# **Hydrologic Conditions**

for the month of

**July 2024** 

Prepared by the

Hydrologic Data Section

Data Collection Bureau



August 27, 2024

http://www.watermatters.org

#### **ACKNOWLEDGMENTS**

The Hydrologic Conditions Report is a monthly effort of the Data Collection Bureau's Hydrologic Data Section. Acknowledgment is made to the following staff for their significant contributions, hard work and dedication to the timely production of this report:

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#### INTRODUCTION

The Hydrologic Conditions Report is generated monthly by the Hydrologic Data Section, Data Collection Bureau, of the Southwest Florida Water Management District. This report provides an end-of-month analytical summary of regional and temporal variations in the hydrologic conditions across the District's 16-county area for planning and regulatory purposes. In addition, it provides an excellent historical record for long-term local and regional hydrologic analysis.

The Hydrologic Data Section is responsible for the implementation and maintenance of a network of observation and monitoring stations used to track changes in various hydrologic parameters over time. Data collected are used by the regulatory, technical, and analytical sections of the District. All data collected are processed and analyzed, uploaded into a centralized data base maintained by the District and then made available to the public through the District's Environmental Data Portal. The District's data collection program is augmented with data collected by the United States Geological Survey (USGS) through a cooperative joint funding agreement. Data derived from both District and USGS sources are used in this report.

The data contained in this report were collected and analyzed in accordance with generally accepted procedures consistent with applicable scientific and technical standards of practice. The data presented are considered to be the best available at the time of publication and are subject to revision.

Any questions about the significance, accuracy, or interpretation of these data should be referred to Tamera McBride, Manager of the Hydrologic Data Section at (352) 796-7211 or (800) 423-1476.

The data evaluation, analyses and interpretation contained within this report have been prepared or approved by a certified Professional Geologist in accordance with Chapter 492, Florida Statutes.

08/22/2024

Registration #PG-1704

#### Americans with Disabilities Act (ADA)

The Southwest Florida Water Management District (District) does not discriminate on the basis of disability. This nondiscrimination policy involves every aspect of the District's functions, including access to and participation in the District's programs, services and activities. Anyone requiring reasonable accommodation, or who would like information as to the existence and location of accessible services, activities, and facilities, as provided for in the Americans with Disabilities Act, should contact the Human Resources Office Chief, at 2379 Broad St., Brooksville, FL 34604-6899; telephone (352) 796-7211 or 1-800-423-1476 (FL only), or email ADACoordinator@WaterMatters.org. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1-800-955-8771 (TDD) or 1-800-955-8770 (Voice). If requested, appropriate auxiliary aids and services will be provided at any public meeting, forum, or event of the District. In the event of a complaint, please follow the grievance procedure located at WaterMatters.org/ADA.

#### **EXECUTIVE SUMMARY**

## **Hydrologic Conditions for July 2024**

In July, average rainfall totals were within the normal range in the northern and central counties of the District, while they were below normal in the southern counties. The normal range for rainfall is defined by totals that fall on or between the 25<sup>th</sup> to 75<sup>th</sup> percentiles of the historical monthly accumulation for each region and where the 50<sup>th</sup> percentile represents the historical mean. The northern counties received an average of 8.52 inches of rainfall, equivalent to the 55<sup>th</sup> percentile of the historical July record. The central counties received an average of 8.22 inches of rainfall, equivalent to the 47<sup>th</sup> percentile, while the southern counties received an average of 6.61 inches of rainfall, equivalent to the 22<sup>nd</sup> percentile of the historical July record. The Districtwide rainfall average of 7.74 inches was equivalent to the 41<sup>st</sup> percentile of the historical July record.

During the 12-month period from August 1, 2023, through July 31, 2024, the average rainfall totals in the northern, central and southern counties were classified as "normal." The northern counties received an average of 50.61 inches of rainfall, equivalent to the 37<sup>th</sup> percentile of the historical annual record. The central counties received an average of 46.02 inches of rainfall, equivalent to the 27<sup>th</sup> percentile, while the southern counties received an average of 47.08 inches of rainfall, equivalent to the 28<sup>th</sup> percentile. The Districtwide rainfall average of 47.63 inches was equivalent to the 24<sup>th</sup> percentile of the historical annual record.

Average lake levels in July were below normal in the Northern, Tampa Bay and Lake Wales Ridge regions of the District, while they were within the normal range in the Polk Uplands region. Normal lake levels are defined as levels that fall between the minimum low management level and the minimum flood level. Average lake levels in the Northern region increased 0.51 foot, ending the month 2.15 feet below the base level of the annual normal range. Average lake levels in the Tampa Bay region increased 0.38 foot, ending the month 0.71 foot below the base of the annual normal range. Average lake levels in the Polk Uplands region increased 0.24 foot, ending the month 0.93 foot above the base of the annual normal range. Average lake levels in the Lake Wales Ridge region increased 0.28 foot, ending the month 0.56 foot below the base level of the annual normal range.

Total streamflow in July, based on three regional index rivers, was within the normal range in the northern and central counties of the District, while it was below normal in the southern counties. Normal streamflow is defined as the flow that falls on or between the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Streamflow measured at the Withlacoochee River near Holder station in the northern counties increased, ending the month at the 46<sup>th</sup> percentile. Streamflow at the Hillsborough River near Zephyrhills station in the central counties increased, ending the month at the 71<sup>st</sup> percentile, while total streamflow measured at the Peace River at Arcadia station in the southern counties increased, ending the month at the 9<sup>th</sup> percentile.

In July, regional groundwater level percentiles indicated that average Upper Floridan aquifer water levels were within their normal historical ranges in all three regions of the District. The normal range is defined as levels that fall on or between the 25<sup>th</sup> and 75<sup>th</sup> percentiles. The average regional groundwater level in the northern, central and southern counties ended the month at the 48<sup>th</sup>, 48<sup>th</sup> and 29<sup>th</sup> percentiles, respectively.

#### REGIONAL OVERVIEW OF HYDROLOGIC CONDITIONS

#### **JULY 2024**

For this report, the District has been divided into three geographical regions that are defined by county boundaries, unless otherwise indicated. Each regional area includes all or part of each county that is located within that region and that is also within the District's jurisdictional boundaries. The northern region includes the counties of Citrus, Hernando, Lake, Levy, Marion and Sumter; the central region includes the counties of Hillsborough, Pasco, Pinellas and Polk; while the southern region includes the counties of Charlotte, DeSoto, Hardee, Highlands, Manatee and Sarasota.

### **Northern Region**

In July, the northern region received an average of 8.52 inches of rainfall, equivalent to the 55<sup>th</sup> percentile of the historical July readings, which is considered "normal." Average lake levels increased in the Northern region by 0.51 foot, ending the month at 2.15 feet below the base of the annual normal range. Total streamflow measured in the Withlacoochee River near Holder station increased and was in the 46<sup>th</sup> percentile. Regional groundwater level percentiles indicated Upper Floridan aquifer water levels increased, ending the month in the 48<sup>th</sup> percentile.

## **Central Region**

In July, the central region received an average of 8.22 inches of rainfall, equivalent to the 47<sup>th</sup> percentile of historical July readings, which is considered "normal." Average lake levels increased in the Tampa Bay region by 0.38 foot, ending the month 0.71 foot below the base of the annual normal range; while average lake levels in the Polk Uplands region increased by 0.24 foot, ending the month 0.93 foot above the base of the normal range. Total streamflow measured at the Hillsborough River near Zephyrhills station increased and was in the 71<sup>st</sup> percentile. Regional groundwater level percentiles indicated Upper Floridan aguifer water levels increased, ending the month in the 48<sup>th</sup> percentile.

#### **Southern Region**

In July, the southern region received an average of 6.61 inches of rainfall, equivalent to the 22<sup>nd</sup> percentile of historical July readings, which is considered "drier than normal." Average lake levels increased in the Lake Wales Ridge region by 0.28 foot, ending the month at 0.56 foot below the base of the annual normal range. Total streamflow measured at the Peace River at Arcadia station increased and was in the 9<sup>th</sup> percentile. Regional groundwater level percentiles indicated Upper Floridan aquifer water levels decreased, ending the month in the 29<sup>th</sup> percentile.

#### **RAINFALL**

The rainfall data used for all tabulations in this report are provided to the District under contract with an external vendor. These data are created by enhancing contractor-developed NEXRAD radar rainfall imagery with 15-minute rainfall data collected from the District's network of real-time gauges. This process results in rainfall estimates for every 1.5 square-miles over the entire District, filling in those portions where rainfall data collection would otherwise be limited due to gaps in the gauging network.

Rainfall data are evaluated by using the current values to calculate percentiles in order to determine how normal or abnormal they are. As defined by the United States Geological Survey (USGS, a percentile is a value on a scale of one hundred that indicates the percent of a distribution that is equal to or below it. For example, a rainfall total that is calculated to be equivalent to the 90<sup>th</sup> percentile indicates that it is higher than 90 percent of the rainfall totals ever recorded for this month during all years that rainfall has been measured.

Percentiles for rainfall were calculated from the historical record by region, and by specific interval. The "wet season" total is the sum of the rainfall from June through September. The "dry season" total is the sum of the rainfall from October through May. The annual total characterization was calculated from a dataset of moving 12-month rainfall sum for the same period (1915 through the most recent completed year). The moving 12-month rainfall sum was used for annual statistics because it provided a much larger dataset, and therefore a better estimate of the true percentiles. The historical 12-month cumulative average is updated monthly.

Characterization ranges were established for each region, and for the whole District, with breaks at the 10<sup>th</sup> (P10), the 25<sup>th</sup> (P25), the 75<sup>th</sup> (P75) and the 90<sup>th</sup> (P90) percentiles. The normal range for rainfall is defined by totals that fall on or between the 25th to 75<sup>th</sup> percentiles of the historical monthly average for each region and where the 50<sup>th</sup> percentile represents the historical median. The zero percentile indicates a new period-of-record low and the 100th percentile is a new record high. The rainfall in inches for each percentile break, by rainfall interval and by region and the characterization ranges are summarized in the Appendix.

In July, rainfall totals were within the normal range in the northern and central counties of the District, while they were below normal in the southern counties. The normal range for rainfall is defined by totals that fall on or between the 25<sup>th</sup> to 75<sup>th</sup> percentiles of the historical monthly average for each region and where the 50<sup>th</sup> percentile represents the historical median. The northern counties received an average of 8.52 inches of rainfall, equivalent to the 55<sup>th</sup> percentile of the historical July record. The central counties received an average of 8.22 inches, equivalent to the 47<sup>th</sup> percentile of the historical July record, while the southern counties received an average of 6.61 inches, equivalent to the 22<sup>nd</sup> percentile. Districtwide, rainfall averaged 7.74 inches, which is equivalent to the 41<sup>st</sup> percentile.

During the 12-month period from August 1, 2023, through July 31, 2024, the average rainfall totals in the northern, central and southern counties were classified as "normal." The northern counties received an average of 50.61 inches of rainfall, equivalent to the 37<sup>th</sup> percentile of the historical record. The central counties received an average of 46.02 inches of rainfall, equivalent to the 27<sup>th</sup> percentile. The southern counties received

an average of 47.08 inches of rainfall, equivalent to the 28<sup>th</sup> percentile. The Districtwide rainfall average was 47.63 inches, which is equivalent to the 24<sup>th</sup> percentile of the historical annual record.

### Tampa Monthly Climate Summary for July 2024

According to the National Weather Service (NWS), the monthly average temperature (°F) for Tampa was 85.0 degrees, which was 1.2 degrees above normal. The highest temperature recorded during the month was 96 degrees, while the lowest temperature recorded during the month was 76 degrees. The July 2024 monthly average temperature of 85.0 degrees ties with Year 2021 and ranks as the 4<sup>th</sup> warmest July since records began in 1890. The warmest July had an average monthly temperature of 86.5 degrees, which occurred in Year 2023.

### **Temperature and Precipitation Outlook**

The Climate Prediction Center's (CPC) three-month weather forecast, as of August 15, 2024, indicates above-normal chances for rainfall in all three regions of the District, during the composite 3-month period from September through November 2024. The temperature forecast for this same time-period indicates above-normal temperatures throughout the District.

For more information log on to the CPC's website at:

http://www.cpc.ncep.noaa.gov/products/OUTLOOKS index.html

## RELATIONSHIP OF JULY 2024 TO HISTORICAL RAINFALL AVERAGES

All units in inches.

## **Regional Summary**

Region	JUL 2024 Average Rainfall	Historic Average for JUL	Depature from Historical Average	Calendar Year 2024 Cumulative Rainfall JAN-JUL	Calendar Year Historical 2024 Cumulative Rainfall JAN-JUL	Departure from Historical Cumulative JUL 2024	Cumulative 12-Month Rainfall AUG 2023-JUL 2024	Historical 12-month Cumulative Rainfall	Departure from Historical 12-month Cumulative
Northern Counties	8.52	8.31	0.21	30.13	31.74	-1.60	50.61	53.56	-2.95
Central Counties	8.22	8.22	0.00	27.11	29.84	-2.73	46.02	52.31	-6.29
Southern Counties	6.61	8.15	-1.54	26.37	29.91	-3.54	47.08	52.29	-5.21
District All Counties	7.74	8.22	-0.48	27.67	30.52	-2.85	47.63	52.71	-5.08

## **Counties by Region**

NORTHERN COUNTIES	JUL 2024 Average Rainfall	Historic Average for JUL	Depature from Historical Average	Calendar Year 2024 Cumulative Rainfall JAN-JUL	Calendar Year Historical 2024 Cumulative Rainfall JAN-JUL	Departure from Historical Cumulative JUL 2024	Cumulative 12-Month Rainfall AUG 2023-JUL 2024	Historical 12-month Cumulative Rainfall	Departure from Historical 12-month Cumulative
Levy	7.12	8.21	-1.08	26.14	31.64	-5.49	45.82	53.96	-8.15
Marion	8.22	8.14	0.08	29.50	32.23	-2.73	51.89	54.29	-2.40
Citrus	8.71	8.55	0.16	32.87	32.11	0.76	52.70	54.07	-1.37
Sumter	8.20	7.96	0.24	29.46	31.12	-1.66	51.11	51.93	-0.83
Hernando	9.76	8.83	0.93	31.59	32.41	-0.82	49.98	54.88	-4.90
Lake	9.80	7.96	1.85	27.89	30.96	-3.07	48.20	51.89	-3.69
CENTRAL COUNTIES									
Pasco	9.48	8.50	0.98	28.22	31.36	-3.15	45.63	53.89	-8.27
Pinellas	7.77	8.38	-0.60	26.18	28.36	-2.17	41.02	51.47	-10.46
Hillsborough	9.00	8.33	0.66	28.00	30.36	-2.36	45.74	52.53	-6.80
Polk	7.17	7.95	-0.78	26.15	30.84	-4.69	47.32	51.99	-4.67
SOUTHERN COUNTIES									
Manatee	6.98	8.53	-1.55	25.31	29.87	-4.56	42.59	53.18	-10.59
Hardee	5.74	8.10	-2.37	23.72	30.43	-6.71	46.74	52.05	-5.31
Highlands	7.12	7.96	-0.84	24.85	30.14	-5.29	46.91	52.02	-5.11
Sarasota	7.15	8.22	-1.07	28.52	29.04	-0.52	47.41	52.49	-5.08
DeSoto	6.83	7.93	-1.10	27.99	29.78	-1.79	48.69	51.79	-3.10
Charlotte	5.89	8.00	-2.11	27.94	29.31	-1.36	52.30	52.46	-0.17

## **JULY 2024 RAINFALL CHARACTERIZATION**

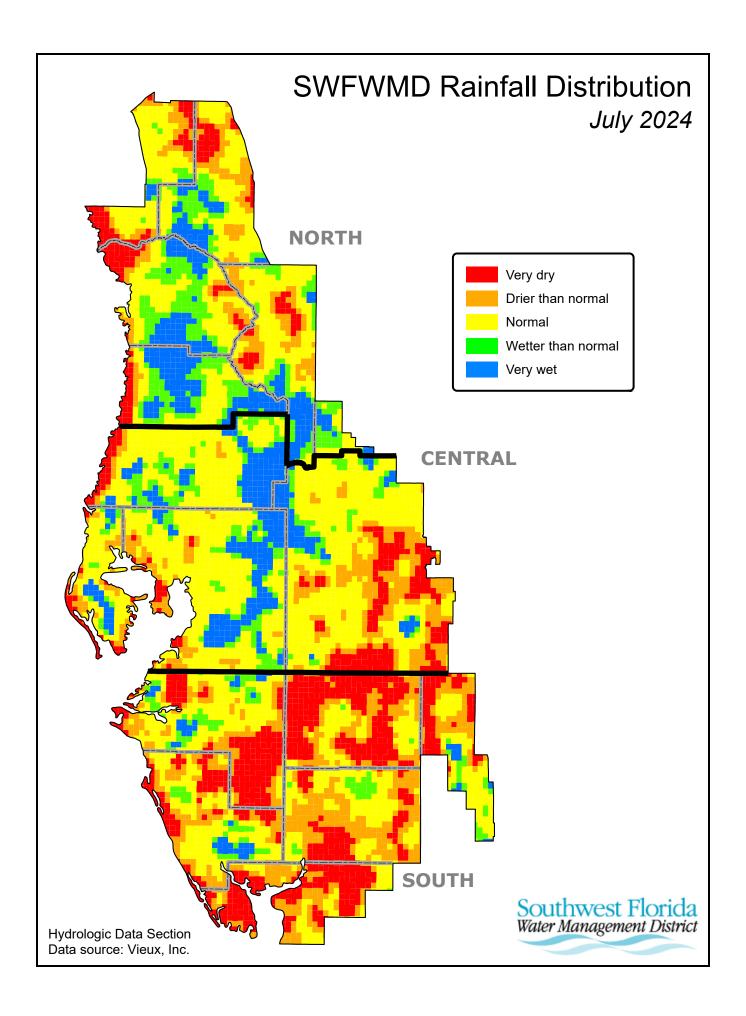
All units in inches.

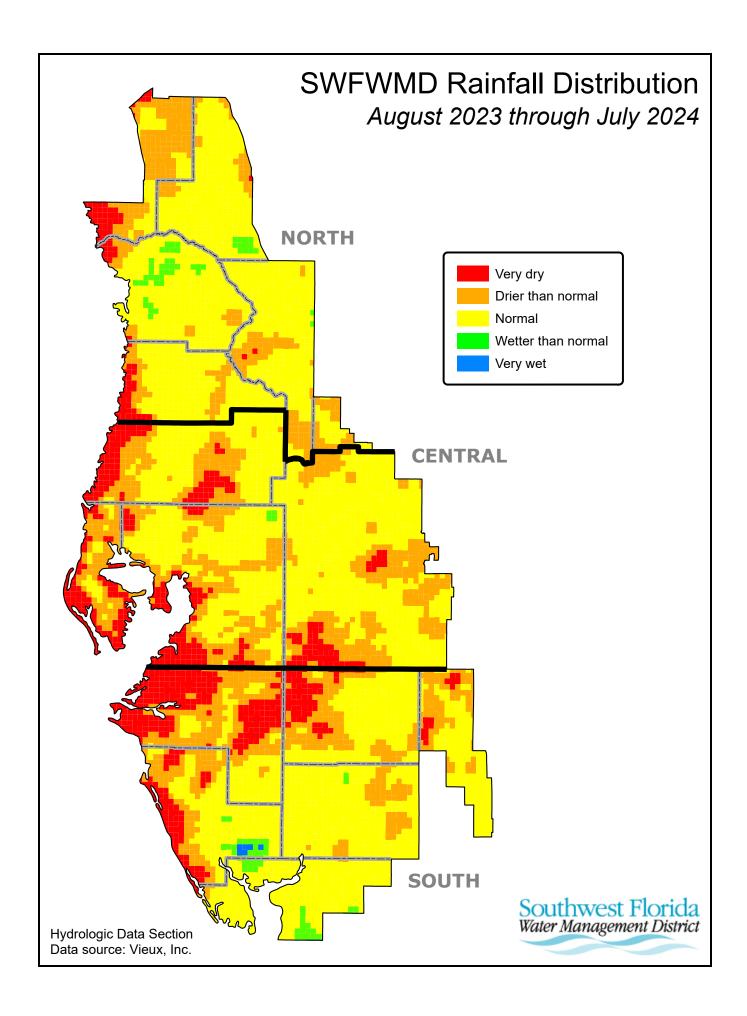
## **Regional Summary**

Region	JUL 2024 Average Rainfall	Historical JUL Percentile	JUL Rainfall Characterization	Cumulative 12-Month Rainfall AUG 2023-JUL 2024	Historical 12-month Cumulative Percentile	12-month Cumulative Rainfall Characterization
Northern Counties	8.52	55	Normal	50.61	37	Normal
Central Counties	8.22	47	Normal	46.02	27	Normal
Southern Counties	6.61	22	Drier than normal	47.08	28	Normal
District All Counties	7.74	41	Normal	47.63	24	Drier than normal

## **Counties by Region**

NORTHERN COUNTIES	JUL 2024 Average Rainfall	Historical JUL Percentile	JUL Rainfall Characterization	Cumulative 12-Month Rainfall AUG 2023-JUL 2024	Historical 12-month Cumulative Percentile	12-month Cumulative Rainfall Characterization
Levy	7.12	35	Normal	45.82	17	Drier than normal
Marion	8.22	56	Normal	51.89	42	Normal
Citrus	8.71	54	Normal	52.70	46	Normal
Sumter	8.20	62	Normal	51.11	43	Normal
Hernando	9.76	66	Normal	49.98	31	Normal
Lake	9.80	77	Wetter than normal	48.20	35	Normal
CENTRAL COUNTIES						
Pasco	9.48	68	Normal	45.63	17	Drier than normal
Pinellas	7.77	45	Normal	41.02	16	Drier than normal
Hillsborough	9.00	64	Normal	45.74	27	Normal
Polk	7.17	35	Normal	47.32	26	Normal
SOUTHERN COUNTIES						
Manatee	6.98	29	Normal	42.59	8	Very dry
Hardee	5.74	15	Drier than normal	46.74	30	Normal
Highlands	7.12	45	Normal	46.91	28	Normal
Sarasota	7.15	44	Normal	47.41	31	Normal
DeSoto	6.83	39	Normal	48.69	39	Normal
Charlotte	5.89	24	Drier than normal	52.30	53	Normal





#### **SURFACE WATER**

#### Lakes

Across the District, 75 lakes have been selected as excellent indicators of current surface water conditions (see index map in Appendix). Water levels of these lakes are read monthly. In general, these lakes are concentrated in four regions, the northern region of Citrus, Hernando, and Sumter Counties, the Tampa Bay region of Hillsborough and Pasco Counties, the Polk Uplands region of northern Polk County, and the Lake Wales Ridge region of Polk and Highlands Counties. In this report, current monthly lake levels are tabulated and compared with previous records as well as District-established management levels. In addition, lake-level data representative of the four regions are presented in hydrographs showing a 15-year history of water levels, as a general indicator of surface-water conditions in that region.

The District's Governing Board (the Board) has established lake management levels for approximately 410 lakes within District boundaries, which are specified in Chapter 40D-8, Florida Administrative Code (F.A.C.). Management levels help protect the water resources of the District and the ecology of the lake or water-body for which it was established. In this report, the following three management levels are used to indicate normal and low lake levels: the Minimum Flood (MF) level, the Minimum Low Management (MLM) level, and the Minimum Extreme Low Management (MELM) level. In general, the MF level corresponds to the normal high level, the MLM to the normal low level, and the MELM to a drought-year low. These levels were derived from various sources, including technical publications, topographic maps, Water Resource Data Reports of the USGS, and other studies. Field investigations are also used to determine past surface levels from water marks, wetland vegetation, dry land vegetation, and to establish the elevation of septic tanks, docks, sea walls, roads and floor slabs.

During a normal year, each of the indicator lakes should reach both the designated normal high (MF) and the normal low (MLM) levels. In addition, it is generally beneficial for lakes to reach the adopted drought year low (MELM) level every four to six years for a short period of time for the biological health of the lake. In this report, hydrographs of representative lakes compare current and recent water levels against "normal ranges" defined by the adopted MF and MLM levels.

Of the 75 lakes presented in this report, 17 have water-control structures. These structures are used for water conservation and do not generally influence the water levels with regard to meteorologically wet or dry conditions. During periods of extreme high water, the structures may be operated to minimize flooding.

Compared to June data, 56 of the 75 lakes monitored for this report recorded water level increases, while 15 recorded decreases and two recorded "no change." Lake level data was "missing" for Camp Lake for June 2024, and Deer Lake for June and July 2024. The regional average water level in the Northern, Tampa Bay, Polk Uplands and Lake Wales Ridge regions increased by 0.51, 0.38, 0.24 and 0.28 foot, respectively. Districtwide, average water levels increased by 0.36 foot, compared to last month.

Compared to July 2023 data, 55 of the 75 lakes monitored for this report recorded water level decreases, while 18 recorded increases. Lake level data was "missing" for Egypt Lake for July 2023, and Deer Lake for June 2024 and July 2023. In the Northern, Tampa Bay, Polk Uplands, and Lake Wales Ridge regions, average lake levels were lower by 0.80, 0.46, 0.59 and 0.56 foot, respectively. Districtwide, average lake levels were lower by 0.58 foot, compared to last year's levels.

In July 2024, water levels in 37 of the 75 lakes were within the annual normal range, while 37 lakes had levels below the base level of the annual normal range. Lake level data was "missing" for Camp Lake and Deer Lake, for analysis purposes. Lake levels in the Northern, Tampa Bay and Lake Wales Ridge regions averaged 2.15 feet, 0.71 foot and 0.56 foot, respectively, below the base of the annual normal range. Lake levels in the Polk Uplands region averaged 0.93 foot above the base of the annual normal range. Districtwide, average lake levels were 0.55 foot below the base of the annual normal range. Water levels in 59 of the 75 lakes were above the drought-year levels.

## SUMMARY OF LAKE ELEVATIONS OF REGIONAL LAKES (feet)

All elevations are referenced to the NGVD29 datum. "M" indicates missing or undetermined value.

## **NORTHERN LAKES**

Lake Name	County	Beginning of Record	JUN 2024	JUL 2024	JUL 2023	Change from JUN 2024	Change from JUL 2023	Diff from MELM	(MELM) Drought Year Low	(MLM) Normal Year Low	(MF) Normal Year High	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Crews Lake	Pasco	1986	44.56	47.50	48.25	2.94	-0.75	-2.50	50.00	52.00	55.00	42.63	APR 2001	54.92	MAR 1998
Floral City Pool	Citrus	1981	39.59	40.03	39.02	0.44	1.01	1.78	38.25	40.25	42.50	30.35	JUN 2001	42.66	SEP 2004
Hancock Lake	Pasco	1978	96.48	96.80	99.15	0.32	-2.35	-5.20	102.00	104.00	106.50	90.00	MAR 2009	108.90	MAR 1998
Hernando Pool	Citrus	1985	37.11	37.42	37.26	0.31	0.16	2.67	34.75	36.75	39.00	31.08	JUL 2001	40.17	FEB 1998
Hunters Lake	Hernando	1967	12.71	12.71	15.27	0.00	-2.56	-3.29	16.00	17.50	20.50	11.70	JUN 2001	20.50	MAR 1970
Inverness Pool	Citrus	1985	38.55	38.70	38.00	0.15	0.70	2.45	36.25	38.25	40.50	31.45	MAY 2001	40.89	OCT 2004
Lake Iola	Pasco	1984	140.48	140.55	142.63	0.07	-2.08	-1.95	142.50	145.00	147.50	128.96	MAY 2012	148.70	JAN 1989
Lake Lindsey	Hernando	1982	64.55	65.15	65.92	0.60	-0.77	0.65	64.50	66.00	69.00	59.38	MAY 2012	69.47	MAR 1998
Little Lake (Consuella)	Citrus	1985	37.98	37.68	38.34	-0.30	-0.66	0.43	37.25	39.00	41.50	31.10	MAY 2001	42.84	SEP 2004
Lake Miona	Sumter	1985	52.38	52.69	53.17	0.31	-0.48	1.69	51.00	53.00	55.00	47.88	MAY 2002	55.47	OCT 2019
Moon Lake	Pasco	1990	35.94	36.56	38.10	0.62	-1.54	1.06	35.50	37.50	40.50	32.98	APR 2009	41.26	SEP 2004
Lake Panasoffkee	Sumter	1962	39.79	40.26	39.30	0.47	0.96	1.76	38.50	39.50	42.50	36.87	JUN 2007	43.04	OCT 2004
Lake Pasadena	Pasco	1984	87.11	87.67	89.63	0.56	-1.96	-2.33	90.00	91.50	94.50	81.56	MAY 2001	94.86	OCT 2004
Spring Lake	Hernando	1965	176.93	177.63	178.51	0.70	-0.88	-0.62	178.25	181.25	184.25	174.85	JUN 1965	183.57	OCT 1984

## TAMPA BAY LAKES

Lake Name	County	Beginning of Record	JUN 2024	JUL 2024	JUL 2023	Change from JUN 2024	Change from JUL 2023	Diff from MELM	(MELM) Drought Year Low	(MLM) Normal Year Low	(MF) Normal Year High	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Lake Alice	Hillsborough	1981	37.81	37.69	38.89	-0.12	-1.20	0.19	37.50	40.25	42.25	33.24	MAY 2002	42.42	SEP 2004
Lake Ann-Parker	Pasco	1983	45.16	45.84	46.40	0.68	-0.56	0.84	45.00	45.75	48.75	43.28	JUN 2001	49.29	AUG 2015
Bay Lake	Hillsborough	1982	45.79	45.79	45.62	0.00	0.17	3.29	42.50	44.00	46.75	41.86	APR 1985	46.47	DEC 1997
Lake Brant	Hillsborough	1981	54.95	55.76	55.96	0.81	-0.20	1.26	54.50	56.50	58.75	51.65	JUN 1994	59.57	AUG 2015
Brooker Lake	Hillsborough	1977	60.84	61.17	61.64	0.33	-0.47	2.17	59.00	61.00	64.25	56.49	MAY 2002	64.08	DEC 1997
Calm Lake	Hillsborough	1982	46.04	46.06	47.58	0.02	-1.52	1.06	45.00	47.50	50.50	41.88	JUN 2002	51.04	JUL 2015
Camp Lake	Pasco	1983	M	58.68	60.16	M	-1.48	-0.32	59.00	61.75	64.00	50.82	MAY 2002	64.05	JUL 2015
Carlton Lake	Hillsborough	1976	87.93	87.49	89.18	-0.44	-1.69	-0.51	88.00	90.50	93.50	86.82	MAY 2001	94.60	FEB 1998
Lake Carroll	Hillsborough	1985	34.49	34.80	35.04	0.31	-0.24	2.30	32.50	34.50	37.00	30.87	MAY 2002	37.87	AUG 2015
Church Lake	Hillsborough	1983	32.77	32.59	33.55	-0.18	-0.96	1.09	31.50	34.00	36.25	27.94	MAY 2002	36.90	JUL 1987
Lake Cooper	Hillsborough	1980	58.48	58.88	58.86	0.40	0.02	1.88	57.00	59.75	61.75	55.60	JUN 2001	62.44	AUG 2015
Crescent Lake	Hillsborough	1981	39.40	40.22	40.50	0.82	-0.28	1.72	38.50	40.00	42.50	35.34	JUN 2001	43.42	AUG 2015
Deer Lake	Hillsborough	1977	M	M	M	M	M	M	62.50	64.50	67.25	60.72	MAY 2002	67.42	DEC 1997
Egypt Lake	Hillsborough	1978	36.28	36.98	M	0.70	M	4.48	32.50	35.00	37.50	33.06	MAY 2000	38.15	SEP 1985
Gornto Lake	Hillsborough	1979	34.35	34.58	34.78	0.23	-0.20	0.58	34.00	36.00	38.50	29.86	MAR 1979	39.48	FEB 1998
Lake Harvey	Hillsborough	1970	58.83	58.85	59.63	0.02	-0.78	0.85	58.00	60.25	62.50	53.94	MAY 2002	63.90	DEC 1997
Lake Hiawatha	Hillsborough	1981	49.55	49.21	49.11	-0.34	0.10	4.21	45.00	48.00	50.50	46.14	JUN 2000	51.16	JUL 2019
Horse Lake	Hillsborough	1930	40.62	41.86	42.59	1.24	-0.73	-0.14	42.00	44.00	46.50	36.33	JUN 2002	50.00	AUG 1959
Lake Keene	Hillsborough	1981	60.42	61.15	60.64	0.73	0.51	2.15	59.00	60.50	63.00	56.12	JUN 2002	63.69	SEP 2017
Keystone Lake	Hillsborough	1984	40.09	40.54	40.74	0.45	-0.20	1.54	39.00	39.75	42.00	37.84	JUN 2000	43.64	AUG 2015
King Lake	Pasco	1983	101.61	102.52	102.76	0.91	-0.24	2.52	100.00	102.50	105.25	94.20	APR 2009	104.80	MAR 1987
Lake Leclare	Hillsborough	1977	49.73	49.89	49.77	0.16	0.12	2.89	47.00	49.50	52.00	44.95	JUN 2001	52.99	JUL 2015
Lake Linda	Pasco	1983	63.43	63.84	64.01	0.41	-0.17	1.84	62.00	64.00	66.75	60.07	MAY 2001	67.17	SEP 2017
Little Lake	Hillsborough	1979	43.19	45.11	44.01	1.92	1.10	3.11	42.00	43.50	46.50	38.06	JUN 1994	48.55	JUN 2017
Long Pond	Hillsborough	1978	42.34	42.43	42.83	0.09	-0.40	0.43	42.00	44.00	46.50	36.33	MAY 1979	48.27	SEP 1998
Mud (Walden) Lake	Hillsborough	1978	112.05	113.09	112.91	1.04	0.18	2.59	110.50	112.50	115.00	111.45	MAY 2017	114.42	MAR 1978
Lake Padgett	Pasco	1965	68.24	68.77	68.68	0.53	0.09	1.27	67.50	69.00	71.25	66.27	JUN 2001	71.90	SEP 1988
Platt Lake	Hillsborough	1981	47.75	48.22	47.77	0.47	0.45	2.22	46.00	47.75	50.50	42.53	JUN 2001	51.61	AUG 2015
Rainbow Lake	Hillsborough	1981	35.16	34.98	36.48	-0.18	-1.50	-0.02	35.00	37.50	40.50	29.82	JUN 2002	40.95	JUL 2015
Lake Stemper	Hillsborough	1983	57.05	58.14	59.03	1.09	-0.89	0.14	58.00	59.50	62.00	53.36	JUN 2001	61.68	SEP 2004
Lake Thomas	Hillsborough	1981	59.70	59.98	60.96	0.28	-0.98	0.73	59.25	61.25	63.50	56.48	JUN 2002	64.13	AUG 2015
Turkey Ford Lake	Hillsborough	1970	49.71	49.95	50.80	0.24	-0.85	-0.05	50.00	51.50	54.00	48.07	JUN 1985	55.28	SEP 1988
Lake Wimauma	Hillsborough	1985	77.42	76.61	78.22	-0.81	-1.61	-4.39	81.00	83.00	86.75	70.12	MAY 2001	84.38	MAR 1998

## SUMMARY OF LAKE ELEVATIONS OF REGIONAL LAKES (feet), continued

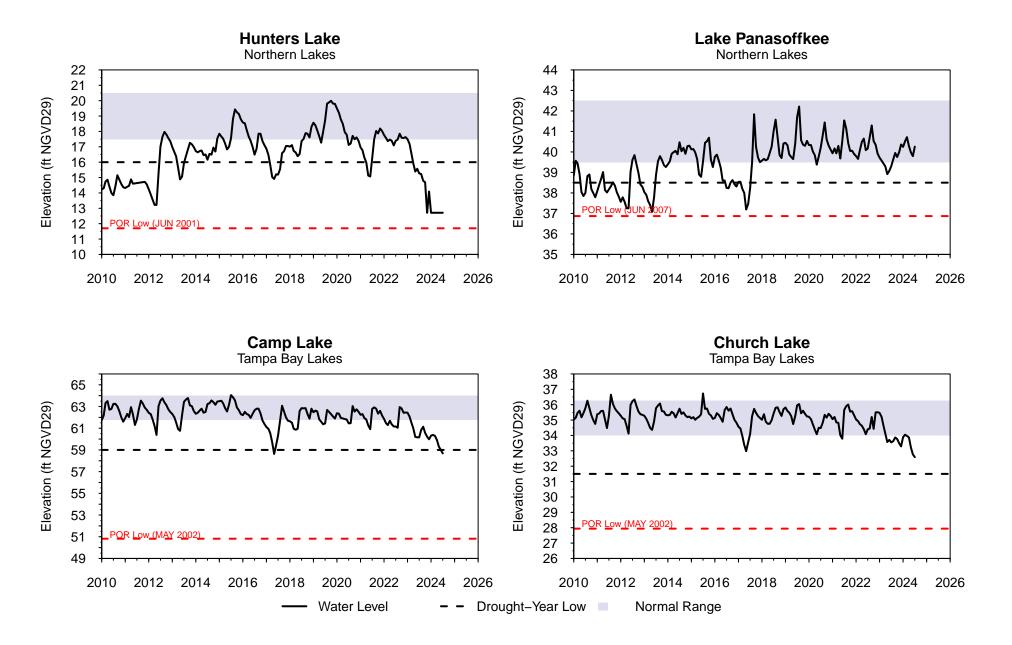
All elevations are referenced to the NGVD29 datum. "M" indicates missing or undetermined value.

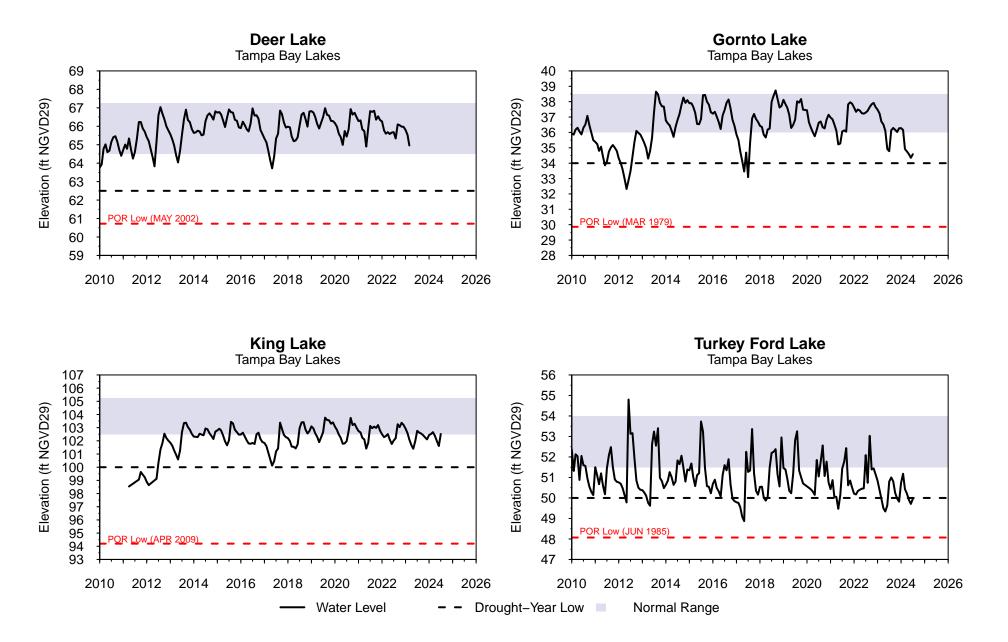
## POLK UPLANDS LAKES

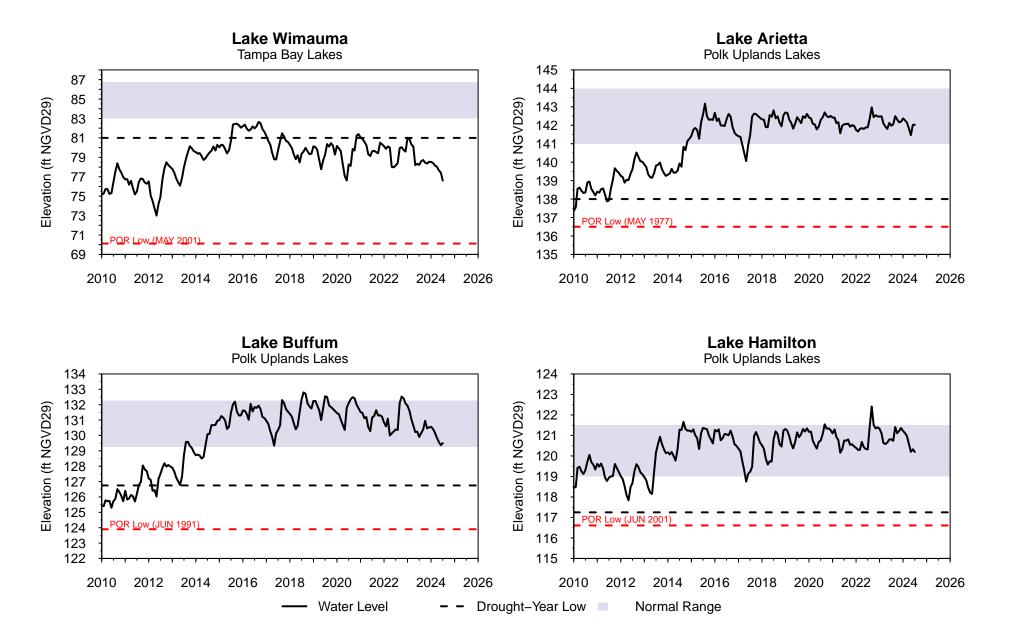
Lake Name	County	Beginning of Record	JUN 2024	JUL 2024	JUL 2023	Change from JUN 2024	Change from JUL 2023	Diff from MELM	(MELM) Drought Year Low	(MLM) Normal Year Low	(MF) Normal Year High	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Lake Alfred	Polk	1990	129.47	130.42	131.37	0.95	-0.95	4.17	126.25	128.25	130.75	124.17	MAY 2013	132.77	DEC 2020
Lake Ariana	Polk	1984	136.02	136.19	136.33	0.17	-0.14	3.69	132.50	134.50	137.00	131.68	MAY 2009	137.66	JAN 2016
Lake Arietta	Polk	1970	142.02	142.03	141.98	0.01	0.05	4.03	138.00	141.00	144.00	136.50	MAY 1977	144.33	OCT 2004
Blue Lake South	Polk	1986	112.77	113.07	113.97	0.30	-0.90	0.57	112.50	114.00	117.00	103.38	FEB 1991	119.19	DEC 2005
Lake Bonny	Polk	1954	129.57	130.84	130.85	1.27	-0.01	4.84	126.00	128.00	130.50	122.34	MAY 2009	133.08	SEP 2004
Lake Buffum	Polk	1982	129.37	129.50	129.90	0.13	-0.40	2.75	126.75	129.25	132.25	123.90	JUN 1991	133.00	JUN 2005
Clearwater Lake	Polk	1979	141.92	142.78	142.65	0.86	0.13	3.78	139.00	141.00	143.50	137.93	MAY 2001	146.06	AUG 1984
Lake Conine	Polk	1989	127.99	127.89	128.40	-0.10	-0.51	3.39	124.50	126.50	128.75	123.83	NOV 2009	129.95	SEP 2004
Eagle Lake	Polk	1965	127.74	127.89	128.80	0.15	-0.91	1.39	126.50	128.50	130.75	120.87	MAY 1967	131.50	SEP 1996
Lake Fannie	Polk	1967	124.78	124.66	125.48	-0.12	-0.82	4.66	120.00	123.50	125.75	118.67	MAY 1977	127.51	SEP 2004
Lake Garfield	Polk	1982	100.24	100.44	102.64	0.20	-2.20	0.44	100.00	101.00	104.75	97.38	JUN 2001	105.70	FEB 1998
Lake Gibson	Polk	1984	143.05	143.11	142.54	0.06	0.57	1.61	141.50	141.50	143.50	140.21	MAY 2009	145.40	SEP 1988
Lake Hamilton	Polk	1962	120.32	120.20	120.81	-0.12	-0.61	2.95	117.25	119.00	121.50	116.61	JUN 2001	123.96	OCT 2004
Lake Helene	Polk	1961	141.79	142.77	142.51	0.98	0.26	3.77	139.00	141.00	144.00	134.06	JUN 2008	146.71	OCT 2017
Lake Howard	Polk	1987	130.75	130.87	131.35	0.12	-0.48	3.87	127.00	129.50	132.00	127.69	MAY 2001	133.08	SEP 2004
Lake Juliana	Polk	1984	132.61	132.48	133.16	-0.13	-0.68	4.98	127.50	130.00	132.50	127.40	NOV 2009	134.14	OCT 2022
Lake Mcleod	Polk	1983	127.12	127.14	129.14	0.02	-2.00	-0.86	128.00	129.50	132.00	120.76	JUL 1985	131.98	SEP 1998
Lake Otis	Polk	1954	125.59	125.46	126.76	-0.13	-1.30	2.46	123.00	125.00	128.00	119.58	MAY 1976	129.12	SEP 1960
Lake Ruby	Polk	1974	123.91	123.87	124.26	-0.04	-0.39	2.87	121.00	123.00	125.25	120.68	JUN 1974	125.98	SEP 2004

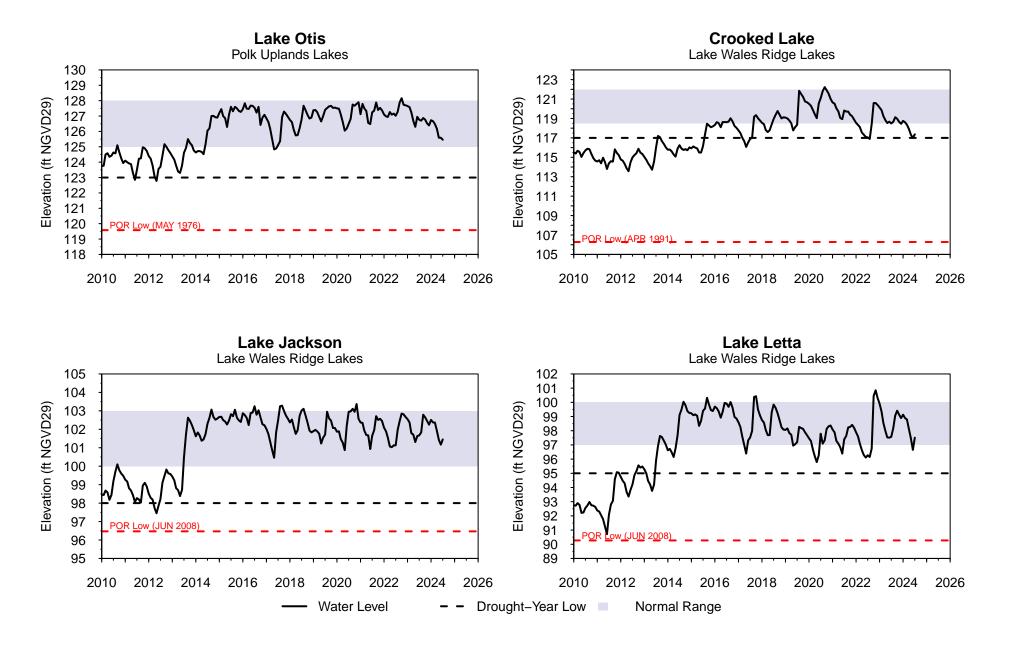
## LAKE WALES RIDGE LAKES

Lake Name	County	Beginning of Record	JUN 2024	JUL 2024	JUL 2023	Change from JUN 2024	Change from JUL 2023	Diff from MELM	(MELM) Drought Year Low	(MLM) Normal Year Low	(MF) Normal Year High	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Lake Annie	Polk	1983	115.14	115.17	116.64	0.03	-1.47	1.17	114.00	116.00	119.00	108.36	JUN 1990	118.15	NOV 2020
Lake Clay	Highlands	1983	77.82	78.23	78.13	0.41	0.10	3.23	75.00	76.00	78.75	74.34	MAY 2001	78.82	JUN 2013
Crooked Lake	Polk	1982	116.99	117.37	118.49	0.38	-1.12	0.37	117.00	118.50	122.00	106.28	APR 1991	123.44	AUG 2005
Lake Jackson	Highlands	1984	101.17	101.45	101.67	0.28	-0.22	3.45	98.00	100.00	103.00	96.47	JUN 2008	103.75	SEP 2017
Lake Letta	Highlands	1981	96.65	97.51	97.57	0.86	-0.06	2.51	95.00	97.00	100.00	90.27	JUN 2008	100.85	NOV 2022
Lake Lotela	Highlands	1989	104.92	105.44	105.84	0.52	-0.40	1.44	104.00	105.00	108.50	96.63	JUN 2008	109.13	SEP 2017
Lake Placid	Highlands	1984	92.12	92.46	92.78	0.34	-0.32	2.46	90.00	91.50	94.50	88.08	JUN 2008	94.24	SEP 2003
Starr Lake	Polk	1983	104.49	104.37	105.52	-0.12	-1.15	-3.63	108.00	110.00	113.00	96.23	JUL 2001	109.80	DEC 2005
Trout Lake	Highlands	1981	95.12	94.96	95.40	-0.16	-0.44	-0.04	95.00	98.00	101.00	87.15	MAY 2001	99.89	SEP 2016









## **Streams**

The District processes streamflow data collected by the U.S. Geological Survey (USGS) under a cooperatively funded program between the District and the USGS. Streamflow is recorded daily as water elevations at 12 gauging stations in three regions of the District (see index map in the Appendix). The USGS uses rating curves developed from water level elevations to calculate streamflow discharge in units of cubic feet per second (cfs). For this report, the reported streamflow values are the means of the daily discharge volumes for the current month. The period-of-record high and low values correspond to monthly means and not to peak events. Percentile values are calculated from the monthly means for the period of record, for each station. The percentile is the monthly mean statistically ranked on a scale of zero to 100 that indicates the percent of the period-of-record monthly means that are at or above the present monthly median. The zero percentile indicates a new period-of-record low and the 100<sup>th</sup> percentile is a new record high level. The current year's data are provisional and are subject to revision. Revised data are used for all calculations, as they become available.

Hydrographs are produced for each of the stream stations. Current monthly means for each station are compared to the respective 25<sup>th</sup> and 75<sup>th</sup> percentiles of the period-of-record monthly means, reflecting the normal range of readings for the month.

Compared to June data, all twelve streamflow stations monitored for this report recorded increased streamflow.

Compared to July 2023 data, seven of the twelve stations recorded streamflow increases, while five recorded decreases.

Compared to historical July discharge values. Withlacoochee River streamflow, measured at the Trilby station and the Holder station, averaged in the 16<sup>th</sup> and 46<sup>th</sup> percentiles, respectively. Streamflow measured at the stations on the Alafia, Anclote and Hillsborough Rivers, averaged in the 42<sup>nd</sup>, 42<sup>nd</sup> and 71<sup>st</sup> percentiles of respective historical July readings. Streamflow measured at the Little Manatee River, Peace River at Bartow and Pithlachascotee River near NPR stations, averaged in the 36<sup>th</sup>, 15<sup>th</sup> and 53<sup>rd</sup> percentiles of respective historical July readings. Additionally, streamflow measured at Josephine Creek, Manatee River, Myakka River and Peace River at Arcadia stations, averaged in the 48th, 51st, 64th and 9th percentiles of respective historical July readings.

## SUMMARY OF STREAM DISCHARGE FROM MAJOR STREAMS, JULY 2024

All units in cubic feet per second (cfs). "M" indicates missing or undetermined value.

## **Northern Counties**

Stream Name	Beginning Year of Record	JUL 2024 Discharge	JUN 2024 Discharge	JUL 2023 Discharge	Change from JUN 2024	Change from JUL 2023	JUL 2024 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Withlacoochee R at Trilby Withlacoochee R nr Holder	1928	43.6	10.6	73.9	33.0	-30.3	16	0.1	JUN 2000	8840.0	JUN 1934
	1928	548.6	284.8	300.7	263.8	247.9	46	33.0	MAR 2001	8660.0	APR 1960

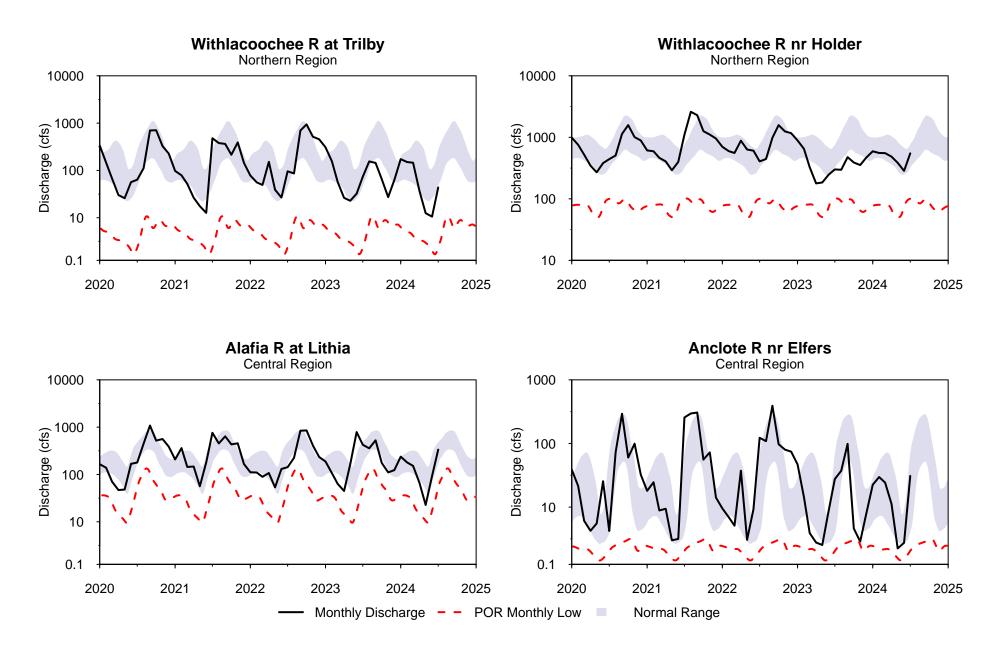
#### **Central Counties**

Stream Name	Beginning Year of Record	JUL 2024 Discharge	JUN 2024 Discharge	JUL 2023 Discharge	Change from JUN 2024	Change from JUL 2023	JUL 2024 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Alafia R at Lithia	1932	335.1	92.5	424.2	242.6	-89.1	42	4.1	MAY 2000	40800.0	SEP 1933
Anclote R nr Elfers	1946	30.9	2.7	27.6	28.2	3.3	42	0.8	MAY 1962	3710.0	JUL 1960
Hillsborough R nr Zephyrhills	1939	300.0	99.2	295.5	200.8	4.5	71	27.0	JUN 2000	12300.0	MAR 1960
Little Manatee R nr Wim.	1939	145.9	11.7	35.7	134.2	110.2	36	0.9	DEC 1976	11100.0	SEP 1960
Peace R at Bartow	1939	53.9	52.3	168.4	1.6	-114.5	15	0.0	MAY 2000	4100.0	SEP 1947
Pithlachascotee R nr NPR	1963	20.4	0.4	5.1	20.0	15.3	53	0.0	MAY 1981	2180.0	JUN 2012

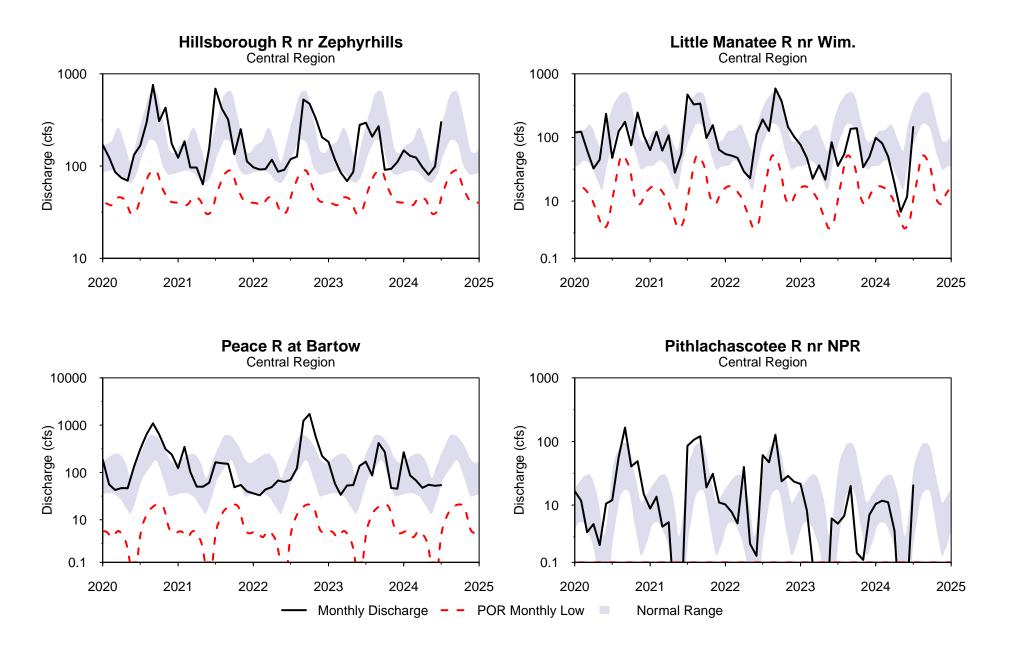
## **Southern Counties**

Stream Name	Beginning Year of Record	JUL 2024 Discharge	JUN 2024 Discharge	JUL 2023 Discharge	Change from JUN 2024	Change from JUL 2023	JUL 2024 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Josephine Cr nr DeSoto C.	1946	73.5	10.2	93.8	63.3	-20.3	48	0.5	MAY 1956	1680.0	SEP 1948
Manatee R nr Myakka Hd.	1966	91.8	11.0	10.6	80.8	81.2	51	0.1	MAY 1975	6440.0	JUN 2003
Myakka R nr Sarasota	1936	366.1	44.0	35.9	322.1	330.2	64	0.0	MAR 1938	12600.0	OCT 2022
Peace R at Arcadia	1931	335.9	170.1	543.0	165.8	-207.1	9	5.6	MAY 2000	49900.0	OCT 2022

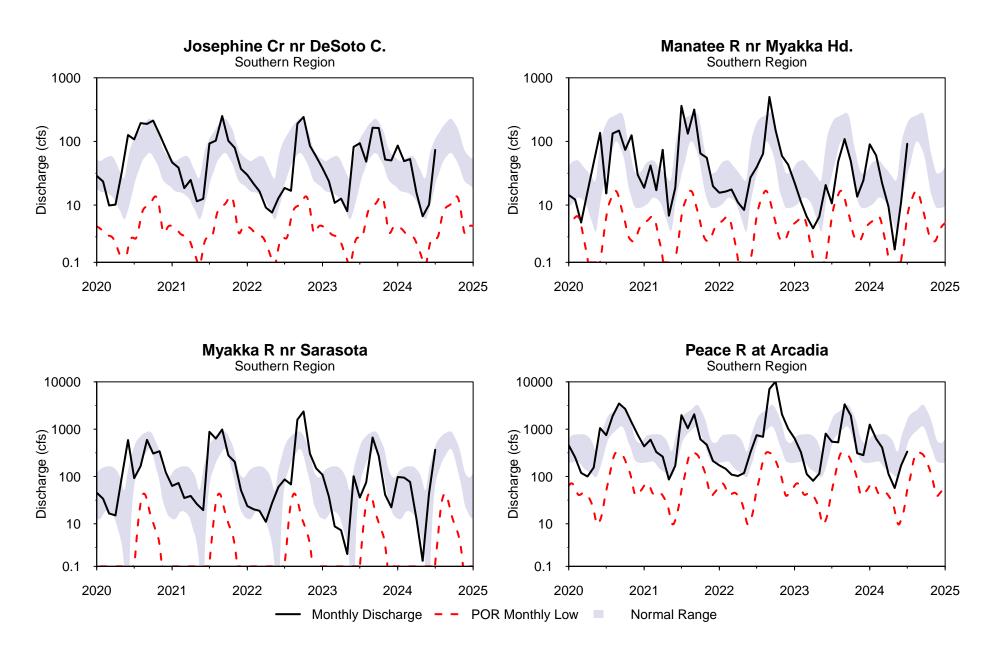
## HYDROGRAPHS OF MAJOR STREAMS JANUARY 2020 to JULY 2024



## HYDROGRAPHS OF MAJOR STREAMS JANUARY 2020 to JULY 2024



## HYDROGRAPHS OF MAJOR STREAMS JANUARY 2020 to JULY 2024



## **Springs**

The District processes springflow data collected by Tampa Bay Water through a mutual agreement and by the U.S. Geological Survey (USGS) under a cooperatively funded program between the District and the USGS. Springflow is monitored at six gauging stations in two regions of the District (see index map in the Appendix). Springflow data for Rainbow, Silver and Sulphur Springs are recorded as daily water levels. The USGS uses rating curves developed for these springs from historical water level elevations to calculate springflow discharge in units of cubic feet per second (cfs). Weeki Wachee Springs discharge (cfs) is provided as an instantaneous reading calculated by the USGS. Buckhorn and Lithia Springs discharge is obtained from Tampa Bay Water biweekly and weekly, respectively. Period-of-record high and low values correspond to monthly theoretical means and not to peak events. Values are reported as percentiles calculated from an analysis of historical monthly means recorded during a given month. The percentile is the monthly mean ranked on a scale of zero to 100, where the normal range is defined by flows between the 25<sup>th</sup> to 75<sup>th</sup> percentiles. The zero percentile indicates a new period-of-record low and the 100<sup>th</sup> percentile is a new record high. The values reported are provisional and are subject to revision at the end of the water year.

Compared to June data, five stations monitored for this report recorded increased springflow, while one recorded decreased springflow.

Compared to July 2023 data, five of the six stations recorded decreased springflow, while one recorded increased springflow

Compared to historical period-of-record values for July, total springflow measured in Rainbow, Silver and Weeki Wachee Springs, in the northern region, was in the 45<sup>th</sup>, 16<sup>th</sup> and 19<sup>th</sup> percentiles, respectively. Springflow measured in Buckhorn, Lithia, and Sulphur Springs, in the central region, was in the 24<sup>th</sup>, 33<sup>rd</sup> and 5<sup>th</sup> percentiles, respectively, of historical July readings.

## SUMMARY OF SPRING DISCHARGE FROM MAJOR SPRINGS, JULY 2024

All units in cubic feet per second (cfs). "M" indicates missing or undetermined value.

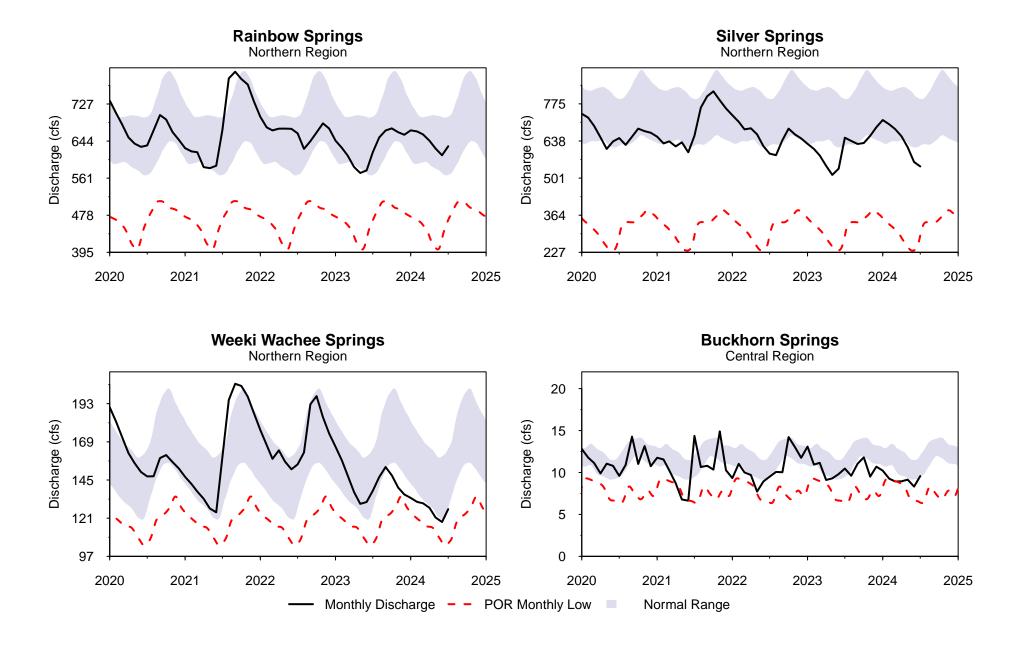
## **Northern Counties**

Spring Name	JUL 2024 Discharge	JUN 2024 Discharge	JUL 2023 Discharge	Change from JUN 2024	Change from JUL 2023	JUL 2024 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Rainbow Springs	632.4	612.3	619.0	20.1	13.4	45	391.0	MAY 2012	1060.0	SEP 1988
Silver Springs	544.1	560.4	650.0	-16.3	-105.9	16	141.0	JUN 2012	1290.0	OCT 1960
Weeki Wachee Springs	126.7	118.6	138.3	8.1	-11.6	19	101.0	JUN 1994	257.0	OCT 2004

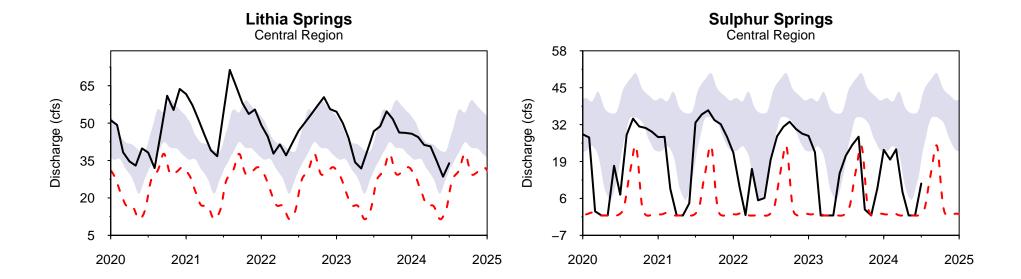
## **Central Counties**

Spring Name	JUL 2024 Discharge	JUN 2024 Discharge	JUL 2023 Discharge	Change from JUN 2024	Change from JUL 2023	JUL 2024 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Buckhorn Springs	9.6	8.3	10.5	1.3	-0.9	24	2.2	MAY 2006	50.5	FEB 2015
Lithia Springs	33.9	28.5	46.8	5.4	-12.9	33	9.1	MAY 2000	91.5	NOV 2004
Sulphur Springs	11.2	0.0	21.1	11.2	-9.9	5	0.0	JUN 1994	145.0	MAR 1960

## HYDROGRAPHS OF REGIONAL SPRINGS JANUARY 2020 to JULY 2024



## HYDROGRAPHS OF REGIONAL SPRINGS JANUARY 2020 to JULY 2024



#### GROUNDWATER

The groundwater section of this report provides groundwater level information for the Upper Floridan Aquifer (UFA) located within the District. As earlier indicated, the District is divided into three geographical regions defined by county boundaries (see index maps in the Appendix). In the northern counties, the UFA is generally at or near land surface, allowing rainfall to easily recharge (replenish) the aquifer system. In the central counties, the UFA can be unconfined or confined (overlain by thick clays). Where the UFA is confined, recharge to the aquifer from rainfall is low. In the southern counties, the UFA is confined.

Eighty UFA monitor wells are measured for this report to determine the relative health of groundwater levels Districtwide. Only monitor wells with an adequate and reliable periodof-record of water level measurements were selected for the network. For each well, the 25<sup>th</sup> and 75<sup>th</sup> percentiles ("low normal" and "high normal," respectively) were calculated for each week of the year using the period-of-record data. The 25<sup>th</sup> and 75<sup>th</sup> percentiles are used to represent the lower and upper limits of the normal range, as they are considered a reliable and robust measure of the normal range and are less affected by extremes in the data record. The end-of month water-level readings measured for this report are compared to their corresponding normal ranges. Trend data from 16 wells are shown in hydrographs to compare current water levels to the low normal and high normal levels. Data from all 80 wells is further compiled into regional statistics for the three regions of the District. There are 20 wells located in the northern counties. 31 wells located in the central counties and 29 wells located in the southern counties, that are currently used for determining the regional percentiles. The potentiometric levels of representative Floridan aguifer wells are used to produce the potentiometric surface maps presented in this report.

#### **Upper Floridan Aquifer**

Since June, 77 of the 80 wells monitored for this report recorded water level increases, while 3 recorded decreases. Regionally, average water levels increased in the northern, central and southern counties by 0.90 foot, 2.62 feet and 3.31 feet, respectively. Districtwide, the average water level in the UFA increased by 2.44 feet.

Compared to July 2023 data, 43 of the 80 wells monitored for this report recorded water level decreases, while 37 recorded increases. Regionally, the mean water level in the northern and central counties was lower by 0.26 and 0.79 foot, respectively, while the water level in the southern counties was higher by 0.46 foot. Districtwide, average water levels in UFA wells were 0.20 foot lower than July 2023 levels.

In July, groundwater data showed that regional UFA level percentiles increased in the northern and central counties, while decreasing in the southern counties, while ending the month in the northern, central and southern counties at the 48<sup>th</sup>, 48<sup>th</sup> and 29<sup>th</sup> percentile, respectively.

#### Record "Low" or "High" Water Levels

In July 2024, a record "low" or "high" water level was set in the following wells:

- ROMP 103 (Historical Monthly "Low" Water Level), in northern counties;
- ROMP TR 10-2 (Historical Monthly "High" Water Level), in central counties:

- Manasota 14 Deep (Historical Monthly "Low" Water Level); in southern counties; and ROMP TR 5-1 Sulfate (Historical Monthly "Low" Water Level), in southern counties.

## SUMMARY OF UPPER FLORIDAN AQUIFER LEVELS IN REPRESENTATIVE WELLS, JULY 2024

All elevations are referenced to the NGVD29 datum (feet). "M" indicates missing or undetermined value.

## **Regional Summary**

Region	JUL 2024 Elevation	JUL 2024 vs. Historic JUL Median	JUL 2024 vs. Historic JUL 25th Percentile	JUL 2024 Percentile Rank	JUN 2024 Percentile Rank	JUL 2023 Percentile Rank
Northern	37.52	-0.21	0.86	48	37	48
Central	61.33	-0.21	2.07	48	39	50
Southern	34.09	-1.20	0.31	29	31	25

## **Regional Wells Summary**

NORTHERN COUNTIES	JUL 2024 Elev	JUN 2024 Elev	JUL 2023 Elev	Change from JUN 2024	Change from JUL 2023	JUL Historical Low Normal	JUL Historical High Normal	Departure from Low Normal	JUL 2024 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
CE 14 Dunnellon Deep	37.81	37.14	35.99	0.67	1.82	36.69	40.21	1.12	34%	31.94	MAY 2012	50.74	MAR 1998
Chassahowitzka 1 Deep	6.76	6.16	6.25	0.60	0.51	6.10	6.96	0.66	73%	4.72	JUN 2001	9.75	SEP 2021
Inverness DOT	27.00	26.88	27.76	0.12	-0.76	27.72	30.73	-0.71	22%	21.70	JUN 2001	37.80	OCT 1982
Mascotte Deep (L-0062)	99.96	98.62	100.66	1.34	-0.70	99.36	100.69	0.59	44%	93.94	JUN 2000	102.66	SEP 1988
North Lecanto Deep	4.77	4.16	4.30	0.61	0.47	4.30	5.54	0.47	53%	2.94	MAY 2001	8.10	OCT 1982
ROMP 103	37.82	37.12	38.37	0.70	-0.55	40.28	42.09	-2.46	0%	37.12	JUN 2024	46.62	SEP 2018
ROMP 107	11.07	9.93	10.63	1.14	0.44	10.87	13.49	0.20	32%	8.08	AUG 2007	19.78	NOV 1982
ROMP 111	50.83	49.59	49.38	1.24	1.45	48.39	50.11	2.44	86%	44.22	JUL 1992	53.33	SEP 2004
ROMP 116	33.04	32.13	30.71	0.91	2.33	32.19	33.87	0.85	43%	29.24	MAY 2012	39.28	OCT 2004
ROMP 119 Sulfate	44.02	43.81	45.74	0.21	-1.72	42.81	45.33	1.21	54%	39.86	MAY 2012	50.98	OCT 2004
ROMP 120	43.29	43.19	45.06	0.10	-1.77	41.61	45.07	1.68	62%	38.71	MAY 2012	52.24	MAR 1998
ROMP 134 (Ocal-Avpk-Oldm)	46.03	46.55	50.48	-0.52	-4.45	43.18	47.98	2.85	59%	37.80	JUN 2012	57.35	APR 1998
ROMP 89	92.39	88.01	92.73	4.38	-0.34	90.66	92.40	1.73	75%	82.46	JUN 2000	94.93	DEC 1997
ROMP 97	14.69	13.77	15.72	0.92	-1.03	14.88	19.60	-0.19	20%	11.84	MAY 2009	26.24	SEP 2004
ROMP TR 124 (Avpk) 2	2.99	2.68	3.94	0.31	-0.95	2.79	3.59	0.20	35%	0.77	SEP 2004	5.66	DEC 2018
ROMP TR 21-2 Chloride	3.60	3.07	3.50	0.53	0.10	2.86	3.60	0.75	75%	1.25	MAR 1991	6.12	OCT 1995
Sumter 13 JC 59 U Repl	43.88	42.04	41.32	1.84	2.56	40.24	43.91	3.65	75%	36.52	MAY 2012	47.36	AUG 2021
Tidewater 1	53.42	52.86	54.80	0.56	-1.38	52.99	56.76	0.43	28%	48.05	JUN 2012	61.81	SEP 1982
Webster City	83.10	81.92	83.71	1.18	-0.61	80.78	83.90	2.32	61%	74.16	MAY 2012	88.77	SEP 2005
Weeki Wachee Repl	13.93	12.67	14.51	1.26	-0.58	14.51	17.58	-0.58	19%	10.37	MAY 2009	23.61	AUG 1984

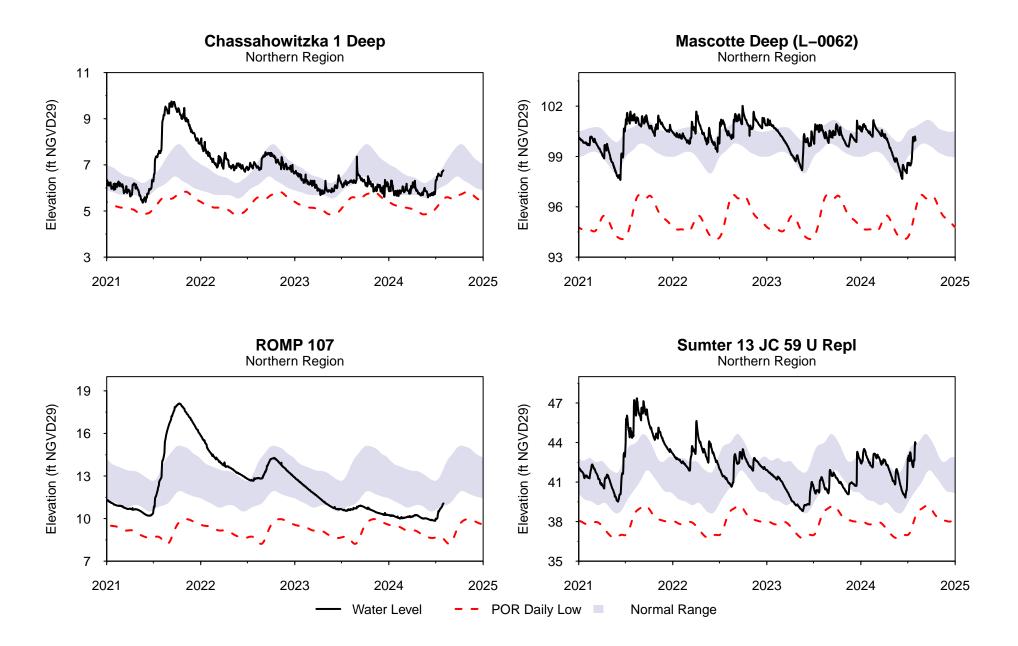
## Regional Wells Summary (continued)

CENTRAL COUNTIES	JUL 2024 Elev	JUN 2024 Elev	JUL 2023 Elev	Change from JUN 2024	Change from JUL 2023	JUL Historical Low Normal	JUL Historical High Normal	Departure from Low Normal	JUL 2024 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Bexley 2	62.17	59.85	61.89	2.32	0.28	60.72	62.94	1.45	56%	56.08	JUN 2000	64.50	SEP 2017
Coley Deep	84.57	83.34	84.92	1.23	-0.35	82.36	86.01	2.21	62%	60.77	JAN 2010	90.99	OCT 2004
Cross Bar 2SW CSX (CB-2SW)	67.42	65.57	66.52	1.85	0.90	66.43	68.21	0.99	57%	61.00	JAN 2008	70.30	JAN 1998
Debuel Road Deep	52.83	50.83	51.99	2.00	0.84	53.23	55.98	-0.40	19%	46.48	APR 2002	60.13	SEP 1979
DV-1 (Swnn)	57.96	53.38	59.97	4.58	-2.01	56.10	61.20	1.86	52%	12.06	JAN 2010	65.72	FEB 1998
Hillsborough RSPPL Deep	38.06	37.01	40.82	1.05	-2.76	38.14	40.90	-0.08	22%	35.35	JUN 2000	47.42	DEC 1997
Lake Alfred Deep nr Lake Alfred	128.68	127.69	128.42	0.99	0.26	127.15	128.79	1.53	72%	119.85	MAY 1974	131.18	MAR 1998
Loughman Deep	89.09	88.24	89.93	0.85	-0.84	89.83	91.25	-0.74	10%	85.90	MAY 2001	93.60	OCT 2022
Lykes Pasco	64.74	63.87	66.57	0.87	-1.83	63.25	67.74	1.49	41%	56.94	JUN 2000	75.78	OCT 2004
Masaryktown Deep	26.83	27.07	30.09	-0.24	-3.26	25.80	35.06	1.03	31%	21.89	AUG 1994	50.09	OCT 1982
Pasco 13 nr Drexel	72.81	69.97	72.69	2.84	0.12	72.02	74.53	0.80	39%	68.00	JUN 2001	77.14	JUL 1960
Pinellas 665	10.02	8.96	8.73	1.06	1.29	9.56	10.66	0.46	54%	6.70	MAY 2006	14.79	SEP 1959
ROMP 123 Htrn AS/U Ag	19.83	10.70	17.95	9.13	1.88	18.14	23.34	1.69	44%	-29.47	MAY 2000	33.56	FEB 1998
ROMP 40	43.25	35.68	43.72	7.57	-0.47	39.39	46.19	3.86	45%	-4.15	JUN 2000	57.37	FEB 1998
ROMP 45 (Avpk)	71.64	68.12	74.70	3.52	-3.06	67.82	74.86	3.82	61%	33.90	JUN 2000	84.44	OCT 2004
ROMP 48 (Tmpa-Swnn)	38.33	30.07	41.05	8.26	-2.72	34.54	41.72	3.79	44%	-7.87	MAY 2000	52.64	FEB 1998
ROMP 50 (Avpk) Chloride	7.01	4.14	6.67	2.87	0.34	2.96	7.96	4.05	60%	-17.42	FEB 2018	14.95	AUG 1982
ROMP 58	101.83	98.14	102.08	3.69	-0.25	101.64	104.75	0.19	31%	89.38	JAN 2010	111.01	DEC 2005
ROMP 59 Interface	72.17	68.69	75.42	3.48	-3.25	62.13	72.25	10.04	75%	33.33	MAY 1981	85.92	OCT 2004
ROMP 60 (Avpk) Repl	72.17	68.52	75.20	3.65	-3.03	73.38	76.88	-1.21	21%	51.29	MAY 2012	83.25	SEP 2018
ROMP 66	19.00	16.94	17.88	2.06	1.12	18.70	20.68	0.30	34%	13.02	JUN 2000	25.47	AUG 2015
ROMP 76	130.05	129.01	129.73	1.04	0.32	127.87	130.47	2.18	70%	121.88	JAN 2010	132.92	SEP 2004
ROMP 87 (Avpk)	103.39	100.72	103.60	2.67	-0.21	102.06	104.07	1.33	49%	94.90	JUN 2000	109.95	JUN 2023
ROMP 88 (Avpk)	104.26	100.85	105.01	3.41	-0.75	103.58	105.89	0.68	42%	92.37	APR 2023	107.21	SEP 2017
ROMP 93	71.13	69.19	71.83	1.94	-0.70	65.88	73.83	5.25	56%	59.03	JUN 2001	76.56	AUG 2018
ROMP TR 10-2	12.96	11.61	12.03	1.35	0.93	10.25	11.19	2.71	100%	6.25	MAY 2000	14.18	OCT 2022
ROMP TR 13-3	15.47	14.66	14.82	0.81	0.65	15.25	16.77	0.22	38%	10.95	JUL 1987	18.79	AUG 2015
Sanlon Ranch	95.28	92.91	97.50	2.37	-2.22	87.20	95.31	8.08	75%	66.38	MAY 1975	105.27	OCT 2004
SR 52 and CR 581 Deep	70.21	68.77	73.00	1.44	-2.79	67.33	75.72	2.88	39%	56.96	JUN 2001	81.22	JUN 2023
SR 577 Deep	88.12	86.34	91.92	1.78	-3.80	84.36	92.53	3.76	40%	72.76	JUN 2000	98.51	MAR 1998
Tarpon Road Deep	10.10	9.19	9.14	0.91	0.96	10.00	11.02	0.10	34%	7.50	JUN 2006	13.48	AUG 2015

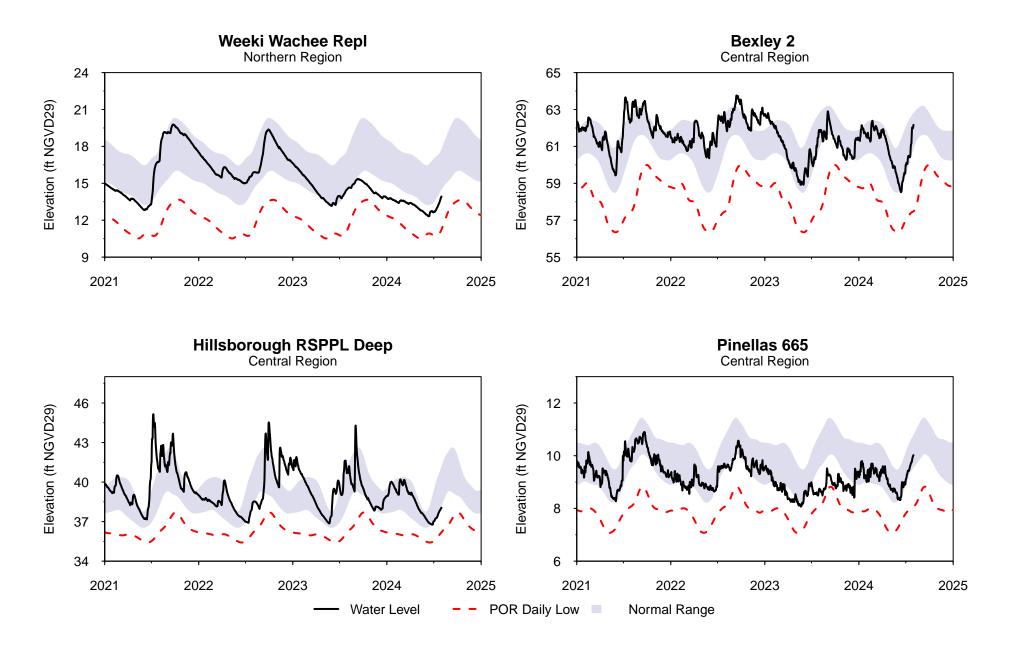
## Regional Wells Summary (continued)

SOUTHERN COUNTIES	JUL 2024 Elev	JUN 2024 Elev	JUL 2023 Elev	Change from JUN 2024	Change from JUL 2023	JUL Historical Low Normal	JUL Historical High Normal	Departure from Low Normal	JUL 2024 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Big Slough Deep	33.31	31.83	31.95	1.48	1.36	32.87	33.99	0.44	43%	26.85	MAY 2006	37.41	SEP 2022
Cargill FA-1	70.09	66.20	73.13	3.89	-3.04	65.13	73.03	4.96	60%	30.50	MAY 1981	82.95	OCT 2004
Edgeville 3 Deep Dstr	28.33	23.19	29.52	5.14	-1.19	31.39	35.35	-3.06	7%	1.13	MAY 2000	41.26	OCT 1979
Englewood 14 Deep	6.03	5.19	3.83	0.84	2.20	4.29	7.15	1.74	47%	-0.97	FEB 2001	11.64	SEP 2022
Manasota 14 Deep	17.28	16.69	17.30	0.59	-0.02	18.57	20.98	-1.29	0%	15.36	JUN 2024	22.70	NOV 1971
Marshall Deep (USGS)	44.00	39.90	44.03	4.10	-0.03	42.95	46.30	1.05	38%	8.96	JUN 2000	55.24	MAR 1964
ROMP 16	47.99	46.79	47.81	1.20	0.18	48.20	48.94	-0.21	17%	28.94	JAN 2001	51.21	SEP 1995
ROMP 17 (Swnn)	45.95	44.48	46.17	1.47	-0.22	46.55	47.68	-0.60	16%	31.89	JUN 2000	51.64	OCT 1994
ROMP 19 (Swnn)	24.66	22.82	27.21	1.84	-2.55	25.85	30.41	-1.19	12%	10.99	JUN 2000	33.80	SEP 2017
ROMP 19X (Swnn)	33.57	30.07	34.14	3.50	-0.57	33.70	36.19	-0.13	22%	19.28	JUN 2000	39.92	OCT 1994
ROMP 20 (Swnn)	20.32	17.39	18.83	2.93	1.49	21.05	23.09	-0.73	11%	11.99	MAY 2007	26.66	SEP 2017
ROMP 22 (Swnn)	21.64	14.44	19.52	7.20	2.12	21.49	24.73	0.15	33%	-3.71	MAY 2000	30.18	FEB 1998
ROMP 26	46.55	43.92	46.52	2.63	0.03	46.48	47.90	0.07	28%	19.48	JAN 2010	51.28	OCT 1979
ROMP 28X	72.11	70.99	71.74	1.12	0.37	67.04	71.36	5.07	86%	57.24	JAN 2010	74.68	OCT 1995
ROMP 30	47.84	42.08	48.22	5.76	-0.38	43.99	51.17	3.85	49%	-0.20	JUN 2000	60.52	MAR 1998
ROMP 31	43.83	37.08	44.08	6.75	-0.25	40.17	47.20	3.66	46%	-6.22	JUN 2000	57.92	MAR 1998
ROMP 32 (Avpk)	31.03	22.21	30.67	8.82	0.36	28.44	33.30	2.59	56%	-17.74	JUN 2000	44.73	FEB 1998
ROMP 43XX	87.32	88.02	89.75	-0.70	-2.43	86.12	90.51	1.20	52%	70.93	JAN 2010	94.60	MAR 1998
ROMP 9 (Swnn)	41.98	40.87	42.24	1.11	-0.26	42.85	43.39	-0.87	3%	37.00	JAN 2001	46.35	SEP 2006
ROMP TR 1-2	45.03	44.43	45.50	0.60	-0.47	45.37	45.81	-0.34	18%	40.72	JUN 2000	47.55	SEP 2022
ROMP TR 3-1	34.18	33.35	34.21	0.83	-0.03	33.98	34.65	0.20	38%	29.04	JUN 2000	36.52	SEP 2022
ROMP TR 5-1 Sulfate	17.87	16.43	17.64	1.44	0.23	19.32	20.34	-1.45	0%	13.26	JUN 2000	22.56	SEP 2017
ROMP TR 5-2 (Swnn)	24.16	21.49	21.67	2.67	2.49	25.62	27.99	-1.46	5%	13.75	MAY 2006	31.10	OCT 1994
ROMP TR 7-1 (L Arca Ag Int)	19.78	16.76	18.15	3.02	1.63	19.04	20.54	0.74	55%	10.01	JUN 2000	24.23	SEP 2017
ROMP TR 7-4 (Swnn)	17.29	11.39	13.76	5.90	3.53	16.98	19.14	0.31	28%	-3.55	MAY 2000	24.35	AUG 2019
ROMP TR 8-1 (Swnn)	19.90	16.78	18.11	3.12	1.79	19.25	20.76	0.64	56%	6.60	MAY 2000	23.21	AUG 2019
ROMP TR SA-1 (Swnn)	9.92	6.09	7.55	3.83	2.37	11.61	13.14	-1.69	2%	2.54	JUN 2024	22.04	SEP 1999
Sarasota Service Office	17.23	11.24	13.85	5.99	3.38	20.19	28.17	-2.96	7%	-3.24	JUN 2000	35.21	MAR 1931
Verna Test 0-1	19.33	10.43	18.01	8.90	1.32	21.15	26.13	-1.82	9%	-15.73	MAY 2000	33.32	JAN 1984

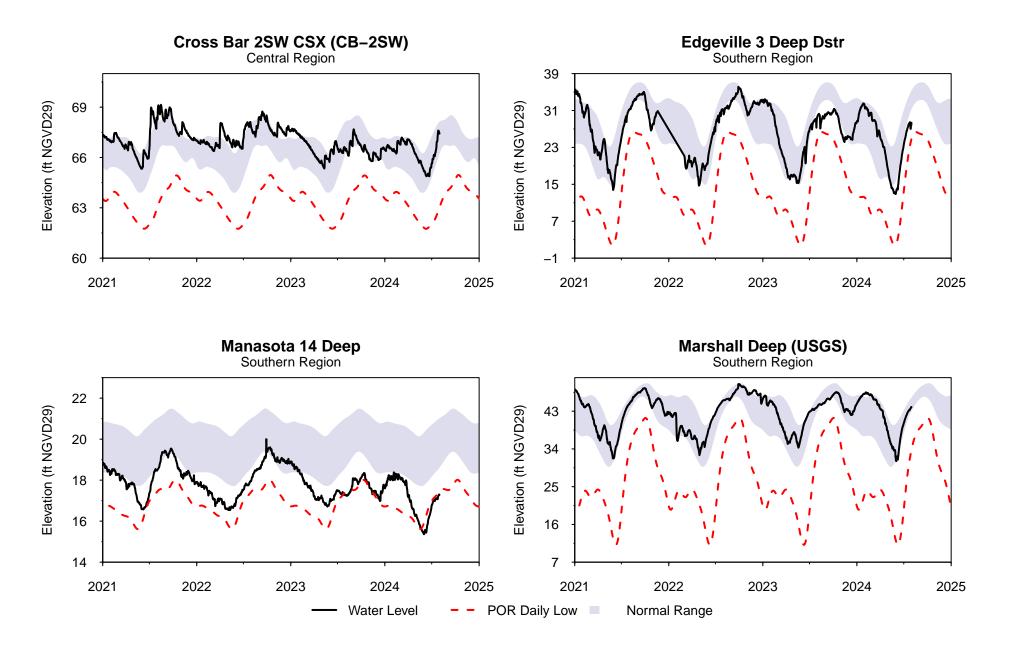
## HYDROGRAPHS OF REPRESENTATIVE UPPER FLORIDAN AQUIFER WELLS JANUARY 2021 TO JULY 2024



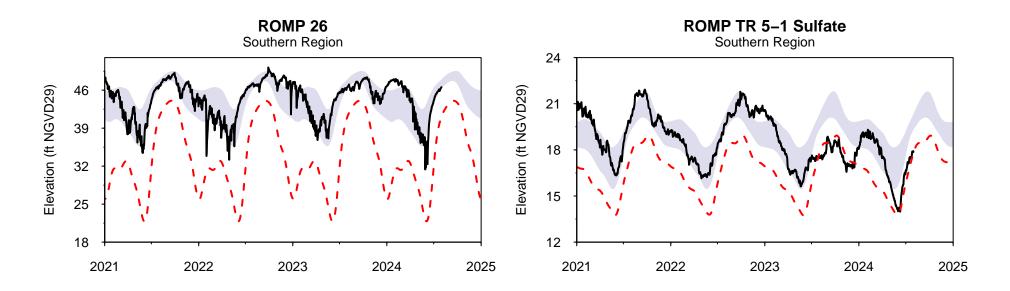
## HYDROGRAPHS OF REPRESENTATIVE UPPER FLORIDAN AQUIFER WELLS JANUARY 2021 TO JULY 2024

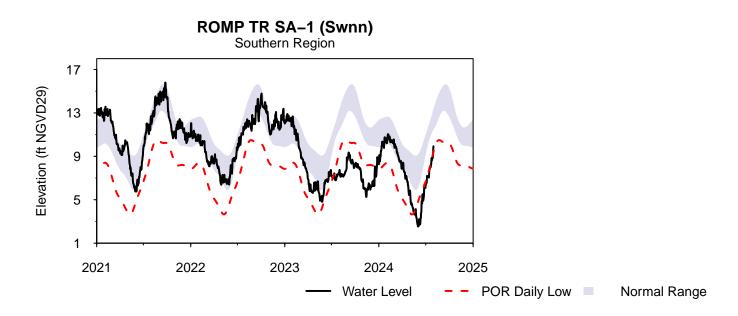


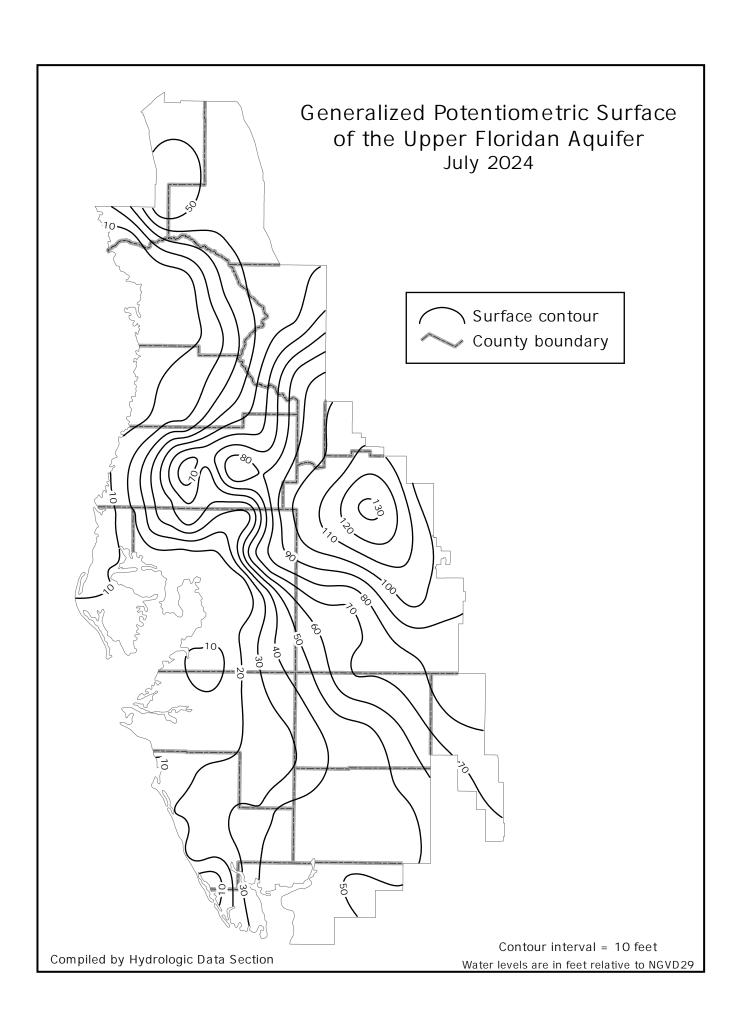
## HYDROGRAPHS OF REPRESENTATIVE UPPER FLORIDAN AQUIFER WELLS JANUARY 2021 TO JULY 2024

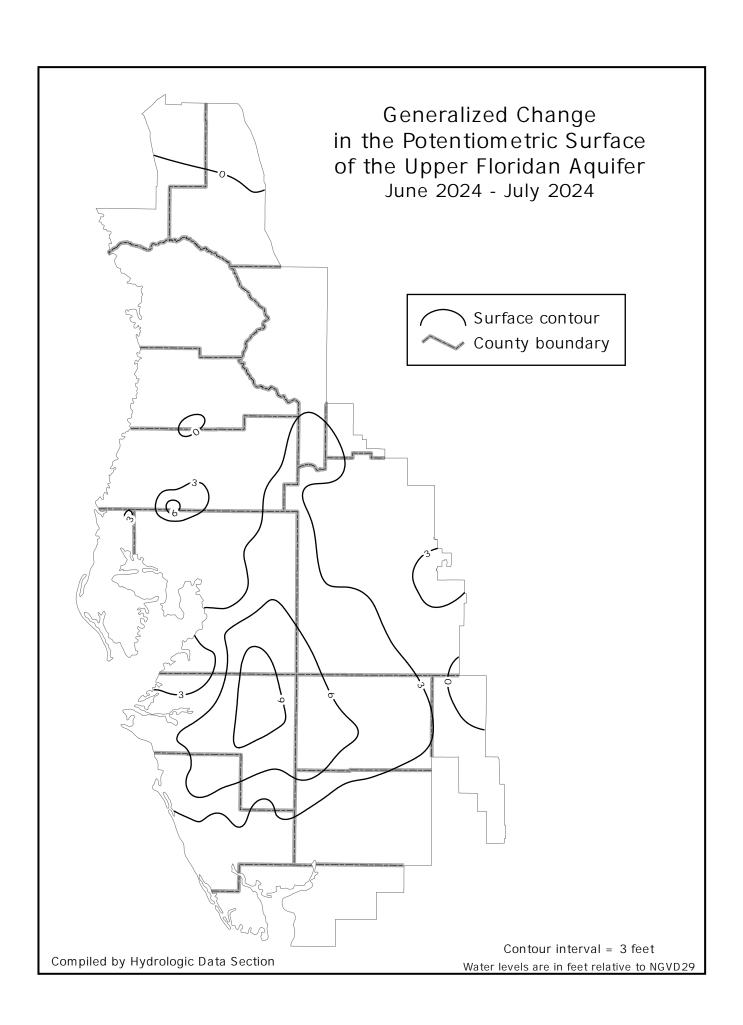


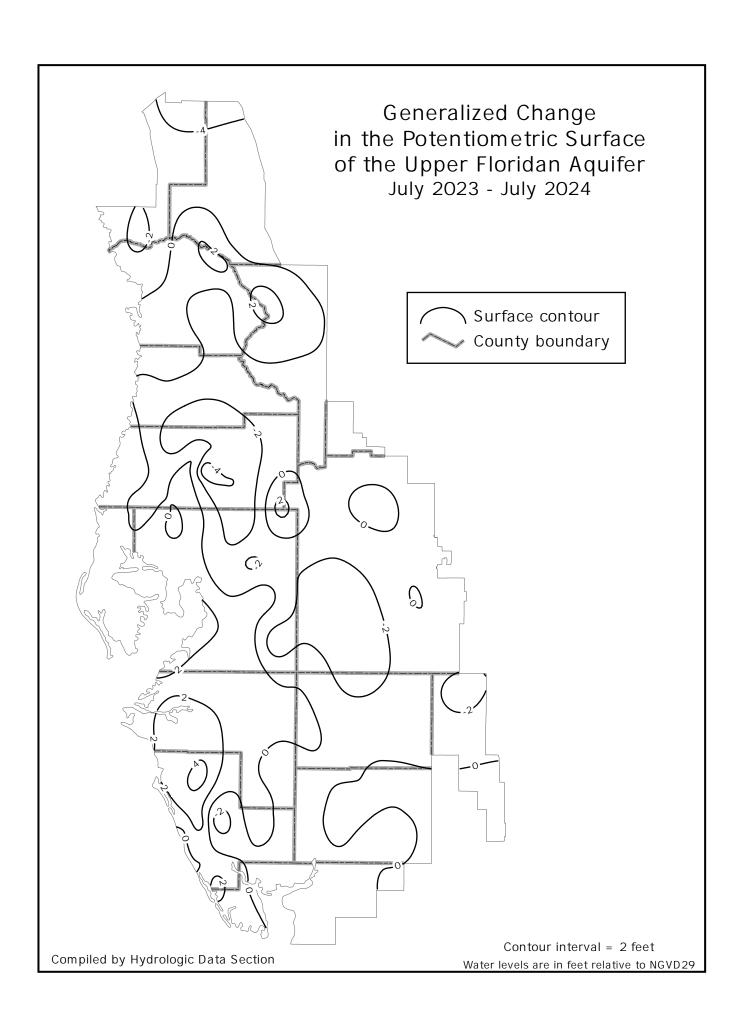
## HYDROGRAPHS OF REPRESENTATIVE UPPER FLORIDAN AQUIFER WELLS JANUARY 2021 TO JULY 2024











#### Regional Aquifer Resource Index

Aquifers are underground layers of rock and sand that hold water. In southwest Florida, more than 80 percent of the water supply comes from aquifers. The Regional Aquifer Resource Index (ARI) was created to provide information to the media, residents, local governments and other interested parties about current groundwater conditions and how they compare to historical records. The underlying purpose of this index is to provide the public with a gauge of groundwater conditions in their area, so they can develop an understanding of the severity and cycles of drought and recovery.

This ARI report reflects percentile values to compare current aquifer levels to historical levels during the same time of year on a scale of 0-100. For example, if the regional groundwater level is at the 50th percentile, it means that half of the historical groundwater levels for this time of year were higher and half were lower than the current level.

To determine the ARI percentile value for each geographic region (indicated below), the percentile values of the monitor wells located within that region are averaged. Monitor wells with an adequate and reliable period-of-record to calculate weekly percentiles were selected for the network. A total of 80 wells Districtwide are used for the ARI Network (see index map in Appendix).

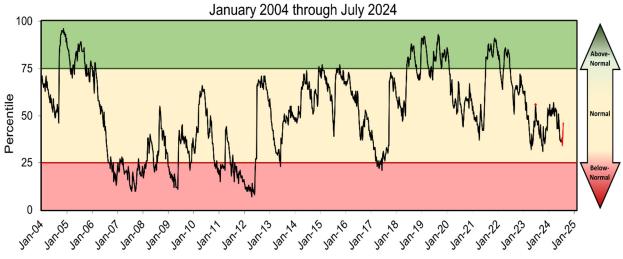
#### **Weekly Aquifer Resource Index Level (Percentile)**

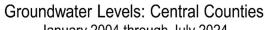
Report Date	Northern Counties	Central Counties	Southern Counties
07/03/2024	39	41	36
07/10/2024	39	41	34
07/17/2024	40	42	31
07/24/2024	45	42	28
07/31/2024	47	48	31

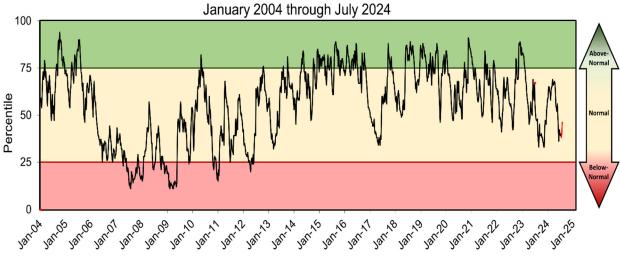
Note: Any regional percentile value that falls on or between the 25<sup>th</sup> and 75<sup>th</sup> percentile is considered "normal." Less than the 25<sup>th</sup> would be considered "below-normal," while above the 75<sup>th</sup> would be considered "above-normal."

# REGIONAL AQUIFER RESOURCE INDEX July 2024

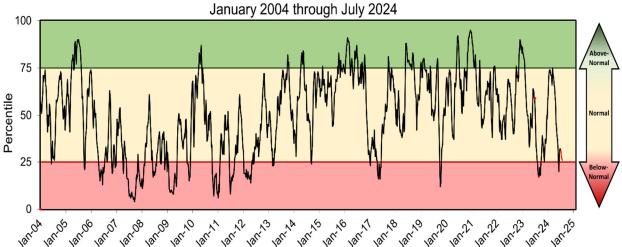
Groundwater Levels: Northern Counties







## Groundwater Levels: Southern Counties



#### **Reservoirs**

Water-level data for the seven reservoirs are obtained weekly from the USGS, Manatee County Utilities Department, Peace River/Manasota Regional Water Supply Authority, or Tampa Bay Water. The last weekly water-level value of the month is indicated in this report. The values reported are provisional and subject to revision.

In July, all seven reservoirs monitored for this report recorded water-level increases, compared to last month. The Evers, Hillsborough River, Lake Manatee, Bill Young, Peace River No. 1 and 2, and Shell Creek reservoirs posted water level increases of 0.14 foot, 3.20 feet, 0.91 foot, 3.00 feet, 0.20 foot and 4.60 feet, and 0.05 foot, respectively, compared to last month.

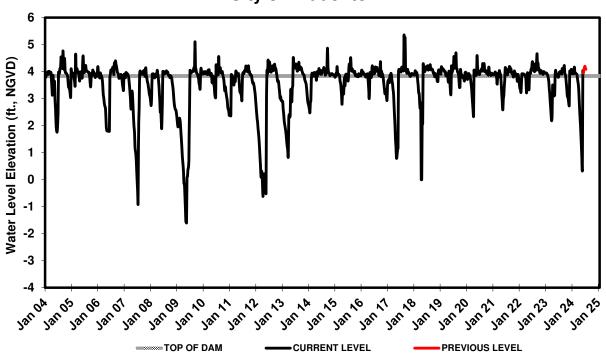
### SUMMARY OF WATER LEVELS IN WATER SUPPLY RESERVOIRS (GAGE LEVEL, IN FEET)

				Change	Change
	2024	2024	2023	from Prior	from Prior
RESERVOIR	June	July	July	Month	Year
Evers					
City of Bradenton	3.95	4.09	3.99	0.14	0.10
Hillsborough					
City of Tampa	19.45	22.65	22.66	3.20	-0.01
Lake Manatee					
Manatee County	38.38	39.29	36.74	0.91	2.55
C.W. Bill Young Regional					
Tampa Bay Water	91.75	94.75	123.51	3.00	-28.76
Peace River					
PRMRWSA Reservoir #1	25.20	25.40	24.90	0.20	0.50
PRMRWSA Reservoir #2	51.50	56.10	56.10	4.60	0.00
Shell Creek					
City of Punta Gorda	5.30	5.35	5.21	0.05	0.14

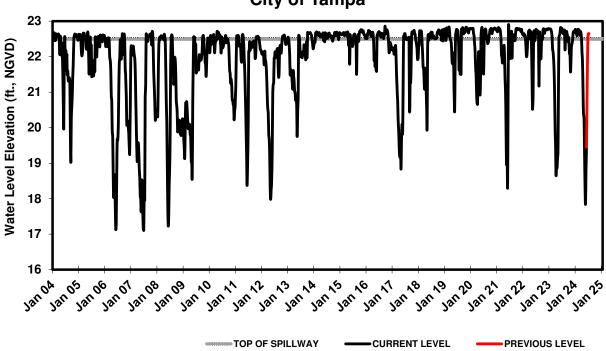
Reported data are provisional and subject to revision.

e = Estimated

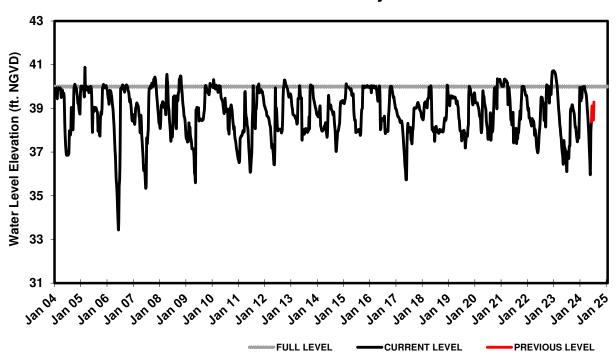
## **EVERS RESERVOIR**City of Bradenton

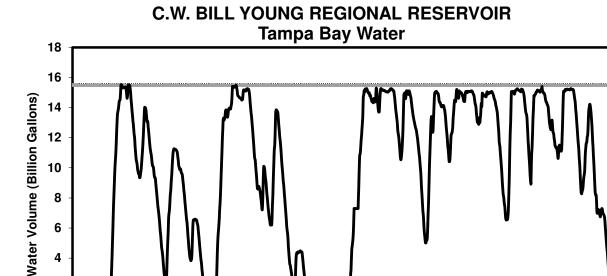


# HILLSBOROUGH RESERVOIR City of Tampa



## LAKE MANATEE RESERVOIR Manatee County





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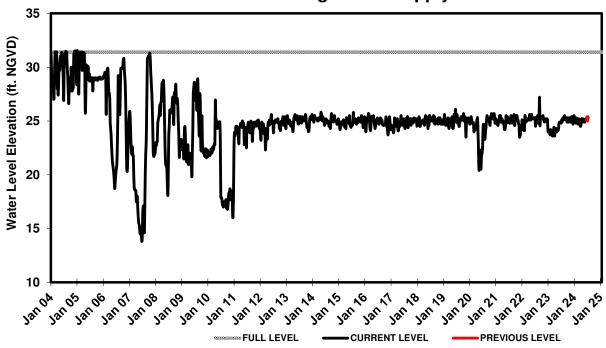
CURRENT LEVEL

PREVIOUS LEVEL

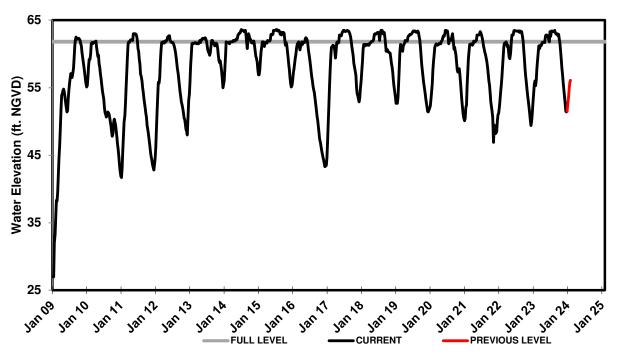
Jan 14

FULL LEVEL

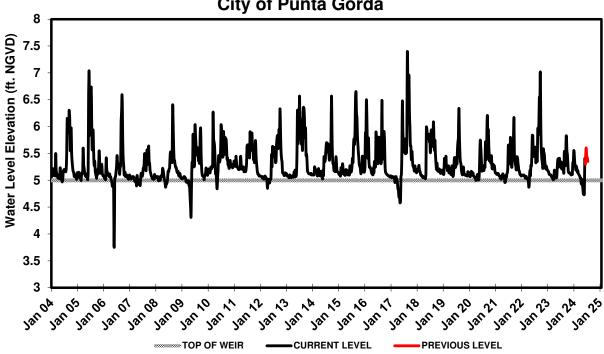
#### PEACE RIVER RESERVOIR No. 1 Peace/Manasota Reg. Water Supply

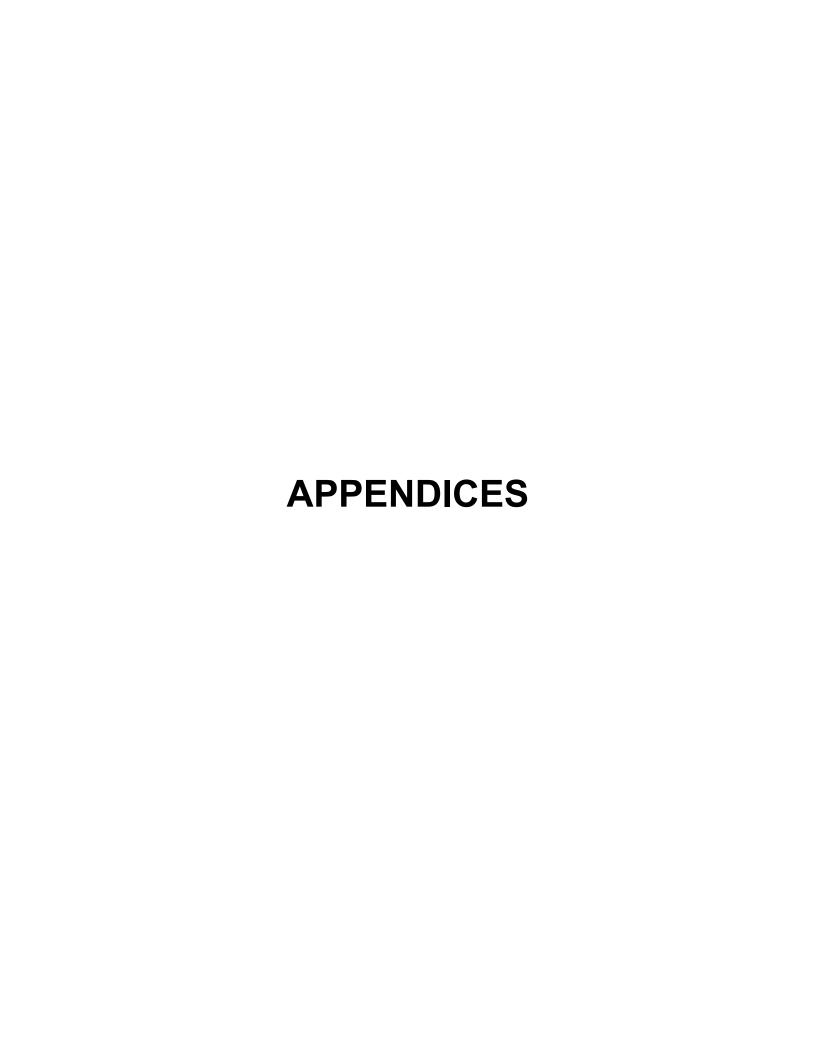


### PEACE RIVER RESERVOIR No. 2 Peace/Manasota Reg. Water Supply



## SHELL CREEK RESERVOIR City of Punta Gorda





Rainfall percentiles by interval and region, inches.

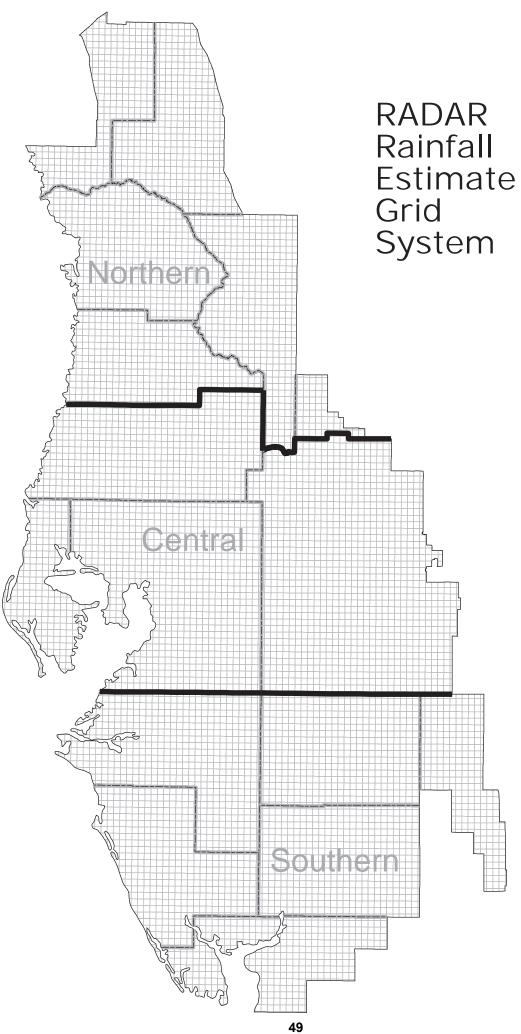
Rainfall percentile	es by interval and					
Rainfall Interval	Region	10 <sup>TH</sup> Percentile (P10)	25 <sup>th</sup> Percentile (P25)	50 <sup>th</sup> Percentile (P50)	75 <sup>th</sup> Percentile (P75)	90 <sup>th</sup> Percentile (P90)
Annual total	Northern	43.19	48.35	54.01	58.86	63.46
Annual total	Central	41.45	46.10	52.16	57.28	63.82
Annual total	Southern	42.05	46.25	52.19	57.82	63.43
Annual total	District	43.12	47.22	52.99	57.46	62.83
Dry season total	Northern	15.27	18.42	23.79	28.72	32.10
Dry season total	Central	13.32	16.48	21.59	26.86	30.83
Dry season total	Southern	12.35	15.68	21.24	26.23	30.01
Dry season total	District	13.71	16.79	22.02	27.22	29.70
Wet season total	Northern	22.79	25.44	29.45	33.43	38.16
Wet season total	Central	23.22	25.79	29.71	34.86	39.22
Wet season total	Southern	24.37	27.37	30.58	35.88	41.68
Wet season total	District	23.92	27.16	29.97	34.71	38.93
January total	Northern	0.73	1.50	2.45	4.00	5.30
January total	Central	0.72	1.21	2.23	3.72	4.60
January total	Southern	0.39	0.93	1.88	3.31	4.93
January total	District	0.65	1.17	2.10	3.55	4.90
February total	Northern	0.82	1.42	2.82	4.08	5.76
February total	Central	0.60	1.12	2.38	4.17	5.50
February total	Southern	0.36	1.26	2.21	3.63	4.93
February total	District	0.73	1.32	2.38	3.94	5.12
March total	Northern	1.00	2.06	3.15	5.43	7.21
March total	Central	0.97	1.66	2.96	4.95	6.44
March total	Southern	0.81	1.28	2.56	4.29	6.68
March total	District	1.09	1.64	3.04	4.86	6.92
April total	Northern	0.65	1.33	2.38	3.95	5.52
April total	Central	0.51	0.96	1.87	3.44	5.59
April total	Southern	0.48	1.19	2.04	3.75	4.66
April total	District	0.65	1.20	2.24	3.72	5.12
May total	Northern	1.18	1.95	3.21	4.67	6.92
May total	Central	0.87	1.64	2.73	4.58	5.75
May total	Southern	1.17	1.91	3.36	5.22	6.75
May total	District	1.23	2.04	3.24	4.87	6.29
June total	Northern	4.60	5.47	7.27	8.63	10.16
June total	Central	3.65	4.79	6.46	8.27	9.48
June total	Southern	4.22	5.63	7.44	9.06	12.06
June total	District	4.55	5.46	7.24	8.60	10.99
July total	Northern	5.36	6.75	8.29	9.16	11.52
July total	Central	4.89	5.98	8.35	10.05	11.44
July total	Southern	5.68	6.94	8.11	9.50	10.99
July total	District	5.60	6.83	8.19	9.57	10.58
August total	Northern	5.44	6.30	7.31	9.72	11.33
August total	Central	5.52	6.55	7.90	9.62	12.03
August total	Southern	5.55	6.22	7.70	8.97	10.49
August total	District	5.65	6.52	7.70	9.37	10.43
September total	Northern	2.79	4.18	5.84	8.04	11.35
September total	Central	3.19	5.11	6.46	8.50	11.69
September total	Southern	4.30	5.46	6.94	9.33	11.85
September total	District	3.85	5.21	6.53	8.62	11.65
October total	Northern	0.63	1.27	2.46	4.40	6.15
October total	Central	0.69	1.39	2.61	4.40	6.13
October total	Southern	0.92	1.78	2.73	4.27	6.04
October total	District	1.06	1.76	2.80	4.15	5.79

Rainfall percentiles by interval and region, inches (continued).

Rainfall Interval	Region	10 <sup>™</sup> Percentile (P10)	25 <sup>th</sup> Percentile (P25)	50 <sup>th</sup> Percentile (P50)	75 <sup>th</sup> Percentile (P75)	90 <sup>th</sup> Percentile (P90)
November total	Northern	0.38	0.71	1.63	2.88	4.56
November total	Central	0.25	0.47	1.42	2.82	4.33
November total	Southern	0.40	0.64	1.46	2.56	3.82
November total	District	0.37	0.63	1.53	2.73	4.39
December total	Northern	0.54	1.06	2.06	3.71	5.19
December total	Central	0.48	0.84	1.89	3.03	4.87
December total	Southern	0.45	0.77	1.56	2.63	4.18
December total	District	0.54	0.89	1.86	2.92	4.34

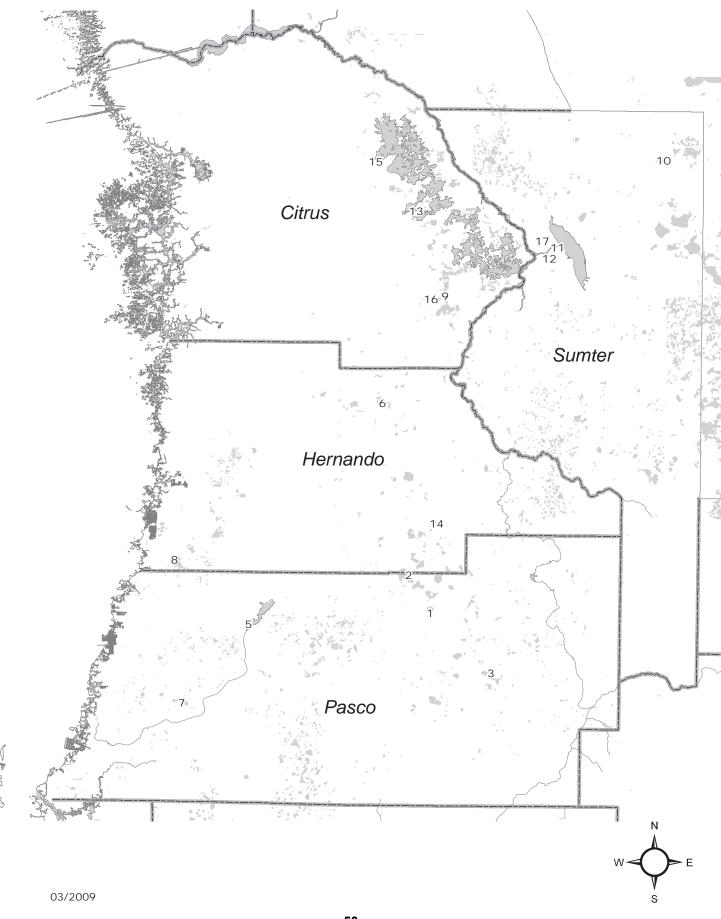
### Rainfall characterization ranges

Characterization	Range	Corresponding Rainfall Percent of Normal (approximate)
Very dry	Less than the P10 rainfall	Less than 80 percent of normal
Drier than normal	P10 to P24 rainfall	80 to 90 percent of normal
Normal	P25 to P75 rainfall	90 to 110 percent of normal
Wetter than normal	P76 to P90 rainfall	110 to 120 percent of normal
Very Wet	Greater than the P90 rainfall	Greater than 120 percent of normal

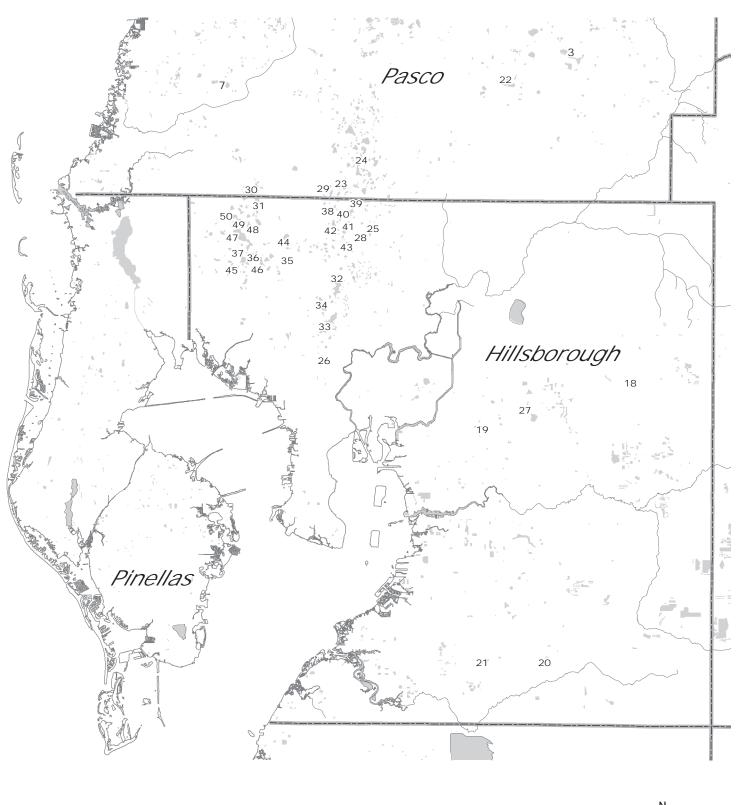




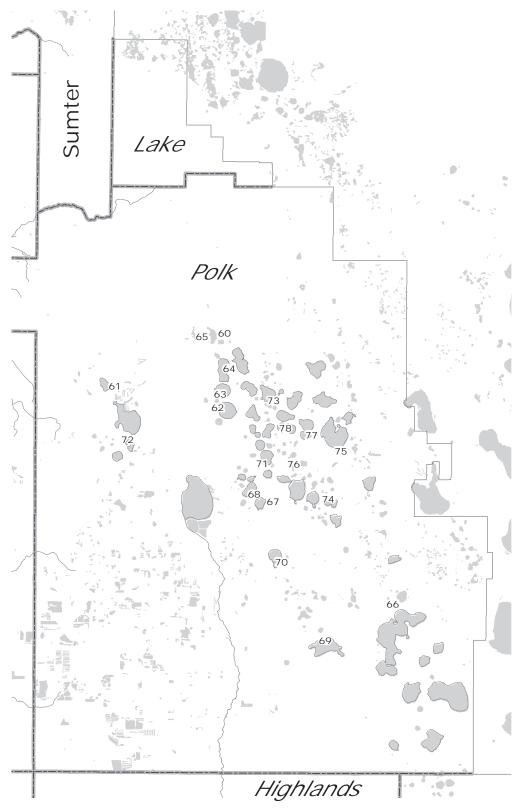
## Selected Lake Monitoring Stations Northern Region



## Selected Lake Monitoring Stations Tampa Bay Region

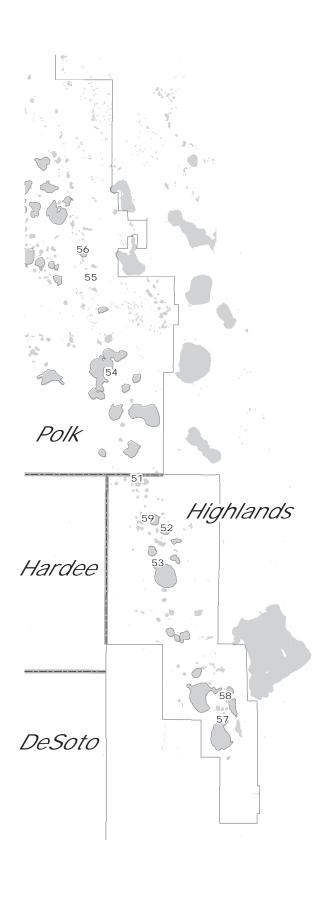


## Selected Lake Monitoring Stations Polk Uplands Region





## Selected Lake Monitoring Stations Lake Wales Ridge Region





## Selected Lake Monitoring Stations

## **Northern Region**

<u>Map ID</u>	Site Name
1	Lake Iola
2	Hancock Lake
3	Lake Pasadena
5	Crews Lake
6	Lake Lindsey
7	Moon Lake
8	Hunters Lake
9	Tsala Apopka at Floral City
10	Lake Miona
11	Pana Vista Outlet River
12	Outlet River at Panacoochee
13	Tsala Apopka at Inverness
14	Spring Lake
15	Tsala Apopka at Hernando
16	Little Lake (Consuella)
17	Lake Panasoffkee

## Tampa Bay Region

Map ID	Site Name		
18		Map ID	Site Name
19	Mud (Walden) Lake Gornto Lake	40	Lake Brooker
		41	Cooper Lake
20	Carlton Lake	42	Lake Thomas
21	Lake Wimauma		
22	King Lake near San Antonio	43	Brant Lake
23	Lake Linda	44	Turkey Ford Lake
24	Lake Padgett	45	Church Lake
25	Keene Lake	46	Horse Lake
26	Egypt Lake	47	Lake Alice
27	Long Pond	48	Lake Calm
28	Lake Stemper	49	Keystone Lake
29	Camp Lake	50	Crescent Lake
30	Lake Ann (Parker)		
31	Lake Hiawatha		
32	Platt Lake		
33	Lake Carroll		
34	Bay Lake		
35	Lake LeClare		
36	Little Lake		
37	Rainbow Lake		
38	Lake Harvey		
39	Deer Lake		

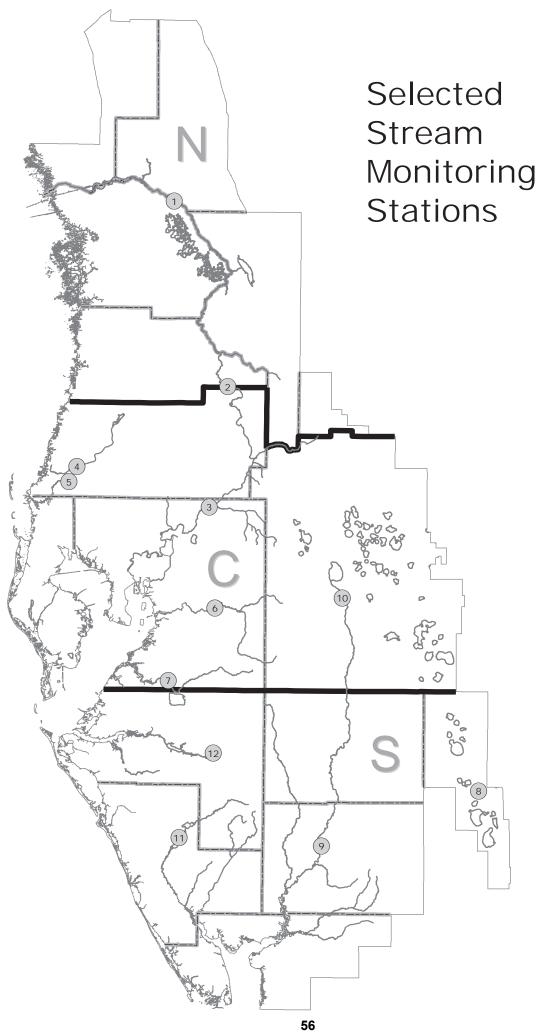
## Selected Lake Monitoring Stations

### **Lake Wales Ridge Region**

<u>Map ID</u>	<u>Site Name</u>
51	Trout Lake
52	Lake Letta
53	Lake Jackson at Sebring
54	Crooked Lake near Babson Park
55	Lake Starr
56	Lake Annie
57	Lake Placid
58	Lake Clay
59	Lake Lotela

## **Polk Uplands Region**

Map ID	Site Name
60	Lake Helene
61	Lake Gibson
62	Lake Ariana
63	Lake Arietta
64	Lake Juliana
65	Clearwater Lake
66	Blue Lake South
67	Lake McLeod
68	Eagle Lake
69	Lake Buffum
70	Lake Garfield
71	Lake Howard
72	Lake Bonny
73	Lake Alfred
74	Lake Ruby
75	Lake Hamilton
76	Lake Otis
77	Lake Fannie
78	Lake Conine





## Selected Stream Monitoring Stations

Map ID	<u>Site Name</u>
1	Withlacoochee River near Holder
2	Withlacoochee River at Trilby
3	Hillsborough River near Zephyrhills
4	Pithlachascotee River near New Port Richey
5	Anclote River near Elfers
6	Alafia River at Lithia
7	Little Manatee River near Wimauma
8	Josephine Creek near DeSoto City
9	Peace River at Arcadia
10	Peace River at Bartow
11	Myakka River near Sarasota
12	Manatee River near Myakka Head

#### **STREAM MONITORING STATIONS**

WITHLACOOCHEE RIVER (Northern Region)

Total length: 157 miles

Headwaters: NW Polk and southern Sumter Counties

Elevation: 135 feet

Tributaries: Little Withlacoochee, Big Gant Canal, Jumper Creek, Shady

Brook, Outlet River of Lake Panasoffkee, Leslie Heifner Canal, Orange State Canal, Tsala Apopka Outfall Canal and Rainbow

Springs.

Mouth: Gulf of Mexico, Citrus County

Drainage area: 2000 square miles

**Holder Station** 

County: Marion Period-of-record: 1928

Location: 38 miles upstream from mouth

Drainage area: 1825 square miles

**Trilby Station** 

County: Hernando Period-of-record: 1928

Location: 93 miles upstream from mouth

Drainage area: 570 square miles

**ANCLOTE RIVER (Central Region)** 

Total length: 27.5 miles

Headwaters: South-central Pasco County, west of Land O Lakes

Elevation: 65 feet

Tributaries: South Branch and Hollin Creek Mouth: South Branch and Hollin Creek Gulf of Mexico, Pasco County

Drainage area: 113 square miles

**Elfers Station** 

County: Pasco Period-of-record: 1946

Location: 16 miles upstream from mouth

Drainage area: 72.5 square miles

**HILLSBOROUGH RIVER (Central Region)** 

Total length: 55 miles

Headwaters: Southeast Pasco County

Elevation: 77 feet

Tributaries: Crystal Springs, Blackwater Creek, Flint Creek, Trout Creek,

Cypress Creek, Curiosity Creek and Sulphur Springs

Mouth: Hillsborough Bay Drainage area: 690 square miles

Zephyrhills Station

County: Hillsborough

Period-of-record: 1939

Location: 40 miles upstream from mouth

Drainage area: 200 square miles

#### PITHLACHASCOTEE RIVER (Central Region)

Total length: 41 miles

Headwaters: Crews Lake and Masaryktown area in central Pasco and

southern Hernando Counties

Elevation: 120 feet
Mouth: Gulf of Mexico
Drainage area: 191 square miles

#### **New Port Richey Station:**

County: Pasco Period-of-record: 1963

Location: 10.5 miles upstream from mouth

Drainage area: 180 square miles

#### ALAFIA RIVER (Central Region)

Total length: 24 miles

Headwaters: Western Polk and eastern Hillsborough Counties

Tributaries: North and South Prongs, Lithia Springs, and Buckhorn Creek.

Elevation: 30 feet
Mouth: Tampa Bay
Drainage area: 420 square miles

#### **Lithia Station:**

County: Hillsborough

Period-of-record: 1932

Location: 16 miles upstream from mouth

Drainage area: 335 square miles

#### LITTLE MANATEE RIVER (Central Region)

Total length: 39 miles

Headwaters: Southeast Hillsborough County

Tributaries: Carlton Branch, the South Fork, Dug Creek and Cypress Creek.

Elevation: 130 feet
Mouth: Tampa Bay
Drainage area: 225 square miles

#### **Wimauma Station:**

County: Hillsborough

Period-of-record: 1939

Location: 15 miles upstream from mouth

Drainage area: 149 square miles

#### **JOSEPHINE CREEK (Southern Region)**

Total length: 12 miles

Headwaters: Lake Josephine in central Highlands County

Elevation: 80 feet

Mouth: Lake Istokpoga in Highlands County

Drainage area: 143 square miles

#### **DeSoto City Station:**

County: Highlands Period-of-record: 1946

Location: 4.9 miles upstream of mouth

Drainage area: 109 square miles

#### **MANATEE RIVER (Southern Region)**

Total length: 45 miles

Headwaters: Four corners area Hillsborough, Polk, Hardee and manatee Counties.

Elevation: 130 feet
Mouth: Tampa Bay
Drainage area: 330 square miles

#### Myakka Head Station:

County: Manatee Period-of-record: 1966

Location: 36 miles upstream from mouth

Drainage area: 65.3 square miles

#### **MYAKKA RIVER (Southern Region)**

Total length: 54.1 miles

Headwaters: Western Hardee and Eastern Manatee Counties Tributaries: Howard Creek, Deer Prairie, and Big Slough Canal

Elevation: 105 feet

Mouth: Charlotte Harbor Drainage area: 540 square miles

#### **Sarasota Station:**

County: Sarasota Period-of-record: 1936

Location: 36 miles upstream from mouth

Drainage area: 229 square miles

#### **PEACE RIVER (Central and Southern Region)**

Total length: 120 miles

Headwaters: Green Swamp in northern Polk County through Lake Hancock, Winter Haven

chain of lakes, and Lake Hamilton.

Tributaries: Peace Creek Canal, Saddle Creek, Charlie Creek, Prairie Creek, Horse Creek,

Joshua Creek and Shell Creek. Elevation: 110 feet

Mouth: Charlotte Harbor Drainage area: 2300 square miles

#### **Arcadia Station (Southern Region):**

County: Desoto Period-of-record: 1931

Location: 36 miles upstream from mouth

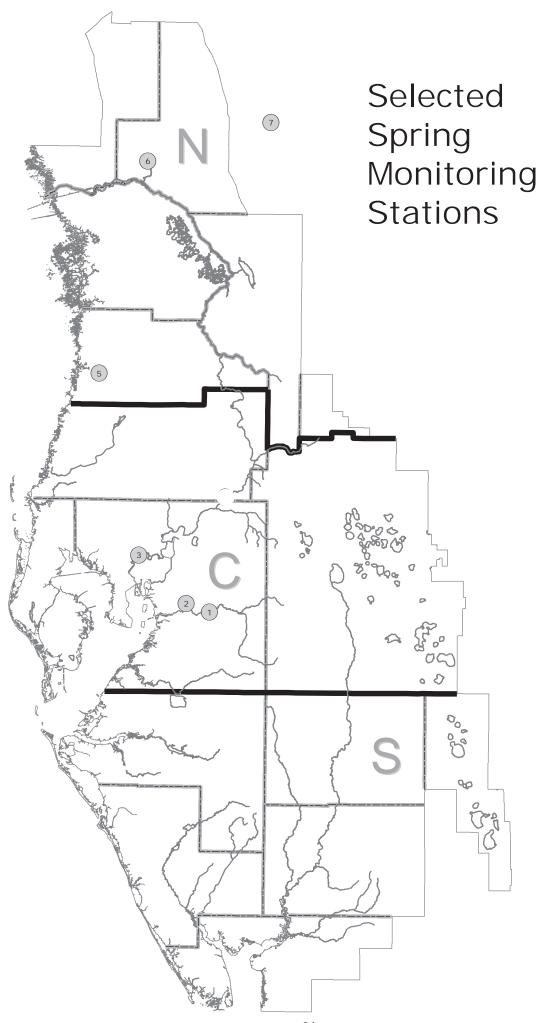
Drainage area: 1367 square miles

#### **Bartow Station (Central Region):**

County: Polk Period-of-record: 1939

Location: 105 miles upstream from mouth

Drainage area: 390 square miles





## Selected Spring Monitoring Stations

<u>Map ID</u>	<u>Site Name</u>
1	Lithia Main Spring
2	Buckhorn Main Spring
3	Sulphur Springs at Sulphur Springs
5	Weeki Wachee River near Brooksville
6	Rainbow Springs near Dunnellon
7	Silver Springs near Ocala

#### **SPRINGS MONITORING STATIONS**

**RAINBOW SPRINGS (Northern Region)** 

County: Marion

Basin: Withlacoochee River

Magnitude: 1st

Discharge measurement location: 5 mi downstream from head of springs Discharge contributes to: Rainbow River, Withlacoochee River

Public Access: Yes Period-of-record: 1965

Gage: Non-recording gage

**SILVER SPRINGS (Northern Region)** 

County: Marion

Basin: Ocklawaha River

1<sup>st</sup> Magnitude:

Discharge measurement location: 4 to 5 mi downstream from head of springs Discharge contributes to:

Silver Springs River, Ocklawaha River,

St. Johns River

Public Access: Yes 1932 Period-of-record:

Water-stage recorder Gage:

**WEEKI WACHEE SPRINGS (Northern Region)** 

County: Hernando Basin: Coastal Rivers

Magnitude: 1st

Discharge measurement location: 1 mi downstream from head of springs

Discharge contributes to: Weeki Wachee River

Public Access: Yes Period-of-record: 1993

Gage: Water-stage

**SULPHUR SPRINGS (Central Region)** 

County: Hillsborough Basin: Hillsborough River

Magnitude:

Discharge measurement location: 300 ft downstream from gage

Discharge contributes to: Hillsborough River

Public Access: Yes 1956 Period-of-record:

Gage: Water-stage recorder

#### **BUCKHORN SPRINGS (Central Region)**

County: Hillsborough Basin: Alafia River

Magnitude: 2<sup>nd</sup>

Discharge measurement location: Difference between discharge measurements

of Buckhorn Creek made  $2\bar{5}$  ft upstream from and 100 ft downstream from Buckhorn Springs

Discharge contributes to: Buckhorn Creek, Alafia River

Public Access: No Period-of-record: 1987

Gage: Water-stage recorder

#### LITHIA SPRINGS: (Central Region)

County: Hillsborough Basin: Alafia River

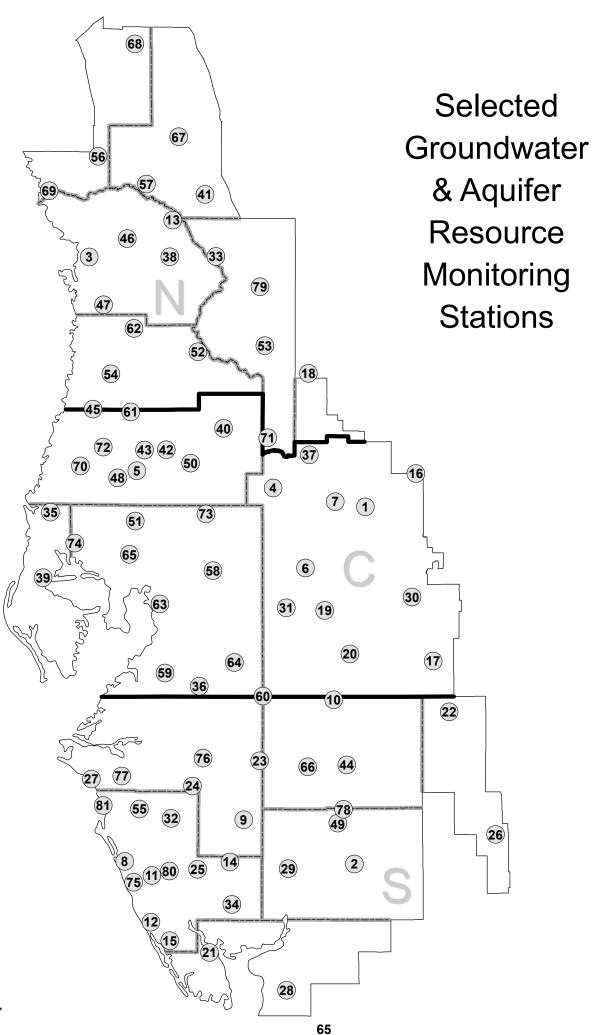
Magnitude: 2<sup>nd</sup>

Discharge measurement location: 50 feet downstream from main pool

Discharge contributes to: Alafia River

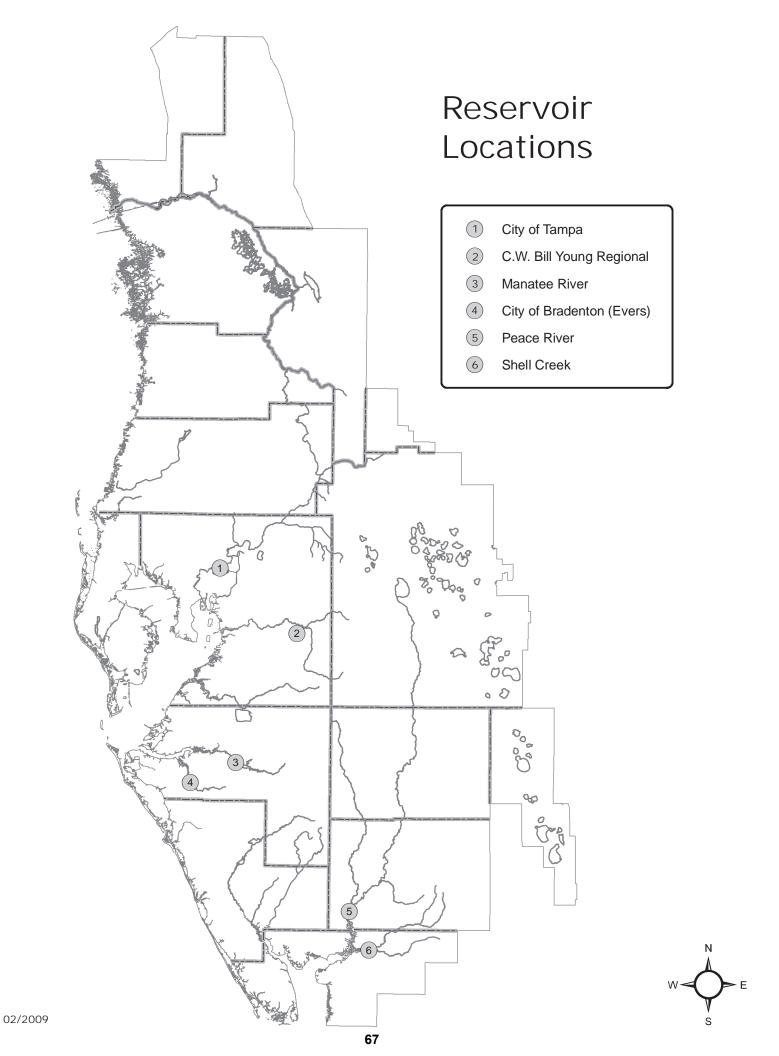
Public Access: Yes Period-of-record: 1934

Gage: Water-stage recorder



### **Select Groundwater & Aquifer Resource Monitoring Stations**

1 Lake Alfred Deep nr Lake Alfred 2 ROMP 16 U Fldn Aq Monitor 3 ROMP 78 21-2 U Fldn Aq Chloride Monitor 4 ROMP 87 U Fldn Aq (Avpk) Monitor 5 Pasco 13 nr Drexel Fldn 5 Sanlon Ranch Fldn 5 Webster City Fldn 6 Sanlon Ranch Fldn 7 ROMP 76 U Fldn Aq (Monitor 8 ROMP 20 U Fldn Aq (Swnn) Monitor 8 ROMP 20 U Fldn Aq (Swnn) Monitor 9 Edgeville 3 Deep 10 Cargill FA-1 Fldn 11 ROMP 78 5-2 U Fldn Aq (Swnn) Monitor 12 Manasota 14 Deep 13 ROMP 16 U Fldn Aq Monitor 14 Big Slough Deep 15 Englewood 14 Deep 16 Loughman Deep 17 Coley Deep 18 Mascotte Deep (L-0062) 19 ROMP 50 U Fldn Aq (Ind) Monitor 17 Coley Deep 18 Mascotte Deep (L-0062) 19 ROMP 50 U Fldn Aq Interface Monitor 20 ROMP 51 U Fldn Aq Interface Monitor 21 ROMP 78 1-1 U Fldn Aq Monitor 22 ROMP 13 U Fldn Aq Interface Monitor 23 ROMP 13 U Fldn Aq Monitor 24 Verna Test 0-1 25 ROMP 13 U Fldn Aq Monitor 26 ROMP 18 U Fldn Aq Monitor 27 ROMP 78 1-1 U Fldn Aq Monitor 28 ROMP 18 U Fldn Aq Interface Monitor 29 ROMP 50 U Fldn Aq Interface Monitor 20 ROMP 50 U Fldn Aq Interface Monitor 21 ROMP 78 1-1 U Fldn Aq Monitor 22 ROMP 18 U Fldn Aq Monitor 23 ROMP 18 U Fldn Aq (Avpk) Monitor 24 Verna Test 0-1 25 ROMP 18 U Fldn Aq (Swnn) Monitor 26 ROMP 18 U Fldn Aq (Swnn) Monitor 27 ROMP 18 U Fldn Aq (Swnn) Monitor 38 ROMP 19 U Fldn Aq (Swnn) Monitor 40 ROMP 78 1-2 U Fldn Aq (Swnn) Monitor 51 ROMP 78 1-1 L Arca Aq Interface Monitor 52 ROMP 18 U Fldn Aq (Avpk) Monitor 53 ROMP 18 U Fldn Aq (Swnn) Monitor 54 ROMP 78 1-2 U Fldn Aq (Swnn) Monitor 55 ROMP 18 U Fldn Aq (Swnn) Monitor 56 ROMP 28 U Fldn Aq (Swnn) Monitor 57 ROMP 78 7-1 L Arca Aq Interface Monitor 58 ROMP 19 U Fldn Aq (Swnn) Monitor 59 ROMP 19 U Fldn Aq (Swnn) Monitor 50 ROMP 19 U Fldn Aq (Swnn) Monitor 51 ROMP 19 U Fldn Aq (Swnn) Monitor 52 ROMP 19 U Fldn Aq (Swnn) Monitor 53 Sumter 13 I C 59 U Fldn Repl 54 ROMP 19 U Fldn Aq (Swnn) Monitor	Map ID	<u>Site Name</u>	Map ID	<u>Site Name</u>
ROMP TR 21-2 U Fldn Aq Chloride Monitor ROMP 87 U Fldn Aq (Aypk) Monitor ROMP 87 U Fldn Aq (Aypk) Monitor RS 2 ROMP 103 U Fldn Aq Monitor RS 2 ROMP 103 U Fldn Aq Monitor RS 2 ROMP 76 U Fldn Aq Monitor ROMP 76 U Fldn Aq (Swnn) Monitor ROMP 76 U Fldn Aq (Swnn) Monitor ROMP 76 U Fldn Aq (Swnn) Monitor ROMP 20 U Fldn Aq (Swnn) Monitor ROMP 20 U Fldn Aq (Swnn) Monitor ROMP 10 Cargill FA-1 Fldn ROMP 11 ROMP TR 5-2 U Fldn Aq (Swnn) Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq (Swnn) Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq (Swnn) Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq (Swnn) Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq (Swnn) Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq Monitor ROMP 12 ROMP 30 U Fldn Aq Monitor ROMP 13 ROMP 14 Deep ROMP 30 U Fldn Aq Monitor ROMP 14 ROMP 15 U Fldn Aq Monitor ROMP 15 ROMP 15 U Fldn Aq Monitor ROMP 16 U Fldn Aq Monitor ROMP 17 Coley Deep ROMP 59 U Fldn Aq Interface Monitor ROMP 18 U Fldn Aq Monitor ROMP 19 U Fldn Aq Monitor ROMP 10 ROMP 11 U Fldn Aq Monitor ROMP 11 U Fldn Aq Monitor ROMP 12 U Fldn Aq Monitor ROMP 13 U Fldn Aq Monitor ROMP 14 U Fldn Aq Monitor ROMP 15 U Fldn Aq Monitor ROMP 17 U Fldn Aq Monitor ROMP 17 U Fldn Aq Monitor ROMP 18 U Fldn Aq (Swnn) Monitor ROMP 18 U Fldn Aq (Swnn) Monitor ROMP 18 U Fldn Aq (Swnn) Monitor ROMP 19 U Fldn Aq (Swnn) Monitor	1	Lake Alfred Deep nr Lake Alfred	49	ROMP 26 U Fldn Aq Monitor
ROMP 87 U Fldn Aq (Avpk) Monitor Sacon 13 nr Drexel Fldn Sanion Ranch Fldn Sanion Ranch Fldn RoMP 76 U Fldn Aq Monitor ROMP 76 U Fldn Aq Monitor ROMP 76 U Fldn Aq Monitor ROMP 20 U Fldn Aq (Swnn) Monitor ROMP 10 Cargill FA-1 Fldn ROMP 11 ROMP TR 5-2 U Fldn Aq (Swnn) Monitor ROMP TR 5-2 U Fldn Aq (Swnn) Monitor ROMP 11 ROMP TR 5-2 U Fldn Aq (Swnn) Monitor ROMP 12 Manasota 14 Deep ROMP 16 U Fldn Aq Monitor ROMP 16 U Fldn Aq Monitor ROMP 17 S-2 U Fldn Aq (Swnn) Monitor ROMP 18 Sig Slough Deep ROMP 19 U Fldn Aq Monitor ROMP 19 U Fldn Aq Interface Monitor ROMP 19 U Fldn Aq Monitor ROMP 13 U Fldn Aq Monitor ROMP 14 U Fldn Aq Monitor ROMP 15 U Fldn Aq Monitor ROMP 15 U Fldn Aq Monitor ROMP 16 U Fldn Aq Monitor ROMP 17 U Fldn Aq Monitor ROMP 18 U Fldn Aq Monitor ROMP 19 U Fldn Aq Monitor ROMP 10 U Fl	2	ROMP 16 U Fldn Aq Monitor	50	SR 577 Deep
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ROMP 28X U Fldn Aq Monitor  ROMP TR 7-1 L Arca Aq Interface Monitor  ROMP TR 7-1 L Arca Aq Interface Monitor  ROMP TR 1-2 U Fldn Aq Monitor  ROMP TR 1-2 U Fldn Aq Monitor  ROMP TR 7-4 U Fldn Aq (Swnn) Monitor  ROMP TR 7-4 U Fldn Aq (Swnn) Monitor  ROMP 58 U Fldn Aq Monitor  ROMP 58 U Fldn Aq (Avpk) Monitor  ROMP 60 U Fldn Aq (Avpk) Monitor Repl  ROMP 22 U Fldn Aq (Swnn) Monitor  ROMP 22 U Fldn Aq (Swnn) Monitor  ROMP 33 Sumter 13 JC 59 Up Fldn Repl  ROMP 9 U Fldn Aq (Swnn) Monitor	24	Verna Test 0-1	72	SR 52 Deep West nr Fivay Junction
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ROMP 9 U Fldn Aq (Swnn) Monitor	32	ROMP 22 U Fldn Aq (Swnn) Monitor	80	ROMP 19 U Fldn Aq (Swnn) Monitor
.,	33	Sumter 13 JC 59 Up Fldn Repl	81	ROMP TR SA-1 U Fldn Aq (Swnn) Monitor
35 Tarnon Road Deen	34	ROMP 9 U Fldn Aq (Swnn) Monitor		
33 Tarpon Noau Deep	35	Tarpon Road Deep		
36 ROMP 123 Htrn As/U Fldn Aq Monitor	36	ROMP 123 Htrn As/U Fldn Aq Monitor		
37 ROMP 88 U Fldn Aq Monitor	37	ROMP 88 U Fldn Aq Monitor		
38 Inverness DOT Fldn	38	Inverness DOT Fldn		
39 Pinellas 665 Fldn	39	Pinellas 665 Fldn		
40 Lykes Pasco Fldn	40	Lykes Pasco Fldn		
41 ROMP 119 U Fldn Aq Sulfate Monitor	41	ROMP 119 U Fldn Aq Sulfate Monitor		
42 SR 52 And CR 581 Deep	42	SR 52 And CR 581 Deep		
43 ROMP 93 U Fldn Aq Monitor	43	ROMP 93 U Fldn Aq Monitor		
44 ROMP 30 U Fldn Aq Monitor	44	ROMP 30 U Fldn Aq Monitor		
45 ROMP 97 U Fldn Aq Monitor	45	ROMP 97 U Fldn Aq Monitor		
46 North Lecanto Deep	46	North Lecanto Deep		
47 Chassahowitzka 1 Deep	47	•		
48 Bexley 2 Fldn	48	Bexley 2 Fldn		



# DESCRIPTION OF PUBLIC SUPPLY SURFACE WATER RESERVOIRS

CITY OF TAMPA RESERVOIR (Hillsborough River Basin): Constructed in 1924, it is located on the Hillsborough River in Hillsborough County. It is the fourth largest public supply surface water facility in the District. It is the main water supply for the City of Tampa and has a total storage capacity of 1.7 billion gallons (bg). The total usable volume is 1.4 bg, when the reservoir elevation is 22.5 feet NGVD. It is an in-stream reservoir with a depth that ranges between nine and 22 feet. Given this amount of water, it is estimated that a 15-day supply of water is available from this facility over an extended dry period. During periods of low water due to drought conditions, the facility is permitted to pump water from two alternate sources. The first of these two sources is the Tampa Bypass Canal. Water is pumped over the water control structure at S-161 into the Hillsborough River above the dam. The second source is Sulphur Springs, just downstream from the dam, where water is captured at the spring and pumped back behind the dam. Withdrawals from both sources are in strict accordance with pumpage schedules as outlined in the facility's water use permit. When water levels fall below 12 feet NGVD, water cannot be withdrawn because the reservoir level is below the intake pipes. The permitted average daily withdrawal for this facility is 82 mgd, with a permitted maximum daily withdrawal of 104 mgd. Currently, ground water wells are not used to augment this facility. The minimum producible level is 9.00 feet.

#### PEACE RIVER RESERVOIRS - PEACE RIVER/MANASOTA REGIONAL WATER

**SUPPLY AUTHORITY (Peace River Basin):** The Peace River reservoirs are located in southwestern DeSoto County. They are an off-stream reservoir system consisting of two reservoirs that store surface water captured from the Peace River during wet periods. The first reservoir, Reservoir 1, was built in 1980 and encompasses approximately 85 acres, has a water depth of approximately 31 feet, and has a total storage capacity of approximately 625 million gallons. The second reservoir, Reservoir 2, was built in 2009, covers about 616 acres, has a water depth of approximately 35 feet, and has a total storage capacity of about 6.0 billion gallons. The PRMRWSA facility ranks as the third largest in the District for total volume storage and supplies water to Charlotte, DeSoto, Manatee and Sarasota counties and to the City of North Port. The facility also uses an aquifer storage recovery (ASR) system for storing treated water pumped from the river. The minimum producible level at Reservoir 1 is Elevation 8.0 feet, while Reservoir 2 is Elevation 27.0 feet.

MANATEE RESERVOIR (Manasota Basin): Completed in 1967 by the damming of the Manatee River, the Manatee Reservoir is the second largest of the six surface-water public supply facilities within the District. Located in Manatee County, this in-stream facility has a storage capacity of 7.5 bg. The service area of the Manatee reservoir is the unincorporated portions of Manatee County, the City of Palmetto and Anna Maria Island, and also the Sarasota SUD#1. This reservoir provides essentially all public supply for Manatee County, with the exception of the City of Bradenton. The total size of this reservoir is 1800 acres with an average depth of 15 feet. With the reservoir full, the

facility has approximately 220 days of available water supply. When the surface-water elevation drops below 21.0 feet, water cannot be withdrawn because levels are below the facility's intakes. The permitted average daily withdrawal for this facility is 34.9 mgd, with a permitted peak monthly quantity of 41.9 mgd. The minimum producible level is 21.00 feet.

**EVERS RESERVOIR (Manasota Basin):** Constructed in 1935 and expanded in 1985, it is located on the Braden River in Manatee County. This is the fifth largest public supply reservoir in the District. Its main service area is the City of Bradenton and approximately 500 customers outside the city. It has a total storage capacity of 1.5 bg. The total size of the facility is 300 acres with an average depth of 12 feet. Water ceases to flow over the dam when the level falls below 3.84 feet NGVD. During the 1985 drought, while expansion of the facility was taking place, the water level dropped to one foot below sea level and demand was still met. Given a completely full reservoir, with no water going over the spillway, it is estimated the facility could supply water for approximately 260 days, with no input from rainfall. The permitted average daily withdrawal for this facility is 6.95 mgd, with a permitted peak monthly quantity of 8.13 mgd. Currently, ground-water wells are not used to augment this facility.

SHELL CREEK RESERVOIR (Peace River Basin): Shell Creek Reservoir, located in Charlotte County, is the sixth largest surface water system within the District. This system was built in 1964 and services the City of Punta Gorda as well as unincorporated areas surrounding the city limits. The Shell Creek Reservoir is fed by two primary tributaries, Shell Creek from the east and Prairie Creek from the northwest. The total drainage area at Hendrickson Dam is 373 square miles. It has a surface area of 800 acres and depths of 10 to 12 feet. Total storage capacity is 765 mg. Even with this low volume of water, personnel at this facility estimate they have approximately 125 days of available supply with no input from rainfall. Water ceases to flow across the weir when surface elevations drop below 5.0 feet NGVD, and at 3.7 feet NGVD water quality becomes a major concern. When surface elevations drop below 1.75 feet NGVD, the water is below the intakes and withdrawal of water is not possible. The permitted average daily withdrawal by this facility is 5.358 mgd, with a permitted peak monthly quantity of 6.901 mgd. The minimum producible level is 1.70 feet.

C.W. BILL YOUNG REGIONAL RESERVOIR - TAMPA BAY WATER (Alafia River Basin): Constructed in early 2005, it is the largest public supply surface water facility in the District. Located in southern Hillsborough County, it is an off-stream reservoir that stores surface water skimmed from the Tampa Bypass Canal and Alafia and Hillsborough Rivers. It services the Tampa Bay region through the Tampa Bay Water regional public supply water distribution system. The reservoir has an estimated storage capacity of 15.0 bg when the water level elevation is 136.5 feet NGVD. The reservoir is approximately 45 feet deep, two miles long and one mile wide, and encompasses a land area of approximately 1,100 acres. It reportedly has the capacity to provide 25 percent of the Tampa Bay region's public supply needs for six months and can supply the Tampa Bay regional surface water treatment plant at full capacity for 227 days.