Water Supply Facilities Work Plan 2024-2034

City of Jacksonville
Planning Department
Community Planning Division
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1.0 INTRODUCTION

According to the Community Planning Act Water Resources Act, Sections 373.709 and 163.3177(6)(c)4, Florida Statutes (F.S.), each local government is required to amend its local government comprehensive plan to update and/or include a 10-year water supply facilities work plan following the approval of an updated regional water supply plan (*North Florida Regional Water Supply Plan*, December 2023). The mandated 10-year water supply facilities work plan is specifically developed to address the following:

- Projects for water supply;
- Projects for water supply treatment, storage, and distribution facilities; and
- Water conservation and reuse.

The Water Supply Facilities Work Plan and related Comprehensive Plan amendments are reviewed and approved by the Florida Commerce Department and the St. Johns River Water Management District (SJRWMD). This Work Plan includes an evaluation of the present and projected growth and water demand as well as an analysis of the existing production/treatment facilities and their capacities to meet the City's existing and projected water demands for a 10-year planning period, 2024-2034. The City's first Water Supply Facilities Work Plan was completed in 2019.

2.0 BACKGROUND

2.1 Location

The City of Jacksonville, Duval County, Florida is located along the Atlantic Ocean in the northeastern part of Florida. It is bordered on the north by the Nassau River, Nassau County; on the south by Clay County and St. Johns County; on the east by the Atlantic Ocean; and on the west by Baker County.

Duval County has a total area of approximately 850 square miles. The entire county, with the exception of four (4) incorporated areas, form the Consolidated City of Jacksonville. Three (3) of the incorporated areas; i.e. Jacksonville Beach, Neptune Beach, and Atlantic Beach are located between the Intracoastal Waterway and the Atlantic Ocean. The fourth incorporated area, the Town of Baldwin, is located at the intersection of U.S. 301 and U.S. 90 in the western section of the City.

2.2 Service Area

JEA serves as the City's primary water utility. The service territory includes virtually all of Duval County; approximately 143 square miles in St. Johns County; approximately 620 square miles in Nassau County; and a small number of customers in Clay County. Within Duval County, nine (9) utilities also supply potable water; these utilities are listed below.

- City of Baldwin
- Normandy Villages Utility Company
- Neighborhood Utilities, Inc.
- Commercial Utilities, Grace and Company
- Regency Utilities, Inc.
- City of Atlantic Beach
- City of Neptune Beach
- Jacksonville Beach Utility
- First Coast Regional Utilities

With the exception of First Coast Regional Utilities, Figure 3 identifies the utility service areas listed above. Those territories are not subject to service by JEA.

In FY 2023, JEA's Water System consisted of 29 major and 10 minor water treatment plants (WTPs) and two repump facilities and is divided into two major distribution grids: the North Grid and the South Grid (one on each side of the St. Johns River). The system includes four (4) minor distribution grids: Ponte Vedra, Ponce de Leon, Mayport and Nassau County. The major distribution grids are fully interconnected, which provides the Water System with a high degree of redundancy.

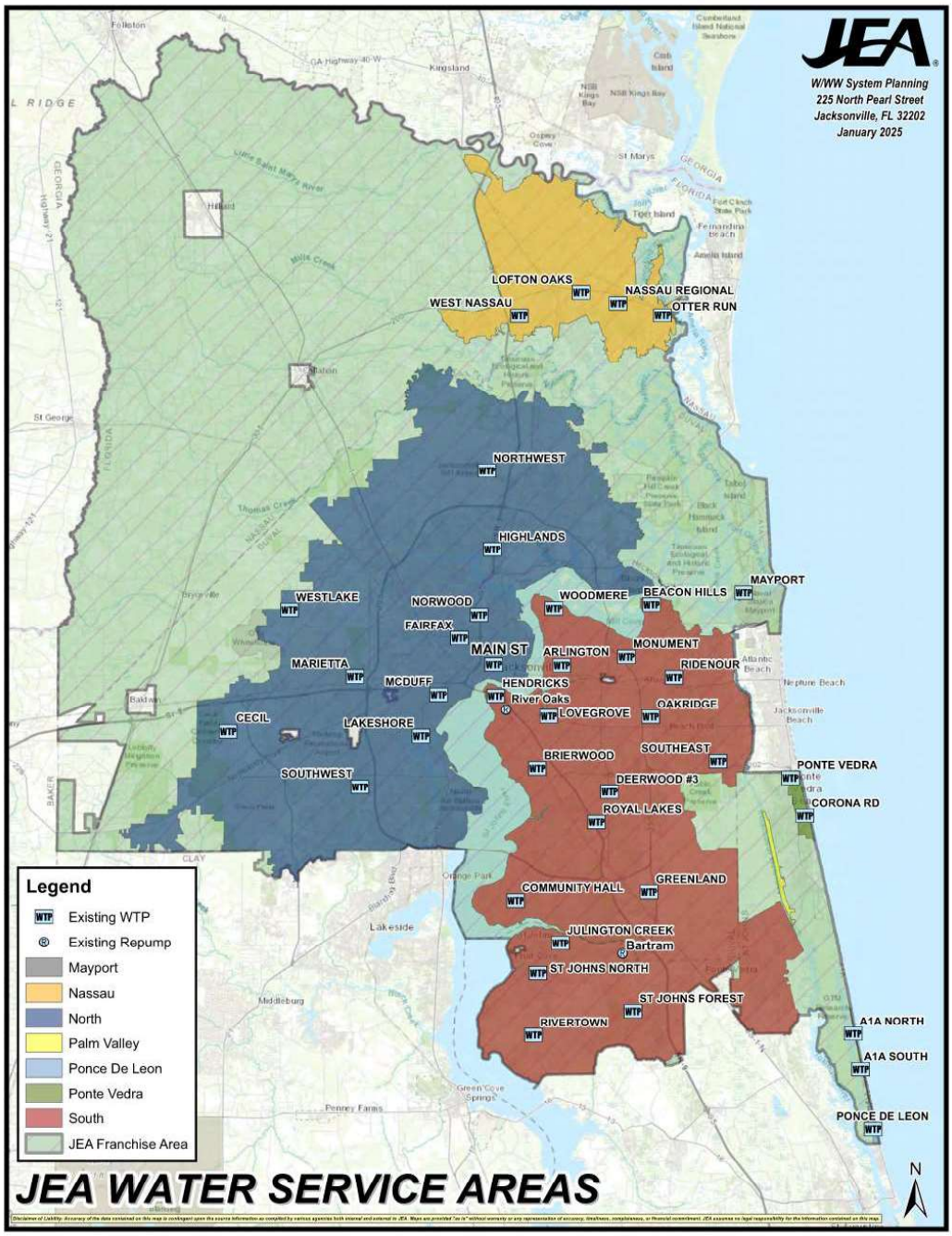

Figure 1: JEA Water Service Area
Source: JEA

2.3 Water Supply Related Agreements

JEA was established in 1968 to own and manage the electric utility, which had been owned by the City since 1895. The City's Charter was amended in 1997 to authorize JEA to own and operate other utility systems, including the Water and Sewer System. The Charter authorizes JEA to construct, acquire, establish, improve, extend, enlarge, maintain, repair, finance, manage, operate and promote its utilities systems, and to furnish electricity, water, sanitary sewer service, natural gas and other utility services as authorized therein within and outside of the City and for said purposes to construct and maintain electric lines, pipelines, water and sewer mains, natural gas lines and related facilities along all public highways and streets within and outside of the City. Should any additional water and sewer utility system be undertaken by JEA in the future, such utility system may, at the option of JEA, constitute an additional utility function or with approval by the Jacksonville City Council be added to, and may become a part of, the Water and Sewer System or the District Energy System. The Charter also confers upon JEA the power to sue, to enter into contracts, agreements and leases, and to sell revenue bonds to finance capital improvements and to refund previously issued evidences of indebtedness of JEA.

Pursuant to a 30-year interlocal agreement with St. Johns County, JEA made an up-front payment in December 2001 to the county which JEA expected to realize in providing retail sales of water and wastewater services (excluding reclaimed water) for the next 10 years in St. Johns County. Under the terms of the interlocal agreement, subsequent utilities were purchased and the county granted JEA the right to: 1) provide water and wastewater service to those customers in an acquired franchise area within St. Johns County, 2) provide water and wastewater service to additional areas in the county not currently served by either the St. Johns County Water and Sewer Department or other water and wastewater utilities and 3) acquire, at JEA's sole discretion, other private utilities in northern St. Johns County.

Pursuant to a 30-year interlocal agreement with Nassau County, JEA made an up-front payment in December 2001 to the county which JEA expected to realize in providing the sale of water and wastewater services (excluding reclaimed water) for the next 10 years. Under the terms of the interlocal agreement, Nassau County granted JEA the right to: 1) provide water and wastewater service to those customers in an acquired franchise area within Nassau County and 2) provide water and wastewater service to additional areas in the county not currently served by either Nassau County or other water and wastewater utilities.

	DESCRIPTION	PROVISIONS	STATUS
City of Atlantic Beach	Sewer Agreement – provides for sewage treatment and disposal for the Village of Mayport	JEA constructed the collection and delivery facilities for discharge to the City's treatment facility and pays monthly based on the flow	No revisions currently proposed
Nassau County	Water, Sewer, and Reuse Interlocal Agreement – provides water and wastewater (including reuse) services within Nassau County	JEA acquired service territory in Nassau County	No revisions currently proposed
St. Johns County	Water MOU – various agreements including a wholesale water and wastewater agreement; service area boundary adjustments	Wholesale water service commitment to the County of 2,250,000 gpd; allow JEA to construct and operate up to 3 wells in the River Town DRI with an average daily flow withdrawal of 0.75 MGD by year 2012 and 1.5 MGD by year 2022	No revisions currently proposed

Table 1: Water Agreement Description, Provisions, and Status
Source: JEA

JEA does not have any potable water agreements with Clay County, the Town of Baldwin, Naval Air Station Jacksonville (NAS JAX), or Naval Station Mayport (NS Mayport). JEA has a wastewater agreement with the City of Atlantic Beach but does not have a potable water agreement with them.

3.0 DATA AND ANALYSIS

Water use is defined as current or historic levels of water withdrawn from fresh (ground and surface) water sources and is expressed in average million gallons per day (mgd) unless otherwise noted. Water demand projections are estimates of the amount of water that will be needed in the future (withdrawn from fresh, ground and surface, water sources) to meet the needs of an increasing population and to meet the needs of the aforementioned water use categories, and is expressed in average mgd unless otherwise noted. Reclaimed water is treated wastewater that has received at least secondary treatment and basic disinfection and is expressed in average mgd unless otherwise noted.

3.1 Water Sources

Groundwater is currently the City of Jacksonville's primary water source. Water supply is from the Floridan Aquifer, one of the most productive aquifers in the world, with high quality water. The Floridan Aquifer covers most of Florida and parts of Georgia and South Carolina. Groundwater wells are used to extract water from the Floridan Aquifer to supply potable water to JEA customers. In FY 2023 the Water System had 139 wells supplying the various water plants. Each plant consists of wells, aerators, ground storage tanks, water quality treatment and pH control and chlorination facilities. The permitted maximum daily treatment capacity of the overall Water System is 324 mgd.

The Floridan Aquifer should be capable of meeting JEA's needs well into the future, provided that JEA continues its three-part program and ground water quality program. The three-part program is the basis of JEA's water capital improvement plan and includes: (i) continued expansion of the reuse system, (ii) measured conservation program and (iii) water transfers from areas with a higher supply on JEA's north grid to areas with a lower supply on JEA's south grid via river crossing pipelines. JEA has also implemented a groundwater quality management program to mitigate the effects of (non-lateral) saltwater intrusion into specific wells on the systems south grid that includes routine well monitoring, backplugging of specific wells, and reducing or replacing wells that show continued increases in chlorides.

Total finished water storage capacity of the Water System is 84 million gallons (FY 2023). All water storage facilities are located at the various water treatment plants, including two repump facilities. The Water System does not utilize elevated storage tanks.

JEA also uses reclaimed water for irrigation where feasible. Ten of the 11 Wastewater Treatment Facilities (WWTFs) that JEA operates and maintains produce reclaimed water within the wastewater service area covering four (4) counties – Nassau, Duval, St. Johns, and Clay.

3.1.1 Self-Supply

Portions of Duval County, while within the overall JEA service area boundary, are currently served by individual water wells and septic systems. Within Duval County, the extent of JEA water mains is shown in Figure 2. Areas outside of the service extent of these mains are served by private wells.

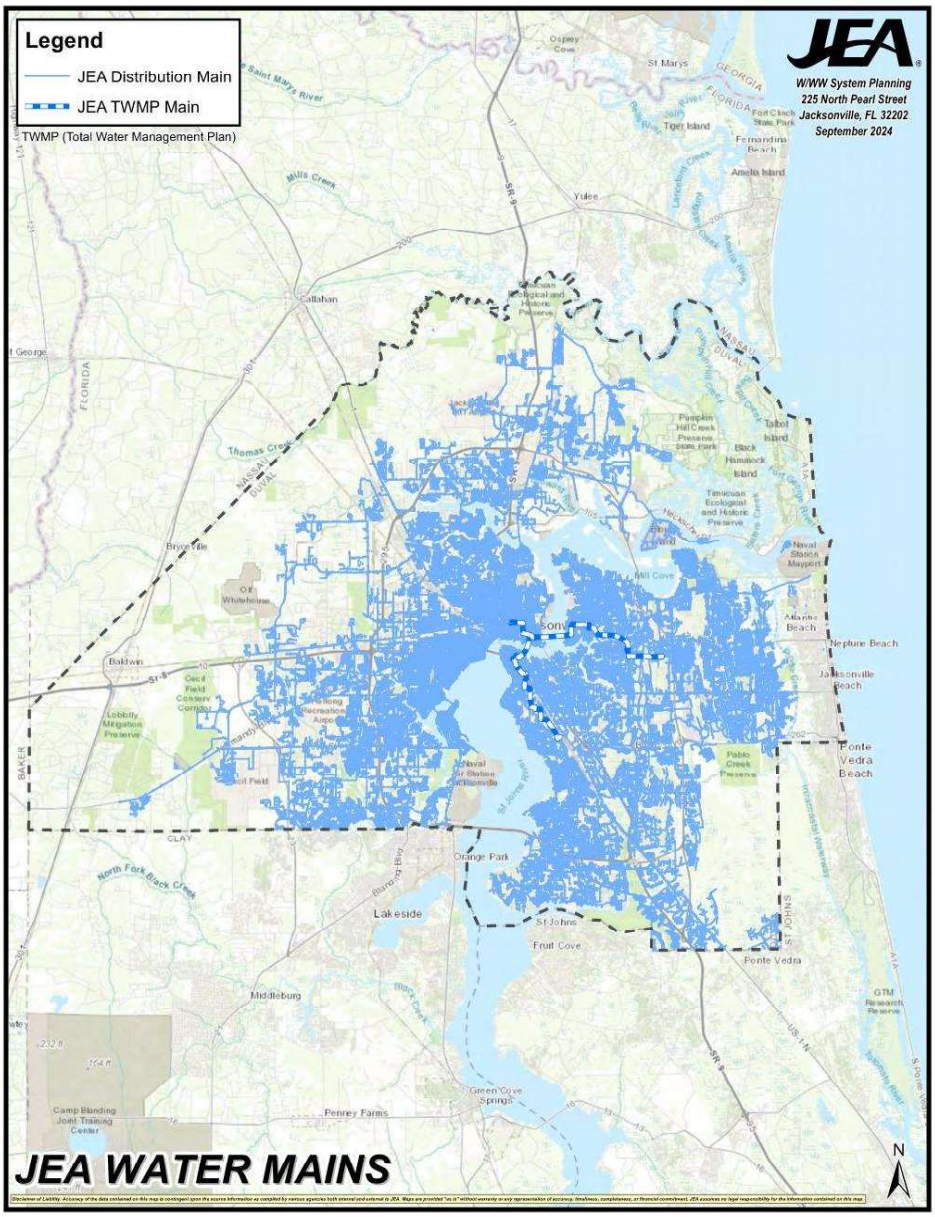

Figure 2: JEA Water Mains
Source: JEA (September 2024)

There are an estimated 30,000 private wells within Duval County; locations identified as having individual water wells are shown in Figure 3. These areas are expected to remain as self-supply areas, with the following population projections for those areas.

	2020	2025	2030	2035	2040	2045
Projected Population	76,408	87,419	100,519	110,853	120,121	128,271

Table 2: Projected Population for Water Self-Service Areas, shown in Figure 3
Source: JEA

As shown in Figure 3, the private individual wells are most likely to be located in areas that are more rural. There are no current countywide plans by JEA to remove private wells and connect those areas to the centralized water system.

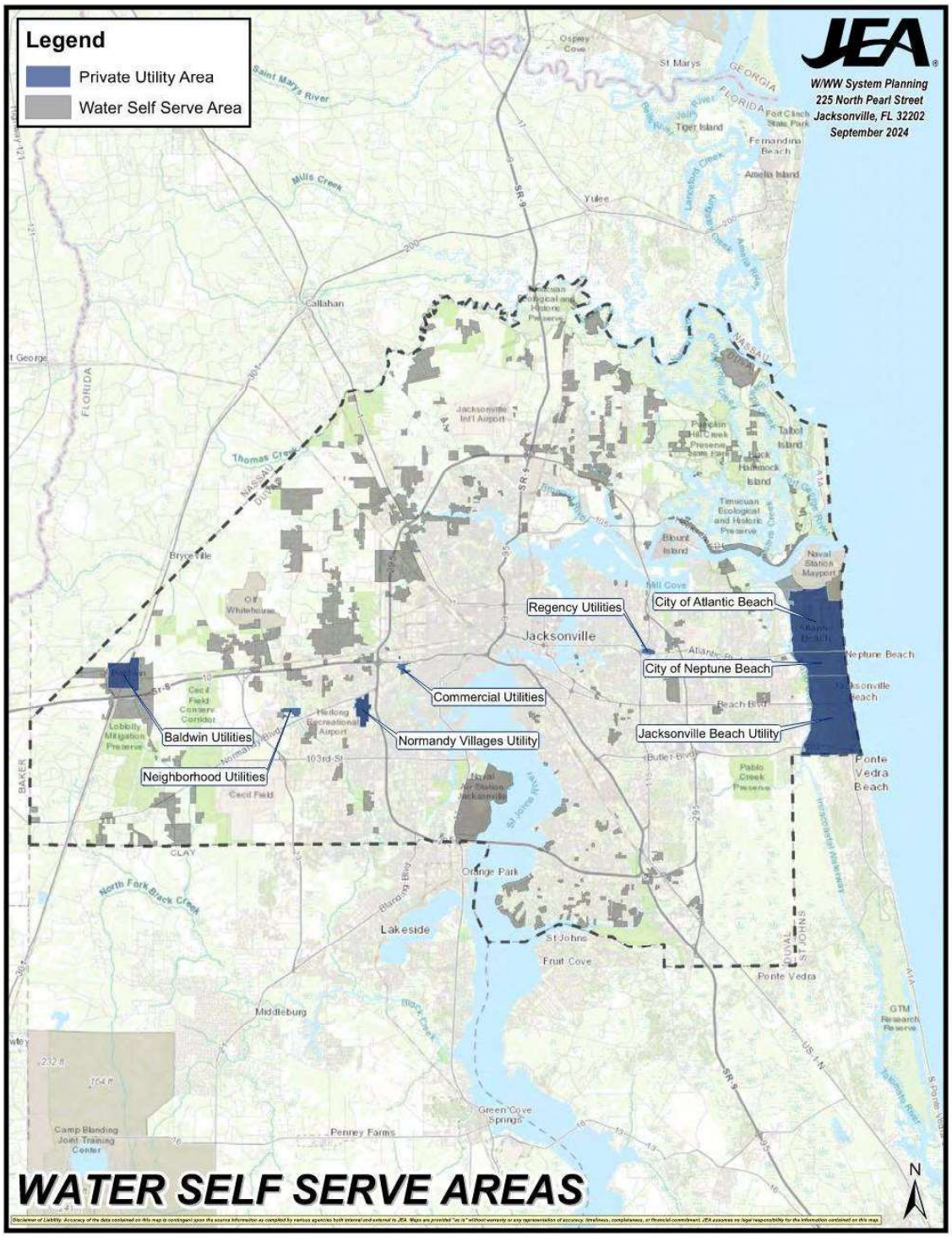

Figure 3: Water Self-serve Areas
Source: JEA (September 2024)

There are an estimated 55,000 septic tanks within Duval County. The Florida Department of Health for Duval County (DOH) has identified 35 areas predominately served by septic tanks with a high number of repair permits. These areas are called Septic Tank Failure Areas. The City's Environmental Quality Division ranked these areas based on a number of factors including the potential for water quality benefit, age of the development area, median home value, presence of an existing water distribution system, and the percentage of undeveloped lots. The rankings were prioritized to develop a list for a Septic Tank Phase Out (STPO) program. Figure 4 shows the general location of septic tanks within Duval County as well as the Septic Tank Phase Out (STPO) area; prioritized areas are shown in Figure 5. Properties within the STPO areas that are currently served by a private well system will be connected to the centralized water system when the area is addressed. Funding for the STPO areas is limited with current funding levels not sufficient to address all of the areas that have been ranked. The total number of septic tanks within the STPO areas is estimated at 22,300. Of these properties, an estimated 3,500 are served by private wells. There are no current plans by JEA to connect the septic tank properties, outside of the prioritized areas, to a centralized sewer system.

Pursuant to Section 163.3177(6)(c), Florida Statutes, the City has developed a "Sanitary Sewer Service Feasibility Analysis" (May 28, 2024) and incorporated the document as a reference to the Infrastructure Element of the Comprehensive Plan. The analysis considers the feasibility of providing sanitary sewer services within a 10-year planning horizon, for developments over a certain size, and will be updated as needed to account for future applicable developments.

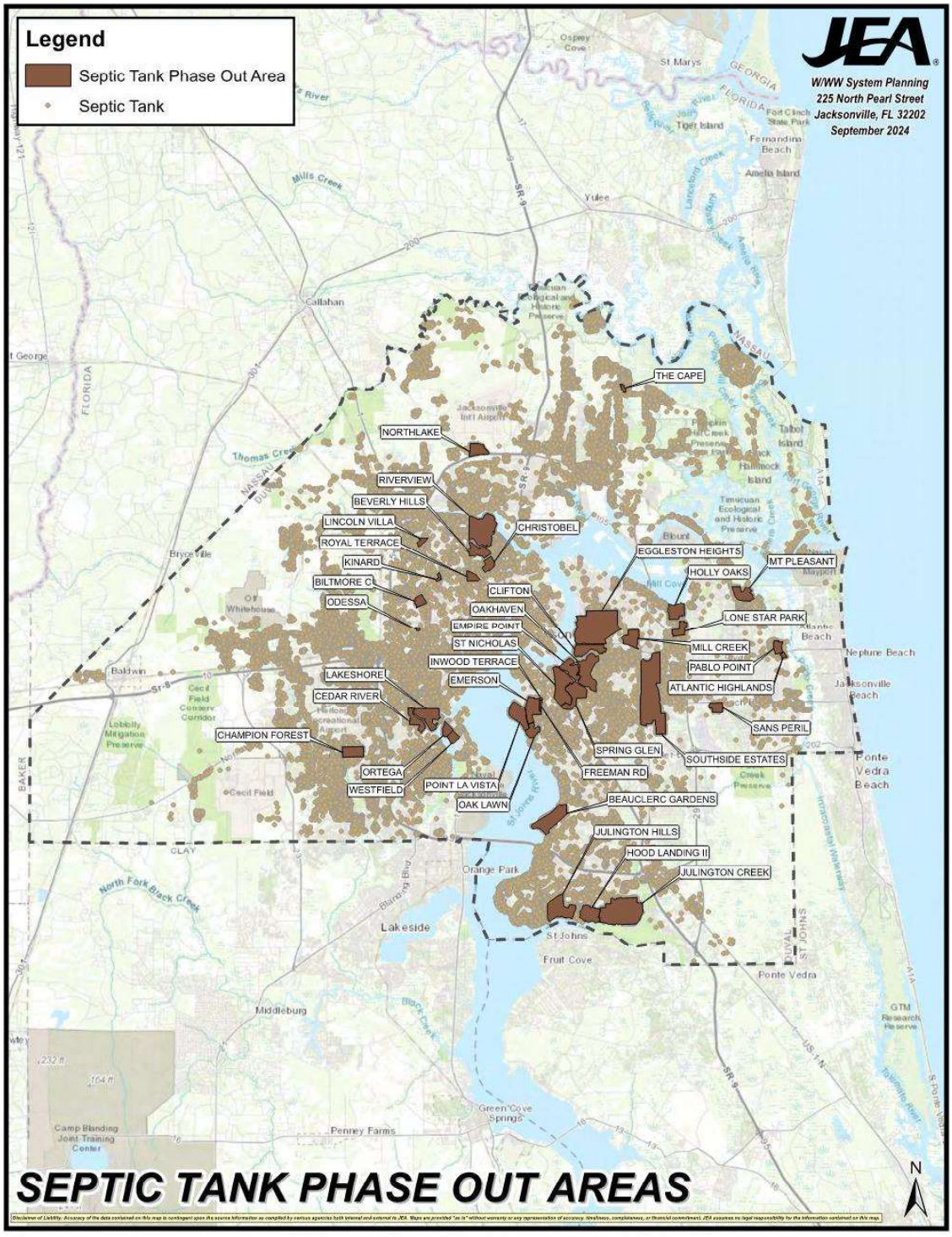

Figure 4: Septic Tanks and Septic Tank Phase Out Areas, Duval County
Source: JEA (September 2024)

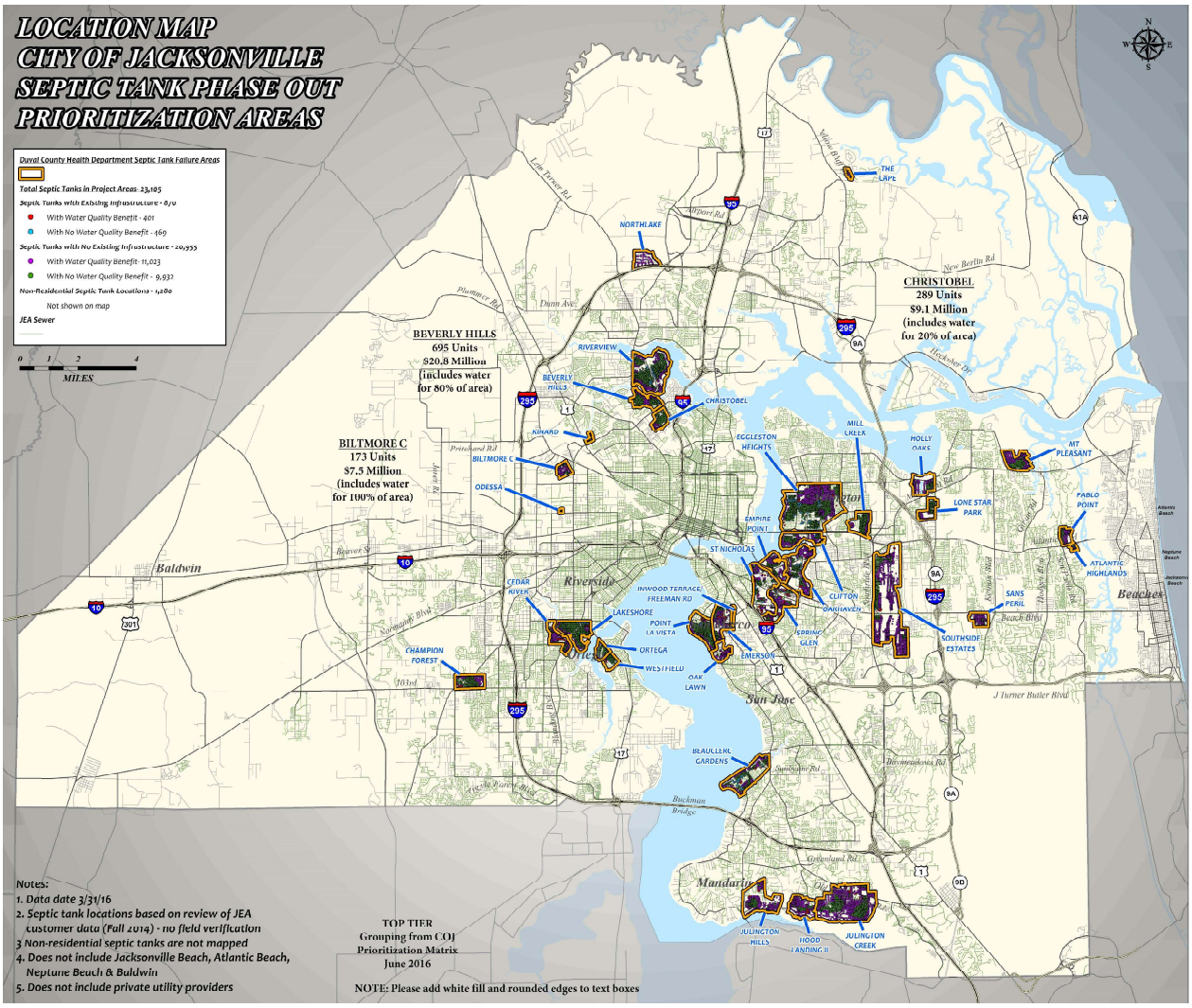

Figure 5: Septic Tank Phase Out Prioritization Areas, Duval County
Source: JEA

3.2 Consumptive Use Permit

JEA and the City are committed to proper management of water resources and to providing residents with a sustainable water supply. JEA currently operates under one (1) Consumptive Use of Water Permit (CUP). JEA renewed its Consumptive Use Permit (CUP 88271-11) with the SJRWMD in May 2011. The CUP was renewed for a 20-year period and will expire in 2031. The CUP allocates to JEA a maximum groundwater withdrawal of 56,575 million gallons per year (mgy) from the Floridan Aquifer for the public supply system until such time as the permit needs to be renewed. This amount may contingently increase in the last 10 years of the permit up to 59,359 mgy through the permittee's providing additional reclaimed water to replace permitted Floridan Aquifer uses, if it becomes feasible. The amount permitted is to serve a projected population of 1,026,161 people in 2031 with water for household, commercial/industrial, water utility, and essential (fire protection) uses and unaccounted-for water losses.

Reclaimed water is an integral part of JEA's CUP. According to condition number 12 of the CUP, JEA can increase its annual allocation of groundwater up to 163 mgd (from the Floridan Aquifer) if all reclaimed

water production goals are met.

There are seven (7) years before the expiration of JEAs CUP. The Water Supplies Facilities Work Plan covers the period through 2034. While the CUP will expire just before the planning timeframe, the allocation of needs from the CUP extrapolates out to the end of the WSFWP planning period.

Additionally, the US 301 Villages master planned community includes 7,000 acres located west of US 301 and south of I-10. This area is entitled for a mix of uses including single-family and multi-family residential, commercial, hospital, office and hotel/motel uses. 301 Capital Partners, LLC, or its subsidiary, are responsible for the design and construction of the water, wastewater and reuse facility utilities for the planned community. 301 Capital Partners, LLC, and its Florida Public Service Commission authorized utility subsidiary, First Coast Regional Utilities, Inc., has received a 1.2 mgd Consumptive Use Permit (CUP) issued July 11, 2024 by the Water Management District. The First Coast Regional Utilities CUP expires in 2044, beyond the US 301 Villages phased development. Additional information on the First Coast Regional Utilities CUP for the US 301 Villages mixed use community is included in Appendix 4.

3.3 Potable Water Production and Treatment Facilities

The Water System, which served an average of 391,859 customer accounts and 25,764 reuse water customers, respectively, in the FY2023, was composed of 39 water treatment plants and two repump facilities, 139 active water supply wells, approximately 5,112 miles of water distribution mains, and water storage capacity of 84 million gallons (including the repump facilities). The overall peak capacity of the Water System was approximately 324 mgd, and the Water System wells produced an average daily flow of approximately 126 mgd and a maximum daily flow of approximately 163 mgd during the FY2023.

As previously mentioned, JEA's water distribution system is divided into six (6) distinct service grids serving most of Duval County and parts of St. Johns, Clay and Nassau Counties. The North and South Grid are currently interconnected via 30 inch and 36 inch transmission mains that cross the St. Johns River in downtown Jacksonville, commonly referred to as the Total Water Management Plan (TWMP) Mains. The purpose of the TWMP Mains is to transfer water from the North to the South grid. Each service grid contains an interconnected network of WTPs and transmission and distribution mains. JEA's water distribution grids have grown through the acquisition of several privately owned utilities over the past 20 years; United Water and Florida Water being the largest of these acquisitions. There are 39 active WTPs in JEA's fleet; 11 in the North Grid, 18 in the South Grid, four (4) in the Nassau (Lofton Oaks) Grid, two (2) in the Ponte Vedra Grid, three (3) in the Ponce de Leon Grid and one (1) in the Mayport Grid in FY 2023. There are two (2) additional WTPs planned for construction within the next 10 years: Wildlight WTP (Nassau County) and SJRPP WTP in the North Grid; see JEA service area map, Figure 1.

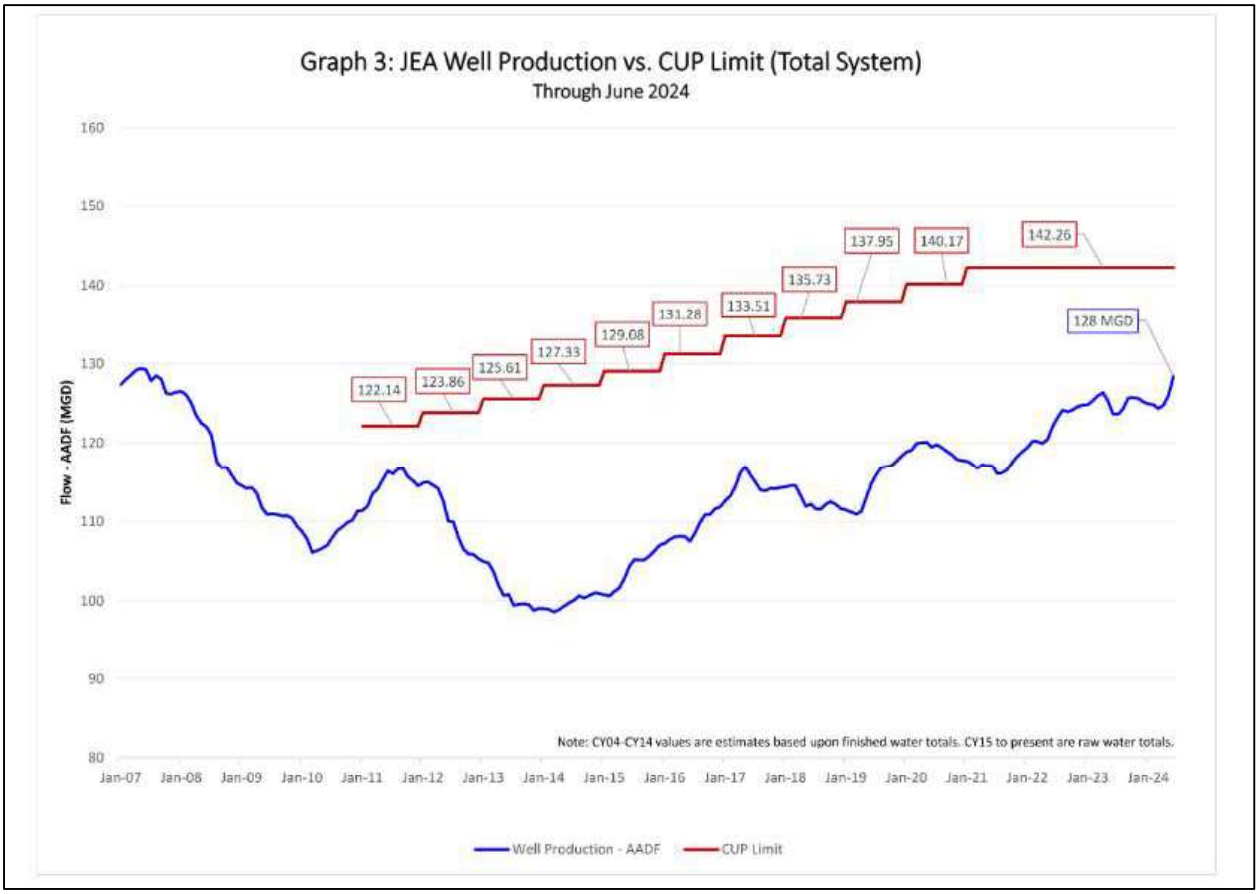

Figure 6: JEA Water Production vs. CUP Limit
Source: JEA's Q3/FY 2024 Metrics

Figure 6 shows the historic monthly and annual average daily production for the overall JEA Water System of raw water as compared to the annual CUP limit for the total system. The CY2023 annual average potable water produced from the groundwater was 126 mgd. It is important to note that JEA customers average a demand of 13 mgd of reclaimed water, which directly offsets potable groundwater use. In CY2023 the water system had a total water demand of 139 mgd (126 groundwater + 13 reclaimed water).

3.4 Reclaimed Water System

JEA has significantly expanded its reclaimed water system (Figure 7), and potable water offsets through the use of reclaimed water, over a relatively short period of time. JEA acquired the Julington Creek Plantation (JCP) WWTF in 1999, which operated at nearly 100 percent reuse of its effluent with a capacity of 1.0 mgd. JCP WWTF was JEA's initial reclaimed water program until the construction of 2.0 mgd for public access at the Arlington East WWTF in 1999. Reclaimed water demands on the system in 1999 were less than 0.5 mgd and were primarily located in the region surrounding JCP WWTF.

The major backbone of the reclaimed water system was constructed between 2002 and 2008, a 26-mile transmission main between Arlington East and Mandarin WWTFs. Retail customer reclaimed water demand has rapidly increased since the completion of the reclaimed transmission main in 2008. The first homes within the Nocatee development, which occupies land in both northeast St. Johns County and southeast Duval County, were connected in 2007; this was the start of potable offset reclaimed water

demands on the reclaimed water system. Potable offset/retail reclaimed water customers have grown by an average of 2,900 customers per year over the last three (3) years.

As of FY 2023, JEA operates and maintains 11 WWTFs, 10 of which produce reclaimed water, within a wastewater service area that covers four (4) counties (Nassau, Duval, St Johns and Clay). Six (6) of JEAs WWTFs produce public access reclaimed water and four (4) produce non-public access reclaimed water used strictly at the WWTF and/or within a restricted area. The overall reclaimed water production capacity is 41 mgd. The southeast region of JEA's wastewater service area, served by Arlington East, Monterey, Mandarin, Blacks Ford, JCP, Ponte Vedra and Ponce de Leon WWTFs, currently has the greatest offset potable water demand with reclaimed water as opposed to the other regions north and west of the St. Johns River.

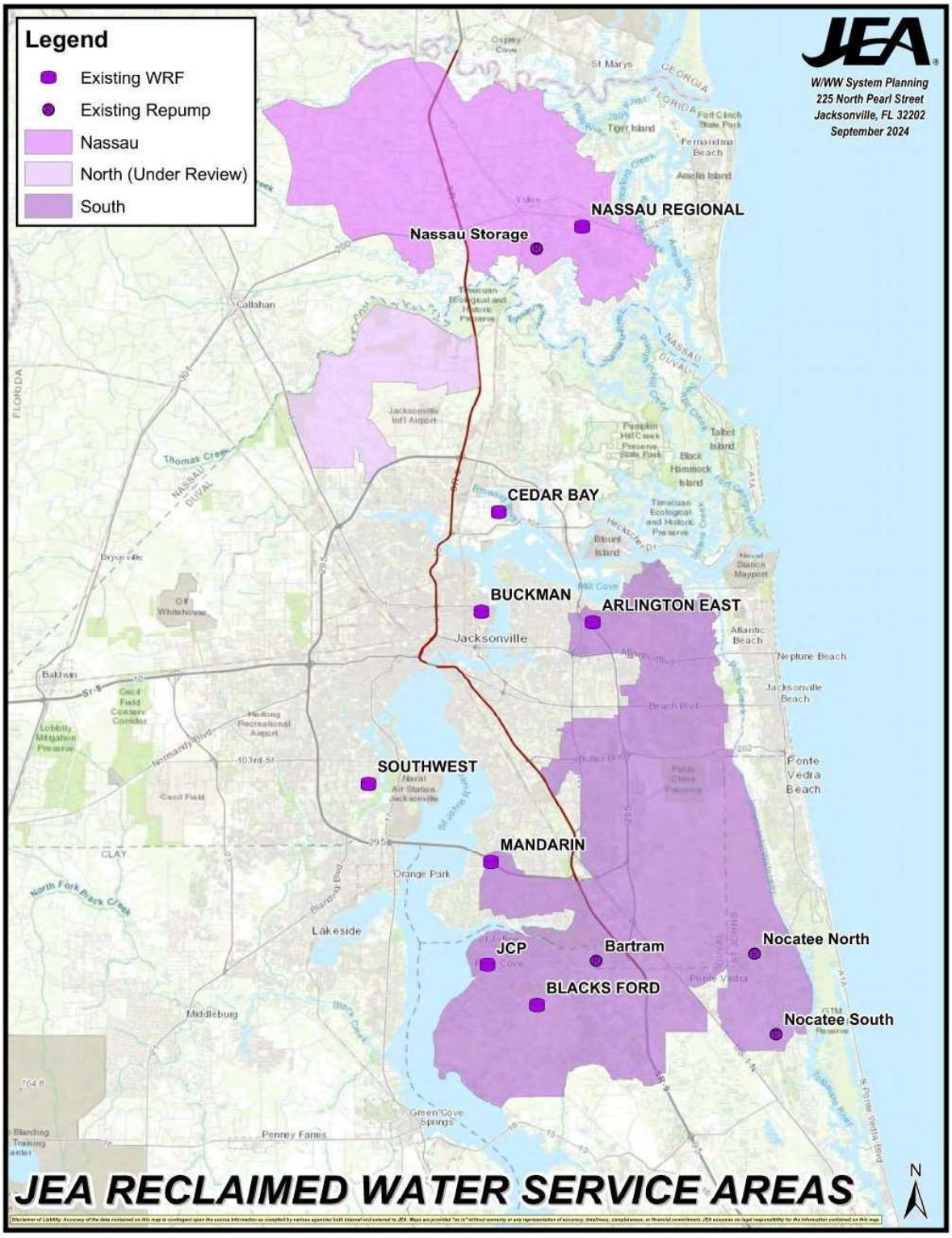

Figure 7: Reclaimed Water Service Grids
Source: JEA

Total reclaimed water demands (retail, bulk, and internal use at JEA WWTFs) have increased to an annual average of 22 mgd (FY2023). Based on projected system growth, total reclaimed water is estimated to

reach 31 mgd by 2031. Additionally, planned alternative water projects that will utilize reclaimed water are currently underway and could increase the projected reclaimed water use to over 40 mgd by 2031.

The primary factors that have driven JEA's implementation of reclaimed water are:

- The need to reduce nutrient discharges into the St. Johns River (TMDL, Total Maximum Daily Load)
- The desire to reduce groundwater withdrawals for irrigation
- JEA and City policies to promote the efficient use of water and protect the water resources of the region

Reclaimed water that JEA's WWTFs produce is specific to the needs of the area served. The South Grid reclaimed water service area (Arlington East, Mandarin, Blacks Ford and JCP WWTFs) has been a focal point of the JEA reclaimed water investment and expansion as a result of the Lower St. Johns River TMDL (circa 2004), the River Accord (circa 2006) and the Total Water Management Plan (TWMP, circa 2007), in addition to residential growth. Arlington East, Mandarin, Blacks Ford and JCP WWTFs were gridded together with a major north/south transmission main to provide reclaimed water to future development in the southern extent of the JEA service area. Regions to the West and North of the St. Johns River historically have not seen residential growth at the rate seen in the South Grid reclaimed water service area.

JEA has been successful in all of these goals, and through further system expansion and implementation of new reclaimed water projects, expects to achieve feasible reuse, aquifer recharge, and enhancement through its reclaimed water program for the duration of its CUP and beyond. The City's Comprehensive Plan and local ordinance code provide enabling policies and companion requirements to further the maintenance and expansion of the water reclamation system; these policies are discussed later in this Work Plan.

JEA may need to expand its facilities to adequately meet the future demands of the system. Proposed facility expansions and new facilities are planned in order to more evenly distribute the production and pumping capabilities of the gridded system while increasing the overall system reliability and quality.

3.4.1 Reclaimed Water Agreement(s)

In 2001, JEA executed an interlocal agreement with Nassau County (see Table 1 and Section 2.3). This agreement includes provisions allowing JEA to provide reclaimed water. At this time no revisions to this agreement are proposed.

In 2006, a reclaimed water connection ordinance was adopted by the City of Jacksonville. Agreements were established with major developments in St. Johns County (i.e. Nocatee, RiverTown, Aberdeen, and Durbin Crossing DRIs) to provide retail reclaimed water service; this continued to other new developments as they were established.

In February 2015, JEA updated the JEA Rules and Regulations for Water, Sewer & Reclaimed Services to include reclaimed water service as a required connection within the JEA reclaimed water service area. The required connection for new developments is subject to the conditions described in the new Rules and Regulations. These Rules and Regulations are a major step forward in promoting an alternative water supply and continued improvement of the JEA reclaimed water program. In the future, there is potential for more reclaimed water service areas to be implemented; North and West of the Jacksonville International Airport is an area currently under review.

As of September 2023, JEA has constructed over 580 miles of pipeline to serve over 25,000 customers, with a reclaimed water delivery capacity of 41 mgd. Retail customers have grown significantly over the last 15 years as a result of the reclaimed water infrastructure installed throughout the South Grid and Nassau County. A majority of reclaimed water customers are located in southern Duval and northern St. Johns Counties; however, the reclaimed customer base is expanding throughout the JEA service area.

4.0 Population and Water Demand Projections

Abundant, clean drinking water is one of Jacksonville's most valuable resources. Potable water must be adequate to meet the future demands of the City while sustaining water resources and related natural systems.

4.1 Population Projections

The University of Florida's Bureau of Economic and Business Research (BEBR) produces Florida's official city, county and state population estimates each year. The population projections developed by BEBR are generally accepted as the standard throughout Florida. Table 3 provides the BEBR population projections for Duval County. JEA and the SJRWMD use BEBR population projections as the base number for estimating future population. JEA and the SJRWMD also use acceptable industry standards to project the need for water supply utilities.

Planning District	2020	2025	2030	2035	2040	2045
Urban Core	33,418	36,949	35,757	34,104	32,331	30,616
Greater Arlington/Beaches	227,983	252,074	264,863	274,163	280,618	286,043
Southeast	267,874	296,180	320,104	339,512	355,256	368,918
Southwest	181,328	200,489	217,059	230,497	241,554	251,108
Northwest	128,407	141,976	142,441	141,130	138,715	136,255
North	89,640	99,113	108,451	116,387	122,707	128,370
Beaches/Baldwin	46,841	51,791	53,516	54,483	55,067	55,442
County Total	975,491	1,078,572	1,142,191	1,190,275	1,226,247	1,256,752
City Total	928,650	1,026,781	1,088,675	1,135,792	1,171,180	1,201,310

Table 3: Duval County Population Growth Projections, 2020-2024
Source: City of Jacksonville Planning and Development Department, University of Florida, Bureau of Economic and Business Research; November 2023

The City of Jacksonville Planning and Development Department uses the cohort-component method to project population and compares it to projections prepared by BEBR in order to ensure consistency and accuracy. Projections used by the City of Jacksonville Planning and Development Department assist in the

on-going assessment of Jacksonville's *2045 Comprehensive Plan*. The population projections in Table 3 are from Table L-3 of the Future Land Use Element's Background Report and were used to update the Comprehensive Plan from a horizon year of 2030 to 2045; the *2045 Comprehensive Plan* is based on the projections in Table 3.

JEA's demand forecast is based upon recent customer connection and demand/production trends. Historical new connection trends are analyzed on a grid or basin basis and then consolidated into an overall service territory trend. Utilizing the connection trends along with total water production data, a gallons per day per connection metric is developed and then applied against the projected connections to develop a future demand forecast. Served population estimates are calculated on an as needed basis. JEA does not have demographic information for customers or number of people per connection served. Population is estimated using only residential and multifamily connection counts multiplied by a persons per household factor obtained from the United States Census Bureau for the specific County/region in question.

Population Projections						
Grid	North	South	Nassau	Ponte Vedra	Ponce De Leon	Mayport
2024	344,563	452,247	31,803	4,175	1,866	245
2025	350,600	460,744	33,980	4,198	1,878	251
2026	356,637	469,036	36,157	4,222	1,889	256
2027	362,673	477,124	38,334	4,245	1,900	261
2028	368,710	485,006	40,511	4,269	1,911	267
2029	374,747	492,684	42,688	4,292	1,922	272
2030	380,784	500,156	44,865	4,316	1,933	277
2035	410,967	534,445	55,749	4,433	1,988	304
2040	441,151	563,609	66,634	4,550	2,043	330
2045	471,335	587,650	77,518	4,668	2,087	357

Table 4: Population Projections, JEA Service Area
Source: JEA

4.2 Projected Water Demands

JEA renewed its CUP with the SJRWMD in May 2011 for a 20-year period. Figure 8 shows the projected total water demand and the expected water demand from the Floridan Aquifer. The difference from the purple dashed line and blue dashed line is the projected volume of potable offset reclaimed water demand.

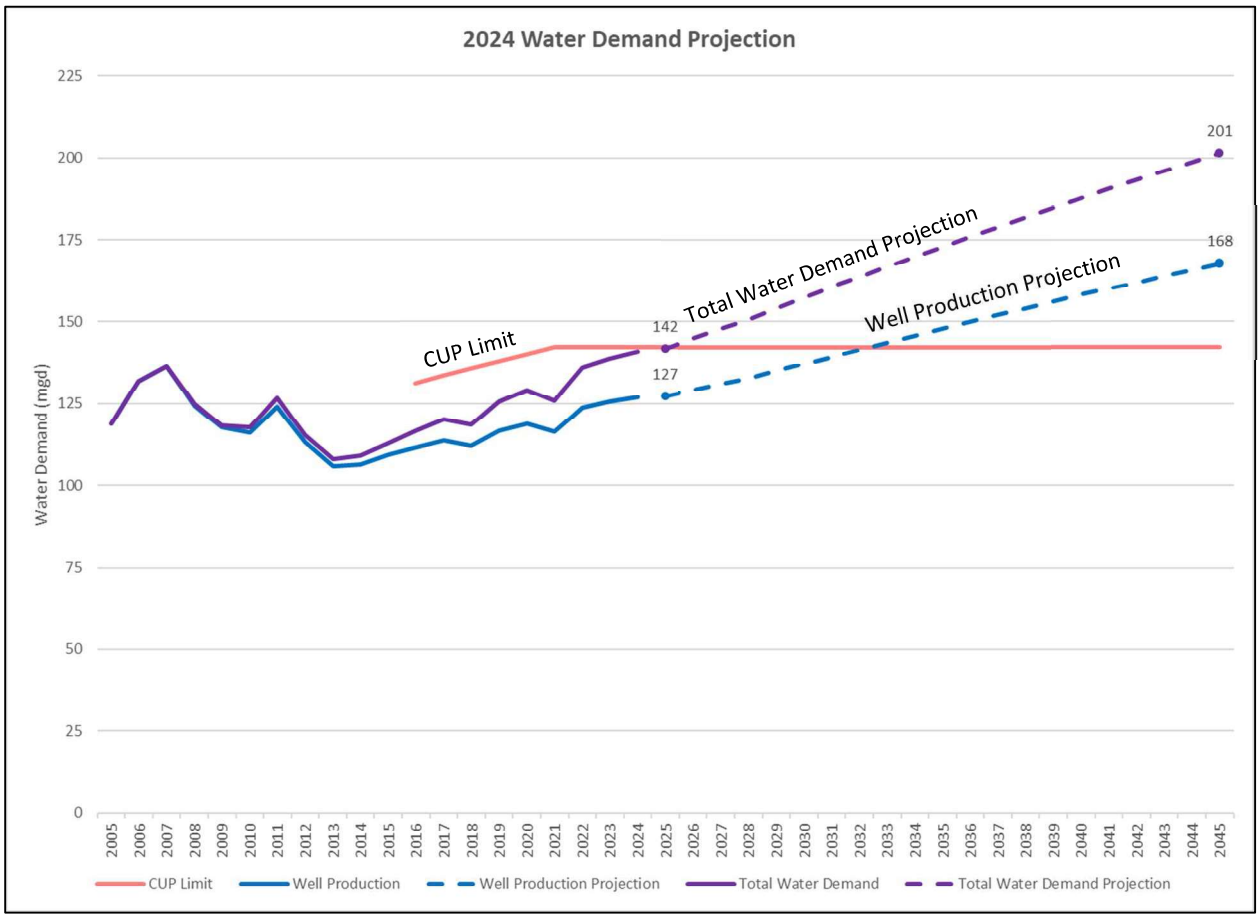

Figure 8: Water Demand Projections
Source: JEA

Using the customer connection and demand/production trends, historical new connection trends are analyzed on a grid or basin basis and then consolidated into an overall service territory trend. Utilizing the connection trends along with total water production data, a gallons per day per connection metric is developed and then applied against the projected connections to develop a future demand forecast. The result of the final forecast of total water demand per grid is shown in Table 5.

Individual Grid Demand in MGD							
Year	North Grid	South Grid	Nassau Grid	Ponte Vedra Grid	Ponce de Leon Grid	Mayport	Total Water Demand
2019	45.22	66.56	3.57	1.06	0.44	0.05	116.90
2020	47.01	66.71	3.69	1.01	0.42	0.06	118.89
2021	44.14	67.19	3.65	1.03	0.38	0.06	116.44
2022	46.94	71.19	4.25	1.08	0.33	0.06	123.85
2023	48.48	71.09	4.67	1.07	0.25	0.06	125.64
2024	49.19	72.20	4.15	1.07	0.28	0.06	126.96
2025	49.39	72.07	4.35	1.08	0.31	0.06	127.26
2026	49.06	74.07	4.55	1.08	0.35	0.07	129.16
2027	48.71	76.10	4.74	1.08	0.38	0.07	131.08
2028	49.35	76.82	4.94	1.09	0.41	0.07	132.67
2029	50.54	77.66	5.14	1.09	0.41	0.07	134.90
2030	51.72	78.48	5.33	1.10	0.41	0.07	137.11
2035	57.64	82.26	6.32	1.13	0.43	0.08	147.85
2040	63.57	85.62	7.30	1.16	0.44	0.08	158.16
2045	69.49	88.39	8.28	1.19	0.45	0.09	167.89

Table 5: Water Demand by Grid
Source: JEA

4.3 Projected Reclaimed Water Demand

Reclaimed water is an integral part of JEA's CUP. By implementing proposed capital projects, JEA has projected total reclaimed water to reach 44 mgd by 2040. JEA will continue its commitment to develop and invest in the expansion of reclaimed water treatment and distribution in order to support the needs of their customers and maximize the use of reclaimed water to the extent it is economically, environmentally and technologically feasible.

5.0 CAPITAL IMPROVEMENT PROJECTS

JEA's Capital Improvement Plan identifies water, wastewater and reclaimed water treatment, transmission, collection and distribution projects in the capital budget. Water treatment and distribution Capital Improvement Projects (CIP) that are currently planned to begin in the next ten years or are underway are identified and are included in Appendix 2. As planning needs dictate, the timing of specific projects may change, or projects substituted to meet the needs of JEA customers. Project specific information and descriptions are not included in this report but are available via JEA's Capital Budget. Current planned projects with 10-year project budgets totaling approximately $1.99 billion are scheduled to be spent during this time period.

JEA has $1.9 million in reclaimed water projects already planned to serve the needs of the reclaimed water system over the next ten years. These projects are focused on meeting the projected demands, offsetting potable water use and minimizing the environmental impacts to the St. Johns River and Floridan Aquifer. Most projects are focused on providing the projected capacity to support increasing demands from new growth; some projects are currently conceptual and require further evaluation to determine viability. Appendix 3 is a list of the reclaimed water Capital Improvement Projects.

The 2023 North Florida Regional Water Supply Plan (NFRWSP) identifies water conservation efforts and water supply development and water resource development project options to meet water demands while protecting water resources. Appendix 1 of this plan lists all the project options from the 2023 NFRWSP and highlights those that are listed in the proposed JEA CIP. Those projects that involve JEA and are not highlighted are not being implemented by JEA currently or are within Nassau County limits. JEA is evaluating several significant reclaimed water project options, which have the potential to expand reclaimed water use even further. One program in particular, the water purification program, is investigating further purifying the available reclaimed water to drinking water standards so it can be used to replenish the aquifer. Replenishing the aquifer would result in a proportional increase in the Consumptive Use Permit. Below are the water purification project options shown in the 2023 NFRWSP that are being implemented by JEA's water purification program.

RWSP Project No.	District	County	Project Type	Project Name / Description	Project Status	Estimated Completion Date
2023_30	SJRWMD	Duval	Technology Evaluation	Water Purification Demonstration Facility	Construction/ Underway	2025
2023_39	SJRWMD	Duval	Indirect Potable Reuse	SWDE – Arlington East WRF Purification Facility	Design	2031
2023_40	SJRWMD	Duval	Indirect Potable Reuse	SWDE – Southwest WRF Purification Facility	Planning	2031
2023_41	SJRWMD	Duval	Indirect Potable Reuse	SWDE – Cedar Bay Purification Facility	Planning	2031

Table 6: Purification Projects
Source: 2023 North Florida Regional Water Supply Plan, Appendix K, Table K2

The City of Jacksonville updates its 5-Year Capital Improvements Project budget (CIP) annually. Projects identified in JEA's Water Resource Master Plan have been included in the most current CIP, adopted in September 2024. Appendix 3 of this plan highlights the reclaimed water projects being implemented by JEA that are also listed as project options in the 2023 NFRWSP. Projects that are not highlighted are not included as project options in the 2023 NFRWSP. The City and JEA will continue to evaluate water and reclaimed water projects identified in this plan as well as other projects that may be necessary to meet projected water demands and will update the CIP accordingly.

6.0 FUTURE WATER SUPPLY PLANNING AND COORDINATION

To promote the efficient use of water and offset groundwater withdrawals, the City of Jacksonville and JEA have committed to various alternative water supply strategies.

For the 10-year period of this Work Plan, the City and JEA will continue to focus on the water supply planning strategies listed below. These strategies are implemented through a variety of programs, policies, and projects as mentioned in this section and all include active participation with the SJRWMD and other stakeholders in the Regional Water Supply Planning process. To this end, explicit actions are outlined by strategy below, and continued collaboration is planned through the North Florida RWSP Project Conceptualization Partnership project option (project number 2023_12) as identified in the 2023 North Florida Regional Water Supply Plan, Appendix K.

- Conservation;
- Provision of Water Supplies to Development;

- Protection of Water Sources;
- Alternative Water Sources; and
- State and Regional Collaboration

6.1 Water Conservation

The City and JEA have pursued conservation efforts to protect and conserve the Floridan Aquifer. In addition to practicing conservation measures, the City and JEA have also established educational campaigns, enabling policies, and specific projects with the goal of conserving water resources. The City and JEA plan to maintain these conservation programs and improve them where possible.

Aside from practicing conservation within their organizations, the City and JEA also focus on developing and disseminating educational campaigns, enabling low-impact development (LID), and requiring responsible landscaping applications such as Florida-friendly landscaping and similar measures.

The City and JEA coordinate and plan using the programs, policies, and projects listed in the table below.

		2045 Comprehensive Plan	Local Ordinance	JEA	Additional
Water Conservation	Low Impact Development (LID)	FLUE 1.5.9; CCME 13.3.6 and 13.5.5			Duval County Low-Impact Development Manual, July 2013
	Florida-friendly Landscaping & landscaping-related efforts	IE NGAR 2.2.4; IE PW 1.8.3; CCME 3.4.4	Chapter 656.1211; Irrigation Ordinances 2008-030 and 2009-360	JEA Irrigation Tips for Conservation flyers	SJWMD Model Water Conservation Ordinance for landscape irrigation Rule 40C-2.042(2) F.A.C.; Section 373.62 F.S.
	Education	IE NGAR 1.3.7; IE NGAR Obj. 2.2; IE NGAR 2.2.1; IE NGAR 2.2.6; IE PW 1.6.7; IE PW Obj. 1.8; IE PW 1.8.1; IE PW 1.8.5	EQD Education Flyers Irrigation, Fertilizer, Figuring Out Fertilizer for the Home Lawn, and Frequently Asked Questions	JEA Teacher Resources--free educational materials	DEP/UF resource document "Florida-Friendly Landscape Guidance Models for Ordinances, Covenants, and Restriction," January 2009

FLUE- Future Land Use Element
IE NGAR- Infrastructure Element Natural Groundwater Aquifer Recharge Sub-element
IE PW- Infrastructure Element Potable Water Sub-element
CCME- Conservation/Coastal Management Element

Table 7: Water Conservation Coordination

6.2 Provision of Water Supplies

Concerning future planning and coordination for water provision, the City and JEA recognize the need for developments to be supplied with water resources concurrently as well as for services to be provided to areas in anticipation of future growth and development. To this end, several policies underscore this effort, and these enabling policies and ordinances are listed in the table below.

		2045Comprehensive Plan	Local Ordinance
Provision of Water to Development	Providing Supplies Concurrently	FLUE Obj. 1.2; FLUE 1.2.11; IE PW 1.1.1; IE PW 1.1.2; IE PW 1.3.2; CIE 1.4.4	
	Future Provision	FLUE 1.1.25; FLUE 1.2.8; FLUE 1.2.12; IE NGAR 1.1.2; IE NGAR 1.2.6; IE NGAR 1.2.7; IE PW Obj. 1.3	Chapter 654.132

Table 8: Concurrent and Future Water Provision

6.3 Water Source Protection

For the 10-year period of this Work Plan, the City and JEA will continue to focus on water source protection practices, enabled and administered through the following ordinances, policies, programs, and partnerships:

		2045 Comprehensive Plan	Local Ordinance	JEA	Additional
Water Source Protection	Protect Water Quality	FLUE 1.5.3; FLUE 1.5.8; FLUE 2.8.6; IE NGAR Obj. 1.3; IE NGAR 1.3.3; IE NGAR 1.3.5; IE NGAR 1.3.14; IE PW 1.2.3; CCME 2.1.5; CCME 2.1.9	Chapter 366.102; Environmental Protection Board (EPB) Rule 8; Chapter 654.119 Design standards wetlands and lands adjacent to water bodies; Chapter 366.607 Low Maintenance Zones	St. Johns River Accord (partnership)	Groundwater Resource Management Program; Groundwater Recharge Area Protection Program; DEP Source Water Assessment and Protection Program

Table 9: Water Source Protection Coordination

In 2006, JEA entered into the River Accord with the SJRWMD, COJ, and Florida Department of Environmental Protection (FDEP). The River Accord is an agreement among the parties to reduce nitrogen discharge to the river through increased usage of reclaimed water, upgrades to wastewater treatment plants, septic tank phase-outs, and storm water treatment. Through the River Accord, JEA entered into a cost sharing agreement with the SJRWMD in July 2007. This provided for a $250 million ten-year commitment to construct reclaimed water projects and upgrade wastewater treatment plants.

6.4 Alternative Water Sources

For the 10-year period of this Work Plan, the City and JEA will continue to focus on researching and providing alternative water sources. The primary strategy in this area is expansion of the water reclamation system and aquifer sustainability.

Over the past several years JEA has invested in a reclaimed water system in numerous service areas to help reduce the demand on the potable water system. During 2015, JEA established a reclaimed water system service area and enhanced its rules and regulations to promote the use of reclaimed water throughout its system. In the next decade additional sources of supply will be needed to help reduce the demand on the groundwater supply.

With JEA's support, the City passed a reclaimed water ordinance in 2006. This ordinance requires the construction of reclaimed water distribution systems in developments that JEA is prepared to serve. For more than a decade, JEA has been committed to providing reclaimed water for beneficial use. More than $85 million has been spent on transmission, treatment and pumping facilities to date.

As previously mentioned, in February 2015 JEA updated the JEA Rules and Regulations for Water, Sewer and Reclaimed Services to include reclaimed water service as a required connection within the JEA reclaimed water service area. Developments planned to be constructed within the reclaimed water service area at a distance greater than the minimum required from existing reclaimed water piping will be required to install reclaimed water piping until the service comes available in the future. Connection requirements are based on Equivalent Residential Connections (ERC) determined for each specific development. The required connection for new developments is subject to the conditions described in the Rules and Regulations. In the future more reclaimed water service areas are planned in regions like Northwest (north of Naval Air Station Jacksonville) as the reclaimed water system is expanded.

Over the next 10 years, JEA has budget plans to spend an additional $895 million to expand the use of reclaimed water throughout its service area. In addition, JEA is evaluating a number of other significant reclaimed water project options that have the potential to expand reclaimed water use even further. The table below lists the programs and policies that support water reuse.

		2045 Comprehensive Plan	Local Ordinance	JEA	Additional
Alternative Water Sources	Water Reuse/ Reclaimed	FLUE 1.2.12; IE NGAR 1.2.5; IE NGAR 1.2.6; IE NGAR 1.2.8; IE NGAR Obj. 2.1; IE PW Obj. 1.7; IE PW 1.7.2; CCME 2.2.4	Chapter 752 (Jacksonville Reuse of Reclaimed Water Program)	JEA Rules and Regulations for Water, Sewer & Reclaimed Services	DEP Comprehensive Reuse Program Chap. 62-610 F.A.C.

Table 10: Alternative Water Source Coordination

Other sources such as desalination of brackish, ocean or river water, potable reuse could be developed in the future to provide alternative potable water to JEA's customers. These options are much costlier to construct and operate than JEA's current water treatment facilities. These alternative water supply options would influence the current cost of service. The rates may need to be increased to cover the higher costs. JEA continues to work with the SJRWMD and the FDEP to find the most environmentally responsible and financially equitable solution for the community.

In FY2014 JEA began investing potable reuse as an alternative water supply which led to developing a three-phase program. Phase I consisted of pilot testing from 2017-2019. JEA is currently in Phase II which is design, construction and operation of a demonstration scale facility. Phase III considers full-scale implementation at multiple locations.

6.5 State and Regional Collaboration

As it is often said, water bodies and the flow of water do not recognize jurisdictional boundaries. As such, state and regional collaboration is necessary to plan effectively for water use, preservation and conservation. Table 11 identifies project options from the NFRWSP that JEA is participating in that relate to collaboration and partnership. These efforts include developing a list of feasible regional projects or programs for prevention and recovery strategies for regional rivers; studying if water from specific wastewater treatment facilities could be used as an alternative water supply; and increasing recharge to the aquifer using excess flow from Black Creek.

RWSP Project No.	District	County	Project Type	Project Name / Description	Project Status	Estimated Completion Date
2017_195	SJRWMD	Clay	Groundwater Recharge	Black Creek WRD Project	Construction/ Underway	2024
2023_12	SJRWMD/ SRWMD	TBD	Groundwater Recharge	North Florida RWSP Project Conceptualization Partnership	Proposed	2024
2023_49	SJRWMD	Duval	Technology Evaluation	JEA Ozone-Wetland Treatment Pilot Testing	Design	2026

Table 11: Collaborative Water Conservation and Conceptual Project Options
Source: 2023 North Florida Regional Water Supply Plan, Appendix K, Tables K2 and K4

APPENDIX 1

Project Options Tables from the 2023 North Florida Regional Water Supply Plan (Appendix K)

Note: Yellow-highlight shows projects listed in the proposed JEA capital improvements projects list (Refer to Appendix 3 of this plan).

Table K1. Water Supply Development Project Options

RWSP Project No.	DEP Project ID	District	County	Project Type	Project Name/Description (two columns if needed)	Implementing Agency or Entity	Project Description	Project Status	Estimated Completion Date	Estimated Benefit (mgd)	Storage Capacity Increased (MG)	Total Capital Cost ($M)	Estimated Annual O&M ($M)	Unit Cost ($/1,000 gallons)
2017_19	NA	SJRWMD	Alachua	Reclaimed Water (for potable offset)	Brytan subdivision Reclaimed Water system expansion	GRU	This project includes expansion of reclaimed water distribution system pipelines in Brytan subdivision to offset use of potable water for irrigation. Related to Project No. 2023_28.	Proposed	2030	0.12	NA	$1.23	$0.003	$1.80
2017_20	NA	SJRWMD	Alachua	Reclaimed Water (for potable offset)	Innovation District Reclaimed Water system expansion	GRU	This project consists of expansion of reclaimed water distribution system pipelines to offset use of potable water for industrial cooling and irrigation in the Innovation District as it develops. RCW comes from MSWRF (rather than from KWRF)	Proposed	2035	0.11	NA	$1.50	$0.004	$2.50
2023_26	NA	SJRWMD	Alachua	Reclaimed Water (for potable offset)	RCW Extension to Future University of Florida Golf Course	GRU	This project consists of an extension of RCW transmission and distribution to future UF Golf Course and includes upgrades to RCW pump station and RCW transmission backbone which is needed to support this project. Project site has not been identified.	Proposed	2026	1.00	NA	$1.80	$0.050	$0.47
2017_23	NA	SJRWMD	Alachua	Reclaimed Water (for potable offset)	Reclaimed Water System Expansion into New Neighborhoods	GRU	This project consists of potential future expansion of RCW distribution system into new neighborhoods	Feasibility Review	2045	0.35	NA	$6.50	$0.01	$3.29
2023_28	NA	SJRWMD	Alachua	Reclaimed Water (for potable offset)	RCW Storage Tank & Pumping Upgrade	GRU	This project consists of a RCW storage tank needed to support buildout of Brytan and extension of RCW into future new neighborhoods. Conserved/AWS benefit nominally estimated at 500,000 gpd based on the approximate sum of the volume from the 2 projects this project supports (Brytan RCW Expansion + RCW Expansion to New Neighborhoods). Related to Project No. 2017_19	Feasibility Review	2040	0.50	NA	$5.00	$0.005	$1.75
2023_2	NA	SJRWMD	Clay	Reclaimed Water (for potable offset)	Regional Reclaimed Storage Reservoir (build as 200MG)	CCUA	Reclaimed water storage - This project consists of creation of wet weather storage to be used during dry season peak demand. Conceptual project assumes one or more large storage ponds (60-200 MG) for seasonal storage of surplus reclaimed water (4 months) to meet peak demand shortages at a minimum of 1 mgd delivery from ponds.	Feasibility Review	2035	1.0 - 2.0	NA	$100.00	$0.183	NA
2023_3	NA	SJRWMD	Clay	Reclaimed Water (for potable offset)	Reclaimed Storage Tanks	CCUA	Reclaimed distribution storage - This project consists of seven reclaimed ground storage tanks over five years (5.6 million gallons total). Additional reclaimed storage capacity will allow the utility to store more treated water during peak hours rather than discharging to surface waters. This will also reduce the use of augmentation well and maximize the use of RIBs.	Planning	2029	5.60	NA	$13.11	$0.23	NA
2023_4	NA	SJRWMD	Clay	Reclaimed Water (for potable offset)	Reclaimed Transmission Optimization for Isolation Projects	CCUA	Transmission system optimization to maximize reuse delivery - This project consists of four projects that will install transmission pipelines to isolated transmission and distribution systems. In conjunction with the Reclaimed Storage Tanks and SCADA projects, this will allow the utility to store more treated water during peak hours rather than discharging to surface waters. This will also reduce the use of augmentation well and maximize the use of RIBs. The Transmission/SCADA/Storage tank suite of projects collectively will position CCUA from an approximately 70% reuse utility to nearly 100% reuse this decade. This represents 2-3 mgd of additional beneficial reuse by the end of the decade	Planning	2025	2.0 - 3.0	NA	$8.51	$0.00	NA
2017_27	NA	SJRWMD	Clay	Reclaimed Water (for potable offset)	Lake Asbury Reclaimed Mains Expansion	CCUA	This project will expand the reclaimed distribution system with over six miles of new reclaimed distribution mains in the Lake Asbury Master Planned Area (LAMPA). The expansion is expected to serve the equivalent of an additional 8,600+ single family residences.	Design	2029	NA	NA	$8.51	$0.00	NA
2017_23	NA	SJRWMD	Clay	Reclaimed Water (for potable offset)	Peters Creek WRF, Ponds, Reclaimed Storage & Pipeline (formerly Green Cove Regional RW WTP)	CCUA	This project consists of a new 1.5 MGD AADF Advanced Nutrient Removal WRF producing public access quality reclaimed water, 1.5 MGD wet weather storage ponds, approximately 0.8 MGD onsite reclaimed augmentation, 0.5 MGD RIBs for alternate discharge, and reuse water transmission pipes from the PC WRF to the Governors Park service area. The Peters Creek and Governors Park Reclaimed facilities are expandable, and will ultimately serve approximately 50,000 ERCs at buildout. Related to Project No. 2023_5 and 2023_10.	Construction/ Underway	2024	1.50	NA	$70.58	$1.91	$6.87
2023_10	NA	SJRWMD	Clay	Reclaimed Water (for potable offset)	Governor's Park Reclaimed Storage and Pumping	CCUA	This project consists of a new reclaimed distribution facility to serve the Governor's Park service area. The facility will include a 0.750 MG ground storage tank and high service pump station. The facility will receive water treated to reclaimed standards from the Peters Creek WRF. Related Project No. 2017_23	Construction/ Underway	2024	0.75	NA	$5.37	$0.26	NA
2023_11	NA	SJRWMD	Clay	Reclaimed Water (for potable offset)	Saratoga Springs Reclaimed augmentation well, Storage and Pumping	CCUA	This project consists of a new reclaimed distribution facility to serve the Central Clay County service area. The facility will include a 0.750 MG ground storage tank, high service pump station, and an augmentation well. The facility will receive water treated to reclaimed standards from the CCUA Mid-Clay WRF.	Construction/ Underway	2024	2.30	NA	$6.18	$0.81	$1.15
2023_17	NA	SJRWMD	Clay	Reclaimed Water (for potable offset)	Reclaimed SCADA System Optimization	CCUA	This project will optimize use of reclaimed water system by use of SCADA and programming improvements to the reclaimed distribution system. These improvements will include operational changes and infrastructure additions (e.g. additional flow meters) to optimize the use of reclaimed water and reduce the use of water from augmentation wells.	Planning	2024	1.00	NA	$0.68	$0.00	$0.05
2023_29	NA	SJRWMD	Duval	Reclaimed Water (for potable offset)	Arlington East WRF - Reclaimed Water Filtration Expansion - Increase Capacity from 8.0 to 10.0 MGD	JEA	This project consists of a 2.0 MGD water reclamation facility filter expansion to support increased reclaimed water demands (project combined with SWDE - Arlington East WRF – Reclaimed Water and Disinfection System Upgrades). Related to Project No. 2017_62	Planning	2025	2.00	NA	$2.80	$0.01	NA
2023_42	NA	SJRWMD	Duval	Reclaimed Water (for potable offset)	SEQ to Gate Parkway - Trans - New - R	JEA	This project will install 5,000 feet of 30" reclaimed water main to serve as a transmission pipeline.	Planning	2030	0.12	NA	$4.00	$0.001	$3.56
2017_45	NA	SJRWMD	Duval	Reclaimed Water (for potable offset)	Greenland Reclaimed Water Repump Facility - Storage Tank and Booster Pump Station	JEA	This project consists of 12.0 MG in storage tanks and high service pumps. Related to Project No. 2017_67 and 2023_31.	Construction/ Underway	2025	12.00	NA	$40.00	$0.004	$0.40
2017_49	NA	SJRWMD	Duval	Reclaimed Water (for potable offset)	Ridenour WTP - Reclaimed Water Storage and Repump	JEA	This project consists of a 3.0 MG storage tank and high service pumps.	Design	2026	3.00	NA	$17.35	$0.004	$0.69
2017_55	NA	SJRWMD	Duval	Reclaimed Water (for potable offset)	Davis - Gate Pkwy to RG Skinner - Reclaimed Water System Expansion	JEA	This project will install 13,700 feet of 30" reclaimed water main to serve as a transmission pipeline.	Planning	2025	0.12	NA	$15.10	$0.001	$13.39
2017_62	NA	SJRWMD	Duval	Reclaimed Water (for potable offset)	Monument Rd - Arlington East WRF to St Johns Bluff Rd - Reclaimed Water System Expansion	JEA	This project will install 7,900 feet of 20" reclaimed water main to serve as a transmission pipeline. Related to Project No. 2023_29	Planning	2026	0.06	NA	$10.06	$0.001	$17.86
2023_33	NA	SJRWMD	Duval	Reclaimed Water (for potable offset)	SWDE - Arlington East WRF – Reclaimed Water and Disinfection System Upgrades	JEA	This project will increase the reclaimed water production capacity from 8 to 25 mgd at the SWDE-Arlington East WRF. Related to Project No. 2023_39.	Planning	2027	17.00	NA	$111.00	$0.004	$1.15

Table K1, Continued. Water Supply Development Project Options

RWSP Project No.	DEP Project ID	District	County	Project Type	Project Name/Description (two columns if needed)	Implementing Agency or Entity	Project Description	Project Status	Estimated Completion Date	Estimated Benefit (mgd)	Storage Capacity Increased (MG)	Total Capital Cost ($M)	Estimated Annual O&M ($M)	Unit Cost ($/1,000 gallons)
2017_67	NA	SJRWMD	Duval/St. Johns	Reclaimed Water (for potable offset)	US 1 - Greenland WRF to CR 210 - Reclaimed Water System Expansion	JEA	This project will install 30,000 feet of 20" reclaimed water main to serve as a transmission pipeline. Related to Project No. 2017_45 and 2023_31.	Construction/ Underway	2023	0.06	NA	$33.80	$0.001	$59.89
2017_76	NA	SJRWMD	Nassau	Reclaimed Water (for potable offset)	Nassau Area - Radio Av - Reclaimed Water Storage Tank and Booster Pump Station	JEA	This project consists of a 1.5 MG storage tank and 1,000 gpm high service pumps.	Construction/ Underway	2023	1.44	NA	$7.27	$0.005	$0.61
2017_77	NA	SJRWMD	Nassau	Reclaimed Water (for potable offset)	Nassau Regional WRF - Expansion to 3 MGD	JEA	This WRF capacity expansion includes 1.0 MG storage tank, 1,500 gpm high service pumps, and high level UV disinfection (estimated cost is for the RW component, not the WRF expansion). Related to Project No. 2023_35	Construction/ Underway	2025	2.16	NA	$10.00	$0.020	$0.57
2023_35	NA	SJRWMD	Nassau	Reclaimed Water (for potable offset)	JP - Nassau - Chester Rd - David Hallman to Pages Dairy Rd - R	JEA	This project will install 1,700 feet of 20" reclaimed water main to serve as a transmission pipeline. Related to Project No. 2017_77	Construction/ Underway	2025	0.06	NA	$1.48	$0.001	$2.66
2023_36	NA	SJRWMD	Nassau	Reclaimed Water (for potable offset)	SR200 - William Burgess Blvd to Police Lodge Rd - Trans - R	JEA	This project will install 14,250 feet of 16" reclaimed water main to serve as a transmission pipeline.	Construction/ Underway	2023	0.04	NA	$6.63	$0.001	$18.60
2017_87	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	RiverTown WTP - New Storage and Pumping System	JEA	This project consists of a 2.0 MG storage tank and high service pumps.	Planning	2027	2.00	NA	$12.00	$0.002	$0.71
2023_31	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	Twin Creeks Reclaimed Water Storage Tank and Booster Pump Station	JEA	This project consists of a 2.0 Mgal storage tank and high service pumps. Related to Project No's 2017_45 and 2017_67.	Construction/ Underway	2023	2.00	NA	$9.02	$0.002	$0.54
2017_89	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	CR210 - Longleaf Pine Pkwy to Shearwater - Reclaimed Water System Expansion	JEA	This project will install 11,600 feet of 30" and 2,300 feet of 16" reclaimed water main to serve as a transmission pipeline.	Planning	2026	0.16	NA	$6.86	$0.001	$4.63
2023_32	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	CR210 - South Hampton to Shearwater - Trans - Reclaimed Water System Expansion	JEA	This project will install 7,400 feet of 12" reclaimed water main to serve as a transmission pipeline.	Construction/ Underway	2024	0.02	NA	$3.34	$0.001	$17.85
2017_93	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	CR210 - Twin Creeks to Russell Sampson Rd - Reclaimed Water System Expansion	JEA	This project will install 12,000 feet of 20" reclaimed water main to serve as a transmission pipeline. Related to Project No. 2017_14.	Planning	2029	0.06	NA	$7.63	$0.001	$13.56
2017_94	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	Greenbriar Rd - Longleaf Pine Pkwy to Spring Haven Dr - Reclaimed Water System Expansion	JEA	This project will install 13,500 feet of 20" reclaimed water main to serve as a transmission pipeline	Planning	2027	0.06	NA	$8.19	$0.001	$14.54
2017_104	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	Russell Sampson Rd - St. Johns Pkwy to CR210 - Reclaimed Water System Expansion	JEA	This project will install 12,000 feet of 20" reclaimed water main to serve as a transmission pipeline. Related to Project No. 2017_93.	Planning	2028	0.06	NA	$4.27	$0.001	$7.60
2023_37	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	Blacks Ford WRF - Expansion from 6 to 12 mgd	JEA	This project will add 6 MG of storage and pumping. Related to Project No. 2023_43.	Planning	2027	6.00	NA	$30.00	$0.004	$0.88
2023_38	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	Nocatee North - Reclaim Water Storage Tank	JEA	This project will construct a new 3.5 MG storage tank.	Planning	2026	3.50	NA	$10.37	$0.001	$17.11
2023_43	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	Blacksford WRF to Veterans Pkwy – Trans – RW	JEA	This project will install 11,000 feet of 24" reclaimed water main to serve as a transmission pipeline. Related to Project No. 2023_27	Planning	2028	0.08	NA	$5.00	$0.001	$6.86
2017_109	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	CR 2209 Corridor Reclaimed Water System Expansion	SJCUD	Construction of aproximately 12,700 feet of 20" reuse main along the future County Road 2209 in two segments. The first segment is to connect to existing infrastructure between SR 16 and International Golf Parkway. The Second Segment runs from the NW WRF Facility north to connect to the existing Reuse main in Silverleaf. Project helps facilitate SB 64 goals to interconnect reclaimed water systems. Project will reduce the discharge from the Northwest Wastewater Treatment Plant to Mill Creek, a tributary of Six Mile Creek and the lower St. Johns River.	Design	2024	0.57	NA	$4.00	$0.780	$0.50
2023_45	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	SR 16 Corridor Reuse Transmission Main Expansion	SJCUD	Project to replace approximately 6.7 miles of existing 8-inch reuse main with a new 16-inch and 20-inch reuse main along State Rd 16 to facilitate transmission of reuse water between the SR 16 WRF and the NW WRF grids. Project currently being advertised for design build.	Design	2025	1.00	NA	$11.00	TBD	$0.81
2023_46	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	NW WRF Expansion & Silverleaf DRI Reuse System, Phase 1	SJCUD	Installation of Reuse Infrastructure including Filtration, Transmission Infrastructure, Storage, Booster Pumps, and Augmentation sources which will be installed in various phases of the development. Project supplies reclaimed water to Northwest Service area and Silverleaf DRI.	Planning	2027	2.25	NA	$8.00	TBD	$0.58
2023_51	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	NW WRF Expansion & Silverleaf DRI Reuse System, Phase 2	SJCUD	Expansion of NW WRF from 3.75 MGD to 7.5 MGD and Construction of AWS Facility near Trout Creek to augment and support Silverleaf and NW reclaimed water service area.	Planning	2030	5.75	NA	$128.00	TBD	$2.95
2017_129	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	SR 207 WRF Expansion	SJCUD	Construction to expand existing SR 207 WWTP into a 3.25 MGD facility with the intent to provide reclaimed water to nearby new developments. Project creates a hub for reclaimed water service to comply with SB 64	Construction/ Underway	2025	2.75	NA	$195.00	TBD	$7.92
2023_47	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	SR 207 WRF Reuse Transmission Mains	SJCUD	Construction of approximately 8 miles of reuse transmission main (24"/20") to connect the new SR 207 WRF to the NW and SR 16 reuse grids. Project is required to comply with SB 64.	Construction/ Underway	2025	2.00	NA	$20.00	TBD	$4.38
197	SRWS00032C	SRWMD	Alachua	Reclaimed Water (for potable offset)	Oakmont Subdivision Reclaimed Water System Expansion	GRU	Expansion of reclaimed water distribution system pipelines in Oakmont Subdivision to offset use of potable water for irrigation. Includes additional transmission and storage/pumping facilities to facilitate addition of groundwater recharge wetlands. This project includes all phases of the Oakmont Subdivision project.	Design	2033	0.40	NA	$8.40	$0.103	$3.00
2101	NA	SRWMD	Columbia	Reclaimed Water (for potable offset)	North Florida Mega Industrial Park	Columbia County	Retrofit proposed WWTF to meet AWT for future Public Access Reuse (PAR)	Design	2024	0.25	NA	$27.00	$0.50	$17.27
1729	NA	SRWMD	Suwannee	Reclaimed Water (for potable offset)	Live Oak Reuse	Live Oak, City of	Construct extensions to the Live Oak wastewater collection infrastructure which will provide additional reuse	Design	2024	0.01	NA	$3.24	$0.008	$37.47
[illegible]	SRWS00141A	SRWMD	Union	Reclaimed Water (for potable offset)	Lake Butler Wastewater Treatment Facility AWT Upgrade Phase 1	Lake Butler, City of	Funding for this Phase I will complete a feasibility study, design, and permitting for construction of an AWTF, storage surge tank, and wetland that will ultimately be used to construct a new 1.0 MGD WWTF to AWT treatment standards over three phases.	Design	2025	1.00	NA	$3.40	$0.800	$2.52
2023_7	NA	SJRWMD	Clay	Stormwater	Onsite Stormwater Harvesting at WRFs	CCUA	This project will augment the reclaimed water supply by harvesting stormwater from CCUA WRFs with existing stormwater retention ponds - Fleming Island, Mid-Clay, Miller Street, Ridaught and Spencers Crossing. Harvested stormwater would be pumped to the onsite facility and treated to public access reuse standards before being distributed into the reclaimed system.	Planning	2026	0.24	NA	$2.90	$0.026	$1.11

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Table K1, Continued. Water Supply Development Project Options

RWSP Project No.	DEP Project ID	District	County	Project Type	Project Name/Description (two columns if needed)	Implementing Agency or Entity	Project Description	Project Status	Estimated Completion Date	Estimated Benefit (mgd)	Storage Capacity Increased (MG)	Total Capital Cost ($M)	Estimated Annual O&M ($M)	Unit Cost ($/1,000 gallons)
2023_5	NA	SJRWMD	Clay	Surficial Aquifer System/Intermediate Aquifer System Water Sources	Peters Creek-Governor's Park Shallow Aquifer Augmentation of Reclaimed Water Supply -	CCUA	This project will utilize SAS ground water and recovered Rapid Infiltration Basin (RIB) water to augment the reclaimed supply, particularly during peak demand months. Construction of SAS wells near RIBs at Peters Creek Water Reclamation Facility (PCWRF), and along the approximately 7 mile transmission pipeline between Peters Creek and Governor's Park reclaimed storage and pumping sites. Raw water will be disinfected and added to the reclaimed storage tanks or along the reclaimed transmission line. Related to Project 2017_23.	Feasibility Review	2032	2.20	NA	$13.60	$0.33	$0.83
2023_13	NA	SJRWMD	Clay	Surficial Aquifer System/Intermediate Aquifer System Water Sources	Peters Creek WTP & Production Well # 3 -2.02 MGD Expansion	CCUA	This project consists of an expansion of the Peters Creek potable water distribution facility which uses the SAS. A new 1,400 gpm well, 1.25 MG ground storage tank and related appurtenances will be added.	Permitted	2027	2.02	NA	$4.60	$0.71	$1.12
2023_14	NA	SJRWMD	Clay	Surficial Aquifer System/Intermediate Aquifer System Water Sources	Pier Station WTP Expansion	CCUA	This project consists of a an expansion of the Pier Station potable WTP as growth in area occurs. This WTP uses the SAS as its source water.	Planning	2026	0.25	NA	$2.70	$0.09	$1.70
2023_15	NA	SJRWMD	Clay	Surficial Aquifer System/Intermediate Aquifer System Water Sources	Governor's Park WTP	CCUA	This project consists of a new potable water treatment and distribution facility to serve the Governor's Park service area. The facility will include two new dual zone (SAS and IAS), 1,770 gpm wells, a 0.500 MG ground storage tank, high service pump station and related appurtenances	Design	2025	0.50	NA	$9.00	$0.18	$2.20
2023_50	NA	SJRWMD	St. Johns	Reclaimed Water (for potable offset)	Al WWTP Reclaimed Process Improvements	SJCUD	Upgrade treatment process to supply 100% public-access reuse	Planning	2032	2.00	NA	$25.00	TBD	$1.39
2017_117	NA	SJRWMD	St. Johns	Wellfield Optimization	CR 214 Water Blending Station (NW to Mainland PWS 2 MGD Transfer)	SJCUD	This project will improve water quality to the CR 214 WTP site by conditioning of the water transferred from the NW Grid that is blended and distributed into the Mainland Water System. Project helps to meet growing demands and helps sustain water quality in the Tillman Ridge Wellfield. Phase I for a 1 mgd Blending Station is complete. Phase II to transfer 2 mgd of flow facilitated by CR 208 Booster and NW WTP PhB expansion is in progress.	Construction/ Underway	2023	0.00	NA	$10.47	TBD	$0.74
Total										92.44	0.00	$1,061.44	$7.06	$308.01

*The estimated benefits for project 2023_2 and 2023_4 were assumed to be 1.5 mgd and 2.5 mgd, respectively, for the purposes of calculating total benefits across all projects.

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Table K2. Water Resource Development Project Options

RWSP Project No.	DEP Project ID	District	County	Project Type	Project Name/Description (two columns if needed)	Implementing Agency or Entity	Project Description	Project Status	Estimated Completion Date	Estimated Benefit (mgd)	Storage Capacity Increased (MG)	Total Capital Cost ($M)	Estimated Annual O&M ($M)	Unit Cost ($/1,000 gallons)
304	SRWS00156A	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Data Collection and Evaluation	Alternative Water Supply Feasibility Studies	Local Governments, Water Authorities, Wastewater Treatment Facilities	Conduct AWTF analysis and feasibility studies including treatment wetlands and reclaimed water alternatives.	Construction/ Underway	2024	0.00	NA	$4.00	NA	NA
2023_52	NA	SJRWMD	Alachua	Groundwater Recharge	GRU KWRF RCW Pump station and Transmission Backbone Improvement	GRU	The Transmission Backbone Improvement project is a necessary component to increase capacity of the KWRF RCW pumping station and transmission pipeline to 8 mgd in order to support Project No. 2023_20 GW Recharge Wetland Phase 2 (2 mgd) , Project No. 2023_26 RCW Extension to Future UF Golf Course (1 mgd), and Project No. 2023_21 Future GW Recharge Wetlands (5 mgd). The actual benefit for this project is shown as 0.0 mgd, since the benefit to the water resources is reflected in the related projects as noted above. Unit production costs for this project were calculated based on the 8 mgd of transmission volume.	Planning	2025	0.00	NA	$3.00	$0.20	$0.14
2023_20	NA	SJRWMD	Alachua	Groundwater Recharge	Groundwater Recharge Wetland Phase 2	GRU	This project consists of Phase 2 of the recharge wetland using RCW from Kanapaha WRF on the 75 ac site that was purchased in Phase 1. RCW Pump Station and Transmission Backbone Improvement needed to support this project. Related to Project No. 293	Planning	2034	2.00	NA	$5.00	$0.10	$0.59
2023_21	NA	SJRWMD	Alachua	Groundwater Recharge	Future Groundwater Recharge Project	GRU	This project will recharge groundwater using RCW. Project site not identified. May be co-located with UF Golf Course. RCW Pump Station and Transmission Backbone Improvement needed to support this project.	Feasibility Review	2040	5.00	NA	$20.00	$0.30	$0.88
2017_195	NA	SJRWMD	Clay	Groundwater Recharge	Black Creek WRD Project	SJRWMD / JEA, CCUA, SJCUD, GRU and other local cooperators	The primary goal of the Black Creek Water Resource Development Project is to increase recharge to the UFA in northeast Florida using excess flow from Black Creek. The project will divert up to 10 mgd from the South Fork of Black Creek during wet weather high flow periods. Diversions will only be made when there is sufficient flow available to ensure the protection of natural resources within the creek. The water will be pumped through a transmission system before eventually discharging into Alligator Creek. Alligator Creek flows into Lake Brooklyn, which will increase recharge to the UFA through the lake bottom.	Construction/ Underway	2024	8.04	NA	$100.00	$5.00	$2.90
2023_9	NA	SJRWMD	Clay	Groundwater Recharge	Keystone WWTP and RIB Expansion	CCUA	This project consists of a new or expanded groundwater recharge plant in the Keystone Heights capable of treating up to 0.300 mgd of increasing wastewater flows from residential, commercial, and industrial wastewater.	Feasibility Review	2027	0.30	NA	$11.10	$0.38	$6.01
59	SRWS00076A	SRWMD	Alachua	Groundwater Recharge	Infiltrative Wetlands for WWTF Effluent Treatment Disposal	City of High Springs	Convert the City of High Springs existing sprayfield into infiltrative wetlands.	Construction/ Underway	2024	0.48	NA	$12.35	$1.20	$9.66
293	SRWS00129B	SRWMD	Alachua	Groundwater Recharge	Groundwater Recharge Wetland Phase 1 (Southwest Nature Park)	GRU	This project consists of Phase 1 of constructing a groundwater recharge wetland using RCW from Kanapaha WRF on 75-acre site. Related to Project No. 2023_20.	Design	2026	3.00	NA	$12.00	$0.20	$0.90
409	NA	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	Ecosystem Services	SRWMD	This project will focus on establishing a framework to implement silvicultural management practices on forested lands to benefit the NFRWSP and additional areas benefitting OFS. Reducing forest evapotranspiration (ET) will result in increased aquifer recharge (targeted to the UFA), spring flows, and water yield to nearby streams and wetlands.	Proposed	2045	9.00	NA	$54.00	TBD	TBD
3034	NA	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	Upper Santa Fe Stormwater Capture Project	SRWMD	This project will evaluate methods to enhance the beneficial use of stormwater. A series of studies are underway to provide storage and recharge options to support LSFRB Recovery Strategy. Linked to conceptual projects 358, 359, 360, 361, 362, 364, 367, 372, 375, 378.	Proposed	2045	2.50	NA	$35.00	TBD	TBD
139	SRWS00092A	SRWMD	Bradford	Groundwater Recharge	Brooks Sink Ph II	SRWMD	Redirect flow to a natural sink.	Proposed	2045	0.20	NA	$0.50	$0.05	$0.05
2675	NA	SRWMD	Columbia	Groundwater Recharge	Lake City Recharge wetland expansion	Lake City, City of	Convert the Steedly sprayfield to a created treatment wetland to reduce nutrients and provide recharge	Construction/ Underway	2026	0.23	NA	$6.10	$0.025	$2.92
1739	SRWS00149A	SRWMD	Gilchrist County	Groundwater Recharge	Devil's Ear Spring Recharge Land Acquisition Project	FWC	Less-than-fee simple acquisition (conservation easement) of approximately 2,742 acres within the Devil's Ear Spring (OFS) PFA under the Santa Fe River Basin Management Action Plan. This property accounts for about 2% of the total acreage of the Devil's Complex PFA. Approximately 75% of the property is considered to have high recharge value with the remaining portion of the property being either medium-high or low-medium. The project consists of seven individual parcels in Gilchrist County owned by one individual and all required pre-acquisition costs to complete transactions. Currently the property is used for timber and once acquired the conservation easement will be monitored by FWC.	Design	2026	0.00	NA	$5.26	TBD	TBD
255	SRWS00147A	SRWMD	Hamilton	Groundwater Recharge	Hamilton County Aquifer Recharge Replacement Wells and Water Quality Improvement	SRWMD	This project concept is to replace two 12-inch drainage wells to provide recharge to the UFA and flood protection in the Alapaha Basin. The wells would allow up to 2 MGD of natural aquifer recharge to the Upper Floridan aquifer and the potential for increased recharge contribution in the form of alternative water supplies from the City of Jasper and surrounding communities. Positive flows into the wells will provide a benefit to springs along the Upper Suwannee River.	Proposed	2045	2.00	NA	$0.70	$0.003	$0.05
2023_6	NA	SJRWMD	Clay	Indirect Potable Reuse	Indirect Potable Reuse	CCUA	This project consists of an IPR Plant including recharge wells (1 mgd). Reclaimed water will be treated to potable standards, and used to directly recharge the UFA (IPR). This project is related to a demonstration project (Project No.2023_8).	Feasibility Review	2038	1.00	NA	$2.25	$1.16	$4.73
2[illegible]_39	NA	SJRWMD	Duval	Indirect Potable Reuse	SWDE - Arlington East WRF Purification Facility	JEA	This project consists of a 6.0 mgd water purification facility (capacity conceptual, subject to change) and UFA Recharge Wells. Discharge will be used to replenish the aquifer. Related to Project No. 2023_33.	Design	2031	6.00	NA	$284.00	$0.019	$8.33
2[illegible]_40	NA	SJRWMD	Duval	Indirect Potable Reuse	SWDE - Southwest WRF Purification Facility	JEA	This project consists of a 6.0 mgd water purification facility (capacity conceptual, subject to change) and UFA Recharge Wells. Discharge will be used to replenish the aquifer.	Planning	2031	6.00	NA	$300.00	$0.025	$6.60

Table K2, Continued. Water Resource Development Project Options

RWSP Project No.	DEP Project ID	District	County	Project Type	Project Name/Description (two columns if needed)	Implementing Agency or Entity	Project Description	Project Status	Estimated Completion Date	Estimated Benefit (mgd)	Storage Capacity Increased (MG)	Total Capital Cost ($M)	Estimated Annual O&M ($M)	Unit Cost ($/1,000 gallons)
2023_41	NA	SJRWMD	Duval	Indirect Potable Reuse	SWDE - Cedar Bay Purification Facility	JEA	This project consists of a 2.4 mgd water purification facility (capacity conceptual, subject to change) and UFA Rechage Wells. Discharge will be used to replenish the aquifer.	Planning	2031	2.40	NA	$202.00	$0.008	$14.80
365	NA	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Stormwater	Dispersed Storage for Recharge and Alternative Water Supply	SRWMD	This project will evaluate methods to enhance the beneficial use of stormwater with a focus on retrofitting and enhancing stormwater management systems. This beneficial use could be in the form of enhanced recharge and/or implementation of storm ponds or other storage as an alternative water supply. The primary benefit will be capturing more stormwater as beneficial recharge and reducing runoff. In some cases, stormwater may also serve as an available water source for an alternative water supply. (Linked from results of 360).	Construction/ Underway	2027	NA	3.00	$2.10	TBD	TBD
1738	NA	SRWMD	Columbia	Stormwater	Quail Heights Regional Pond	FDOT/Columbia County	Construction of a regional stormwater pond near I-75 and SR247 interchange to alleviate flooding and benefit Cannon Creek and the Ichetucknee Trace.	Construction/ Underway	2025	0.03	NA	$8.95	$0.001	$35.60
2023_8	NA	SJRWMD	Clay	Technology Evaluation	Mid-Clay WRF Potable Reuse Pilot Demonstration	CCUA	This is a pilot-scale potable reuse demonstration project. A reuse demonstration facility is being constructed at the Mid-Clay WRF. The technology train will be BAF/O3, and will not produce a brine or reject stream needing disposal. Instead, BAF/O3 will produce filter backwash that will go back through plant headworks. CCUA will use the facility to demonstrate the quality of water that can be produced (permitting driver), for operator training, and for public engagement. Related to Project No. 2023_6.	Construction/ Underway	2024	NA	NA	$4.54	$0.90	NA
2023_30	NA	SJRWMD	Duval	Technology Evaluation	Water Purification Demonstration Facility (previously named Water Treatment Pilot/Demonstration Phase 1 and 2)	JEA	This project is a purified water pilot and demonstration project.	Construction/ Underway	2025	1.00	NA	$72.51	$0.003	$12.75
2023_49	NA	SJRWMD	Duval	Technology Evaluation	JEA Ozone-Wetland Treatment Pilot Testing	JEA / SJRWMD / DEP	SJRWMD is collaborating with JEA and FDEP on a pilot study project utilizing water from JEA's Buckman wastewater treatment facility (WWTF) to evaluate the potential for future use of Buckman effluent for UFA recharge and/or alternative water supply. The Buckman wastewater influent contains wastewater discharges from a significant number of industrial customers. Prior to implementing a project for treating Buckman WWTF effluent as a supply for aquifer recharge, a pilot study is necessary to determine if pre-treatment with ozone is effective in breaking down industrial chemicals sufficiently to facilitate assimilation of the organic contaminants in the treatment wetland. The pilot study will be conducted over a two-year period following construction of the pilot wetland basins and appurtenant pilot components. A minimum of 6 months will be required to allow the wetland plants establish. Cost to design/permit/construct $4.2M and 2.825 for monitoring/sampling/lab analysis/report. The project will begin design and permitting by October 1, 2023.	Design	2026	NA	NA	$6.83	NA	NA
Total										51.18	3.00	$1,152.18	$9.58	$106.91

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Table K3. Water Conservation Project Options

RWSP Project No.	DEP Project ID	District	County	Project Type	Project Name/Description (two columns if needed)	Implementing Agency or Entity	Project Description	Project Status	Estimated Completion Date	Estimated Benefit (mgd)	Storage Capacity Increased (MG)	Total Capital Cost ($M)	Estimated Annual O&M ($M)	Unit Cost ($/1,000 gallons)
2760	NA	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Agricultural Conservation	Agriculture Springs Protection	Producers	District wide Cost-share to reduce nutrient load and water usage in the BMAPs and WRCAs.	Construction/ Underway	2027	3.00	NA	$3.75	TBD	TBD
103	SRWS00082A	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Agricultural Conservation	Sustainable Suwannee Ag Pilot Program - Low Input*	FDEP	Pilot program for agricultural operations, landowners, counties and cities, private companies, and other entities within specific geographical areas to submit proposals to reduce water use and improve water quality by reducing and removing nutrients	Construction/ Underway	2026	2.55	NA	$2.50	TBD	TBD
228	SRWS00108B	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Agricultural Conservation	Accelerating Suwannee River Restoration and Silviculture Management	ACT; Rayonier Conservation Trust	Incentivize silviculture and rural land conservation to reduce groundwater pumping and nitrogen loading in the Middle Suwannee springshed.	Construction/ Underway	2025	3.03	NA	$2.38	TBD	TBD
2093	NA	SRWMD	Columbia	Agricultural Conservation	Graham Farm Acquisition	ACT	Acquire acreage in the NFRWSP area to support MFL recovery and preserve land use from development changes. Remove agricultural irrigation well.	Construction/ Underway	2026	0.29	NA	$1.80	$0.005	$1.99
2673	NA	SRWMD	Gilchrist	Agricultural Conservation	Piedmont Dairy Conversion	Alliance Grazing Group, LLP	Conversion from grazing to free-stall barns to reduce nutrients and groundwater pumping	Construction/ Underway	2025	0.45	NA	$5.59	$0.60	$5.50
2967	NA	SRWMD	Gilchrist	Agricultural Conservation	Smart Soakers	UF/IFAS	Reduce water usage through the use of Smart soaker for cattle cooling.	Planning	2026	0.04	NA	$0.49	$0.003	$18.75
2023_22	NA	SJRWMD	Alachua	PS and CII Conservation	Advanced Metering Infrastructure (AMI)	GRU	This project will replace existing meters with smart meters that can help detect leaks on the customers side of the meter, while also replacing service laterals that are made of polybutylene which are prone to leaking.	Construction/ Underway	2024	1.00	NA	$16.40	$0.20	$3.45
2023_23	NA	SJRWMD	Alachua	PS and CII Conservation	Large meter replacement	GRU	This project will replace existing large meters with more accurate new meters. Greater accuracy will promote conservation.	Construction/ Underway	2023	0.09	NA	$0.40	$0.00	$0.81
2023_24	NA	SJRWMD	Alachua	PS and CII Conservation	Toilet/Indoor Plumbing Retrofit Phase 2	GRU	This project is Phase 2 of the Plumbing Retro-fit Program and will replace toilets, sink aerators, and shower heads with low flow units.	Design	2025	0.04	NA	$0.11	$0.00	$0.43
2023_25	NA	SJRWMD	Alachua	PS and CII Conservation	Toilet/Indoor Plumbing Retrofit Future Phases	GRU	This project is a future phase of the Plumbing Retro-fit Program and will replace toilets, sink aerators, and shower heads with low flow units	Proposed	2035	0.13	NA	$0.32	$0.00	$0.43
2017_142	NA	SJRWMD	Alachua	PS and CII Conservation	Future GRU Water Conservation Projects	GRU	This future project will implement cost effective projects that may include but are not limited to public education, advanced metering, indoor plumbing retrofit, commercial water efficiency programs and outdoor irrigation efficiency programs.	Feasibility Review	2035	0.80	NA	$2.00	$0.00	$0.40
2023_16	NA	SJRWMD	Clay	PS and CII Conservation	Advanced Metering with Customer Dashboard	CCUA	This project will provide customers with water savings tools by expanding the capabilities of its existing Advanced Metering Infrastructure to increase the savings realized through customer-side notifications of excessive or abnormal water use. Customers will be able to view water use in short term intervals, and the automated system will alert users the same day they occur. Customers can also gain insight into water use patterns and behaviors which can result in reductions in water use. The project is being performed in as part of a major ERP platform upgrade.	Construction/ Underway	2024	0.45	NA	$0.75	$0.025	$0.27
2023_18	NA	SJRWMD	Clay	PS and CII Conservation	Customer DSM Programs (take midpoint or water prod)	CCUA	This project is a Demand Side Management Programs Composite in which CCUA has identified a number of demand side management programs that can reduce potable and reclaimed usage. These programs will be adding the DSM portfolio over the next decade. Costs and water savings from these programs occur over the entire life of the program. Programs may include single family high efficiency toilet rebates, high efficiency clothes washer rebates, commercial ice machine and restaurant pre-rinse spray valve rebates, smart irrigation controller rebates, and new development turf reduction ordinance.	Feasibility Review	2033	1.27	NA	$1.59	$0.00	$0.37
2017_174	NA	SJRWMD	St. Johns	PS and CII Conservation	Promote Cost-Effective Conservation Programs	SJCUD	This is an on-going project to reduce demands through conservation. Focus will include retrofits to indoor and outdoor fixtures, improving customer education, irrigation efficiency programs, and utilizing soil moisture sensing devices to reduce irrigation demands. Programs and projects will be evaluated using the H20 SAV tool.	Construction/ Underway	2025	1.80	NA	$0.18	$0.18	$0.06
2023_44	NA	SJRWMD	St. Johns	PS and CII Conservation	NW Wellfield VFD addition	SJCUD	This project is part of the effort to optimize operation of the Northwest Well Field in accordance with SJCUD's Wellfield Optimization Plan. Phase I of this project will install VFD pump controls on new wells as part of the current expansion project. Phase II will retro-fit existing wells. Assumes a 20% supply benefit.	Construction/ Underway	2025	1.55	NA	$1.00	TBD	$0.24
2023_53	NA	SJRWMD	Alachua	PS and CII Conservation	Water Main Replacement, Phase 4	Hawthorne	This project is Phase 4 and 5 of a city-wide water distribution system replacement effort by the City. All phases have been designed, and Phase 1-3 & 5 have been constructed. The remaining portions of the water distribution system consists mostly of approximately 16,600 linear feet of cast iron and galvanized steel pipe that is over 60 years old and has exceeded its useful life. Project completion will conserve precious water resources by significantly reducing water losses and need for frequent flushing.	Construction/ Underway	TBD	0.01	NA	$3.27	$0.005	$37.19
2680	NA	SRWMD	Alachua	PS and CII Conservation	Archer Water System Improvements	Archer, City of	Replacement of aging infrastructure to reduce water loss in the NFRWSP area.	Planning	2027	0.00	NA	$4.80	$0.005	$268.79
2671	NA	SRWMD	Alachua	PS and CII Conservation	Reducing Impacts from Urban Landscapes	Alachua County EPD	Reduction of water use in landscape irrigation in the NFRWSP area.	Planning	2027	0.07	NA	$0.45	$0.009	$1.46
2669	NA	SRWMD	Alachua	PS and CII Conservation	DH/DHR water sharing	GRU	Reduce groundwater pumping by connecting a shared water system at the GRU power plants to conserve water	Construction/ Underway	2030	0.20	NA	$0.93	$0.007	$0.70
2672	NA	SRWMD	Alachua	PS and CII Conservation	High Springs Limerock Mine	Alachua County	Acquire acreage in the NFRWSP area to support MFL recovery and preserve land use from development changes.	Construction/ Underway	2026	0.01	NA	$1.60	$0.014	$17.58
305	SRWS00158A	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	PS and CII Conservation	Water Supply Infrastructure Improvements	Public Water Supply Entities	Includes replacement of aging infrastructure, distribution and safety improvements.	Proposed	2033	0.00	NA	$4.00	$0.04	NA
3033	NA	SRWMD	Bradford	PS and CII Conservation	Hampton AMR water meter replacement	Hampton, City of	Installation of AMR meters to reduce water loss in the NFRWSP area.	Construction/ Underway	2023	0.01	NA	$0.18	$0.003	$28.97
2668	NA	SRWMD	Bradford	PS and CII Conservation	Lawtey Water Main Replacement	Lawtey, City of	Replacement of aging infrastructure to reduce water loss in the NFRWSP area.	Planning	2026	0.02	NA	$2.80	$0.06	$23.50

Table K3, Continued. Water Conservation Project Options

RWSP Project No.	DEP Project ID	District	County	Project Type	Project Name/Description (two columns if needed)	Implementing Agency or Entity	Project Description	Project Status	Estimated Completion Date	Estimated Benefit (mgd)	Storage Capacity Increased (MG)	Total Capital Cost ($M)	Estimated Annual O&M ($M)	Unit Cost ($/1,000 gallons)
NA	NA	SRWMD	Bradford	PS and CII Conservation	Waldo AMR water meter replacement	Waldo, City of	Installation of AMR meters to reduce water loss in the NFRWSP area.	Proposed	2025	0.01	NA	$0.20	$0.005	$4.88
Total										**16.81**	**0.00**	**$57.48**	**$1.16**	**$415.77**

Table K4. Conceptual Project Options

RWSP Project No.	DEP Project ID	District	County	Project Type	Project Name	Implementing Agency or Entity	Project Description	Project Status	Estimated Completion Date	Estimated Benefit (mgd)	Storage Capacity Increased (MG)	Total Capital Cost ($M)	Estimated Annual O&M	Unit Cost ($/1,000 gallons)
33	SRWS00074A	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Agricultural Conservation	Agricultural Efficiency Improvements	SRWMD/Producers	Implement water savings measures in the Eastern Planning Region.	Construction/ Underway	2045	TBD	NA	TBD	TBD	TBD
2023_12		SJRWMD/SRWMD	TBD	Groundwater Recharge	North Florida RWSP Project Conceptualization Partnership	CCUA, JEA, SJCUD, and GRU	Develop a list of feasible, conceptual regional projects or programs for the NFRWSP and MFL prevention/recovery strategies for the LSFIR and the Suwannee River. Tasks include 1. collection and review of utility IWRP and WW discharge records; 2. individual utility conceptual project ideas review; 3. identification and screening of projects for further conceptual development and 4. project list refinement and prioritization.	Proposed	2024	TBD	NA	TBD	TBD	TBD
217	SRWS00131A	SRWMD	Bradford	Groundwater Recharge	Rayonier South Water Supply Project	SRWMD	Restore natural flows with or without enhanced storage or aquifer recharge to UFA.	Proposed	2045	0.00	NA	$3.50	TBD	TBD
142	SRWS00094A	SRWMD	Bradford	Groundwater Recharge	WestRidge	TBD	Restore natural flows with or without enhanced storage or aquifer recharge to UFA.	Proposed	2045	1.00	NA	$2.79	TBD	TBD
240		SRWMD	Bradford	Groundwater Recharge	Bradford County Silviculture & Recharge	University of Florida	The purpose of this project is to enhance opportunities for aquifer recharge to UFA for the silvicultural lands and areas with surplus surface waters.	Conceptual	2045	TBD	NA	$2.00	TBD	TBD
358		SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	Municipal Stormwater Discharge Project	SRWMD	The purpose of this project will be focused on identifying locations where towns/cities discharge to open subbasins that then discharge to the Santa Fe River.	Conceptual	2045	TBD	NA	$0.04	TBD	TBD
359		SRWMD	Alachua	Groundwater Recharge	Open to Closed Basin Project	SRWMD	The purpose is to determine which basins, that are closed in smaller storm events, but are open in larger events, could be closed for the larger storm events such that the extra volume stored could be recharged into the aquifer through percolation.	Conceptual	2045	TBD	NA	$0.06	TBD	TBD
360		SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	Retention Pond Project Phase I	SRWMD	The purpose of this Project will be to determine if existing retention ponds were modified to store more water, would they be able to still meet permitting criteria, on average, how much would it cost to modify them, how much water could be recharged, and if there were cost effective things that could be done to increase the amount of water percolating in ponds.	Conceptual	2045	TBD	NA	$0.07	TBD	TBD
361		SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	Santa Fe Basin Sinkhole Recharge Evaluation	SRWMD	The purpose of these projects will be to find locations to place storage ponds to assist with increasing rechange to the groundwater or to be used as alternative water supply.	Conceptual	2045	TBD	NA	$0.12	TBD	TBD
362		SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	City Stormwater Recharge Study Phase II	SRWMD	The purpose of this project will be focused on identifying locations where storage ponds could be located adjacent or within towns/cities that are in open subbasins that discharge to the Santa Fe River.	Conceptual	2045	TBD	NA	$0.05	TBD	TBD
364		SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	LaCrosse Stormwater Recharge Project Investigation Phase II	SRWMD	The purpose is to evaluate the regulatory feasibility, estimated benefits, and project costs of increased recharge of stormwater in LaCrosse from capturing water from Rocky Creek.	Conceptual	2045	TBD	NA	$0.08	TBD	TBD
366 linked to 409		SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	Ecosystem Services	University of Florida	This project will focus on establishing a framework to implement silvicultural management practices on forested lands to benefit the NFRWSP and additional areas benefitting OFS. Reducing forest evapotranspiration (ET) will result in increased aquifer recharge (targeted to the UFA), spring flows, and water yield to nearby streams and wetlands. (linked to project 409)	Conceptual	2037	TBD	NA	$2.00	TBD	TBD
367		SRWMD	Bradford	Groundwater Recharge	Starke-Bradford Master Plan Project	SRWMD	The purpose of this project will be focused on identifying locations where projects can be undertaken within the City of Starke or in Bradford County to enhance core missions of the District .	Conceptual	2045	TBD	NA	$0.08	TBD	TBD
372		SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	Retention Pond Project Phase II	SRWMD	The purpose of this Project will be to determine if increasing the amount of stormwater stored in retention ponds will have an adverse impact on groundwater, downstream wetlands, water levels and/or Minimum Flows at nearby gauges.	Conceptual	2045	TBD	NA	$0.20	TBD	TBD
374		SRWMD	Hamilton	Groundwater Recharge	Cooperative Aquifer Recharge Project	Agricultural Chemicals	The purpose of this project is to identify UFA recharge locations based on water quality and water availability metrics.	Conceptual	2045	TBD	NA	TBD	TBD	TBD
375		SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	Santa Fe River Basin and Stream Storage Investigative Project	SRWMD	The purpose is to identify and prioritize potential pond sites within open subbasins in the Lower Santa Fe and Ichetucknee (LSFI) basin watersheds that can be used to hold additional stormwater and will percolate the excess water to recharge groundwater levels.	Conceptual	2045	TBD	NA	$0.09	TBD	TBD
378		SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	Groundwater Recharge	Cow Creek Project	SRWMD	The purpose of this project will be to develop projects that provide storage and recharge to the groundwater that build off results from the Open to Closed Basin Project (0359) and the Santa Fe Basin Sinkhole Rechange Evaluation (0361).	Conceptual	2045	TBD	NA	TBD	TBD	TBD
194	SRWS00120A	SRWMD	Alachua, Bradford, Columbia, Gilchrist, Hamilton, Suwannee, Union	PS and CII Conservation	SRWMD PS/CII Conservation Potential	SRWMD	Water conservation to be achieved through the replacement of inefficient fixtures with high efficiency fixtures to reduce commercial water consumption.	Proposed	2045	TBD	NA	TBD	TBD	TBD
2023_1		SJRWMD	Duval	PS and CII Conservation	Water Conservation Education Program	Atlantic Beach	Working with the City's Environmental Stewardship Committee and with technical assistance from SJRWMD staff, the City of Atlantic Beach Public Utilities Department will implement a voluntary water use bench-marking program and educational outreach program with the goal of reducing per capita water use within the City by 15%.	Conceptual	TBD	0.35	NA	TBD	TBD	NA
Total										1.35	0.00	$11.07	$0.00	$0.00

APPENDIX 2

10-Year Capital Improvement Projects, North and South Grids FY2024-2034

Capital Improvement Projects, South Grid (in $1,000s)

Index No	Project Description	Project Total FY 24-34	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	FY 34
101-60	Forest Blvd - Stone Rd to T-Line - Raw Water Main - New	$122	$117	$5	$0	$0	$0	$0	$0	$0	$0	$0	$0
101-71	South Grid - Baymeadows Rd - Brierwood Rd to Craven Rd W - W	$1,300	$0	$0	$0	$0	$0	$190	$550	$560	$0	$0	$0
101-72	South Grid - CR210 - St Johns Pkwy to Leo Maguire Pkwy - W	$2,000	$0	$0	$110	$332	$1,200	$358	$0	$0	$0	$0	$0
101-73	South Grid - Intertie between Bartram Repump and Racetrack Rd - W	$102	$0	$17	$85	$0	$0	$0	$0	$0	$0	$0	$0
102-21	SIPS - Main St WTP - 1st St to Franklin St - Trans - New - W - ENV	$30	$30	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
102-33	US1 BPS - Old St Augustine Rd to US1 BPS - New - W	$547	$527	$20	$0	$0	$0	$0	$0	$0	$0	$0	$0
102-34	SIPS - Deerwood - Southside Blvd Intertie to Deerwood III WTP - New	$9,331	$8,136	$1,195	$0	$0	$0	$0	$0	$0	$0	$0	$0
102-35	SIPS - Oakridge - Saints Rd - St Johns Bluff to Oakridge WTP - W	$13,381	$0	$0	$0	$0	$1,132	$5,436	$6,813	$0	$0	$0	$0
102-36	SIPS - Ridenour - Cortez to Ridenour WTP - New - W	$25,373	$0	$0	$0	$0	$2,162	$9,899	$13,312	$0	$0	$0	$0
102-37	SIPS - Greenland - Southside Blvd - Deerwood 3 to Greenland - W	$49,920	$27,500	$14,620	$7,800	$0	$0	$0	$0	$0	$0	$0	$0
102-43	SIPS - Greenland WTP GST No. 3 and Intertie Station	$9,409	$15	$7,232	$2,162	$0	$0	$0	$0	$0	$0	$0	$0
150-10	Southeast WTP - Ground Storage Tank	$6,712	$162	$0	$0	$62	$3,407	$2,033	$1,048	$0	$0	$0	$0
166-27W	Rivertown - 2022-3807 Rivertown Main Street Phase 5 - W	$1,596	$0	$1,596	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-30W	Estuary - 2023-0673 Ranger Station Roadway and Infrastructure - W	$4,676	$0	$2,338	$2,338	$0	$0	$0	$0	$0	$0	$0	$0
166-37W	2023-2507 Landings at Greenbriar Phase 1 - W	$339	$0	$339	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-13	Brierwood WTP - Rehabilitation	$9,168	$0	$0	$0	$0	$680	$2,797	$5,691	$0	$0	$0	$0
425-41	Deerwood III WTP - Well 2 Replacement	$2,381	$1,890	$491	$0	$0	$0	$0	$0	$0	$0	$0	$0

425-42	Cecil Commerce Center - Well No. 4	$4,189	$0	$1,850	$1,682	$657	$0	$0	$0	$0	$0	$0	$0
425-43	Ridenour WTP - Well No. 8	$4,625	$699	$3,075	$851	$0	$0	$0	$0	$0	$0	$0	$0
425-44	DLY - Southeast WTP - Well No. 4	$2,108	$22	$0	$0	$524	$1,562	$0	$0	$0	$0	$0	$0
425-59	Deerwood WTP - Well 5 Rehabilitation	$68	$68	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-61	Brierwood WTP - Well 1 Rehabilitation	$28	$28	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-62	Brierwood WTP - Well 2 Rehabilitation	$1	$1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-64	Hendricks WTP - Well 6 Rehabilitation	$13	$13	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-65	Norwood WTP - Well 1 Investigation and Rehabilitation	$1,917	$156	$1,379	$382	$0	$0	$0	$0	$0	$0	$0	$0
425-66	Norwood WTP - Well 4 Investigation and Rehabilitation	$453	$391	$62	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-67	Deerwood WTP - Well 8 Rehabilitation	$475	$475	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-69	Oakridge WTP - GST 1 Rehabillitation	$330	$330	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-72	Hendricks WTP - Well 4 Rehabilitation	$635	$28	$607	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-73	Lovegrove WTP - Well 4 Rehabilitation	$468	$453	$15	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-76	Community Hall Well No. 5 Rehabilitation	$525	$0	$525	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-77	Oakridge Well No. 4 Rehabilitation	$529	$0	$529	$0	$0	$0	$0	$0	$0	$0	$0	$0
438-07	DLY - Beacon Hills WTP - Rehabilitation	$12,085	$38	$15	$561	$872	$5,740	$4,859	$0	$0	$0	$0	$0
825-15	Water Treatment Plant Large Capital Improvements - PH	$142,987	$0	$413	$5,047	$9,710	$24,065	$44,902	$30,761	$12,414	$5,225	$5,225	$5,225
831-03	Royal Lakes WTP Upgrades	$23,882	$1,115	$60	$6,915	$6,886	$8,906	$0	$0	$0	$0	$0	$0
	Totals	$331,705	$42,194	$36,383	$27,933	$19,043	$48,854	$70,474	$58,175	$12,974	$5,225	$5,225	$5,225

Capital Improvement Projects, North Grid (in $1,000s)

Index No	Project Description	Project Total FY 24-34	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	FY 34
425-01	North Grid - Downtown WTP	$11,000	$0	$0	$0	$750	$5,250	$5,000	$0	$0	$0	$0	$0
431-05	Pritchard Rd - Old Plank Rd to Cisco Dr W - Trans - New - W	$599	$599	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
431-07	Cisco Dr - Westlake WTP to Garden St - Trans - New - W	$7,770	$438	$5,094	$2,238	$0	$0	$0	$0	$0	$0	$0	$0

101-10	New World Av - Waterworks Ave to Chaffee Rd - Trans - New - W	$1	$1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
101-38	Jammes Rd - Wilson Blvd to Harlow Blvd	$2	$2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
101-68	North Grid - 301 WTP to Trails - W	$12,427	$0	$0	$0	$0	$0	$0	$0	$0	$827	$2,500	$9,100
101-69	North Grid - Main St - I-295 to Airport Center Dr - W	$2,300	$0	$0	$125	$382	$1,380	$413	$0	$0	$0	$0	$0
101-70	North Grid - Rental Car Lane - Owens Rd to Pecan Park Rd N - W	$1,600	$0	$0	$0	$0	$0	$240	$680	$680	$0	$0	$0
101-71	South Grid - Baymeadows Rd - Brierwood Rd to Craven Rd W - W	$1,300	$0	$0	$0	$0	$0	$190	$550	$560	$0	$0	$0
107-10	E 1st St Main St to E 4th St - Raw Water - New - W	$1	$1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
127-03	Westlake WTP - Expansion from 3.0 to 7.0 MGD	$30,839	$13	$425	$2,081	$1,985	$10,952	$13,957	$1,426	$0	$0	$0	$0
127-04A	Westlake WTP - Well No 4 and RW Main	$4,354	$1,056	$3,101	$197	$0	$0	$0	$0	$0	$0	$0	$0
150-15W	SWDE - Southwest WRF Purification Facility	$126,151	$298	$93	$60	$200	$2,000	$14,000	$40,000	$43,000	$12,000	$500	$14,000
151-03W	SWDE - Cedar Bay Purification Facility	$151,016	$366	$150	$200	$200	$200	$200	$200	$7,000	$5,500	$33,500	$103,500
166-16W	2021-5321 Darby Offsite - W	$225	$225	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-17W	2021-0517 Percy Oaks Offsite - W	$109	$109	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-18W	2021-5260 Saddle Oaks Offsite - W	$135	$135	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-19W	2020-3267 - Seaton Creek - W	$303	$303	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-20W	2021-0722 - Eaton Ave - W	$1,331	$635	$696	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-21W	2020-4323 - Katie Cove - W	$472	$236	$236	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-29W	2023-0280 Diamond Timber Trails Phase 1A - W	$257	$0	$257	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-32W	2023-2827 Acree Pod G - Offsite Utilities - W	$515	$0	$515	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-33W	2023-0725 Seaton Creek Phase 4 - W	$388	$0	$388	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-34W	2023-2192 Trails 1B-1L - W	$300	$0	$300	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-38	2020-3773 Braddock Lakes - W	$647	$0	$647	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-W	Grid - Cost Participation - New - W	$8,800	$43	$3,795	$3,437	$1,175	$50	$50	$50	$50	$50	$50	$50

182-132W	North Grid - Main St - Cole Rd to Elizabeth Ln - W	$3,230	$0	$0	$0	$0	$0	$300	$1,500	$1,430	$0	$0	$0
425-70	Highlands WTP - Well 6 Rehabilitation	$571	$480	$91	$0	$0	$0	$0	$0	$0	$0	$0	$0
425-74	Main Street WTP - Well 6A Rehabilitation	$531	$423	$108	$0	$0	$0	$0	$0	$0	$0	$0	$0
438-02	Ft. Caroline Rd - McCormick Rd to Fulton Rd - Dist - New - W	$2,287	$0	$0	$0	$0	$179	$805	$1,303	$0	$0	$0	$0
642-03	McDuff WTP - Refurbishment Project	$4,357	$3,115	$1,242	$0	$0	$0	$0	$0	$0	$0	$0	$0
737-02	Norwood WTP - Rehabilitation	$3,071	$1,889	$1,182	$0	$0	$0	$0	$0	$0	$0	$0	$0
743-01	SJRPP WTP - New 2 MGD Plant	$26,200	$0	$0	$0	$0	$300	$1,700	$6,000	$18,200	$0	$0	$0
825-17	Lakeshore WTP - Reservoirs Rehabilitation - Phase 2	$4,179	$3,944	$235	$0	$0	$0	$0	$0	$0	$0	$0	$0
825-18	North Grid THM Mitigation Project	$27,794	$185	$694	$1,200	$5,000	$17,000	$3,607	$108	$0	$0	$0	$0
	Totals	$476,801	$13,860	$20,007	$8,681	$16,063	$180,348	$127,173	$25,793	$72,299	$877	$2,550	$9,150

APPENDIX 3

Reclaimed Water Proposed Capital Improvement Projects FY2024-2034

Note: Yellow-highlight shows projects listed in the 2023 North Florida Regional Water Supply Plan

Reclaimed Water Capital Improvement Projects (in $1,000s)

Index No	Project Description	Project Total FY 24-34	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	FY 34
103-04	Blacks Ford WRF - Expansion from 6 to 12 MGD	$246,142	$8,299	$3,151	$71,721	$81,134	$76,284	$5,553	$0	$0	$0	$0	$0
105-01	SWDE - Deep Injection Disposal Wells	$59,669	$0	$0	$0	$0	$0	$39,000	$16,333	$4,336	$0	$0	$0
105-02	SWDE - Water Purification Piloting	$2,030	$0	$0	$1,015	$1,015	$0	$0	$0	$0	$0	$0	$0
131-05	SWDE - Monterey WRF	$41,000	$0	$0	$0	$0	$0	$0	$0	$6,000	$20,000	$5,000	$10,000
131-18S	SWDE - Arlington East Purification Facility - Deep Injection Disposal Wells	$42,585	$0	$0	$185	$2,100	$1,000	$14,300	$19,000	$6,000	$0	$0	$0
135-19	Arlington East WRF – Reclaimed Water and Disinfection System Upgrades	$102,320	$1,366	$3,690	$38,000	$44,000	$15,164	$100	$0	$0	$0	$0	$0
135-20	SWDE - Arlington East Deep Injection Disposal Well	$17,123	$0	$7,759	$9,364	$0	$0	$0	$0	$0	$0	$0	$0
150-15S	SWDE - Southwest WRF Purification Facility - Deep Injection Disposal Wells	$101,928	($169)	$0	$0	$0	$5,188	$39,029	$38,529	$19,351	$0	$0	$0
151-03S	SWDE - Cedar Bay Purification Facility - Deep Injection Disposal Wells	($232)	($232)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
151-04	SWDE - Cedar Bay Deep Injection Disposal Well	$22,300	$0	$0	$0	$0	$1,500	$19,500	$1,300	$0	$0	$0	$0

166-27S	Rivertown - 2022-3807 Rivertown Main Street Phase 5 - S	$446	$0	$446	$0	$0	$0	$0	$0	$0	$0	$0	$0
166-30R	Estuary - 2023-0673 Ranger Station Roadway and Infrastructure - R	$5,126	$0	$2,563	$2,563	$0	$0	$0	$0	$0	$0	$0	$0
166-R	Grid - Cost Participation - New - R	$3,014	$0	$2,114	$100	$100	$100	$100	$100	$100	$100	$100	$100
181-06	Reuse Facility - Capital Equipment Replacement	$490	$9	$39	$50	$50	$50	$50	$42	$50	$50	$50	$50
182-108R	JP - SJC - CR210 - South Hampton to Ashford Mills - Trans - R - ENV	$8,522	$6,219	$2,249	$54	$0	$0	$0	$0	$0	$0	$0	$0
268-10	Greenland WRF - Expansion to 8 MGD	$136,395	$0	$0	$0	$0	$0	$714	$5,592	$3,669	$22,107	$49,964	$54,349
268-W3	Greenland WRF - 4.0 MGD	$41,862	$35,595	$6,267	$0	$0	$0	$0	$0	$0	$0	$0	$0
417-10A	Monument Rd - AE WRF to St Johns Bluff Rd - Trans - New - R	$10,060	$0	$352	$941	$3,114	$5,652	$0	$0	$0	$0	$0	$0
417-12A	RiverTown - New Storage and Pumping System - R	$14,361	$0	$925	$1,156	$8,546	$3,733	$0	$0	$0	$0	$0	$0
417-47	Davis - Gate Pkwy to RG Skinner - Trans - R	$13,894	$5,081	$8,425	$388	$0	$0	$0	$0	$0	$0	$0	$0
417-52	Russell Sampson Rd - St. Johns Pkwy to CR210 - Trans - R	$4,266	$0	$0	$0	$0	$0	$41	$600	$3,430	$195	$0	$0
417-53	JP - SJC-Greenbriar Rd - Longleaf Pine Pkwy to Greenbriar Estates Dr - Trans – R	$8,662	$3	$797	$7,472	$195	$195	$0	$0	$0	$0	$0	$0
417-54	CR210 - Twin Creeks to Russell Sampson Rd - Trans - R	$7,634	$0	$0	$0	$0	$0	$90	$1,100	$5,044	$1,400	$0	$0
417-64	Twin Creeks Reclaim Storage Tank and Booster PS - R - (Reimb-20)	$600	($32)	$632	$0	$0	$0	$0	$0	$0	$0	$0	$0
417-65	Nocatee South RW Storage Tank and Booster PS - R	$643	$612	$31	$0	$0	$0	$0	$0	$0	$0	$0	$0

417-72	Blacks Ford WRF to Veterans Pkwy – Trans – RW	$5,978	$3	$426	$3,581	$1,968	$0	$0	$0	$0	$0	$0	$0
417-74	Greenbriar Rd - Longleaf Pine Pkwy to Spring Haven Dr - Trans - R	$6,179	$208	$706	$5,147	$117	$0	$0	$0	$0	$0	$0	$0
417-83	Nocatee South RW Improvements	$3,565	$815	$2,750	$0	$0	$0	$0	$0	$0	$0	$0	$0
417-90	SEQ to Gate Parkway - Trans - New - R	$4,050	$0	$0	$1,000	$1,000	$2,050	$0	$0	$0	$0	$0	$0
417-91	Rivertown Reclaim Water Booster Pump Station	$2,727	$595	$2,132	$0	$0	$0	$0	$0	$0	$0	$0	$0
417-94	Mandarin-Greenland Interconnect - R - ENV	$1,435	$1,437	($2)	$0	$0	$0	$0	$0	$0	$0	$0	$0
417-97	N Estuary - RW Storage and Repump - R	$18,000	$0	$0	$0	$0	$200	$5,500	$10,300	$2,000	$0	$0	$0
417-98	Bartram Park WTP - Reclaimed Storage Tank Expansion Phase 3 - R	$2,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$400	$2,000
417-104	Nocatee South RW Storage Tank - R	$8,000	$0	$0	$400	$2,000	$5,600	$0	$0	$0	$0	$0	$0
422-05	Ridenour WTP - Storage and Repump - R	$16,501	$386	$2,632	$9,557	$3,926	$0	$0	$0	$0	$0	$0	$0
730-12	US 1 - Greenland WRF to CR 210 - Trans - New - R	$743	$1,168	($425)	$0	$0	$0	$0	$0	$0	$0	$0	$0
730-16	Nocatee North - Reclaim Water Storage Tank	$10,694	$36	$774	$3,201	$6,683	$0	$0	$0	$0	$0	$0	$0
825-13	Water Purification Demonstration Facility	$65,085	24072	$39,258	$1,755	$0	$0	$0	$0	$0	$0	$0	$0
825-13C	H20 Purification Center - Offsite Piping - Reclaimed Water Main	$249	$249	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
870-01	Water Reclamation Facilities - Capital Equipment Replacement	$60,240	$5,240	$5,500	$5,500	$5,500	$5,500	$5,500	$5,500	$5,500	$5,500	$5,500	$5,500
	Totals	$1,183,843	$90,960	$92,975	$141,787	$176,952	$190,118	$154,810	$98,396	$55,480	$49,352	$61,014	$71,999

Appendix 4 - Water Supply Facilities Work Plan 2024-2034

301 Villages Water, Wastewater, and Reuse Water Facilities

Added August 6, 2024 pursuant to Policy 1.1.13 of the Infrastructure Element, Potable Water Sub-Element (IE-PW) of the of the 2045 Comprehensive Plan

IE-PW

Policy 1.1.13

The City shall continue to amend the Comprehensive Plan as needed to implement the City's Water Supply Facilities Work Plan 2018-2028 (Jacksonville Planning and Development Department, February 2019), adopted by reference. Supporting data and analysis may be attached as appendices to the Water Supply Facilities Work Plan, and updated from time to time, without the necessity of an amendment to the Comprehensive Plan. The City and JEA shall continue to identify and implement traditional and alternative water supply projects and programs, including conservation and water reuse, that are consistent with the SJRWMD's Regional Water Supply Plan to meet the City's water needs.

Summary:

Construction, by 301 Capital Partners, LLC, and its Florida Public Service Commission authorized utility subsidiary, First Coast Regional Utilities, Inc., of a One Million Gallon per Day (MGD) water, wastewater, and reuse utility facility to serve entitled development on approximatly 7,000 acres of land located west of US 301 and south of Interstate 10 in western Jacksonville. First Coast Regional Utilities, Inc., has received a 1.2 mgd Consumptive Use Permit (CUP) issued 7/11/24 by the SJRWMD (attached). All estimates are subject to final design and contracting.

Pursuant to Ordinances 2021-692-E and 2021-693-E, development is entitled on approximately 7,000 acres of land located west of US 301 and south of Interstate 10 in western Jacksonville. The development is entitled for construction of over 15,000 equivalent water and wastewater residential connections in mixed use configuration consisting of single-family and multi-family housing and zoning entitlements for commercial, hospital, office, and hotel/motel uses. Pursuant to the Multi-Use Future Land Use Category of the 2045 Comprehensive Plan and the 301 Villages Master Plan, the Water Supply Facilities Work Plan must be updated to reflect construction of the water supply facilities required to serve development. 301 Capital Partners, LLC, and its subsidiary, First Coast Regional Utilities, Inc., is authorized to and will provide water, wastewater, and reuse utility services to the property entitled pursuant to 2021-692-E and 2021-693-E. 301 Capital Partners, LLC, or its assigns or subsidiary, will be responsible for the design and construction of the facility utilities, which shall consist of One Million Gallon per Day (MGD) of water, wastewater, and reuse capabilities to provide services to the proposed development.

Project Title	**301 Villages Water, Wastewater, and Reuse Water Facilities**	**Council District(s)**	12	**Est. Completion Date (FY)**	FY 2024
Project Location	U.S. 301	**Project No**	N/A	**Capital Maint. Category**	
Department	N/A - Private Funding - 301 Capital Partners LLC/First Coast Regional Utilities, Inc.	**Ordinance/BT No**	No	**APP/Vertical Construction**	
Program Area	Public Facilities	**Urban Core**	No	**Est. Useful Life (in years)**	20 Years

Description or Scope

Construction, by 301 Capital Partners, LLC, and its Florida Public Service Commission authorized utility subsidiary, First Coast Regional Utilities, Inc., of a One Million Gallon per Day (MGD) water, wastewater, and reuse utility facility to serve entitled development on approximatly 7,000 acres of land located west of US 301 and south of Interstate 10 in western Jacksonville. First Coast Regional Utilities, Inc., has received a 1.2 mgd Consumptive Use Permit (CUP) issued 7/11/24 by the SJRWMD (attached). All estimates are subject to final design and contracting.

Justification

Pursuant to Ordinances 2021-692-E and 2021-693-E, development is entitled on approximately 7,000 acres of land located west of US 301 and south of Interstate 10 in western Jacksonville. The development is entitled for construction of over 15,000 equivalent water and wastewater residential connections in mixed use configuration conisting of single-family and multi-family housing and zoning entitlements for commerical, hospital, office, and hotel/motel uses. Pursuant to the Multi-Use Future Land Use Category of the 2045 Comprehensive Plan and the 301 Villages Master Plan, the Water Supply Facilities Work Plan must be updated to reflect contruction of the water supply facilities required to serve develpment. 301 Capital Partners, LLC, and its subsidiary, First Coast Regional Utilities, Inc., is authorized to and will provide water, wastewater, and reuse utility services to the property entitled pursuant to 2021-692-E and 2021-693-E. 301 Capital Partners, LLC, or its assigns or subsidiary, will be responsible for the design and construction of the facility utilities, which shall consist of One Million Gallon per Day (MGD) of water, wastewater, and reuse capabilitities to provide services to the proposed development.

Funding Sources	**Total ('000)**	**Prior FY Budget ('000)**	**FY 23-24 ('000)**	**FY 24-25 ('000)**	**FY 25-26 ('000)**	**FY 26-27 ('000)**	**FY 27-28 ('000)**	**Beyond 5 ('000)**
First Coast Regional Utilities (Privately Funded)	**$150,000**				**$31,000**	**$31,000**		**$55,000**
Debt Management Funds	$0	$0	$0	$0	$0	$0	$0	$0
Local Option and Constitutional Gas Taxes	$0	$0	$0	$0	$0	$0	$0	$0
Prior Year Revenue	$0	$0	$0	$0	$0	$0	$0	$0
Grant Funding	$0	$0	$0	$0	$0	$0	$0	$0
Pay-Go: Transfer From Other Funds	$0	$0	$0	$0	$0	$0	$0	$0
Pay-Go: Transfer Stormwater Operating	$0	$0	$0	$0	$0	$0	$0	$0
F.I.N.D Projects	$0	$0	$0	$0	$0	$0	$0	$0
Totals	**$117,000**	**$0**	**$0**	**$0**	**$31000**	**$31000**	**$0**	**$55000**
Expenditures / Project Phase	**Total ('000)**	**Prior FY Budget ('000)**	**FY 23-24 ('000)**	**FY 24-25 ('000)**	**FY 25-26 ('000)**	**FY 26-27 ('000)**	**FY 27-28 ('000)**	**Beyond 5 ('000)**
Engineering and Design		$0	$4700	$4700	$0	$0	$0	$6600
Land Acquisition and Site Prep	$0	$0	$0	$0	$0	$0	$0	$0
Construction	$0	$ -	$0	$0	$0	$0	$0	$0
Capital Equipment	$0	$0	$0	$0	$0	$0	$0	$0
Contingency	$0	$0	$0	$0	$0	$0	$0	$0
Totals	**$16,000**	**$0**	**$4,700**	**$4700**	**$0**	**$0**	**$0**	**$6600**

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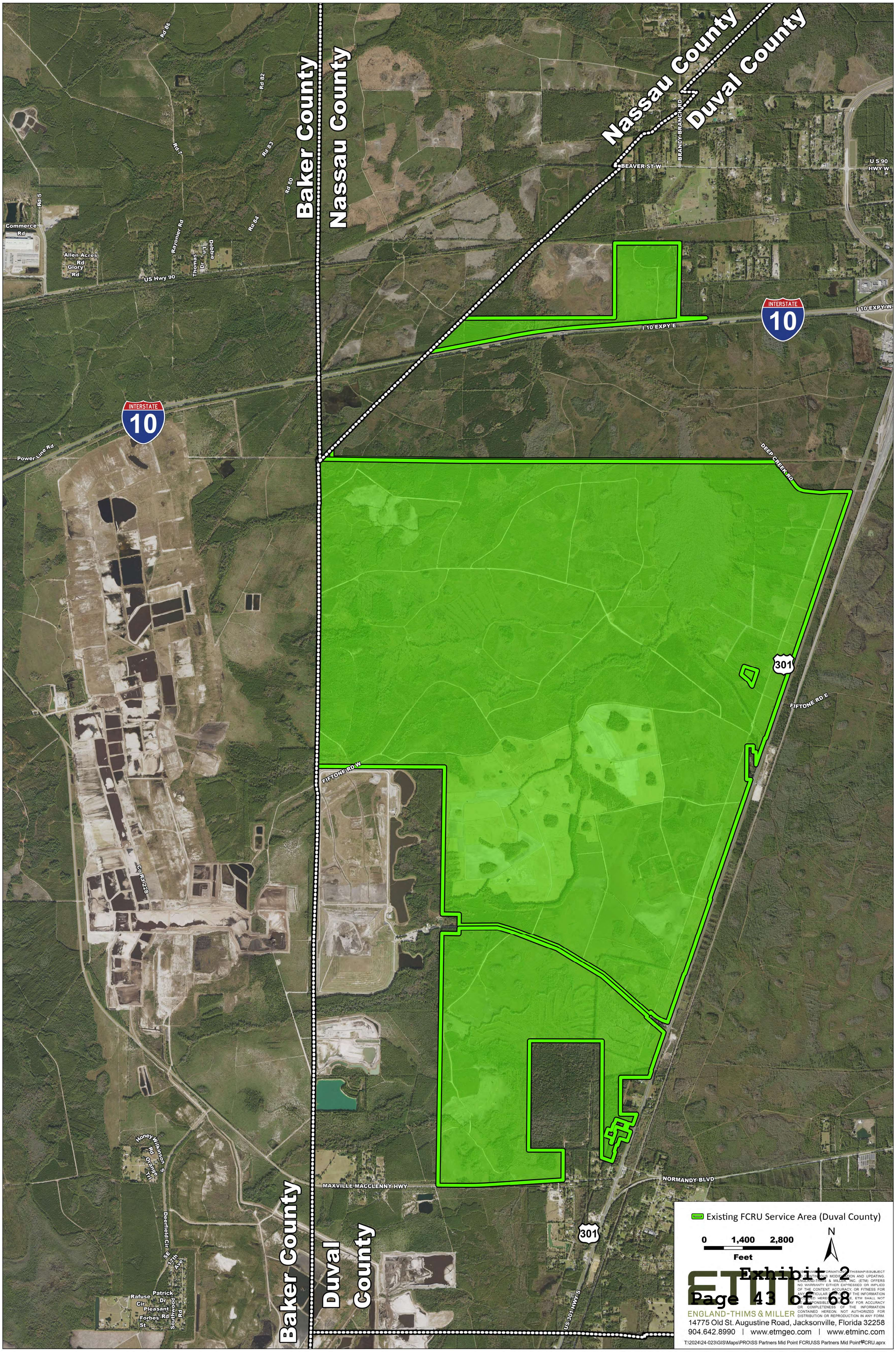
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Allen Acres Rd
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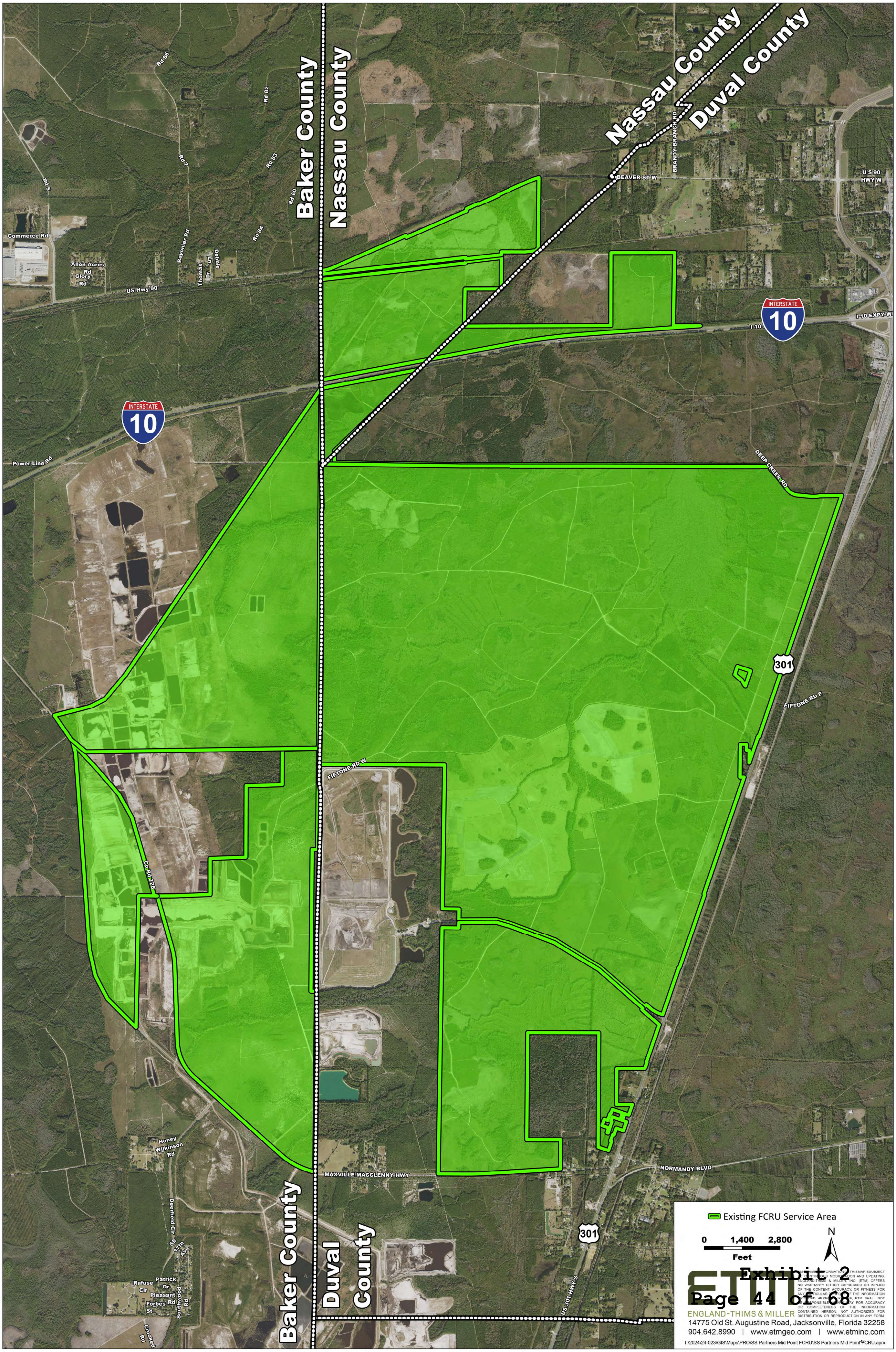
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FIRST COAST REGIONAL UTILITIES SJRWMD CUP
(Permit # 213110-0; Issued July 11, 2024)

TOTAL CUP VOLUME ADF (Annual Average)

Permit Condition #20	Upper Floridan Aquifer	0.96 mgd
Permit Condition #21	Surface Water	0.196 mgd
Permit Condition #22	Intermediate Aquifer	0.047 mgd
TOTAL CUP ALLOCATION		1.203 mgd

CUP PHASING

Upper Floridan Aquifer — Phasing Schedule

0.13 mgd – December 31, 2025*

0.72 mgd – December 31, 2030*

0.96 mgd – January 1, 2031*

Permit Condition #20.2 – Permittee may apply by **letter modification** to accelerate this allocation schedule by providing a demonstrated need for a greater amount up to the maximum annual allocation.

Surface Water — 0.196 mgd – No Phasing

Intermediate Aquifer — 0.047 – No Phasing

Project Information

Information as of 29-Jul-2024 01:52:51 AM

Project Number	213110 - 1	**Project Name**	First Coast Regional Utilities		
Sequence Type	Initial Sequence	**Permit Type**	CUP Individual - Board Issued	**County**	Duval ( )
Received	12/27/2023	**Decision**	07/11/2024	**Expiration**	07/09/2044

Description The District authorizes the use of 350.4 million gallons per year (mgy) (0.96 million gallons per day (mgd), annual average) of groundwater from the Upper Floridan aquifer for public supply use (household, commercial, water utility, and unaccounted for), 71.54 mgy (0.196 mgd, annual average) of surface water from the stormwater management system for supplementation of the reclaimed water system, and 17.14 mgy (0.047 mgd, annual average) of groundwater from the intermediate aquifer for emergency backup use only through 2044.

Status	Issued	**Recommendation**	Approval	**Current Process Stage**	**Compliance**
Applicant	First Coast Regional Utilities, Inc.	**Owner**	First Coast Regional Utilities	**Agent**	Environmental Research and Technology LLC
Total Wells	10	**Total Pumps**	1		

Copy Link | District Map | Google Earth | Google Map | Contact Us

Documents (40)

Change View | Export

Group Name	Document Name	Date	Size	Link	Comments
Application	Application	12/27/2023	397109	Application	System Generated Online Application...
Application	Additional Material:4	12/27/2023	8168328	Additional Material:4	Master Plan and Reclaimed Files
Application	Map:2	12/27/2023	2962963	Map:2	Site Info - II. Location Maps...
Application	Additional Material:5	12/27/2023	1188635	Additional Material:5	First Coast Regional Utilities Parcel I...
Application	Map	12/27/2023	961729	Map	Site Info - II. Location Maps...
Application	Additional Material:3	12/27/2023	125952	Additional Material:3	Impact Evaluation
Application	Additional Material:2	12/27/2023	125952	Additional Material:2	Reclaimed Water Feasibility
Application	Additional Material	12/27/2023	238732	Additional	Well Design

Items per page: 10 | 1 – 10 of 40

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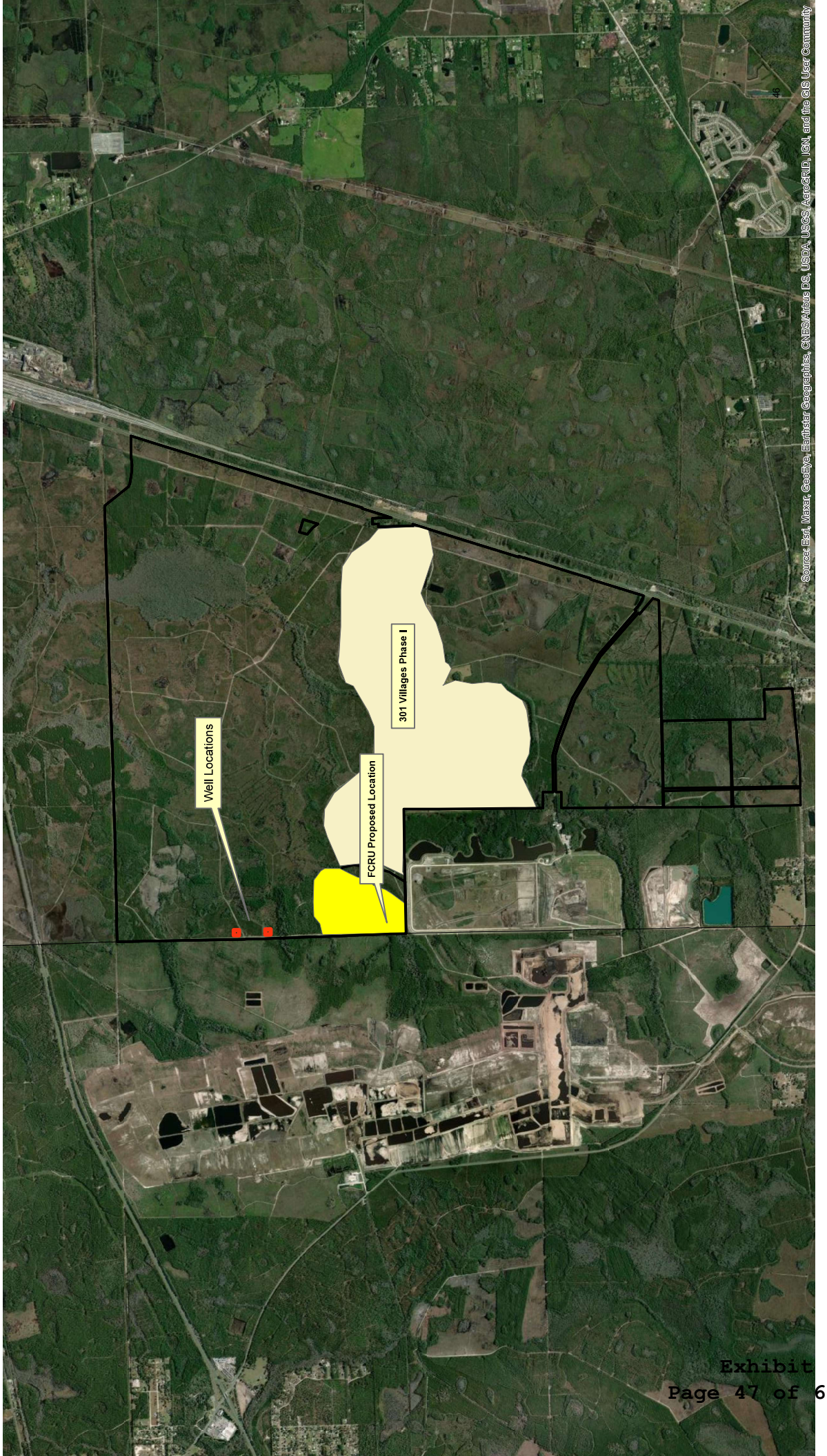

301 Villages Phase I
FCRU Proposed Location
Well Locations
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

CONSUMPTIVE USE PERMIT APPLICATION

St. Johns River Water Management District
4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500
Application forms may also be submitted electronically at *floridaswater.com*.

SECTION I – CONTACT INFORMATION

If necessary, attach additional sheets if there are multiple applicants, owners, agents, etc.

1. **APPLICANT** (Complete legal name in which permit should be issued)

NAME: **Avery Roberts**

If applicant is a business, provide a contact person: ***First Coast Regional Utilities***

ADDRESS: **Po Box 238**

CITY, STATE, ZIP: **Lake Butler FL 32054-0238**

PHONE: **(386) 496-3509** CELL PHONE: **(386) 496-3509**

EMAIL ADDRESS: **info@firstcoastutility.com**

Do you want all correspondence to be transmitted electronically to this email address? ☒ Yes ☐ No

Applicant is: ☐ Owner ☐ Lessee* ☐ Other (explain) _____

*Attach copy of current lease, or written authorization from property owner

2. **OWNER** (If different than applicant)

NAME: **Avery Roberts, First Coast Regional Utilities**

ADDRESS: **Po Box 238**

CITY, STATE, ZIP: **Lake Butler FL 32054-0238**

PHONE: **(386) 496-3509** CELL PHONE: **(386) 496-3509**

EMAIL ADDRESS: **envrestec@outlook.com**

3. **AGENT OR CONSULTANT** Address all correspondence to the person below? ☐ Yes ☐ No

NAME: _____

COMPANY NAME (if applicable): _____

ADDRESS: _____

CITY, STATE, ZIP: _____

PHONE: _____ CELL PHONE: _____

EMAIL ADDRESS: _____

4. **COMPLIANCE CONTACT** (Person responsible for ensuring that the permit conditions are met)

NAME: **Avery Roberts, First Coast Regional Utilities**

ADDRESS: **Po Box 278**

CITY, STATE, ZIP: **Lake Butler FL 32054**

PHONE: **(386) 496-3509** CELL PHONE: **(386) 496-3509**

EMAIL ADDRESS: **envrestec@outlook.com**

SECTION II – APPLICATION INFORMATION

For permit application guidance, please refer to the Applicant's Handbook, Consumptive Uses of Water, which is incorporated by reference in Rule 40C-2.101(1)(a), F.A.C. (A.H.). Please complete all fields. Enter N/A for any fields that are not applicable.

1. **TYPE OF APPLICATION:** ☒New ☐ Modification ☐ Renewal

   If this application is for a modification, please describe the modification request and the reason the modification is necessary. _____

2. **CONSUMPTIVE USE PERMIT NO.** (if application is for renewal or modification): _____

3. **REQUESTED PERMIT DURATION**: ☒20 years ☐ _____ years (up to 20 years)

   ☐This project qualifies for a duration greater than 20 years, per Section 373.236, F.S.

4. **PROJECT NAME:** **First Coast Regional Utilities** **COUNTY:** _____

   PHYSICAL ADDRESS: _____

5. **RELATED PERMITS** (for projects other than Public Supply)

   ☐ ENVIRONMENTAL RESOURCE PERMIT: MSSW/ERP No(s): _____

   ☐ INDUSTRIAL WASTEWATER (IWW) PERMIT: IWW Permit No(s): _____

   ☐ NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT:

   NPDES Permit No(s): _____

SECTION III – USE TYPE CATEGORIES

Please check all applicable use categories associated with this application and complete the associated supplemental form(s) indicated. The **Minor Individual Supplemental Form** (Form No. 40C-2.900(2)) can be completed in lieu of Supplemental Forms A through G if all of the following criteria are met:

- Use is less than 100,000 gallons per day
- Withdrawal facilities (wells or pump intakes) are less than 8-inches diameter
- Combined withdrawal capacity is less than 1,000,000 gallons per day
- Use is not for Mining/Dewatering
- Use is for Public Supply where end users are not individually metered

Use Type Category	Supplemental Form
☐**Agricultural** (e.g., crops, livestock, nursery, aquaculture, pasture)	Form A Form No. 40C-2.900(1)(a)
☐**Commercial / Industrial** (e.g., service business, food and beverage production, cooling and heating, commercial attraction, manufacturing, chemical processing, power generation)	Form B Form No. 40C-2.900(1)(b)
☐**Landscape / Recreation** (e.g., irrigation of parks, cemeteries, landscaped areas, golf courses, athletic fields, playgrounds)	Form C Form No. 40C-2.900(1)(c)
☐**Mining / Dewatering** (e.g., water use or removal associated with construction or excavation)	Form D Form No. 40C-2.900(1)(d)
☒**Public Supply** (e.g., public or privately owned potable water supply utility)	Form E Form No. 40C-2.900(1)(e)
☐**Environmental / Other** (e.g., aquifer remediation, environmental enhancement, or the use of water for other purposes)	Form F Form No. 40C-2.900(1)(f)
☐**Institutional** (e.g., hospital, university, military base, correctional facility)	Form G Form No. 40C-2.900(1)(g)

SECTION IV – SOURCES OF WATER

(please attach additional facility tables if necessary)

SUMMARY OF GROUNDWATER (WELL) FACILITIES

Site or Wellfield Name[1]	District ID (if available)	Florida Unique Well ID (if available)	Owner's Well Name	Capacity (gpm)	Pump Type[2]	Casing Diameter (inches)[3]	Casing Depth (feet)	Total Depth (feet)	Status[4] (include date if proposed)	Type of Water Use Accounting Method[5]	Last Meter Check / Method Validation[6]	Type of Water Use (refer to Section III)

1 If project consists of separate or non-contiguous pieces of property or wellfields
2 Centrifugal (impeller located above water level), submersible (pump set below water level), turbine (motor at ground surface that drives an impeller below water level), vacuum underdrain (typically used for dewatering), well point system (typically used for dewatering), or other (any pump that does not fall into one of the categories previously listed)
3 The casing diameter is defined as the largest permanent water-bearing casing of the well at land surface.
4 Active (currently in use), Inactive (capped, does not have power, or the connection to the water supply system has been severed), Abandoned (plugged and abandoned in accordance with 40C-3, Florida Administrative Code), or Proposed (include anticipated construction date)
5 Flow Meter, Time Clock / Pump Run Time, Hour Meter, Digital Electric Meter, Analog Electric Meter
6 Enter the date of the last flow meter accuracy check or alternative method validation

Exhibit 2
Page 50 of 68

SUMMARY OF SURFACE WATER (PUMP) FACILITES

Site Name[1]	District ID (if available)	Owner's Pump Name	Pump Capacity (gpm)	Pump Intake Diameter (inches)	Pump Type[2]	Name of Surface Water Body	Type of Surface Water Body[3]	Status[4] (include date if proposed)	Type of Water Use Accounting Method[5]	Last Meter Check / Method Validation[6]	Type of Water Use (refer to Section III)

1 If project consists of separate or non-contiguous pieces of property or wellfields
2 Centrifugal (impeller located above water level), submersible (pump set below water level), turbine (motor at ground surface that drives an impeller below water level), hydraulic dredge pump (typically used for mining), hydraulic dewatering pump (typically used for construction or mining), other (any pump that does not fall into one of the categories previously listed)
3 Ditch/canal, lake/pond (natural), lake/pond (artificial), river/creek, spring, mining/borrow pit
4 Active (currently in use), Inactive (does not have power, or the connection to the water supply system has been severed), Proposed
5 Flow Meter, Time Clock / Pump Run Time, Hour Meter, Digital Electric Meter, Analog Electric Meter
6 Enter the date of the last flow meter accuracy check or alternative method validation

SUMMARY OF CONNECTION POINT FACILITIES

Connection points include locations where potable or non-potable water (including reclaimed water) purchased from a water supplier enters a project site.

Site Name[1]	District ID (if available)	Owner's Connection Point Name	Water Supplier Name[2]	Type of Surface Water Body[3]	Status[4] (include date if proposed)	Type of Water Use Accounting Method[5]	Last Meter Check / Method Validation[6]	Type of Water Use (refer to Section III)

1 If project consists of separate or non-contiguous pieces of property or wellfields
2 Name of water supplier that provides water to the project through the connection point
3 Reclaimed water holding pond, stormwater management system
4 Active (currently in use), Inactive (the connection to the water supply system has been severed), Proposed
5 Flow Meter, Time Clock / Pump Run Time, Hour Meter, Digital Electric Meter, Analog Electric Meter
6 Enter the date of the last flow meter accuracy check or alternative method validation

SECTION V – USE OF LOWEST QUALITY WATER AND EVALUATION OF RECLAIMED WATER FEASIBILITY

The applicant may be required to evaluate the feasibility of utilizing reclaimed water and/or other lower quality water sources. The feasibility analysis must be completed as outlined in Section 2.3.3(e), A.H.

SECTION VI – SUMMARY OF REQUESTED WATER USE

Summarize the requested water use from each supplemental form (Agricultural, Public Supply, Commercial / Industrial, etc.) in the table below. Provide projections for each source, at five-year intervals, for the requested permit duration. If the requested permit duration exceeds 20 years, please attach a supplemental sheet providing additional five-year projections for each source.

Year	Requested Amounts and Source(s) of Water				
	Upper Floridan ____ (mgy[2])	_____ (mgy)	_____ (mgy)	_____ (mgy)	Total Requested Water Use (mgy)
2023 - 2028	350.4				
2028 - 2033	350.4				
2033 - 2038	350.4				
2038 - 2043	350.4				

[1] Provide the name of the water source. Examples include upper Floridan aquifer, stormwater pond, surficial aquifer, Davis Lake.
[2] Million gallons per year

SECTION VII – AQUIFER STORAGE AND RECOVERY *(complete if applicable)*

ASR Facility Name	Source of Stored Water[1]	Storage Aquifer Name	Recovery Water Destination	Projected Demand Average (mgy)	Projected Demand Maximum (mgy)	Projected Injected Average (mgy)	Projected Injected Maximum (mgy)

[1] Aquifer name, surface water body, water treatment plant name.

Please describe any projected increases or decreases (from historical average) in the amounts stored or recovered.

SECTION VIII – IMPACT EVALUATION

When determining whether the permit applicant has provided reasonable assurances that the conditions for issuance in Rule 40C-2.301, F.A.C., are met, the District will consider the projected impacts of the proposed consumptive use on an individual and cumulative basis. In order to provide reasonable assurance, studies and/or impact evaluations may be required. Please refer to the Applicant's Handbook for guidance regarding the impact evaluations and attach analyses, if applicable.

SECTION IX – APPLICANT CERTIFICATION

I certify that to the best of my knowledge and belief, all of the information provided on this form and in any attachment to it is correct. I also certify that I have legal authority to execute this application for the applicant and certify that the applicant will have sufficient legal authority to undertake the activities described herein. I understand that any material false statement in an application to continue, initiate, or modify a use, or any material false statement in any report or statement of fact required of the permittee, may result in revocation, in whole or in part, of the permit (Section 373.243(1), F.S.). With advance notice, I agree to provide St. Johns River Water Management District staff, with proper identification, entry to the project site for the purpose of performing analyses of the site for determining whether the conditions for issuance will be met. Further, if a permit is granted, I agree that, with advance notice, District staff with proper identification shall have permission to enter, inspect, collect samples, and take measurements of permitted facilities to determine compliance with the permit conditions and permitted plans and specifications.

(If applicable) I authorize _____ to act as my agent for permit application coordination.

Avery Roberts	*(electronically signed)*	**22-Dec-2023**
APPLICANT'S NAME (print or type)	APPLICANT'S SIGNATURE	DATE
AUTHORIZED AGENT'S NAME (print or type)	AUTHORIZED AGENT'S SIGNATURE	DATE

When an application that will be considered by the District's Governing Board is complete, the applicant will be notified of the date of the hearing (Governing Board meeting) at which the application will be considered at least 14 days in advance. The Governing Board normally meets on the second Tuesday of the month.

SECTION X – APPLICANT CHECKLIST

The following items must be included with the permit application submittal:

- ☐ Proof of Property Control (e.g., deed, lease), if not already on file with the District
- ☐ Application Fee (refer to online fee schedule or Applicant's Handbook)
- ☐ Location/Site Map
- ☐ Supplemental Form(s) and associated supporting information (e.g., maps, calculations)
- ☐ Water Conservation Plan

Additional Information

Application submitted and electronically signed by Avery Roberts on 22-Dec-2023.

Additional Addresses

Water Use Reporting (EN-50) Contact	Avery Roberts First Coast Regional Utilities Po Box 278 Lake Butler, FL 32054 envrestec@outlook.com (386) 496-3509 (386) 496-3509
Consultant	Michael John Fuller Environmental Research and Technology LLC 356 SW DAYTIME LN LAKE CITY, FL 32024 envrestec@outlook.com 3863442625 (386) 344-2625

CONSUMPTIVE USE PERMIT
Public Supply – Form E

St. Johns River Water Management District
4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500
Application forms may also be submitted electronically at *www.sjrwmd.com*.

SECTION E1 – SITE INFORMATION

1. Submit a map showing: [if available, provide items A through C in a District-approved electronic format, e.g. ESRI shapefile, AutoCAD, DXF, KMZ, or compatible GIS file]:
   A. The Distribution Area boundary(ies) where service is currently being provided and where the utility is proposing to provide service during the permit duration;
   B. The Authorized Water Service Area or Franchise Area boundary in which the utility is legally authorized to provide potable water service;
   C. All existing and proposed withdrawal and connection point locations. Label all wells, pumps and connection points so they match the IDs provided in Section IV (Sources of Water) of the main application form (Form No. 40C-2.900(1), which is incorporated by reference in Rule 40C-2.900(1), F.A.C.);
   D. A north arrow and map scale; and
   E. Labeled landmarks such as major roads and political boundaries.

SECTION E2 – POPULATION AND PER CAPITA USE

1. Historical data must be provided for the previous five years (including the most recent calendar year) and projected use at a minimum of five-year intervals for the requested permit duration. If historical data has been previously submitted to the District to fulfill periodic reporting requirements, the historical data may be left blank.

	Year	Average Number of Active Residential Connections	Total Number of Residential Dwelling Units (if available)	Residential Population Served[1]	Residential Water Use Average Day (mgd)	Uniform Residential Per Capita Use[2] (gpcd)[3]
Historical						
Projected	2025	420	420	1037	0.088	85
	2030P	3413	3413	8430	0.691	81.9

[1] Calculated as the Average Number of Active Residential Connections or Total Number of Residential Dwelling Units multiplied by the average number of persons per household.
[2] Calculated as Total Residential Water Use Average Day divided by Residential Population Served. Residential water use reflects finished water.
[3] gpcd = gallons per capita per day

2. Please attach a description of the methodology used to estimate population. Include supporting calculations and describe any deviations from District-approved methods as outlined in the Applicant's Handbook.

Form No. 40C-2.900(1)(e), effective August 2014
Incorporated by reference in 40C-2.900(1)(e), F.A.C

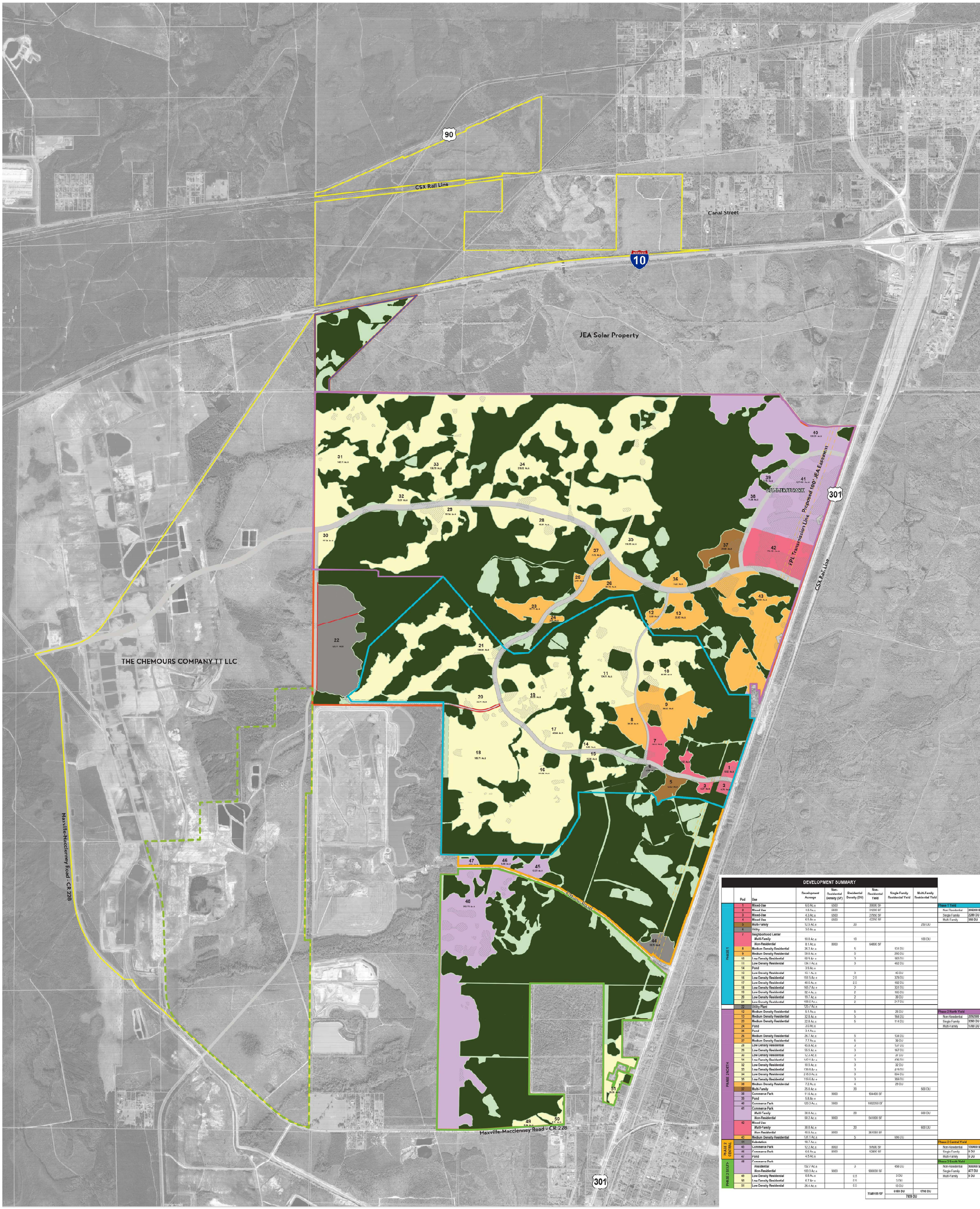
SECTION E3 – WATER DEMAND COMPONENTS

1. **Historical and Projected Water Demands**.
   If historical data has been previously submitted to the District to fulfill periodic reporting requirements, the historical data may be left blank. Projections must be provided at a minimum of five-year intervals for the requested permit duration.

	Year	Residential Water Use Average Day (mgd) (from Section E2 above)	Commercial / Industrial / Institutional[1] Average Day (mgd)	Recreation and Landscape Irrigation Average Day[2] (mgd)	Routine Exports Average Day[3] (mgd)	Other[4] (describe) _____ Average Day (mgd)	Water Utility[5] Average Day (mgd)	Water Losses[6] Average Day (mgd)	Water Treatment Reject[7] Average Day (mgd) (if applicable)	Annual Average Daily Raw Water Demand[8] (mgd)
Historical Water Demand	NA									0
										0
										0
										0
										0
Projected Water Demand	2025	0.09	0.035	0	0	0	0.001	0.0062	0	0.13
	2030P	0.69	0.206	0	0	0	0.009	0.0448	0	0.95

[1] Metered bulk industrial and commercial use including businesses, manufacturing facilities, and institutions such as schools and hospitals, including irrigation uses associated with these facilities whose irrigation source is provided by the utility.
[2] Use for irrigation of common areas such as parks, athletic fields, cemeteries, medians, and rights-of-way.
[3] Water routinely supplied to other utilities through interconnections.
[4] Examples of "Other" could include supplementation of a reclaimed water system, environmental restoration, or other uses not listed above.
[5] Water used for line flushing, well lubrication, and other water system maintenance.
[6] Water losses including leakage from transmission and storage facilities and other unknown water losses.
[7] Reject water from treatment systems such as reverse osmosis
[8] The annual average day raw water demand; should represent the sum of the columns to the left.

Form No. 40C-2.900(1)(e), effective August 2014
Incorporated by reference in 40C-2.900(1)(e), F.A.C



DEVELOPMENT SUMMARY

Phase	Pod	Use	Development Acreage	Non-Residential Density (SF)	Residential Density (DU)	Non-Residential Yield	Single Family Residential Yield	Multi-Family Residential Yield
PHASE 1	1	Mixed-Use	6.0 Ac.±	6500		39000 SF		
	2	Mixed-Use	4.8 Ac.±	6500		31200 SF		
	3	Mixed-Use	4.3 Ac.±	6500		27950 SF		
	4	Mixed-Use	6.5 Ac.±	6500		42250 SF		
	5	Multi-Family	12.5 Ac.±		20			250 DU
	6	Utility	3.0 Ac.±					
	7	Neighborhood Center						
		Multi-Family	10.0 Ac.±		10			100 DU
		Non-Residential	8.1 Ac.±	8000		64800 SF		
	8	Medium Density Residential	26.2 Ac.±		5		131 DU	
	9	Medium Density Residential	59.0 Ac.±		5		295 DU	
	10	Low Density Residential	60.9 Ac.±		3		183 DU	
	11	Low Density Residential	134.1 Ac.±		3		402 DU	
	14	Pond	3.9 Ac.±					
	15	Low Density Residential	15.1 Ac.±		3		45 DU	
	16	Low Density Residential	151.5 Ac.±		2.5		379 DU	
	17	Low Density Residential	40.6 Ac.±		2.5		102 DU	
	18	Low Density Residential	165.7 Ac.±		2		331 DU	
	19	Low Density Residential	82.4 Ac.±		2		165 DU	
	20	Low Density Residential	19.7 Ac.±		2		39 DU	
	21	Low Density Residential	108.6 Ac.±		2		217 DU	
	22	Utility Plant	125.7 Ac.±					
PHASE 2NORTH	12	Medium Density Residential	5.1 Ac.±		5		26 DU	
	13	Medium Density Residential	32.8 Ac.±		5		164 DU	
	23	Medium Density Residential	22.8 Ac.±		5		114 DU	
	24	Pond	3.0 Ac.±					
	25	Pond	3.4 Ac.±					
	26	Medium Density Residential	26.7 Ac.±		5		134 DU	
	27	Medium Density Residential	7.7 Ac.±		5		39 DU	
	28	Low Density Residential	45.8 Ac.±		3		137 DU	
	29	Low Density Residential	55.5 Ac.±		3		167 DU	
	30	Low Density Residential	12.3 Ac.±		3		37 DU	
	31	Low Density Residential	142.1 Ac.±		3		426 DU	
	32	Low Density Residential	10.5 Ac.±		3		32 DU	
	33	Low Density Residential	139.8 Ac.±		3		419 DU	
	34	Low Density Residential	218.0 Ac.±		3		654 DU	
	35	Low Density Residential	119.6 Ac.±		3		359 DU	
	36	Medium Density Residential	7.2 Ac.±		4		29 DU	
	37	Multi-Family	25.0 Ac.±		20			500 DU
	38	Commerce Park	11.6 Ac.±	9000		104400 SF		
	39	Pond	5.8 Ac.±					
	40	Commerce Park	120.3 Ac.±	9000		1082250 SF		
	41	Commerce Park						
		Multi-Family	30.0 Ac.±		20			600 DU
		Non-Residential	60.2 Ac.±	9000		541800 SF		
	42	Mixed Use						
		Multi-Family	30.0 Ac.±		20			600 DU
		Non-Residential	40.5 Ac.±	9000		364050 SF		
	43	Medium Density Residential	131.1 Ac.±		5		656 DU	
PHASE 2 CENTRAL	44	Substation	18.7 Ac.±					
	45	Commerce Park	12.2 Ac.±	8000		97600 SF		
	46	Commerce Park	6.6 Ac.±	8000		52800 SF		
	47	Pond	4.5 Ac.±					
PHASE 2 SOUTH	48	Commerce Park						
		Residential	152.7 Ac.±		3		458 DU	
		Non-Residential	100.0 Ac.±	9000		900000 SF		
	49	Low Density Residential	6.8 Ac.±		0.5		3 DU	
	50	Low Density Residential	6.7 Ac.±		0.5		3 DU	
	51	Low Density Residential	26.4 Ac.±		0.5		13 DU	
						3348100 SF	6159 DU	1700 DU
							7859 DU	

Yield		
Phase 1 Yield		
	Non-Residential	**205200 SF**
	Single Family	**2289 DU**
	Multi-Family	**350 DU**
Phase 2 North Yield		
	Non-Residential	**2092500 SF**
	Single Family	**3393 DU**
	Multi-Family	**1700 DU**
Phase 2 Central Yield		
	Non-Residential	**150400 SF**
	Single Family	**0 DU**
	Multi-Family	**0 DU**
Phase 2 South Yield		
	Non-Residential	**900000 SF**
	Single Family	**477 DU**
	Multi-Family	**0 DU**

0' 1,000' 2,000'

Note: This land plan and/or rendering is conceptual and is subject to review, change and approval by several governmental agencies to meet environmental, technical and other standards. This plan was completed based on limited information, therefore all acreage figures are unofficial and are subject to change.

301 Villages

Conceptual Master Plan

August 24, 2023

Exhibit 2

ETM
ENGLAND-THIMS & MILLER
Trusted Advisors, Creating Community.

Updated: 08.24.23
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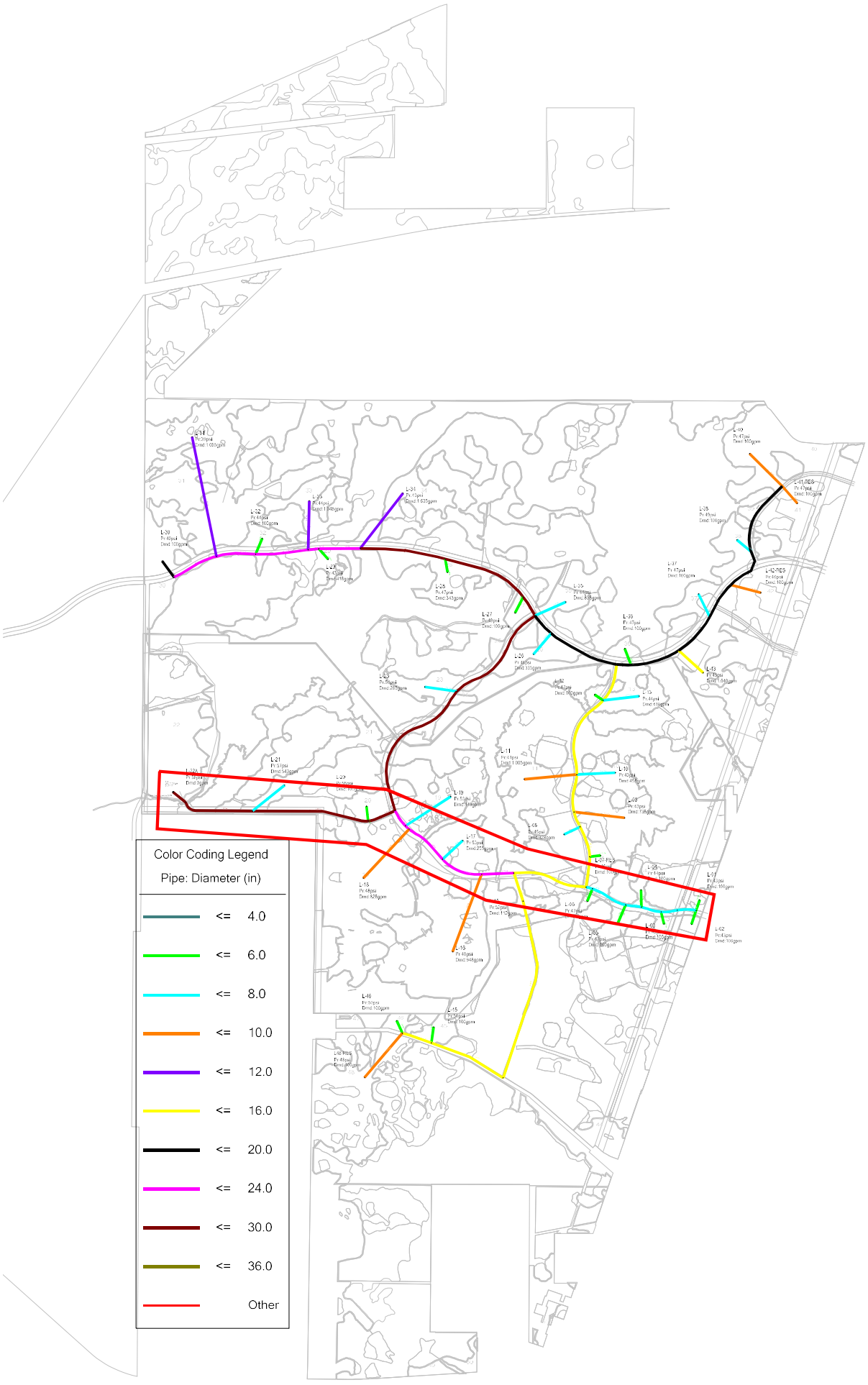
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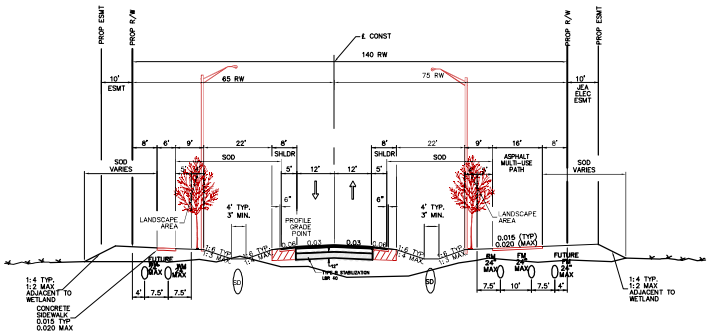
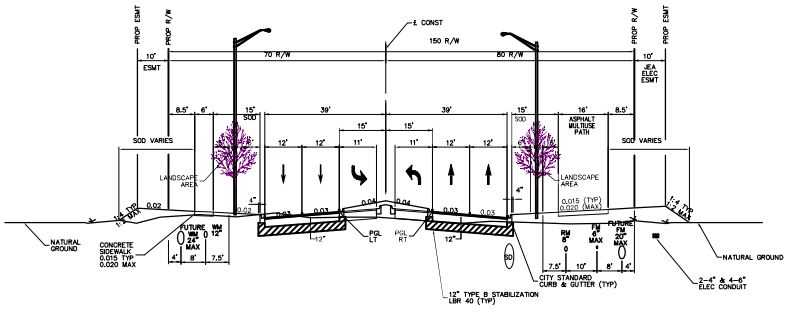
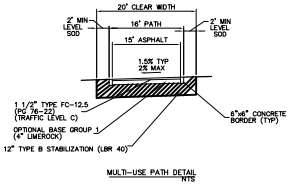
Other



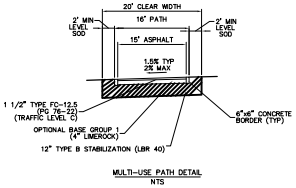
LOOP ROAD 2-LANE SECTION



LOOP ROAD 4-LANE SECTION



MULTI-USE PATH DETAIL
NTS



MULTI-USE PATH DETAIL
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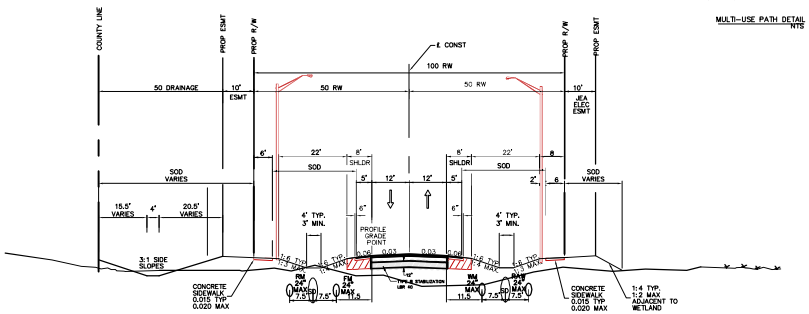
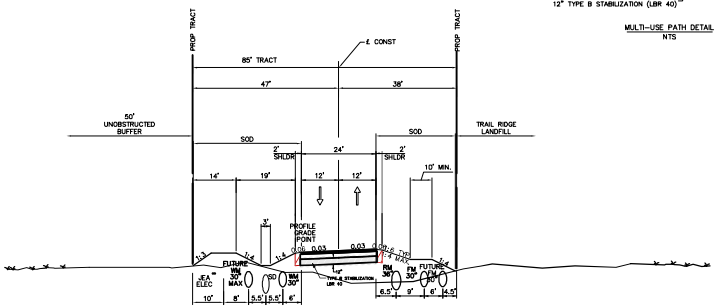
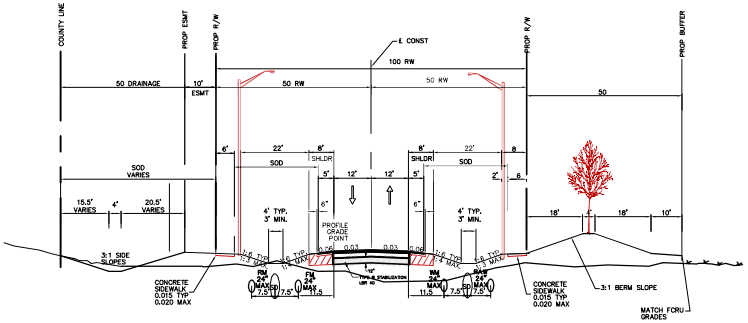


COUNTY LINE 2-LANE SECTION
NORTH OF FCRU PLANT



FCRU PLANT ACCESS ROAD



COUNTY LINE 2-LANE SECTION
ADJACENT TO FCRU PLANT

TYPICAL SECTIONS

FCRU
JACKSONVILLE

England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
REG - 2584 LC - 0000316

VISION • EXPERIENCE • RESULTS

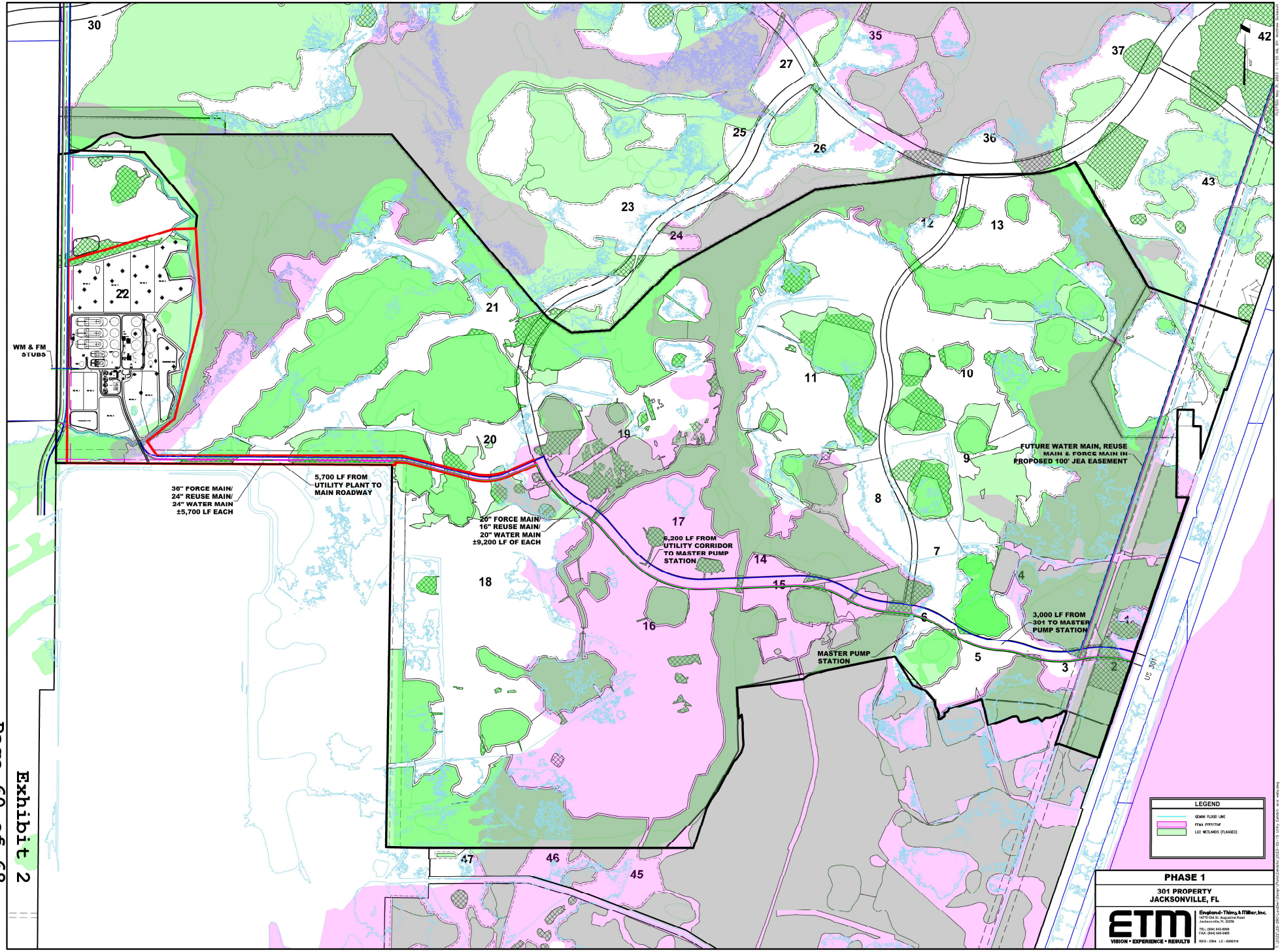
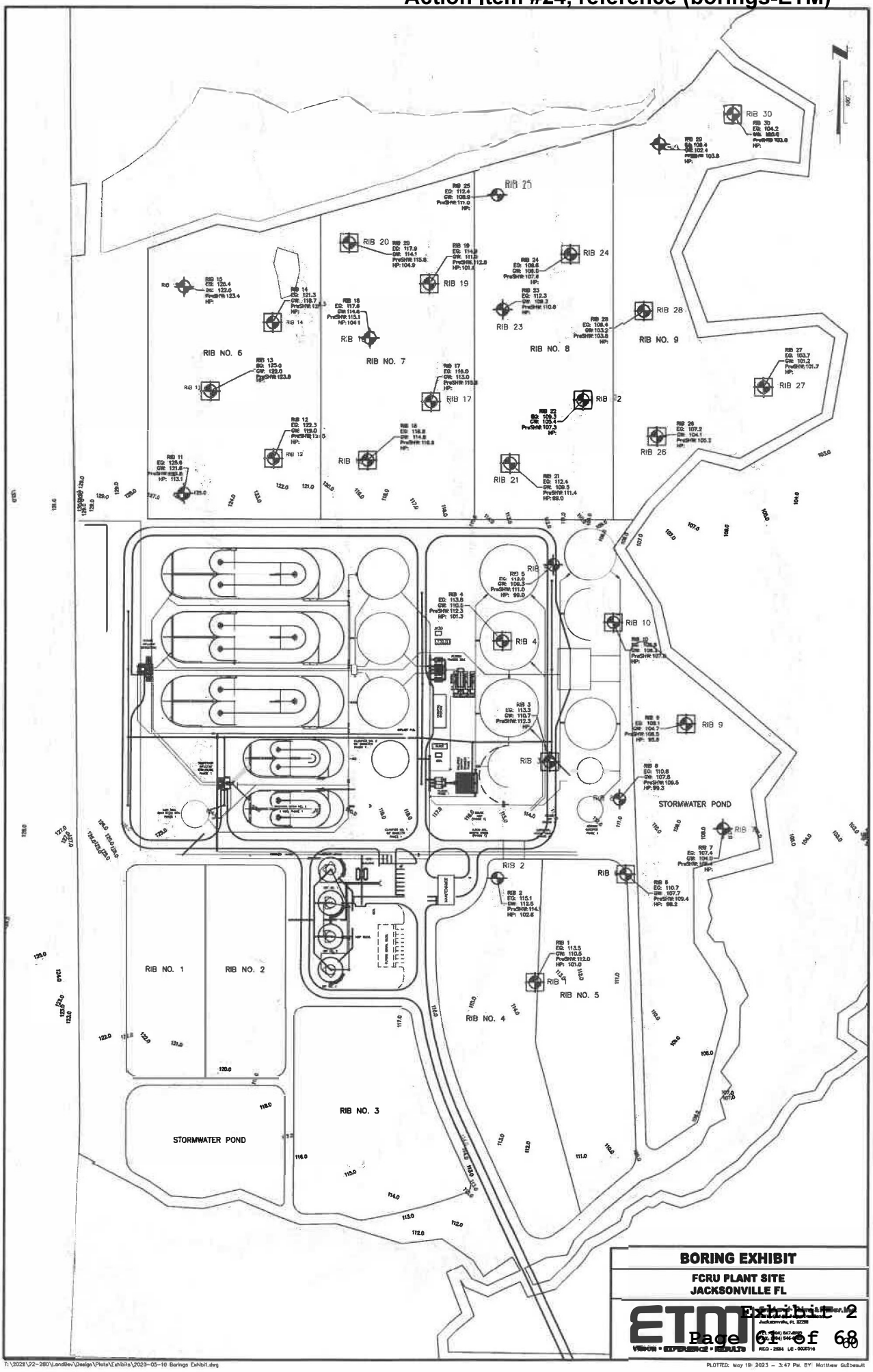

WM & FM STUBS
36" FORCE MAIN/ 24" REUSE MAIN/ 24" WATER MAIN ±5,700 LF EACH
5,700 LF FROM UTILITY PLANT TO MAIN ROADWAY
20" FORCE MAIN/ 16" REUSE MAIN/ 20" WATER MAIN ±9,200 LF OF EACH
9,200 LF FROM UTILITY CORRIDOR TO MASTER PUMP STATION
FUTURE WATER MAIN, REUSE MAIN & FORCE MAIN IN PROPOSED 100' JEA EASEMENT
3,000 LF FROM 301 TO MASTER PUMP STATION
MASTER PUMP STATION
US 301
LEGEND
PHASE 1
301 PROPERTY
JACKSONVILLE, FL
England-Thims & Miller, Inc.
VISION • EXPERIENCE • RESULTS

Exhibit 2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RIB 25
RIB 20
RIB 24
RIB 19
RIB 28
RIB 23
RIB NO. 6
RIB NO. 7
RIB NO. 8
RIB NO. 9
RIB 27
RIB 17
RIB 26
RIB 21
RIB 10
RIB 4
RIB 9
STORMWATER POND
RIB 2
RIB NO. 1
RIB NO. 2
RIB NO. 5
RIB NO. 4
RIB NO. 3
STORMWATER POND
BORING EXHIBIT
FCRU PLANT SITE
JACKSONVILLE FL

2. Attach a description of the methodology used to develop projections for each column in the Projected Water Demands table above. Include supporting calculations and describe any deviations from District-approved methods as described in the Applicant's Handbook.

SECTION E4 – HISTORICAL AND REQUESTED WATER USE

1. **Historical and Projected Water Supply Sources**
   Provide the historical and projected water supply from each source. Sources include any bulk water purchases or transfers. The sum of all sources should equal the Annual Average Daily Raw Water Demand.

	Year	Requested Amounts and Source(s) of Water (mgy)				
		Annual Average Daily Raw Water Demand (mgd) Section E3 Table 1	Source 1 Name[1] _____ (mgy)	Source 2 Name _____ (mgy)	Source 3 Name _____ (mgy)	Source 4 Name _____ (mgy)
Historical Water Supply						
Projected Water Supply						

[1] Provide the name of the water source. Examples include upper Floridan aquifer, stormwater pond, surficial aquifer, Davis Lake

2. **Wellfield Operation Schedule**
   Describe the typical wellfield operation schedule, including source and/or facility specific allocations if applicable. Identify which wells are primary, secondary (peaking), stand-by, and describe the well rotation schedule.

SECTION E5 – REUSE FEASIBILITY

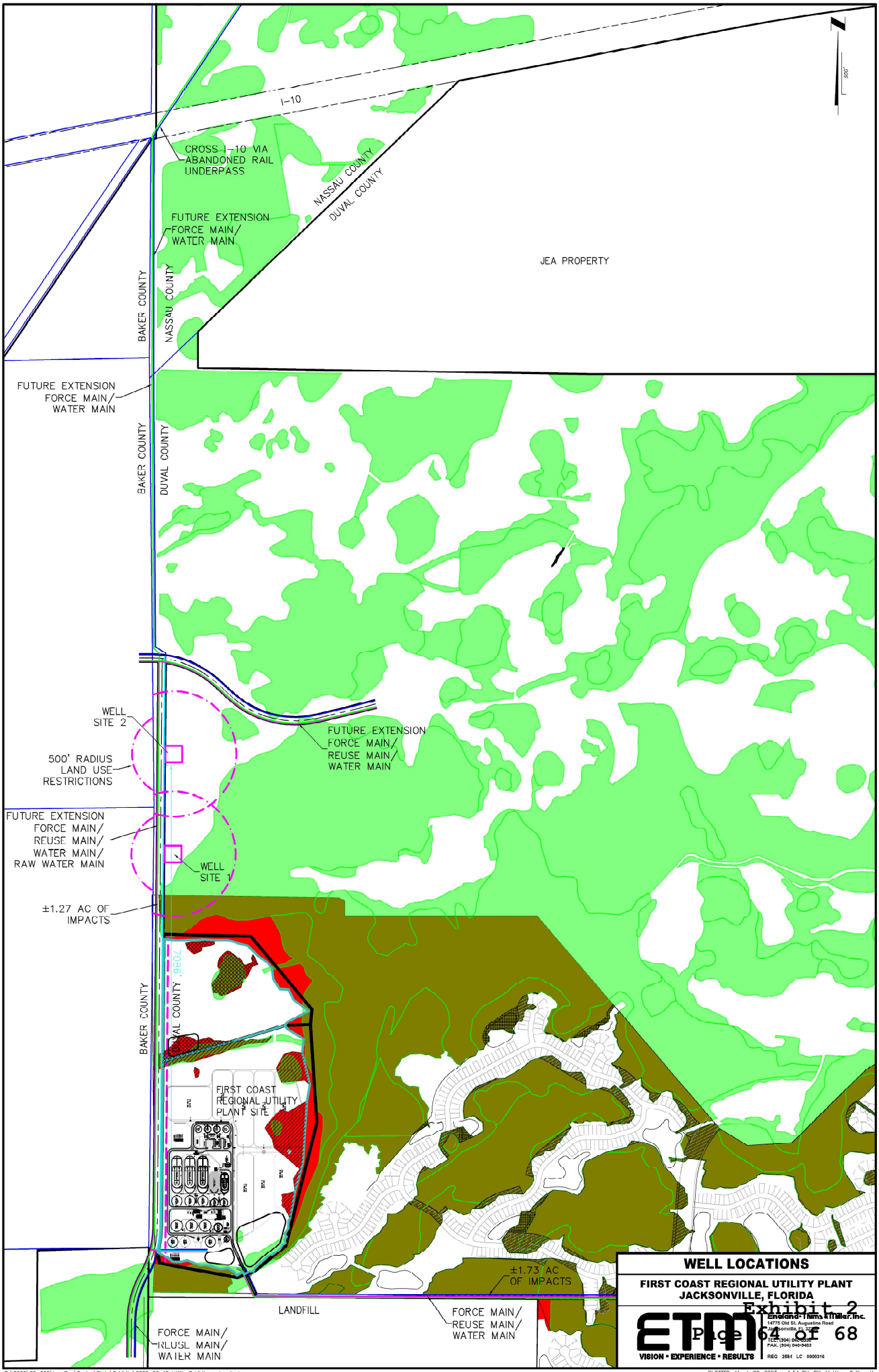
For public water supply utilities that operate a domestic wastewater treatment facility, please provide an analysis of the economic, environmental, and technological feasibility of making reclaimed water available or increasing reclaimed water availability for beneficial reuse. Pursuant to subsection 403.064(6), F.S., a reuse feasibility study prepared in accordance with subsection 403.064(2), F.S., satisfies the requirement to conduct a reuse feasibility study.

SECTION E6 – WATER CONSERVATION

1. **CONSERVATION**
   Please attach a copy of the conservation plan, and include a copy of any water conservation ordinances related to the plan. If your facility is located in a Water Resource Caution Area, there may be additional water conservation requirements as described in section 2.2.2.5 of the Applicant's Handbook.

   A. Indicate whether the conservation program is a Standard Conservation Plan or a Goal-based Plan.
      ■ Standard Conservation Plan ❑ Goal-based Plan

   B. Please attach a copy of the current water rate structure.


I-10
CROSS I-10 VIA ABANDONED RAIL UNDERPASS
NASSAU COUNTY
DUVAL COUNTY
FUTURE EXTENSION FORCE MAIN/ WATER MAIN
JEA PROPERTY
BAKER COUNTY
NASSAU COUNTY
FUTURE EXTENSION FORCE MAIN/ WATER MAIN
BAKER COUNTY
DUVAL COUNTY
WELL SITE 2
500' RADIUS LAND USE RESTRICTIONS
FUTURE EXTENSION FORCE MAIN/ REUSE MAIN/ WATER MAIN
FUTURE EXTENSION FORCE MAIN/ REUSE MAIN/ WATER MAIN/ RAW WATER MAIN
WELL SITE 1
±1.27 AC OF IMPACTS
796'
BAKER COUNTY
DUVAL COUNTY
FIRST COAST REGIONAL UTILITY PLANT SITE
±1.73 AC OF IMPACTS
LANDFILL
FORCE MAIN/ REUSE MAIN/ WATER MAIN
FORCE MAIN/ REUSE MAIN/ WATER MAIN
WELL LOCATIONS
FIRST COAST REGIONAL UTILITY PLANT
JACKSONVILLE, FLORIDA
Exhibit 2
England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
(TEL) (904) 642-8990
FAX. (904) 646-9485
VISION • EXPERIENCE • RESULTS
REG. 2684 LC 0000316
T:\2022\22-280\LandDev\Design\Plots\Exhibits\2023-02-15 Utility Exhibits and wells.dwg
PLOTTED: March 20, 2023 – 4:54 PM, BY: Matthew Guilbeault

VISION • EXPERIENCE • RESULTS

www.etminc.com
tel 904-642-8550 • fax 904-642-4165
14775 Old St. Augustine Road • Jacksonville, Florida 32258

June 21, 2022

Work Order No. 22-316.00
File No. 128H-40.00A

Utility Parcel

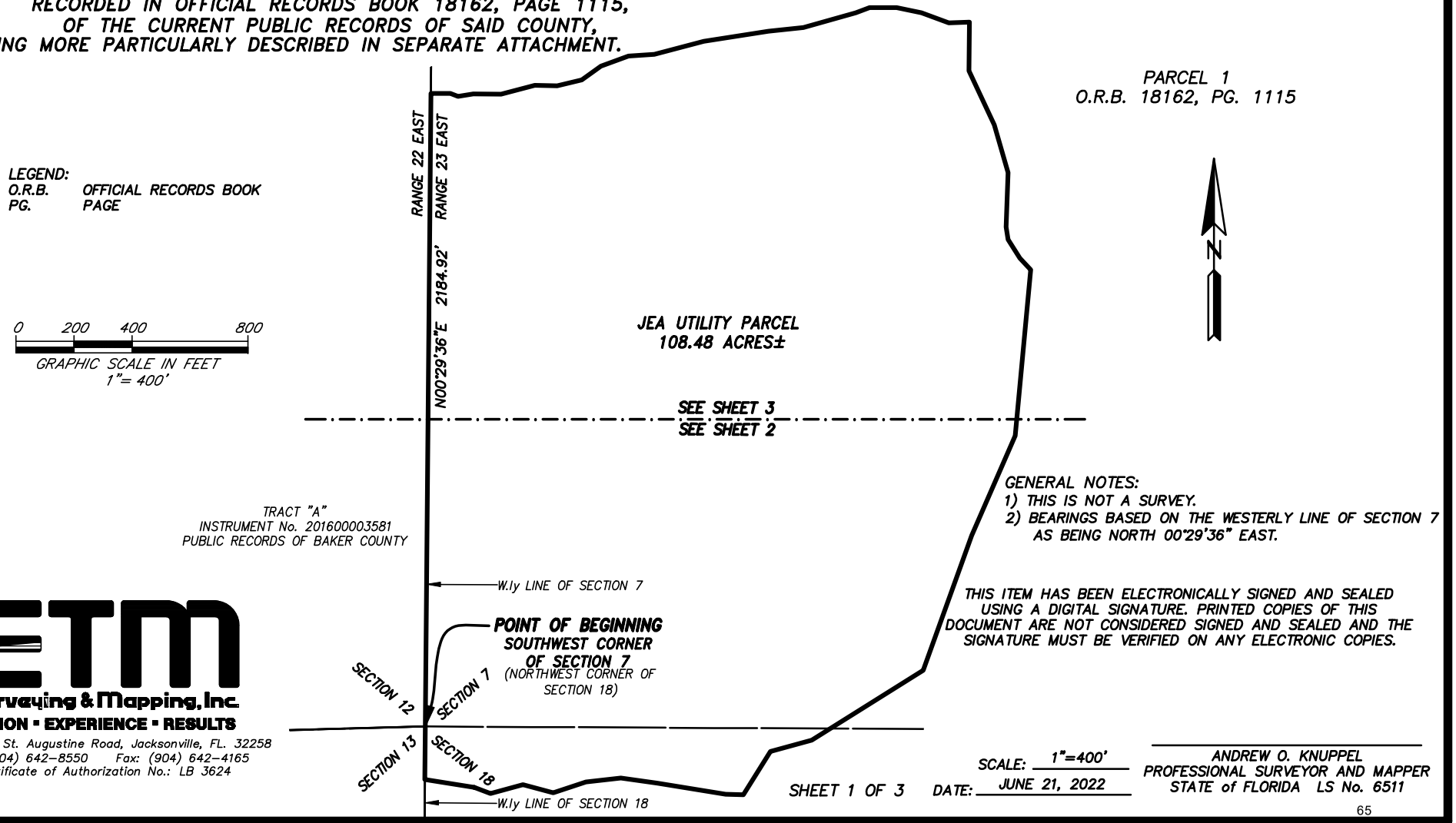
A portion of Sections 7 and 18, Township 3 South, Range 23 East, Duval County, Florida, being a portion of Parcel 1, as described and recorded in Official Records Book 18162, page 1115, of the current Public Records of said county, being more particularly described as follows:

For a Point of Beginning, commence at the Southwest corner of said Section 7; thence North 00°29'36" East, along the Westerly line of said Section 7, a distance of 2184.92 feet; thence South 89°38'01" East, departing said Westerly line, 67.37 feet; thence South 68°12'16" East, 28.40 feet; thence North 80°17'01" East, 53.06 feet; thence South 89°09'27" East, 95.68 feet; thence North 75°09'16" East, 120.81 feet; thence South 88°57'30" East, 77.39 feet; thence North 76°51'58" East, 86.68 feet; thence North 54°07'04" East, 81.61 feet; thence North 69°48'51" East, 101.93 feet; thence North 86°22'01" East, 88.81 feet; thence North 75°11'12" East, 176.09 feet; thence North 81°03'52" East, 226.45 feet; thence North 83°57'21" East, 120.26 feet; thence North 74°24'26" East, 188.43 feet; thence North 70°12'44" East, 50.30 feet; thence Due East, 93.49 feet; thence South 78°41'24" East, 87.82 feet; thence South 69°46'31" East, 99.64 feet; thence North 88°09'09" East, 71.76 feet; thence South 00°49'21" West, 168.48 feet; thence South 25°13'58" East, 205.43 feet; thence South 15°56'43" East, 171.05 feet; thence South 01°57'09" West, 188.08 feet; thence South 08°31'51" East, 43.20 feet; thence South 32°27'40" East, 77.21 feet; thence South 43°16'33" East, 54.28 feet; thence South 05°17'07" West, 575.23 feet; thence South 23°38'56" West, 375.95 feet; thence South 19°47'17" West, 494.18 feet; thence South 57°51'46" West, 453.26 feet; thence South 74°34'40" West, 148.03 feet; thence South 31°57'45" West, 175.66 feet; thence North 88°12'36" West, 61.26 feet; thence North 80°41'27" West, 238.26 feet; thence North 82°13'36" West, 127.37 feet; thence South 83°39'35" West, 121.47 feet; thence South 71°33'54" West, 118.78 feet; thence North 74°55'53" West, 108.36 feet; thence South 74°30'41" West, 115.54 feet; thence North 69°08'44" West, 60.29 feet; thence North 80°49'45" West, 172.37 feet to a point lying on the Westerly line of said Section 18; thence North 00°29'20" East, along said Westerly line, 182.36 feet to the Northwest corner thereof and the Point of Beginning.

Containing 108.48 acres, more or less.

SKETCH TO ACCOMPANY DESCRIPTION OF

A PORTION OF SECTIONS 7 AND 18, TOWNSHIP 3 SOUTH, RANGE 23 EAST, DUVAL COUNTY, FLORIDA, BEING A PORTION OF PARCEL 1, AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 18162, PAGE 1115, OF THE CURRENT PUBLIC RECORDS OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED IN SEPARATE ATTACHMENT.



GENERAL NOTES:
1) THIS IS NOT A SURVEY.
2) BEARINGS BASED ON THE WESTERLY LINE OF SECTION 7 AS BEING NORTH 00°29'36" EAST.

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

ETM
Surveying & Mapping, Inc.
VISION • EXPERIENCE • RESULTS
4775 Old St. Augustine Road, Jacksonville, FL. 32258
Tel: (904) 642-8550 Fax: (904) 642-4165
Certificate of Authorization No.: LB 3624

SCALE: 1"=400' DATE: JUNE 21, 2022

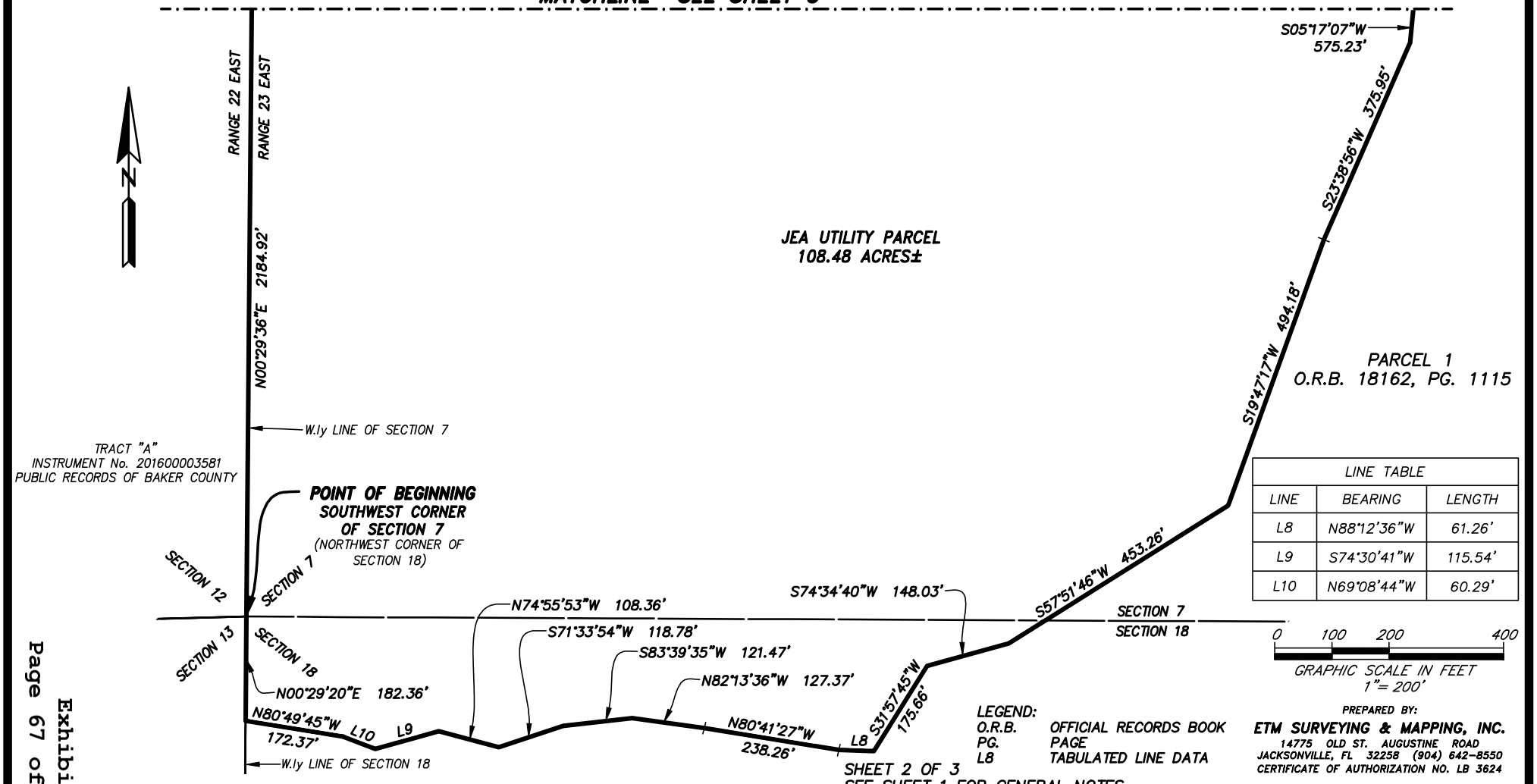
ANDREW O. KNUPPEL
PROFESSIONAL SURVEYOR AND MAPPER
STATE of FLORIDA LS No. 6511

SHEET 1 OF 3

CAD FILE: I:\Survey\RMAproj\Baldwin-ICI\sketches\JEA Utility Parcel.dwg

DRAWN BY: TLK ORDER NO.: 22-316.00 FILE NO.: 128H-40.00A

A PORTION OF SECTIONS 7 AND 18, TOWNSHIP 3 SOUTH, RANGE 23 EAST,
DUVAL COUNTY, FLORIDA, BEING A PORTION OF PARCEL 1, AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 18162, PAGE 1115,
OF THE CURRENT PUBLIC RECORDS OF SAID COUNTY.



LINE TABLE		
LINE	BEARING	LENGTH
L8	N88°12'36"W	61.26'
L9	S74°30'41"W	115.54'
L10	N69°08'44"W	60.29'

LEGEND:
O.R.B. OFFICIAL RECORDS BOOK
PG. PAGE
L8 TABULATED LINE DATA

SHEET 2 OF 3
SEE SHEET 1 FOR GENERAL NOTES

PREPARED BY:
ETM SURVEYING & MAPPING, INC.
14775 OLD ST. AUGUSTINE ROAD
JACKSONVILLE, FL 32258 (904) 642-8550
CERTIFICATE OF AUTHORIZATION NO. LB 3624

CAD FILE: I:\Survey\RMAproj\Baldwin-ICI\sketches\JEA Utility Parcel.dwg
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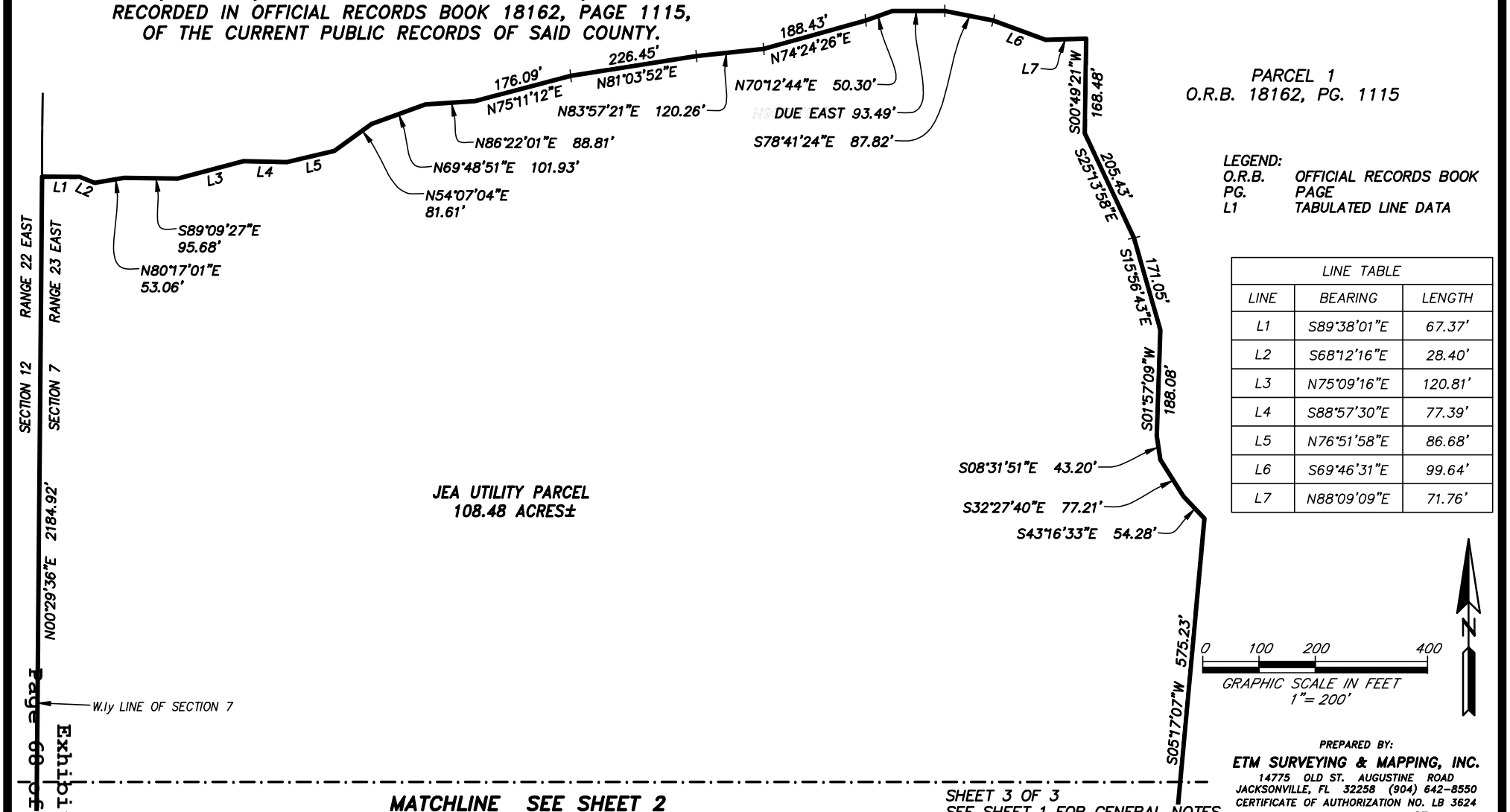

MATCHLINE SEE SHEET 2

SHEET 3 OF 3
SEE SHEET 1 FOR GENERAL NOTES

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Exhibit B
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