Hydrologic Conditions

for the month of

June 2021

Prepared by the Hydrologic Data Section Data Collection Bureau



July 27, 2021

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. [Notice: There have been substantial changes to the content of this monthly report, as of the July 2020 report.]

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 Granville Kinsman, Manager of the Hydrologic Data Section at (352) 796-7211 or (800) 423-1476, extension 4284.

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.

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), ext. 4747; 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 June 2021

In June, average rainfall totals were "above-normal" in the northern and central regions of the District, while they were within the normal range in the southern region. The normal range for rainfall is defined by totals that fall on or between the 25th to 75th percentiles of the historical monthly accumulation for each region and where the 50th percentile represents the historical mean. The northern counties received an average of 10.98 inches of rainfall, equivalent to the 92nd percentile of the historical June record. The central counties received an average of 8.92 inches of rainfall, equivalent to the 78th percentile, while the southern counties received an average of 7.75 inches of rainfall, equivalent to the 56th percentile of the historical June record. The District-wide rainfall average of 9.08 inches was equivalent to the 76th percentile of the historical June record.

During the 12-month period from July 1, 2020 through June 30, 2021, the average rainfall totals in all three regions of the District were classified as "normal." The northern region received an average of 53.13 inches of rainfall, equivalent to the 47th percentile of the historical annual record. The central region received an average of 52.22 inches of rainfall, equivalent to the 52nd percentile, while the southern region received an average of 47.49 inches of rainfall, equivalent to the 31st percentile. The District-wide rainfall average of 50.82 inches was equivalent to the 41st percentile of the historical annual record.

Average lake levels in June were below-normal in the Northern and Lake Wales Ridge regions of the District, while they were within the annual normal range in the Tampa Bay and Polk Uplands regions. Normal lake levels are defined as levels that fall between the minimum low management level and the minimum flood level. Lake levels in the Northern region increased by an average of 0.28 foot and were 1.22 feet below the annual normal range. Lake levels in the Tampa Bay region increased an average of 0.29 foot and were 0.16 foot above the base of the annual normal range. Average lake levels in the Polk Uplands region decreased by an average of 0.11 foot and were 1.13 feet above the base of the annual normal range. Average lake levels in the Lake Wales Ridge region decreased by 0.31 foot and ended the month 0.58 foot below the base of the annual normal range.

Total streamflow in June, based on three regional index rivers, was within the normal range in the northern and central regions of the District, while it was below-normal in the southern region. Normal streamflow is defined as the flow that falls on or between the 25th and 75th percentiles. Streamflow measured at the Withlacoochee River near Holder station in the northern counties increased and was at the 40th percentile. Streamflow in the Hillsborough River near Zephyrhills station in the central counties increased and was at the 69th percentile, while total streamflow measured at the Peace River at Arcadia station in the southern counties increased and was at the 17th percentile during June.

In June, groundwater data showed that average levels in the Upper Floridan aquifer were within the normal range in all three regions of the District. The normal range is defined as levels that fall on or between the 25th and 75th percentiles. The average groundwater level in the northern, central and southern counties were at the 65th, 66th and 53rd percentiles, respectively.

REGIONAL OVERVIEW OF HYDROLOGIC CONDITIONS

JUNE 2021

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 June, the northern region received an average of 10.98 inches of rainfall, equivalent to the 92nd percentile of the historical June readings, which is considered "very wet." Average lake levels increased in the northern region and ended the month an average of 1.22 feet below the base of the annual normal range. Total streamflow measured in the Withlacoochee River near Holder station increased and was in the 40th percentile. Regional groundwater levels indicated Upper Floridan aquifer water levels increased and were in the 65th percentile.

Central Region

In June, the central region received an average of 8.92 inches of rainfall, equivalent to the 78th percentile of historical June readings, which is considered "wetter than normal." Average lake levels increased in the Tampa Bay region, while they decreased in the Polk Uplands region, ending the month 0.16 foot and 1.13 feet, respectively, above the base of the annual normal range. Total streamflow measured at the Hillsborough River near Zephyrhills station increased and was in the 69th percentile. Regional groundwater levels indicated average Upper Floridan aquifer water levels increased and were in the 66th percentile.

Southern Region

In June, the southern region received an average of 7.75 inches of rainfall, equivalent to the 56th percentile of historical June readings, which is considered "normal." Average lake levels decreased in the Lake Wales Ridge region and ended the month 0.58 foot below the base of the annual normal range. Total streamflow measured at the Peace River at Arcadia station increased and was in the 17th percentile. Regional groundwater levels indicated average Upper Floridan aquifer water levels increased and were in the 53rd 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 90th 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 10th (P10), the 25th (P25), the 75th (P75) and the 90th (P90) percentiles. The normal range for rainfall is defined by totals that fall on or between the 25th to 75th percentiles of the historical monthly average for each region and where the 50th 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 June, rainfall totals were "above-normal" in the northern and central regions of the District, while they were within the normal range in the southern region. The normal range for rainfall is defined by totals that fall on or between the 25th to 75th percentiles of the historical monthly average for each region and where the 50th percentile represents the historical median. The northern counties received an average of 10.98 inches of rainfall, equivalent to the 92nd percentile of the historical June record. The central counties received an average of 8.92 inches, equivalent to the 78th percentile of the historical June record, while the southern counties received an average of 7.75 inches, equivalent to the 56th percentile. District-wide, rainfall averaged 9.08 inches, which is equivalent to the 76th percentile.

During the 12-month period from July 1, 2020 through June 30, 2021, the average rainfall totals in the northern, central and southern counties were classified as "normal." The northern counties received an average of 53.13 inches of rainfall, equivalent to the 47th percentile of the historical record. The central counties received an average of 52.22 inches of rainfall, equivalent to the 52nd percentile. The southern counties received

an average of 47.49 inches of rainfall, equivalent to the 31st percentile. The District-wide rainfall average was 50.82 inches, which is equivalent to the 41st percentile of the historical annual record.

Tampa Monthly Climate Summary for June 2021

According to the National Weather Service (NWS), the monthly average temperature (°F) for Tampa was 83.8 degrees, which was 0.9 degrees above normal. The highest temperature recorded during the month was 96.0 degrees, while the lowest temperature recorded during the month was 72.0 degrees. The June 2021 monthly average temperature of 83.8 degrees ties with 2019 as the 4th warmest June since records began in 1890. The warmest June had an average temperature of 85.6 degrees, which occurred in 1998.

Temperature and Precipitation Outlook

The Climate Prediction Center's (CPC) three-month weather forecast, as of July 15, 2021, indicates equal chances for above-normal, normal or below-normal rainfall throughout the District during the composite 3-month period from August through October 2021. 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 JUNE 2021 RAINFALL TO HISTORICAL RAINFALL AVERAGES

Regional Summary:

Region	JUN 2021 Average Rainfall	Historical Average for JUN	Departure from Historical Average	Calendar Year 2021 Cumulative Rainfall JAN-JUN	Calendar Year Historical Cumulative Rainfall JAN-JUN	Departure from Historical Cumulative JUN 2021	Cumulative 12-month Rainfall JUL 2020- JUN 2021	Historical 12-month Cumulative Rainfall	Departure from Historical 12-month Cumulative
Northern Counties	10.98	7.55	3.43	22.94	23.49	-0.55	53.13	53.58	-0.45
Central Counties	8.92	7.17	1.75	17.86	21.71	-3.85	52.22	52.42	-0.20
Southern Counties	7.75	8.00	-0.25	15.78	21.87	-6.09	47.49	52.38	-4.89
District All Counties	9.08	7.56	1.52	18.54	22.26	-3.72	50.82	52.73	-1.91
Regional Countie	es Summary:								
NORTHERN COUNTIES	JUN 2021 Average Rainfall	Historical Average for JUN	Departure from Historical Average	Calendar Year 2021 Cumulative Rainfall JAN-JUN	Calendar Year Historical Cumulative Rainfall JAN-JUN	Departure from Historical Cumulative JUN 2021	Cumulative 12-month Rainfall JUL 2020- JUN 2021	Historical 12-month Cumulative Rainfall	Departure from Historical 12-month Cumulative
Levy County	10.66	6.94	3.72	24.73	23.45	1.28	51.42	53.96	-2.54
Marion County	10.49	7.52	2.97	24.67	24.11	0.56	54.32	54.31	0.01
Citrus County	11.02	7.78	3.24	22.53	23.62	-1.09	53.81	54.07	-0.26
Sumter County	12.33	7.53	4.80	23.85	23.24	0.61	55.17	51.94	3.23
Hernando County	10.23	7.80	2.43	20.15	23.68	-3.53	50.27	54.98	-4.71
CENTRAL COUNTIES									
Pasco County	9.06	7.56	1.50	17.05	23.01	-5.96	49.52	54.04	-4.52
Pinellas County	8.36	6.18	2.18	17.10	20.11	-3.01	49.28	51.73	-2.45
Hillsborough County	10.74	7.60	3.14	19.70	22.15	-2.45	53.24	52.66	0.58
Polk County	7.73	7.98	-0.25	17.13	22.98	-5.85	53.34	52.06	1.28
SOUTHERN COUNTIES									
Manatee County	7.54	7.72	-0.18	17.74	21.48	-3.74	49.18	53.41	-4.23
Hardee County	7.76	8.40	-0.64	16.84	22.49	-5.65	47.91	52.10	-4.19
Highlands County	7.06	8.31	-1.25	16.42	22.31	-5.89	51.31	52.04	-0.73
Sarasota County	7.65	7.68	-0.03	13.68	20.92	-7.24	44.71	52.65	-7.94
DeSoto County	8.02	8.43	-0.41	15.02	21.90	-6.88	47.15	51.84	-4.69
Charlotte County	8.35	8.59	-0.24	14.06	21.36	-7.30	45.06	52.52	-7.46

JUNE 2021 RAINFALL CHARACTERIZATION

Regional Characterization:

Charlotte County

8.35

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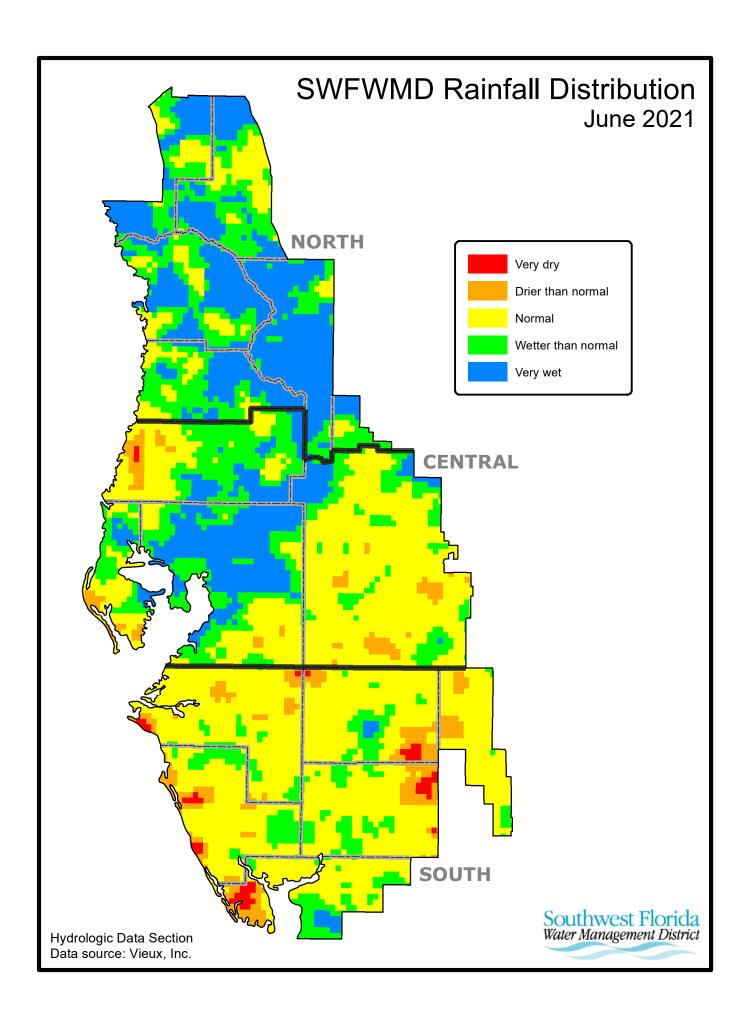
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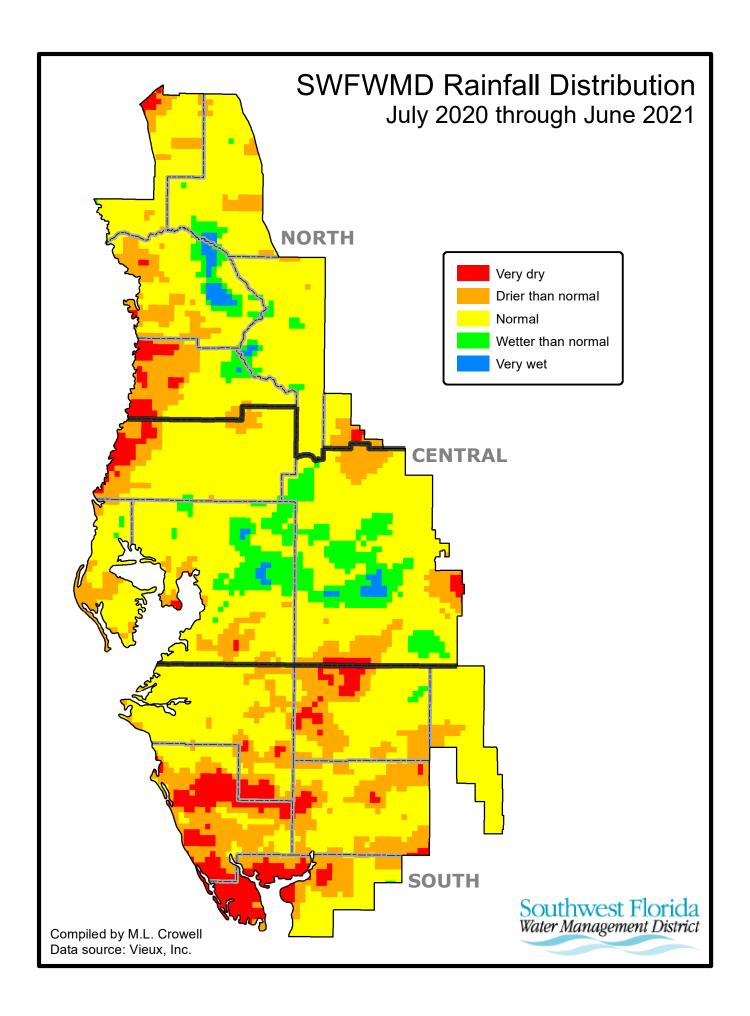
Region	JUN 2021 Average Rainfall	Historical JUN Percentile	JUN Rainfall Characterization	Cumulative 12-month Rainfall JUL 2020- JUN 2021	Historical 12-month Cumulative Percentile	12-month Cumulative Rainfall Characterization
Northern Counties	10.98	92	Very wet	53.13	47	Normal
Central Counties	8.92	78	Wetter than normal	52.22	52	Normal
Southern Counties	7.75	56	Normal	47.49	31	Normal
District Counties	9.08	76	Wetter than normal	50.82	41	Normal
Regional Counti	es Characteriza	tion:				
NORTHERN COUNTIES	JUN 2021 Average Rainfall	Historical JUN Percentile	JUN Rainfall Characterization	Cumulative 12-month Rainfall JUL 2020- JUN 2021	Historical 12-month Cumulative Percentile	12-month Cumulative Rainfall Characterization
Levy County	10.66	92	Very wet	51.42	42	Normal
Marion County	10.49	87	Wetter than normal	54.32	51	Normal
Citrus County	11.02	90	Wetter than normal	53.81	49	Normal
Sumter County	12.33	92	Very wet	55.17	66	Normal
Hernando County	10.23	81	Wetter than normal	50.27	32	Normal
CENTRAL COUNTIES						
Pasco County	9.06	77	Wetter than normal	49.52	31	Normal
Pinellas County	8.36	81	Wetter than normal	49.28	42	Normal
Hillsborough County	10.74	90	Wetter than normal	53.24	54	Normal
Polk County	7.73	52	Normal	53.34	57	Normal
SOUTHERN COUNTIES						
Manatee County	7.54	56	Normal	49.18	34	Normal
Hardee County	7.76	51	Normal	47.91	34	Normal
Highlands County	7.06	36	Normal	51.31	48	Normal
Sarasota County	7.65	59	Normal	44.71	21	Drier than normal
DeSoto County	8.02	57	Normal	47.15	33	Normal
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Drier than 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 May data, 39 of the 75 lakes monitored for this report recorded water level increases, while 36 recorded decreases. Average water levels increased in the Northern and Tampa Bay regions by 0.28 and 0.29 foot, respectively. while levels decreased in the Polk Uplands and Lake Wales Ridge regions by 0.11 and 0.31 foot, respectively. District-wide, average water levels increased by 0.11 foot, compared to last month.

Compared to June 2020 data, 51 of the 75 lakes monitored for this report recorded water level decreases, while 23 recorded increases and one reported no change. In the Northern, Tampa Bay, Polk Uplands and Lake Wales Ridge regions, average levels were 0.29, 0.49, 0.33 and 0.09 foot, respectively, lower than last year's levels. District-wide, average lake levels were lower by 0.36 foot, compared to last year's levels.

In June 2021, water levels in 45 of the 75 lakes were within the annual normal range, while 30 were below. Lake levels in the Northern and Lake Wales Ridge regions averaged 1.22 feet and 0.58 foot, respectively, below the base of the annual normal range. Lake levels in the Tampa Bay and Polk Uplands regions averaged 0.16 foot and 1.13 feet, respectively, above the base of the annual normal range. District-wide, average lake levels were 0.06 foot above the base of the annual normal range. Water levels in 68 of the 75 lakes were above the drought-year levels.

SUMMARY OF LAKE ELEVATIONS OF REGIONAL LAKES (feet)

NORTHERN LA	KES					Change	Change	Diff	(MELM)	(MLM)	(MF)	Period		Period	
Lake Name	County	Beginning of Record	MAY 2021	JUN 2021	JUN 2020	from MAY 2021	from JUN 2020	from MELM	Drought Year Low	Normal Year Low	Normal Year High	of Record Low	Record Low Date	of Record High	Record High Date
Crews Lake	Pasco	1986	49.40	49.22	50.48	-0.18	-1.26	-0.78	50.00	52.00	55.00	42.63	APR 2001	54.92	MAR 1998
Hancock Lake	Pasco	1978	98.12	98.22	99.34	0.10	-1.12	-3.78	102.00	104.00	106.50	90.00	MAR 2009	108.90	MAR 1998
Hunters Lake	Hernando	1967	15.13	15.07	17.78	-0.06	-2.71	-0.93	16.00	17.50	20.50	11.70	JUN 2001	20.50	MAR 1970
Lake Iola	Pasco	1984	140.25	140.48	140.57	0.23	-0.09	-2.02	142.50	145.00	147.50	128.96	MAY 2012	148.70	JAN 1989
Lake Lindsey	Hernando	1982	64.57	64.75	65.25	0.18	-0.50	0.25	64.50	66.00	69.00	59.38	MAY 2012	69.47	MAR 1998
Little Lake (Consu	Citrus	1985	38.33	38.31	37.08	-0.02	1.23	1.06	37.25	39.00	41.50	31.10	MAY 2001	42.84	SEP 2004
Lake Miona	Sumter	1985	53.27	53.49	54.33	0.22	-0.84	2.49	51.00	53.00	55.00	47.88	MAY 2002	55.47	OCT 2019
Moon Lake	Pasco	1990	37.83	37.47	38.92	-0.36	-1.45	1.97	35.50	37.50	40.50	32.98	APR 2009	41.26	SEP 2004
Lake Panasoffkee	Sumter	1962	39.68	40.52	39.78	0.84	0.74	2.02	38.50	39.50	42.50	36.88	MAY 2007	43.04	OCT 2004
Lake Pasadena	Pasco	1984	90.06	90.52	90.97	0.46	-0.45	0.52	90.00	91.50	94.50	81.56	MAY 2001	94.86	OCT 2004
Spring Lake	Hernando	1965	178.87	178.89	179.71	0.02	-0.82	0.64	178.25	181.25	184.25	174.85	JUN 1965	183.57	OCT 1984
Floral City Pool	Citrus	1981	39.44	40.01	39.28	0.57	0.73	1.76	38.25	40.25	42.50	0.83	MAY 2000	42.66	SEP 2004
Inverness Pool	Citrus	1985	38.35	39.22	37.92	0.87	1.30	2.97	36.25	38.25	40.50	0.77	MAY 2000	40.89	OCT 2004
Hernando Pool	Citrus	1985	37.25	38.27	37.04	1.02	1.23	3.52	34.75	36.75	39.00	0.86	MAY 2000	40.17	FEB 1998

TAMPA BAY L	AKES					Change	Change	Diff	(MELM)	(MLM)	(MF)	Period		Period	
Lake Name	County	Beginning of Record	MAY 2021	JUN 2021	JUN 2020	from MAY 2021	from JUN 2020	from MELM	Drought Year Low	Normal Year Low	Normal Year High	of Record Low	Record Low Date	of Record High	Record High Date
Lake Alice	Hillsborough	1981	39.12	38.78	39.48	-0.34	-0.70	1.28	37.50	40.25	42.25	19.84	JUN 2017	42.42	SEP 2004
Lake Ann-Parker	Pasco	1983	46.32	46.54	46.77	0.22	-0.23	1.54	45.00	45.75	48.75	43.28	JUN 2001	49.29	AUG 2015
Bay Lake	Hillsborough	1982	44.94	45.82	45.57	0.88	0.25	3.32	42.50	44.00	46.75	41.86	APR 1985	46.47	DEC 1997
Lake Brant	Hillsborough	1981	56.64	56.81	57.24	0.17	-0.43	2.31	54.50	56.50	58.75	51.65	JUN 1994	59.57	AUG 2015
Brooker Lake	Hillsborough	1977	61.66	62.94	62.80	1.28	0.14	3.94	59.00	61.00	64.25	56.49	MAY 2002	64.08	DEC 1997
Calm Lake	Hillsborough	1982	47.87	47.67	48.80	-0.20	-1.13	2.67	45.00	47.50	50.50	41.88	JUN 2002	51.04	JUL 2015
Camp Lake	Pasco	1983	61.26	60.91	61.80	-0.35	-0.89	1.91	59.00	61.75	64.00	50.82	MAY 2002	64.05	JUL 2015
Carlton Lake	Hillsborough	1976	89.66	89.23	92.01	-0.43	-2.78	1.23	88.00	90.50	93.50	86.82	MAY 2001	94.60	FEB 1998
Lake Carroll	Hillsborough	1985	35.34	36.64	36.34	1.30	0.30	4.14	32.50	34.50	37.00	0.90	MAY 1999	37.87	AUG 2015
Church Lake	Hillsborough	1983	34.02	33.79	34.50	-0.23	-0.71	2.29	31.50	34.00	36.25	27.94	MAY 2002	36.90	JUL 1987
Lake Cooper Crescent Lake	Hillsborough	1980 1981	59.00 40.41	59.70 40.13	59.74 41.67	0.70 -0.28	-0.04 -1.54	2.70 1.63	57.00 38.50	59.75 40.00	61.75 42.50	55.60 35.34	JUN 2001 JUN 2001	62.44 42.89	AUG 2015 SEP 2017
Deer Lake	Hillsborough	1977	64.90	40.13 65.92	65.74	-0.26 1.02	0.18	3.42	62.50	64.50	42.30 67.25	55.54 60.72	MAY 2001	42.69 67.42	DEC 1997
Egypt Lake	Hillsborough Hillsborough	1977	35.70	36.52	36.80	0.82	-0.28	4.02	32.50	35.00	37.50	33.06	MAY 2002	38.15	SEP 1985
Gornto Lake	Hillsborough	1979	35.22	35.28	36.17	0.06	-0.28	1.28	34.00	36.00	38.50	29.86	MAR 1979	39.48	FEB 1998
Lake Harvey	Hillsborough	1970	60.15	59.99	61.07	-0.16	-1.08	1.99	58.00	60.25	62.50	53.94	MAY 2002	63.90	DEC 1997
Lake Hiawatha	Hillsborough	1981	49.19	48.98	49.78	-0.10	-0.80	3.98	45.00	48.00	50.50	46.14	JUN 2000	51.16	JUL 2019
Horse Lake	Hillsborough	1930	43.42	43.10	44.26	-0.32	-1.16	1.10	42.00	44.00	46.50	0.83	MAR 2000	50.00	AUG 1959
Lake Keene	Hillsborough	1981	60.73	61.92	62.06	1.19	-0.14	2.92	59.00	60.50	63.00	56.12	JUN 2002	63.69	SEP 2017
Keystone Lake	Hillsborough	1984	40.54	40.83	40.67	0.29	0.16	1.83	39.00	39.75	42.00	0.92	MAY 2000	43.64	AUG 2015
King Lake	Pasco	1983	101.41	101.86	101.81	0.45	0.05	1.86	100.00	102.50	105.25	94.20	APR 2009	104.80	MAR 1987
Lake Leclare	Hillsborough	1977	49.86	49.79	50.74	-0.07	-0.95	2.79	47.00	49.50	52.00	44.95	JUN 2001	52.99	JUL 2015
Lake Linda	Pasco	1983	64.19	64.65	65.27	0.46	-0.62	2.65	62.00	64.00	66.75	60.07	MAY 2001	67.17	SEP 2017
Little Lake	Hillsborough	1979	44.21	44.03	44.79	-0.18	-0.76	2.03	42.00	43.50	46.50	38.06	JUN 1994	48.55	JUN 2017
Long Pond	Hillsborough	1978	44.00	43.94	44.48	-0.06	-0.54	1.94	42.00	44.00	46.50	36.33	MAY 1979	48.27	SEP 1998
Mud (Walden) Lake	Hillsborough	1978	112.27	112.91	112.73	0.64	0.18	2.41	110.50	112.50	115.00	111.45	MAY 2017	114.42	MAR 1978
Lake Padgett	Pasco	1965	68.22	69.16	69.24	0.94	-0.08	1.66	67.50	69.00	71.25	66.27	JUN 2001	71.90	SEP 1988
Platt Lake	Hillsborough	1981	48.34	49.32	49.32	0.98	0.00	3.32	46.00	47.75	50.50	42.53	JUN 2001	51.61	AUG 2015
Rainbow Lake	Hillsborough	1981	36.89	36.51	37.70	-0.38	-1.19	1.51	35.00	37.50	40.50	29.82	JUN 2002	40.95	JUL 2015
Lake Stemper	Hillsborough	1983	59.21	59.35	60.33	0.14	-0.98	1.35	58.00	59.50	62.00	53.36	JUN 2001	61.68	SEP 2004
Lake Thomas	Hillsborough	1981	61.48	62.09	62.42	0.61	-0.33	2.84	59.25	61.25	63.50	56.48	JUN 2002	64.13	AUG 2015
Turkey Ford Lake	Hillsborough	1970	49.47	50.13	51.85	0.66	-1.72	0.13	50.00	51.50	54.00	48.07	JUN 1985	55.28	SEP 1988
Lake Wimauma	Hillsborough	1985	79.32	79.13	76.62	-0.19	2.51	-1.87	81.00	83.00	86.75	70.12	MAY 2001	84.38	MAR 1998

NOTE: M='no data' or 'not determined'

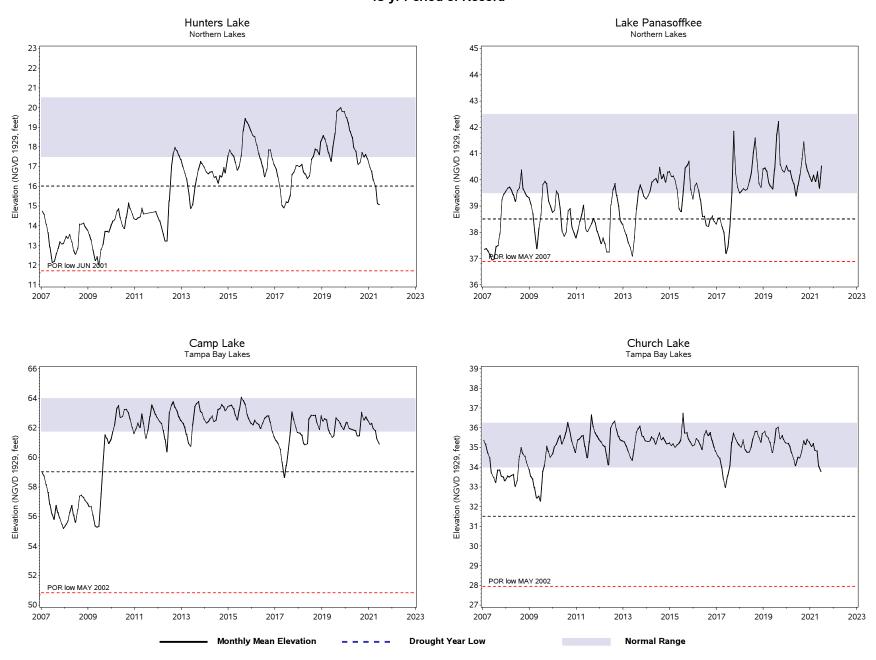
SUMMARY OF LAKE ELEVATIONS OF REGIONAL LAKES (feet)

POLK UPLAN	DS LAKES	Beginning	MAY	JUN	JUN	Change from MAY	Change from JUN	Diff from	(MELM) Drought	(MLM) Normal	(MF) Normal	Period of Record	Record	Period of Record	Record
Lake Name	County	of Record	2021	2021	2020	2021	2020	MELM	Year Low	Year Low	Year High	Low	Low Date	High	High Date
Lake Alfred	Polk	1990	131.20	130.92	130.80	-0.28	0.12	4.67	126.25	128.25	130.75	124.17	MAY 2013	132.77	DEC 2020
Lake Ariana	Polk	1984	135.89	135.70	136.20	-0.19	-0.50	3.20	132.50	134.50	137.00	131.68	MAY 2009	137.66	JAN 2016
Lake Arietta	Polk	1970	141.69	141.40	142.01	-0.29	-0.61	3.40	138.00	141.00	144.00	136.50	MAY 1977	144.12	SEP 2004
Blue Lake South	Polk	1986	115.49	115.23	114.59	-0.26	0.64	2.73	112.50	114.00	117.00	103.38	FEB 1991	119.19	DEC 2005
Lake Bonny	Polk	1954	129.37	129.03	129.40	-0.34	-0.37	3.03	126.00	128.00	130.50	122.34	MAY 2009	133.08	SEP 2004
Lake Buffum	Polk	1982	130.54	130.28	131.80	-0.26	-1.52	3.53	126.75	129.25	132.25	123.90	JUN 1991	133.00	JUN 2005
Clearwater Lake	Polk	1979	142.30	142.08	142.36	-0.22	-0.28	3.08	139.00	141.00	143.50	137.93	MAY 2001	146.06	AUG 1984
Lake Conine	Polk	1989	127.88	127.62	128.11	-0.26	-0.49	3.12	124.50	126.50	128.75	123.83	NOV 2009	129.95	SEP 2004
Eagle Lake	Polk	1965	128.76	128.85	128.81	0.09	0.04	2.35	126.50	128.50	130.75	120.87	MAY 1967	131.50	SEP 1996
Lake Fannie	Polk	1967	124.53	124.63	124.55	0.10	0.08	4.63	120.00	123.50	125.75	58.51	JUN 2008	127.51	SEP 2004
Lake Garfield	Polk	1982	100.99	100.92	102.20	-0.07	-1.28	0.92	100.00	101.00	104.75	97.38	JUN 2001	105.70	FEB 1998
Lake Hamilton	Polk	1962	120.16	120.34	120.69	0.18	-0.35	3.09	117.25	119.00	121.50	111.25	MAR 2008	123.96	OCT 2004
Lake Helene	Polk	1961	143.43	143.20	144.55	-0.23	-1.35	4.20	139.00	141.00	144.00	134.06	JUN 2008	146.71	OCT 2017
Lake Howard	Polk	1987	130.68	130.70	130.71	0.02	-0.01	3.70	127.00	129.50	132.00	127.69	MAY 2001	133.08	SEP 2004
Lake Juliana	Polk	1984	132.52	132.21	132.75	-0.31	-0.54	4.71	127.50	130.00	132.50	127.40	NOV 2009	134.12	SEP 2020
Lake Mcleod	Polk	1983	129.44	129.46	128.89	0.02	0.57	1.46	128.00	129.50	132.00	120.76	JUL 1985	131.98	SEP 1998
Lake Otis	Polk	1954	126.55	126.48	126.19	-0.07	0.29	3.48	123.00	125.00	128.00	119.58	MAY 1976	129.12	SEP 1960
Lake Ruby	Polk	1974	123.92	123.93	124.22	0.01	-0.29	2.93	121.00	123.00	125.25	120.68	JUN 1974	125.98	SEP 2004
Lake Gibson	Polk	1984	142.16	142.45	142.79	0.29	-0.34	0.95	141.50	141.50	143.50	140.21	MAY 2009	145.40	SEP 1988
LK WALES RI	DGE LAKES	Dii	4447	,,,,,,		Change	Change	Diff	(MELM)	(MLM)	(MF)	Period	D	Period	0
Lake Name	County	Beginning of Record	MAY 2021	JUN 2021	JUN 2020	from MAY 2021	from JUN 2020	from MELM	Drought Year Low	Normal Year Low	Normal Year High	of Record Low	Record Low Date	of Record High	Record High Date

LK WALES F	RIDGE LAKES					Change	Change	Diff	(MELM)	(MLM)	(MF)	Period		Period	
Lake Name	County	Beginning of Record	MAY 2021	JUN 2021	JUN 2020	from MAY 2021		from MELM	Drought Year Low	Normal Year Low	Normal Year High	of Record Low	Record Low Date	of Record High	Record High Date
Lake Annie	Polk	1983	116.83	116.87	116.12	0.04	0.75	2.87	114.00	116.00	119.00	108.36	JUN 1990	118.15	NOV 2020
Lake Clay	Highlands	1983	77.43	77.49	78.21	0.06	-0.72	2.49	75.00	76.00	78.75	74.34	MAY 2001	78.82	JUN 2013
Crooked Lake	Polk	1982	119.05	118.93	120.55	-0.12	-1.62	1.93	117.00	118.50	122.00	106.28	APR 1991	123.44	AUG 2005
Lake Jackson	Highlands	1984	101.67	100.93	102.19	-0.74	-1.26	2.93	98.00	100.00	103.00	96.47	JUN 2008	103.75	SEP 2017
Lake Letta	Highlands	1981	96.83	96.39	96.27	-0.44	0.12	1.39	95.00	97.00	100.00	90.27	JUN 2008	100.74	OCT 2017
Lake Lotela	Highlands	1989	105.48	105.00	103.96	-0.48	1.04	1.00	104.00	105.00	108.50	96.63	JUN 2008	109.13	SEP 2017
Lake Placid	Highlands	1984	91.62	90.84	91.52	-0.78	-0.68	0.84	90.00	91.50	94.50	88.08	JUN 2008	94.24	SEP 2003
Starr Lake	Poľk	1983	106.05	106.08	104.14	0.03	1.94	-1.92	108.00	110.00	113.00	96.23	JUL 2001	109.80	DEC 2005
Trout Lake	Highlands	1981	94.61	94.28	94.67	-0.33	-0.39	-0.72	95.00	98.00	101.00	87.15	MAY 2001	99.89	SEP 2016

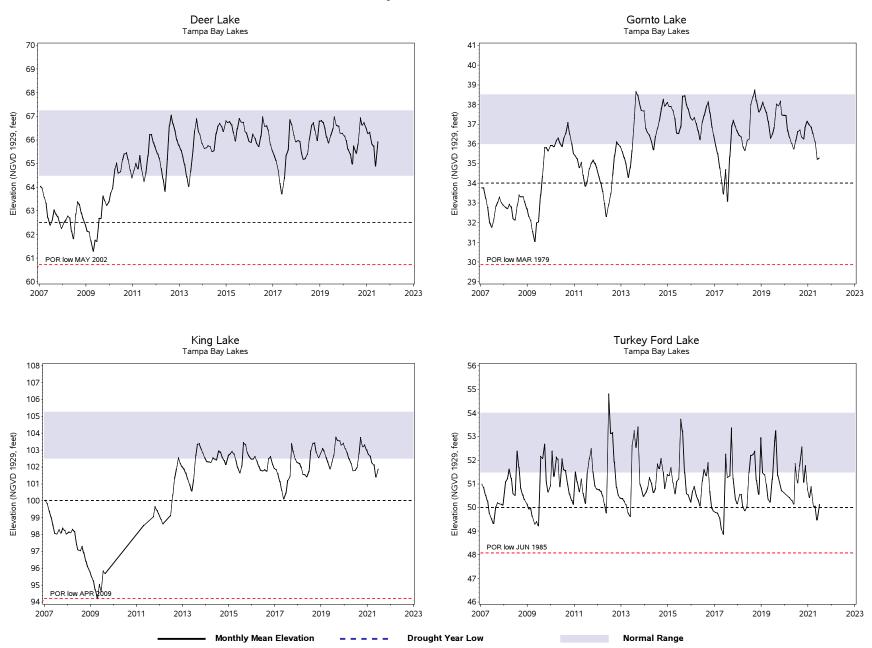
NOTE: M='no data' or 'not determined'

HYDROGRAPHS OF REGIONAL LAKES 15-yr Period of Record

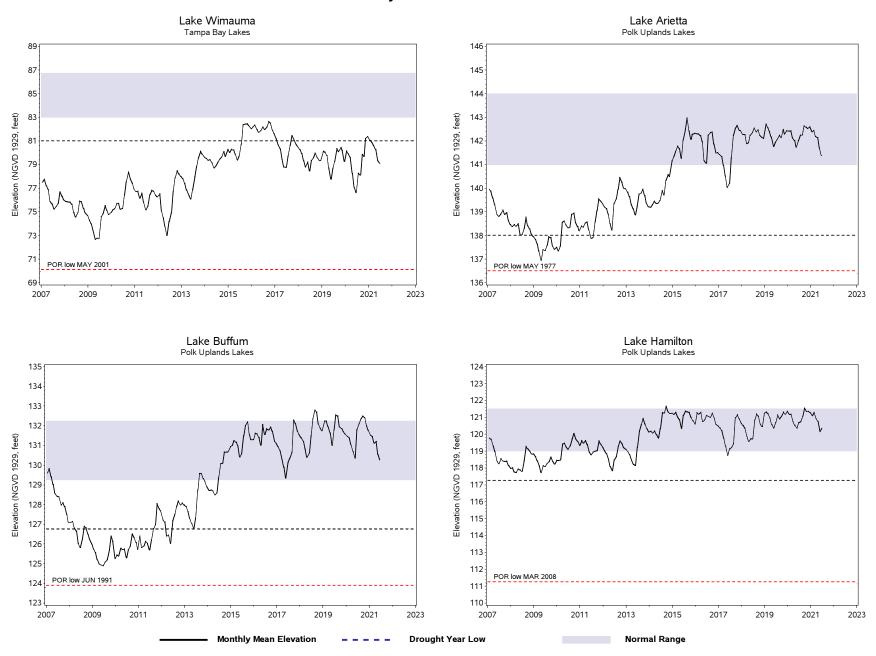


HYDROGRAPHS OF REGIONAL LAKES

15-yr Period of Record

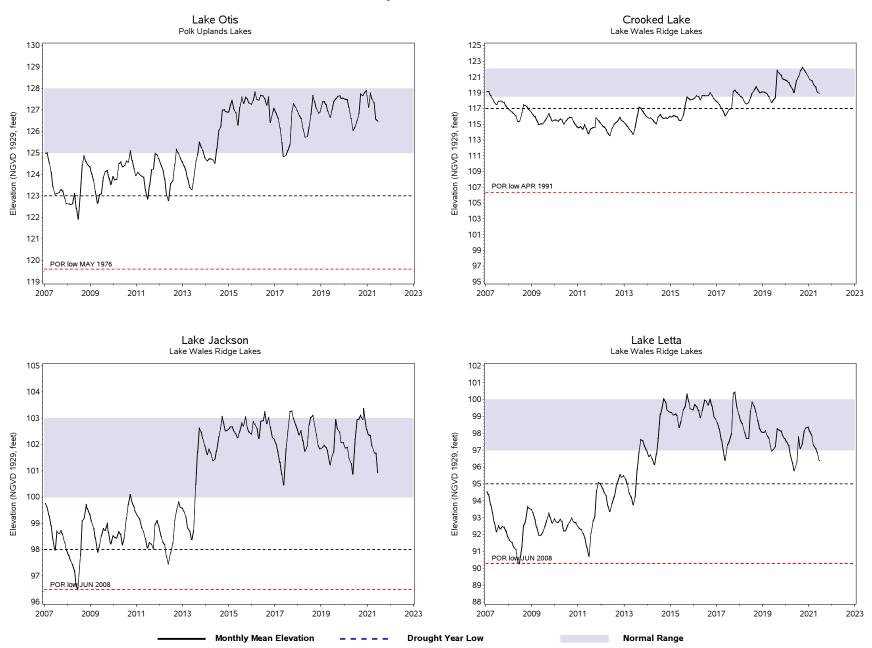


HYDROGRAPHS OF REGIONAL LAKES 15-yr Period of Record



HYDROGRAPHS OF REGIONAL LAKES

15-yr Period of Record



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 100th 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 respective 25th and 75th percentiles of the period-of-record monthly means, reflecting the normal range of readings for the month.

Compared to May data, nine of the 12 stations monitored for this report recorded increased streamflow, while two reported decreased streamflow and one reported "unchanged" streamflow.

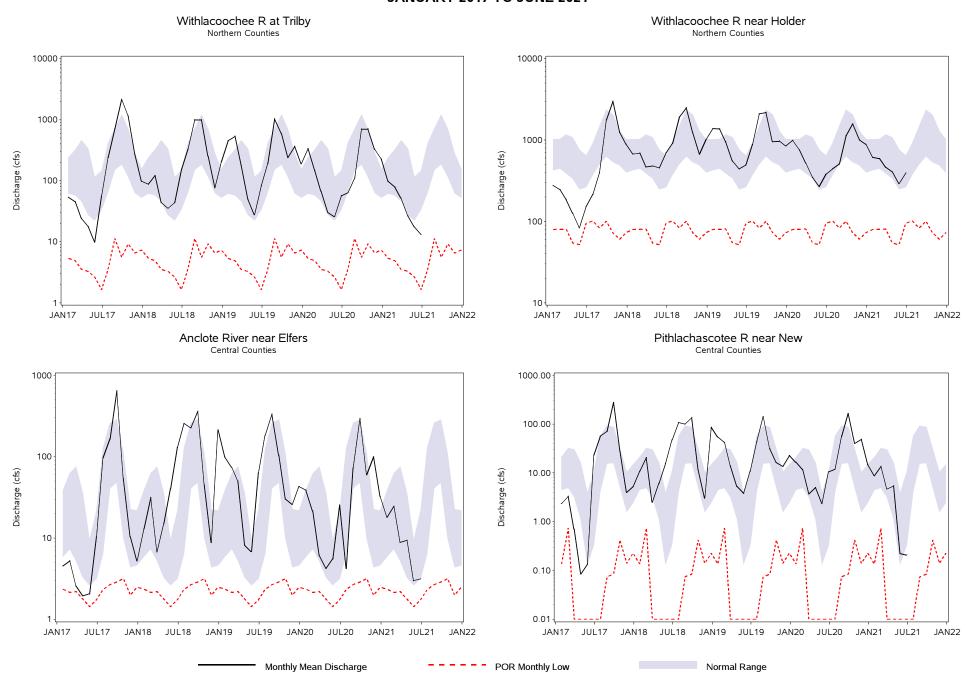
Compared to June 2020 data, nine of the 12 stations recorded streamflow decreases, while three recorded increases.

Compared to historical June discharge values. Withlacoochee River streamflow, measured at the Trilby station and the Holder station averaged in the 16th and 40th percentiles, respectively. Streamflow measured at the stations on the Anclote, Pithlachascotee and Hillsborough Rivers averaged in the 32nd, 22nd and 69th percentiles of respective historical June readings. Streamflow measured at the Alafia River, Little Manatee River and Peace River at Bartow stations averaged in the 44th, 33rd and 52nd percentiles of respective historical June readings. Additionally, streamflow measured at the Josephine Creek, Manatee River, Myakka River and Peace River at Arcadia stations averaged in the 29th, 31st, 35th and 17th percentiles of respective historical June readings.

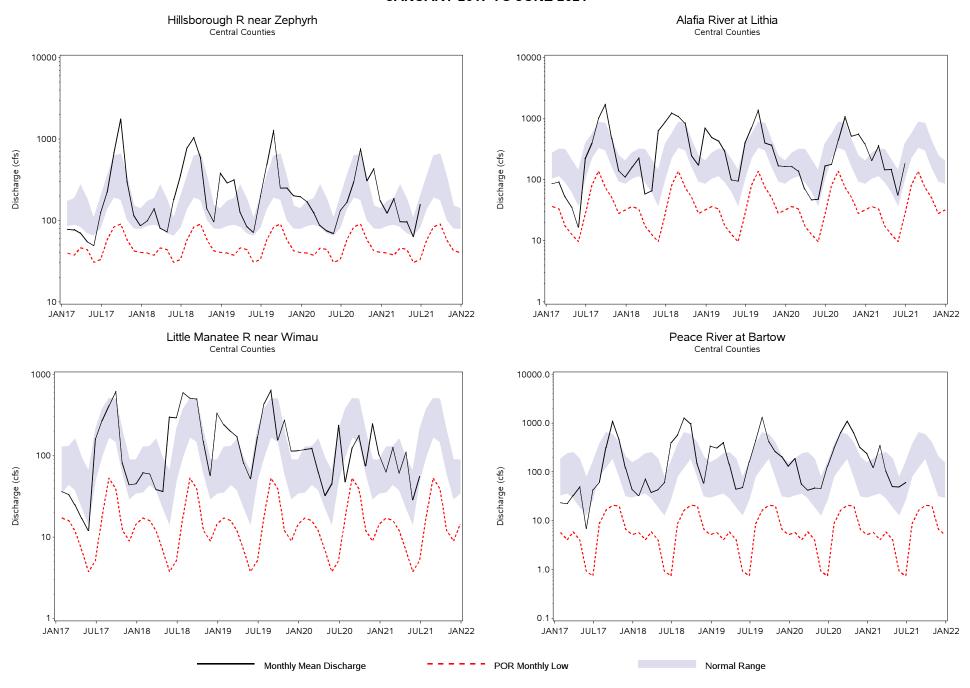
SUMMARY OF STREAM DISCHARGE FROM MAJOR STREAMS (CFS), JUNE 2021

NORTHERN COUNTIES	Beginning	Mean	Mean	Mean	Change	Change	JUN 2021	Period of	Record	Period of	Record
	Year of	Discharge	Discharge	Discharge	from	from	Percentile	Record	Low	Record	High
	Record	JUN 2021	MAY 2021	JUN 2020	MAY 2021	JUN 2020	Rank	Low	Date	High	Date
Withlacoochee R at Trilby Withlacoochee R near Holder	1928	13.2	17.6	56.6	-4.4	-43.4	16%	0.1	JUN2000	8840	JUN1934
	1928	393.9	290.9	380.9	103.0	13.0	40%	33.0	MAR2001	8660	APR1960
CENTRAL COUNTIES											
Anclote River near Elfers Pithlachascotee R near New Hillsborough R near Zephyrh Alafia River at Lithia Little Manatee R near Wimau Peace River at Bartow	1946 1963 1939 1932 1939	3.2 0.2 156.9 181.6 55.4 60.8	3.0 0.2 63.4 56.4 28.9 49.9	25.5 10.5 132.4 167.8 235.2 132.8	0.2 0.0 93.5 125.2 26.5 10.9	-22.3 -10.3 24.5 13.8 -179.8 -72.0	32% 22% 69% 44% 33% 52%	0.8 0.0 27.0 4.1 0.9 0.0	MAY1962 MAY2021 MAY2001 JUN2000 DEC1976 MAY2009	3710 2180 12300 40800 11100 4100	JUL1960 JUN2012 MAR1960 SEP1933 SEP1960 SEP1947
SOUTHERN COUNTIES											
Josephine Cr near DeSoto Ci	1946	12.2	10.9	126.2	1.3	-114.0	29%	0.5	MAY1956	1680	SEP1948
Manatee River near Myakka H	1966	18.7	6.8	136.3	11.9	-117.6	31%	0.1	MAY1975	6440	JUN2003
Myakka River near Sarasota	1936	19.4	26.2	588.5	-6.8	-569.1	35%	0.0	JUN2012	10800	JUN2003
Peace River at Arcadia	1931	166.1	85.3	1055.1	80.8	-889.0	17%	5.6	MAY2000	34700	SEP1933

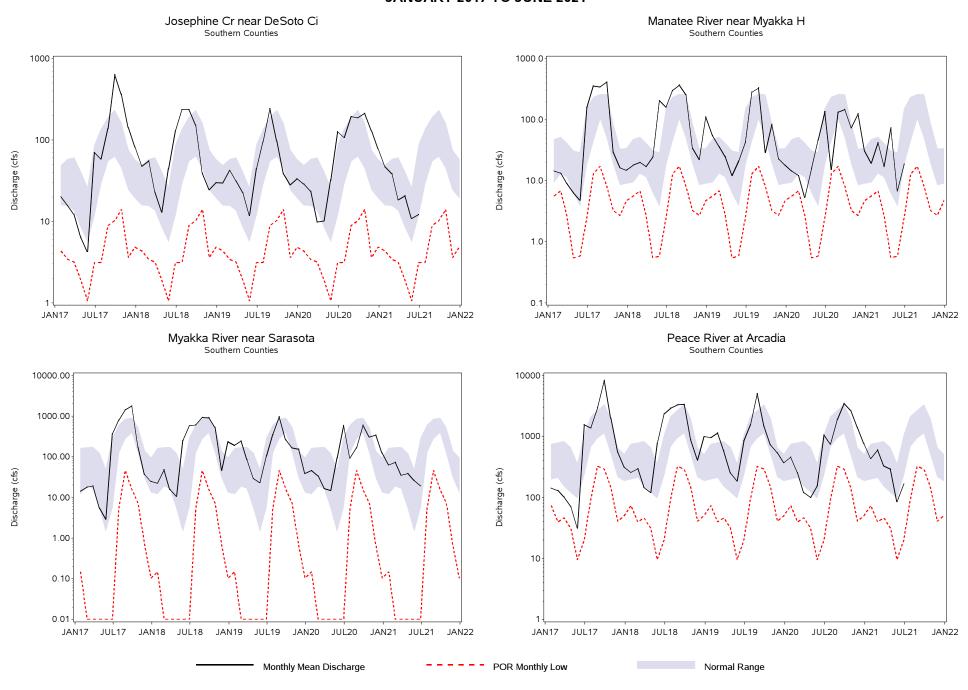
HYDROGRAPHS OF MAJOR STREAMS JANUARY 2017 TO JUNE 2021



HYDROGRAPHS OF MAJOR STREAMS JANUARY 2017 TO JUNE 2021



HYDROGRAPHS OF MAJOR STREAMS JANUARY 2017 TO JUNE 2021



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 25th to 75th percentiles. The zero percentile indicates a new period-of-record low and the 100th 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 May data, four of the six stations monitored for this report recorded decreased springflow, while two recorded increased springflow.

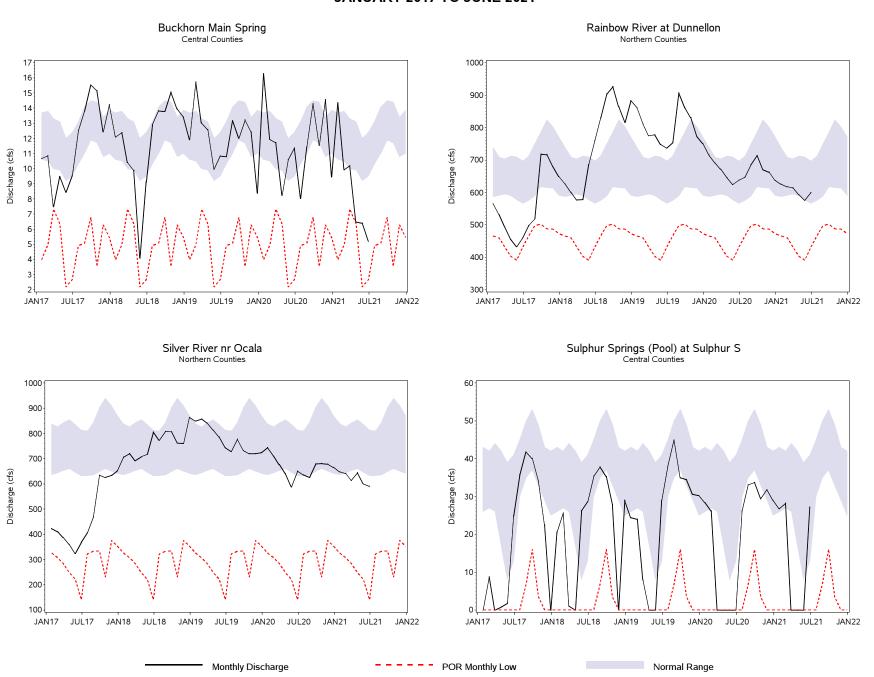
Compared to June 2020 data, all six stations recorded decreased springflow.

Compared to historical period-of-record values for June, total springflow measured in Rainbow, Silver and Weeki Wachee Springs, in the northern region, was in the 29th, 18th and 45th percentiles, respectively, of historical June readings. Springflow measured in Sulphur, Buckhorn and Lithia Springs in the central region, was in the 9th, 3rd and 85th percentiles, respectively, of historical June readings.

SUMMARY OF SPRINGS DISCHARGE FROM MAJOR SPRINGS (CFS), JUNE 2021

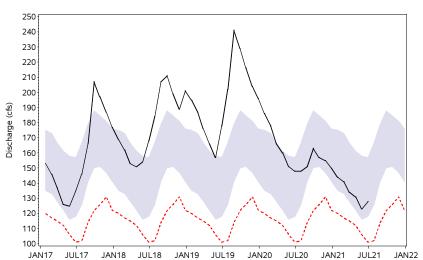
NORTHERN COUNTIES	JUN 2021 Discharge	MAY 2021 Discharge	JUN 2020 Discharge	Change From MAY 2021	Change From JUN 2020	JUN 2021 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Rainbow Springs	584.5	581.9	631.1	2.6	-46.6	29%	391.0	MAY2012	1060.0	SEP1988
Silver Springs Weeki Wachee Springs	596.2 124.7	633.0 127.1	636.3 150.0	-36.8 -2.4	-40.1 -25.3	18% 45%	141.0 101.0	JUN2012 JUN1994	1290.0 257.0	OCT1960 OCT2004
CENTRAL COUNTIES										
Sulphur Springs	4.3	0.0	17.5	4.3	-13.2	9%	0.0	JUN1994	145.0	MAR1960
Buckhorn Springs Lithia Springs	6.6 36.7	6.8 39.1	10.8 39.9	-0.2 -2.4	-4.2 -3.2	3% 85%	2.2 6.2	MAY2006 OCT2012	32.7 91.5	AUG2004 NOV2004

HYDROGRAPHS OF REGIONAL SPRINGS JANUARY 2017 TO JUNE 2021

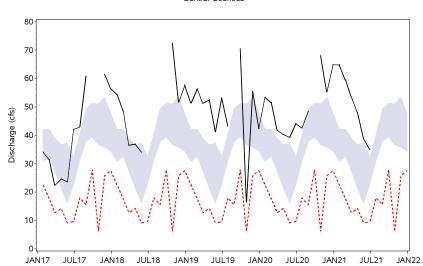


HYDROGRAPHS OF REGIONAL SPRINGS JANUARY 2017 TO JUNE 2021





Lithia Springs Central Counties



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-two UFA monitor wells are measured for this report to determine the relative health of groundwater levels District-wide. Only monitor wells with an adequate and reliable period-of-record of water level measurements were selected for the network. For each well, the 25th and 75th percentiles ("low normal" and "high normal," respectively) were calculated for each week of the year using the period-of-record data. The 25th and 75th 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 82 wells is further compiled into regional statistics for the three regions of the District. There are 20 wells located in the northern counties, 32 wells located in the central counties and 30 wells located in the southern counties, that are currently used for determining the regional percentiles. The potentiometric levels of representative Floridan aquifer wells are used to produce the potentiometric surface maps presented in this report.

Upper Floridan Aquifer

Since May, 79 of the 82 wells monitored for this report recorded water level increases, while two recorded decreases and was one remained unchanged. Regionally, average water levels increased in the northern, central and southern counties by 1.31, 3.26 and 5.20 feet, respectively. District-wide, the average water level in the UFA increased by 3.49 feet.

Compared to June 2020 data, 52 of the 82 wells monitored for this report recorded water level decreases, while 30 recorded increases. Regionally, the mean water level in the northern counties was higher by 0.32 foot, while it was lower in the central and southern counties by 0.36 foot and 2.89 feet, respectively. District-wide, average water levels in UFA wells were 1.12 feet lower than June 2020 levels.

In June, groundwater data showed that levels in the UFA ended the month within the normal range in all three regions of the District. The groundwater level in the northern, central and southern counties ended the month at the $65^{\rm th}$, $66^{\rm th}$ and $53^{\rm rd}$ percentiles, respectively.

During June 2021, a "record high" monthly water level for the historic June readings was set in the "ROMP TR 10-2 Tampa" well located in the central region.

SUMMARY OF UPPER FLORIDAN AQUIFER LEVELS IN REPRESENTATIVE WELLS, JUNE 2021

Regional Summary:

Region	JUN 2021 Mean Elevation	JUN 2021 Relation to POR Median	JUN 2021 Relation to 25th Percentile	JUN 2021 Mean Percentile Rank	MAY 2021 Mean Percentile Rank	JUN 2020 Mean Percentile Rank
Northern Counties Central Counties	37.99 58.43	0.80 1.69	2.13 4.72	65% 66%	43% 49%	51% 57%
Southern Counties	31.06	0.29	2.94	53%	43%	77%

Regional Wells Summary:

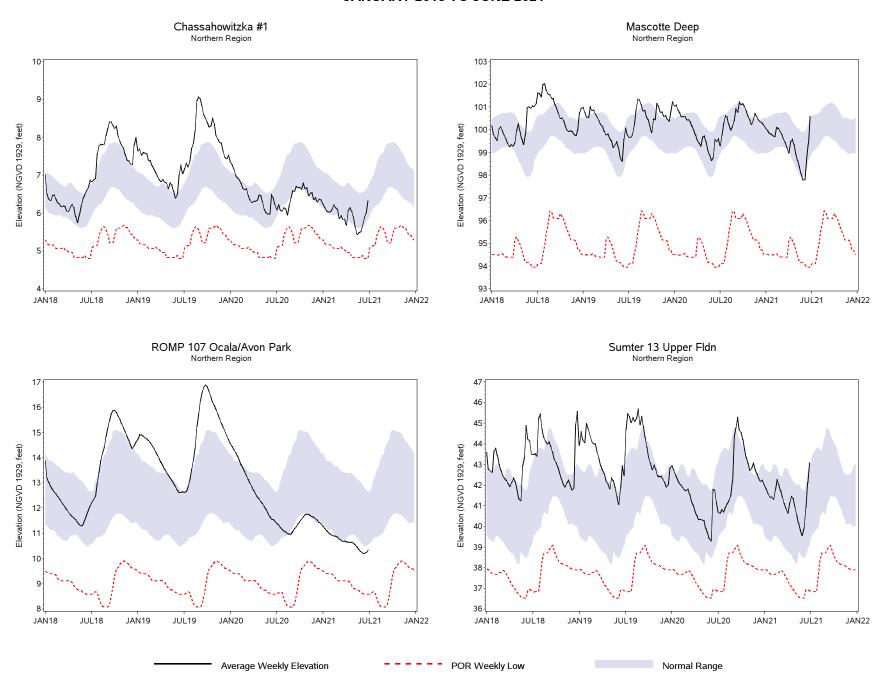
NORTHERN COUNTIES	JUN 2021 Elev	MAY 2021 Elev	JUN 2020 Elev	Change From MAY 2021	Change From JUN 2020	JUN Historical Low Normal	JUN Historical High Normal	Departure From Low Normal	e JUN 2021 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
CE 14 Dunnellon Deep	40.82	38.30	39.02	2.52	1.80	35.68	41.31	5.14	81%	31.94	MAY2012	50.90	MAR1998
Chassahowitzka 1 Deep	6.29	5.54	6.00	0.75	0.29	5.65	6.61	0.64	65%	4.80	JUN2001	9.75	SEP2004
Inverness Dot Fldn	30.25	28.41	28.95	1.84	1.30	27.04	30.37	3.21	72%	21.70	JUN2001	37.80	OCT1982
Mascotte Deep	100.57	97.84	99.26	2.73	1.31	98.72	100.57	1.85	77%	93.94	JUN2000	102.66	SEP1988
North Locanto Deep	4.55	3.86	4.00	0.69	0.55	3.96	5.25	0.59	64%	2.94	MAY2001	8.10	OCT1982
ROMP 103 Suwannee/Ocala	39.07	38.95	40.41	0.12	-1.34	39.63	41.13	-0.56	20%	35.38	AUG1992	48.95	OCT1982
ROMP 107 Ocala/Avon Park	10.37	10.30	11.39	0.07	-1.02	10.56	12.77	-0.19	22%	8.08	AUG2007	19.78	NOV1982
ROMP 111 Ocala/Avon Park	50.50	49.40	49.08	1.10	1.42	47.83	49.66	2.67	93%	44.23	JUL1992	53.33	SEP2004
ROMP 116 Avon Park	33.60	32.09	32.10	1.51	1.50	31.11	33.00	2.49	88%	29.24	MAY2012	39.28	OCT2004
ROMP 119 Avon Park	43.78	43.58	44.00	0.20	-0.22	41.62	44.96	2.16	69%	39.86	MAY2012	52.20	MAR1998
ROMP 120 Avon Park	43.37	43.36	43.93	0.01	-0.56	40.61	44.71	2.76	68%	38.71	MAY2012	52.24	MAR1998
ROMP 134 Ocala/Avon Park	46.91	46.80	49.60	0.11	-2.69	42.77	47.37	4.14	65%	37.80	JUN2012	57.35	APR1998
ROMP 89 Ocala	91.76	87.24	89.08	4.52	2.68	88.16	92.41	3.60	63%	82.46	JUN2000	94.93	DEC1997
ROMP 97 Avon Park	15.34	15.34	17.86	0.00	-2.52	14.36	18.66	0.98	38%	11.84	MAY2009	26.24	SEP2004
ROMP TR 124 Avon Park	3.48	2.90	3.23	0.58	0.25	2.51	3.29	0.97	77%	0.77	SEP2004	7.95	JUN1995
ROMP TR 21-2 Ocala/Avpk	3.42	3.00	3.04	0.42	0.38	2.81	3.21	0.61	78%	0.40	DEC1981	6.12	OCT1995
Sumter 13 JC 59 Up Fldn	43.15	39.61	40.63	3.54	2.52	38.97	42.60	4.18	83%	36.52	MAY2012	47.01	JUN2003
Tidewater 1 FLDN	54.08	53.33	54.20	0.75	-0.12	52.07	56.05	2.01	56%	48.05	JUN2012	61.81	SEP1982
Webster City Fldn	84.98	80.67	82.67	4.31	2.31	78.76	82.96	6.22	93%	74.16	MAY2012	88.77	SEP2005
Weeki Wachee Deep Repl	13.30	12.89	14.81	0.41	-1.51	12.37	16.98	0.93	34%	10.37	MAY2009	23.61	AUG1984

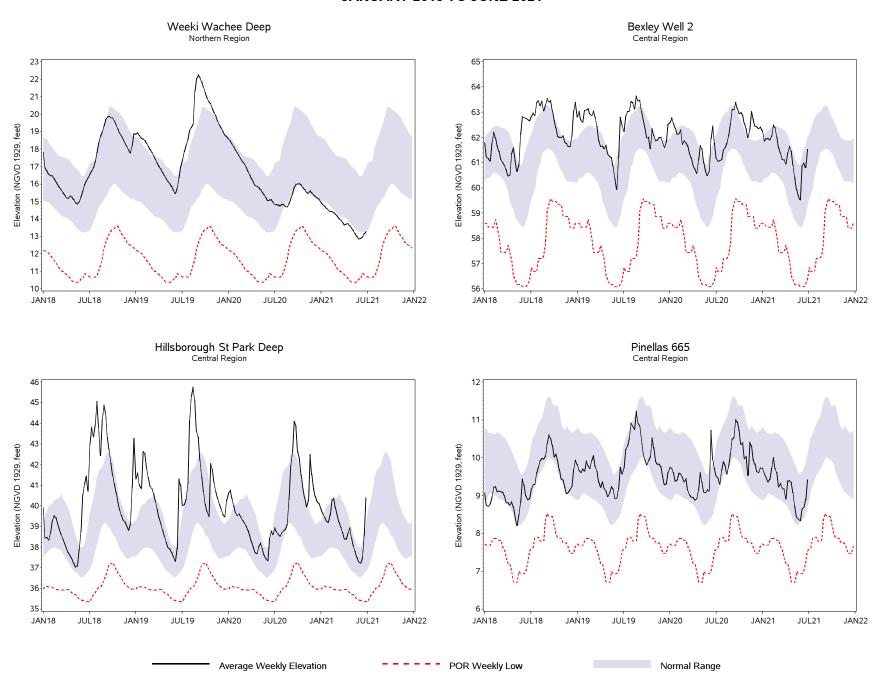
Regional Wells Summary (continued):

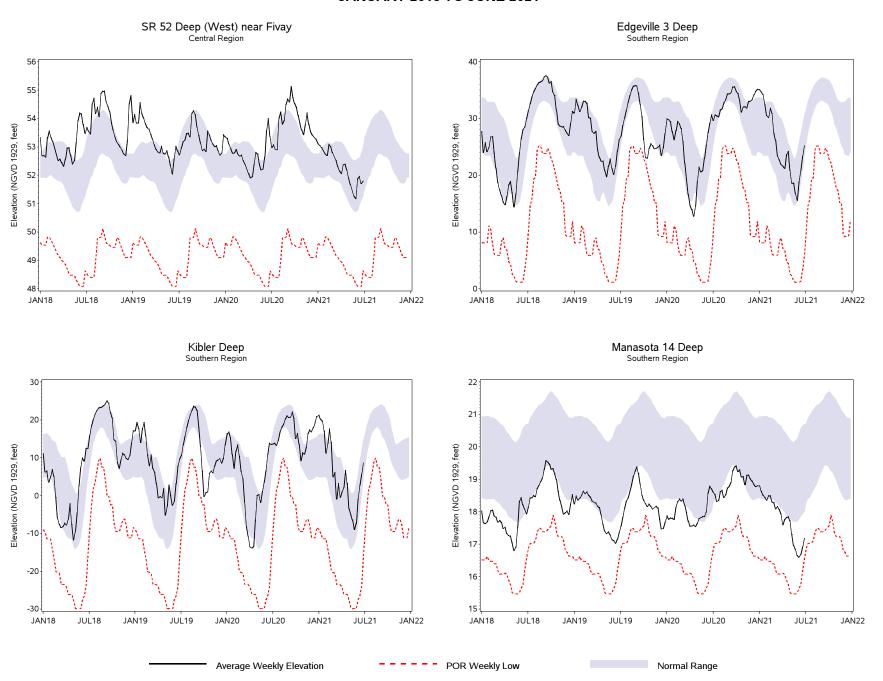
	-			Change	Change	JUN	JUN	Departure	JUN				
	JUN	MAY	JUN	From	From	Historical	Historical	From	2021	Period of	Record	Period of	Record
	2021	2021	2020	MAY	JUN	Low	High	Low	Percentile	Record	Low	Record	High
CENTRAL COUNTIES	Elev	Elev	Elev	2021	2020	Normal	Normal	Normal	Rank	Low	Date	High	Date
Bexley 2 Fldn	61.98	59.52	61.20	2.46	0.78	59.11	61.90	2.87	80%	56.08	JUN2000	64.50	SEP2017
Coley Deep	83.90	78.56	82.18	5.34	1.72	77.15	86.19	6.75	78%	60.77	JAN2010	93.79	OCT1953
Debuel Road Deep	53.48	51.10	52.65	2.38	0.83	52.77	55.62	0.71	33%	46.48	APR2002	60.13	SEP1979
Hills State Park Deep	41.13	37.33	38.94	3.80	2.19	36.73	38.83	4.40	96%	35.35	JUN2000	47.42	DEC1997
Lk Alftred Deep	128.38	126.91	128.29	1.47	0.09	125.67	128.12	2.71	79%	119.85	MAY1974	131.18	MAR1998
Loughman Deep	90.62	88.17	90.52	2.45	0.10	89.25	91.02	1.37	66%	85.90	MAY2001	93.23	OCT1979
Lykes Pasco Fldn	65.57	65.22	66.73	0.35	-1.16	62.72	66.04	2.85	57%	56.94	JUN2000	75.78	OCT2004
Masaryktown Deep	29.56	30.20	33.03	-0.64	-3.47	24.50	35.35	5.06	51%	21.89	AUG1994	50.32	SEP1984
Moon Lake Deep	29.87	29.34	30.46	0.53	-0.59	30.65	31.13	-0.78	11%	26.10	JUN2000	34.89	AUG2015
Pasco 13 nr Drexel Fldn	72.14	70.31	71.12	1.83	1.02	70.70	73.28	1.44	54%	68.00	JUN2001	77.14	JUL1960
Pinellas 665 Fldn	9.96	8.33	9.51	1.63	0.45	8.54	10.16	1.42	89%	6.70	MAY2006	14.79	SEP1959
ROMP 123 Hawthorn/Ocala	12.67	-1.64	17.01	14.31	-4.34	6.27	15.27	6.40	58%	-29.47	MAY2000	33.56	FEB1998
ROMP 40 Swnn/AvPk	38.22	29.18	42.38	9.04	-4.16	26.95	37.21	11.27	76%	-4.15	JUN2000	57.37	FEB1998
ROMP 45 Avon Park	70.42	66.47	71.72	3.95	-1.30	58.05	65.52	12.37	79%	31.75	MAY1981	84.44	OCT2004
ROMP 48 Tampa/Suwannee	33.00	23.89	37.58	9.11	-4.58	20.87	32.99	12.13	73%	-7.87	MAY2000	52.64	FEB1998
ROMP 50 Avon Park	5.51	4.18	6.38	1.33	-0.87	-2.83	4.09	8.34	86%	-17.42	FEB2018	14.95	AUG1982
ROMP 58 Ocala	99.83	98.49	102.11	1.34	-2.28	99.31	102.62	0.52	28%	84.03	JUN2000	111.01	DEC2005
ROMP 59 Swnn/AvPk	71.25	67.68	72.31	3.57	-1.06	54.81	66.00	16.44	87%	33.33	MAY1981	85.92	OCT2004
ROMP 60 Ocala/Avon Park	70.81	66.81	71.06	4.00	-0.25	62.23	66.21	8.58	75%	25.90	MAY1975	87.07	OCT1959
ROMP 66 Tampa	18.49	15.85	18.77	2.64	-0.28	16.13	18.21	2.36	72%	12.04	JUN1977	25.47	AUG2015
ROMP 76 U Fldn	128.81	127.23	128.66	1.58	0.15	126.47	128.66	2.34	64%	119.37	MAY1981	132.92	SEP2004
ROMP 87 Avon Park	103.51	99.12	101.80	4.39	1.71	99.66	103.30	3.85	87%	94.90	JUN2000	106.30	FEB1998
ROMP 88 Avon Park	103.37	99.87	102.42	3.50	0.95	100.31	105.47	3.06	43%	97.42	JUN2000	107.21	SEP2017
ROMP 93 Swnn/AvPk	71.69	69.97	71.24	1.72	0.45	63.95	71.96	7.74	70%	59.03	JUN2001	76.60	SEP1982
ROMP DV-1 Suwannee	57.47	46.50	55.01	10.97	2.46	51.01	58.13	6.46	61%	12.06	JAN2010	65.72	FEB1998
ROMP TR 10-2 Tampa	11.40	9.48	9.85	1.92	1.55	8.96	9.93	2.44	100%	0.22	MAY1981	14.00	SEP2004
ROMP TR 13-3 Avon Park	14.64	13.28	14.50	1.36	0.14	14.02	16.06	0.62	43%	10.95	JUL1987	18.79	AUG2015
SR 52 And CR581 Deep	71.72	70.15	73.09	1.57	-1.37	64.90	73.86	6.82	64%	56.96	JUN2001	79.44	AUG1965
SR 52 Deep W nr Fivay Jct	52.05	51.21	52.91	0.84	-0.86	51.19	52.97	0.86	45%	48.08	JUN2000	59.53	AUG2010
SR 577 Deep	88.07	86.59	88.41	1.48	-0.34	82.06	89.80	6.01	64%	72.76	JUN2000	98.51	MAR1998
Sanlon Ranch Fldn	94.24	91.91	94.26	2.33	-0.02	83.51	90.50	10.73	87%	66.38	MAY1975	105.27	OCT2004
Tarpon Rd Deep	9.85	8.05	9.09	1.80	0.76	9.25	10.39	0.60	54%	7.50	JUN2006	13.48	AUG2015

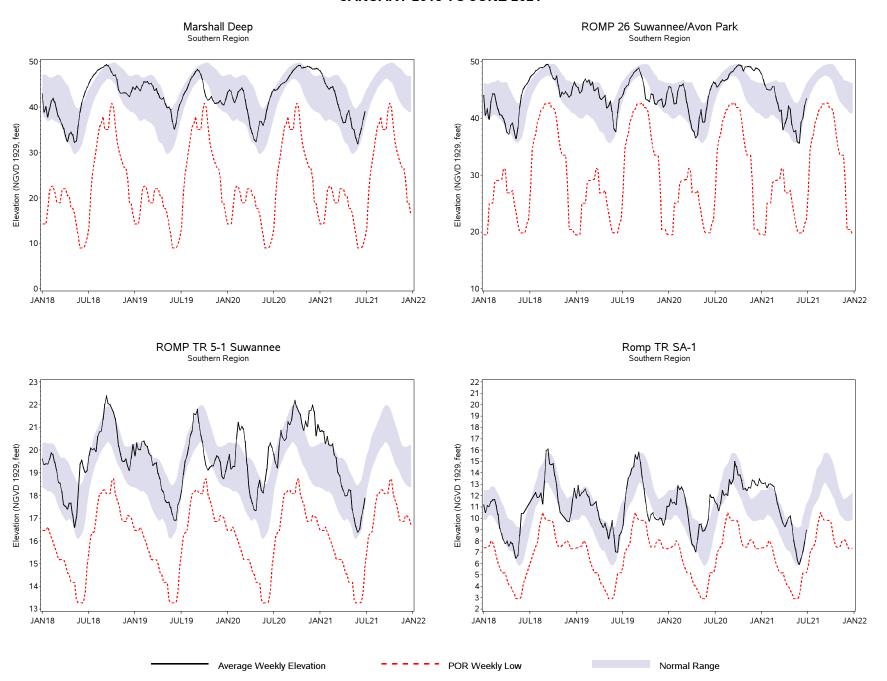
Regional Wells Summary (continued):

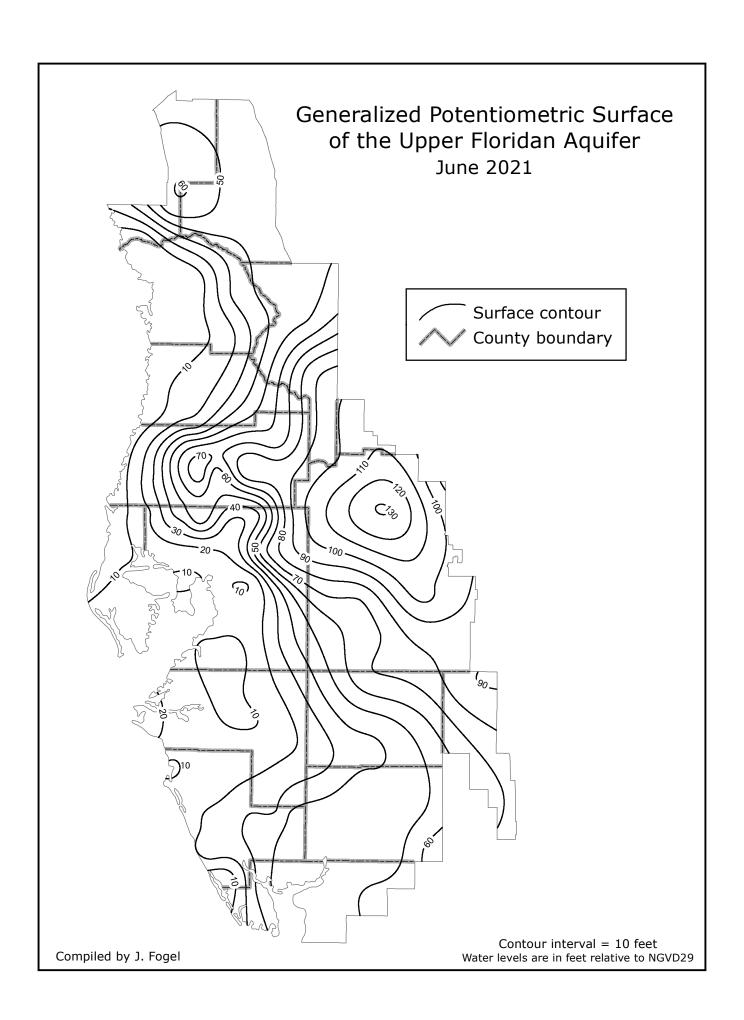
SOUTHERN COUNTIES	JUN 2021 Elev	MAY 2021 Elev	JUN 2020 Elev	Change From MAY 2021	Change From JUN 2020	JUN Historical Low Normal	JUN Historical High Normal	Departure From Low Normal	JUN 2021 Percentile Rank	Period of Record Low	Record Low Date	Period of Record High	Record High Date
Big Slough Deep	31.13	30.40	33.41	0.73	-2.28	30.51	32.57	0.62	35%	26.85	MAY2006	36.12	OCT1995
Cargill FA-1 Fldn	68.48	64.13	69.86	4.35	-1.38	55.34	65.76	13.14	75%	30.50	MAY1981	82.95	OCT2004
Edgeville 3 Deep	25.79	14.98	30.52	10.81	-4.73	22.96	32.53	2.83	39%	1.13	MAY2000	41.26	OCT1979
Englewood 14 Deep	4.37	2.78	6.03	1.59	-1.66	4.03	5.66	0.34	41%	-0.97	FEB2001	11.37	SEP1974
Florida Pwr @ Piney Point	16.37	12.31	18.08	4.06	-1.71	11.15	15.96	5.22	81%	-4.84	MAY1989	21.68	AUG2019
Kibler Deep	9.73	-8.90	13.81	18.63	-4.08	4.18	14.08	5.55	53%	-29.95	MAY2000	29.30	AUG1978
Manasota 14 Deep	17.31	16.73	18.61	0.58	-1.30	17.98	20.72	-0.67	8%	15.46	MAY2017	22.70	NOV1971
Marshell Deep	39.59	31.79	44.08	7.80	-4.49	35.37	42.61	4.22	55%	8.96	JUN2000	55.24	MAR1964
ROMP 16 Ocala	46.64	41.61	47.49	5.03	-0.85	45.90	48.37	0.74	44%	28.94	JAN2001	51.21	SEP1995
ROMP 17 Up Fldn	44.78	40.51	46.28	4.27	-1.50	43.60	46.01	1.18	46%	31.89	JUN2000	51.64	OCT1994
ROMP 19 West UFA Swnn	24.06	21.63	30.80	2.43	-6.74	22.33	27.39	1.73	39%	10.99	JUN2000	33.80	SEP2017
ROMP 19X UFA (SWNN)	31.08	28.29	36.13	2.79	-5.05	27.38	33.34	3.70	53%	19.28	JUN2000	40.19	JAN1984
ROMP 20 UFA (SWNN)	17.22	21.16	23.51	-3.94	-6.29	17.29	21.31	-0.07	25%	11.99	MAY2007	26.66	SEP2017
ROMP 22 UFA (SWNN)	16.30	8.44	22.04	7.86	-5.74	11.12	18.47	5.18	56%	-3.71	MAY2000	30.18	FEB1998
ROMP 26 Swnn/AvPk	43.81	35.46	46.03	8.35	-2.22	41.83	46.04	1.98	50%	19.48	JAN2010	51.28	OCT1979
ROMP 28X Swnn/AvPk	70.42	66.11	68.34	4.31	2.08	67.25	70.16	3.17	76%	57.24	JAN2010	74.68	OCT1995
ROMP 30 Swnn/AvPk	42.68	33.76	47.44	8.92	-4.76	33.59	43.91	9.09	66%	-0.20	JUN2000	60.52	MAR1998
ROMP 31 Swnn/AvPk	37.93	29.29	43.71	8.64	-5.78	27.76	39.51	10.17	66%	-6.22	JUN2000	57.92	MAR1998
ROMP 32 Low Ocala/Avpk	23.40	11.16	29.37	12.24	-5.97	15.47	25.29	7.93	69%	-17.74	JUN2000	44.73	FEB1998
ROMP 43XX Avon Park	88.00	84.26	85.20	3.74	2.80	83.87	88.86	4.13	69%	70.93	JAN2010	94.60	MAR1998
ROMP 9 UFA (SWNN)	41.41	39.53	43.03	1.88	-1.62	40.64	42.42	0.77	37%	37.00	JAN2001	46.35	SEP2006
ROMP TR 1-2 Up Fldn	45.02	43.76	45.68	1.26	-0.66	44.26	45.43	0.76	55%	40.72	JUN2000	47.22	SEP2015
ROMP TR 3-1 Up Fldn	33.75	32.58	34.81	1.17	-1.06	32.86	33.99	0.89	65%	29.04	JUN2000	35.99	NOV2020
ROMP TR 5-1 Suwannee	18.20	16.37	19.85	1.83	-1.65	16.65	19.27	1.55	53%	13.26	JUN2000	23.00	SEP1983
ROMP TR 5-2 UFA (SWNN)	23.21	20.30	27.51	2.91	-4.30	20.72	25.06	2.49	56%	13.75	MAY2006	31.26	OCT1994
ROMP TR 7-1 Tampa	19.25	15.82	20.63	3.43	-1.38	15.77	18.33	3.48	90%	10.01	JUN2000	24.23	SEP2017
ROMP TR 7-4 Swnn/Ocala	13.62	7.01	16.43	6.61	-2.81	9.06	14.56	4.56	63%	-3.55	MAY2000	24.35	AUG2019
Romp TR SA-1 UFS (SWNN)	9.52	5.84	11.58	3.68	-2.06	8.44	13.56	1.08	51%	2.89	MAY2017	22.04	SEP1999
Sarasota Office Up Floridan	13.10	6.30	17.43	6.80	-4.33	10.41	24.98	2.69	37%	-3.24	JUN2000	35.21	MAR1931
Verna T 0-1	13.27	0.02	18.47	13.25	-5.20	9.49	19.68	3.78	41%	-15.73	MAY2000	33.32	JAN1984

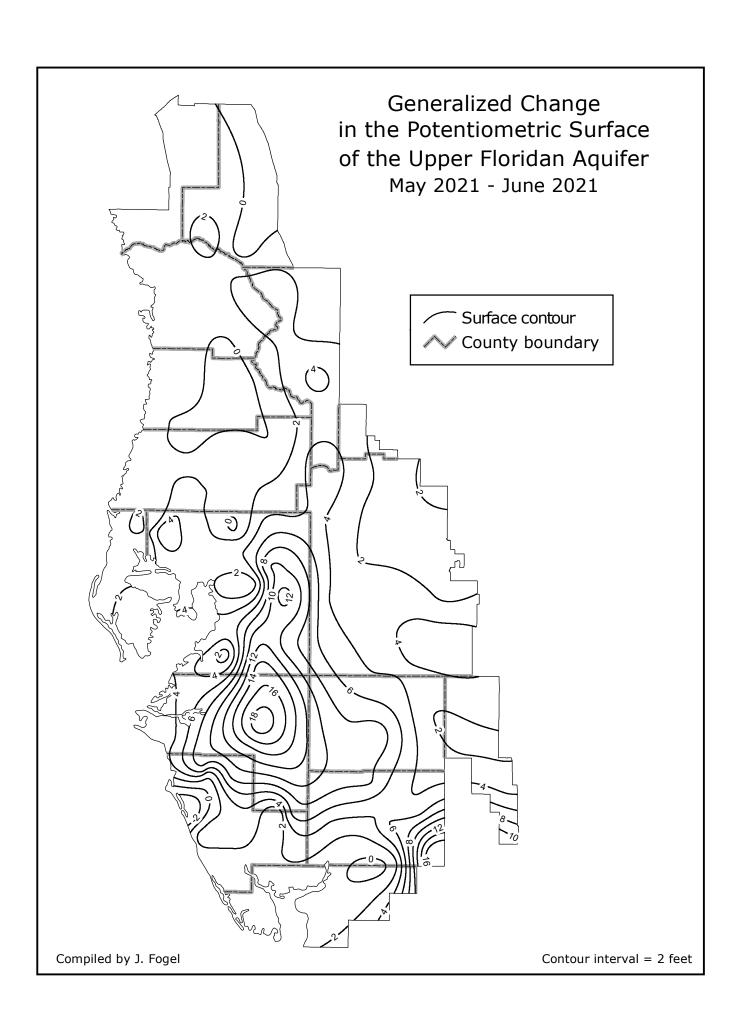


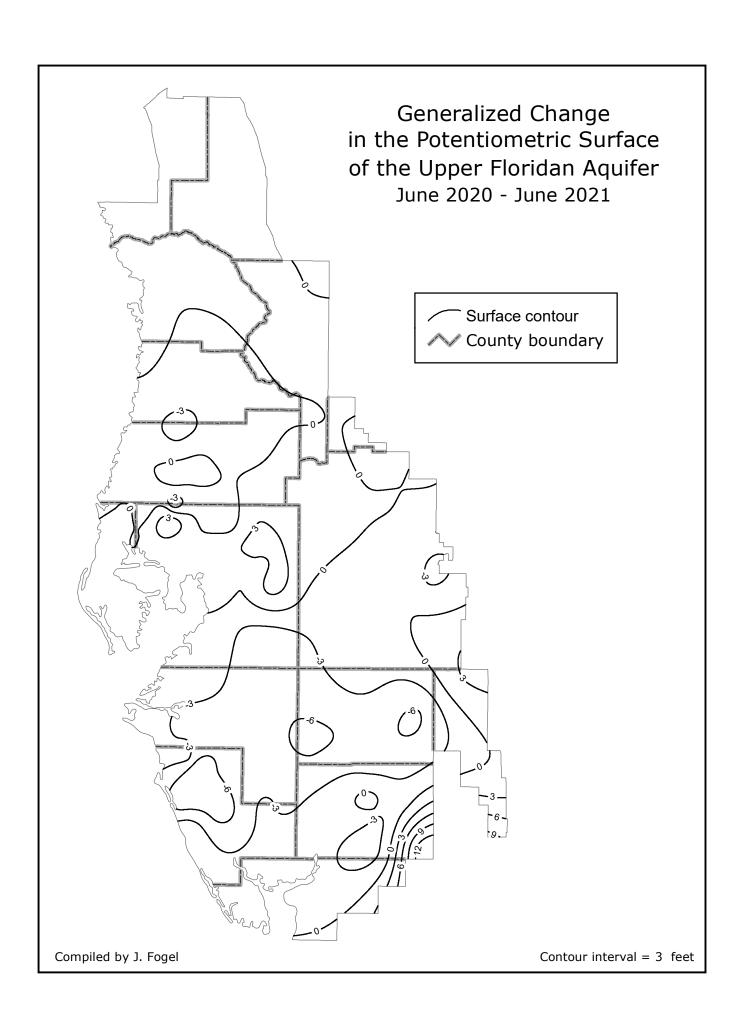












Regional Aquifer Resource Index

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 82 wells District-wide are used for the ARI Network (see index map in Appendix).

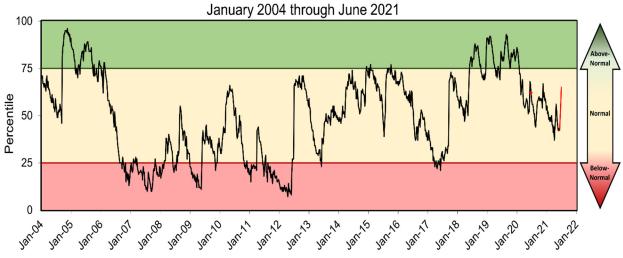
Weekly Aquifer Resource Index Level (Percentile)

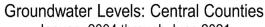
Report Date	Northern Counties	Central Counties	Southern Counties
06/02/2021	40	48	44
06/09/2021	49	56	48
06/16/2021	56	54	49
06/23/2021	57	56	49
06/30/2021	65	66	53

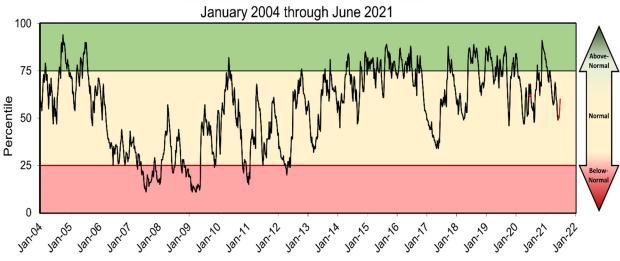
Note: Any regional percentile value that falls on or between the 25th and 75th percentile is considered "normal." Less than the 25th would be considered below-normal," while above the 75th would be considered "above-normal."

REGIONAL AQUIFER RESOURCE INDEX June 2021

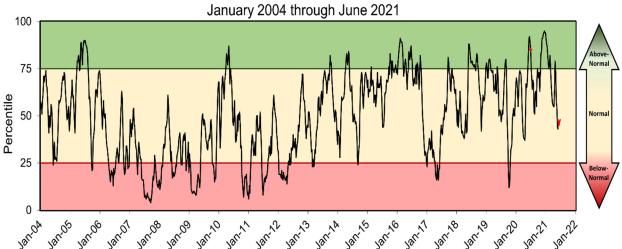
Groundwater Levels: Northern Counties







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 June, five of the seven reservoirs monitored for this report recorded water-level increases, while two recorded decreases, compared to last month. The Evers, Hillsborough River, Lake Manatee, Peace River No. 1 and Shell Creek reservoirs posted water level increases of 1.11 feet, 3.89 feet, 0.35 foot, 0.80 foot and 0.17 foot, respectively. The Bill Young and Peace River No. 2 reservoirs posted water level decreases of 6.25 and 3.00 feet, respectively, compared to last month.

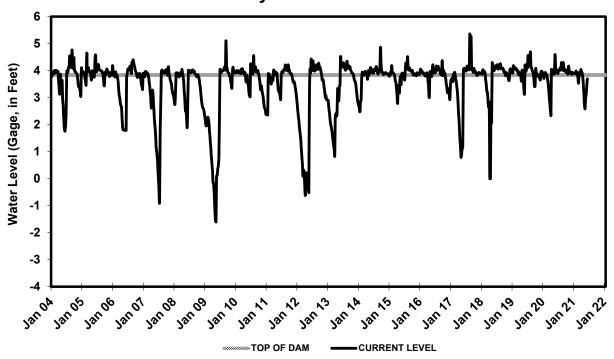
SUMMARY OF WATER LEVELS IN WATER SUPPLY RESERVOIRS (GAGE LEVEL, IN FEET)

				Change	Change
	2021	2021	2020	from Prior	from Prior
RESERVOIR	May	June	June	Month	Year
Evers					
City of Bradenton	2.59	3.70	3.93	1.11	-0.23
Hillsborough					
City of Tampa	18.97	22.86	22.54	3.89	0.32
Lake Manatee					
Manatee County	38.45	38.80	38.24	0.35	0.56
C.W. Bill Young Regional					
Tampa Bay Water	121.69	115.44	110.07	-6.25	5.37
Peace River					
PRMRWSA Reservoir #1	24.60	25.40	21.70	0.80	3.70
PRMRWSA Reservoir #2	53.10	50.10	52.30	-3.00	-2.20
Shell Creek					
City of Punta Gorda	4.97	5.14	5.35	0.17	-0.21

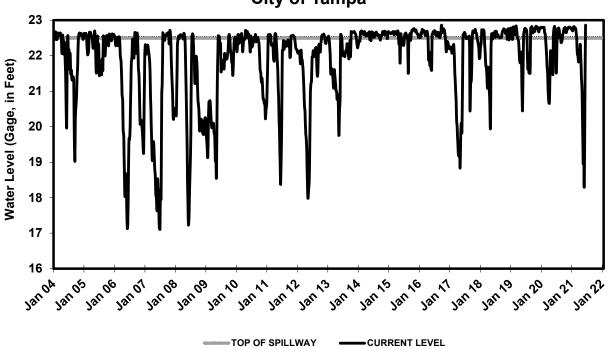
Reported data are provisional and subject to revision.

e = Estimated

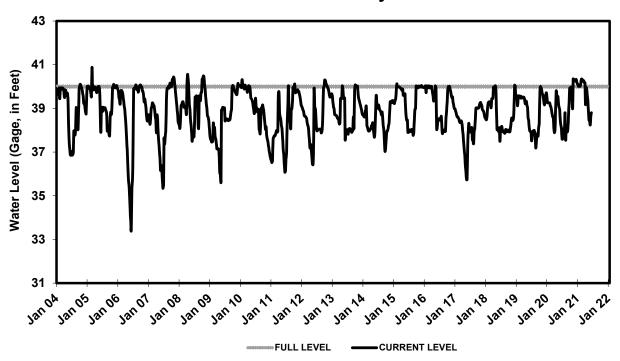
EVERS RESERVOIRCity of Bradenton

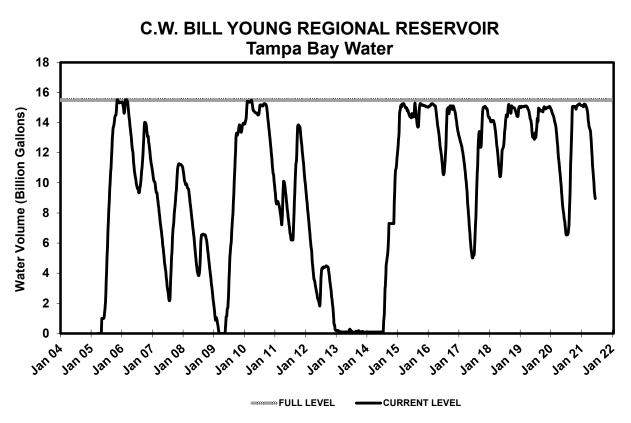


HILLSBOROUGH RESERVOIR City of Tampa

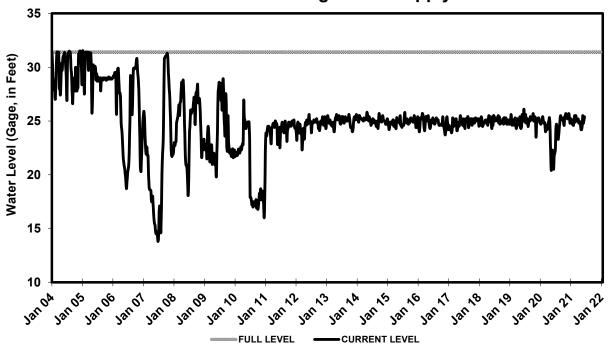


LAKE MANATEE RESERVOIR Manatee County

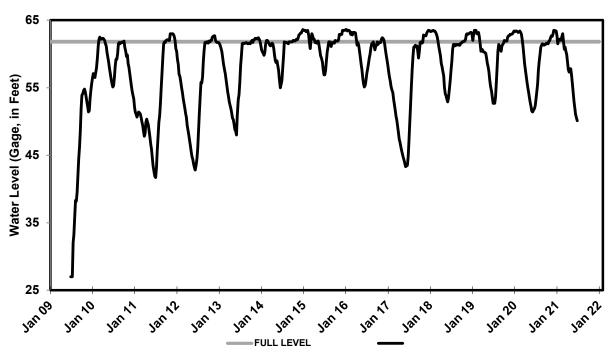




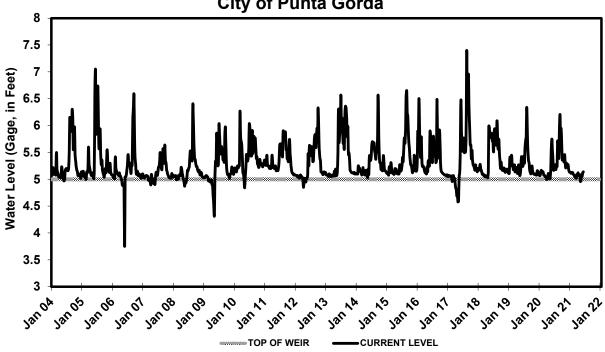
PEACE RIVER RESERVOIR No. 1 Peace/Manasota Reg. Water Supply

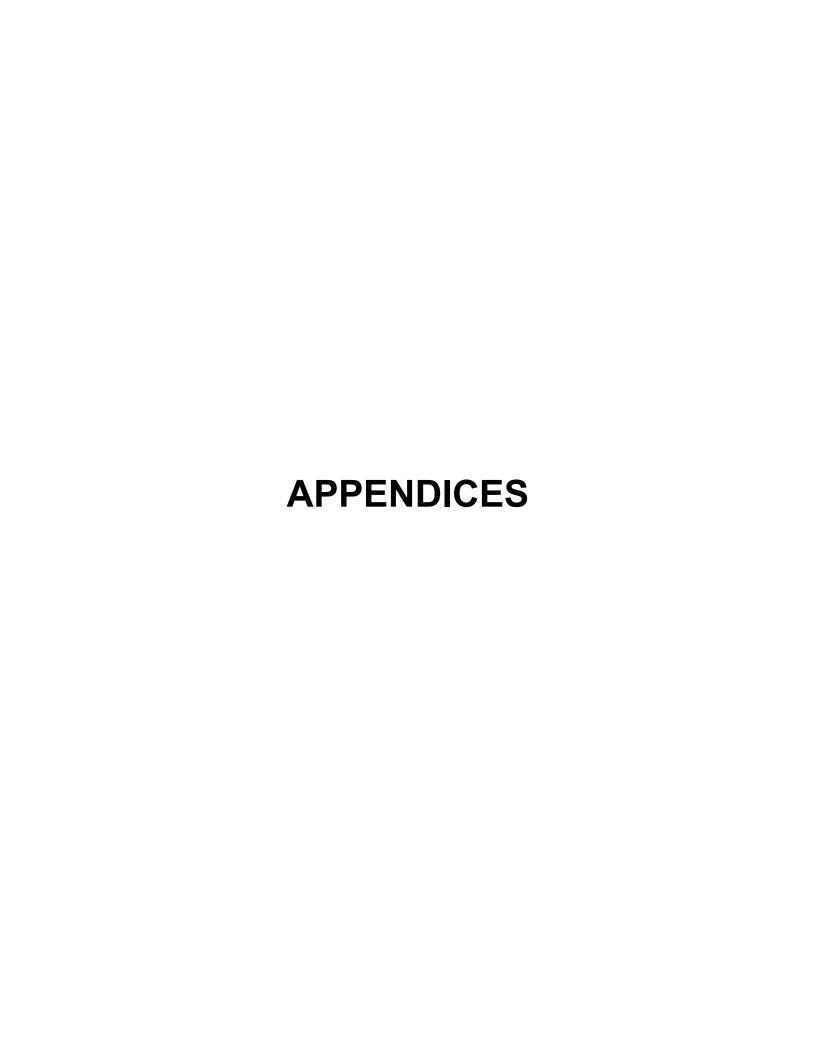


PEACE RIVER RESERVOIR No. 2 Peace/Manasota Reg. Water Supply



SHELL CREEK RESERVOIR City of Punta Gorda





Rainfall percentiles by interval and region, inches.

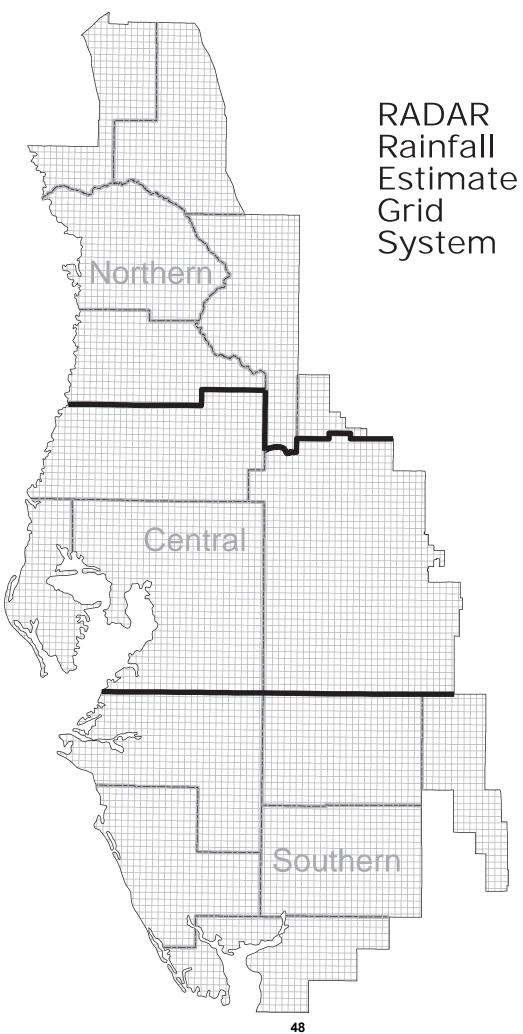
Rainfall percentiles by interval and region, inches.						
Rainfall Interval	Region	10 TH Percentile (P10)	25 th Percentile (P25)	50 th Percentile (P50)	75 th Percentile (P75)	90 th Percentile (P90)
Annual total	Northern	43.19	48.35	54.01	58.86	63.46
Annual total	Central	41.45	46.10	52.16	57.28	63.82
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 [™] Percentile (P10)	25 th Percentile (P25)	50 th Percentile (P50)	75 th Percentile (P75)	90 th 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

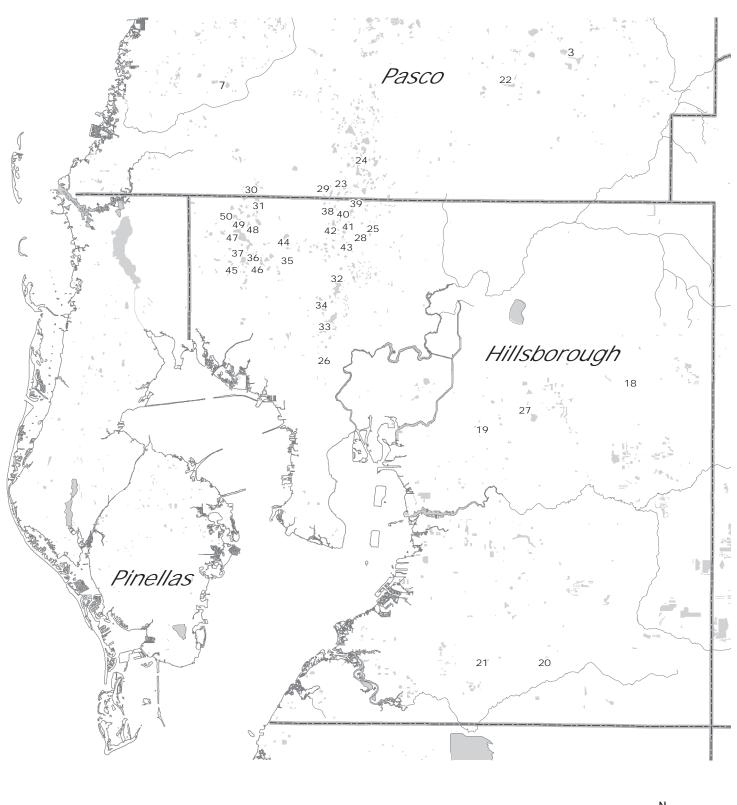




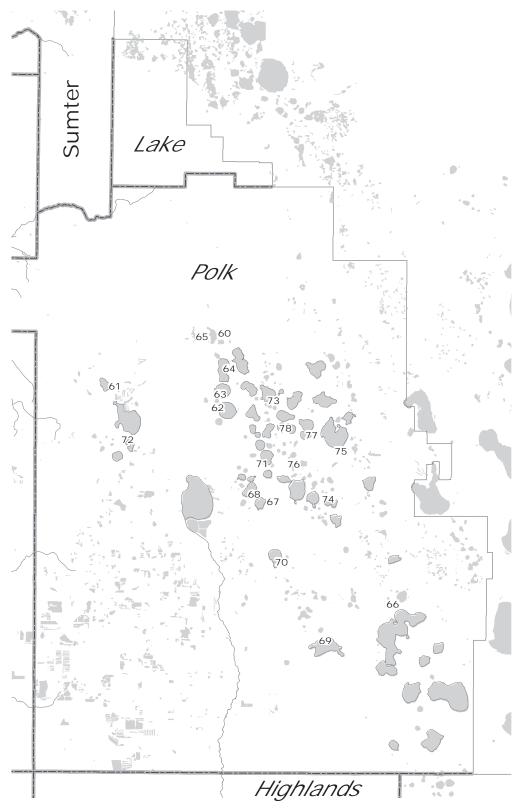
Selected Lake Monitoring Stations Northern Region



Selected Lake Monitoring Stations Tampa Bay Region

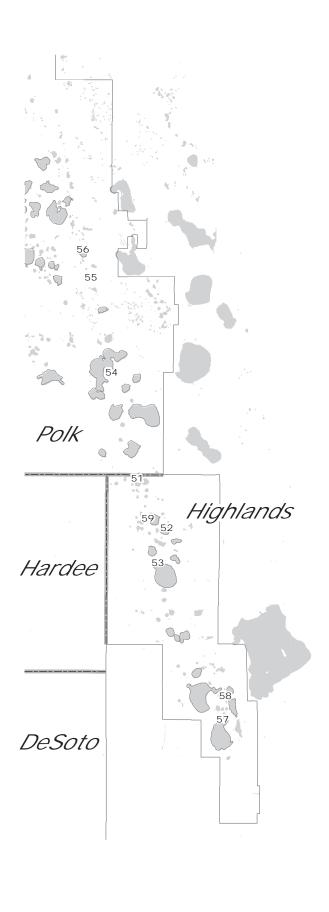


Selected Lake Monitoring Stations Polk Uplands Region





Selected Lake Monitoring Stations Lake Wales Ridge Region





Selected Lake Monitoring Stations

Northern Region

Map ID	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

M TD	Cita Nama		
<u>Map ID</u>	<u>Site Name</u>	Man ID	Cita Nama
18	Mud (Walden) Lake	<u>Map ID</u>	<u>Site Name</u>
19	Gornto Lake	40	Lake Brooker
20	Carlton Lake	41	Cooper Lake
21	Lake Wimauma	42	Lake Thomas
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		

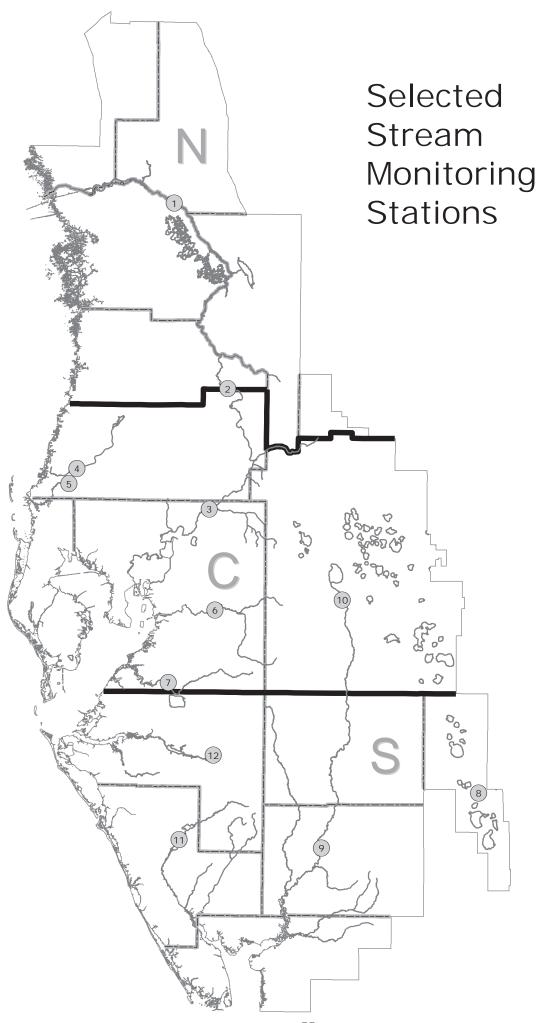
Selected Lake Monitoring Stations

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

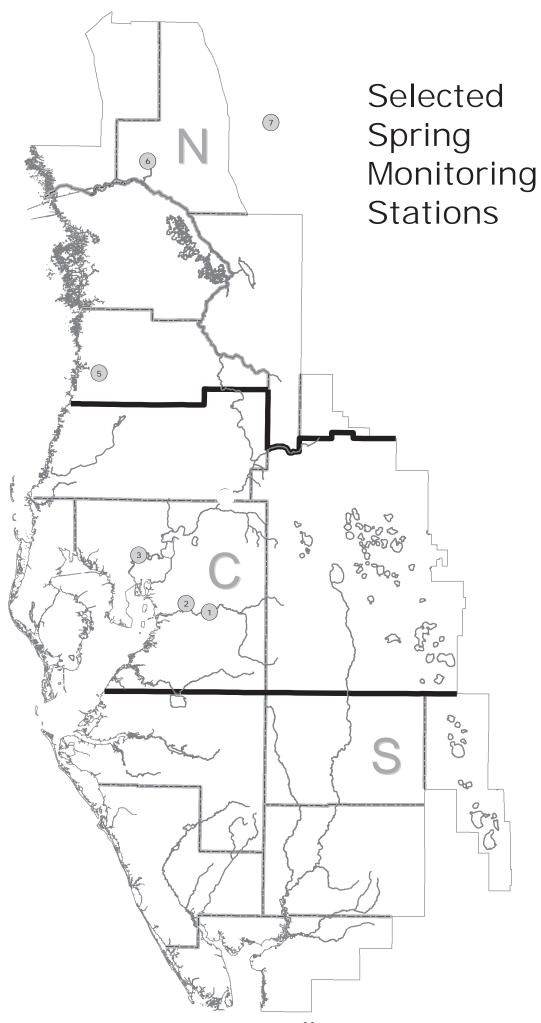
Drainage area: 1367 square miles

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

1st 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: 2nd

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

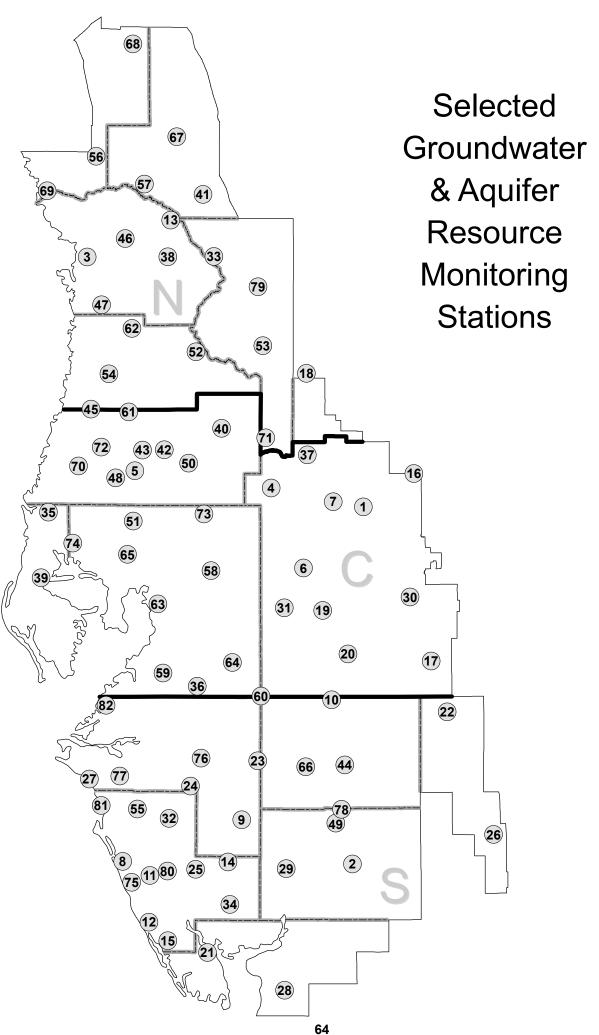
Magnitude: 2nd

Discharge measurement location: 50 feet downstream from main pool

Discharge contributes to: Alafia River

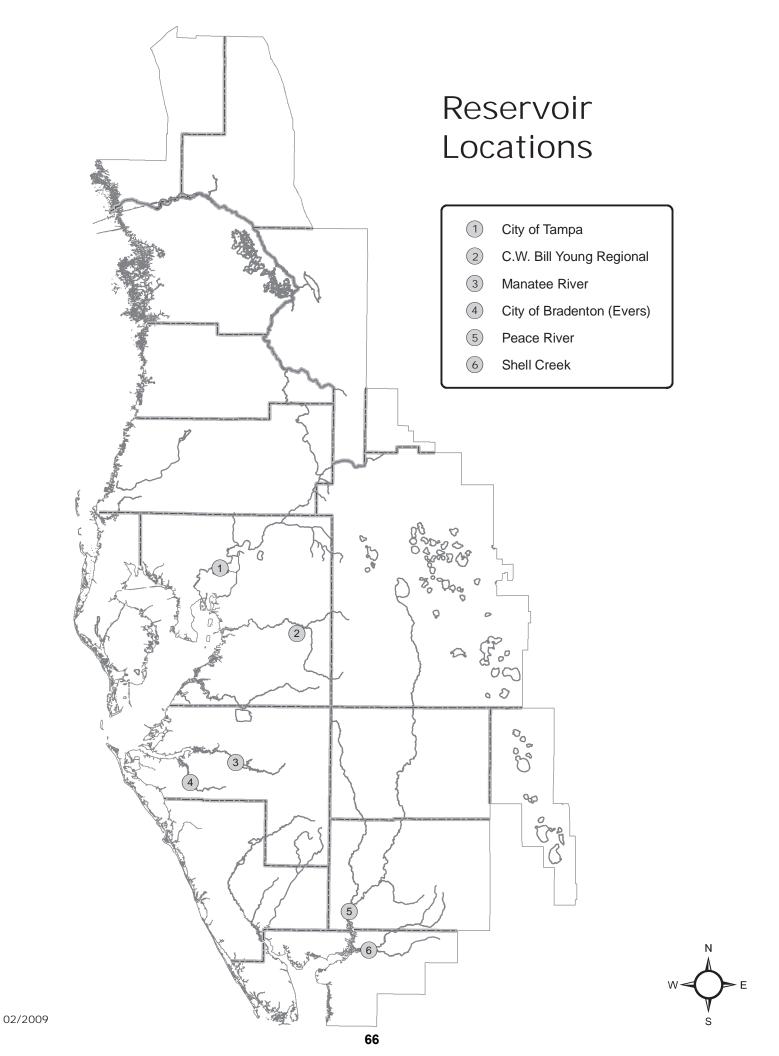
Public Access: Yes Period-of-record: 1934

Gage: Water-stage recorder



Select Groundwater & Aquifer Resource Monitoring Stations

Map ID	Site Name	Map ID	Site Name
1	Lake Alfred Deep nr Lake Alfred	49	ROMP 26 U Fldn Aq Monitor
2	ROMP 16 U Fldn Aq Monitor	50	SR 577 Deep
3	ROMP TR 21-2 U Fldn Aq Chloride Monitor	51	Debuel Road Deep
4	ROMP 87 U Fldn Aq (Avpk) Monitor	52	ROMP 103 U Fldn Aq Monitor
5	Pasco 13 nr Drexel Fldn	53	Webster City Fldn
6	Sanlon Ranch Fldn	54	Weeki Wachee Fldn Repl
7	ROMP 76 U Fldn Aq Monitor	55	Sarasota Service Office U Fldn Aq Monitor
8	ROMP 20 U Fldn Aq (Swnn) Monitor	56	Tidewater 1 Fldn
9	Edgeville 3 Deep	57	CE 14 Dunnellon Deep
10	Cargill FA-1 Fldn	58	DV-1 U Fldn Aq (Swnn) Monitor
11	ROMP TR 5-2 U Fldn Aq (Swnn) Monitor	59	ROMP 50 U Fldn Aq (Avpk) Chloride Monitor
12	Manasota 14 Deep	60	ROMP 40 U Fldn Aq Monitor
13	ROMP 116 U Fldn Aq Monitor	61	Masaryktown Deep
14	Big Slough Deep	62	ROMP 107 U Fldn Aq Monitor
15	Englewood 14 Deep	63	ROMP TR 10-2 U Fldn Aq Monitor
16	Loughman Deep	64	ROMP 48 U Fldn Aq (Tmpa/Swnn) Monitor
17	Coley Deep	65	ROMP 66 U Fldn Aq Monitor
18	Mascotte Deep (L-0062)	66	ROMP 31 U Fldn Aq Monitor
19	ROMP 59 U Fldn Aq Interface Monitor	67	ROMP 120 U Fldn Aq Monitor
20	ROMP 45 U Fldn Aq (Avpk) Monitor	68	ROMP 134 U Fldn Aq (Ocal-Avpk-Oldm) Monitor
21	ROMP TR 3-1 U Fldn Aq Monitor	69	ROMP TR 124 U Fldn Aq Monitor (Avpk) 2
22	ROMP 43XX U Fldn Aq Monitor	70	Moon Lake Deep
23	ROMP 32 U Fldn Aq (Avpk) Monitor	71	ROMP 89 U Fldn Aq Monitor
24	Verna Test 0-1	72	SR 52 Deep West nr Fivay Junction
25	ROMP 19X U Fldn Aq (Swnn) Monitor	73	Hillsborough River State Park Parking Lot Deep
26	ROMP 28X U Fldn Aq Monitor	74	ROMP TR 13-3 U Fldn Aq Monitor
27	ROMP TR 7-1 L Arca Aq Interface Monitor	75	ROMP TR 5-1 U Fldn Aq Sulfate Monitor
28	ROMP TR 1-2 U Fldn Aq Monitor	76	Kibler Deep
29	ROMP 17 U Fldn Aq (Swnn) Monitor	77	ROMP TR 7-4 U Fldn Aq (Swnn) Monitor
30	ROMP 58 U Fldn Aq Monitor	78	Marshall Deep (USGS)
31	ROMP 60 U Fldn Aq (Avpk) Monitor Repl	79	ROMP 111 U Fldn Aq 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
34	ROMP 9 U Fldn Aq (Swnn) Monitor	82	Florida Power Fldn at Piney Point
35	Tarpon Road Deep		
36	ROMP 123 Htrn As/U Fldn Aq Monitor		
37	ROMP 88 U Fldn Aq Monitor		
38	Inverness DOT Fldn		
39	Pinellas 665 Fldn		
40	Lykes Pasco Fldn		
41	ROMP 119 U Fldn Aq Sulfate Monitor		
42	SR 52 And CR 581 Deep		
43	ROMP 93 U Fldn Aq Monitor		
44	ROMP 30 U Fldn Aq Monitor		
45	ROMP 97 U Fldn Aq Monitor		
46	North Lecanto Deep		
47	Chassahowitzka 1 Deep		
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.