

SUWANNEE RIVER WATER MANAGEMENT DISTRICT

2016 ANNUAL WATER USE REPORT



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2016 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 2016 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 groundwater use are published in the 2015 Annual Groundwater Use Report which can be found on the District's website (Annual Groundwater Use Report, SRWMD 2015). Estimates of 2016 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. The institutional population was estimated based on data provided by the Florida Department of Corrections (FDOC). Served population data for 2018 was provided by public suppliers through a data request sent by the District. The 2016 parcel layer which originated from the county property appraiser's data and was submitted to the Florida Department of Revenue (FDOR), was used to estimate the potential served population for 2016. The number of dwelling units from the parcel layer were multiplied by BEBR's persons per household estimate by county to get an estimated potential served population. The percent change of potential served from 2016 to 2018 was used to estimate the served population for 2016. Once a served population 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. The parcel layer was also used to calculate the percent of dwelling units located in the District's portion of counties shared with adjacent water management districts. These shared counties were Alachua, Baker, Bradford, Jefferson, and Levy Counties. For more detailed information on the population estimation process, see "2014-2018 Population Estimation and Projection Technical Memo."

Water Use Categories

Water use is broken down into 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 in this category were obtained from the Monthly Operating Reports (MORs) submitted to the Florida Department of Environmental Protection (FDEP) by system operators. The MOR reports the amount 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.

Data sources/Methodology

Water use data from small public suppliers were obtained from MORs reported to FDEP by system operators. If no MORs were reported, water use was set to the permitted allocation. Domestic water use was compiled using non-served population estimates and estimated residential per capita water use rates based on data provided by public utilities in the water use data requests.

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) has been contracted by the Florida Department of Agriculture and Consumer Services to develop the Florida Statewide Agricultural Irrigation Demand (FSAID) database. This data set includes base year agricultural water use estimates and agricultural water demand projections for all agricultural parcels in the state. These estimates reflect average climate conditions which are updated on a yearly basis to reflect farmers' response to potential shifts in future market conditions such as changes in irrigated acreages and/or mixture of crop types. Water estimates for the 2016 base year of FSAID V were used for irrigation, livestock, and aquaculture water use estimates (Florida Statewide Agricultural Irrigation Demand Estimated Agricultural Water Demand, 2016-2040). 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, 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 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)

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.

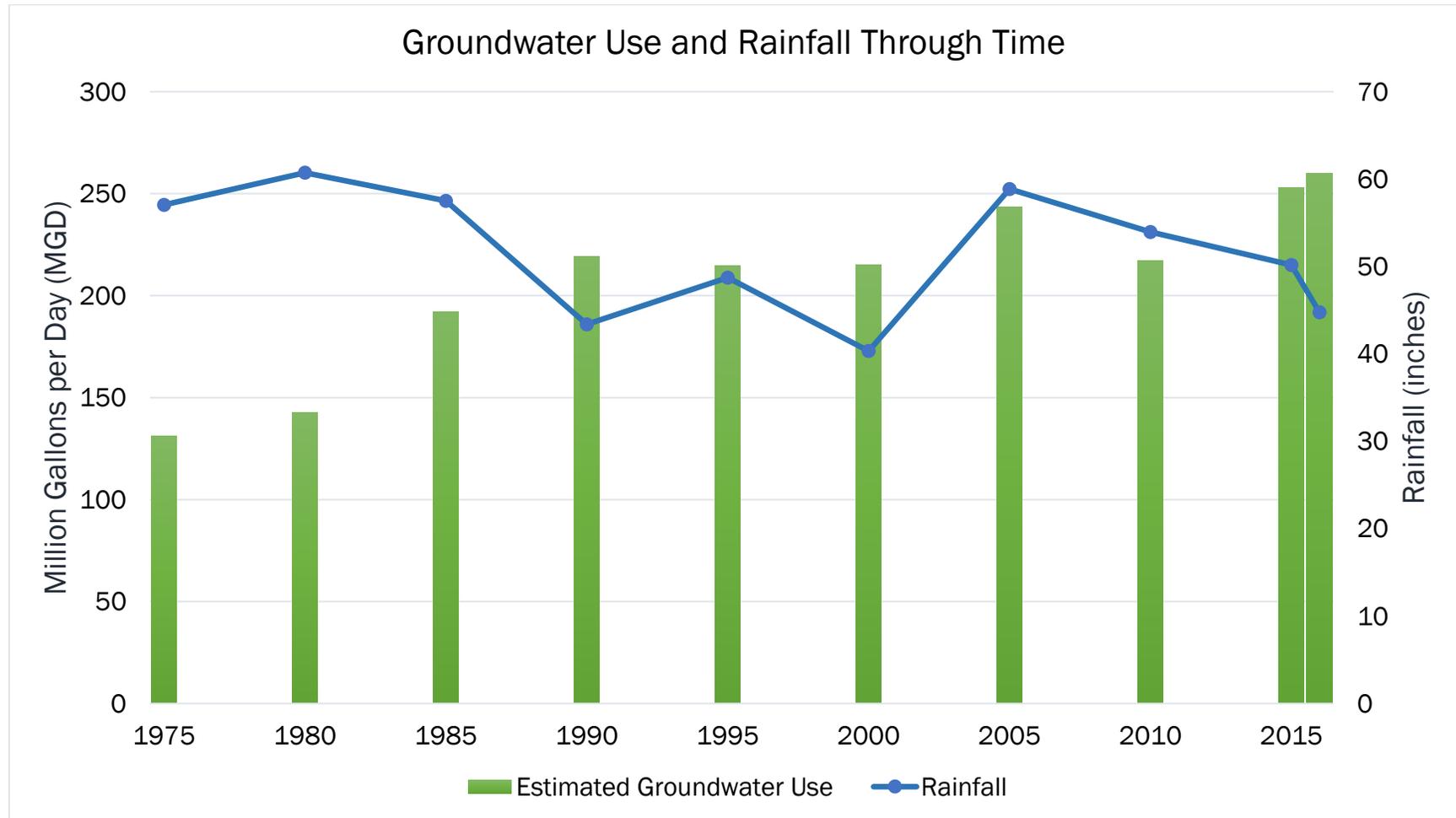
Data sources/Methodology

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

2016 Rainfall

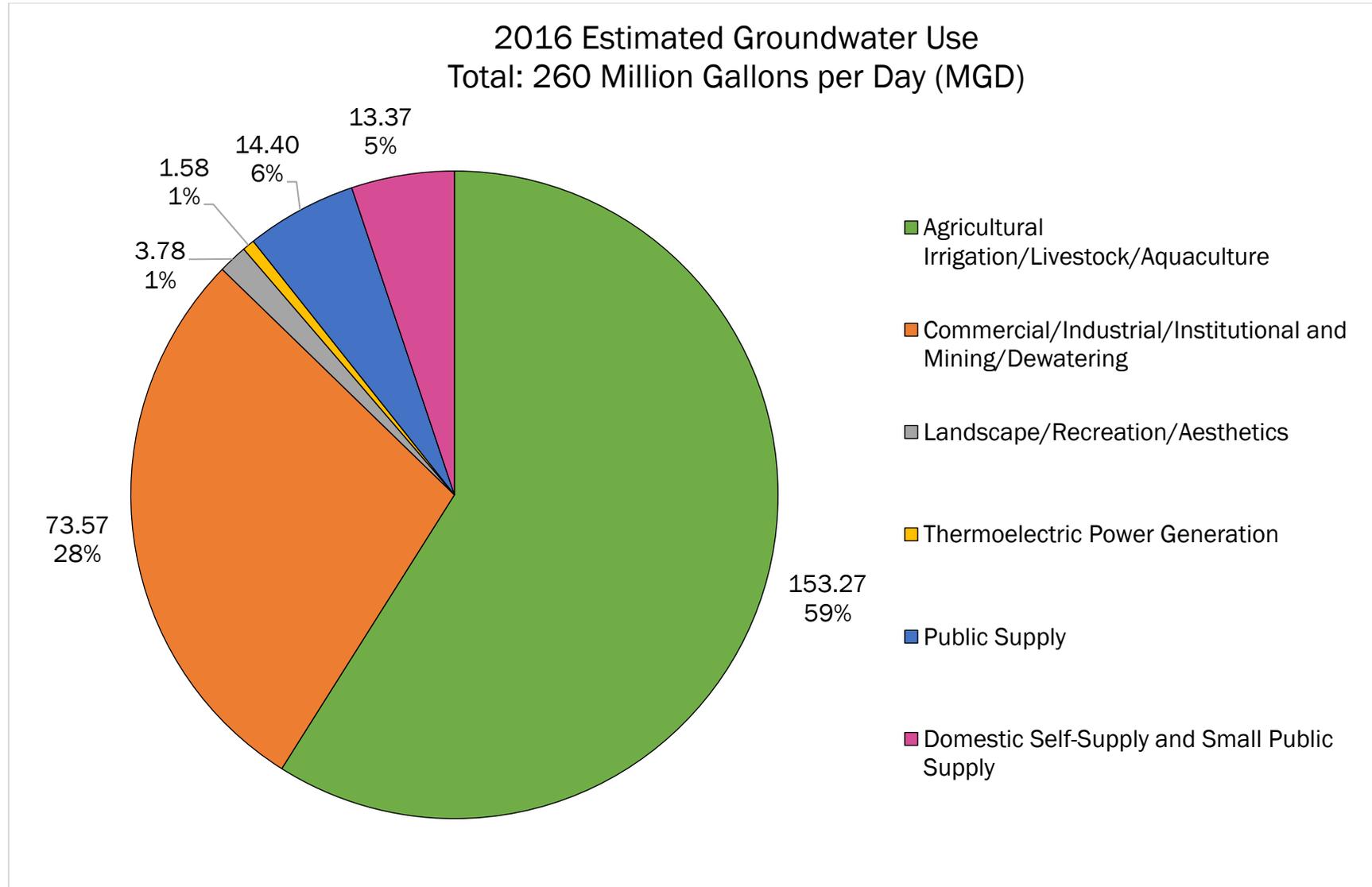
Figure 1: Groundwater Use and Rainfall Through Time

Total rainfall throughout the District was estimated just below 45 inches in 2016. This is much lower than the total rainfall in 2015, which was estimated at 50.2 inches (SRWMD Hydrologic Conditions Report, 2015).



2016 Total Districtwide Groundwater Use

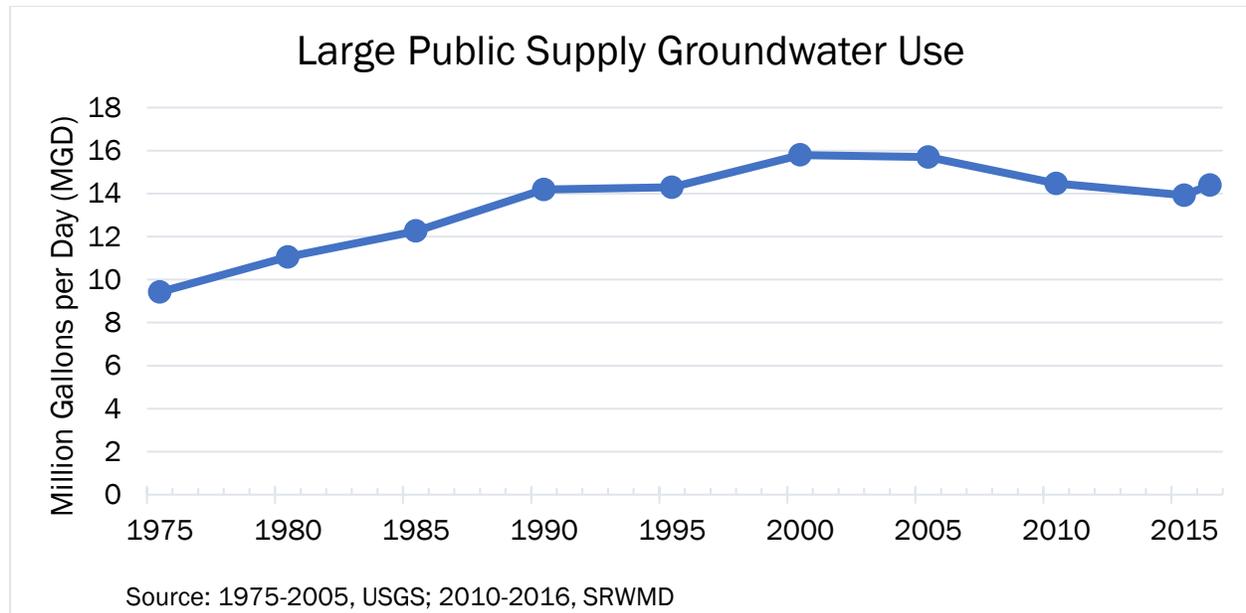
Figure 2: Estimated groundwater use in 2016 by category



2016 Public Supply

Figure 3: Large Public Supply Groundwater Use Through Time

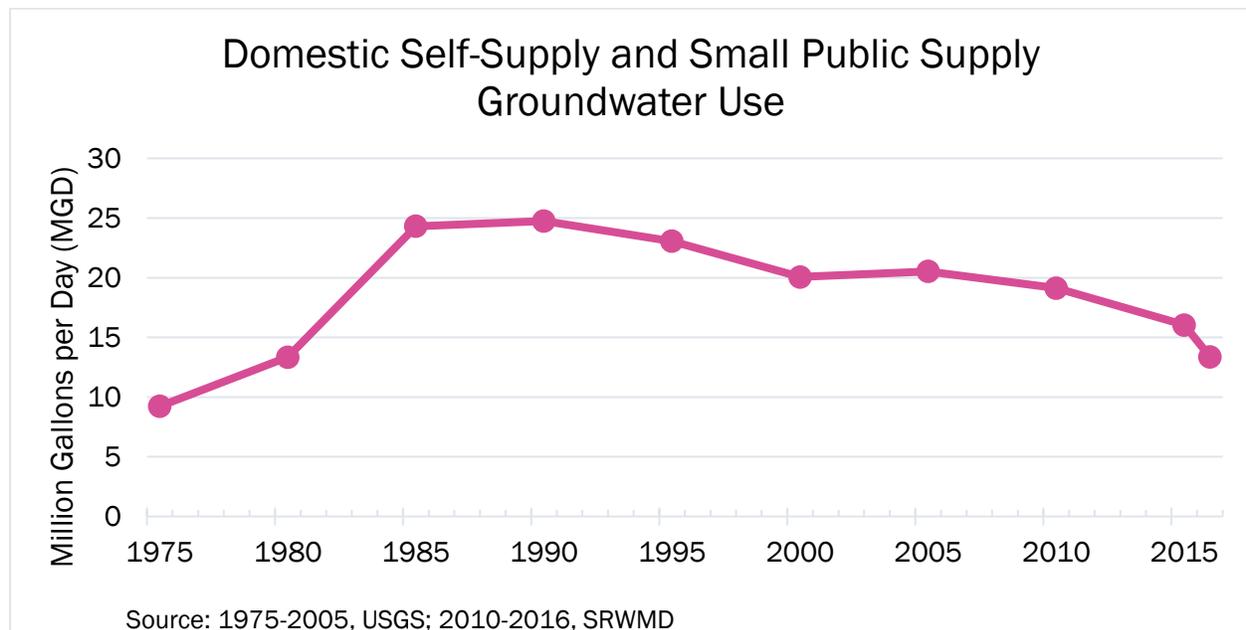
Between 2015 and 2016, public supply groundwater use increased 0.5 MGD from just under 14 MGD to 14.4 MGD.



2016 Domestic Self-Supply and Small Public Supply (DSS)

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

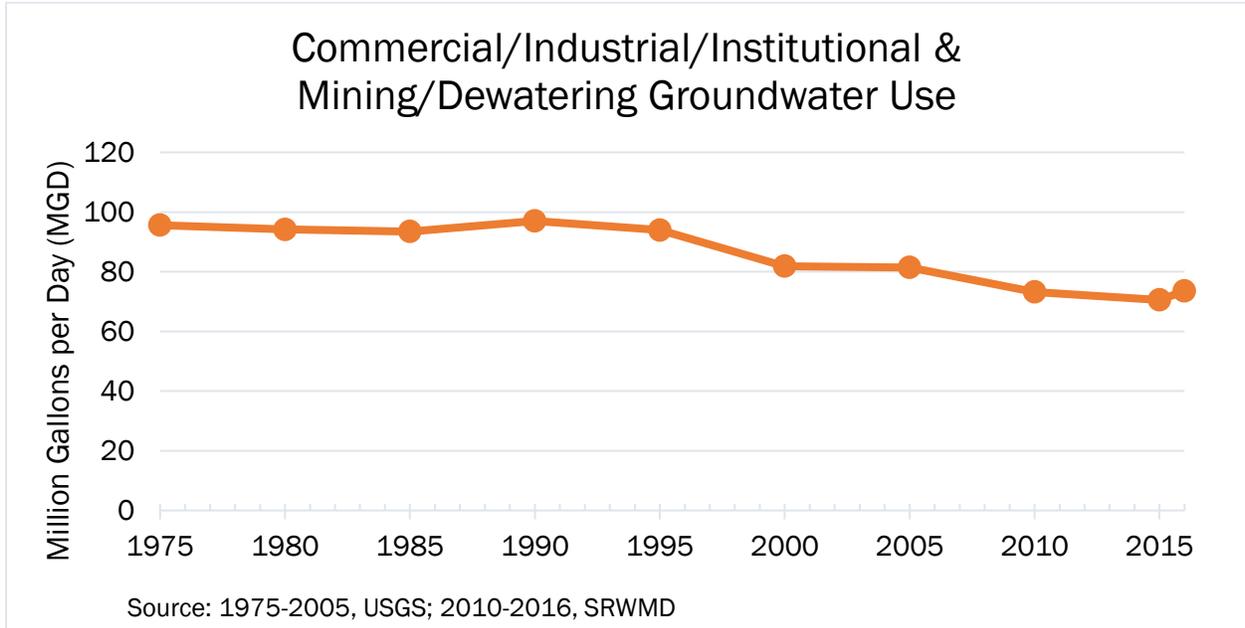
Domestic self-supply and small public supply water use is estimated to be about 13.4 MGD in 2016. From 2015 to 2016, DSS water use decreased. This is due to the reclassification of some permits to other water use categories and more accurate accounting of the served and non-served populations.



2016 Commercial/Industrial/Institutional and Mining/Dewatering (CII/MD)

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

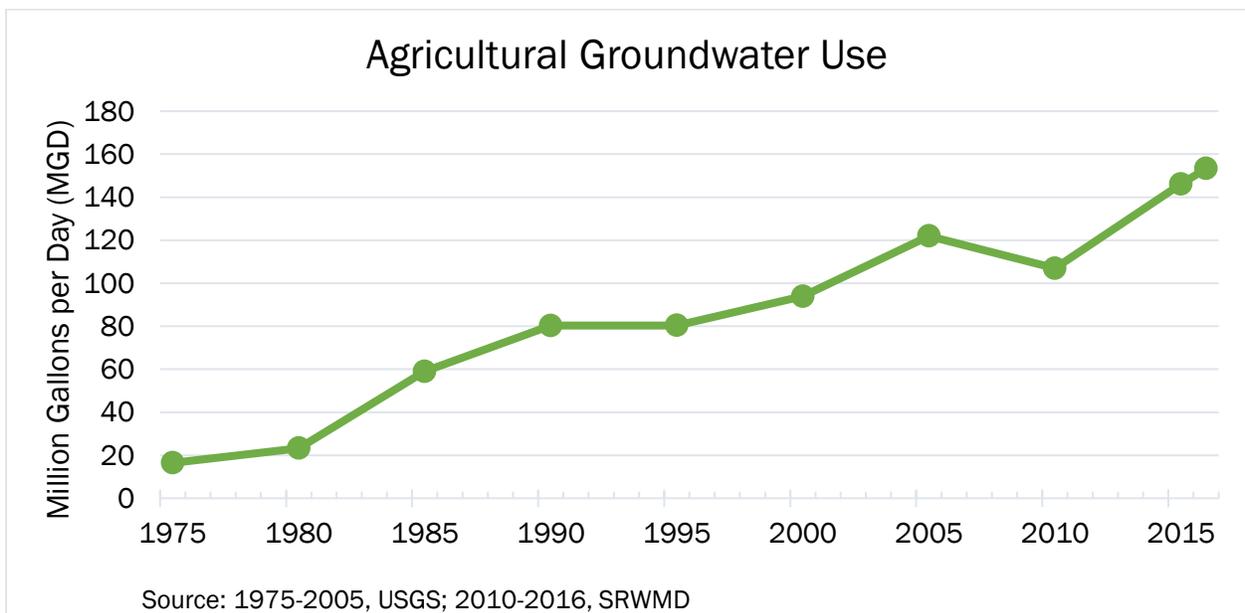
CII/MD groundwater use increased about 3 MGD since 2015, however there has been a declining trend since 1975.



2016 Agricultural Irrigation/Livestock/Aquaculture Use (AG)

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

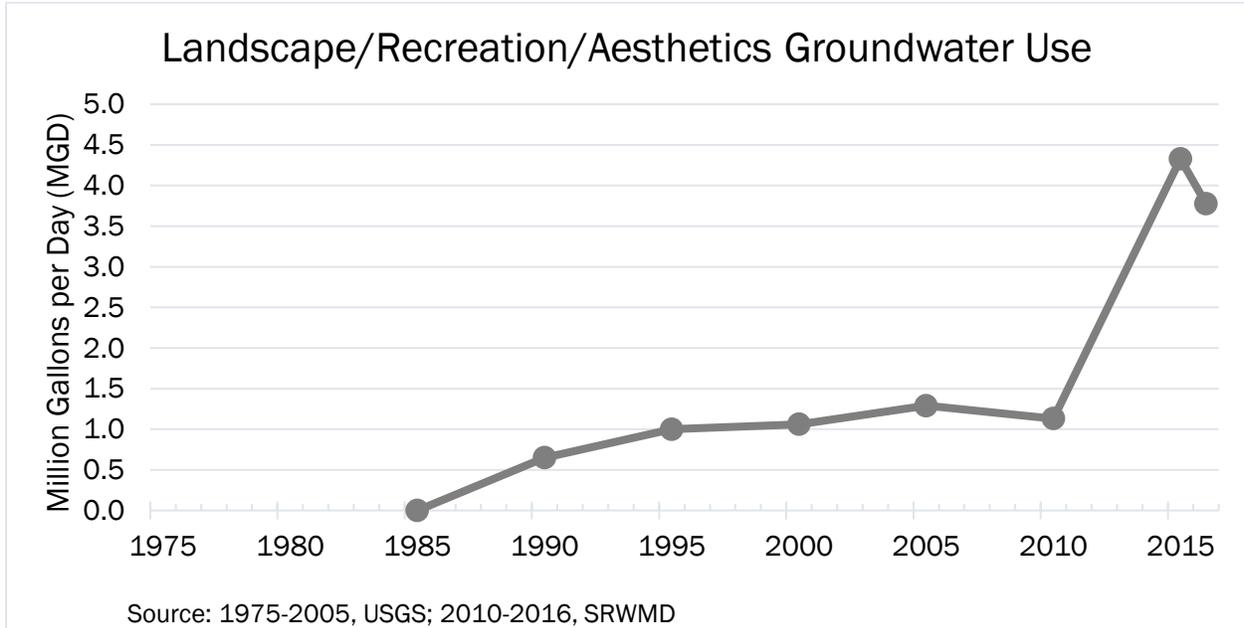
Agricultural irrigation, livestock, and aquaculture use accounts for majority of groundwater use throughout the District. It has fluctuated since 1975, but in recent years it has continued to increase. It rose just over 7 MGD from 2015 to 2016.



2016 Landscape/Recreation/Aesthetics (LRA)

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

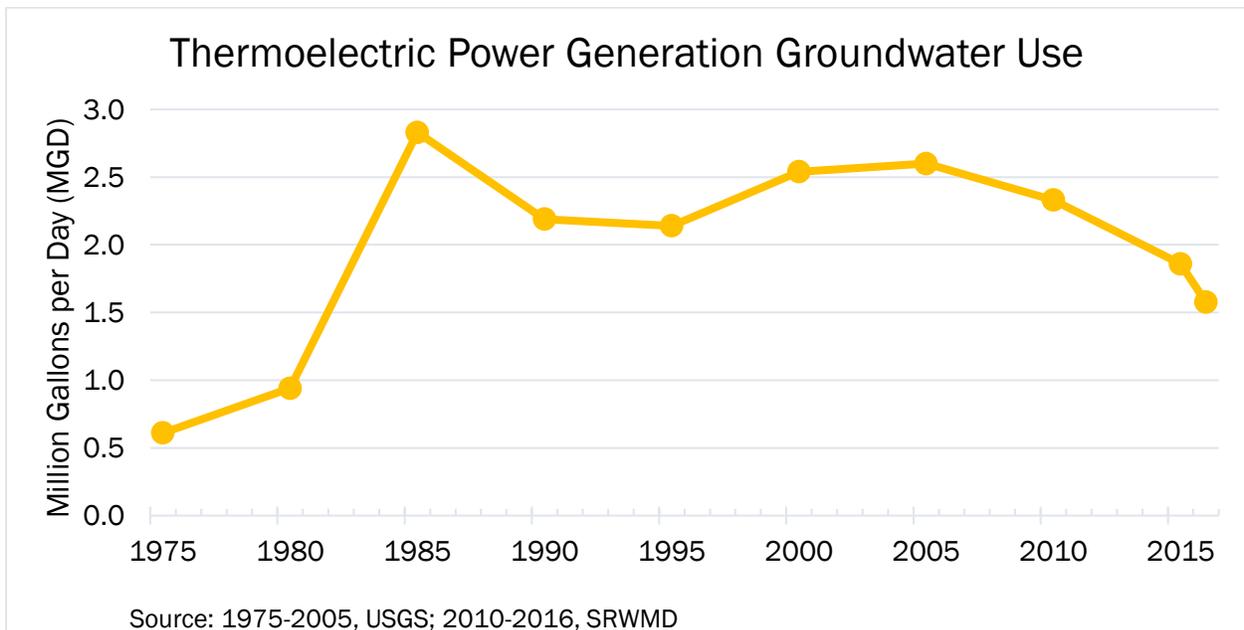
LRA permits with water use below the reporting threshold were estimated at allocation in 2015 and 2016. There was a slight decline from 2015 to 2016 estimates.



2016 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% of groundwater use throughout the District. From 2015 to 2016, PG groundwater use decreased about 0.3 MGD.



Total Water Use and Rainfall by County in 2016

Table 1: Total Water Use and Rainfall by County in 2016

County	2016 Water Use (MGD)	2016 Total Annual Rainfall (inches)
Alachua (SRWMD portion)	18.47	40.91
Baker (SRWMD portion)	0.24	37.66
Bradford (SRWMD portion)	4.63	40.81
Columbia	12.35	40.41
Dixie	9.37	51.84
Gilchrist	22.77	43.14
Hamilton	43.49	38.86
Jefferson (SRWMD portion)	3.58	93.97
Lafayette	13.81	48.99
Levy (SRWMD portion)	17.96	47.84
Madison	25.27	46.64
Suwannee	42.95	45.53
Taylor	42.38	49.55
Union	2.68	44.22
District Total	259.96	44.77

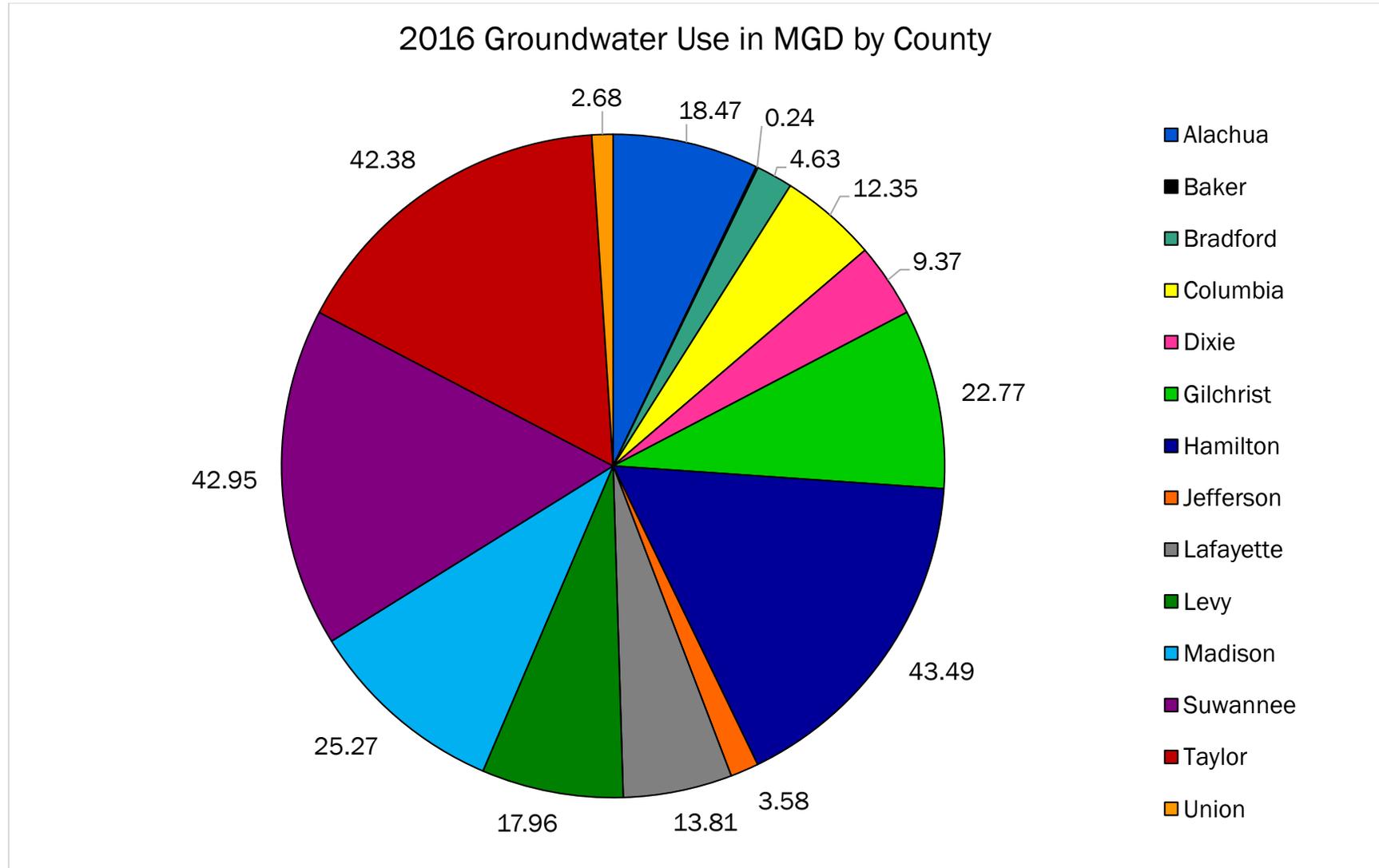
*County rainfall estimates incorporate the total annual rainfall for whole counties.

**The District total 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 2016

Table 2: Total Groundwater Use (MGD) by County and Category in 2016

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	12.18	2.52	0.36	1.47	1.04	0.89	18.47
Baker	Eastern	0.00	0.00	0.19	0.00	0.00	0.05	0.24
Bradford	Eastern	1.72	0.86	1.02	0.00	0.30	0.72	4.63
Columbia	Eastern	4.78	3.41	0.41	0.00	0.70	3.05	12.35
Dixie	Western	7.16	0.67	0.22	0.00	0.10	1.22	9.37
Gilchrist	Eastern	20.84	0.36	0.42	0.00	0.15	1.00	22.77
Hamilton	Eastern	16.07	0.96	25.87	0.00	0.07	0.53	43.49
Jefferson	Western	3.04	0.01	0.18	0.00	0.09	0.26	3.58
Lafayette	Western	12.72	0.16	0.32	0.00	0.06	0.56	13.81
Levy	Western	16.05	0.68	0.15	0.00	0.20	0.88	17.96
Madison	Western	22.16	1.22	0.87	0.00	0.31	0.72	25.27
Suwannee	Eastern	34.95	1.41	3.86	0.10	0.41	2.22	42.95
Taylor	Western	0.43	1.92	39.12	0.00	0.32	0.59	42.38
Union	Eastern	1.17	0.21	0.58	0.00	0.05	0.67	2.68
Eastern Planning Region Total	NA	91.71	9.74	32.71	1.58	2.71	9.13	147.58
Western Planning Region Total	NA	61.56	4.66	40.86	0.00	1.06	4.23	112.38
District Total	NA	153.27	14.40	73.57	1.58	3.78	13.37	259.96

*Numbers may not add perfectly due to rounding.

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

Population by County in 2016

Table 3: Population by County in 2016

County	Total BEBR County Population	Percent of County in District	Estimated District Population Less Institutional	Inmate 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	255,766	22.75%	58,193	0	40,737	69	17,387	50
Baker	24,664	1.99%	490	1,733	0	0	490	109*
Bradford	24,548	92.46%	22,697	1,207	7,418	790	14,489	42
Columbia	64,529	100.00%	64,529	4,916	14,611	1,042	48,876	57
Dixie	15,091	100.00%	15,091	1,312	2,465	77	12,549	95
Gilchrist	16,340	100.00%	16,340	631	2,134	0	14,206	70
Hamilton	12,146	100.00%	12,146	2,631	5,041	431	6,674	65
Jefferson	13,508	26.31%	3,555	1,048	548	0	3,007	87
Lafayette	7,000	100.00%	7,000	1,563	1,183	0	5,817	96
Levy	40,553	45.19%	18,325	0	5,709	1,323	11,294	62
Madison	17,713	100.00%	17,713	1,508	5,475	48	12,190	58
Suwannee	41,644	100.00%	41,644	0	7,672	437	33,535	65
Taylor	19,698	100.00%	19,698	2,657	11,038	90	8,570	68
Union	10,898	100.00%	10,898	2,665	1,742	93	9,063	72
Total	564,098	NA	308,319	6,750	105,773	4,400	198,146	59

*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	2016 Population Served	Water Use (MGD)	Gross Per Capita Rate
Alachua	City of Alachua	220667	Large	9,874	1.27	129
Alachua	City of Archer	216647	Large	1,283	0.12	91
Alachua	City of High Springs	216833	Large	6,094	0.50	82
Alachua	City of Newberry	216450	Large	6,247	0.56	90
Alachua	City of Waldo	217300	Large	956	0.07	70
Alachua	Gainesville Regional Utilities	NA	Large	16,284	NA	NA
Bradford	City of Hampton	220481	Small	464	0.06	131
Bradford	City of Lawtey	218998	Large	876	0.18	210
Bradford	City of Starke	216650	Large	6,541	0.65	99
Bradford	Town of Brooker	216644	Small	311	0.04	144
Columbia	City of Lake City	217754	Large	14,540	3.41	235
Columbia	Town of Fort White	218347	Small	488	0.09	177
Columbia	Columbia County Board of Commissioners Ellisville Plant	220704	Large	71	0.04	496
Dixie	City of Cross City	216823	Large	1,618	0.55	337
Dixie	Fanning Springs - Old Town	220310	Large	401	NA	NA
Dixie	Horseshoe Beach Water Utilities	217129	Large	161	0.05	292
Dixie	Town of Suwannee	216831	Large	286	0.07	255
Gilchrist	Town of Trenton	216453	Large	2,038	0.36	177
Gilchrist	Fanning Springs	NA	Large	96	NA	NA
Hamilton	City of Jasper	220463	Large	3,598	0.73	204
Hamilton	City of White Springs	216651	Large	754	0.04	47
Hamilton	Town of Jennings	216567	Large	689	0.14	203
Jefferson	Jefferson Communities Water System	NA	Large	548	NA	NA
Lafayette	Town of Mayo	216851	Large	1,183	0.16	136
Levy	City of Bronson	216830	Large	1,110	0.15	136
Levy	City of Chiefland	216826	Large	2,215	0.28	128
Levy	Fowlers Bluff Water Association	216642	Small	362	0.01	33
Levy	Town of Otter Creek	216656	Small	175	0.01	64

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County	Public Supplier	Permit ID	Large/ Small	2016 Population Served	Water Use (MGD)	Gross Per Capita Rate
Levy	Cedar Key Water & Sewer District	216821	Large	2,207	0.13	57
Levy	City of Fanning Springs	220310	Large	176	0.12	174
Levy	University Oaks MHP	220497	Small	288	0.06	210
Levy	Manatee Utilities	217177	Small	156	0.02	149
Madison	Cherry Lake Utilities	219588	Large	620	0.06	89
Madison	City of Madison	216506	Large	3,762	0.97	259
Madison	Town of Greenville	217127	Large	773	0.12	150
Madison	Town of Lee	218663	Large	320	0.08	246
Suwannee	Advent Christian Village	219527	Large	754	0.14	181
Suwannee	City of Live Oak	220612	Large	5,750	1.15	200
Suwannee	Town of Branford	216658	Large	683	0.08	120
Suwannee	Town of Wellborn	216507	Large	485	0.04	77
Taylor	Big Bend Water Authority	220484	Large	3,175	0.37	117
Taylor	City of Perry	216835	Large	6,664	1.50	225
Taylor	Taylor Coastal Water & Sewer District	221166	Large	1,200	0.05	41
Union	City of Lake Butler	220148	Large	1,742	0.21	123
TOTAL	NA	NA	NA	108,017	14.75	136

*Numbers may not add perfectly due to rounding.

2016 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.

2016 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	0.003	0.05	0.06
Hamilton	PCS – White Springs – Eagle Lake	0.35	6.74	7.09
Hamilton	*PCS – White Springs – Total Permit	17.19	326.56	343.75
Suwannee	Suwannee River Power Plant	2.69	131.60	134.28
Taylor	*Big Horse Aggregates Cabbage Grove Mine	0.10	1.81	1.91
Taylor	Martin Marietta Aggregates – Perry Quarry	0.07	1.39	1.46
TOTAL	NA	20.40	468.15	488.55

*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 Eagle Lake surface water project was completed in 2016. Water use estimates were reported starting in October. There are six additional agricultural permits that have an allocation that includes some surface water. Two of these permits are not using surface water. For planning purposes, District-wide water use is estimated using FSAID and groundwater is the predominant source.

2016 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 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 18.76 mgd. Of the total, 9.47 mgd of reuse water was utilized. This accounts for just over 50% of the total permitted capacity. Figure 1 shows a breakdown of 2016 reuse flows by county. The county with the largest reuse flow is Columbia County with about 2.5 mgd, followed by Bradford County with 1.5 mgd, and Alachua County with 1.0 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. These facilities are City of Starke which had 0.46 mgd disposed, City of Cedar Key which had 0.1 mgd disposed, and City of Perry which had none. The City of Jasper WWTF is the only facility in the District that does not provide reuse of any kind. In 2016, they reported 0.63 mgd of disposal.

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 (see table 1). 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).

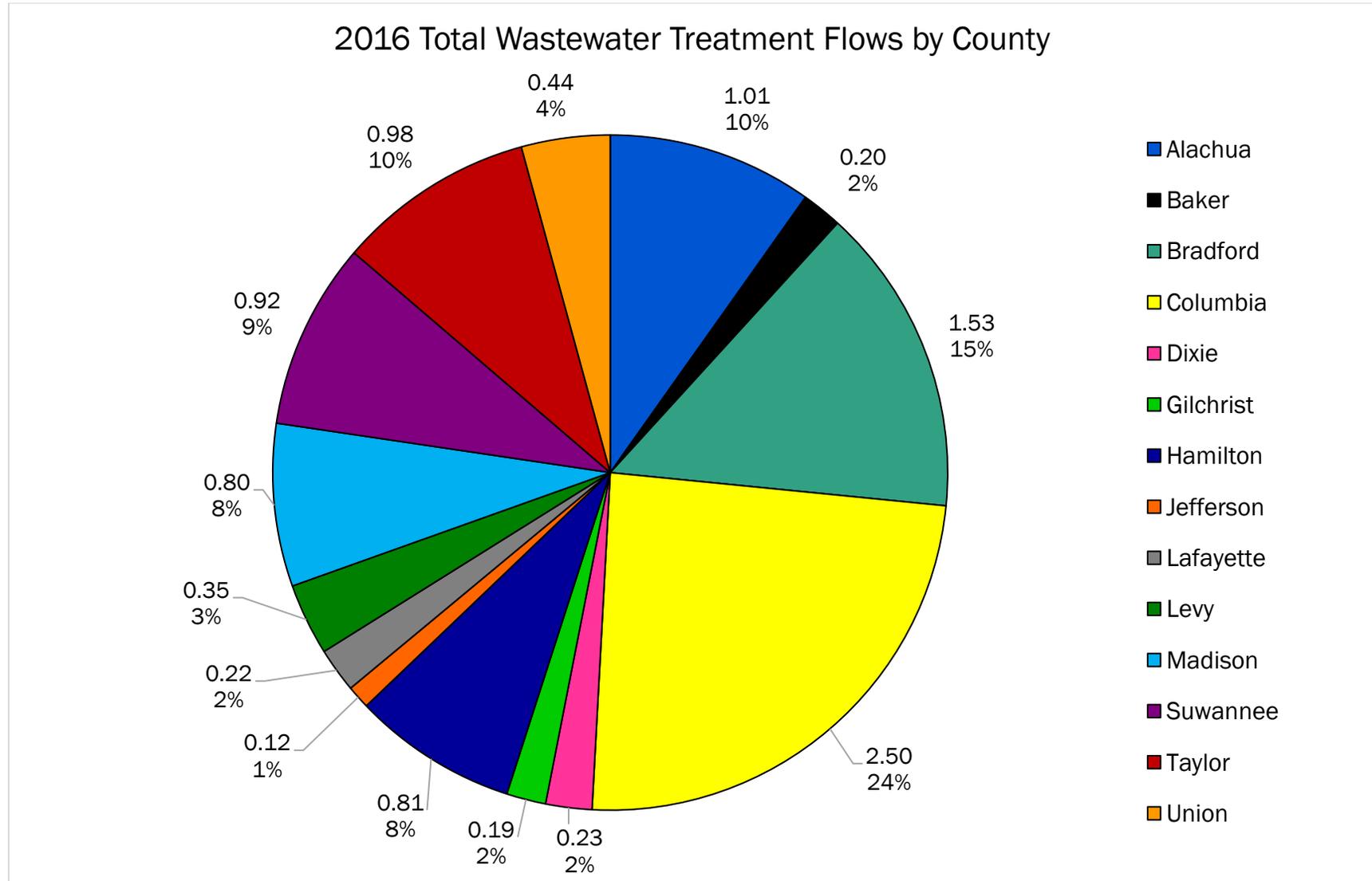
2016 Wastewater Treatment Flows by Facility

Table 6: 2016 Wastewater Treatment Flows by Facility

County	Planning Region	City	Facility Name	2016 Total Flow (mgd)	2016 Reuse Flow (mgd)	Capacity (mgd)
Alachua	Eastern	Alachua	Alachua	0.65	0.65	1.50
Alachua	Eastern	High Springs	High Springs	0.16	0.16	0.24
Alachua	Eastern	Newberry	Newberry WWTF	0.20	0.20	0.50
Baker	Eastern	Sanderson	Baker Correctional Institution	0.20	0.20	0.32
Bradford	Eastern	Raiford	Florida State Prison WWTF	0.89	0.89	1.78
Bradford	Eastern	Starke	City of Starke	0.64	0.18	0.98
Columbia	Eastern	Lake City	Columbia Correctional Institution	0.42	0.48	0.53
Columbia	Eastern	Lake City	Lake City WWTF	2.08	2.08	3.00
Dixie	Western	Cross City	Cross City WWTF	0.23	0.40	0.40
Gilchrist	Eastern	Trenton	Lancaster Correctional Institution WWTF	0.08	0.08	0.25
Gilchrist	Eastern	Trenton	Trenton	0.11	0.11	0.20
Hamilton	Eastern	Jasper	City of Jasper WWTF	0.63	0.00	1.20
Hamilton	Eastern	Jennings	Town of Jennings WWTF	0.12	0.12	0.18
Hamilton	Eastern	Jasper	SR-6/I-75 WWTF	0.02	0.02	0.05
Hamilton	Eastern	White Springs	Town of White Springs WWTF	0.05	0.05	0.15
Jefferson	Western	Monticello	Jefferson Correctional Institution	0.12	0.14	0.25
Lafayette	Western	Mayo	Mayo WWTP	0.14	0.08	0.50
Lafayette	Western	Mayo	Mayo Correctional Institution	0.08	0.14	0.15
Levy	Western	Cedar Key	Cedar Key WRF	0.10	0.09	0.18
Levy	Western	Chiefland	Chiefland WWTF	0.26	0.26	0.48
Madison	Western	Greenville	Town of Greenville	0.06	0.06	0.15
Madison	Western	Madison	Madison WWTF	0.74	0.74	1.37
Suwannee	Eastern	Dowling Park	Advent Christian Village	0.05	0.05	0.15
Suwannee	Eastern	Branford	Branford	0.05	0.05	0.10
Suwannee	Eastern	Live Oak	City of Live Oak WWTF	0.82	0.82	1.82
Taylor	Western	Perry	City of Perry	0.83	0.83	1.25
Taylor	Western	Perry	Taylor Correctional Institution	0.15	0.15	0.40
Union	Eastern	Lake Butler	Lake Butler WWTF	0.44	0.44	0.70
TOTAL	NA	NA	NA	10.30	9.47	18.76

Wastewater Treatment Flows by County

Figure 10: Wastewater Treatment Flows by County



2016 Utilization of Reuse by Facility and Type

Table 7: 2016 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	Alachua	AI	OC	1.23	0.65	105
Alachua	Eastern	Alachua	Alachua	IND	AOF	1.40	0.01	NA
Alachua	Eastern	Alachua	Alachua	PAA&LI	GCI	0.40	0.00	197
Alachua	Eastern	High Springs	High Springs	AI	OC	0.24	0.16	33
Alachua	Eastern	Newberry	Newberry WWTF	AI	OC	0.50	0.20	59.8
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	0.12	4.7
Baker	Eastern	Sanderson	Baker Correctional Institution	TF	NA	0.13	0.05	NA
Bradford	Eastern	Raiford	Florida State Prison WWTF	AI	OC	1.78	0.89	766
Bradford	Eastern	Starke	City of Starke	AI	OC	0.80	0.16	225
Bradford	Eastern	Starke	City of Starke	IND	ATP	0.12	0.02	
Columbia	Eastern	Lake City	Columbia Correctional Institution	AI	OC	0.28	0.22	36
Columbia	Eastern	Lake City	Columbia Correctional Institution	TF	NA	0.25	0.26	NA
Columbia	Eastern	Lake City	Lake City WWTF	AI	OC	2.95	2.08	350
Dixie	Western	Cross City	Town of Cross City	AI	OC	0.40	0.40	76.9
Gilchrist	Eastern	Trenton	Lancaster Correctional Institution	AI	OC	0.25	0.08	33.8
Gilchrist	Eastern	Trenton	Trenton WWTF	AI	OC	0.20	0.11	40
Hamilton	Eastern	Jennings	Jennings	AI	OC	0.18	0.12	44
Hamilton	Eastern	Jasper	SR-6/I-75 WWTF	AI	OC	0.13	0.02	19.2
Hamilton	Eastern	White Springs	Town of White Springs	IND	AOF	0.15	0.05	NA
Jefferson	Western	Monticello	Jefferson Correctional Institution	AI	OC	0.12	0.09	17.5
Jefferson	Western	Monticello	Jefferson Correctional Institution	TF	NA	0.19	0.05	NA

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	0.12	NA
Lafayette	Western	Mayo	Mayo Correctional Institution	TF	NA	0.02	0.02	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	Cedar Key	Cedar Key	PAA&LI	OPAA	0.03	0.00	6.4
Levy	Western	Chiefland	Chiefland	GWR&IPR	RIB	0.48	0.26	11
Madison	Western	Greenville	Town of Greenville	AI	OC	0.15	0.06	29.4
Madison	Western	Madison	City of Madison	AI	OC	1.37	0.74	275
Suwannee	Eastern	Dowling Park	Advent Christian Village	GWR&IPR	RIB	0.15	0.05	2.1
Suwannee	Eastern	Branford	Branford	AI	OC	0.10	0.05	6.5
Suwannee	Eastern	Live Oak	City of Live Oak	AI	OC	1.37	0.58	177
Suwannee	Eastern	Live Oak	City of Live Oak	GWR&IPR	RIB	0.45	0.21	3.1
Suwannee	Eastern	Live Oak	City of Live Oak	PAA&LI	OPAA	0.29	0.04	40
Taylor	Western	Perry	City of Perry	AI	OC	1.25	0.30	185
Taylor	Western	Perry	City of Perry	IND	AOF	0.80	0.53	NA
Taylor	Western	Perry	Taylor Correctional Institution	GWR&IPR	RIB	0.40	0.15	11.4
Union	Eastern	Lake Butler	Lake Butler	AI	OC	0.70	0.44	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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