

SUWANNEE RIVER WATER MANAGEMENT DISTRICT

2020 ANNUAL WATER USE REPORT



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2020 ANNUAL GROUNDWATER USE SUMMARY



SUWANNEE RIVER WATER MANAGEMENT DISTRICT

Introduction

The Suwannee River Water Management District (District) is one of five regional water management districts in Florida. The District encompasses all or part of 15 counties in north-central Florida and includes 7,640 square miles with 13 river basins. The District manages water and related natural resources by providing water quality and water use monitoring, planning, research, regulation, land acquisition and management, and flood protection.

In support of water supply planning, the District incorporates data from water use monitoring programs and produces estimates of water use across six categories. The District has compiled the 2020 Annual Groundwater Use Report to provide Districtwide estimates of groundwater use. This report includes estimates of rainfall as compared to groundwater withdrawals (Table 1), total groundwater withdrawals broken down by water use type and county (Table 2), as well as estimates of historical groundwater use over time.

Data Sources/Methodology

Historical groundwater use data from 1965 through 2005 were obtained from the United States Geological Survey (Historical Groundwater Use Data 1965-2005). Water use estimates for 2010 came from estimates produced in support of the North Florida Regional Water Supply Plan (2015-2035) and the Water Supply Assessment (2015-2035). Estimates of 2015-2019 groundwater use are published in the Annual Groundwater Use Report which can be found on the District's website (Annual Groundwater Use Report, SRWMD 2015-2019). Estimates of 2020 groundwater use and population were prepared as described below and reflect the best available information presented at the time the report was produced for the District.

Population

The District used population estimates published by the Bureau of Economic and Business Research (BEBR) to estimate county-wide population. To estimate water use and per person water usage rates, the District estimated populations served by a public water supplier, via self-supply (domestic well), and from an institutional supplier (e.g. prisoners). Population served by public supply was estimated using data received from public water suppliers in 2021 or based on the BEBR growth between 2018 and 2021. The institutional population was also estimated based on data reported by BEBR. Once a population served by public supply was estimated, it was subtracted from the county-wide BEBR population estimate along with the institutional population. The remaining estimate was considered the non-served population and was used to estimate the domestic self-supply water use. Parcel level data was also used to estimate the percent of population residing in the District for counties shared with adjacent water management districts. This percentage was estimated using the percent of residential dwelling units located in the District's portion. These shared counties were Alachua, Baker, Bradford, Jefferson, and Levy counties. For more detailed information on the population estimation process, see "Population Estimation and Projection Technical Memorandum (2014-2018)."

Water Use Categories

Water use is summarized in six different categories: public supply, domestic self-supply and small public supply, agriculture, commercial/industrial/institutional and mining/dewatering, landscape/recreational/aesthetics, and thermoelectric power generation. Below is a description of each water use category, along with the source and/or methodology of the data used in this report.

Public Supply (PS)

The PS category includes all large municipal, public, and private systems that supply potable water to the public from a central water supply system for human consumption and other uses that have average annual permitted quantities of 0.1 million gallons per day (MGD) or more.

Data Sources/Methodology

Water use data in this category were obtained from the Monthly Operating Reports (MORs) submitted to the Florida Department of Environmental Protection (FDEP) by system operators at the utility. The MOR reports the volume of treated groundwater, which represents a reasonable approximation of total groundwater pumped for facilities in the District.

Domestic Self-Supply and Small Public Supply (DSS)

The DSS category includes domestic water uses generally associated with residential dwellings that are not served by a central public supply utility and water usage from small public supply systems that have average annual permitted quantities of less than 0.1 MGD in 2020.

Data Sources/Methodology

Water use data from small public suppliers were obtained from MORs reported to FDEP by system operators at the utility. If no MORs were available, water use was set to the permitted allocation. Domestic water use was compiled using non-served population estimates for the county and county-level estimated residential per capita water use rates which were calculated from data provided by public utilities for each county.

Agriculture (AG)

The agricultural water use category includes the irrigation of crops, water used to raise livestock, and other miscellaneous water uses associated with agricultural production, such as aquaculture. These users typically obtain water from a dedicated, on-site well or surface water withdrawal and are not connected to a central utility. Irrigated acreage and projected water demands were determined for a variety of crop rotations as well as livestock water needs.

Data Sources/Methodology

The Balmoral Group (Balmoral) is contracted by the Florida Department of Agriculture and Consumer Services to develop the Florida Statewide Agricultural Irrigation Demand (FSAID) database. This FSAID database incorporates statewide agricultural monitoring from all five water management districts and produces base year agricultural water use estimates and agricultural water demand projections for all irrigated agricultural parcels in the state. These estimates reflect average climate conditions. Future demand projections are updated on an annual basis to reflect producers' response to potential shifts in future market conditions such as changes in projected future irrigated acreages and/or mixture of crop types. Estimated average year water demand for 2020 base year of FSAID 9 were used for irrigation, livestock, and aquaculture (Florida Statewide Agricultural Irrigation Demand Estimated Agricultural Water Demand, 2020-2045). Groundwater is the primary water supply for agriculture in the District,

therefore over 99 percent of the agricultural demand estimate was assumed to come from groundwater (Technical Memorandum, 2021).

Commercial/Industrial/Institutional and Mining/Dewatering (CII/MD)

The Commercial, Industrial, and Institutional (CII) category represents water use associated with the production of goods or provisions of services by CII establishments, as well as water used at facilities such as hospitals, churches, prisons, schools, etc. The CII category also includes the use of water associated with mining and long-term dewatering operations (MD). This category does not include entities whose water needs are met by PS systems.

Data Sources/Methodology

Large CII/MD users with a permitted groundwater withdrawal greater than or equal to 0.1 MGD or that have a well greater than eight inches in diameter, are required to report their water use to the District. Water use for any user that is below the threshold for reporting is set to the allocation defined in the permit. MD permits that operate under a closed loop cycle are estimated at 30% of their allocation. This is because water that is not lost to evaporation is recycled.

Landscape/Recreational/Aesthetics (LRA)

The Landscape, Recreational and Aesthetic (LRA) Irrigation category represents water use associated with the irrigation, maintenance, and operation of golf courses, cemeteries, parks, medians, attractions, and other large self-supplied green areas. This category does not include entities whose water needs are met by PS systems.

Data Sources/Methodology

LRA permits with drinking water wells were updated based on their MORs reported to FDEP by system operators. Large LRA users that have a reporting requirement submit their water use to the District. Water use for any user that is below the threshold for reporting is set to the allocation defined in the permit.

Thermoelectric Power Generation (PG)

The Thermoelectric Power Generation (PG) category represents the water use associated with power plant and power generation facilities. PG water use includes the consumptive use of water for steam generation, cooling, and replenishment of cooling reservoirs.

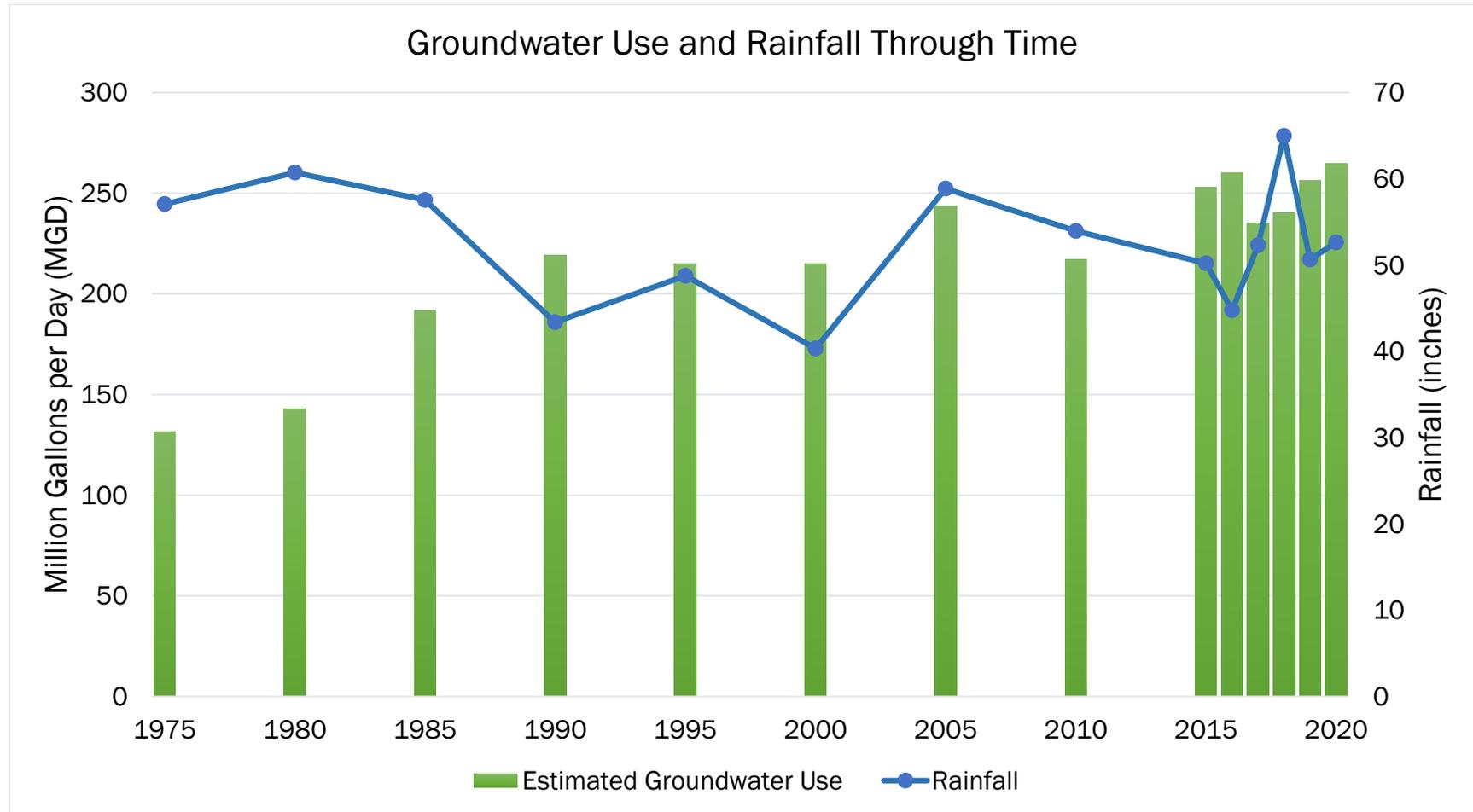
Data Sources/Methodology

Water use data from power plant operations is reported to the District and included in this category.

2020 Rainfall

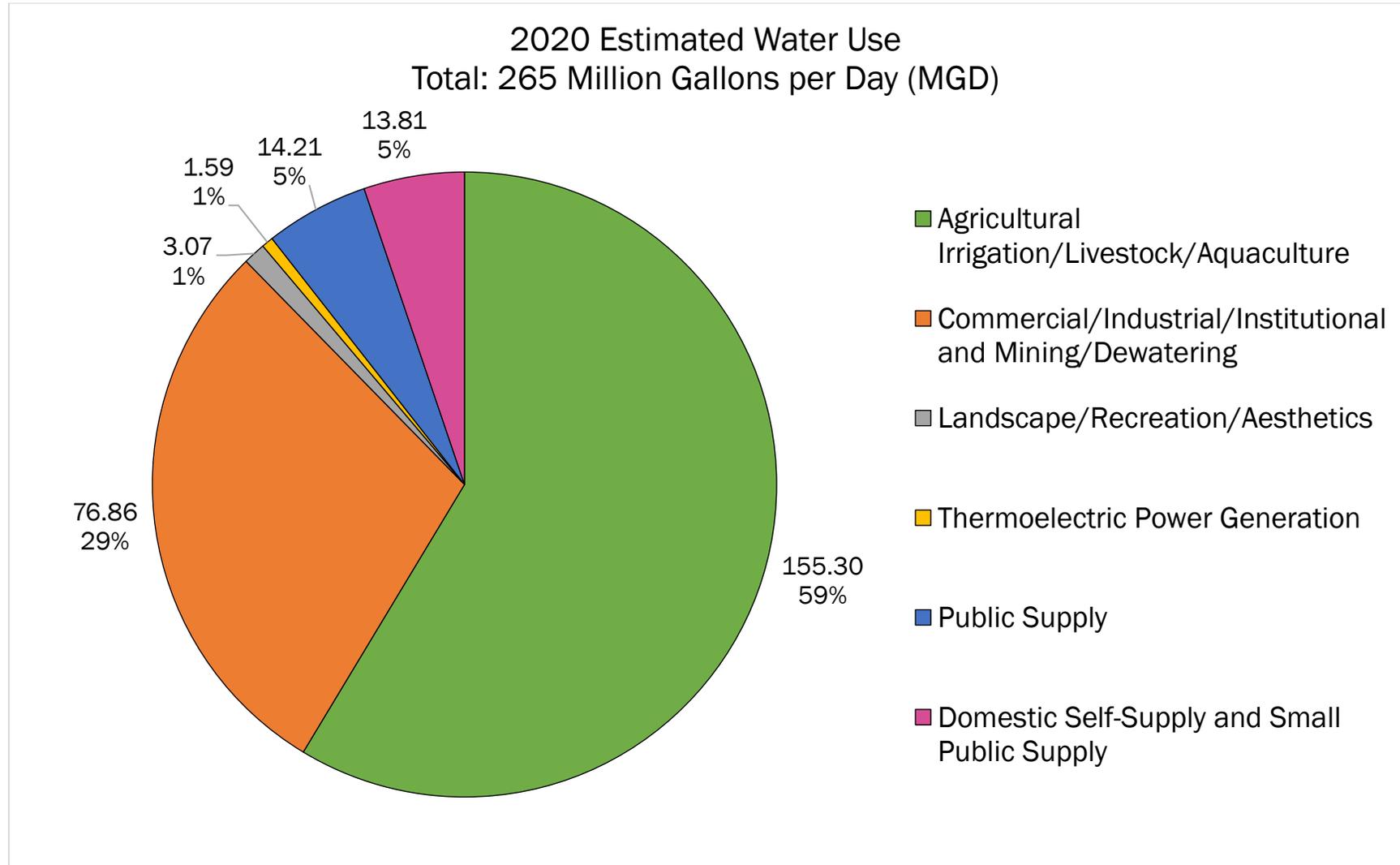
Figure 1: Groundwater Use and Rainfall Through Time

Total annual rainfall throughout the District was estimated to be about 53 inches in 2020. This is about 2 inches below the long term (1932-2020) District-wide average of 54.7 inches.



2020 Total Districtwide Groundwater Use

Figure 2: Estimated Groundwater Use in 2020 by Category

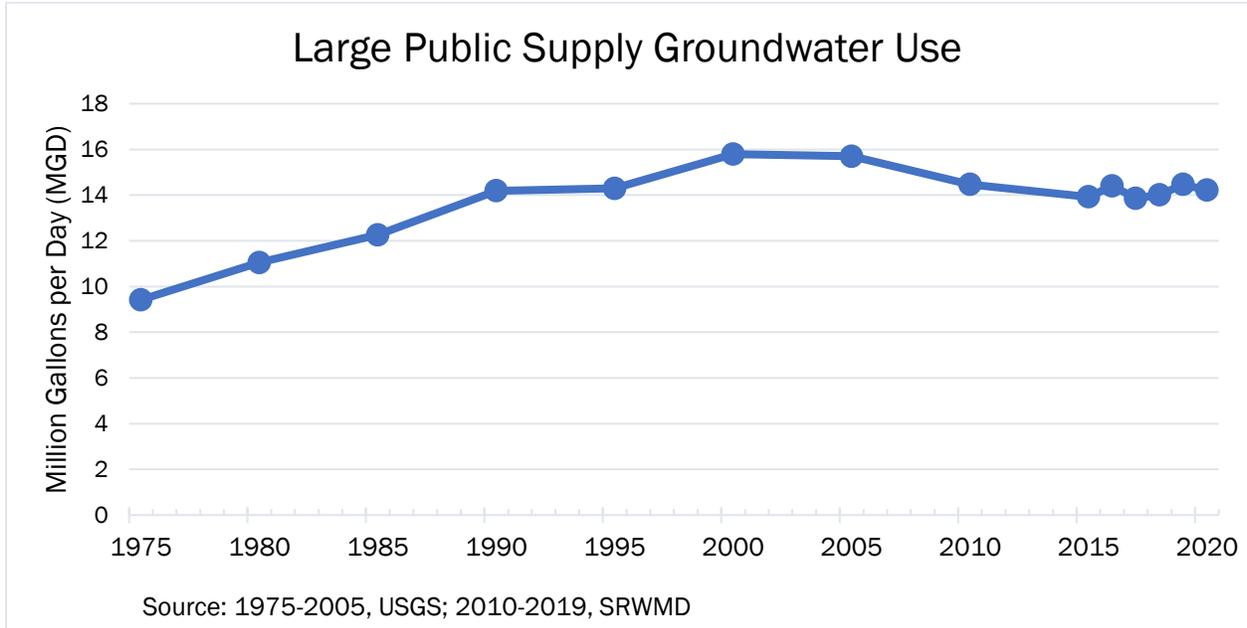


*Putnam County projections are wholly incorporated and reported in SJRWMD.

2020 Public Supply

Figure 3: Large Public Supply Groundwater Use Through Time

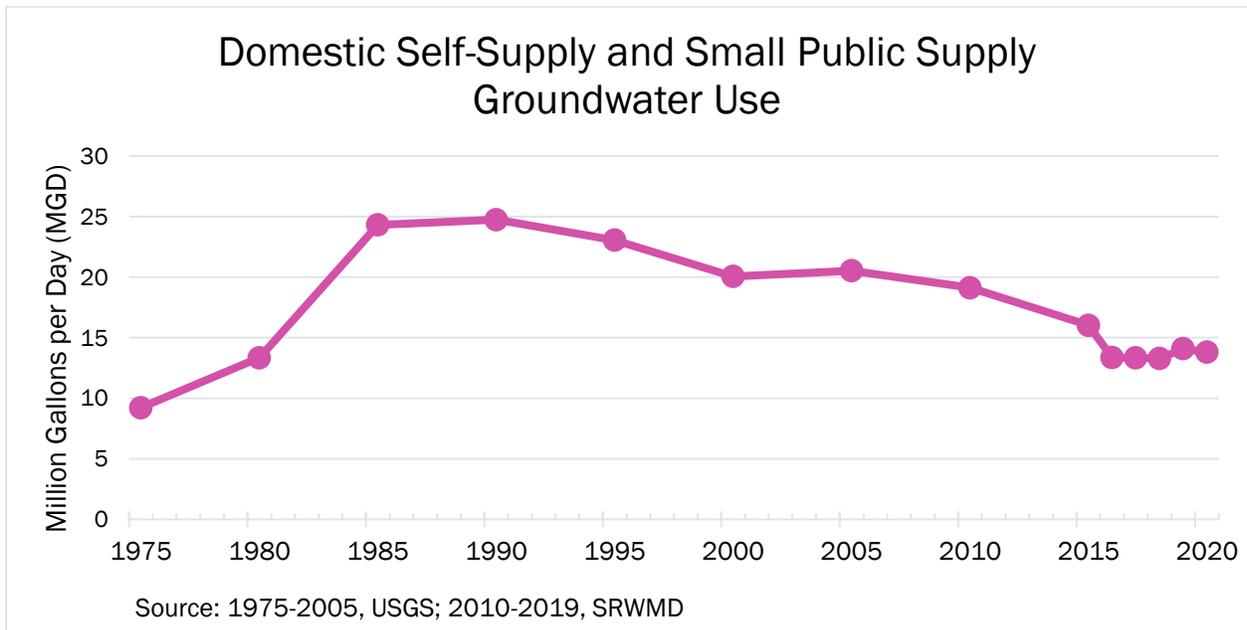
Between 2019 and 2020, public supply groundwater use had a decrease of about 0.25 MGD. There has been very minimal fluctuation in PS groundwater use over the past five years.



2020 Domestic Self-Supply and Small Public Supply (DSS)

Figure 4: Domestic Self-Supply and Small Public Supply Groundwater Use Through Time

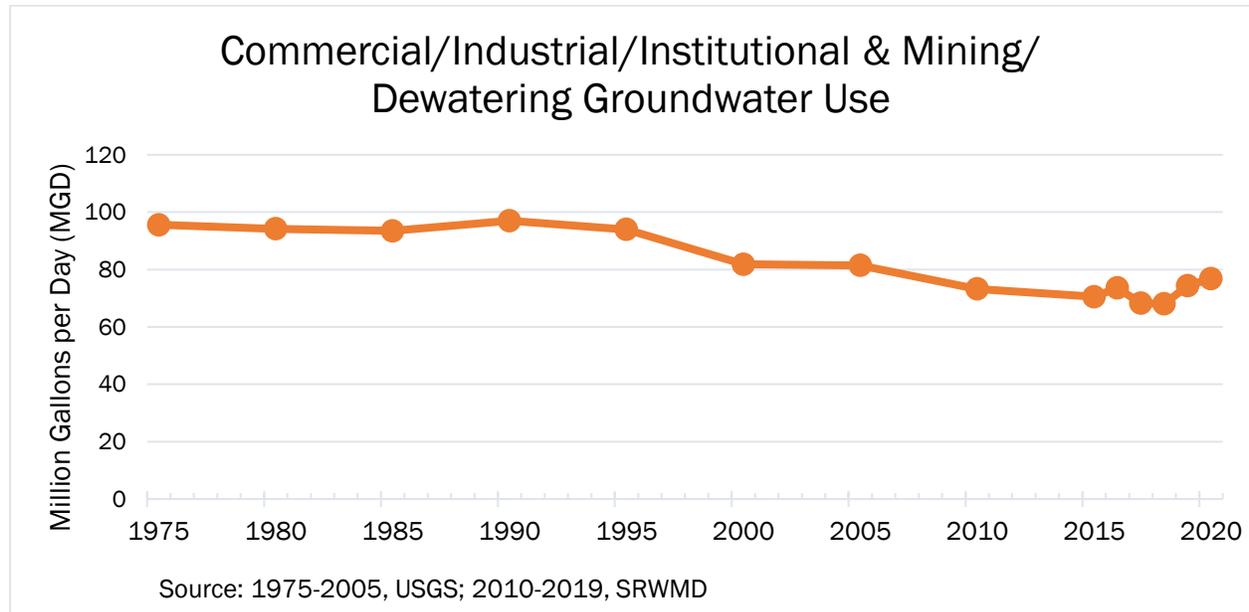
Domestic self-supply and small public supply water use is estimated to be about 13.8 MGD in 2020, which is about 0.3 MGD lower than in 2018.



2020 Commercial/Industrial/Institutional and Mining/Dewatering (CII/MD)

Figure 5: Commercial/Industrial/Institutional & Mining/Dewatering Groundwater Use Through Time

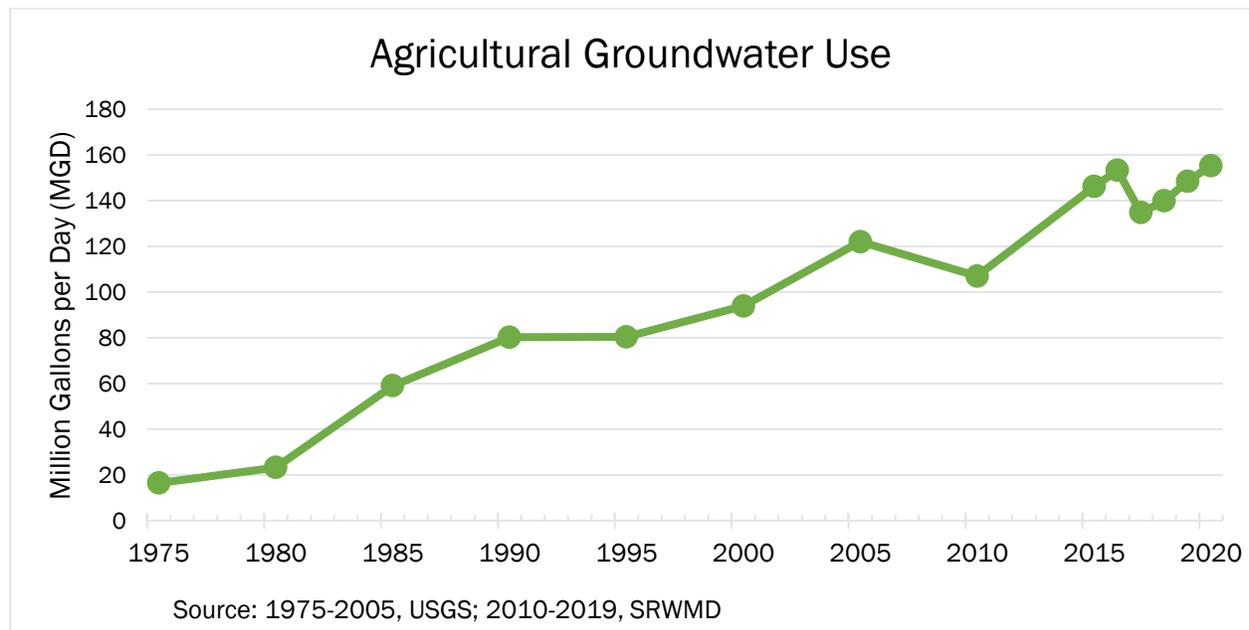
Groundwater use in the CII/MD category is the second largest use throughout the District. CII/MD groundwater use had an increase of about 2.5 MGD from 2019 to 2020.



2020 Agricultural Irrigation/Livestock/Aquaculture Use (AG)

Figure 6: Agricultural Irrigation/Livestock/Aquaculture Groundwater Use Through Time

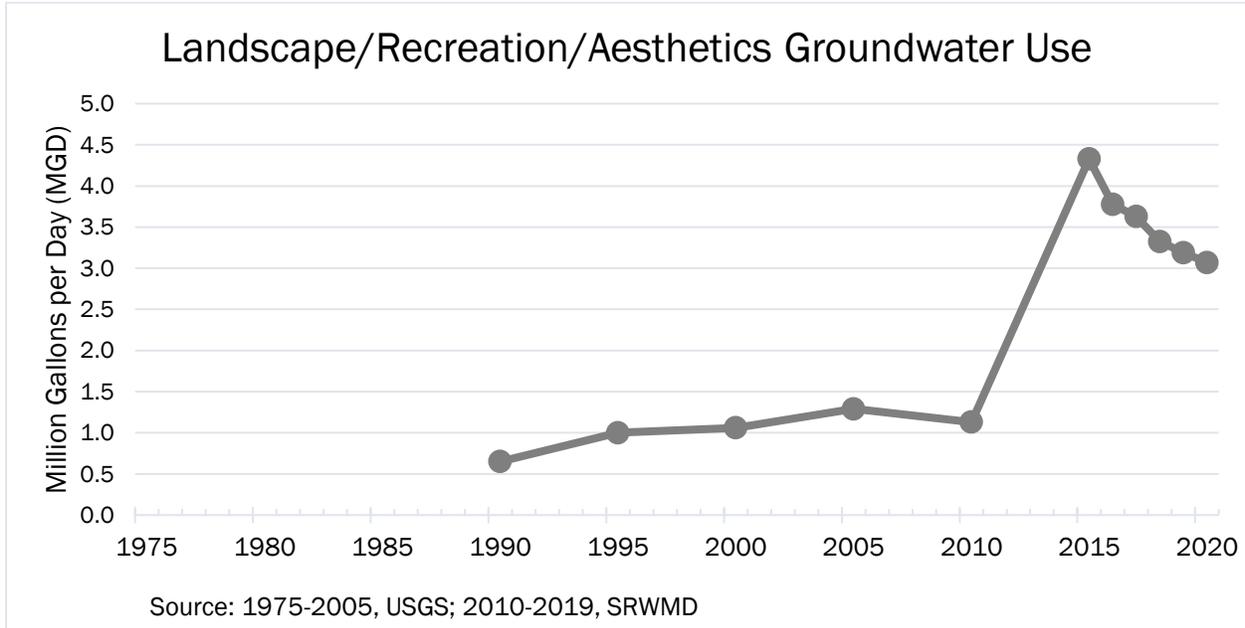
Agricultural irrigation, livestock, and aquaculture use accounts for majority of groundwater use throughout the District. From 2019 to 2020, use in this category increased by almost 7 MGD. Estimates continue to fluctuate due to the assumptions of irrigation associated with the variety of crops grown.



2020 Landscape/Recreation/Aesthetics (LRA)

Figure 7: Landscape/Recreation/Aesthetics Groundwater Use Through Time

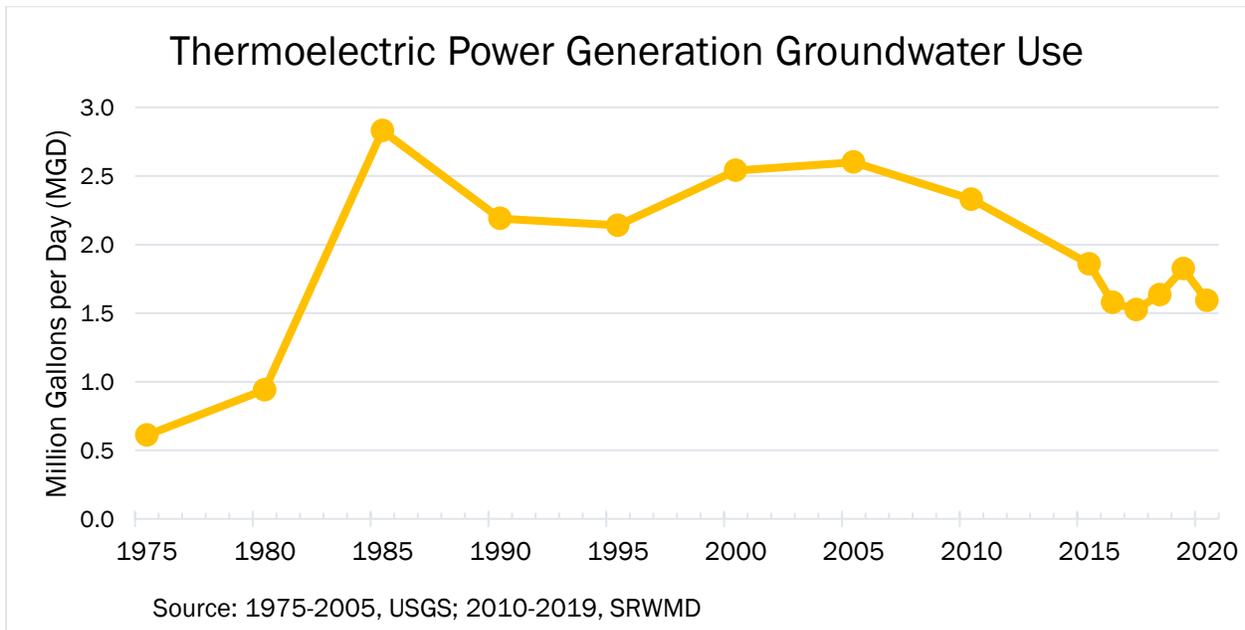
LRA permits with water use below the reporting threshold were estimated at allocation for 2015-2020. There was a small decline of 0.12 MGD from 2019 to 2020.



2020 Thermoelectric Power Generation Water Use (PG)

Figure 8: Thermoelectric Power Generation Groundwater Use Through Time

From 2019 to 2020, PG groundwater use decreased by about 0.2 MGD.



Total Water Use and Rainfall by County in 2020

Table 1: Total Water Use and Rainfall by County in 2020

County	2020 Water Use (MGD)	2020 Total Annual Rainfall (inches)
Alachua (SRWMD portion)	19.77	47.79
Baker (SRWMD portion)	0.25	51.52
Bradford (SRWMD portion)	4.61	45.46
Columbia	11.84	49.86
Dixie	8.32	52.24
Gilchrist	23.41	44.85
Hamilton	51.42	54.63
Jefferson (SRWMD portion)	3.23	54.59
Lafayette	13.54	55.26
Levy (SRWMD portion)	17.69	47.75
Madison	26.17	54.34
Suwannee	44.13	55.33
Taylor	37.84	58.50
Union	2.62	46.33
District Total	264.84	52.63

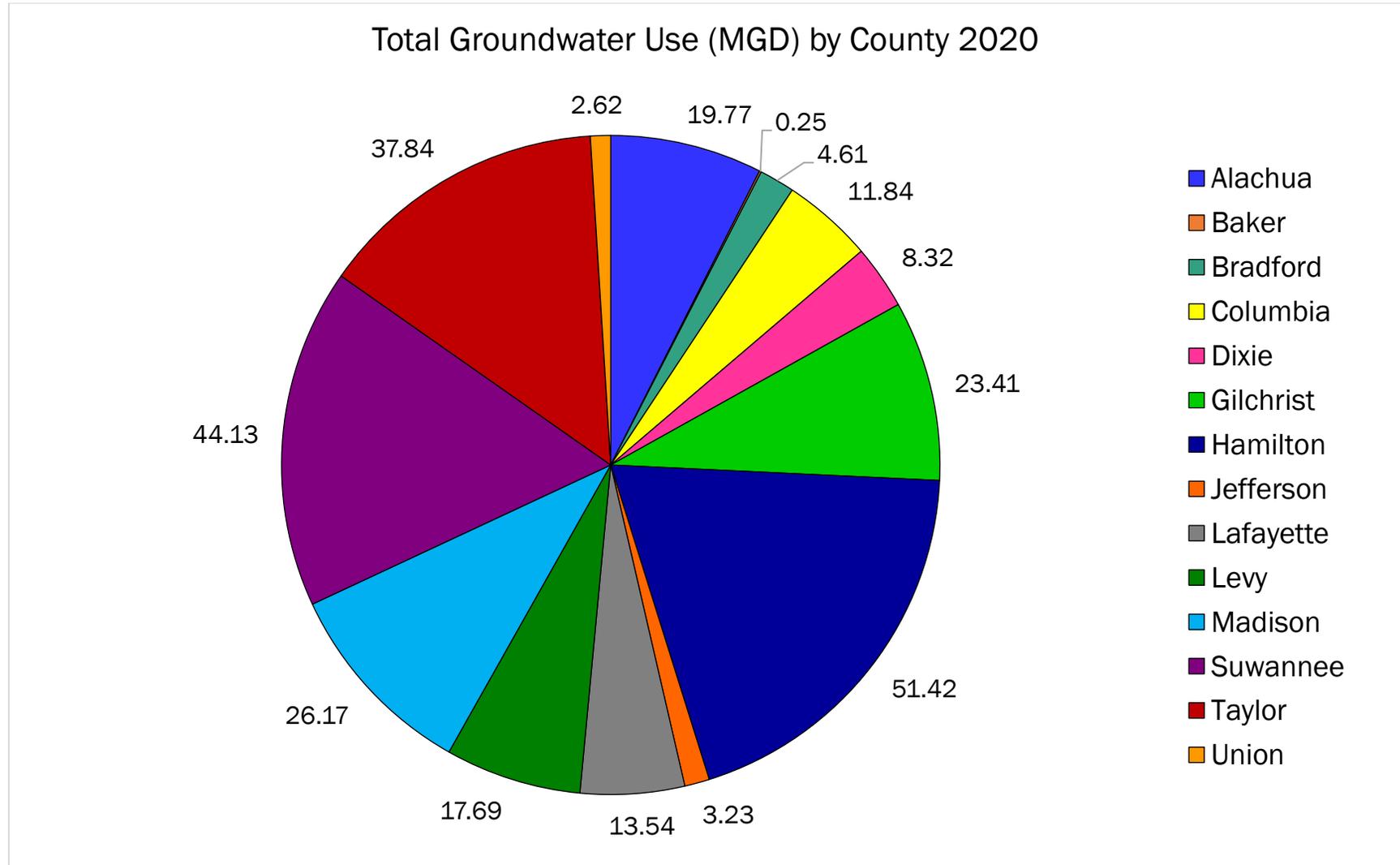
*County rainfall estimates incorporate the total annual rainfall for whole counties.

**The water use estimates for individual counties and total rainfall estimates include only the SRWMD portion of counties.

***Putnam County projections are wholly incorporated and reported in SJRWMD.

Groundwater Use by County

Figure 9: Groundwater Use Split by County



*Putnam County projections are wholly incorporated and reported in SJRWMD.

Total Groundwater Use by County and Category in 2020

Table 2: Total Groundwater Use (MGD) by County and Category in 2020

County	Planning Region	Agricultural Irrigation/ Livestock/ Aquaculture	Public Supply	Commercial/ Industrial/ Institutional and Mining/ Dewatering	Thermoelectric Power Generation	Landscape/ Recreation/ Aesthetics	Domestic Self-Supply and Small Public Supply	Total
Alachua	Eastern	12.20	2.78	0.32	1.59	0.98	1.90	19.77
Baker	Eastern	0.00	0.00	0.18	0.00	0.00	0.06	0.25
Bradford	Eastern	1.94	0.83	1.18	0.00	0.03	0.62	4.61
Columbia	Eastern	4.51	3.46	0.25	0.00	0.62	2.99	11.84
Dixie	Western	6.09	0.80	0.10	0.00	0.10	1.23	8.32
Gilchrist	Eastern	21.60	0.20	0.46	0.00	0.16	0.99	23.41
Hamilton	Eastern	14.72	0.88	35.36	0.00	0.08	0.37	51.42
Jefferson	Western	2.77	0.00	0.10	0.00	0.09	0.28	3.23
Lafayette	Western	12.42	0.18	0.32	0.00	0.04	0.58	13.54
Levy	Western	15.87	0.73	0.12	0.00	0.15	0.83	17.69
Madison	Western	23.43	1.07	0.74	0.00	0.25	0.69	26.17
Suwannee	Eastern	37.91	1.11	2.80	0.00	0.19	2.11	44.13
Taylor	Western	0.61	1.97	34.47	0.00	0.28	0.51	37.84
Union	Eastern	1.22	0.21	0.47	0.00	0.09	0.64	2.62
Eastern Planning Region Total	NA	94.11	9.47	41.03	1.59	2.15	9.69	158.04
Western Planning Region Total	NA	61.19	4.74	35.84	0.00	0.92	4.12	106.80
District Total	NA	155.30	14.21	76.86	1.59	3.07	13.81	264.84

*Numbers may not add perfectly due to rounding.

**Putnam County projections are wholly incorporated and reported in SJRWMD.

Population by County in 2020

Table 3: Population by County in 2020

County	Total BEBR County Population	Percent of County in District	Estimated District Population Less Institutional	Institutional Population in District	Large Public Supply Population in District	Small Public Supply Population in District	Domestic Self-Supply Population in District	Residential Per Capita Used to Estimate DSS
Alachua	270,456	31.47%	85,120	0	50,632	261	34,227	55
Baker	26,111	2.01%	523	2,421	0	0	523	115
Bradford	24,898	90.34%	22,493	3,827	9,162	812	12,519	44
Columbia	67,099	100.00%	67,099	3,518	19,437	1,174	46,488	59
Dixie	14,985	100.00%	14,985	1,678	2,611	77	12,297	98
Gilchrist	17,492	100.00%	17,492	777	2,305	0	15,187	65
Hamilton	12,275	100.00%	12,275	2,295	5,248	431	6,596	47
Jefferson	13,564	26.43%	3,584	830	600	237	2,747	82
Lafayette	7,293	100.00%	7,293	1,397	1,200	0	6,093	96
Levy	41,699	44.67%	18,625	0	6,015	1,390	11,220	57
Madison	17,620	100.00%	17,620	1,334	5,738	48	11,834	57
Suwannee	43,477	100.00%	43,477	1,986	7,934	437	35,106	59
Taylor	20,153	100.00%	20,153	2,283	11,326	98	8,729	58
Union	10,618	100.00%	10,618	4,792	1,824	93	8,701	72
Total	587,740	NA	341,357	27,138	124,032	5,058	212,267	58

*Baker County – <https://www.sjrwmd.com/documents/technical-reports/fact-sheets/>

**Putnam County projections are wholly incorporated and reported in SJRWMD.

Gross Per Capita Rates for Large and Small Public Supply Systems with Service Area Boundaries

Table 4: Gross Per Capita Rates for Large and Small Public Supply Systems with Service Area Boundaries

County	Public Supplier	Permit ID	Large/Small	2020 Population Served	Water Use (MGD)	Gross Per Capita Rate
Alachua	City of Alachua	220667	Large	10,470	1.30	124
Alachua	City of Archer	216647	Large	1,344	0.11	79
Alachua	City of High Springs	216833	Large	6,419	0.62	96
Alachua	City of Newberry	216450	Large	5,500	0.68	123
Alachua	City of Waldo	217300	Large	975	0.08	81
Bradford	City of Hampton	220481	Small	470	0.04	95
Bradford	City of Lawtey	218998	Large	903	0.19	210
Bradford	City of Starke	216650	Large	6,845	0.64	93
Bradford	Town of Brooker	216644	Small	327	0.02	72
Columbia	City of Lake City	217754	Large	19,350	3.39	175
Columbia	Town of Fort White	218347	Small	620	0.06	99
Columbia	Columbia County Board of Commissioners Ellisville Plant	220704	Large	87	0.07	775
Dixie	City of Cross City	216823	Large	1,715	0.67	389
Dixie	Fanning Springs - Old Town	NA	Large	425	0.17	246
Dixie	Horseshoe Beach Water Utilities	217129	Large	168	0.05	306
Dixie	Town of Suwannee	216831	Large	303	0.09	281
Gilchrist	Town of Trenton	216453	Large	2,200	0.20	90
Gilchrist	Fanning Springs	NA	Large	105	NA	NA
Hamilton	City of Jasper	220463	Large	3,769	0.64	170
Hamilton	City of White Springs	216651	Large	774	0.06	78
Hamilton	Town of Jennings	216567	Large	705	0.11	157
Hamilton	Hamilton County Water Facilities	220443	Large	NA	0.07	NA
Jefferson	Jefferson Communities Water System - Lamont	218662	Small	237	0.05	226
Lafayette	Town of Mayo	216851	Large	1,200	0.18	147
Levy	City of Bronson	216830	Large	1,221	0.10	85
Levy	City of Chiefland	216826	Large	2,264	0.31	139
Levy	Fowlers Bluff Water Association	216642	Small	371	0.01	27
Levy	Town of Otter Creek	216656	Small	175	0.01	63

2020 Annual Groundwater Use Summary | Suwannee River Water Management District

County	Public Supplier	Permit ID	Large/ Small	2020 Population Served	Water Use (MGD)	Gross Per Capita Rate
Levy	Cedar Key Water & Sewer District	216821	Large	2,352	0.14	60
Levy	City of Fanning Springs	220310	Large	178	NA	NA
Levy	University Oaks MHP	220497	Small	334	0.08	228
Levy	Manatee Utilities	217177	Small	168	0.02	111
Madison	Cherry Lake Utilities	219588	Large	651	0.07	101
Madison	City of Madison	216506	Large	4,072	0.81	200
Madison	Town of Greenville	217127	Large	787	0.13	165
Madison	Town of Lee	218663	Large	228	0.06	248
Suwannee	Advent Christian Village	219527	Large	630	0.11	179
Suwannee	City of Live Oak	220612	Large	6,097	0.88	144
Suwannee	Town of Branford	216658	Large	710	0.08	117
Suwannee	Town of Wellborn	216507	Large	497	0.04	76
Taylor	Big Bend Water Authority	220484	Large	3,000	0.36	120
Taylor	City of Perry	216835	Large	6,948	1.56	224
Taylor	Taylor Coastal Water & Sewer District	221166	Large	1,378	0.05	38
Union	City of Lake Butler	220148	Large	1,824	0.21	116
TOTAL	NA	NA	NA	126,734	14.51	115

*Numbers may not add perfectly due to rounding.

2020 ANNUAL SURFACE WATER SUMMARY



SUWANNEE RIVER WATER MANAGEMENT DISTRICT

Introduction

The majority of water use in the Suwannee River Water Management District is groundwater, however there is some surface water being used for power generation, mining/dewatering, and agriculture.

Data Sources

Surface water is either directly reported to the District or it is estimated based on knowledge of how it is being used. Table 1 below has a breakdown of surface water use in the District. The two different estimations reported are for consumptive and non-consumptive uses. The amount of surface water that is estimated to be consumptively used in mining/dewatering operations represents five percent of the total. This is to account for the loss of water in the mining product and evaporation. The remainder of the water is recirculated in the mining process and is considered non-consumptive. For power generation facilities, two percent of the water is considered to be consumptively used, while the rest is used for once-through cooling and is recycled.

2020 Surface Water Use Estimates by Permit

Table 5: Estimates of Consumptive, Non-Consumptive, and Total Surface Water use

County	Permit Name	Consumptive Use (mgd)	Non-consumptive Use (mgd)	Total (mgd)
Alachua	Thompson S. Baker Cement Plant	0.005	0.097	0.102
Hamilton	PCS - White Springs	0.44	8.43	8.87
Hamilton	*PCS - White Springs - Total Permit	17.19	326.56	343.75
Suwannee	Suwannee River Power Plant	0.0002	0.0091	0.0092
Taylor	*Big Horse Aggregates Cabbage Grove Mine	0.01	1.81	1.91
Taylor	Martin Marietta Aggregates - Perry Quarry	0.003	0.050	0.053
TOTAL	NA	17.64	336.96	354.69

*No reporting requirement for surface water, estimated at allocation, consumptive use estimated at 5% of allocation.

**Numbers may not add perfectly due to rounding

The large decrease in surface water use by Suwannee River Power Plant is due to the decommissioning of part of the plant. There are two additional permits that have a surface water allocation however, neither was using surface water in 2020.

2020 ANNUAL WASTEWATER TREATMENT FACILITIES SUMMARY



SUWANNEE RIVER WATER MANAGEMENT DISTRICT

Introduction

The State of Florida has formal state objectives listed in Sections 403.064 and 373.250, Florida Statutes (F.S.) to conserve water and promote the reuse of reclaimed water. The Florida Department of Environmental Protection (FDEP) monitors the reuse inventory throughout the state and provides annual updates. The purpose of this inventory is to encourage and promote the use of reclaimed water while also providing access to information on programs that have already been implemented by municipalities and utilities (Reuse Inventory Database and Annual Report).

Data Sources

Annual Reuse data was obtained from the Florida Department of Environmental Protection's Reuse Inventory Database. This database includes all active domestic wastewater treatment facilities (WWTF) that have a permitted capacity of 0.1 million gallons per day (mgd) or more. It also includes facilities that do not engage in reuse activities as well.

Results

Reuse Facilities

There are 29 total domestic wastewater treatment facilities in the District. Of these, 28 make reclaimed water available for reuse (Table 1). The total permitted capacity of all facilities in the District is approximately 23.04 mgd. Of the total, 9.12 mgd of reuse water was utilized. This accounts for about 40% of the total permitted capacity. Figure 1 shows a breakdown of 2020 reuse flows by county. The county with the largest reuse flow is Columbia County with about 2.55 mgd, followed by Alachua County with 1.05 mgd, and Bradford County with 1.04 mgd.

Reuse Utilization Types

There is a variety of ways that reuse water is implemented throughout the District. These include agricultural irrigation, industrial, toilet flushing, groundwater recharge and indirect potable use, landscape irrigation, and more. Many facilities used a mixture of two or more methods for reuse. Table 2 below has a breakdown of the utilization of reuse by facility, reuse type, and subtype.

Disposal Facilities

There are three facilities that may use surface water as one method of disposal. The City of Starke had 0.63 mgd of effluent disposal in 2020. The City of Cedar Key and City of Perry did not have any effluent disposal in 2020. The City of Jasper WWTF is the only facility in the District that does not provide reuse of any kind.

Some reuse systems, such as Columbia Correctional Institution, Cross City, and Jefferson Correctional Institution, use other sources of water to supplement the reclaimed water supply, if there is not enough water available. Other sources may include surface water, groundwater, stormwater, or drinking water. This explains why some reuse flows are larger than the total flow of the system. Additional information for supplemental water supplies can be found in Appendix C of FDEP's Annual Reuse Report (Water Reuse Program).

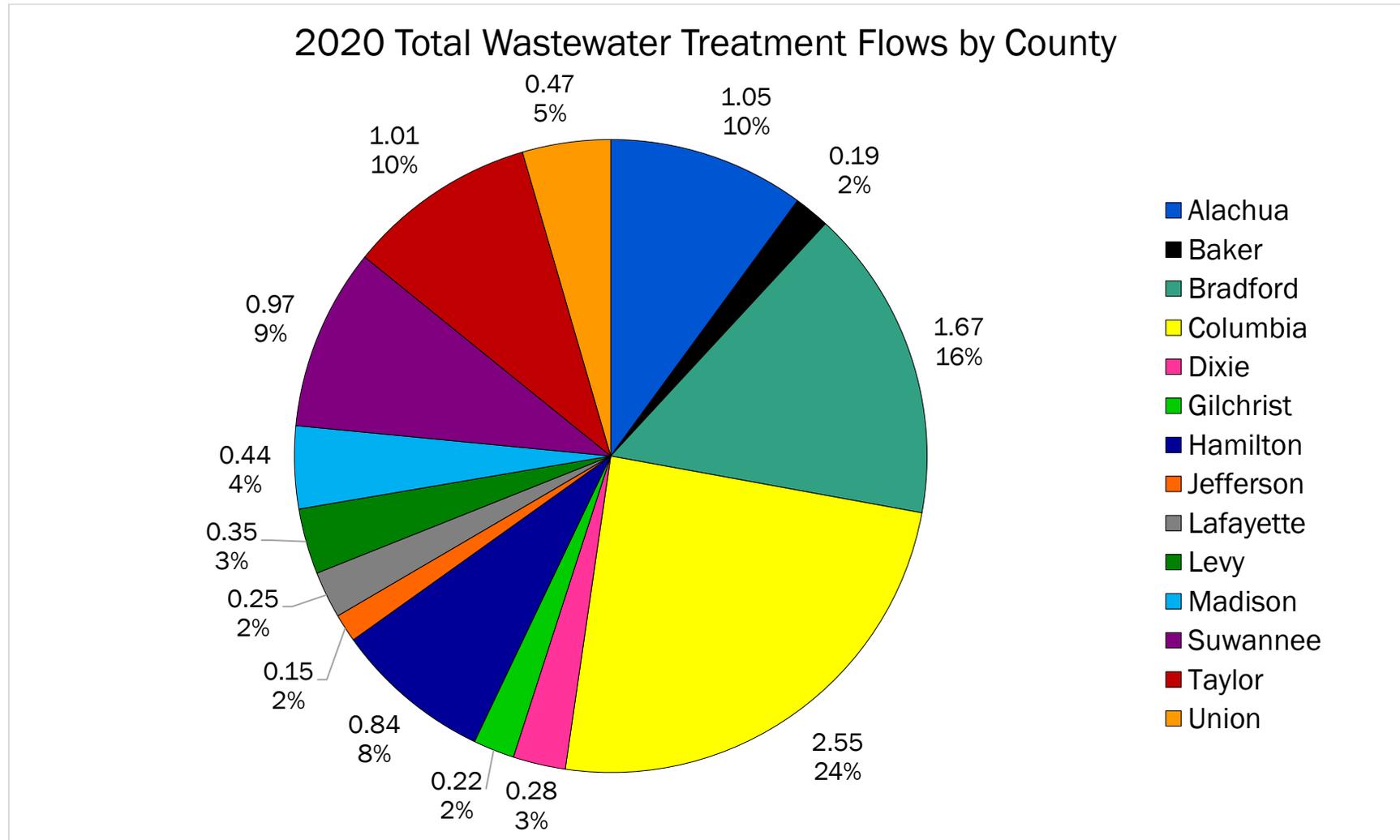
2020 Wastewater Treatment Flows by Facility

Table 6: 2020 Wastewater Treatment Flows by Facility

County	Planning Region	City	Facility Name	2020 Total Flow (mgd)	2020 Reuse Flow (mgd)	Capacity (mgd)
Alachua	Eastern	Alachua	Alachua AWRP	0.67	0.67	1.50
Alachua	Eastern	Newberry	Newberry WWTF	0.21	0.21	0.50
Alachua	Eastern	High Springs	High Springs WWTF	0.17	0.17	0.24
Baker	Eastern	Sanderson	Baker Correctional Institution WWTF	0.19	0.19	0.32
Bradford	Eastern	Raiford	Florida State Prison WWTF	0.94	0.94	1.58
Bradford	Eastern	Starke	Starke WWTF	0.73	0.10	1.68
Columbia	Eastern	Lake City	Columbia Correctional Institution WWTF	0.40	0.40	0.53
Columbia	Eastern	Lake City	St. Margaret WWTF	1.72	1.72	3.00
Columbia	Eastern	Lake City	Kicklighter WWTF	0.43	0.43	3.00
Dixie	Western	Cross City	Cross City WWTF	0.28	0.28	0.64
Gilchrist	Eastern	Trenton	Trenton WWTF	0.13	0.13	0.20
Gilchrist	Eastern	Trenton	Lancaster Correctional Institution WWTF	0.09	0.09	0.25
Hamilton	Eastern	Jennings	Jennings WWTF	0.11	0.11	0.18
Hamilton	Eastern	White Springs	White Springs WWTF	0.03	0.03	0.15
Hamilton	Eastern	Jasper	SR - 6/I-75 WWTF	0.01	0.01	0.13
Hamilton	Eastern	Jasper	City of Jasper WWTF	0.69	0.00	1.20
Jefferson	Western	Monticello	Jefferson Correctional Institution WWTF	0.15	0.15	0.25
Lafayette	Western	Mayo	Mayo Correctional Institution WWTF	0.18	0.18	0.50
Lafayette	Western	Mayo	Mayo WWTF	0.07	0.07	0.15
Levy	Western	Cedar Key	Cedar Key WRF	0.09	0.09	0.17
Levy	Western	Chiefland	Chiefland WWTF	0.26	0.26	0.48
Madison	Western	Greenville	Greenville WWTF	0.09	0.09	0.15
Madison	Western	Madison	Madison WWTF	0.35	0.35	1.37
Suwannee	Eastern	Live Oak	Live Oak WWTF	0.88	0.88	2.21
Suwannee	Eastern	Dowling Park	Advent Christian Village WWTF	0.05	0.05	0.21
Suwannee	Eastern	Branford	Branford WWTF	0.04	0.04	0.10
Taylor	Western	Perry	Perry WWTF	0.86	0.86	1.25
Taylor	Western	Perry	Taylor Correctional Institution WWTF	0.15	0.15	0.40
Union	Eastern	Lake Butler	City of Lake Butler	0.47	0.47	0.70
TOTAL	NA	NA	NA	10.44	9.12	23.04

Wastewater Treatment Flows by County

Figure 10: Wastewater Treatment Flows by County



2020 Utilization of Reuse by Facility and Type

Table 7: 2020 Utilization of Reuse by Facility and Type

County	Planning Region	City	Reuse System Name	Reuse Type	Reuse Subtype	Capacity (mgd)	Flow (mgd)	Area (acres)
Alachua	Eastern	Alachua	City of Alachua AWRF	IND	AOF	1.40	0.15	NA
Alachua	Eastern	Alachua	City of Alachua AWRF	AI	OC	1.23	0.52	105
Alachua	Eastern	Alachua	City of Alachua AWRF	PAA&LI	GCI	0.40	0.00	197
Alachua	Eastern	High Springs	High Springs WWTP	GWR&IPR	AF	0.00	0.17	NA
Alachua	Eastern	Newberry	Newberry WWTF	AI	OC	0.50	0.21	39.87
Baker	Eastern	Sanderson	Baker Correctional Institution	AI	OC	0.05	0.03	22.2
Baker	Eastern	Sanderson	Baker Correctional Institution	GWR&IPR	RIB	0.19	0.09	4.65
Baker	Eastern	Sanderson	Baker Correctional Institution	TF	NA	0.13	0.08	NA
Bradford	Eastern	Raiford	Florida State Prison	AI	OC	1.58	0.94	766
Bradford	Eastern	Starke	City of Starke	GWR&IPR	SWA	0.98	0.63	NA
Bradford	Eastern	Starke	City of Starke	AI	OC	0.70	0.10	175
Columbia	Eastern	Lake City	Columbia Correctional Institution	TF	NA	0.25	0.25	NA
Columbia	Eastern	Lake City	Columbia Correctional Institution	AI	OC	0.28	0.19	36
Columbia	Eastern	Lake City	City of Lake City	AI	OC	3.00	2.15	350
Dixie	Western	Cross City	Cross City WWTF	AI	OC	0.64	0.59	76.9
Gilchrist	Eastern	Lancaster	Lancaster Correctional Institution	AI	OC	0.25	0.09	33.8
Gilchrist	Eastern	Trenton	Trenton WWTF	AI	OC	0.20	0.13	40
Hamilton	Eastern	Jasper	Hamilton County WWTP	AI	OC	0.05	0.01	19.17
Hamilton	Eastern	Jennings	Jennings WWTF	AI	OC	0.18	0.11	44
Hamilton	Eastern	White Springs	Town of White Springs	IND	AOF	0.15	0.03	NA
Jefferson	Western	Monticello	Jefferson Correctional Institution	TF	NA	0.19	0.10	NA
Jefferson	Western	Monticello	Jefferson Correctional Institution	AI	OC	0.12	0.05	NA
Lafayette	Western	Mayo	Mayo Correctional Institution	TF	NA	0.50	0.00	NA
Lafayette	Western	Mayo	Mayo Correctional Institution	GWR&IPR	RIB	0.50	0.18	NA

County	Planning Region	City	Reuse System Name	Reuse Type	Reuse Subtype	Capacity (mgd)	Flow (mgd)	Area (acres)
Lafayette	Western	Mayo	Town of Mayo	AI	OC	0.15	0.07	33
Levy	Western	Cedar Key	Cedar Key WRF	GWR&IPR	AF	0.17	0.09	1
Levy	Western	Chiefland	Chiefland WWTF	GWR&IPR	RIB	0.48	0.26	11
Madison	Western	Greenville	Town of Greenville	AI	OC	0.15	0.09	29.35
Madison	Western	Madison	City of Madison	AI	OC	1.37	0.35	275
Suwannee	Eastern	Dowling Park	Advent Christian Village	GWR&IPR	RIB	0.17	0.05	2.07
Suwannee	Eastern	Branford	Town of Branford	AI	OC	0.10	0.04	6.53
Suwannee	Eastern	Live Oak	Live Oak WWTP	PAA&LI	GCI	0.10	0.15	105
Suwannee	Eastern	Live Oak	Live Oak WWTP	PAA&LI	OPAA	0.29	0.00	40
Suwannee	Eastern	Live Oak	Live Oak WWTP	AI	OC	1.37	0.50	177
Suwannee	Eastern	Live Oak	Live Oak WWTP	GWR&IPR	RIB	0.45	0.23	3.06
Suwannee	Eastern	Live Oak	Live Oak WWTP	OTH	OTH	0.00	0.00	NA
Taylor	Western	Perry	City of Perry	AI	OC	1.25	0.74	185
Taylor	Western	Perry	City of Perry	IND	AOF	0.80	0.12	NA
Taylor	Western	Perry	Taylor Correctional Institution	GWR&IPR	RIB	0.40	0.15	11.4
Union	Eastern	Lake Butler	City of Lake Butler	AI	OC	0.70	0.47	240

Reuse Type Abbreviations

AI – Agricultural Irrigation
 GWR&IPR - Ground Water Recharge & Indirect Potable Reuse
 IND – Industrial
 PAA&LI - Public Access Areas & Landscape Irrigation
 TF – Toilet Flushing

Reuse Subtype Abbreviations

AF – Absorption Fields
 AOF - At Other Facilities
 GCI - Golf Course Irrigation
 OC – Other Crops (sprayfields)
 OPAA - Other Public Access Areas
 OTH – Other
 RIB – Rapid Infiltration Basin
 SWA – Surface Water Augmentation

For more information on reuse, please visit FDEP’s Water Reuse Program website
<https://floridadep.gov/water/domestic-wastewater/content/water-reuse-program>

References

Annual Groundwater Use Report, SRWMD. 2015-2019.

<http://mysuwanneeriver.com/DocumentCenter/View/17226/2015-Annual-Groundwater-Use-Report>

Florida Estimates of Population 2020. Bureau of Economic and Business Research, University of Florida.

https://www.bebr.ufl.edu/sites/default/files/Research%20Reports/estimates_2020.pdf

Florida Statewide Agricultural Irrigation Demand Estimated Agricultural Water Demand, 2020-2045, The Balmoral Group, June 2022.

<https://www.fdacs.gov/content/download/105676/file/FSAID-IX-Water-Use-Estimates-Final-Report-ADA.pdf>.

Historical Groundwater Use Data 1965-2005, U.S. Geological Survey.

<https://fl.water.usgs.gov/infodata/wateruse/historical.html>

North Florida Regional Water Supply Plan (2015-2035).

<https://www.northfloridawater.com/watersupplyplan/index.html>

Population Estimation and Projection Technical Memorandum (2014-2018), SRWMD. 2021.

<https://www.mysuwanneeriver.com/DocumentCenter/View/18651/Population-Estimation-and-Projection-Technical-Memorandum-2014-2018>

Reuse Inventory Database and Annual Report. Florida Department of Environmental Protection, 14

Jun. 2021, <https://floridadep.gov/water/domestic-wastewater/content/reuse-inventory-database-and-annual-report>.

SRWMD Hydrologic Conditions Report, 2020.

Technical Memorandum, February 2018. Distributing FSAID IV ILG to GROBINSO.WUP Stations, Yassert A. Gonzalez, Water Use Analyst, Water Use Planning Bureau; George Robinson, Water Use Analyst, Water Use Planning Bureau

Water Reuse Program. Florida Department of Environmental Protection, 12 Oct. 2021,

<https://floridadep.gov/water/domestic-wastewater/content/water-reuse-program>

Water Supply Assessment (2015-2035).

<http://www.srwmd.state.fl.us/DocumentCenter/View/15162/2015-2035-Water-Supply-Assessment-PDF>.

Water Withdrawals in Florida, 2012: U.S. Geological Survey Open-File Report 2015-1156, 10 p., Marella, R.L., 2015, <http://dx.doi.org/10.3133/ofr20151156>.