

Estimated Water Use 1998 to 2002

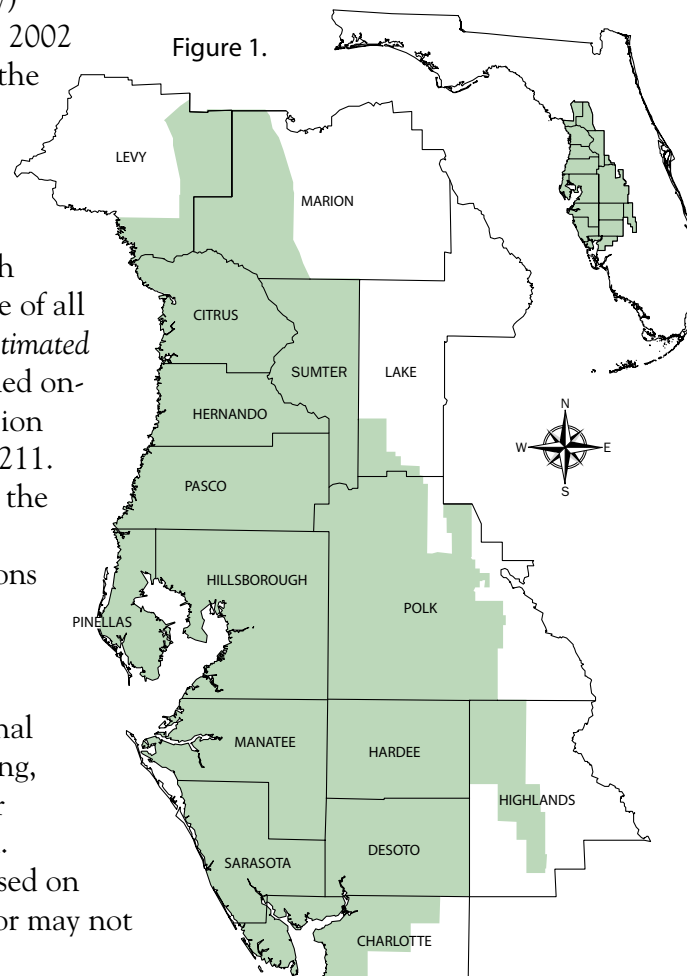
The *Estimated Water Use (EWU)* report is produced annually to summarize and analyze freshwater use in the Southwest Florida Water Management District (District). The report is used as a data source for a variety of water supply planning and management purposes.

This *Summary Report (Summary)* compares data from the 1998 to 2002 *Estimated Water Use* reports for the following use categories: agricultural; public and domestic self-supply; industrial and mining; recreational; and total use which includes the combined water use of all categories. A copy of the full *Estimated Water Use* reports can be obtained online or by calling the Conservation Projects Section at (352) 796-7211. Readers are encouraged to view the full report to understand the context, methods and assumptions used in reporting the data summarized in this report.

The District is one of five regional agencies charged with monitoring, regulating, and protecting water resources in the State of Florida. Jurisdictional boundaries are based on hydrologic features which may or may not

coincide with county boundaries.

Figure 1 illustrates the sixteen full and partial counties which are within the District's jurisdiction. Data for each partial county only include the water use for that portion of the county within the District.

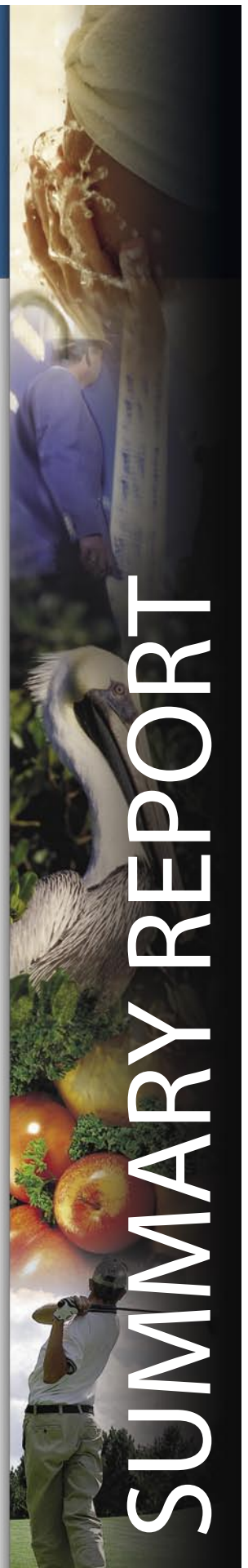


Resource Conservation
and Development Department
**Conservation Projects
Section**

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Southwest Florida
Water Management District

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Rainfall Data Inches

1998

North	50.49
Central	55.16
South	56.76
District	54.45

1999

North	43.70
Central	42.49
South	49.27
District	46.63

2000

North	32.78
Central	32.60
South	33.08
District	38.44

2001

North	43.18
Central	43.21
South	49.32
District	50.20

2002

North	59.57
Central	64.75
South	60.81
District	60.86

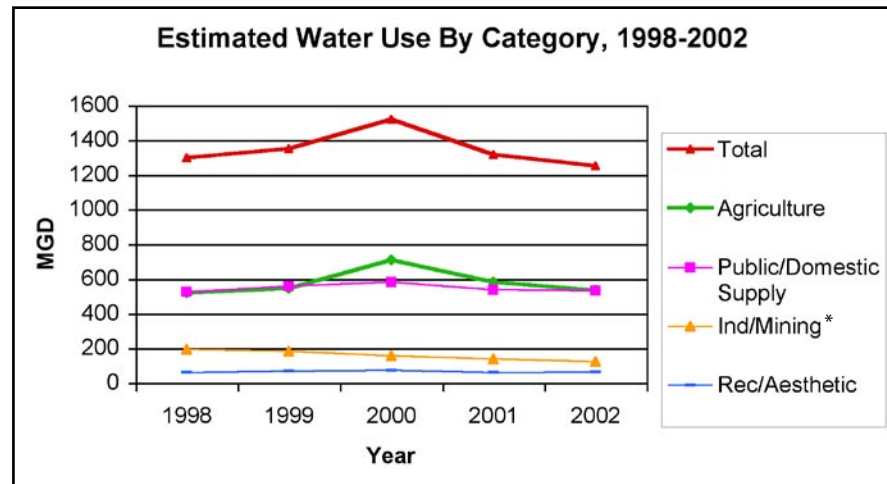
In 2002, an average of approximately 1.3 billion gallons of freshwater was used each day within the District. Table 1 contains data for total water use by county from 1998 to 2002. Figure 2 illustrates total water use for the District as well as by type of use. The greatest amount of freshwater use within the District from 1998 to 2002 occurred in Polk County.

Table 1. Total Estimated Water Use (mgd) by County, 1998 to 2002

County	1998	1999	2000	2001	2002
Charlotte	34.448	38.474	47.670	39.552	35.353
Citrus	35.968	28.239	30.120	25.926	25.956
DeSoto	73.616	78.952	124.083	95.724	84.049
Hardee	63.365	69.658	90.278	75.526	67.403
Hernando	43.771	54.954	52.497	49.163	50.289
Highlands	67.867	66.079	82.298	66.877	67.508
Hillsborough	215.748	245.780	280.391	238.505	232.899
Lake	1.712	1.664	2.368	1.748	1.645
Levy	13.666	11.688	14.737	12.628	12.362
Manatee	122.064	139.473	150.180	137.663	124.595
Marion	22.682	23.122	25.006	20.950	18.715
Pasco	71.449	71.790	74.457	65.678	69.195
Pinellas	119.419	123.908	122.929	121.024	116.594
Polk	309.197	292.362	328.422	275.801	269.967
Sarasota	47.492	48.854	49.262	46.966	47.059
Sumter	54.134	55.544	45.336	42.726	28.447
Total	1296.598	1350.541	1520.034	1316.457	1252.036

Note: Data obtained from Table 9. Summary of Total Estimated Water Withdrawals/Use (mgd) by County and Category, 1998–2002 EWU Reports.

Figure 2. Estimated Water Use by Category



* Permitting changes have occurred in this water use category during the time series presented. This results in an apparent decline in mining that may not be actual. To better understand the impact of such changes on water use and related trends, readers are encouraged view the full report.

The inset contains rainfall data for each of the three reporting regions as well as an average for the District from 1998 to 2002. Figure 3 illustrates rainfall and total water use for the District from 1998 to 2002. Figure 3 identifies the direct relationship between rainfall and water use within the District. The year 2000 was the highest water use year and received the lowest rainfall during the five-year period. Figure 4 identifies the three rainfall reporting regions used by the District.

Figure 3. Annual Rainfall vs. Total Water Use for the District

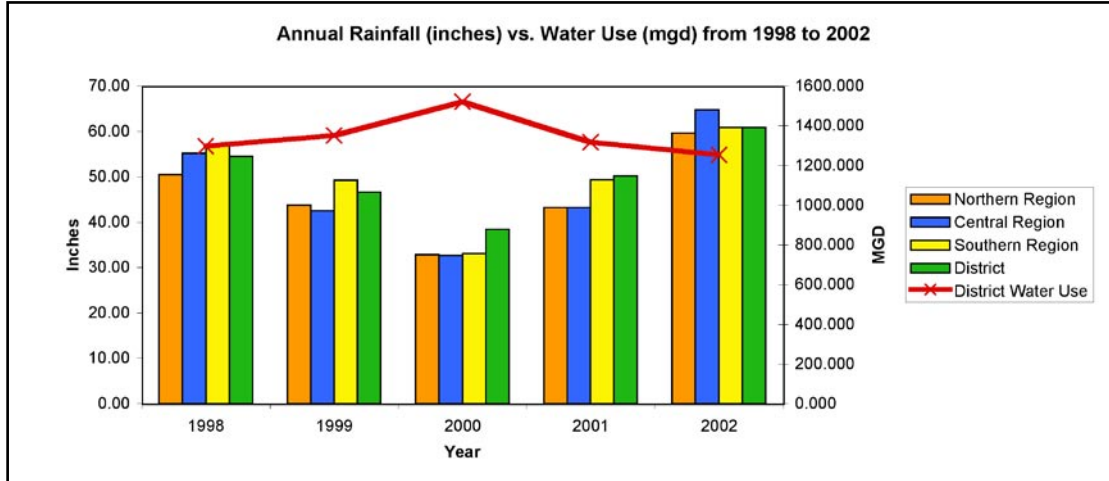
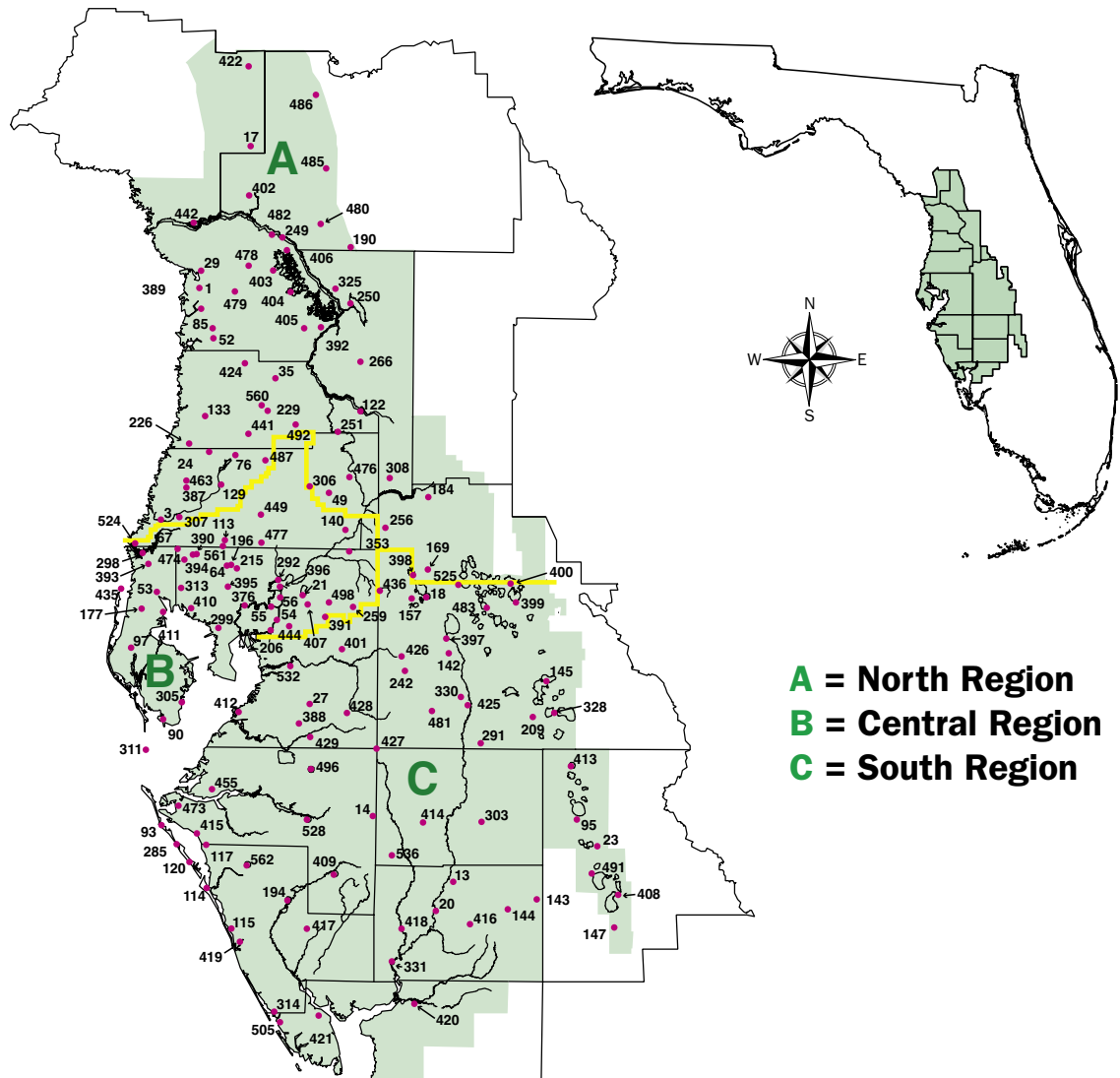


Figure 4. Selected Rainfall Monitoring Stations



In 2002, an average of 534 million gallons per day (mgd) was used for agricultural purposes. Table 2 contains data for agricultural water use by county from 1998 to 2002. Throughout the District, the majority of agricultural water use is dedicated to citrus production with tomato production being the next largest user. The largest amount of agricultural water use in the District from 1998 to 2002 was in Polk County.

In 2002, an average of 530 mgd was used for public supply and domestic self-supply purposes. Table 3 contains data for public and domestic self-supply water use by county from 1998 to 2002. Public Supply water use includes the water distributed by public water systems and private water utilities throughout the District. Domestic Self-Supply is the amount of water consumed from individual wells and water supply systems which are too small to be required to have a District water use permit. Please note that the public supply quantities used for this portion of the summary represent “use” quantities rather than “withdrawal” quantities, as the two are different for counties that import and export water for public supply purposes. For example, a large portion of Public Supply water used in Pinellas County is withdrawn from Pasco and Hillsborough counties and imported into Pinellas County.

Table 2. Estimated Water Use (mgd) for Agriculture by County, 1998 to 2002

County	1998	1999	2000	2001	2002
Charlotte	13.800	17.514	24.899	17.646	13.825
Citrus	1.710	1.592	3.349	2.019	2.242
DeSoto	70.004	75.325	118.869	91.958	80.065
Hardee	60.396	63.162	81.736	69.838	63.304
Hernando	2.667	2.740	4.284	2.945	2.878
Highlands	53.734	53.885	69.263	54.342	54.277
Hillsborough	67.659	71.524	87.147	74.409	70.556
Lake	1.521	1.448	2.140	1.520	1.414
Levy	9.888	8.085	10.411	8.827	9.044
Manatee	80.217	92.148	105.712	94.854	80.803
Marion	3.850	3.270	5.328	3.645	3.833
Pasco	15.709	16.107	22.724	15.706	15.370
Pinellas	0.552	0.489	0.459	0.386	0.428
Polk	122.359	121.098	149.367	125.564	120.275
Sarasota	5.805	6.089	7.545	6.491	6.370
Sumter	9.973	9.671	14.622	10.869	9.744
Total	519.844	544.147	707.855	581.019	534.428

Note: Data obtained from Table 9. Summary of Total Estimated Water Withdrawals/Use (mgd) by County and Category, 1998–2002 EWU Reports.

Table 3. Estimated Water Use (mgd) for Public and Domestic Self-Supply by County, 1998 to 2002

County	1998	1999	2000	2001	2002
Charlotte	16.494	16.592	17.673	18.438	18.335
Citrus	21.945	19.377	20.830	19.220	18.527
DeSoto	2.901	3.036	3.459	3.413	3.577
Hardee	2.284	2.189	2.362	2.272	2.713
Hernando	21.952	21.832	23.721	21.176	22.336
Highlands	10.375	9.398	10.222	9.916	10.303
Hillsborough	118.823	146.643	159.782	132.866	127.181
Lake	0.191	0.216	0.228	0.228	0.231
Levy	3.464	3.296	3.993	3.508	3.033
Manatee	35.455	38.046	38.419	37.537	38.417
Marion	16.084	16.874	16.857	14.677	12.316
Pasco	39.291	40.717	39.728	41.260	44.068
Pinellas	113.880	116.869	116.433	115.327	110.102
Polk	80.340	79.805	86.309	73.538	75.820
Sarasota	32.842	33.473	32.112	32.331	32.277
Sumter	6.833	9.205	9.854	10.876	11.223
Total	523.154	557.568	581.982	536.583	530.459

Note: Data obtained from Table 9. Summary of Total Estimated Water Withdrawals/Use (mgd) by County and Category, 1998–2002 EWU Reports.

Note: Public Supply Data represents “use” quantities rather than “withdrawal” quantities.

In 2002, an average of 124 mgd was used for industrial and mining purposes. Table 4 contains data for industrial and mining water use by county from 1998 to 2002. Industrial water uses include hospitals, schools, and cement plants that have a self-supplied source of water and do not include water purchased from a Public Supply system. Mining water uses include freshwater used for extracting and processing products such as limestone, phosphate, and peat. The Summary combines industrial and mining uses. Polk County contained the largest use in this combined category from 1998 to 2002.

In 2002, an average of 64 mgd was used for recreational/aesthetic purposes. Table 5 contains data for recreational/aesthetic water use by county from 1998 to 2002. Recreational/Aesthetic water uses include the irrigation of golf courses, cemeteries, parks and playgrounds. The largest use in this category from 1998 to 2002 occurred in Hillsborough County.

Table 4. Estimated Water Use (mgd) for Industry and Mining by County, 1998 to 2002

County	1998	1999	2000	2001	2002
Charlotte	1.382	1.098	1.621	0.541	0.788
Citrus	6.895	1.818	1.768	1.680	1.830
DeSoto	0.223	0.235	1.383	0.182	0.253
Hardee	0.535	4.144	5.927	3.178	1.096
Hernando	15.122	25.912	19.775	21.894	21.447
Highlands	0.887	0.273	0.330	0.219	0.330
Hillsborough	16.826	15.879	19.669	18.133	22.674
Lake	0.000	0.000	0.000	0.000	0.000
Levy	0.001	0.001	0.009	0.029	0.044
Manatee	3.204	5.810	1.006	0.696	0.886
Marion	0.130	0.147	0.132	0.101	0.102
Pasco	12.472	9.152	5.646	3.621	4.436
Pinellas	0.299	0.373	0.646	0.170	0.398
Polk	98.227	81.417	81.561	67.762	63.087
Sarasota	0.765	1.415	0.645	0.640	1.167
Sumter	35.581	33.891	17.340	18.895	5.100
Total	192.549	181.565	157.458	137.741	123.638

Note: Data obtained from Table 9. Summary of Total Estimated Water Withdrawals/Use (mgd) by County and Category, 1998–2002 EWU Reports.

Table 5. Estimated Water Use (mgd) for Recreational/Aesthetic by County, 1998 to 2002

County	1998	1999	2000	2001	2002
Charlotte	2.772	3.270	3.477	2.927	2.405
Citrus	5.418	5.452	4.173	3.007	3.357
DeSoto	0.488	0.356	0.372	0.171	0.154
Hardee	0.150	0.163	0.253	0.238	0.290
Hernando	4.030	4.470	4.717	3.148	3.628
Highlands	2.871	2.523	2.483	2.400	2.598
Hillsborough	12.440	11.734	13.793	13.097	12.488
Lake	0.000	0.000	0.000	0.000	0.000
Levy	0.313	0.306	0.324	0.264	0.241
Manatee	3.188	3.469	5.043	4.576	4.489
Marion	2.618	2.831	2.689	2.527	2.464
Pasco	3.977	5.814	6.359	5.091	5.321
Pinellas	4.688	6.177	5.391	5.141	5.666
Polk	8.271	10.042	11.185	8.937	10.785
Sarasota	8.080	7.877	8.960	7.504	7.245
Sumter	1.747	2.777	3.520	2.086	2.380
Total	61.051	67.261	72.739	61.114	63.511

Note: Data obtained from Table 9. Summary of Total Estimated Water Withdrawals/Use (mgd) by County and Category, 1998–2002 EWU Reports.



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This information will be made available in accessible formats upon request. Please contact the Communications Department at (352) 796-7211 or 1-800-423-1476 (FL only), ext. 4757; TDD only at 1-800-231-6103 (FL only).