	6.78	22.4	0.67	0.69	0.114	< 1.0	16.0
4/8/2024	102	< 2.0	2.67	87.4	551	8.47	< 0.02	< 0.01	0.01	0.046	9.23	26.5	7.11	22.7	0.67	0.68	0.048	2.4	16.0
5/6/2024	84	< 2.0	3.20	96.4	609	7.04	0.05	0.02	0.03	0.009	8.82	31.5	7.91	27.1	0.63	0.66	0.030	1.6	15.9
6/10/2024	87	< 2.0	1.60	94.8	560	1.75	< 0.02	< 0.02	< 0.01	0.006	7.05	23.0	8.23	29.4	0.88	0.88	< 0.030	1.1	15.9
7/8/2024	133	4.6	8.54	84.0	547	2.66	0.06	< 0.02	< 0.01	0.028	7.14	2.3	8.68	30.1	1.02	1.02	0.038	< 1.0	16.4
8/12/2024	133	< 2.0	2.14	75.2	585	2.23	0.12	< 0.02	0.01	0.026	6.69	8.2	8.10	29.6	0.87	0.88	0.045	< 1.0	17.6
9/9/2024	124	< 2.0	2.14	68.9	588	3.69	< 0.02	< 0.02	0.01	0.008	7.14	20.0	7.88	29.0	0.88	0.89	0.032	1.1	17.7
10/21/2024	108	< 2.0	5.34	54.5	425	4.55	0.04	< 0.02	0.12	0.039	7.56	22.2	7.75	23.1	0.84	0.96	0.070	1.2	17.2
11/4/2024	114	< 2.0	4.81	57.9	494	3.52	0.06	< 0.02	0.09	0.041	7.61	18.6	7.82	24.6	0.71	0.80	0.067	1.6	16.9
12/9/2024	122	< 2.0	9.08	69.8	479	6.66	0.03	< 0.02	0.04	0.041	7.94	30.3	8.83	15.9	0.60	0.64	0.055	2.2	17.0
Average	**113**	**2.2**	**3.56**	**76.4**	**535**	**5.73**	**0.04**	**< 0.02**	**0.03**	**0.041**	**7.87**	**21.5**	**7.72**	**24.2**	**0.78**	**0.80**	**0.059**	**1.4**	**16.6**

Orlando Easterly Wetlands
2024 Internal Water Quality
Sample Point: WLHS10

Date	ALK-B	CBOD-B	CHLORO	CL-B	CON-B	DO-B	NH3-B	NH3U-B	NOX-B	OP-B	PH-B	SO4-B	STOC-B	TDS-B	TEMP-B	TKN-B	TN	TP-B	TSS-B	WATERLVL
1/8/2024	116	< 2.0	1.07	77.9	523	6.35	< 0.02	< 0.01	0.03	0.155	6.54	30.0	6.43	306	15.4	0.81	0.84	0.182	< 1.0	15.4
2/12/2024	126	< 2.0	< 0.80	75.2	553	5.40	< 0.02	< 0.01	0.03	0.165	6.62	28.7	6.76	310	19.3	0.80	0.83	0.176	< 1.0	15.0
3/11/2024	116	< 2.0	< 0.80	77.3	517	5.45	< 0.02	< 0.01	0.02	0.178	6.81	27.4	7.30	296	20.2	0.75	0.77	0.189	< 1.0	15.2
4/8/2024	115	< 2.0	1.07	90.6	549	5.93	< 0.02	< 0.01	< 0.01	0.035	6.80	31.1	7.38	310	19.1	0.76	0.76	0.039	< 1.0	15.6
5/6/2024	113	< 2.0	2.14	98.4	655	4.89	0.03	< 0.01	< 0.01	0.025	6.89	17.5	8.56	316	24.0	0.80	0.80	0.047	< 1.0	15.3
6/10/2024	144	< 2.0	2.14	102.0	656	4.70	0.02	< 0.02	< 0.01	0.054	6.48	11.7	10.30	326	27.9	1.13	1.13	0.072	1.3	15.8
7/8/2024	132	< 2.0	1.60	81.2	567	4.73	0.03	< 0.02	< 0.01	0.051	6.23	14.3	8.92	292	28.0	1.01	1.01	0.069	< 1.0	15.8
8/12/2024	129	< 2.0	< 0.80	73.3	533	5.35	< 0.02	< 0.02	< 0.01	0.026	6.40	14.0	7.81	258	28.1	0.77	0.77	0.039	< 1.0	16.4
9/9/2024	122	< 2.0	3.20	64.1	551	3.46	0.04	< 0.02	< 0.01	0.090	6.67	13.4	8.05	270	27.2	0.86	0.86	0.114	1.2	16.3
10/21/2024	102	< 2.0	< 0.80	55.8	436	4.38	0.04	< 0.02	0.02	0.085	7.02	20.6	7.60	242	22.6	0.74	0.76	0.104	1.0	15.6
11/4/2024	115	< 2.0	4.27	61.2	497	3.55	0.07	< 0.02	0.01	0.120	7.13	15.6	7.76	270	23.3	0.82	0.83	0.130	1.0	15.2
12/9/2024	127	< 2.0	4.81	70.3	479	5.75	0.03	< 0.02	0.10	0.063	7.70	32.3	7.91	274	15.1	0.63	0.73	0.079	< 1.0	14.8
Average	**121**	**< 2.0**	**1.96**	**77.3**	**543**	**5.00**	**0.03**	**0.02**	**0.02**	**0.087**	**6.77**	**21.4**	**7.90**	**289**	**22.5**	**0.82**	**0.84**	**0.103**	**< 1.0**	**15.5**

Appendix D

2024 Orlando Easterly Wetlands Semiannual Metals, Organochlorine Pesticides, PCBs and Volatile Organic Compounds

ORLANDO EASTERLY WETLANDS
2024 Semi-Annual Metals Testing

Method	Metal	Units	WP1 (Influent)		WL11X		WL15X		HS9		HS10 (D002 Outfall)	
			5/21/2024	11/19/2024	5/21/2024	11/19/2024	5/21/2024	11/19/2024	5/21/2024	11/19/2024	5/21/2024	11/19/2024
ICP	Aluminum - Al	(ug/L)	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 100.0	< 50.0	< 50.0
	Arsenic - As	(ug/L)	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 20.0	< 10.0	< 10.0
	Boron - B	(ug/L)	**198.0**	**108.0**	**190.0**	**98.8**	**200.0**	**88.9**	**181.0**	**104.0**	**196.0**	**101.0**
	Barium - Ba	(ug/L)	**6.8**	**8.6**	**11.1**	**10.0**	**9.0**	**9.9**	**6.6**	**12.2**	**9.9**	**9.6**
	Calcium ICP- Ca	(ug/L)	**41.1**	**39.0**	**39.8**	**42.8**	**38.8**	**39.0**	**24.3**	**41.4**	**36.8**	**43.4**
	Chromium - Cr	(ug/L)	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0
	Iron - Fe	(ug/L)	**56.2**	**47.5**	< 15.0	< 15.0	< 15.0	< 15.0	< 15.0	< 30.0	< 15.0	< 15.0
	Hardness	(mg/L as CaCO3)	**138**	**128**	**133**	**139**	**130**	**127**	**93**	**130**	**127**	**138**
	Magnesium ICP	(ug/L)	**8.47**	**7.45**	**8.26**	**7.74**	**8.16**	**7.16**	**7.84**	**6.51**	**8.62**	**7.16**
	Manganese - Mn	(ug/L)	**2.3**	< 1.5	**6.9**	< 1.5	**5.3**	< 1.5	< 1.5	< 3.0[(a)]	**2.5**	< 1.5
	Nickel - Ni	(ug/L)	**9.9**	**8.2**	**12.8**	**8.9**	**12.6**	**8.6**	< 2.0	**6.6**	**7.9**	**6.9**
	Selenium - Se	(ug/L)	< 5.0	**5.6**	< 5.0	**5.9**	**5.4**	**5.5**	< 5.0	< 10.0	< 5.0	**5.1**
	Zinc - Zn	(mg/L)	**11.4**	**15.9**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10.0	< 5.0	< 5.0
AA Graphite Furnace	Silver - Ag	(ug/L)	< 0.037	< 0.05	< 0.037	< 0.05	< 0.037	< 0.05	< 0.037	< 0.05	< 0.037	< 0.05
	Beryllium - Be	(ug/L)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Cadmium - Cd	(ug/L)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Copper - Cu	(ug/L)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	Lead - Pb	(ug/L)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	Antimony - Sb	(ug/L)	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
	Thallium - Tl	(ug/L)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cold Vapor	Mercury - Hg	(ug/L)	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

[(a)] The MDL for Manganese was reported as 3.0 µg/L at HS9, on 11/19/2024.

ORLANDO EASTERLY WETLANDS
EPA Method# 608.3: Organochlorine Pesticides and PCBs
2024 Semi-Annual Monitoring Data
Location: WP1

Analyte (µg/L)	3/18/2024		9/30/2024	
	Result	MDL	Result	MDL
Aldrin	< 0.017	0.017	< 0.0019	0.0019
alpha-BHC	< 0.017	0.017	< 0.00095	0.00095
beta-BHC	< 0.018	0.018	< 0.0019	0.0019
Chlordane (technical)	< 0.20	0.20	< 0.15	0.15
4,4'-DDD	< 0.019	0.019	< 0.0019	0.0019
4,4'-DDE	< 0.017	0.017	< 0.00095	0.00095
4,4'-DDT	< 0.019	0.019	< 0.00095	0.00095
delta-BHC	< 0.0091	0.0091	< 0.0019	0.0019
Dieldrin	< 0.018	0.018	< 0.0019	0.0019
Endosulfan I	< 0.019	0.019	< 0.0019	0.0019
Endosulfan II	< 0.018	0.018	< 0.0019	0.0019
Endosulfan sulfate	< 0.016	0.016	< 0.0019	0.0019
Endrin	< 0.017	0.017	< 0.00095	0.00095
Endrin aldehyde	< 0.017	0.017	< 0.0038	0.0038
gamma-BHC (Lindane)	< 0.018	0.018	< 0.00095	0.00095
Heptachlor	< 0.029	0.029	< 0.00095	0.00095
Heptachlor epoxide	< 0.019	0.019	< 0.0019	0.0019
Methoxychlor	< 0.019	0.019	< 0.0019	0.0019
Toxaphene	< 0.35	0.35	< 0.29	0.29
PCB-1016	< 0.054	0.054	< 0.095 J3	0.095
PCB-1221	< 0.054	0.054	< 0.095	0.095
PCB-1232	< 0.054	0.054	< 0.095	0.095
PCB-1242	< 0.054	0.054	< 0.095	0.095
PCB-1248	< 0.054	0.054	< 0.095	0.095
PCB-1254	< 0.068	0.068	< 0.095	0.095
PCB-1260	< 0.068	0.068	< 0.095	0.095

MDL - Minimum Detection Limit

ORLANDO EASTERLY WETLANDS
EPA Method# 608.3: Organochlorine Pesticides and PCBs
2024 Semi-Annual Monitoring Data
Location: WL11X

Analyte (µg/L)	3/18/2024		9/30/2024	
	Result	MDL	Result	MDL
Aldrin	< 0.017	0.017	< 0.0019	0.0019
alpha-BHC	< 0.017	0.017	< 0.00093	0.00093
beta-BHC	< 0.018	0.018	< 0.0019	0.0019
Chlordane (technical)	< 0.21	0.21	< 0.15	0.15
4,4'-DDD	< 0.019	0.019	< 0.0019	0.0019
4,4'-DDE	< 0.017	0.017	< 0.00093	0.00093
4,4'-DDT	< 0.019	0.019	< 0.00093	0.00093
delta-BHC	< 0.0092	0.0092	< 0.0019	0.0019
Dieldrin	< 0.018	0.018	< 0.0019	0.0019
Endosulfan I	< 0.020	0.020	< 0.0019	0.0019
Endosulfan II	< 0.019	0.019	< 0.0019	0.0019
Endosulfan sulfate	< 0.016	0.016	< 0.0019	0.0019
Endrin	< 0.018	0.018	< 0.00093	0.00093
Endrin aldehyde	< 0.018	0.018	< 0.0037	0.0037
gamma-BHC (Lindane)	< 0.018	0.018	< 0.00093	0.00093
Heptachlor	< 0.029	0.029	< 0.00093	0.00093
Heptachlor epoxide	< 0.019	0.019	< 0.0019	0.0019
Methoxychlor	< 0.020	0.020	< 0.0019	0.0019
Toxaphene	< 0.36	0.36	< 0.29	0.29
PCB-1016	< 0.055	0.055	< 0.093 J3	0.093
PCB-1221	< 0.055	0.055	< 0.093	0.093
PCB-1232	< 0.055	0.055	< 0.093	0.093
PCB-1242	< 0.055	0.055	< 0.093	0.093
PCB-1248	< 0.055	0.055	< 0.093	0.093
PCB-1254	< 0.069	0.069	< 0.093	0.093
PCB-1260	< 0.069	0.069	< 0.093	0.093

MDL - Minimum Detection Limit

ORLANDO EASTERLY WETLANDS
EPA Method# 608.3: Organochlorine Pesticides and PCBs
2024 Semi-Annual Monitoring Data
Location: WL15X

Analyte (µg/L)	3/18/2024		9/30/2024	
	Result	MDL	Result	MDL
Aldrin	< 0.017	0.017	< 0.0019	0.0019
alpha-BHC	< 0.017	0.017	**0.0011**	0.00094
beta-BHC	< 0.018	0.018	< 0.0019	0.0019
Chlordane (technical)	< 0.20	0.20	< 0.15	0.15
4,4'-DDD	< 0.019	0.019	< 0.0019	0.0019
4,4'-DDE	< 0.017	0.017	< 0.00094	0.00094
4,4'-DDT	< 0.019	0.019	< 0.00094	0.00094
delta-BHC	< 0.0091	0.0091	< 0.0019	0.0019
Dieldrin	< 0.018	0.018	< 0.0019	0.0019
Endosulfan I	< 0.019	0.019	< 0.0019	0.0019
Endosulfan II	< 0.018	0.018	< 0.0019	0.0019
Endosulfan sulfate	< 0.016	0.016	< 0.0019	0.0019
Endrin	< 0.017	0.017	< 0.00094	0.00094
Endrin aldehyde	< 0.017	0.017	< 0.0037	0.0037
gamma-BHC (Lindane)	< 0.018	0.018	< 0.00094	0.00094
Heptachlor	< 0.029	0.029	< 0.00094	0.00094
Heptachlor epoxide	< 0.019	0.019	< 0.0019	0.0019
Methoxychlor	< 0.019	0.019	< 0.0019	0.0019
Toxaphene	< 0.35	0.35	< 0.29	0.29
PCB-1016	< 0.054	0.054	< 0.094 J3	0.094
PCB-1221	< 0.054	0.054	< 0.094	0.094
PCB-1232	< 0.054	0.054	< 0.094	0.094
PCB-1242	< 0.054	0.054	< 0.094	0.094
PCB-1248	< 0.054	0.054	< 0.094	0.094
PCB-1254	< 0.068	0.068	< 0.094	0.094
PCB-1260	< 0.068	0.068	< 0.094	0.094

MDL - Minimum Detection Limit

ORLANDO EASTERLY WETLANDS
EPA Method# 608.3: Organochlorine Pesticides and PCBs
2024 Semi-Annual Monitoring Data
Location: HS9

Analyte (µg/L)	3/18/2024		9/30/2024	
	Result	MDL	Result	MDL
Aldrin	< 0.017	0.017	< 0.0018	0.0018
alpha-BHC	< 0.017	0.017	< 0.00092	0.00092
beta-BHC	< 0.018	0.018	< 0.0018	0.0018
Chlordane (technical)	< 0.21	0.21	< 0.15	0.15
4,4'-DDD	< 0.019	0.019	< 0.0018	0.0018
4,4'-DDE	< 0.017	0.017	< 0.00092	0.00092
4,4'-DDT	< 0.019	0.019	< 0.00092	0.00092
delta-BHC	< 0.0092	0.0092	< 0.0018	0.0018
Dieldrin	< 0.018	0.018	< 0.0018	0.0018
Endosulfan I	< 0.019	0.019	< 0.0018	0.0018
Endosulfan II	< 0.019	0.019	< 0.0018	0.0018
Endosulfan sulfate	< 0.016	0.016	< 0.0018	0.0018
Endrin	< 0.017	0.017	< 0.00092	0.00092
Endrin aldehyde	< 0.018	0.018	< 0.0037	0.0037
gamma-BHC (Lindane)	< 0.018	0.018	< 0.00092	0.00092
Heptachlor	< 0.029	0.029	< 0.00092	0.00092
Heptachlor epoxide	< 0.019	0.019	< 0.0018	0.0018
Methoxychlor	< 0.020	0.020	< 0.0018	0.0018
Toxaphene	< 0.35	0.35	< 0.29	0.29
PCB-1016	< 0.055	0.055	< 0.092 J3	0.092
PCB-1221	< 0.055	0.055	< 0.092	0.092
PCB-1232	< 0.055	0.055	< 0.092	0.092
PCB-1242	< 0.055	0.055	< 0.092	0.092
PCB-1248	< 0.055	0.055	< 0.092	0.092
PCB-1254	< 0.069	0.069	< 0.092	0.092
PCB-1260	< 0.069	0.069	< 0.092	0.092

MDL - Minimum Detection Limit

ORLANDO EASTERLY WETLANDS
EPA Method# 608.3: Organochlorine Pesticides and PCBs
2024 Semi-Annual Monitoring Data
Location: HS10

Analyte (µg/L)	3/18/2024		9/30/2024	
	Result	MDL	Result	MDL
Aldrin	< 0.017	0.017	< 0.0019	0.0019
alpha-BHC	< 0.017	0.017	< 0.00093	0.00093
beta-BHC	< 0.018	0.018	< 0.0019	0.0019
Chlordane (technical)	< 0.21	0.21	< 0.15	0.15
4,4'-DDD	< 0.019	0.019	< 0.0019	0.0019
4,4'-DDE	< 0.017	0.017	< 0.00093	0.00093
4,4'-DDT	< 0.019	0.019	< 0.00093	0.00093
delta-BHC	< 0.0093	0.0093	< 0.0019	0.0019
Dieldrin	< 0.018	0.018	< 0.0019	0.0019
Endosulfan I	< 0.020	0.020	< 0.0019	0.0019
Endosulfan II	< 0.019	0.019	< 0.0019	0.0019
Endosulfan sulfate	< 0.016	0.016	< 0.0019	0.0019
Endrin	< 0.018	0.018	< 0.00093	0.00093
Endrin aldehyde	< 0.018	0.018	< 0.0037	0.0037
gamma-BHC (Lindane)	< 0.018	0.018	< 0.00093	0.00093
Heptachlor	< 0.029	0.029	< 0.00093	0.00093
Heptachlor epoxide	< 0.019	0.019	< 0.0019	0.0019
Methoxychlor	< 0.020	0.020	< 0.0019	0.0019
Toxaphene	< 0.36	0.36	< 0.29	0.29
PCB-1016	< 0.055	0.055	< 0.093 J3	0.093
PCB-1221	< 0.055	0.055	< 0.093	0.093
PCB-1232	< 0.055	0.055	< 0.093	0.093
PCB-1242	< 0.055	0.055	< 0.093	0.093
PCB-1248	< 0.055	0.055	< 0.093	0.093
PCB-1254	< 0.069	0.069	< 0.093	0.093
PCB-1260	< 0.069	0.069	< 0.093	0.093

MDL - Minimum Detection Limit

ORLANDO EASTERLY WETLANDS
EPA Method# 624.1 Volatile Organic Compounds
2024

Analyte	MDL (µg/L)	WP1		WL11X		WL15X		HS9		HS10	
		3/18/2024	9/30/2024	3/18/2024	9/30/2024	3/18/2024	9/30/2024	3/18/2024	9/30/2024	3/18/2024	9/30/2024
1,1,1-Trichloroethane	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-Trichloroethane	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloroethyl vinyl ether	1.0[a]	< 1.0	< 2.0[a]	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acrolein	10	< 10	< 20	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acrylonitrile	5.0	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane	1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane	0.50	**7.3**	**11.0**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane	1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	0.50	**190**	**160**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane	1.0	< 1.0	< 2.0[B]	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	0.20	< 0.20	< 0.40	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
cis-1,3-Dichloropropene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichlorobromomethane	0.50	**43**	**57**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichlorodifluoromethane	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methylene Chloride	5.0	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
m-Xylene & p-Xylene	1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Styrene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Toluene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichlorofluoromethane	1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl chloride	0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Xylenes, Total	1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

MDL - Minimum Detection Limit

[a] The MDL for analyte "2-Chloroethyl vinyl ether" was reported as 2.0 µg/L at WP1, on 9/30/2024.

[a] The MDL for analyte " Chloromethane " was reported as 2.0 µg/L at WP1, on 9/30/2024.