

SUWANNEE RIVER WATER MANAGEMENT DISTRICT

2019 ANNUAL WATER USE REPORT



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2019 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 2019 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 (USGS). Water use estimates for 2010 came from estimates produced in support of the North Florida Regional Water Supply Plan (2015-2035) (NFRWSP 2017) and the Water Supply Assessment (2015-2035) (SRWMD 2018). Estimates of 2015-2018 groundwater use are published in the Annual Water Use Reports, which can be found on the District's website (SRWMD 2019a, 2020a, 2020b, 2020c). Estimates of 2019 groundwater use and population were prepared as described below and reflect the best available information presented at the time when 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 (BEBR 2019). 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. inmates). Population served by public supply was estimated using data received from public water suppliers in 2019 or based on the BEBR growth between 2018 and 2019. The institutional population was estimated based on data provided by the Florida Department of Corrections (FDOC). 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)" (SRWMD 2021).

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 Public Supply (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 Domestic Self-Supply and Small Public Supply (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 2019.

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 (AG) 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) has been contracted by the Florida Department of Agriculture and Consumer Services (FDACS) 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 a yearly basis to reflect farmers' responses 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 2019 base year of FSAID VIII were used for irrigation, livestock, and aquaculture (FDACS 2021). 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 (SJRWMD, 2018).

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

CII/MD permits with drinking water wells were updated based on their MORs reported to FDEP. Large CII/MD users with a permitted groundwater withdrawal greater than or equal to 0.1 MGD or that have a production 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 percent 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.

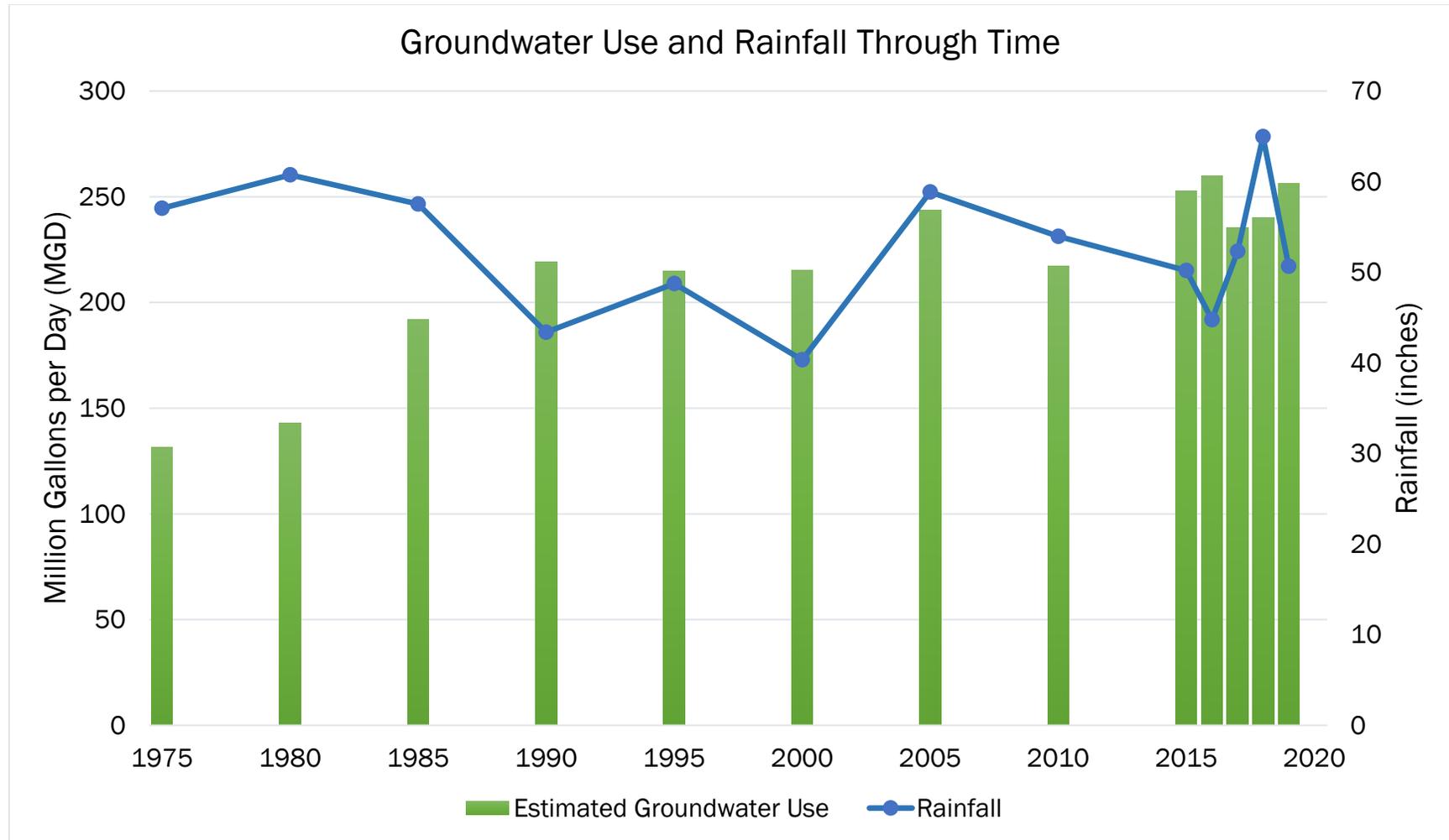
Data sources/Methodology

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

2019 Rainfall

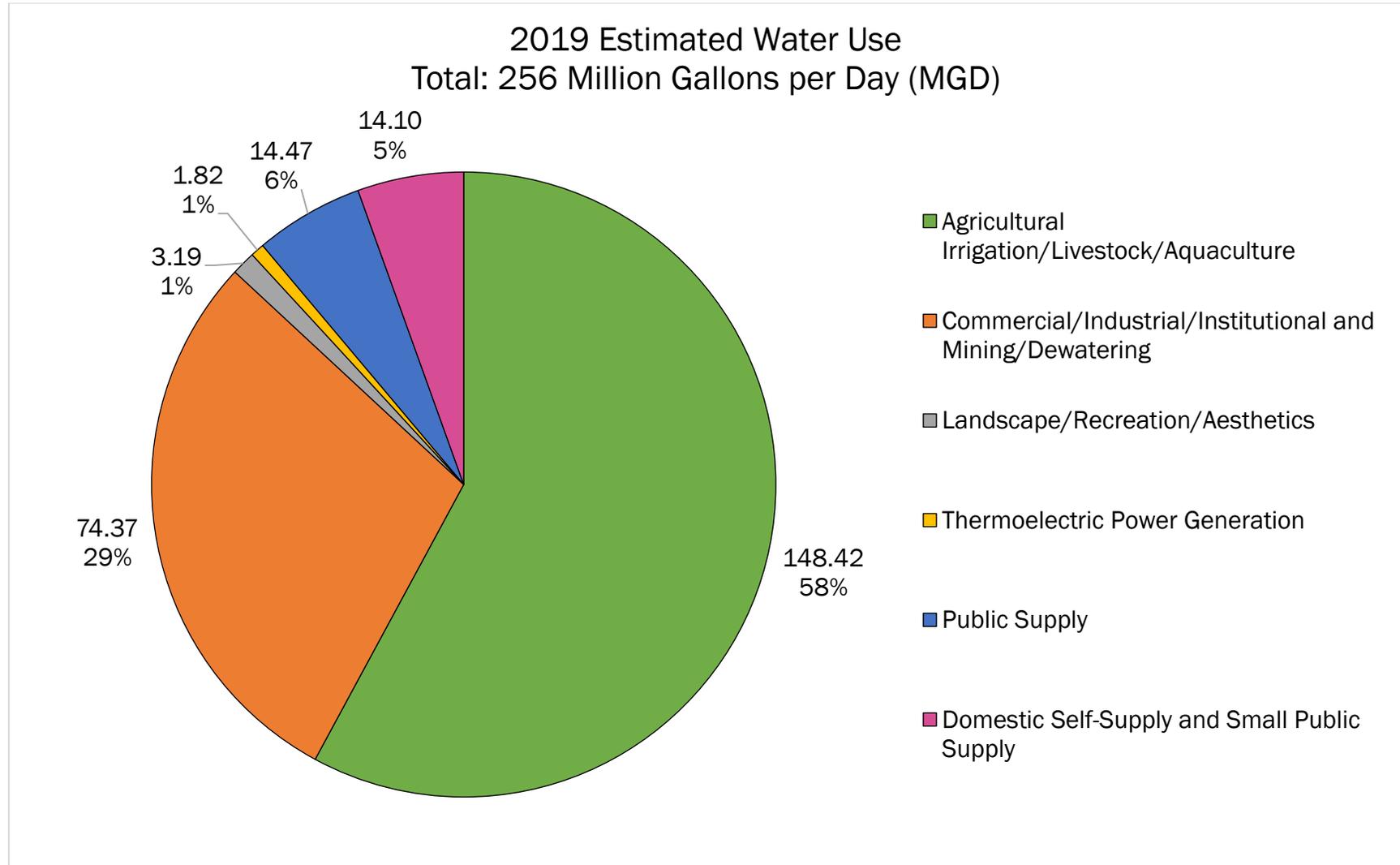
Figure 1: Groundwater Use and Rainfall Through Time

Total annual rainfall throughout the District was estimated to be about 51 inches in 2019. This is about 3.5 inches below the long term (1932-2020) District-wide average of 54.7 inches (SRWMD 2019b).



2019 Total Districtwide Groundwater Use

Figure 2: Estimated Groundwater Use in 2019 by Category

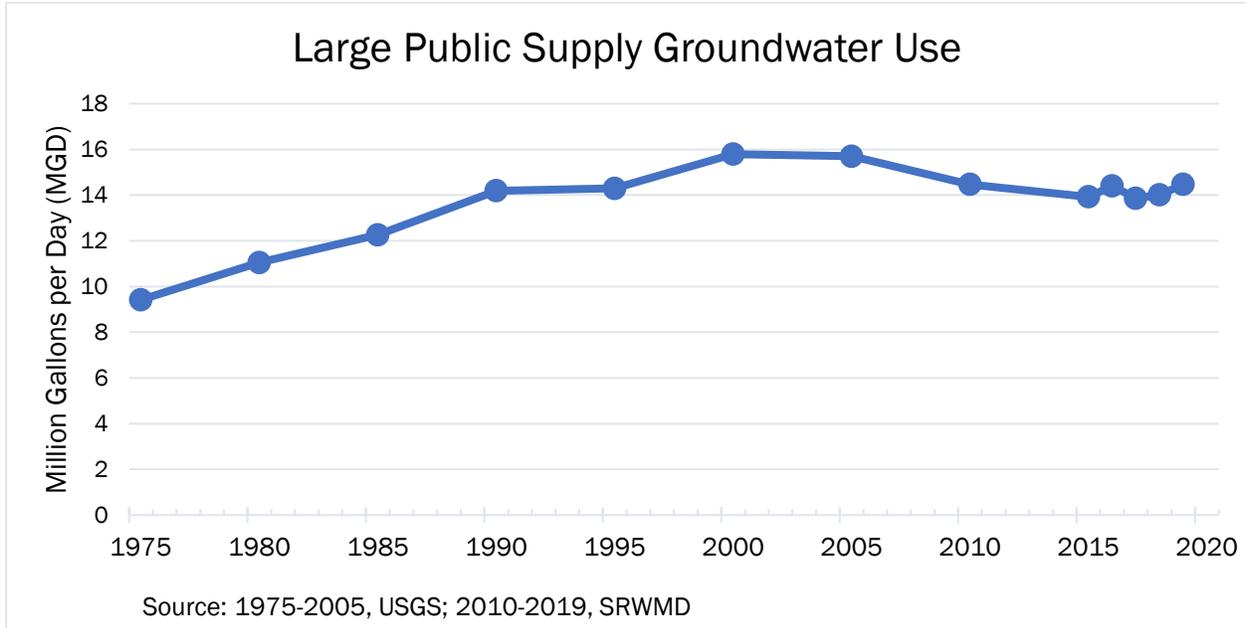


Putnam county projections are wholly incorporated and reported in SJRWMD.

2019 Public Supply

Figure 3: Large Public Supply Groundwater Use Through Time

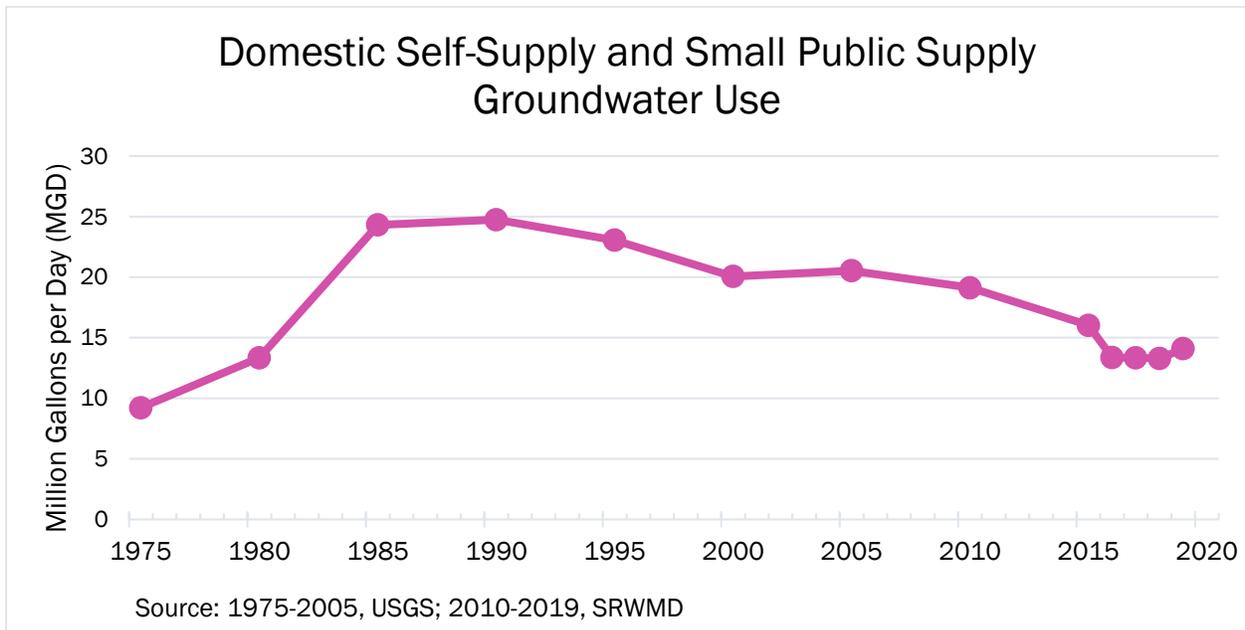
Between 2018 and 2019, public supply groundwater use had an increase of about 0.5 MGD. There has been minimal fluctuation in PS groundwater use over the past five years.



2019 Domestic Self-Supply and Small Public Supply (DSS)

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

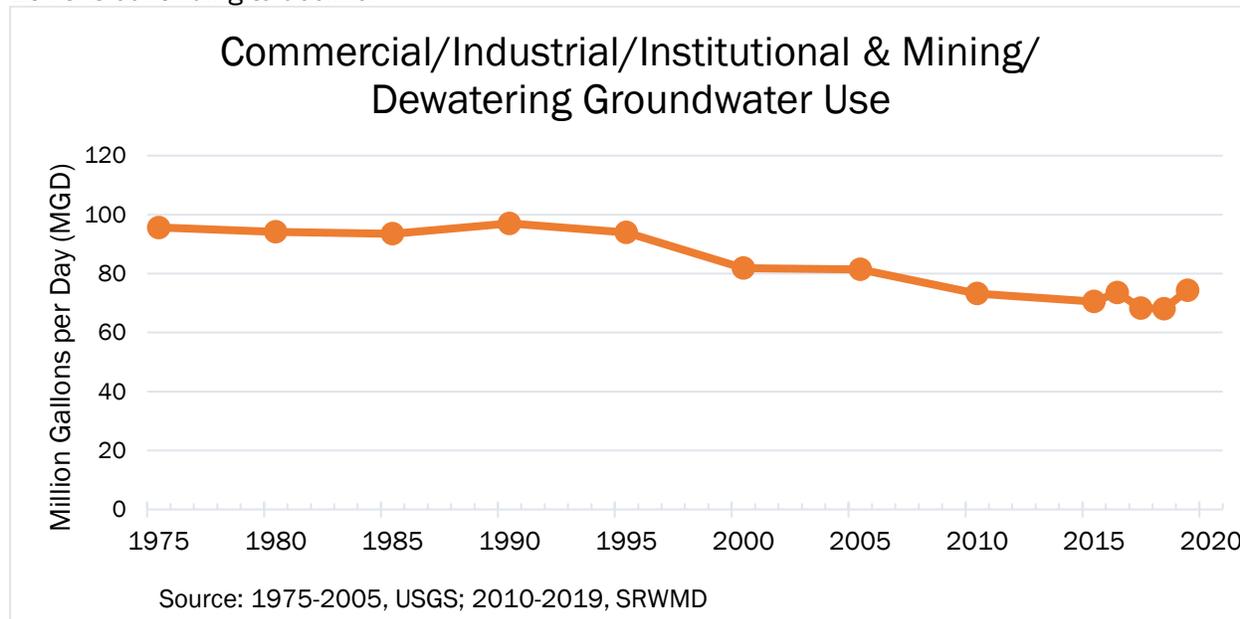
Domestic self-supply and small public supply water use is estimated to be about 14.1 MGD in 2019, which is approximately 0.8 MGD higher than in 2018.



2019 Commercial/Industrial/Institutional and Mining/Dewatering (CII/MD)

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

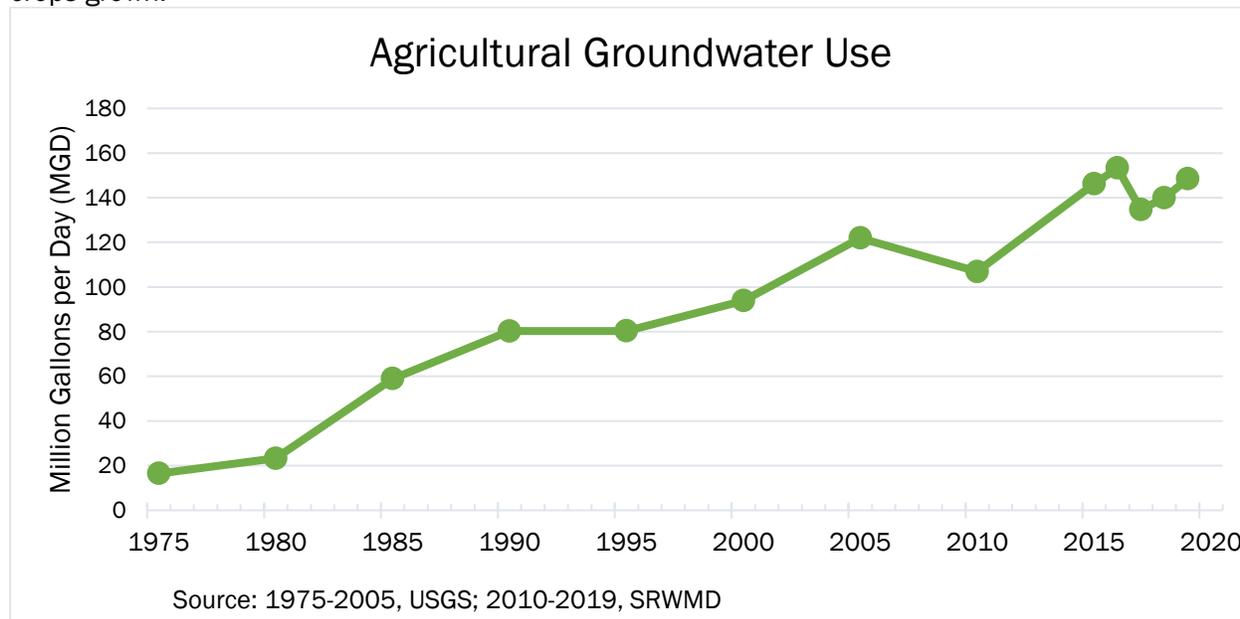
Groundwater use in the CII/MD category is the second largest use throughout the District. CII/MD groundwater use had an increase of about 6.3 MGD from 2018 to 2019, however the trend since 1975 is continuing to decline.



2019 Agricultural Irrigation/Livestock/Aquaculture Use (AG)

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

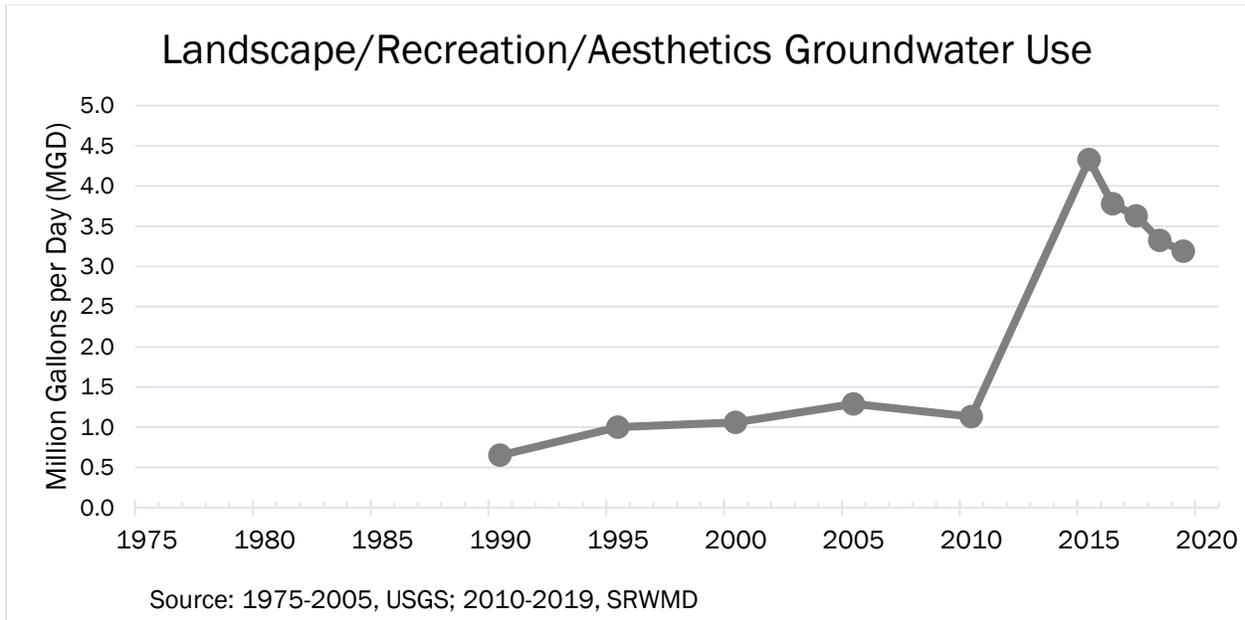
Agricultural irrigation, livestock, and aquaculture use accounts for majority of groundwater use throughout the District. From 2018 to 2019, use in this category increased by almost 9 MGD. Estimates continue to fluctuate due to the assumptions of irrigation associated with the variety of crops grown.



2019 Landscape/Recreation/Aesthetics (LRA)

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

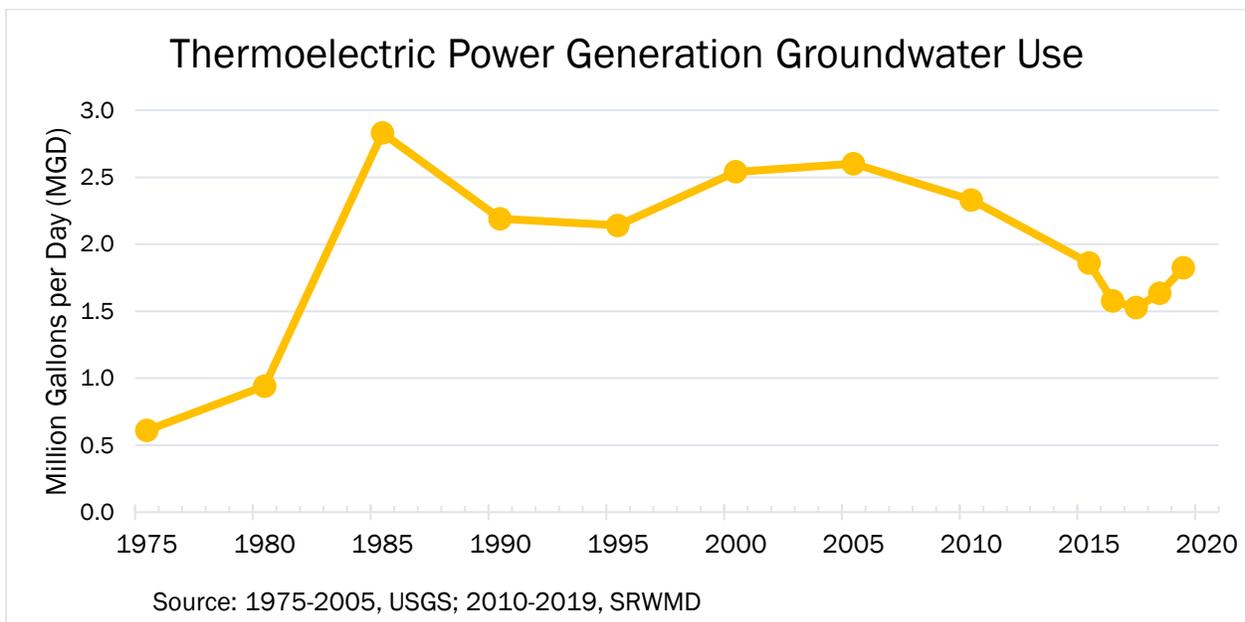
This category accounts for a little over 1 percent of total estimated groundwater use. LRA permits with water use below the reporting threshold were estimated at allocation for 2015-2019. There was a small decline of 0.14 MGD from 2018 to 2019.



2019 Thermoelectric Power Generation Water Use (PG)

Figure 8: Thermoelectric Power Generation Groundwater Use Through Time

Thermoelectric power generation groundwater use accounts for less than 1 percent of groundwater use throughout the District. From 2018 to 2019, PG groundwater use increased by about 0.2 MGD.



Total Water Use and Rainfall by County in 2019

Table 1: Total Water Use and Rainfall by County in 2019

County	2019 Water Use (MGD)**	2019 Total Annual Rainfall (inches)*
Alachua (SRWMD portion)	19.63	47.91
Baker (SRWMD portion)	0.25	41.35
Bradford (SRWMD portion)	4.59	39.91
Columbia	11.54	45.21
Dixie	8.08	67.55
Gilchrist	22.07	49.65
Hamilton	43.64	40.35
Jefferson (SRWMD portion)	3.23	39.11
Lafayette	12.85	53.09
Levy (SRWMD portion)	17.24	61.59
Madison	25.59	45.22
Suwannee	42.15	48.01
Taylor	42.80	52.26
Union	2.69	43.56
District Total	256.36	50.65

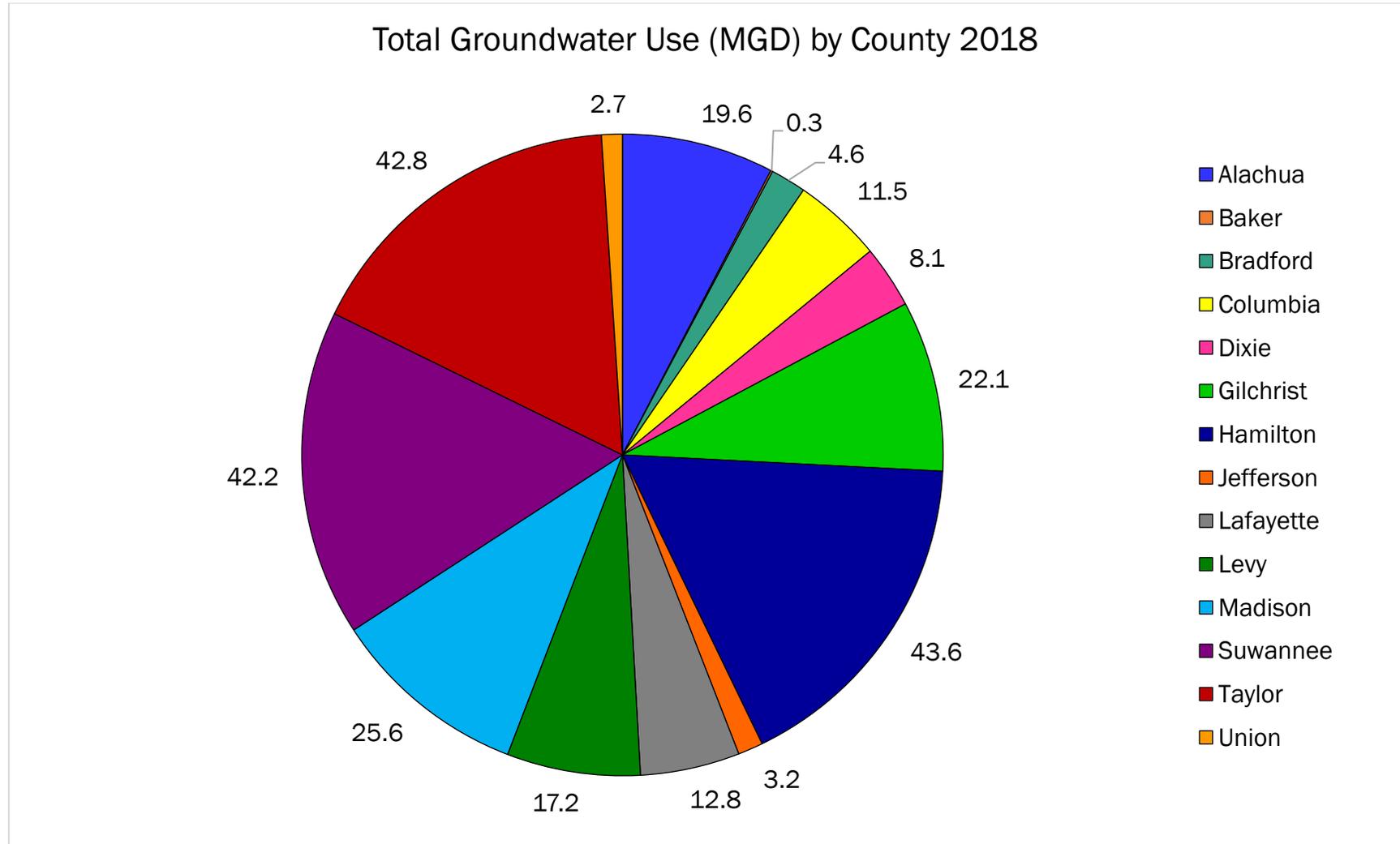
*County rainfall estimates incorporate the total annual rainfall for whole counties.

**The District 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 2019

Table 2: Total Groundwater Use (MGD) by County and Category in 2019

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	11.69	2.76	0.31	1.82	1.00	2.07	19.63
Baker	Eastern	0.00	0.00	0.19	0.00	0.00	0.06	0.25
Bradford	Eastern	1.93	0.92	1.05	0.00	0.06	0.63	4.59
Columbia	Eastern	4.17	3.40	0.31	0.00	0.65	3.01	11.54
Dixie	Western	5.84	0.78	0.11	0.00	0.11	1.23	8.08
Gilchrist	Eastern	20.33	0.21	0.40	0.00	0.16	0.97	22.07
Hamilton	Eastern	13.85	0.94	28.35	0.00	0.08	0.42	43.64
Jefferson	Western	2.71	0.06	0.14	0.00	0.09	0.24	3.23
Lafayette	Western	11.80	0.18	0.25	0.00	0.04	0.58	12.85
Levy	Western	15.33	0.77	0.12	0.00	0.15	0.87	17.24
Madison	Western	22.65	1.12	0.86	0.00	0.26	0.70	25.59
Suwannee	Eastern	36.37	1.15	2.33	0.01	0.19	2.10	42.15
Taylor	Western	0.55	1.97	39.40	0.00	0.30	0.58	42.80
Union	Eastern	1.21	0.21	0.55	0.00	0.09	0.63	2.69
Eastern Planning Region Total	NA	89.55	9.58	33.49	1.82	2.23	9.90	146.56
Western Planning Region Total	NA	58.87	4.89	40.87	0.00	0.96	4.20	109.79
District Total	NA	148.42	14.47	74.37	1.82	3.19	14.10	256.36

Numbers in table may not add exactly due to rounding.

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

Population by County in 2019

Table 3: Population by County in 2019

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	267,306	29.87%	79,469	0	41,912	261	37,296	55
Baker	25,740	2.01%	516	2,509	0	0	516	116*
Bradford	24,829	90.34%	22,431	3,853	9,100	990	12,341	44
Columbia	66,315	100.00%	66,315	4,177	19,315	1,064	45,936	59
Dixie	14,952	100.00%	14,952	1,658	2,590	77	12,285	98
Gilchrist	16,980	100.00%	16,980	786	2,102	0	14,878	65
Hamilton	12,081	100.00%	12,081	2,519	4,102	431	7,548	47
Jefferson	13,680	26.43%	3,615	1,096	614	115	2,886	82
Lafayette	7,291	100.00%	7,291	1,191	1,208	0	6,083	96
Levy	41,330	44.67%	18,460	0	5,888	1,327	11,245	57
Madison	17,960	100.00%	17,960	1,610	5,909	48	12,003	57
Suwannee	43,422	100.00%	43,422	2,001	7,969	437	35,016	59
Taylor	20,236	100.00%	20,236	2,222	10,244	98	9,894	58
Union	10,629	100.00%	10,629	4,876	1,850	93	8,686	72
Total	581,499	NA	334,357	28,498	112,803	4,941	216,613	58

*Baker - <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	2019 Population Served	Water Use (MGD)	Gross Per Capita Rate
Alachua	City of Alachua	220667	Large	10,298	1.25	121
Alachua	City of Archer	216647	Large	1,303	0.12	93
Alachua	City of High Springs	216833	Large	6,450	0.61	95
Alachua	City of Newberry	216450	Large	4,548	0.66	146
Alachua	City of Waldo	217300	Large	951	0.11	111
Bradford	City of Hampton	220481	Small	480	0.05	105
Bradford	City of Lawtey	218998	Large	900	0.22	245
Bradford	City of Starke	216650	Large	6,790	0.67	98
Bradford	Town of Brooker	216644	Small	495	0.04	79
Columbia	City of Lake City	217754	Large	19,240	3.40	176
Columbia	Town of Fort White	218347	Small	510	0.07	129
Columbia	Columbia County Board of Commissioners Ellisville Plant	220704	Large	75	0.05	672
Dixie	City of Cross City	216823	Large	1,672	0.66	392
Dixie	Fanning Springs - Old Town	NA	Large	424	NA	NA
Dixie	Horseshoe Beach Water Utilities	217129	Large	169	0.05	266
Dixie	Town of Suwannee	216831	Large	325	0.08	237
Gilchrist	Town of Trenton	216453	Large	2,000	0.21	103
Gilchrist	Fanning Springs	NA	Large	102	NA	NA
Hamilton	City of Jasper	220463	Large	2,631	0.73	277
Hamilton	City of White Springs	216651	Large	777	0.05	66
Hamilton	Town of Jennings	216567	Large	694	0.11	162
Jefferson	Jefferson Communities Water System - Lamont	218662	Small	115	0.06	533
Jefferson	Jefferson Communities Water System - Lloyd	NA	Large	614	NA	NA
Lafayette	Town of Mayo	216851	Large	1,208	0.18	145
Levy	City of Bronson	216830	Large	1,113	0.18	158
Levy	City of Chiefland	216826	Large	2,217	0.31	139
Levy	Fowlers Bluff Water Association	216642	Small	368	0.01	30
Levy	Town of Otter Creek	216656	Small	174	0.01	76

County	Public Supplier	Permit ID	Large/ Small	2019 Population Served	Water Use (MGD)	Gross Per Capita Rate
Levy	Cedar Key Water & Sewer District	216821	Large	2,381	0.14	57
Levy	City of Fanning Springs	220310	Large	177	0.15	220
Levy	University Oaks MHP	220497	Small	292	0.08	271
Levy	Manatee Utilities	217177	Small	151	0.05	326
Madison	Cherry Lake Utilities	219588	Large	662	0.05	79
Madison	City of Madison	216506	Large	4,010	0.88	220
Madison	Town of Greenville	217127	Large	899	0.12	138
Madison	Town of Lee	218663	Large	338	0.07	193
Suwannee	Advent Christian Village	219527	Large	740	0.11	150
Suwannee	City of Live Oak	220612	Large	6,007	0.92	153
Suwannee	Town of Branford	216658	Large	732	0.08	114
Suwannee	Town of Wellborn	216507	Large	490	0.04	73
Taylor	Big Bend Water Authority	220484	Large	3,395	0.34	101
Taylor	City of Perry	216835	Large	5,529	1.57	285
Taylor	Taylor Coastal Water & Sewer District	221166	Large	1,320	0.05	39
Union	City of Lake Butler	220148	Large	1,850	0.21	113
TOTAL	NA	NA	NA	115,388	14.74	128

Numbers in table may not add exactly due to rounding.

2019 ANNUAL SURFACE WATER SUMMARY



SUWANNEE RIVER WATER MANAGEMENT DISTRICT

Introduction

Majority of water use in the Suwannee River Water Management District is groundwater with minor amounts of 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.

2019 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	0.46	8.73	9.18
Hamilton	*PCS – White Springs – Total Permit	17.19	326.56	343.75
Suwannee	Suwannee River Power Plant	0.0001	0.03	0.03
Taylor	*Big Horse Aggregates Cabbage Grove Mine	0.01	1.81	1.91
Taylor	Martin Marietta Aggregates – Perry Quarry	0.02	0.47	0.49
TOTAL	NA	17.69	337.70	355.46

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

**Numbers may not add exactly due to rounding

The large decrease in surface water use by Suwannee River Power Plant is due to the decommissioning a portion of the plant. There are two additional permits with a surface water allocation, however neither was using surface water in 2019.

2019 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 (FDEP 2020a).

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 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 28 total domestic wastewater treatment facilities in the District. Of these, 27 make reclaimed water available for reuse (TABLE 1). The total permitted capacity of all facilities in the District is approximately 22.61 MGD. Of the total, 10.16 MGD of reuse water was utilized. This accounts for about 45 percent of the total permitted capacity. Figure 1 shows a breakdown of 2019 reuse flows by county. The county with the largest reuse flow is Columbia County with about 2.7 MGD, followed by Bradford County with 1.6 MGD, and Taylor County with 1.2 MGD.

Reuse Utilization Types

There are 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 reported 0.57 MGD of effluent disposal in 2019. The City of Cedar Key and City of Perry did not have any effluent disposal in 2019. 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 water supply is insufficient. Other sources may include surface water, groundwater, stormwater, or drinking water. Use of other sources explains why some reuse flows may be 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 (FDEP 2020b).

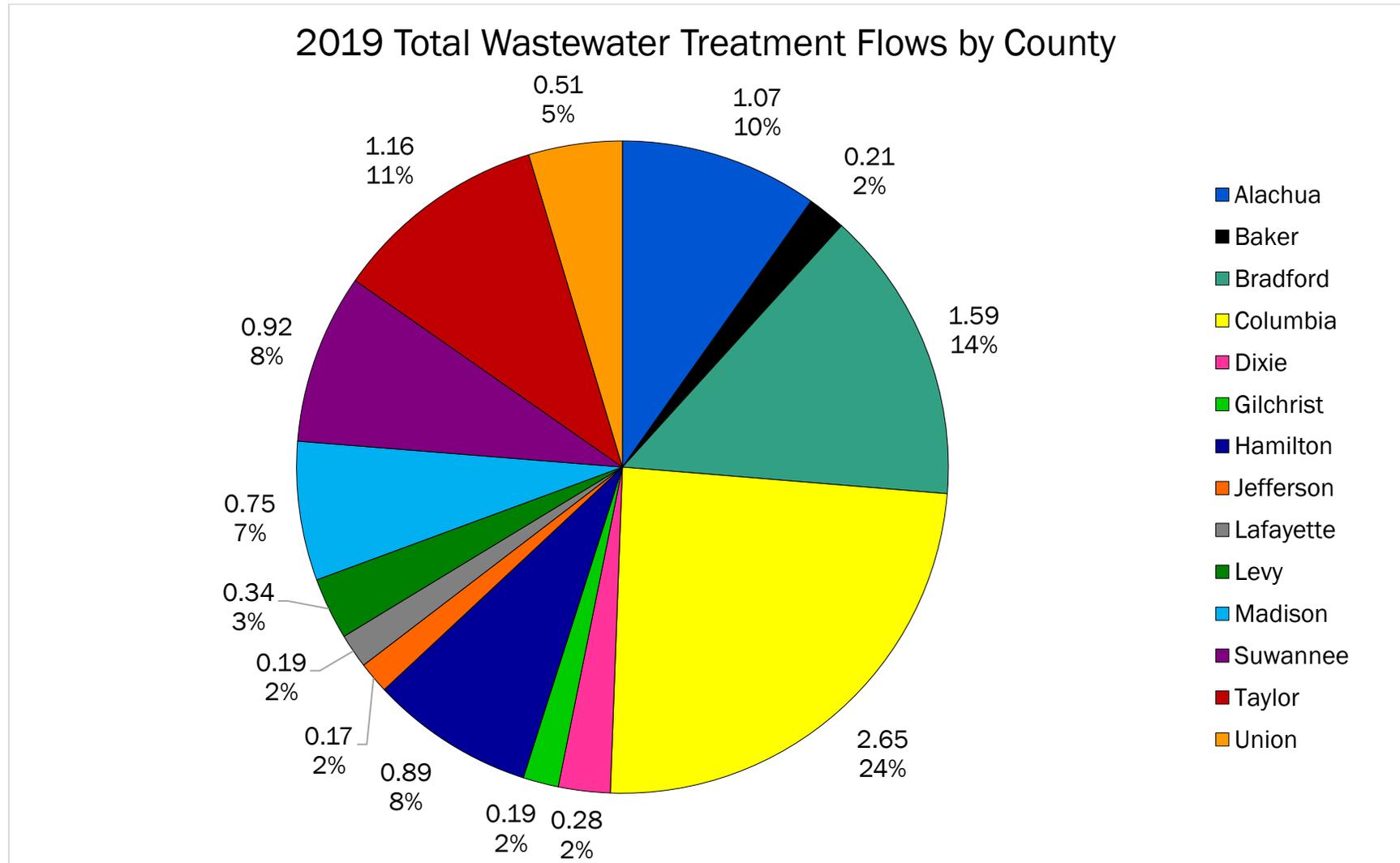
2019 Wastewater Treatment Flows by Facility

Table 6: 2019 Wastewater Treatment Flows by Facility

County	Planning Region	City	Facility Name	2019 Total Flow (MGD)	2019 Reuse Flow (MGD)	Capacity (MGD)
Alachua	Eastern	Alachua	City of Alachua	0.70	0.70	1.50
Alachua	Eastern	High Springs	City of High Springs	0.13	0.13	0.24
Alachua	Eastern	Newberry	Newberry WWTF	0.24	0.24	0.50
Baker	Eastern	Sanderson	Baker Correctional Institution	0.21	0.21	0.32
Bradford	Eastern	Raiford	Florida State Prison WWTF	1.02	1.02	1.78
Bradford	Eastern	Starke	City of Starke	0.60	0.03	1.65
Columbia	Eastern	Lake City	Columbia Correctional Institution	0.46	0.46	0.53
Columbia	Eastern	Lake City	City of Lake City	2.33	2.33	6.05
Dixie	Western	Cross City	Town of Cross City	0.61	0.61	0.40
Gilchrist	Eastern	Lancaster	Lancaster Correctional Institution	0.09	0.09	0.25
Gilchrist	Eastern	Trenton	City of Trenton	0.10	0.10	0.20
Hamilton	Eastern	Jasper	City of Jasper WWTF	0.69	0.00	1.20
Hamilton	Eastern	Jasper	Hamilton County (SR6/I-75)	0.02	0.02	0.13
Hamilton	Eastern	Jennings	Town of Jennings	0.12	0.12	0.18
Hamilton	Eastern	White Springs	Town of White Springs	0.06	0.06	0.15
Jefferson	Western	Monticello	Jefferson Correctional Institution	0.19	0.19	0.25
Lafayette	Western	Mayo	Mayo Correctional Institution	0.10	0.10	0.50
Lafayette	Western	Mayo	Town of Mayo	0.08	0.08	0.15
Levy	Western	Cedar Key	Cedar Key	0.09	0.09	0.18
Levy	Western	Chiefland	Chiefland	0.24	0.24	0.48
Madison	Western	Greenville	Town of Greenville	0.12	0.12	0.15
Madison	Western	Madison	City of Madison	0.63	0.63	1.37
Suwannee	Eastern	Dowling Park	Advent Christian Home	0.05	0.05	0.21
Suwannee	Eastern	Branford	Town of Branford	0.05	0.05	0.10
Suwannee	Eastern	Live Oak	City of Live Oak	0.82	0.82	1.82
Taylor	Western	Perry	City of Perry	1.01	1.01	1.25
Taylor	Western	Perry	Taylor Correctional Institution	0.16	0.16	0.40
Union	Eastern	Lake Butler	City of Lake Butler	0.51	0.51	0.70
TOTAL	NA	NA	NA	10.92	10.16	22.61

Wastewater Treatment Flows by County

Figure 10: Wastewater Treatment Flows by County



2019 Utilization of Reuse by Facility and Type

Table 7: 2019 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	AI	OC	1.23	0.25	105
Alachua	Eastern	Alachua	City of Alachua	IND	AOF	1.40	0.45	NA
Alachua	Eastern	Alachua	City of Alachua	PAA&LI	GCI	0.40	0.00	197
Alachua	Eastern	High Springs	City of High Springs	AI	OC	0.24	0.13	33
Alachua	Eastern	Newberry	Newberry WWTF	AI	OC	0.50	0.24	39.87
Baker	Eastern	Sanderson	Baker Correctional Institution	TF	NA	0.13	0.08	NA
Baker	Eastern	Sanderson	Baker Correctional Institution	AI	OC	0.05	0.04	22.2
Baker	Eastern	Sanderson	Baker Correctional Institution	GWR&IPR	RIB	0.19	0.09	4.65
Bradford	Eastern	Raiford	Florida State Prison WWTF	AI	OC	1.78	1.02	766
Bradford	Eastern	Starke	City of Starke	IND	ATP	0.12	0.00	NA
Bradford	Eastern	Starke	City of Starke	AI	OC	0.80	0.03	225
Columbia	Eastern	Lake City	Columbia Correctional Institution	TF	NA	0.25	0.26	NA
Columbia	Eastern	Lake City	Columbia Correctional Institution	AI	OC	0.28	0.20	36
Columbia	Eastern	Lake City	City of Lake City	AI	OC	3.00	2.33	350
Dixie	Western	Cross City	Town of Cross City	AI	OC	0.64	0.61	76.9
Gilchrist	Eastern	Lancaster	Lancaster Correctional Institution	AI	OC	0.25	0.09	33.8
Gilchrist	Eastern	Trenton	City of Trenton	AI	OC	0.20	0.10	40
Hamilton	Eastern	Jasper	Hamilton County (SR6/I-75)	AI	OC	0.13	0.02	19.17
Hamilton	Eastern	Jennings	Town of Jennings	AI	OC	0.18	0.12	44
Hamilton	Eastern	White Springs	Town of White Springs	IND	AOF	0.15	0.06	NA
Jefferson	Western	Monticello	Jefferson Correctional Institution	TF	NA	0.19	0.08	NA
Jefferson	Western	Monticello	Jefferson Correctional Institution	AI	OC	0.12	0.10	17.5

County	Planning Region	City	Reuse System Name	Reuse Type	Reuse Subtype	Capacity (MGD)	Flow (MGD)	Area (acres)
Lafayette	Western	Mayo	Mayo Correctional Institution	GWR&IPR	RIB	0.50	0.10	NA
Lafayette	Western	Mayo	Mayo Correctional Institution	TF	NA	0.50	0.00	NA
Lafayette	Western	Mayo	Town of Mayo	AI	OC	0.15	0.08	33
Levy	Western	Cedar Key	Cedar Key	GWR&IPR	AF	0.17	0.09	1
Levy	Western	Chiefland	Chiefland	GWR&IPR	RIB	0.48	0.24	11
Madison	Western	Greenville	Town of Greenville	AI	OC	0.15	0.12	29.35
Madison	Western	Madison	City of Madison	AI	OC	1.37	0.63	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	0.05	6.53
Suwannee	Eastern	Live Oak	City of Live Oak	GWR&IPR	RIB	0.45	0.25	3.06
Suwannee	Eastern	Live Oak	City of Live Oak	AI	OC	1.37	0.49	177
Suwannee	Eastern	Live Oak	City of Live Oak	PAA&LI	GCI	0.10	0.08	105
Suwannee	Eastern	Live Oak	City of Live Oak	PAA&LI	OTH	0.19	0.00	NA
Suwannee	Eastern	Live Oak	City of Live Oak	PAA&LI	OPAA	0.29	0.00	40
Taylor	Western	Perry	City of Perry	IND	AOF	0.80	0.35	NA
Taylor	Western	Perry	City of Perry	AI	OC	1.25	0.66	185
Taylor	Western	Perry	Taylor Correctional Institution	GWR&IPR	RIB	0.40	0.16	11.4
Union	Eastern	Lake Butler	City of Lake Butler	AI	OC	0.70	0.51	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

AOF – At Other Facilities
 ATP - At Treatment Plant
 GCI - Golf Course Irrigation
 OC – Other Crops (sprayfields)
 OPAA - Other Public Access Areas
 RIB – Rapid Infiltration Basin

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

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