



2023 Estimated Water Use

in the

Northwest Florida Water Management District

Total estimated water use: 310 mgd

Population estimates:¹

- **BEBR - 1,565,034**
- **With seasonal adjustments - 1,679,815**

Public supply per capita:

- **Gross - 115 gpcd**
- **Residential - 65 gpcd**

Acronyms

- Bureau of Economic and Business Research (BEBR), University of Florida
- Florida Department of Agriculture and Consumer Services (FDACS)
- Domestic Self-Supply (DSS)
- Florida Statewide Agricultural Irrigation Demand (FSAID)
- Gallons per Capita per Day (gpcd)
- General Water Use Permit (GWUP)
- Industrial-Commercial-Institutional (ICI)
- Individual Water Use Permit (IWUP)
- Million Gallons Per Day (mgd)
- Minimum Flows and Minimum Water Levels (MFLs)
- United States Geological Survey (USGS)

¹ NFWFMD portion of Jefferson County only.

Estimated water use is foundational data for Northwest Florida Water Management District (NFWFMD or District) water supply assessments, regional water supply plans, groundwater models and MFL technical assessments, as well as for consumptive use permitting. Existing water use is the baseline data to develop water demand projections. The 2023 water use estimates include:

1. Public supply utility production withdrawals, water transfers, water demand, population estimates, and per capita rates;
2. Domestic self-supply (DSS) estimates based on population estimates and a USGS per capita rate of 88.67 gpcd;
3. Agriculture estimates of reported pumpage, and total estimates from FDACS/FSAID data;
4. Recreation, including golf course and landscape irrigation, and water-based recreation based on reported and estimated pumpage;
5. Industrial-Commercial-Institutional (ICI) reported water use; and,
6. Thermoelectric power generation reported water use.

In 2023, the total estimated District water use was 310.2 mgd. Half or approximately 169.2 mgd was in the public supply water use category. Agriculture is the second largest water use category followed by ICI.

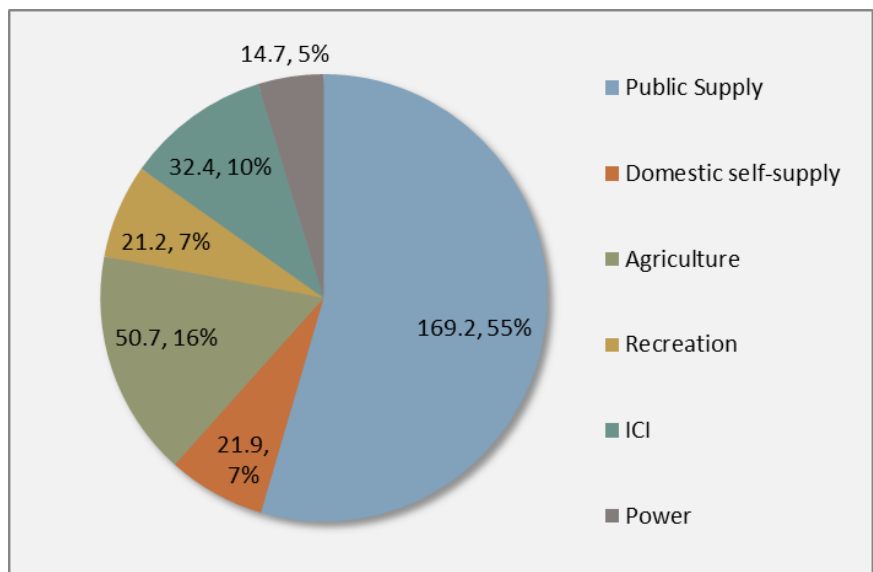


Figure 1. Total Water Use by Category (mgd)

Agriculture continues to be the largest water use category in Jackson County and in Region IV. Over half of all recreation water use was in Region II, the majority of ICI water use was in Escambia (64%) and Bay (15%) counties, and most power generation water use occurred in regions I (54%) and III (25%).

The District’s sixteen counties are organized into seven water supply planning regions. Rapidly growing and developing Region II accounted for 84.1 mgd or 27 percent of water use. Escambia County (Region I) accounted for nearly one-fourth (77.17 mgd) of all District water in 2023. Region IV had the District’s third largest water use at 51.48 mgd or 17 percent.

Population estimates with seasonal adjustments total 1,619,459. Seasonal residents are estimated to affect both public supply and DSS water use in all sixteen counties. Approximately 86 percent of District residents are estimated to be served by public supply utilities. The five-year average gross public supply per capita water use rate from 2016 –to 2020 was 122.0 gpcd.

2023 Population Estimates

REGION	BEBR Permanent Populations	Seasonal Adjustments	TOTAL ^(b) Population Estimates	% Public Supply	% DSS
Region I	333,452	10,670	344,122	92%	8%
Region II	505,374	64,626	569,999	91%	9%
Region III	187,545	22,505	210,050	84%	16%
Region IV	116,182	3,566	119,748	35%	65%
Region V	29,294	8,650	37,944	83%	17%
Region VI	44,421	1,066	45,487	69%	31%
Region VII ^(a)	348,766	3,698	352,464	84%	16%
TOTALS	1,565,034	114,782	1,679,815	84%	16%

^(a) Estimated NFWFMD share of Jefferson County only.

^(b) Total population estimates, including seasonal adjustments.

Primary groundwater resources in northwest Florida are the Floridan and sand-and-gravel aquifers. Minor aquifer systems include the intermediate, Claiborne, and surficial. A major surface water resource for Bay County is the Deer Point Lake Reservoir.

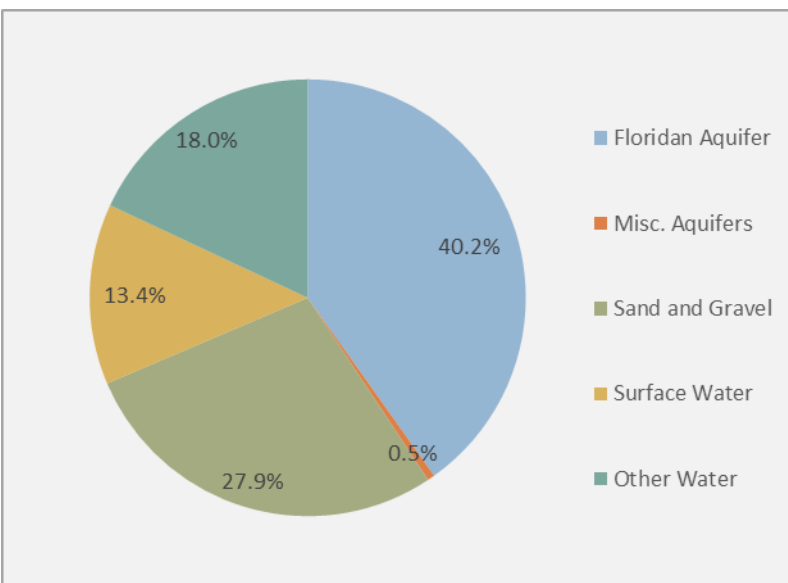


Figure 2. Total Water Use by Source

Withdrawals from the Floridan aquifer accounted for 40 percent of all water use and over half of all groundwater withdrawals. “Other Water” is estimated water use but the source is not clearly known or identified.

2023 Estimated Water Use

Planning Region / County or Counties	Water Use (mgd)
Region I. Escambia	77.17
Region II. Okaloosa, Santa Rosa, Walton	84.10
Region III. Bay	34.01
Region IV. Calhoun, Holmes, Jackson, Liberty, Washington,	51.48
Region V. Franklin, Gulf	5.80
Region VI. Gadsden	10.78
Region VII. Leon, Wakulla, Jefferson (NWF)	46.85
TOTAL	310.19

Eighty-seven (87) percent of all public supply water use was in Bay, Escambia, Leon, Okaloosa, Santa Rosa, and Walton counties.

Agriculture and recreation are the two water use categories most affected by precipitation and drought. Annual average rainfall in 2023 was 62.19 inches, roughly normal. The most recent drought year was 2011.

Northwest Florida Water Management District

TRS-23-1

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