



**Putnam County**  
**Water Supply Facilities Work Plan**  
**(2020-2030)**

## Table of Contents

I.	Introduction .....	1
II.	Potable Water Suppliers and Service Agreements.....	1
	Water Suppliers .....	1
	Service Agreements .....	2
III.	Potable Water Sources, Demand and Supply .....	2
	Water Sources.....	2
	Treatment .....	3
	Distribution.....	3
	Demand and Supply .....	3
IV.	Water Supply Projects .....	3
V.	Non-potable Water.....	4
VI.	Water Supply Concurrency and Level of Service .....	4
VII.	Water Conservation Practices .....	4
	Water Use Monitoring.....	4
	Water Use Efficiency .....	4
	Public Education.....	5
	Rate Structure .....	5
VIII.	Water Source Protection Practices .....	6

## I. Introduction

Chapters 163 and 373, Florida Statutes (F.S.) established a link between regional water supply plans prepared by Water Management Districts and local government comprehensive plans. Water Management Districts are required by Florida Statutes to prepare a water supply plan for a 20-year planning period in order to ensure that existing water sources are adequate to meet projected water demand. Should a Water Management District determine that a local government is within a Water Resource Caution Area the local government is required to develop a 10-year water supply facilities work plan to ensure that adequate water supply is available to meet future demands. Work plans must cover a 10-year planning period, identification of water supply facilities, and identification of capital improvement projects required to provide for projected water demands. Local governments are also required to update their comprehensive plans to review goals, objective and policies as needed, to reflect the water supply facilities work plan.

Putnam County falls within the boundaries of both the St. Johns River Water Management District (SJRWMD) and the Suwanee River Water Management District (SRWMD). In January of 2017, the respective governing boards of SJRWMD and the SRWMD approved the North Florida Regional Water Supply Plan (NFRWSP). The NFRWSP is a joint regional water supply plan for 14 North Florida counties. The NFRWSP area encompasses all of Putnam County. The data and analysis provided herein is to support the development a water supply facilities work plan that is consistent with the NFRWSP.

This Work Plan addresses the planning period of 2020-2030. The work plan is adopted by reference into the County's Comprehensive Plan by Policy D.1.5.1, and, in accordance with D.1.5.2. will be updated every time the water management district governing board(s) approves an updated regional water supply plan that affects the County. This Water Supply Facilities Work Plan will focus on the unincorporated areas of Putnam County.

## II. Potable Water Suppliers and Service Agreements

### Water Suppliers

The majority of Putnam County's population utilizes domestic self-supply (DSS) and small public supply systems (systems less than 0.1 mgd) to meet their potable water needs. The remaining portion of the population utilizes centralized (large) public supply systems. Table 1 contains population and water demand projections for DSS and public supply within Putnam County through 2030. The respective population and water demand is anticipated to remain relatively steady through 2030.

**Table 1**  
**Population and Water Demand Projections for DSS and Public Supply**

	<b>2020</b>	<b>2025</b>	<b>2030</b>
DSS/small supply system projected population	55,752	56,058	56,286
DSS/small supply system projected water demand (mgd)	3.98	4.00	4.01
Large public supply system projected population	17,348	17,442	17,514
Large public supply system projected water demand (mgd)	2.24	2.25	2.25

*Source: NFRWSP (2015-2035) Appendix B*

The (large) public supply utilities within Putnam County are listed in Table 2. All of the utilities listed in the table, except for the Town of Welaka, provide potable water service to some portion of unincorporated Putnam County.

**Table 2  
Large Public Supply Utilities**

<b>Utility</b>	<b>CUP Number</b>
Putnam County BOCC	92165
Town of Interlachen	1624, 8150
City of Crescent City	1627
Melrose Water Association	7961
River Park Utilities Management Assoc.	7981
City of Palatka	8114
Town of Welaka	8168
<i>Source: NFRWSP (2015-2035)</i>	

There are multiple small public and private supply systems within Putnam County. Table 3 contains a list of small supply systems.

**Table 3  
Small Supply Systems**

<b>Entity</b>	<b>CUP Number (if applicable)</b>
St. Johns Harbor Water Association	90227
Lake Como Water Association	8072
Kirkwood Estates	8071
FGUA - Interlachen Lake Estates/Park Manor	7986
FGUA - Palm Port	8127
FGUA - Beechers Point	N/A*
FGUA - Wooten MHP	N/A*
FGUA - Saratoga Harbor	N/A*
FGUA - Welaka MHP	N/A*
FGUA - Hermit Cove	N/A*
FGUA- St. Johns Highlands	N/A*
FGUA-Siler Lake Oaks	N/A*
River Villas MHP	N/A*
St. Johns River Club Utilities	N/A*
*Suppliers fall below CUP thresholds	

**Service Agreements**

Putnam County does not have service agreements with any of the public or private potable water suppliers in the County.

**III. Potable Water Sources, Demand and Supply**

**Water Sources**

Potable water in Putnam County comes mainly from two sources the surficial aquifer and the Upper Floridan aquifer. Domestic self-supply (individual) wells are typically drilled into the surficial aquifer with some using the Upper Floridan aquifer. Governmental

owned utilities and the vast majority of the private systems draw their water from the Upper Floridan aquifer.

Putnam County operates the East Putnam County Water System (EPCWS) in the East Palatka/San Mateo area. This system features three (3) wells. The County operates the system under a consumptive use permit (CUP) [#92165] that authorizes the use of 0.543 million gallons per day (MGD). The CUP expires in 2025.

The County also operates two additional very small systems the Port Buena Vista Plant with two (2) wells and a permitted capacity of 50,000 gallons per day and Paradise View Estates with one (1) well and a permitted capacity of 5,000 gallons per day.

**Treatment**

The EPCWS has one (1) treatment plant with a permitted capacity of 0.93 MGD. Because the water from the Upper Floridan Aquifer in this area does not meet drinking water standards for Total Dissolved Solids and Chloride the County uses a reverse osmosis treatment system to deliver water within the drinking water standards. The reverse osmosis plant is capable of being expanded to 4.0 MGD when the need arises.

**Distribution**

Map A depicts the current and future service areas for the EPCWS.

**Demand and Supply**

The County currently is only averaging 0.22 MGD in annual daily flows. Demand projections found in the NFRWSP for the EPCWS are found in Table 4.

**Table 4  
Projected Population and Water Demand  
East Putnam County Water System**

Year	Projected Population Served	Projected Water Demand (MGD)	CUP Allocation (MGD)	EPCWS WTP Capacity
2020	2,237	0.39	0.543	0.93
2025	2,249	0.39	0.543	0.93
2030	2,258	0.39	0.543*	0.93
<i>Source: NFRWSP (2015-2035), Tables B-5 and B-5a.</i>				
<i>**Note: CUP expires in 2025, therefore, existing allocation was extrapolated to 2030</i>				

As can be seen from Table A water demand in the EPCWS service area is projected to essentially remain static through 2030. With a permitted withdrawal of 0.543 MGD, there will be adequate CUP allocation and EPCWS WTP facility capacity to serve EPCWS service area’s needs through the planning period.

**IV. Water Supply Projects**

Due to the facts that there remains a large unused capacity in the EPCWS and adequate CUP allocation, no new traditional or alternative water supply projects are contemplated at this time. Except for continued expansion of the distribution system as depicted in

Figure A, there are no plans for any new potable or non-potable supply projects at this time. In addition, the NFRWSP (2015-2035) did not identify any project options relative to Putnam County.

**V. Non-potable Water**

The County does not operate a wastewater treatment plant. If and/or when feasible, the County may investigate establishing sewer service to selected areas and the provision of reclaimed water.

**VI. Water Supply Concurrency and Level of Service**

The Putnam County Comprehensive Plan identifies the following Levels of Service for potable water systems.

**Table 5  
Level of Service**

Land Use	LOS Standard
Residential	125 gal/cap/day
Office	150 gal/day/1,000sf
Commercial	175 gal/day/1,000sf
Industrial	25 gal/day/1,000sf
Hotel/Motel	172 gal/day/room

Comprehensive plan policy D.1.3.2 established enabling language for the County to coordinate its concurrency management system with its water suppliers during the development review process to ensure that there is adequate water supply and facility capacity available prior to development approval.

**VII. Water Conservation Practices**

Putnam County, as part of its consumptive use permit compliance implements a water conservation plan for the EPCWS which has the following components; water conservation, water use monitoring, water use efficiency, public education and rate structure.

**Water Use Monitoring**

- Flow meters have been installed on all withdrawal points.
- All service connections are metered, and master metering of residential and commercial establishments is prohibited.
- The treatment and distribution systems are audited annually.

**Water Use Efficiency**

- The EPCWS began operation in November 2009 and all components are relatively new with minimal water loss.
- As the system is expanded dead end mains will be eliminated.

- Daily inspections are conducted on the supply and distribution systems and all visible leaks are repaired immediately.
- Water quality testing within the distribution system daily and flushing occurs only as necessary.

**Public Education**

- As new users are connected to the system, County staff meet with each customer to discuss methods to keep household water use to a minimum.
- Monthly water bills are sent to each end user, which contain incentives to encourage efficient indoor and outdoor water use.
- Water conservation flyers and educational announcements are available in the County billing office.
- Tours of the withdrawal and treatment facility are available to all residents and organizations in the area.

**Rate Structure**

The County has implemented its potable rates and connection charges with an inclining residential rate structure.

**Conservation Policies**

The Putnam County Comprehensive Plan contains several policies that relate to water conservation as shown in Table 6.

**Table 6  
Water Conservation Policies**

<b>Policy</b>	<b>Content subject</b>
D.1.4.1	Public awareness and intergovernmental coordination
D.1.4.2	Enforce building code and require certain conservation measures
E.1.2.12	Public awareness, plugging of unused wells, emergency water conservation
E.1.7.2	Encourage Water Star Program
E.1.7.3	Require County buildings to be Florida Water Star certified

## VIII. Water Source Protection Practices

The Putnam County Comprehensive Plan contains several policies that relate to water source protection as shown in Table 7.

**Table 7**  
**Water Source Protection Policies**

<b>Policy</b>	<b>Content subject</b>
E.1.2.7	Surface water level protection
E.1.2.13	Aquifer recharge protection
E.1.2.14	Groundwater quality protection
E.1.2.15	Protection of groundwater resources
E.1.2.16	Wellhead protection
E.1.2.17	Wellhead protection
E.4.10	Protection of groundwater
D.1.9.4	Groundwater quality protection
D.1.9.5	Aquifer recharge protection
D.1.11.1	Wellhead protection