



WASTEWATER TREATMENT PLANT (WWTP) PLAN

Clay County | February 2024

CLAY COUNTY
WASTEWATER TREATMENT PLANT (WWTP) PLAN

Prepared for:

Clay County

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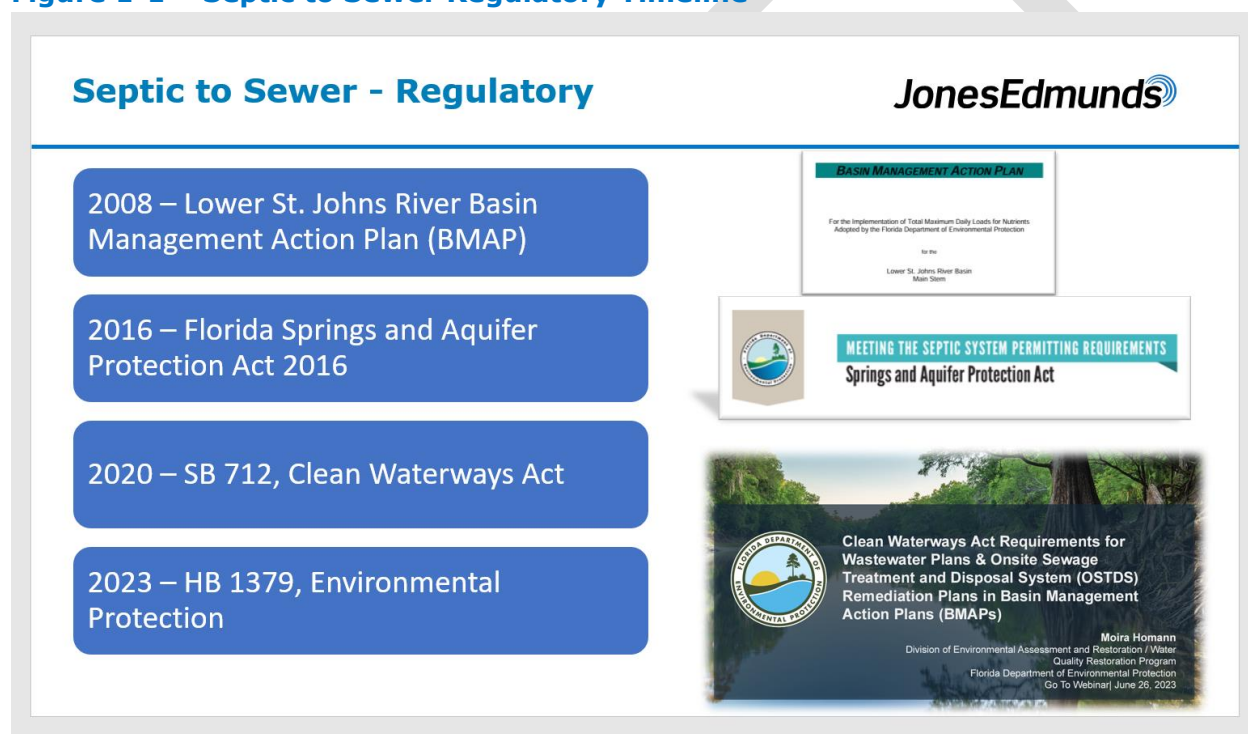
1 INTRODUCTION

Under the 2020 Clean Waterways Act – Senate Bill 712, counties and municipalities within a basin management action plan (BMAP) must develop a wastewater treatment plant plan if the Florida Department of Environmental Protection (FDEP) identifies domestic wastewater treatment facilities as contributors of at least 20 percent of point source or nonpoint source nutrient pollution or if FDEP determines that remediation is necessary to achieve the total maximum daily load (TMDL). The plans must contain specific information related to domestic wastewater treatment facilities that is defined in the Clean Water Ways Act and described in Section 1.2 of this document.

1.1 SB 712 TIMELINE SUMMARY

The overall regulatory timeline for septic to sewer legislation is presented in Figure 1-1.

Figure 1-1 Septic to Sewer Regulatory Timeline



The Lower St. Johns River BMAP was adopted in December of 2008, and water quality has been improving since. The BMAP is a framework for water quality restoration that contains local and state commitments to reduce pollutant loading through current and future projects and strategies. The first action toward getting this planned developed started in 1999, when a stakeholder's group was formed to discuss technical issues related to the TMDL model development. The scientists at FDEP and the St. Johns River Water Management District (SJRWMD) developing the model and the TMDL reviewed technical details with this group. FDEP and SJRWMD also consulted stakeholders during the preparation of a plan of study for the TMDL (*Development of Total Maximum Daily Loads and Pollution Load Reduction Goals for the Lower St. Johns River Basin: Plan of Study*), which was first drafted in 2000 and published in September 2001. In July 2002, FDEP convened the Lower St. Johns River (LSJR) TMDL Executive Committee to provide input to the development of a TMDL for the

basin and to assist in developing a BMAP to achieve the TMDL. Since the adoption of the plan in 2008, a 90-percent reduction in total phosphorus loadings and an 84-percent reduction in total nitrogen loadings has been achieved in the river's freshwater section.

The Florida Springs and Aquifer Protection Act was first filed in October 2015, and was approved by the governor in January 2016. Months later, the Act was put into effect on the first day of July 2016, where the Florida Legislature identified 30 "Outstanding Florida Springs" that require additional protections to ensure their conservation and restoration for future generations. These protections will be outlined in restoration plans, known as BMAPs. These plans are focused on reducing nitrogen pollution that is impacting the water quality of these springs. The legislation requires each BMAP to identify the sources of nitrogen pollution within the springshed and include projects and strategies that will achieve the reductions needed to improve water quality in the region.

The Clean Waterways Act was first filed in October 2019 and was approved by the governor in late June 2020. The Act was then put into effect exactly 4 years after the Florida Springs and Aquifer Protection Act, on July 1, 2020. This Act addresses a number of environmental issues including several provisions related to water quality improvement. The bill transferred the OSTDS Program from the Florida Department of Health (FDOH) to FDEP starting in 2021. The bill requires local governments to create septic remediation plans for certain BMAPs. The bill also requires FDEP to implement a fast track-approval process for National Sanitation Foundation/American National Standards Institute (NSF/ANSI) 245 nutrient-reducing septic systems and revises provisions related to septic system setback rules.

House Bill 1379, filed in March 2023, was approved in May 2023 and made effective July 1, 2023. This Bill revises, creates, and repeals various provisions relating to procedures and requirements for acquisition, retention, and disposal of state lands and prioritization of projects relating to such lands. The Bill provides the following language relating to wastewater treatment:

- A wastewater treatment plan developed by each local government, in cooperation with FDEP, the water management district, and the public and private domestic wastewater treatment facilities within the jurisdiction of the local government, that addresses domestic wastewater.
- The wastewater treatment plan must include all components listed in Section 1.2.

1.2 REQUIRED PLAN COMPONENTS

FDEP has requested the following information for existing or proposed domestic wastewater facilities in the Clay County Utility Authority (CCUA) jurisdiction or service area:

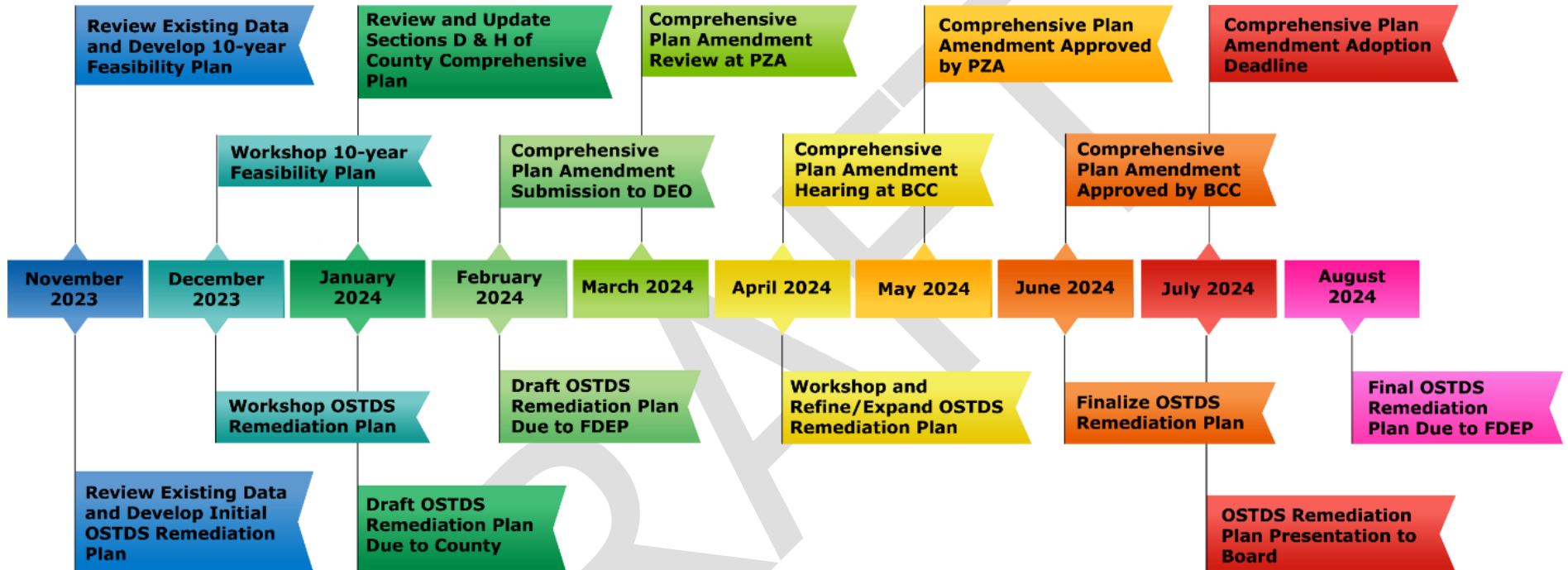
1. The facility's permitted capacity in average annual gallons per day.
2. The facility's permitted Total Nitrogen (TN) and Total Phosphorus (TP) effluent limits for the facility.
3. The annual TN and TP loads (showing both flow and concentration) discharged from the facility over the past five years, estimated if necessary.
4. A capacity analysis for the facility, considering future growth over the next 20 years.

5. A list and ranking of facility construction, expansion, or upgrades necessary to meet applicable nutrient water quality requirements (for example, to meet nutrient effluent limits in BMAPs and TMDLs; requirements of Section 403.064(17), Florida Statutes; or other statutory or regulatory requirements), and the estimated costs of these facility improvements.
6. A projected timeline of the dates by which the construction of any facility improvements, including new/extended sewer lines, will begin and be completed and the date by which operations of the improved facility will begin.

1.3 EXPECTED SCHEDULE

An initial draft of the Wastewater Treatment Plant Plan is due to FDEP by February 1, 2024. Completed plans will be due to FDEP by August 1, 2024. Figure 1-1 on the next page summarizes the County's projected timeline for Wastewater Treatment Plant Plan development, review, approval, and submission to FDEP. Additionally, the timeline reflects deadlines associated with Comprehensive Plan Amendments required by House Bill 1379 that are not directly tied to the Wastewater Treatment Plant Plan but will also impact potential wastewater treatment facility projects and the future of wastewater regulation in the County.

Figure 1-2 Wastewater Treatment Plant Plan Development Timeline



2 WWTP INVENTORY

Clay County works with the Clay County Utility Authority (CCUA) on matters of utility planning. CCUA's service area is defined in the Specials Acts of the Florida Legislature 94-491 as the unincorporated areas of Clay County. The areas shown in orange on the following maps are where CCUA currently serves sewer customers.

The Lower St. Johns River Basin BMAP spans nine different counties, which includes the majority of unincorporated Clay County. Figure 2-1 presents the overall BMAP Area. Figure 2-2 presents the Clay County geographic area and service areas within the BMAP.

The FDEP Wastewater Facility Regulation (WAFR) layer from FDEP was used to identify all domestic wastewater facilities within the BMAP in the County, and within CCUA's service area. Figure 2-3 displays all domestic wastewater treatment facilities in the BMAP within Clay County.

Figure 2-1 BMAP Area Map

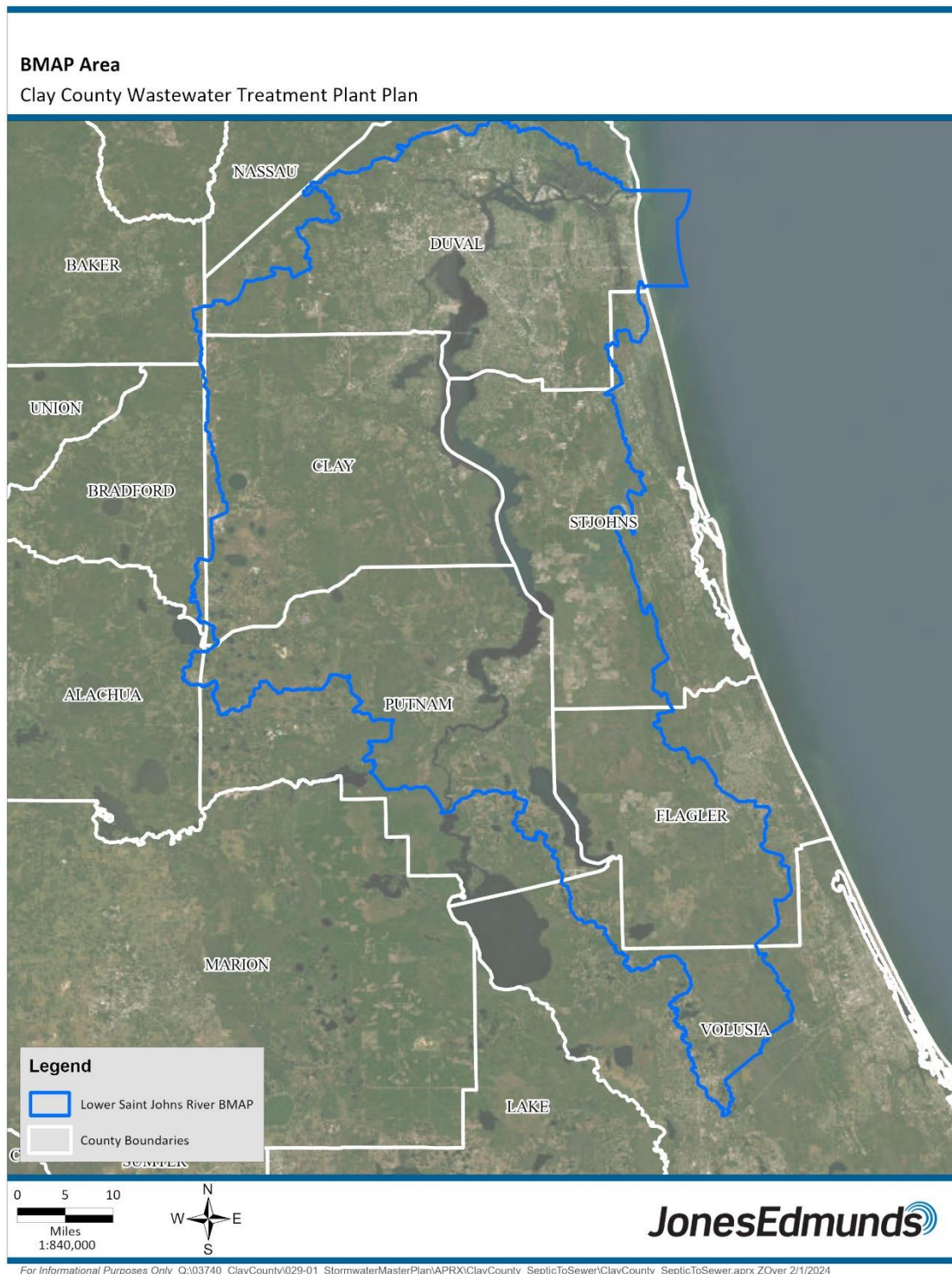


Figure 2-2 Clay County Geographic Area Map

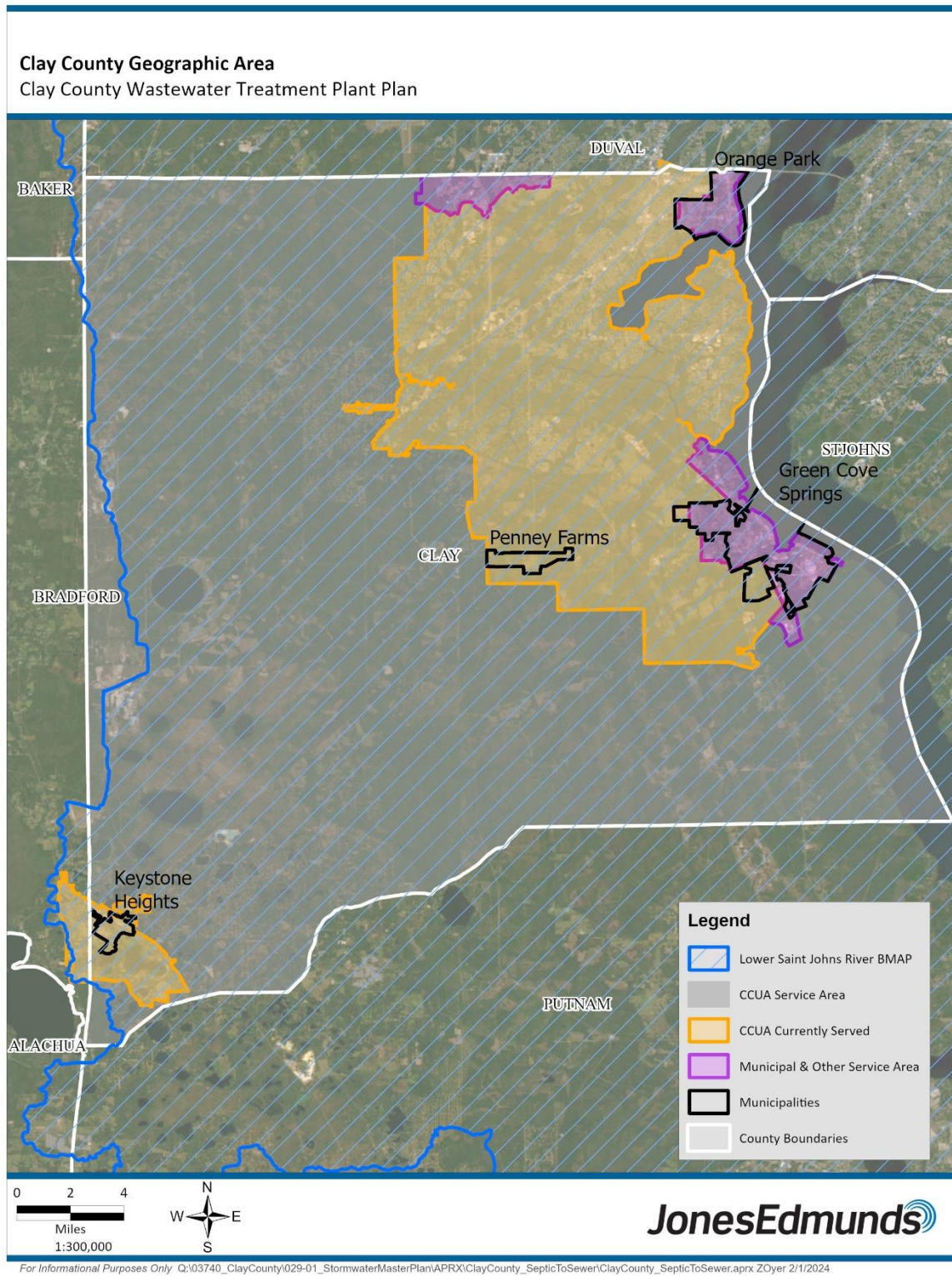
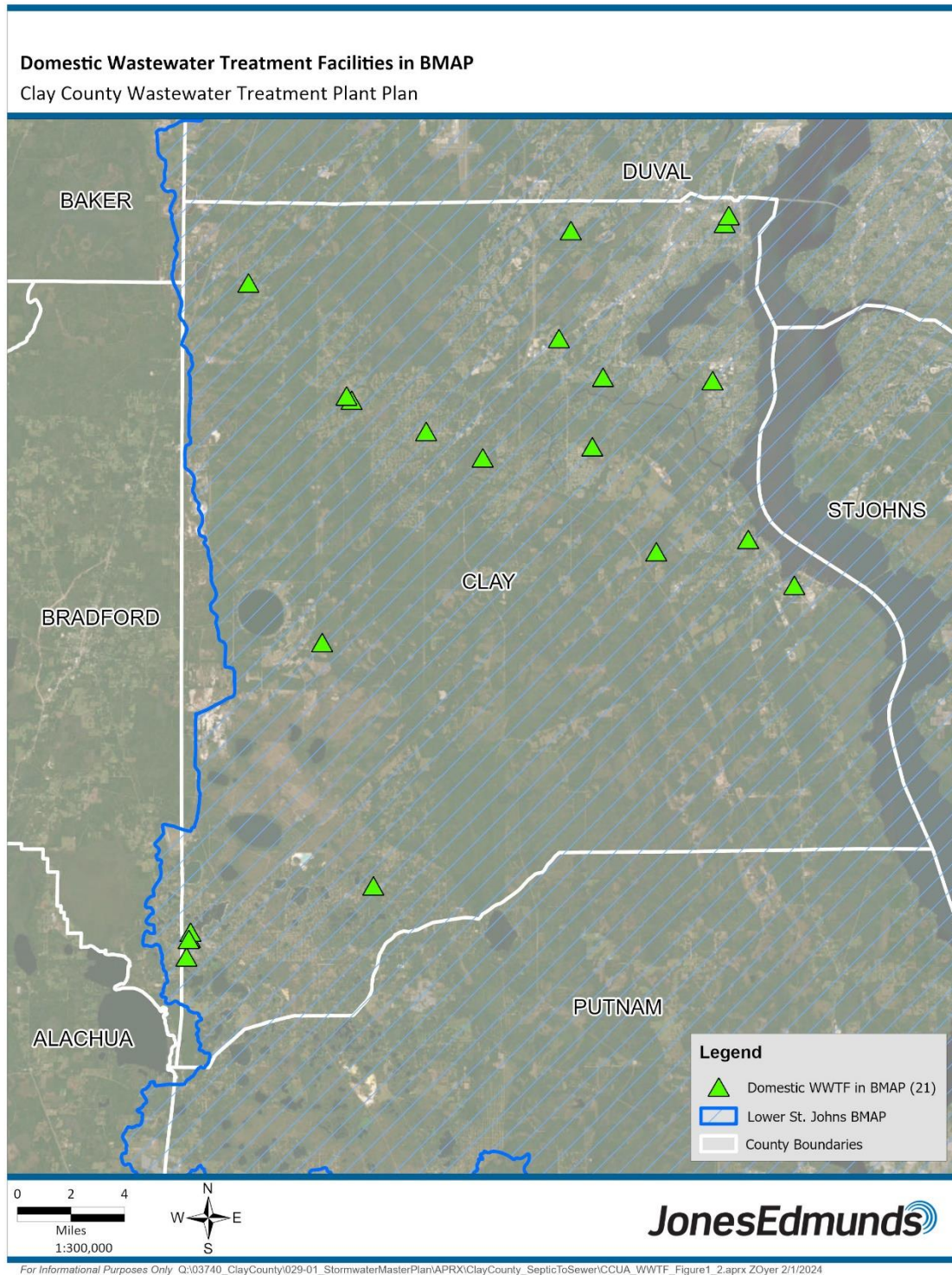


Figure 2-3 Domestic WWTFs in the BMAP within Clay County



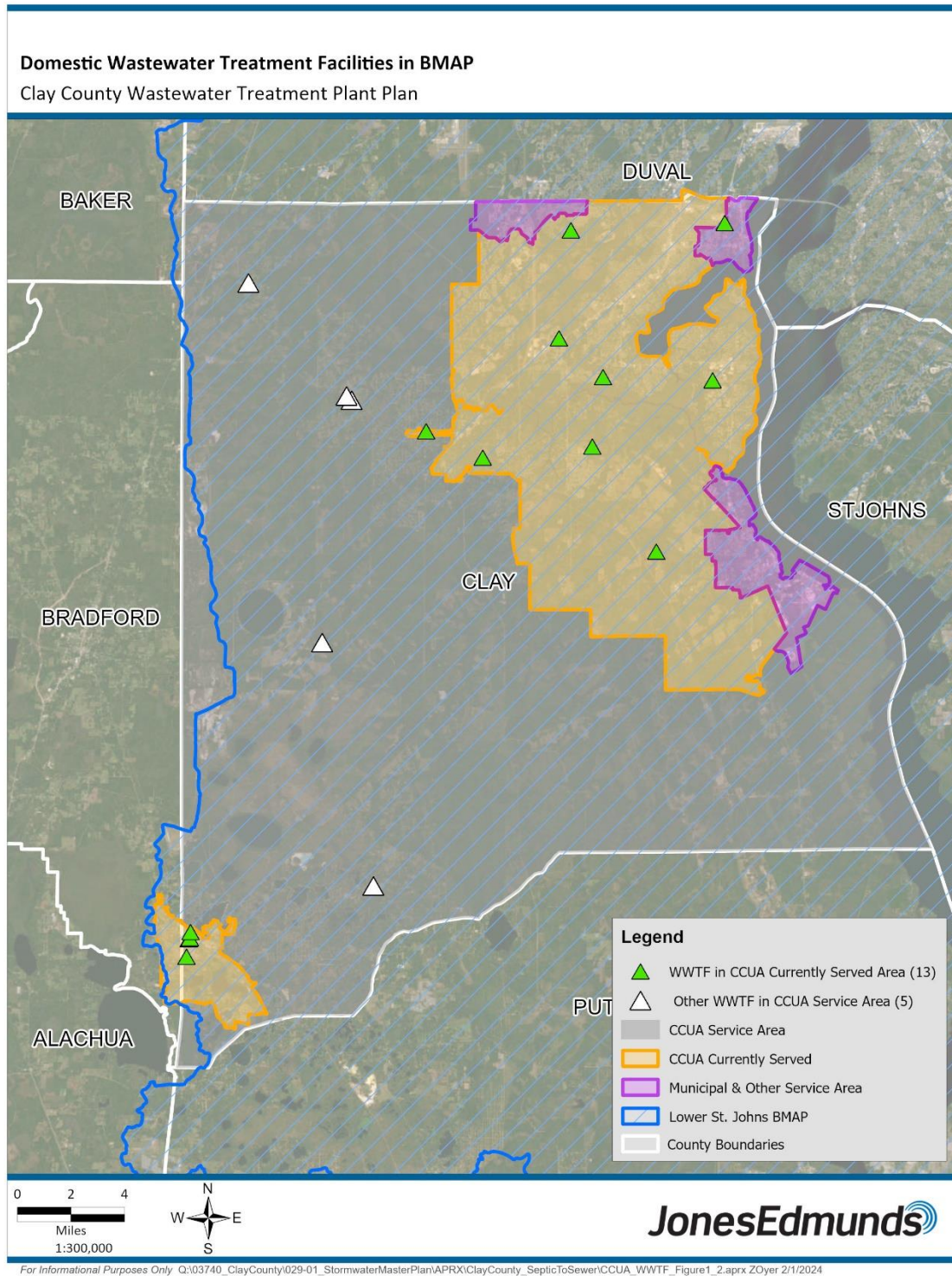
2.1 SUMMARY OF DOMESTIC WWTPs AND DISCHARGE FACILITIES

Countywide, there are 21 domestic wastewater treatment plants within the BMAP, and 13 of those wastewater treatment facilities are within the area currently served by CCUA. In this draft report, only facilities within the area currently served by CCUA are included; all facilities within the CCUA service area/Clay County jurisdiction will be included in the final report. Figure 2-4 shows the locations of the facilities in the currently served area.

2.2 FACILITY DATA SUMMARY

Table 2-2 summarizes the permitted capacity, permitted TN and TP limits, annual average flow, annual average TN and TP concentration, and annual TN and TP loads (either provided by FDEP or calculated). Red font indicates a calculated value. Blue font indicates single sample values (when average annual values were not available).

Figure 2-4 Domestic WWTFs in CCUA's Currently Served Area



In this draft report, only facilities within the area currently served by CCUA are included; all facilities within the CCUA service area/Clay County jurisdiction will be included in the final report.

Table 2-1 Wastewater Treatment Facility Data Summary

Permit Limit							Annual Average					Notes
			Concentration (mg/L)		Total Load (lb/yr)		Concentration (mg/L)		Total Load (lb/yr)			
Facility	Year	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus	
Keystone Heights High School WWTF	2019	0.04	12 ^{AC}	NA	NA	NA	0.007	3.4	NA	NA	NA	1. Nutrient data based on 1 single sample per month
	2020	0.04	12 ^{AC}	NA	NA	NA	0.007	8.6	NA	NA	NA	
	2021	0.04	12 ^{AC}	NA	NA	NA	0.007	8.5	NA	NA	NA	
	2022	0.04	12 ^{AC}	NA	NA	NA	0.01	2.5	NA	NA	NA	
	2023	0.04	12 ^{AC}	NA	NA	NA	0.009	1.1	NA	NA	NA	
Keystone Heights WWTF	2019	0.2	Report ^{AC}	NA	NA	NA	0.015	0.58	NA	NA	NA	1. Flow limit was 0.074 MGD prior to ongoing expansion 2. Nutrient data based on 1 single sample per month
	2020	0.2	Report ^{AC}	NA	NA	NA	0.013	0.35	NA	NA	NA	
	2021	0.2	Report ^{AC}	NA	NA	NA	0.019	0.75	NA	NA	NA	
	2022	0.2	Report ^{AC}	NA	NA	NA	0.025	1.57	NA	NA	NA	
	2023	0.2	Report ^{AC}	NA	NA	NA	0.031	9.87	NA	NA	NA	
Keystone Village Square Shopping Center WWTF	2019	0.03	12 ^B	NA	NA	NA	0.013	NA	NA	NA	NA	1. RIBS inside of BMAP, facility located outside of BMAP
	2020	0.03	12 ^B	NA	NA	NA	0.011	NA	NA	NA	NA	
	2021	0.03	12 ^B	NA	NA	NA	0.014	NA	NA	NA	NA	
	2022	0.03	12 ^B	NA	NA	NA	0.008	NA	NA	NA	NA	
	2023	0.03	12 ^B	NA	NA	NA	0.007	NA	NA	NA	NA	
Park of the Palms WWTF	2019	0.033	12 ^A	NA	NA	NA	0.0045	NA	NA	NA	NA	
	2020	0.033	12 ^A	NA	NA	NA	0.0121	NA	NA	NA	NA	
	2021	0.033	12 ^A	NA	NA	NA	0.0137	NA	NA	NA	NA	
	2022	0.033	12 ^A	NA	NA	NA	0.0069	NA	NA	NA	NA	
	2023	0.033	12 ^A	NA	NA	NA	0.0071	NA	NA	NA	NA	
Peter's Creek WWTF	2019	0.3	Report	Report	NA	NA	0.065	4.45	3.7	880.5	732.1	1. Very high nitrogen values in late '23 2. Flow limit was 0.2 MGD prior to ongoing expansion 3. '23 values based on June 4. Nitrite plus Nitrate permit limit = 12 mg/L (monthly sample)
	2020	0.3	Report	Report	NA	NA	0.092	11.65	2.93	3,263	820.6	
	2021	0.3	Report	Report	NA	NA	0.116	9.42	3.3	3,326	1,165	
	2022	0.3	Report	Report	NA	NA	0.103	9.31	4.76	2,919	1,493	
	2023	0.3	Report	Report	NA	NA	0.105	18	5.1	5,753	1,630	
Briarwood of Middleburg WWTF	2019	0.0099	Report	Report	NA	NA	0.0079	NA	NA	NA	NA	1. Nutrient data based on monthly maximums (DEC-22, JUN-23)
	2020	0.0099	Report	Report	NA	NA	0.0121	NA	NA	NA	NA	

Permit Limit							Annual Average					Notes
			Concentration (mg/L)		Total Load (lb/yr)		Concentration (mg/L)		Total Load (lb/yr)			
Facility	Year	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus	
	2021	0.0099	Report	Report	NA	NA	0.0128	NA	NA	NA	NA	
	2022	0.0099	Report	Report	NA	NA	0.008	1.23	0.5	30.0	12.2	
	2023	0.0099	Report	Report	NA	NA	0.007	3.46	4.7	73.7	100.2	
Mid-Clay Regional WRF R-001	2019	2.08	Report	Report	NA	NA	0.001	NA	NA	NA	NA	1. Flow based on flow applied on RIBs system 2. Annual average flow based on CAL-2 (calculated RIB loading rate) 3. Annual average nutrient data based on monthly averages
	2020	2.08	Report	Report	NA	NA	0.001	NA	NA	NA	NA	
	2021	2.08	Report	Report	NA	NA	0.416	3.28	0.25	4,154	316.6	
	2022	2.08	Report	Report	NA	NA	0.259	2.98	0.5	2,350	394.2	
	2023	2.08	Report	Report	NA	NA	0.272	2.4	1.4	1,987	1,159	
Mid-Clay Regional WRF R-002	2019	3	5 ^C	Report	NA	NA	0.831	2.32	0.53	5,869	1,341	1. Data based on flow through WRF (FLW-2) 2. nutrient concentrations based on 3 single samples per month averaged. 3. Total flow limit was 1.5 MGD prior to ongoing expansion 4. 2019 flow based on DEC-19 monthly average
	2020	3	5 ^C	Report	NA	NA	0.873	2.12	0.25	5,634	664.4	
	2021	3	5 ^C	Report	NA	NA	0.9	3.28	0.25	8,986	684.9	
	2022	3	5 ^C	Report	NA	NA	0.949	2.44	0.31	7,049	895.5	
	2023	3	5 ^C	Report	NA	NA	0.881	1.43	1.18	3835	3,165	
Middleburg Bluffs WWTF	2019	0.0099	Report	Report	NA	NA	0.0042	0.05	4.2	0.6	53.7	1. Nitrogen data based on one single sample per month 2. Phosphorus data based on monthly maximums from ambient surface water monitoring sample point 3. Nitrate, total permit limit = 12 mg/L (monthly sample)
	2020	0.0099	Report	Report	NA	NA	0.0061	0.2	4.9	3.7	91.0	
	2021	0.0099	Report	Report	NA	NA	0.0046	0.2	6.5	2.8	91.0	
	2022	0.0099	Report	Report	NA	NA	0.003	2.3	2.9	21.0	26.5	
	2023	0.0099	Report	Report	NA	NA	0.0024	0.46	3	3.4	21.9	
Fleming Island Regional WWTF D-001	2019	8.37	7.6	1.52	Report	Report	1.097	2.79	0.61	9,317	2037	1. Total flow limit was 6.365 MGD prior to ongoing expansion 2. Flow values in table based on total flow to St Johns River
	2020	8.37	7.6	1.52	Report	Report	1.634	2.02	0.62	10,048	3,084	
	2021	8.37	7.6	1.52	Report	Report	1.786	1.86	0.52	10,112	2,827	
	2022	8.37	7.6	1.52	Report	Report	1.323	2.47	0.7	9,948	2,819	
	2023	8.37	7.6	1.52	Report	Report	1.553	2.055	0.705	9,715	3,333	
Fleming Island Regional WWTF R-001	2019	6.365	5 ^C	NA	NA	NA	1.755	1.95	NA	10,418	NA	1. Flow values in table based on combined flow to reuse
	2020	6.365	5 ^C	NA	NA	NA	1.442	2.48	NA	10,886	NA	
	2021	6.365	5 ^C	NA	NA	NA	1.35	2.56	NA	10,520	NA	
	2022	6.365	5 ^C	NA	NA	NA	1.638	2.35	NA	11,718	NA	
	2023	6.365	5 ^C	NA	NA	NA	1.716	0.679	NA	3,547	NA	

Permit Limit							Annual Average					Notes
			Concentration (mg/L)		Total Load (lb/yr)		Concentration (mg/L)		Total Load (lb/yr)			
Facility	Year	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus	
Fleming Island Regional WWTF flow through facility	2019	4.99	9.5 ^C	1.52	NA	NA	2.19	2.4	0.61	8,829	1,617	
	2020	4.99	9.5 ^C	1.52	NA	NA	2.256	2.02	0.62	10,725	3,091	
	2021	4.99	9.5 ^C	1.52	NA	NA	2.324	1.86	0.52	10,560	2,772	
	2022	4.99	9.5 ^C	1.52	NA	NA	2.2	2.47	0.7	9,552	2,835	
	2023	4.99	9.5 ^C	1.52	NA	NA	2.261	2.06	0.705	9,741	3,335	
Ridaught Landing WRF D-001	2019	1.3125	3	1	6493	2164.4	0	NA	NA	NA	NA	1.Flow given as APRICOT discharge
	2020	1.3125	3	1	6493	2164.4	0	NA	NA	NA	NA	
	2021	1.3125	3	1	6493	2164.4	0	NA	NA	NA	NA	
	2022	1.3125	3	1	6493	2164.4	0	NA	NA	NA	NA	
	2023	1.3125	3	1	6493	2164.4	0	NA	NA	NA	NA	
Ridaught Landing WRF R-001	2019	4.375	5 ^{AC}	NA	NA	NA	1.515	NA	NA	NA	NA	1. Permit limits based on total flow to public access system R-001 2. Annual average flow based on this location
	2020	4.375	5 ^{AC}	NA	NA	NA	1.455	NA	NA	NA	NA	
	2021	4.375	5 ^{AC}	NA	NA	NA	1.432	NA	NA	NA	NA	
	2022	4.375	5 ^{AC}	NA	NA	NA	1.224	NA	NA	NA	NA	
	2023	4.375	5 ^{AC}	NA	NA	NA	1.222	NA	NA	NA	NA	
Ridaught Landing WRF flow through facility	2019	2.37	5 ^{AC}	NA	NA	NA	1.308	1.83	NA	7,287	NA	1. Nutrient concentration based on 2 single samples per month averaged
	2020	2.37	5 ^{AC}	NA	NA	NA	1.217	2.08	NA	7,706	NA	
	2021	2.37	5 ^{AC}	NA	NA	NA	1.112	2.56	NA	8,666	NA	
	2022	2.37	5 ^{AC}	NA	NA	NA	1.033	2.31	NA	7,264	NA	
	2023	2.37	5 ^{AC}	NA	NA	NA	1.052	2.22	NA	7,109	NA	
CCUA - TMDL Aggregate TN D-01M (Miller Street WWTF)	2019	4.99	Report	Report	Report	Report	0.602	4.02	0.99	7,367	1,814	1. Permitted N loads to river limit: 127,613 lb/yr 2. Permitted P loads to river limit: 74,278 lb/yr
	2020	4.99	Report	Report	Report	Report	0.557	2.78	1.13	4,714	1,916	
	2021	4.99	Report	Report	Report	Report	0.531	2.21	1.03	3,572	1,665	
	2022	4.99	Report	Report	Report	Report	0.437	3.074	0.71	4,089	944.5	
	2023	4.99	Report	Report	Report	Report	0.314	2.898	1.135	2,770	1,085	
CCUA - TMDL Aggregate TN D-	2019	6.365	Report	Report	Report	Report	1.097	2.62	0.6	8,749	2,004	1. Permitted N loads to river limit: 127,613 lb/yr 2. Permitted P loads to river limit: 74,278 lb/yr
	2020	6.365	Report	Report	Report	Report	1.619	2.02	0.62	9,955	3,056	

Permit Limit							Annual Average					Notes	
			Concentration (mg/L)		Total Load (lb/yr)		Concentration (mg/L)		Total Load (lb/yr)				
Facility	Year	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus		
01F (Fleming Island WWTF)	2021	6.365	Report	Report	Report	Report	1.801	1.86	0.52	10,197	2,851	1. Permitted N loads to river limit: 127,613 lb/yr 2. Permitted P loads to river limit: 74,278 lb/yr	
	2022	6.365	Report	Report	Report	Report	1.323	2.47	0.7	9,948	2,819		
	2023	6.365	Report	Report	Report	Report	1.553	2.055	0.705	9,715	3,333		
CCUA - TMDL Aggregate TN D-01O (Fleming Oaks WWTF)	2019	0.49	Report	Report	Report	Report	NA	NA	NA	NA	NA		
	2020	0.49	Report	Report	Report	Report	NA	NA	NA	NA	NA		
	2021	0.49	Report	Report	Report	Report	NA	NA	NA	NA	NA		
	2022	0.49	Report	Report	Report	Report	NA	NA	NA	NA	NA		
2023	0.49	Report	Report	Report	Report	NA	NA	NA	NA	NA			
Spencer's Crossing WWTF D-003	2019	1.42	3	1	12,968	4,323	0.471	1.5	0.2	2,151	286.8		1. N load given as annual total load "above head of tide." Annual total N load APRICOT limit: 5,388 lb/yr 2. Total N load APRICOT '19-'23 (lb/yr): 0, 0, 1549.84, 3114.07, 3325.25
	2020	1.42	3	1	12,968	4,323	0.522	0.9	0.2	1,430	317.8		
	2021	1.42	3	1	12,968	4,323	0.54	0.93	0.28	1,529	460.3		
	2022	1.42	3	1	12,968	4,323	0.595	1.527	0.333	2,766	603.1		
	2023	1.42	3	1	12,968	4,323	0.819	1.39	0.338	3,465	842.7		
Spencer's Crossing WWTF R-001	2019	4.73	5 ^c	Report	NA	NA	1.469	1.2	0.17	5,366	760.2		1. Phosphorus data based on monthly maximums
	2020	4.73	5 ^c	Report	NA	NA	1.432	1.4	0.25	6,103	1,090		
	2021	4.73	5 ^c	Report	NA	NA	1.978	1.03	0.5	6,202	3,011		
	2022	4.73	5 ^c	Report	NA	NA	1.074	3.4	0.5	11,116	1,635		
	2023	4.73	5 ^c	Report	NA	NA	0.877	0.789	0.5	2,106	1,335		
Spencer's Crossing WWTF flow through facility	2019	4	3	1	12968	5388	1.437	1.5	0.2	1,600	276.5	1. Included for total flow through facility permit limits and annual average values 2. Nutrient concentrations based on 4 single samples per month averaged	
	2020	4	3	1	12968	5388	1.135	0.9	0.2	1,190	355.2		
	2021	4	3	1	12968	5388	1.526	0.93	0.28	16,000	506.7		
	2022	4	3	1	12968	5388	1.689	1.527	0.33	3,114	625.7		
	2023	4	3	1	12968	5388	1.706	1.39	0.34	3,251	806.6		
Miller Street WWTF D-001	2019	4.99	Report	Report	Report	Report	0.604	4.02	0.986	7,391	1,813	1. Nutrient data corresponds to annual total flow data	
	2020	4.99	Report	Report	Report	Report	0.557	2.741	0.989	4,648	1,677		
	2021	4.99	Report	Report	Report	Report	0.531	2.212	1.031	3,576	1,667		
	2022	4.99	Report	Report	Report	Report	0.437	3.074	1.13	4,089	1,503		
	2023	4.99	Report	Report	Report	Report	0.314	2.898	1.135	2,770	1,085		

Permit Limit							Annual Average					Notes
			Concentration (mg/L)		Total Load (lb/yr)		Concentration (mg/L)		Total Load (lb/yr)			
Facility	Year	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus	Flow (MGD)	Total Nitrogen	Total Phosphorus	Total Nitrogen	Total Phosphorus	
Miller Street WWTF R-001	2019	3	5 ^C	NA	NA	NA	0.749	2.3	NA	5,244	NA	
	2020	3	5 ^C	NA	NA	NA	0.837	3.34	NA	8,510	NA	
	2021	3	5 ^C	NA	NA	NA	0.981	2.1	NA	6,271	NA	
	2022	3	5 ^C	NA	NA	NA	0.995	5.41	NA	16,386	NA	
	2023	3	5 ^C	NA	NA	NA	1.273	2.3	NA	8,913	NA	
Miller Street WWTF flow through facility	2019	4.99	2.26 ^C	0.612 ^C	Report	Report	1.1	2.12 ^C	0.56 ^C	7,593	1,755	1. Included for total flow through facility values 2. Annual average permit limit = Report 3. Nutrient concentrations based on 4 single samples per month averaged 4. Total load values based on single sample per month
	2020	4.99	2.26 ^C	0.612 ^C	Report	Report	1.171	2.7 ^C	1.1 ^C	4,912	2,015	
	2021	4.99	2.26 ^C	0.612 ^C	Report	Report	1.138	2.1 ^C	0.599 ^C	3,594	1,624	
	2022	4.99	2.26 ^C	0.612 ^C	Report	Report	0.95	4.23 ^C	0.71 ^C	4,190	1.13	
	2023	4.99	2.26 ^C	0.612 ^C	Report	Report	0.906	2.26 ^C	0.612 ^C	2,626	958.6	

Note: A = concentration of TN is presented as nitrite-nitrate; B = concentration of TN is presented as "nitrate, total"; C = permit limit is based on monthly average instead of annual average.

3 WWTP EVALUATION

3.1 CAPACITY ANALYSIS OVER NEXT 20 YEARS

Capacity Analysis Reports were found for eight of the facilities – Briarwood, Fleming, Keystone Village, Mid Clay, Middleburg, Miller Street, Park of Palms, and Ridaught.

Table 3-1 presents the permitted capacity and 2023 average daily flows of the 12 facilities with documents available through FDEP’s Oculus Document Management System. Additional discussion on WWTF capacity analyses will be provided in the final report.

Table 3-1 Permitted Capacity and Average Daily Flows

Facility ID	WWTP Name	Permitted Capacity (MGD)	2023 Average Flow* (MGD)
FLA011363	Keystone Heights High School WWTF	0.04	0.009
FLA362743	Keystone Heights WWTF	0.2	0.031
FLA011379	Keystone Village Square Shopping Center WWTF	0.03	0.007
FLA011383	Park of the Palms WWTF	0.033	0.0071
FLA327841	Peter's Creek WWTF	0.3	0.105
FLA011381	Briarwood Apartments WWTF	0.0099	0.007
FLA011377	Mid - Clay Regional WWTF	3.0	0.881
FL0113743	Middleburg Bluffs WWTF	0.0099	0.0024
FL0043834	Fleming Island Regional WWTF	4.99	2.261
FL0039721	Ridaught Landing WWTF	2.37	1.052
FL0173371	Spencer WWTF	4.73	0.877
FL0025151	Clay County Utility Authority Miller St. WWTF	3.0	0.906

Notes: MGD = million gallons per day.

* From the Annual Reuse Report or December Discharge Monitoring Report.

3.2 PROJECT RANKING AND ESTIMATED COSTS

Clay County is currently meeting its total nitrogen and total phosphorus allocations in the Lower St. Johns River Main Stem BMAP. No wastewater treatment projects are included in this report because the County’s BMAP required reductions are being met in both the freshwater and marine sections. Additional wastewater treatment projects may be added in the final report, but none are required given the county’s full BMAP compliance.

3.3 PROJECTED TIMELINE

No projects are proposed in this draft report. If projects are proposed in the final report, this section will be updated to reflect their estimated schedule of implementation.

DRAFT

Appendix A