

Hydrologic Conditions

for the month of

July 2022

Prepared by the
Hydrologic Data Section
Data Collection Bureau



August 23, 2022

<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:

Data Collection: Terry Burrell, Dave Goldberg-Dunnett, Don Everson, George Prine, James Ferrell, Greg Johnston, Everett Eldridge, Robert Noland, James Thomas and Ernesto Mangual.

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INTRODUCTION

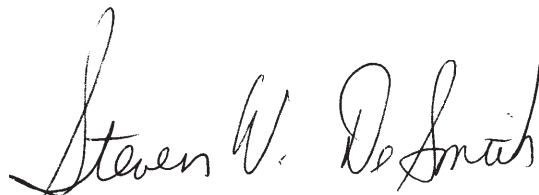
The Hydrologic Conditions Report is generated monthly by the Hydrologic Data Section, Data Collection Bureau, of the Southwest Florida Water Management District. This report provides an end-of-month analytical summary of regional and temporal variations in the hydrologic conditions across the District's 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.

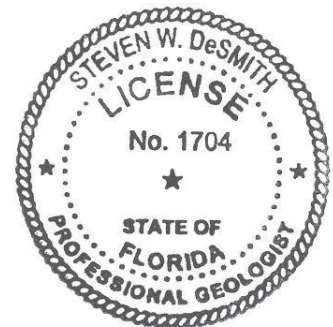
Any questions about the significance, accuracy, or interpretation of these data should be referred to Tamera McBride, Manager of the Hydrologic Data Section at (352) 796-7211 or (800) 423-1476, extension 4284.

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.



08/18/2022

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 July 2022

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 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 7.65 inches of rainfall, equivalent to the 41st percentile of the historical July record. The central counties received an average of 7.24 inches of rainfall, equivalent to the 37th percentile, while the southern counties received an average of 6.34 inches of rainfall, equivalent to the 18th percentile of the historical July record. The District-wide rainfall average of 7.04 inches was equivalent to the 28th percentile of the historical July record.

During the 12-month period from August 1, 2021, through July 31, 2022, the average rainfall totals in the northern counties were classified as “normal,” while the central and southern counties were classified as “drier than normal.” The northern counties received an average of 55.79 inches of rainfall, equivalent to the 60th percentile of the historical annual record. The central counties received an average of 45.86 inches of rainfall, equivalent to the 24th percentile, while the southern counties received an average of 44.28 inches of rainfall, equivalent to the 18th percentile. The District-wide rainfall average of 48.06 inches was equivalent to the 30th percentile of the historical annual record.

Average lake levels in July were below normal in the Northern and Lake Wales Ridge regions of the District, while they were within the 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 0.20 foot and were 0.27 foot below the base level of the annual normal range. Lake levels in the Tampa Bay region increased an average of 0.26 foot and were 0.61 foot above the base of the annual normal range. Average lake levels in the Polk Uplands region were unchanged and were 1.07 feet above the base of the annual normal range. Average lake levels in the Lake Wales Ridge region increased by 0.01 foot and ended the month 1.28 feet 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 southern regions of the District, while streamflow was below normal in the central 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 decreased and was at the 29th percentile. Streamflow at the Hillsborough River near Zephyrhills station in the central counties decreased and was at the 21st percentile, while total streamflow measured at the Peace River at Arcadia station in the southern counties decreased and was at the 27th percentile during July.

In July, groundwater data showed that the average regional level in the Upper Floridan aquifer was 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 regional groundwater level in the northern, central and southern counties were at the 65th, 53rd and 55th percentiles, respectively.

REGIONAL OVERVIEW OF HYDROLOGIC CONDITIONS

JULY 2022

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 7.65 inches of rainfall, equivalent to the 41st percentile of the historical July readings, which is considered "normal." Average lake levels increased in the northern region, ending the month 0.27 foot below the base of the annual normal range. Total streamflow measured in the Withlacoochee River near Holder station decreased and was in the 29th percentile. Regional groundwater level percentiles indicated Upper Floridan aquifer water levels decreased and were in the 65th percentile.

Central Region

In July, the central region received an average of 7.24 inches of rainfall, equivalent to the 37th percentile of historical July readings, which is considered "normal." Average lake levels increased in the Tampa Bay region, while remaining regionally unchanged in the Polk Uplands region, ending the month 0.61 foot and 1.07 feet, respectively, above the base of the annual normal range. Total streamflow measured at the Hillsborough River near Zephyrhills station decreased and was in the 21st percentile. Regional groundwater level percentiles indicated Upper Floridan aquifer water levels decreased and were in the 53rd percentile.

Southern Region

In July, the southern region received an average of 6.34 inches of rainfall, equivalent to the 18th percentile of historical July readings, which is considered "drier than normal." Average lake levels increased in the Lake Wales Ridge region and ended the month 1.28 feet below the base of the annual normal range. Total streamflow measured at the Peace River at Arcadia station decreased and was in the 27th percentile. Regional groundwater level percentiles indicated Upper Floridan aquifer water levels decreased and were in the 55th 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 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 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 7.65 inches of rainfall, equivalent to the 41st percentile of the historical July record. The central counties received an average of 7.24 inches, equivalent to the 37th percentile of the historical July record, while the southern counties received an average of 6.34 inches, equivalent to the 18th percentile. District-wide, rainfall averaged 7.04 inches, which is equivalent to the 28th percentile.

During the 12-month period from August 1, 2021, through July 31, 2022, the average rainfall totals in the northern counties were classified as normal, while the central and southern counties were each classified as "drier than normal." The northern counties received an average of 55.79 inches of rainfall, equivalent to the 60th percentile of the historical record. The central counties received an average of 45.86 inches of rainfall,

equivalent to the 24th percentile. The southern counties received an average of 44.28 inches of rainfall, equivalent to the 18th percentile. The District-wide rainfall average was 48.06 inches, which is equivalent to the 30th percentile of the historical annual record.

Tampa Monthly Climate Summary for July 2022

According to the National Weather Service (NWS), the monthly average temperature (°F) for Tampa was 86.3 degrees, which was 2.5 degrees above normal. The highest temperature recorded during the month was 97.0 degrees, while the lowest temperature recorded during the month was 73.0 degrees. The July 2022 monthly average temperature of 86.3 degrees ranks as the warmest July, and the warmest month since records began in 1890. The previous warmest July had an average temperature of 85.5 degrees, which occurred in 2020.

Temperature and Precipitation Outlook

The Climate Prediction Center's (CPC) three-month weather forecast, as of August 18, 2022, indicates above-normal chances for rainfall throughout the District during the composite 3-month period from September through November 2022. 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 2022 RAINFALL TO HISTORICAL RAINFALL AVERAGES

Regional Summary:

| <i>Region</i> | <i>JUL 2022 Average Rainfall</i> | <i>Historical Average for JUL</i> | <i>Departure from Historical Average</i> | <i>Calendar Year 2022 Cumulative Rainfall JAN-JUL</i> | <i>Calendar Year Historical Cumulative Rainfall JAN-JUL</i> | <i>Departure from Historical Cumulative JUL 2022</i> | <i>Cumulative 12-month Rainfall AUG 2021- JUL 2022</i> | <i>Historical 12-month Cumulative Rainfall</i> | <i>Departure from Historical 12-month Cumulative</i> |
|-----------------------|--|---|--|---|---|--|--|--|--|
| Northern Counties | 7.65 | 8.31 | -0.66 | 30.68 | 31.79 | -1.11 | 55.79 | 53.63 | 2.16 |
| Central Counties | 7.24 | 8.24 | -1.00 | 26.35 | 29.92 | -3.57 | 45.86 | 52.39 | -6.53 |
| Southern Counties | 6.34 | 8.20 | -1.86 | 24.58 | 30.03 | -5.45 | 44.28 | 52.33 | -8.05 |
| District All Counties | 7.04 | 8.24 | -1.20 | 26.93 | 30.48 | -3.55 | 48.06 | 52.71 | -4.65 |

Regional Counties Summary:

| <i>NORTHERN COUNTIES</i> | <i>JUL 2022 Average Rainfall</i> | <i>Historical Average for JUL</i> | <i>Departure from Historical Average</i> | <i>Calendar Year 2022 Cumulative Rainfall JAN-JUL</i> | <i>Calendar Year Historical Cumulative Rainfall JAN-JUL</i> | <i>Departure from Historical Cumulative JUL 2022</i> | <i>Cumulative 12-month Rainfall AUG 2021- JUL 2022</i> | <i>Historical 12-month Cumulative Rainfall</i> | <i>Departure from Historical 12-month Cumulative</i> |
|--------------------------|--|---|--|---|---|--|--|--|--|
| Levy County | 9.00 | 8.22 | 0.78 | 33.20 | 31.68 | 1.52 | 58.44 | 54.03 | 4.41 |
| Marion County | 7.94 | 8.14 | -0.20 | 30.67 | 32.24 | -1.57 | 53.57 | 54.33 | -0.76 |
| Citrus County | 7.43 | 8.56 | -1.13 | 30.71 | 32.18 | -1.47 | 62.62 | 54.20 | 8.42 |
| Sumter County | 6.56 | 7.96 | -1.40 | 29.56 | 31.20 | -1.64 | 51.88 | 51.97 | -0.09 |
| Hernando County | 7.96 | 8.82 | -0.86 | 30.82 | 32.50 | -1.68 | 53.69 | 55.00 | -1.31 |
| <i>CENTRAL COUNTIES</i> | | | | | | | | | |
| Pasco County | 8.84 | 8.50 | 0.34 | 27.91 | 31.47 | -3.56 | 50.46 | 54.03 | -3.57 |
| Pinellas County | 6.57 | 8.42 | -1.85 | 21.96 | 28.49 | -6.53 | 42.40 | 51.69 | -9.29 |
| Hillsborough County | 7.87 | 8.35 | -0.48 | 26.35 | 30.46 | -4.11 | 47.32 | 52.65 | -5.33 |
| Polk County | 6.18 | 7.98 | -1.80 | 26.42 | 30.93 | -4.51 | 43.34 | 51.98 | -8.64 |
| <i>SOUTHERN COUNTIES</i> | | | | | | | | | |
| Manatee County | 6.33 | 8.59 | -2.26 | 22.83 | 30.02 | -7.19 | 43.70 | 53.37 | -9.67 |
| Hardee County | 7.12 | 8.16 | -1.04 | 23.87 | 30.59 | -6.72 | 41.61 | 52.04 | -10.43 |
| Highlands County | 5.15 | 7.97 | -2.82 | 21.68 | 30.23 | -8.55 | 43.76 | 52.00 | -8.24 |
| Sarasota County | 6.55 | 8.27 | -1.72 | 24.01 | 29.16 | -5.15 | 43.84 | 52.59 | -8.75 |
| DeSoto County | 6.55 | 7.96 | -1.41 | 28.16 | 29.86 | -1.70 | 46.54 | 51.77 | -5.23 |
| Charlotte County | 5.60 | 8.05 | -2.45 | 26.44 | 29.40 | -2.96 | 46.83 | 52.48 | -5.65 |

JULY 2022 RAINFALL CHARACTERIZATION

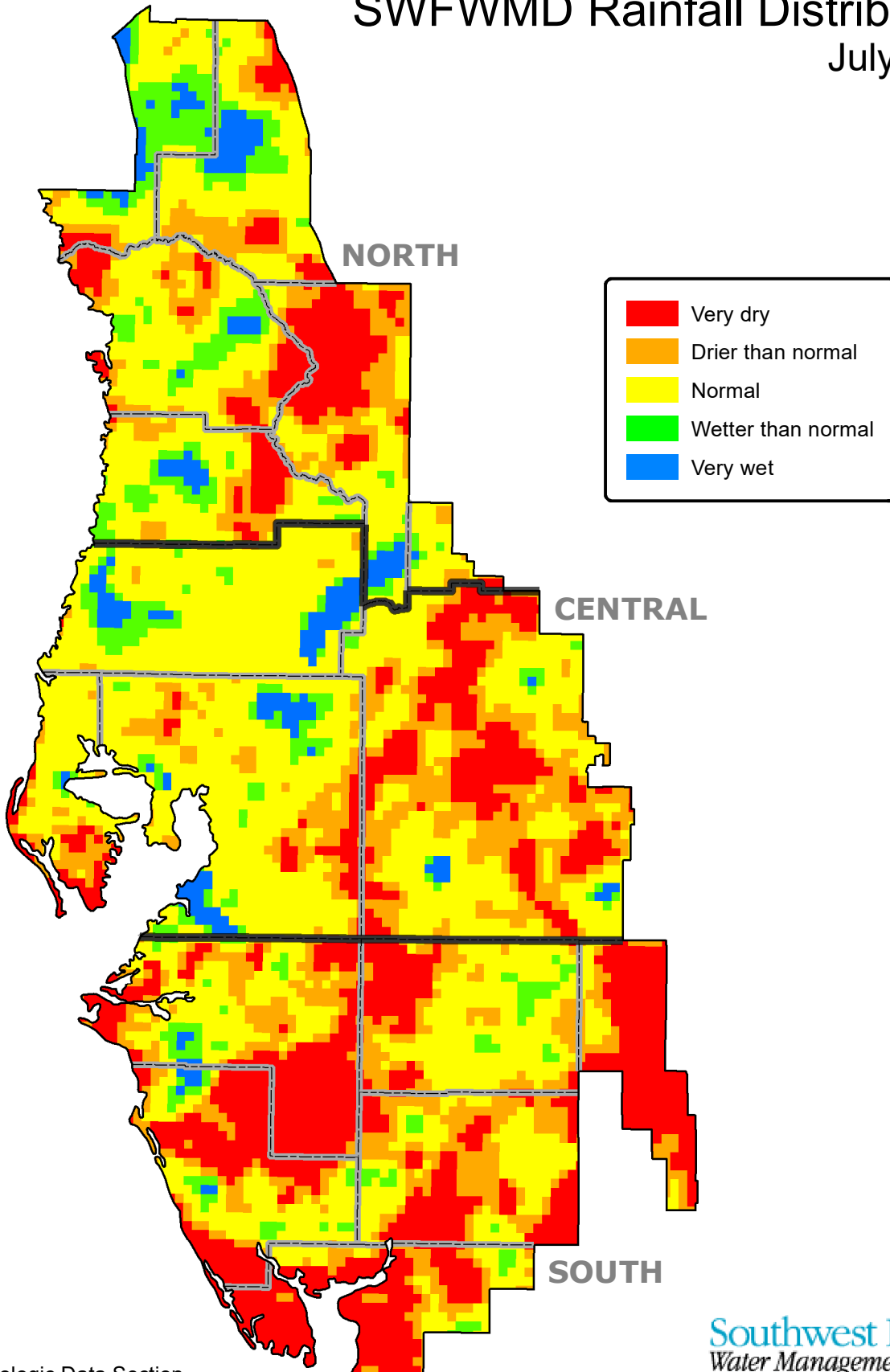
Regional Characterization:

| <i>Region</i> | <i>JUL 2022 Average Rainfall</i> | <i>Historical JUL Percentile</i> | <i>JUL Rainfall Characterization</i> | <i>Cumulative 12-month Rainfall AUG 2021- JUL 2022</i> | <i>Historical 12-month Cumulative Percentile</i> | <i>12-month Cumulative Rainfall Characterization</i> |
|-------------------|--|--|--|--|--|--|
| Northern Counties | 7.65 | 41 | Normal | 55.79 | 60 | Normal |
| Central Counties | 7.24 | 37 | Normal | 45.86 | 24 | Drier than normal |
| Southern Counties | 6.34 | 18 | Drier than normal | 44.28 | 18 | Drier than normal |
| District Counties | 7.04 | 28 | Normal | 48.06 | 30 | Normal |

Regional Counties Characterization:

| <i>NORTHERN COUNTIES</i> | <i>JUL 2022 Average Rainfall</i> | <i>Historical JUL Percentile</i> | <i>JUL Rainfall Characterization</i> | <i>Cumulative 12-month Rainfall AUG 2021- JUL 2022</i> | <i>Historical 12-month Cumulative Percentile</i> | <i>12-month Cumulative Rainfall Characterization</i> |
|--------------------------|--|--|--|--|--|--|
| Levy County | 9.00 | 67 | Normal | 58.44 | 72 | Normal |
| Marion County | 7.94 | 51 | Normal | 53.57 | 47 | Normal |
| Citrus County | 7.43 | 37 | Normal | 62.62 | 85 | Wetter than normal |
| Sumter County | 6.56 | 30 | Normal | 51.88 | 47 | Normal |
| Hernando County | 7.96 | 45 | Normal | 53.69 | 46 | Normal |
| <i>CENTRAL COUNTIES</i> | | | | | | |
| Pasco County | 8.84 | 62 | Normal | 50.46 | 35 | Normal |
| Pinellas County | 6.57 | 32 | Normal | 42.40 | 18 | Drier than normal |
| Hillsborough County | 7.87 | 39 | Normal | 47.32 | 29 | Normal |
| Polk County | 6.18 | 20 | Drier than normal | 43.34 | 15 | Drier than normal |
| <i>SOUTHERN COUNTIES</i> | | | | | | |
| Manatee County | 6.33 | 19 | Drier than normal | 43.70 | 15 | Drier than normal |
| Hardee County | 7.12 | 39 | Normal | 41.61 | 12 | Drier than normal |
| Highlands County | 5.15 | 12 | Drier than normal | 43.76 | 19 | Drier than normal |
| Sarasota County | 6.55 | 29 | Normal | 43.84 | 18 | Drier than normal |
| DeSoto County | 6.55 | 33 | Normal | 46.54 | 31 | Normal |
| Charlotte County | 5.60 | 20 | Drier than normal | 46.83 | 29 | Normal |

SWFWMD Rainfall Distribution July 2022

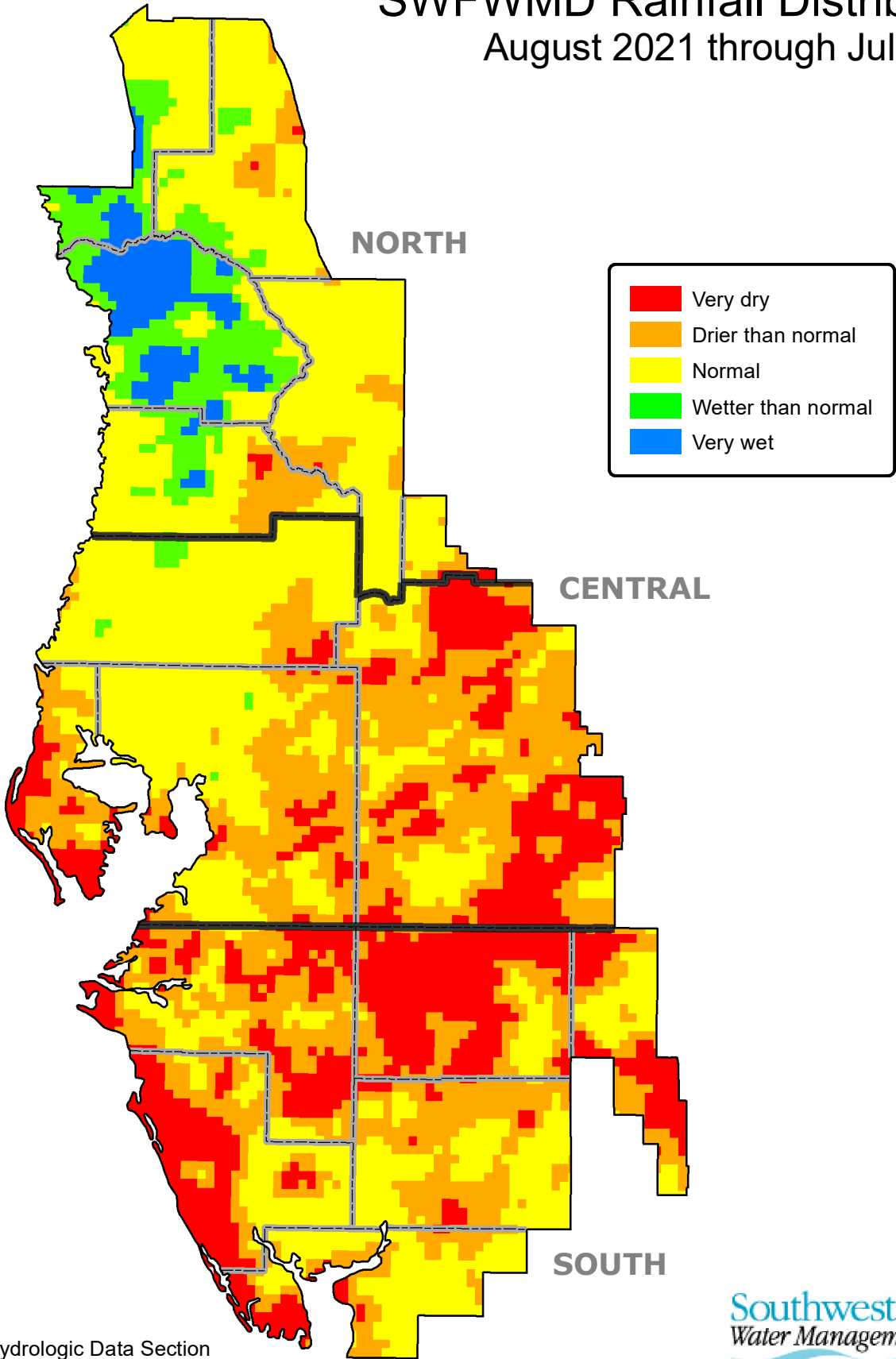


Hydrologic Data Section
Data source: Vieux, Inc.

Southwest Florida
Water Management District

SWFWMD Rainfall Distribution

August 2021 through July 2022



Hydrologic Data Section
Data source: Vieux, Inc.

Southwest Florida
Water Management District

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, 47 of the 75 lakes monitored for this report recorded water level increases, while 23 recorded decreases and five had no change. Average water levels increased in the Northern, Tampa Bay and Lake Wales Ridge regions by 0.20, 0.26 and 0.01 foot, respectively, while the regional average water level in the Polk Uplands region remained unchanged from last month. District-wide, average water levels increased by 0.15 foot, compared to last month.

Compared to July 2021 data, 64 of the 75 lakes monitored for this report recorded water level decreases, while 11 recorded increases. In the Northern, Tampa Bay, Polk Uplands and Lake Wales Ridge regions, average levels were lower by 0.21 foot, 0.72 foot, 0.71 foot and 1.65 feet, respectively. District-wide, average lake levels were lower by 0.73 foot, compared to last year's levels.

In July 2022, water levels in 55 of the 75 lakes were within the annual normal range, while 20 were below. Lake levels in the Northern and Lake Wales Ridge regions averaged 0.27 foot and 1.28 feet, respectively, below the base of the annual normal range. Lake levels in the Tampa Bay and Polk Uplands regions averaged 0.61 foot and 1.07 feet, respectively, above the base of the annual normal range. District-wide, average lake levels were 0.34 foot above the base of the annual normal range. Water levels in 69 of the 75 lakes were above the drought-year levels.

SUMMARY OF LAKE ELEVATIONS OF REGIONAL LAKES (feet)

| NORTHERN LAKES | | | | | | | | | | | | | | | |
|--------------------|----------|---------------------|----------|----------|----------|----------------------|----------------------|----------------|-------------------------|-----------------------|-----------------------|----------------------|-----------------|-----------------------|------------------|
| Lake Name | County | Beginning of Record | JUN 2022 | JUL 2022 | JUL 2021 | Change from JUN 2022 | Change from JUL 2021 | 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 | 50.70 | 50.70 | 51.02 | 0.00 | -0.32 | 0.70 | 50.00 | 52.00 | 55.00 | 42.63 | APR 2001 | 54.92 | MAR 1998 |
| Hancock Lake | Pasco | 1978 | 99.26 | 99.06 | 99.56 | -0.20 | -0.50 | -2.94 | 102.00 | 104.00 | 106.50 | 90.00 | MAR 2009 | 108.90 | MAR 1998 |
| Hunters Lake | Hernando | 1967 | 17.09 | 17.39 | 16.25 | 0.30 | 1.14 | 1.39 | 16.00 | 17.50 | 20.50 | 11.70 | JUN 2001 | 20.50 | MAR 1970 |
| Lake Iola | Pasco | 1984 | 141.55 | 141.71 | 141.21 | 0.16 | 0.50 | -0.79 | 142.50 | 145.00 | 147.50 | 128.96 | MAY 2012 | 148.70 | JAN 1989 |
| Lake Lindsey | Hernando | 1982 | 67.05 | 67.16 | 66.21 | 0.11 | 0.95 | 2.66 | 64.50 | 66.00 | 69.00 | 59.38 | MAY 2012 | 69.47 | MAR 1998 |
| Little Lake (Consu | Citrus | 1985 | 40.26 | 40.28 | 40.84 | 0.02 | -0.56 | 3.03 | 37.25 | 39.00 | 41.50 | 31.10 | MAY 2001 | 42.84 | SEP 2004 |
| Lake Miona | Sumter | 1985 | 54.03 | 53.87 | 54.03 | -0.16 | -0.16 | 2.87 | 51.00 | 53.00 | 55.00 | 47.88 | MAY 2002 | 55.47 | OCT 2019 |
| Moon Lake | Pasco | 1990 | 38.00 | 39.03 | 38.71 | 1.03 | 0.32 | 3.53 | 35.50 | 37.50 | 40.50 | 32.98 | APR 2009 | 41.26 | SEP 2004 |
| Lake Panasoffkee | Sumter | 1962 | 40.09 | 40.17 | 41.54 | 0.08 | -1.37 | 1.67 | 38.50 | 39.50 | 42.50 | 36.88 | MAY 2007 | 43.04 | OCT 2004 |
| Lake Pasadena | Pasco | 1984 | 89.61 | 90.06 | 91.44 | 0.45 | -1.38 | 0.06 | 90.00 | 91.50 | 94.50 | 81.56 | MAY 2001 | 94.86 | OCT 2004 |
| Spring Lake | Hernando | 1965 | 179.67 | 179.41 | 179.79 | -0.26 | -0.38 | 1.16 | 178.25 | 181.25 | 184.25 | 174.85 | JUN 1965 | 183.57 | OCT 1984 |
| Floral City Pool | Citrus | 1981 | 40.39 | 40.65 | 41.23 | 0.26 | -0.58 | 2.40 | 38.25 | 40.25 | 42.50 | 30.35 | JUN 2001 | 42.66 | SEP 2004 |
| Inverness Pool | Citrus | 1985 | 39.29 | 39.67 | 40.16 | 0.38 | -0.49 | 3.42 | 36.25 | 38.25 | 40.50 | 0.77 | MAY 2000 | 40.89 | OCT 2004 |
| Hernando Pool | Citrus | 1985 | 38.00 | 38.59 | 38.65 | 0.59 | -0.06 | 3.84 | 34.75 | 36.75 | 39.00 | 0.86 | MAY 2000 | 40.17 | FEB 1998 |

| TAMPA BAY LAKES | | | | | | | | | | | | | | | |
|-------------------|--------------|---------------------|----------|----------|----------|----------------------|----------------------|----------------|-------------------------|-----------------------|-----------------------|----------------------|-----------------|-----------------------|------------------|
| Lake Name | County | Beginning of Record | JUN 2022 | JUL 2022 | JUL 2021 | Change from JUN 2022 | Change from JUL 2021 | 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 | 39.28 | 39.82 | 40.82 | 0.54 | -1.00 | 2.32 | 37.50 | 40.25 | 42.25 | 33.24 | MAY 2002 | 42.42 | SEP 2004 |
| Lake Ann-Parker | Pasco | 1983 | 46.02 | 46.24 | 47.65 | 0.22 | -1.41 | 1.24 | 45.00 | 45.75 | 48.75 | 43.28 | JUN 2001 | 49.29 | AUG 2015 |
| Bay Lake | Hillsborough | 1982 | 45.55 | 45.73 | 45.74 | 0.18 | -0.01 | 3.23 | 42.50 | 44.00 | 46.75 | 41.86 | APR 1985 | 46.47 | DEC 1997 |
| Lake Brant | Hillsborough | 1981 | 57.32 | 57.18 | 57.85 | -0.14 | -0.67 | 2.68 | 54.50 | 56.50 | 58.75 | 51.65 | JUN 1994 | 59.57 | AUG 2015 |
| Brooker Lake | Hillsborough | 1977 | 62.68 | 62.80 | 62.97 | 0.12 | -0.17 | 3.80 | 59.00 | 61.00 | 64.25 | 56.49 | MAY 2002 | 64.08 | DEC 1997 |
| Calm Lake | Hillsborough | 1982 | 47.93 | 48.37 | 49.45 | 0.44 | -1.08 | 3.37 | 45.00 | 47.50 | 50.50 | 41.88 | JUN 2002 | 51.04 | JUL 2015 |
| Camp Lake | Pasco | 1983 | 61.16 | 61.16 | 62.78 | 0.00 | -1.62 | 2.16 | 59.00 | 61.75 | 64.00 | 50.82 | MAY 2002 | 64.05 | JUL 2015 |
| Carlton Lake | Hillsborough | 1976 | 89.14 | 89.38 | 90.68 | 0.24 | -1.30 | 1.38 | 88.00 | 90.50 | 93.50 | 86.82 | MAY 2001 | 94.60 | FEB 1998 |
| Lake Carroll | Hillsborough | 1985 | 36.39 | 36.38 | 36.61 | -0.01 | -0.23 | 3.88 | 32.50 | 34.50 | 37.00 | 30.87 | MAY 2002 | 37.87 | AUG 2015 |
| Church Lake | Hillsborough | 1983 | 34.08 | 34.40 | 35.66 | 0.32 | -1.26 | 2.90 | 31.50 | 34.00 | 36.25 | 27.94 | MAY 2002 | 36.90 | JUL 1987 |
| Lake Cooper | Hillsborough | 1980 | 59.82 | 59.97 | 60.38 | 0.15 | -0.41 | 2.97 | 57.00 | 59.75 | 61.75 | 55.60 | JUN 2001 | 62.44 | AUG 2015 |
| Crescent Lake | Hillsborough | 1981 | 39.67 | 40.13 | 41.86 | 0.46 | -1.73 | 1.63 | 38.50 | 40.00 | 42.50 | 35.34 | JUN 2001 | 42.89 | SEP 2017 |
| Deer Lake | Hillsborough | 1977 | 65.66 | 65.68 | 66.82 | 0.02 | -1.14 | 3.18 | 62.50 | 64.50 | 67.25 | 60.72 | MAY 2002 | 67.42 | DEC 1997 |
| Egypt Lake | Hillsborough | 1978 | 36.82 | 36.82 | 36.68 | 0.00 | 0.14 | 4.32 | 32.50 | 35.00 | 37.50 | 33.06 | MAY 2000 | 38.15 | SEP 1985 |
| Gornto Lake | Hillsborough | 1979 | 37.22 | 37.29 | 36.06 | 0.07 | 1.23 | 3.29 | 34.00 | 36.00 | 38.50 | 29.86 | MAR 1979 | 39.48 | FEB 1998 |
| Lake Harvey | Hillsborough | 1970 | 60.67 | 60.93 | 62.32 | 0.26 | -1.39 | 2.93 | 58.00 | 60.25 | 62.50 | 53.94 | MAY 2002 | 63.90 | DEC 1997 |
| Lake Hiawatha | Hillsborough | 1981 | 48.63 | 49.01 | 50.50 | 0.38 | -1.49 | 4.01 | 45.00 | 48.00 | 50.50 | 46.14 | JUN 2000 | 51.16 | JUL 2019 |
| Horse Lake | Hillsborough | 1930 | 44.24 | 44.38 | 45.21 | 0.14 | -0.83 | 2.38 | 42.00 | 44.00 | 46.50 | 0.83 | MAR 2000 | 50.00 | AUG 1959 |
| Lake Keene | Hillsborough | 1981 | 61.86 | 62.03 | 62.12 | 0.17 | -0.09 | 3.03 | 59.00 | 60.50 | 63.00 | 56.12 | JUN 2002 | 63.69 | SEP 2017 |
| Keystone Lake | Hillsborough | 1984 | 41.05 | 41.48 | 41.53 | 0.43 | -0.05 | 2.48 | 39.00 | 39.75 | 42.00 | 0.92 | MAY 2000 | 43.64 | AUG 2015 |
| King Lake | Pasco | 1983 | 101.76 | 102.02 | 103.13 | 0.26 | -1.11 | 2.02 | 100.00 | 102.50 | 105.25 | 94.20 | APR 2009 | 104.80 | MAR 1987 |
| Lake Leclare | Hillsborough | 1977 | 50.30 | 51.06 | 51.31 | 0.76 | -0.25 | 4.06 | 47.00 | 49.50 | 52.00 | 44.95 | JUN 2001 | 52.99 | JUL 2015 |
| Lake Linda | Pasco | 1983 | 64.73 | 64.85 | 65.74 | 0.12 | -0.89 | 2.85 | 62.00 | 64.00 | 66.75 | 60.07 | MAY 2001 | 67.17 | SEP 2017 |
| Little Lake | Hillsborough | 1979 | 44.82 | 45.18 | 45.72 | 0.36 | -0.54 | 3.18 | 42.00 | 43.50 | 46.50 | 38.06 | JUN 1994 | 48.55 | JUN 2017 |
| Long Pond | Hillsborough | 1978 | 44.43 | 44.55 | 45.64 | 0.12 | -1.09 | 2.55 | 42.00 | 44.00 | 46.50 | 36.33 | MAY 1979 | 48.27 | SEP 1998 |
| Mud (Walden) Lake | Hillsborough | 1978 | 112.76 | 112.85 | 112.99 | 0.09 | -0.14 | 2.35 | 110.50 | 112.50 | 115.00 | 111.45 | MAY 2017 | 114.42 | MAR 1978 |
| Lake Padgett | Pasco | 1965 | 69.00 | 69.46 | 70.16 | 0.46 | -0.70 | 1.96 | 67.50 | 69.00 | 71.25 | 66.27 | JUN 2001 | 71.90 | SEP 1988 |
| Platt Lake | Hillsborough | 1981 | 49.12 | 49.44 | 50.58 | 0.32 | -1.14 | 3.44 | 46.00 | 47.75 | 50.50 | 42.53 | JUN 2001 | 51.61 | AUG 2015 |
| Rainbow Lake | Hillsborough | 1981 | 37.35 | 37.65 | 39.13 | 0.30 | -1.48 | 2.65 | 35.00 | 37.50 | 40.50 | 29.82 | JUN 2002 | 40.95 | JUL 2015 |
| Lake Stemper | Hillsborough | 1983 | 60.35 | 60.25 | 60.70 | -0.10 | -0.45 | 2.25 | 58.00 | 59.50 | 62.00 | 53.36 | JUN 2001 | 61.68 | SEP 2004 |
| Lake Thomas | Hillsborough | 1981 | 62.40 | 62.36 | 62.95 | -0.04 | -0.59 | 3.11 | 59.25 | 61.25 | 63.50 | 56.48 | JUN 2002 | 64.13 | AUG 2015 |
| Turkey Ford Lake | Hillsborough | 1970 | 50.47 | 52.09 | 51.43 | 1.62 | 0.66 | 2.09 | 50.00 | 51.50 | 54.00 | 48.07 | JUN 1985 | 55.28 | SEP 1988 |
| Lake Wimauma | Hillsborough | 1985 | 77.97 | 78.16 | 79.62 | 0.19 | -1.46 | -2.84 | 81.00 | 83.00 | 86.75 | 70.12 | MAY 2001 | 84.38 | MAR 1998 |

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

All elevations are referenced to NGVD 1929 datum. Report compiled by Hunter Alexander

SUMMARY OF LAKE ELEVATIONS OF REGIONAL LAKES (feet)

| POLK UPLANDS LAKES | | | | | | | | | | | | | | | |
|--------------------|--------|---------------------|----------|----------|----------|----------------------|----------------------|----------------|-------------------------|-----------------------|-----------------------|----------------------|-----------------|-----------------------|------------------|
| Lake Name | County | Beginning of Record | JUN 2022 | JUL 2022 | JUL 2021 | Change from JUN 2022 | Change from JUL 2021 | 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 | 130.01 | 129.93 | 131.70 | -0.08 | -1.77 | 3.68 | 126.25 | 128.25 | 130.75 | 124.17 | MAY 2013 | 132.77 | DEC 2020 |
| Lake Ariana | Polk | 1984 | 136.10 | 136.08 | 136.45 | -0.02 | -0.37 | 3.58 | 132.50 | 134.50 | 137.00 | 131.68 | MAY 2009 | 137.66 | JAN 2016 |
| Lake Arietta | Polk | 1970 | 141.86 | 141.89 | 141.98 | 0.03 | -0.09 | 3.89 | 138.00 | 141.00 | 144.00 | 136.50 | MAY 1977 | 144.12 | SEP 2004 |
| Blue Lake South | Polk | 1986 | 112.31 | 112.15 | 115.45 | -0.16 | -3.30 | -0.35 | 112.50 | 114.00 | 117.00 | 103.38 | FEB 1991 | 119.19 | DEC 2005 |
| Lake Bonny | Polk | 1954 | 129.58 | 129.32 | 130.34 | -0.26 | -1.02 | 3.32 | 126.00 | 128.00 | 130.50 | 122.34 | MAY 2009 | 133.08 | SEP 2004 |
| Lake Buffum | Polk | 1982 | 130.26 | 130.39 | 131.17 | 0.13 | -0.78 | 3.64 | 126.75 | 129.25 | 132.25 | 123.90 | JUN 1991 | 133.00 | JUN 2005 |
| Clearwater Lake | Polk | 1979 | 140.99 | 141.14 | 142.48 | 0.15 | -1.34 | 2.14 | 139.00 | 141.00 | 143.50 | 137.93 | MAY 2001 | 146.06 | AUG 1984 |
| Lake Conine | Polk | 1989 | 128.04 | 128.07 | 128.39 | 0.03 | -0.32 | 3.57 | 124.50 | 126.50 | 128.75 | 123.83 | NOV 2009 | 129.95 | SEP 2004 |
| Eagle Lake | Polk | 1965 | 129.25 | 130.01 | 129.52 | 0.76 | 0.49 | 3.51 | 126.50 | 128.50 | 130.75 | 120.87 | MAY 1967 | 131.50 | SEP 1996 |
| Lake Fannie | Polk | 1967 | 124.77 | 124.65 | 125.52 | -0.12 | -0.87 | 4.65 | 120.00 | 123.50 | 125.75 | 118.06 | JUN 2008 | 127.51 | SEP 2004 |
| Lake Garfield | Polk | 1982 | 102.49 | 102.18 | 102.28 | -0.31 | -0.10 | 2.18 | 100.00 | 101.00 | 104.75 | 97.38 | JUN 2001 | 105.70 | FEB 1998 |
| Lake Hamilton | Polk | 1962 | 120.34 | 120.32 | 120.75 | -0.02 | -0.43 | 3.07 | 117.25 | 119.00 | 121.50 | 111.25 | MAR 2008 | 123.96 | OCT 2004 |
| Lake Helene | Polk | 1961 | 141.35 | 141.21 | 143.41 | -0.14 | -2.20 | 2.21 | 139.00 | 141.00 | 144.00 | 134.06 | JUN 2008 | 146.71 | OCT 2017 |
| Lake Howard | Polk | 1987 | 131.28 | 131.17 | 131.47 | -0.11 | -0.30 | 4.17 | 127.00 | 129.50 | 132.00 | 127.69 | MAY 2001 | 133.08 | SEP 2004 |
| Lake Juliana | Polk | 1984 | 132.54 | 132.52 | 132.42 | -0.02 | 0.10 | 5.02 | 127.50 | 130.00 | 132.50 | 127.40 | NOV 2009 | 134.12 | SEP 2020 |
| Lake Mcleod | Polk | 1983 | 129.04 | 128.95 | 130.24 | -0.09 | -1.29 | 0.95 | 128.00 | 129.50 | 132.00 | 120.76 | JUL 1985 | 131.98 | SEP 1998 |
| Lake Otis | Polk | 1954 | 127.16 | 127.02 | 127.24 | -0.14 | -0.22 | 4.02 | 123.00 | 125.00 | 128.00 | 119.58 | MAY 1976 | 129.12 | SEP 1960 |
| Lake Ruby | Polk | 1974 | 124.62 | 124.73 | 124.50 | 0.11 | 0.23 | 3.73 | 121.00 | 123.00 | 125.25 | 120.68 | JUN 1974 | 125.98 | SEP 2004 |
| Lake Gibson | Polk | 1984 | 142.36 | 142.64 | 142.57 | 0.28 | 0.07 | 1.14 | 141.50 | 141.50 | 143.50 | 140.21 | MAY 2009 | 145.40 | SEP 1988 |

| LK WALES RIDGE LAKES | | | | | | | | | | | | | | | |
|----------------------|-----------|---------------------|----------|----------|----------|----------------------|----------------------|----------------|-------------------------|-----------------------|-----------------------|----------------------|-----------------|-----------------------|------------------|
| Lake Name | County | Beginning of Record | JUN 2022 | JUL 2022 | JUL 2021 | Change from JUN 2022 | Change from JUL 2021 | 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 | 115.95 | 115.78 | 117.37 | -0.17 | -1.59 | 1.78 | 114.00 | 116.00 | 119.00 | 108.36 | JUN 1990 | 118.15 | NOV 2020 |
| Lake Clay | Highlands | 1983 | 76.81 | 76.65 | 78.25 | -0.16 | -1.60 | 1.65 | 75.00 | 76.00 | 78.75 | 74.34 | MAY 2001 | 78.82 | JUN 2013 |
| Crooked Lake | Polk | 1982 | 117.10 | 117.05 | 119.82 | -0.05 | -2.77 | 0.05 | 117.00 | 118.50 | 122.00 | 106.28 | APR 1991 | 123.44 | AUG 2005 |
| Lake Jackson | Highlands | 1984 | 101.13 | 101.13 | 101.65 | 0.00 | -0.52 | 3.13 | 98.00 | 100.00 | 103.00 | 96.47 | JUN 2008 | 103.75 | SEP 2017 |
| Lake Letta | Highlands | 1981 | 96.11 | 96.27 | 97.39 | 0.16 | -1.12 | 1.27 | 95.00 | 97.00 | 100.00 | 90.27 | JUN 2008 | 100.74 | OCT 2017 |
| Lake Lotela | Highlands | 1989 | 104.50 | 104.42 | 106.18 | -0.08 | -1.76 | 0.42 | 104.00 | 105.00 | 108.50 | 96.63 | JUN 2008 | 109.13 | SEP 2017 |
| Lake Placid | Highlands | 1984 | 91.04 | 91.34 | 92.22 | 0.30 | -0.88 | 1.34 | 90.00 | 91.50 | 94.50 | 88.08 | JUN 2008 | 94.24 | SEP 2003 |
| Starr Lake | Polk | 1983 | 103.83 | 103.91 | 106.50 | 0.08 | -2.59 | -4.09 | 108.00 | 110.00 | 113.00 | 96.23 | JUL 2001 | 109.80 | DEC 2005 |
| Trout Lake | Highlands | 1981 | 93.90 | 93.90 | 95.94 | 0.00 | -2.04 | -1.10 | 95.00 | 98.00 | 101.00 | 87.15 | MAY 2001 | 99.89 | SEP 2016 |

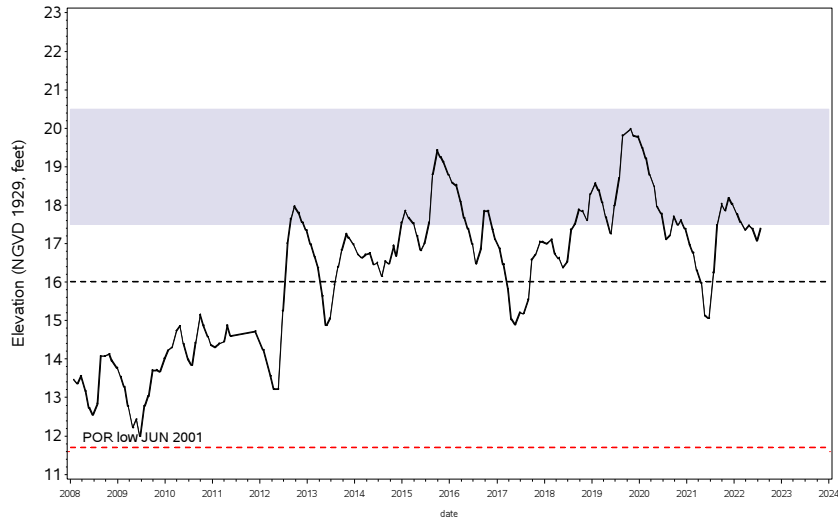
NOTE: M='no data' or 'not determined'

All elevations are referenced to NGVD 1929 datum. Report compiled by Hunter Alexander

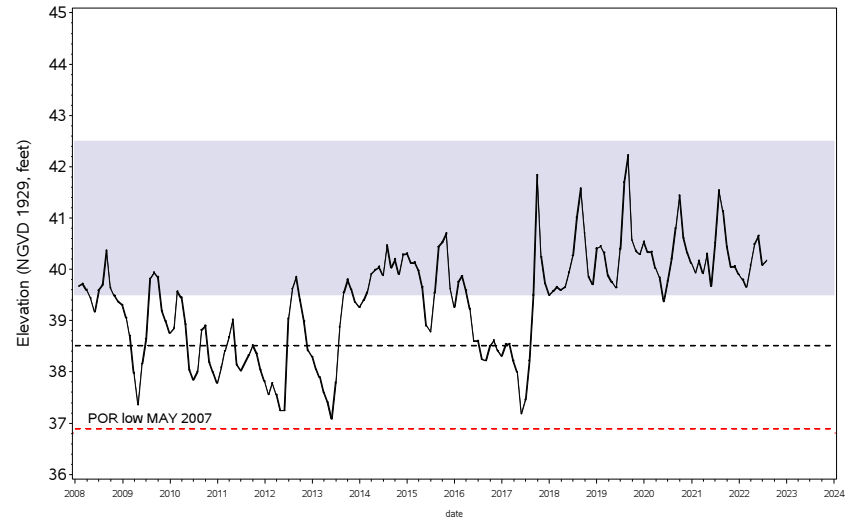
HYDROGRAPHS OF REGIONAL LAKES

15-yr Period of Record

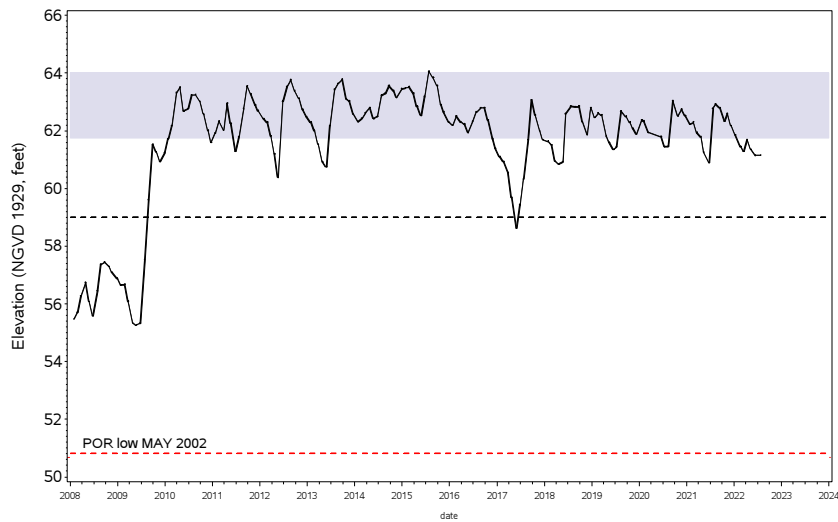
Hunters Lake
Northern Lakes



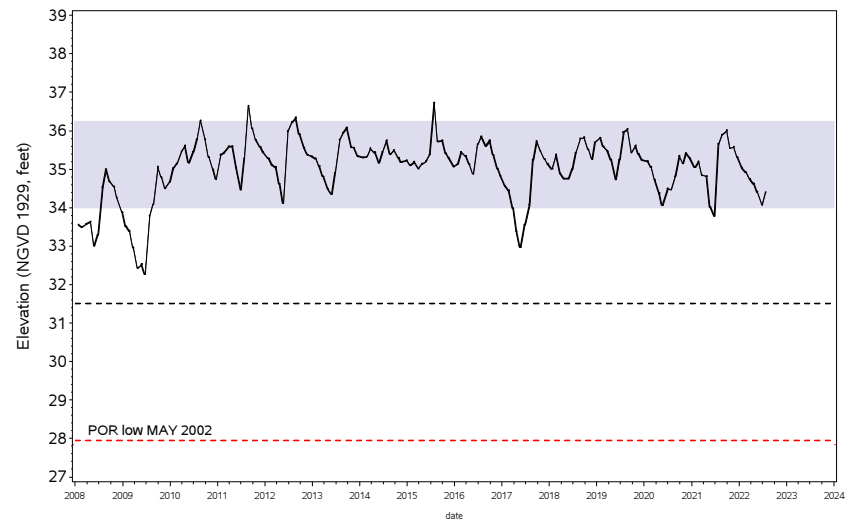
Lake Panasoffkee
Northern Lakes



Camp Lake
Tampa Bay Lakes



Church Lake
Tampa Bay Lakes

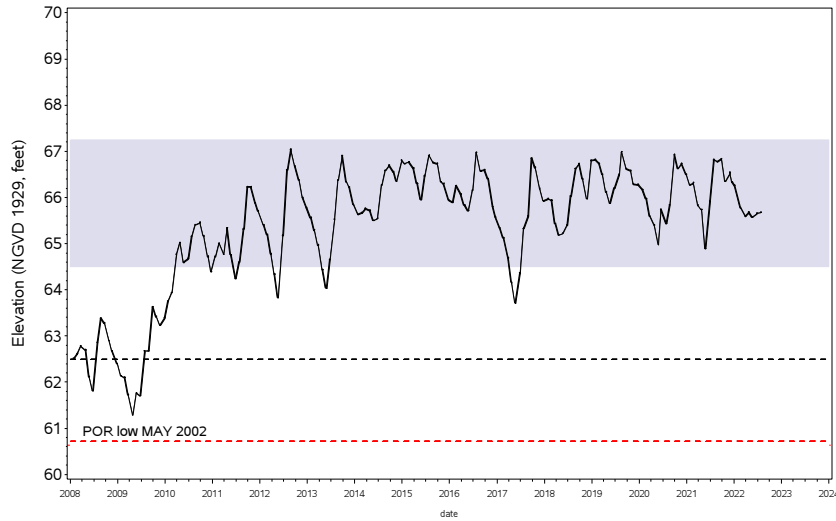


— Monthly Mean Elevation - - - Drought Year Low Normal Range

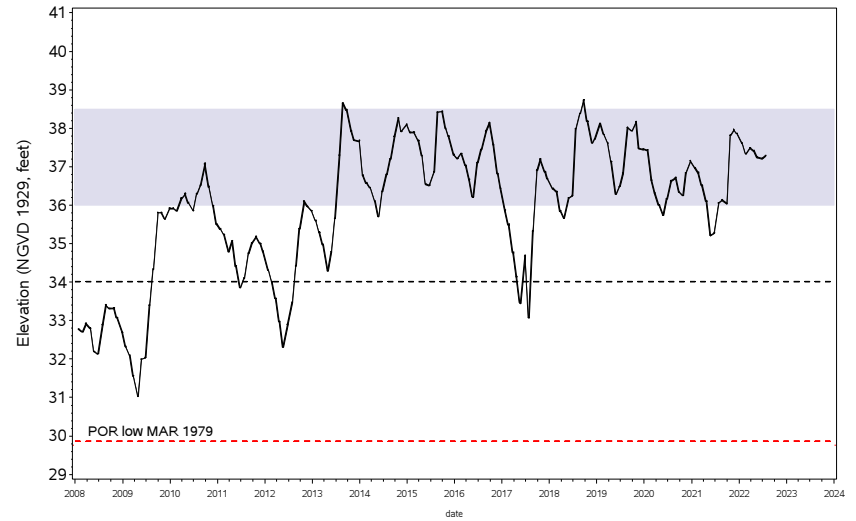
HYDROGRAPHS OF REGIONAL LAKES

15-yr Period of Record

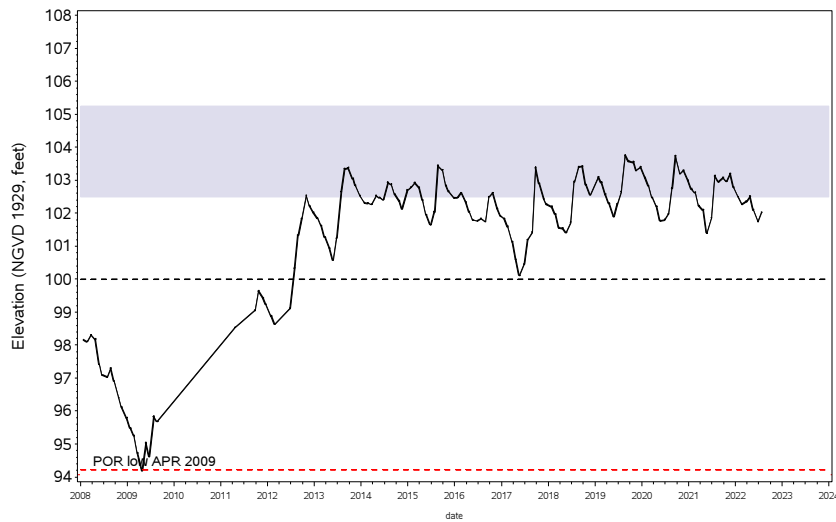
Deer Lake
Tampa Bay Lakes



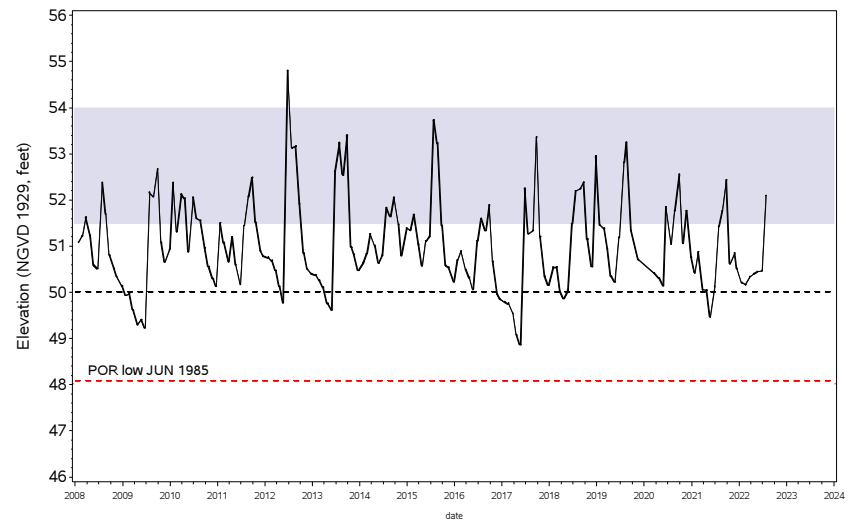
Gornto Lake
Tampa Bay Lakes



King Lake
Tampa Bay Lakes



Turkey Ford Lake
Tampa Bay Lakes

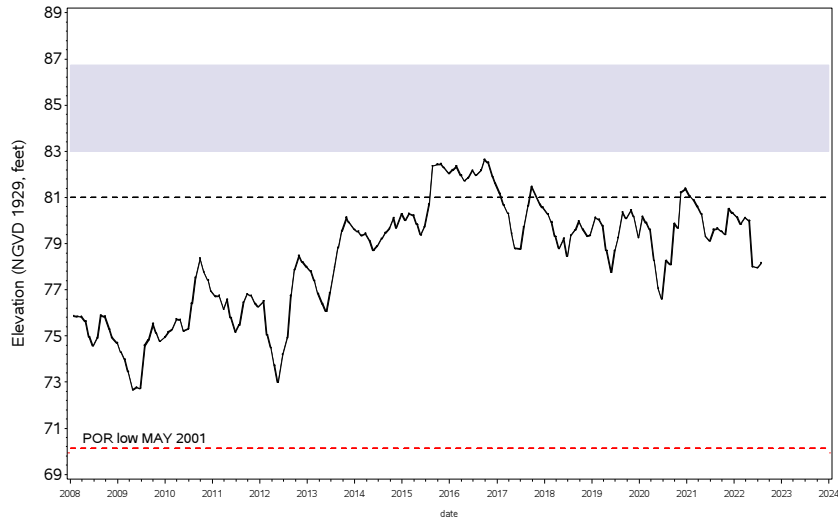


— Monthly Mean Elevation - - - Drought Year Low Normal Range

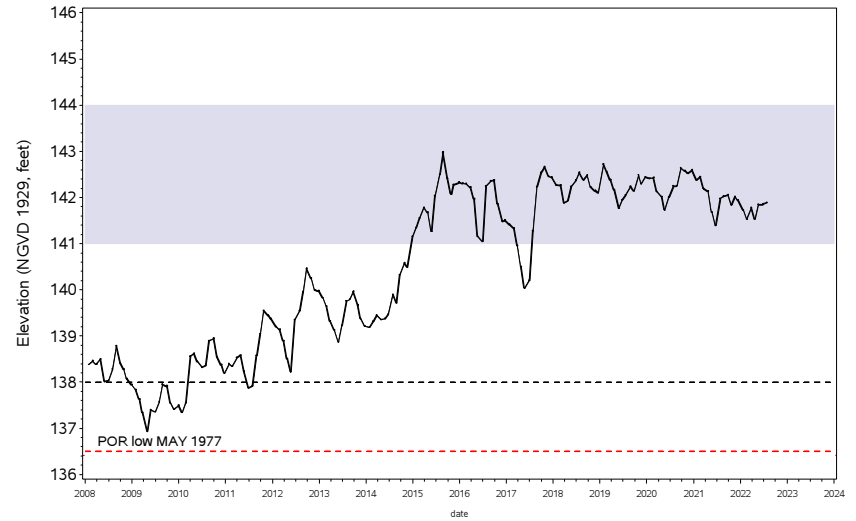
HYDROGRAPHS OF REGIONAL LAKES

15-yr Period of Record

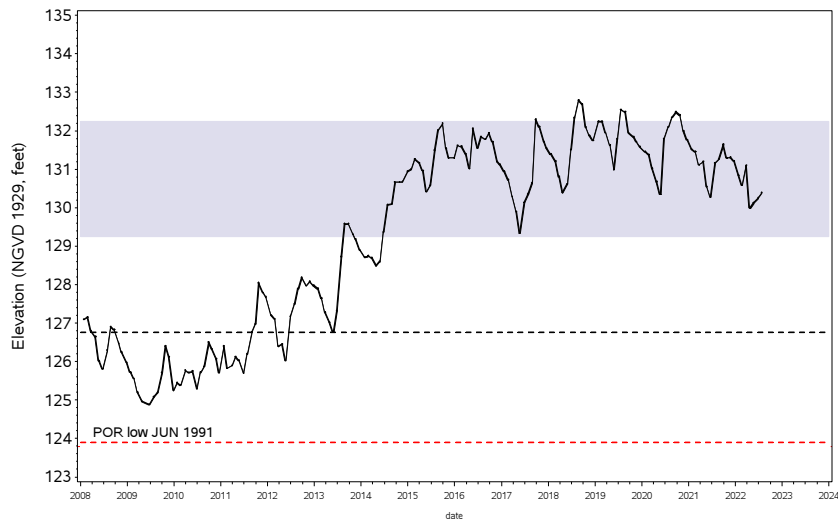
Lake Wimauma
Tampa Bay Lakes



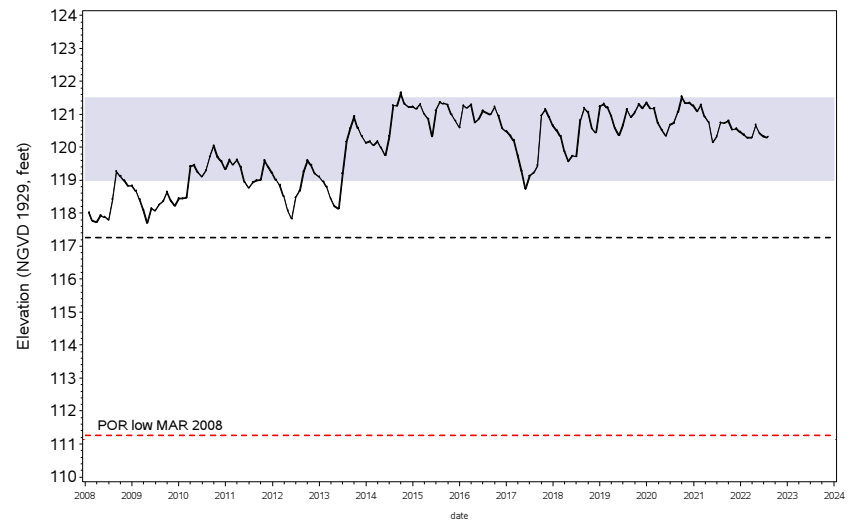
Lake Arietta
Polk Uplands Lakes



Lake Buffum
Polk Uplands Lakes



Lake Hamilton
Polk Uplands Lakes

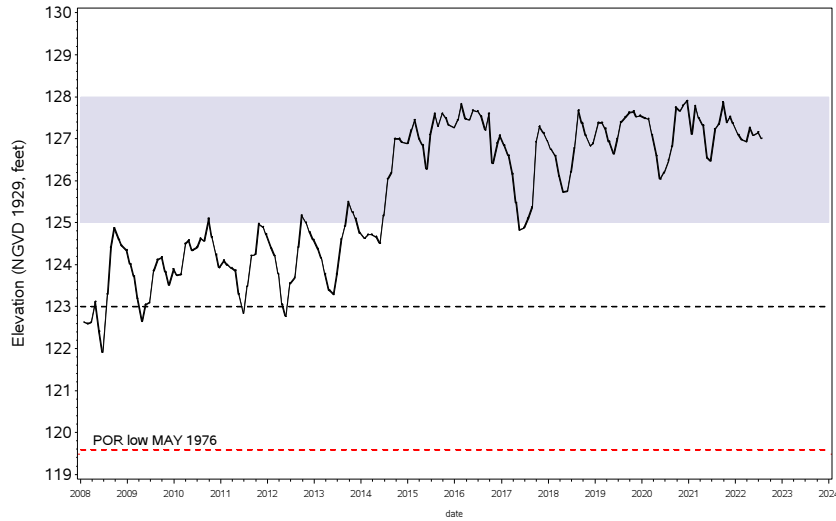


— Monthly Mean Elevation - - - Drought Year Low Normal Range

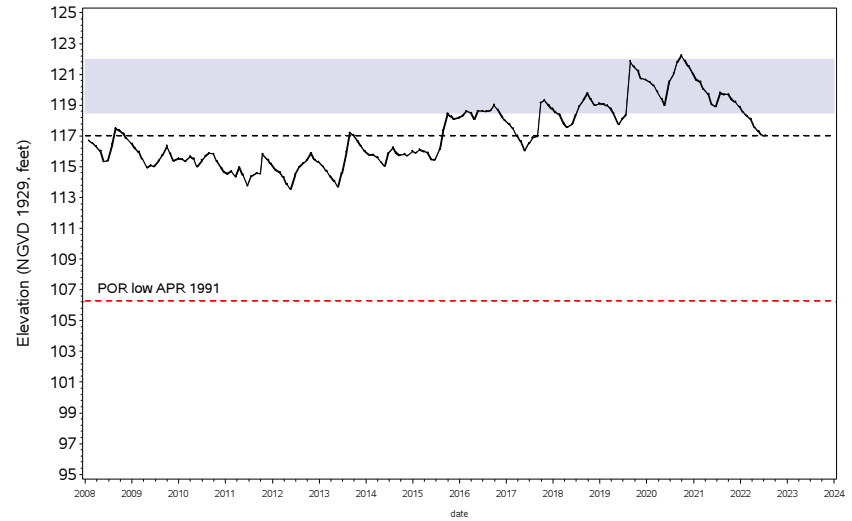
HYDROGRAPHS OF REGIONAL LAKES

15-yr Period of Record

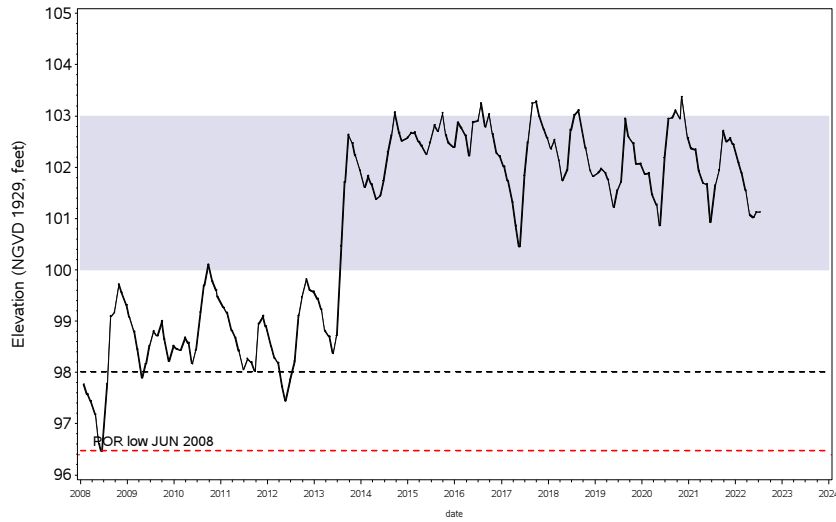
Lake Otis
Polk Uplands Lakes



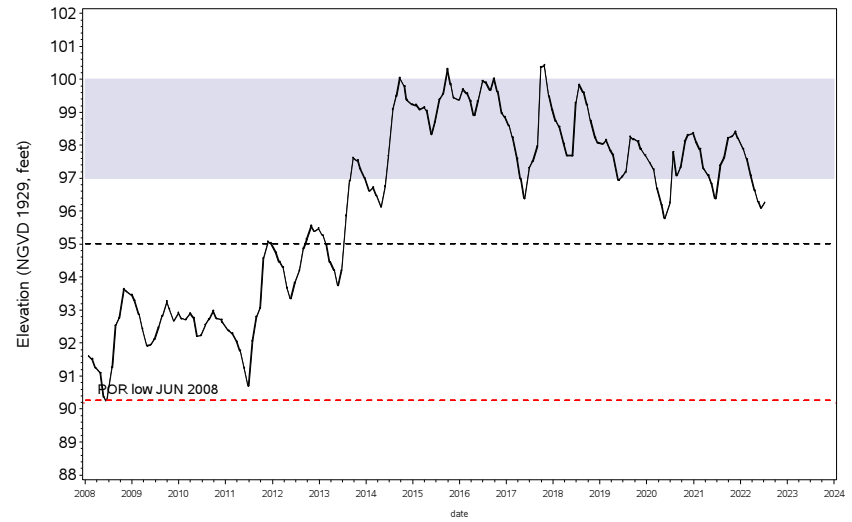
Crooked Lake
Lake Wales Ridge Lakes



Lake Jackson
Lake Wales Ridge Lakes



Lake Letta
Lake Wales Ridge Lakes



— Monthly Mean Elevation - - - Drought Year Low Normal Range

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 June data, eleven of the 12 stations monitored for this report recorded increased streamflow, while one recorded a decrease.

Compared to July 2021 data, all 12 stations recorded streamflow decreases.

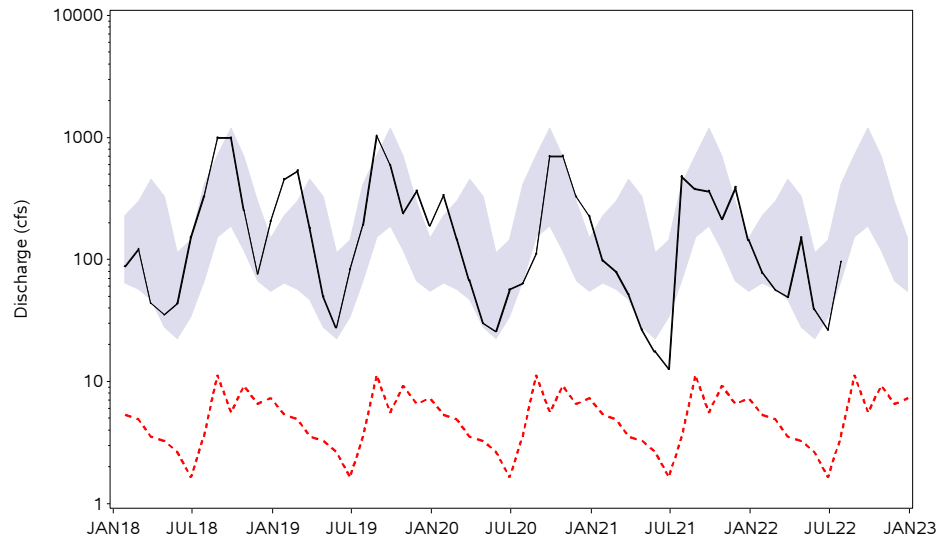
Compared to historical July discharge values, Withlacoochee River streamflow, measured at the Trilby station and the Holder station averaged in the 41st and 29th percentiles, respectively. Streamflow measured at the stations on the Anclote, Pithlachascotee and Hillsborough Rivers averaged in the 80th, 85th and 21st percentiles of respective historical July readings. Streamflow measured at the Alafia River, Little Manatee River and Peace River at Bartow stations averaged in the 6th, 47th and 23rd percentiles of respective historical July readings. Additionally, streamflow measured at the Josephine Creek, Manatee River, Myakka River and Peace River at Arcadia stations averaged in the 22nd, 22nd, 17th and 27th percentiles of respective historical July readings.

SUMMARY OF STREAM DISCHARGE FROM MAJOR STREAMS (CFS), JULY 2022

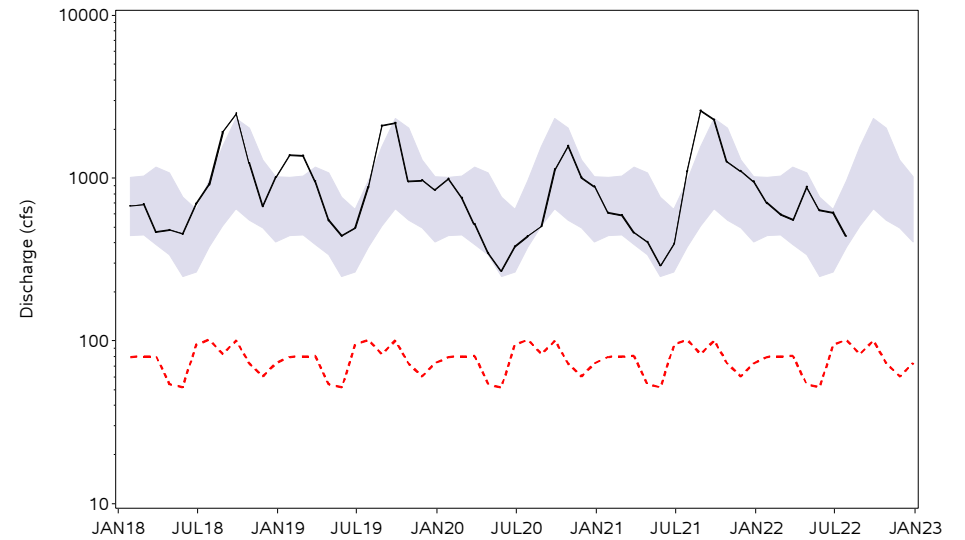
| | <i>Beginning Year of Record</i> | <i>Mean Discharge JUL 2022</i> | <i>Mean Discharge JUN 2022</i> | <i>Mean Discharge JUL 2021</i> | <i>Change from JUN 2022</i> | <i>Change from JUL 2021</i> | <i>JUL 2022 Percentile Rank</i> | <i>Period of Record Low</i> | <i>Record Low Date</i> | <i>Period of Record High</i> | <i>Record High Date</i> |
|-----------------------------|---|--|--|--|-------------------------------------|-------------------------------------|---|-------------------------------------|--------------------------------|--------------------------------------|---------------------------------|
| <i>NORTHERN COUNTIES</i> | | | | | | | | | | | |
| Withlacoochee R at Trilby | 1928 | 95.8 | 26.7 | 478.9 | 69.1 | -383.1 | 41% | 0.1 | JUN2000 | 8840 | JUN1934 |
| Withlacoochee R near Holder | 1928 | 443.0 | 614.2 | 1105.2 | -171.2 | -662.2 | 29% | 33.0 | MAR2001 | 8660 | APR1960 |
| <i>CENTRAL COUNTIES</i> | | | | | | | | | | | |
| Anclote River near Elfers | 1946 | 122.9 | 9.3 | 256.4 | 113.6 | -133.5 | 80% | 0.8 | MAY1962 | 3710 | JUL1960 |
| Pithlachascotee R near New | 1963 | 61.0 | 1.6 | 85.4 | 59.4 | -24.4 | 85% | 0.0 | JUN2021 | 2180 | JUN2012 |
| Hillsborough R near Zephyrh | 1939 | 118.8 | 91.3 | 690.4 | 27.5 | -571.6 | 21% | 27.0 | MAY2001 | 12300 | MAR1960 |
| Alafia River at Lithia | 1932 | 149.7 | 134.8 | 759.8 | 14.9 | -610.1 | 6% | 4.1 | JUN2000 | 40800 | SEP1933 |
| Little Manatee R near Wima | 1939 | 198.8 | 111.5 | 471.3 | 87.3 | -272.5 | 47% | 0.9 | DEC1976 | 11100 | SEP1960 |
| Peace River at Bartow | 1939 | 70.3 | 61.0 | 164.2 | 9.3 | -93.9 | 23% | 0.0 | MAY2009 | 4100 | SEP1947 |
| <i>SOUTHERN COUNTIES</i> | | | | | | | | | | | |
| Josephine Cr near DeSoto Ci | 1946 | 20.4 | 12.9 | 92.7 | 7.5 | -72.3 | 22% | 0.5 | MAY1956 | 1680 | SEP1948 |
| Manatee River near Myakka H | 1966 | 41.1 | 27.1 | 362.5 | 14.0 | -321.4 | 22% | 0.1 | MAY1975 | 6440 | JUN2003 |
| Myakka River near Sarasota | 1936 | 87.6 | 59.9 | 878.1 | 27.7 | -790.5 | 17% | 0.0 | JUN2012 | 10800 | JUN2003 |
| Peace River at Arcadia | 1931 | 734.6 | 323.5 | 1978.2 | 411.1 | -1243.6 | 27% | 5.6 | MAY2000 | 34700 | SEP1933 |

HYDROGRAPHS OF MAJOR STREAMS JANUARY 2018 TO JULY 2022

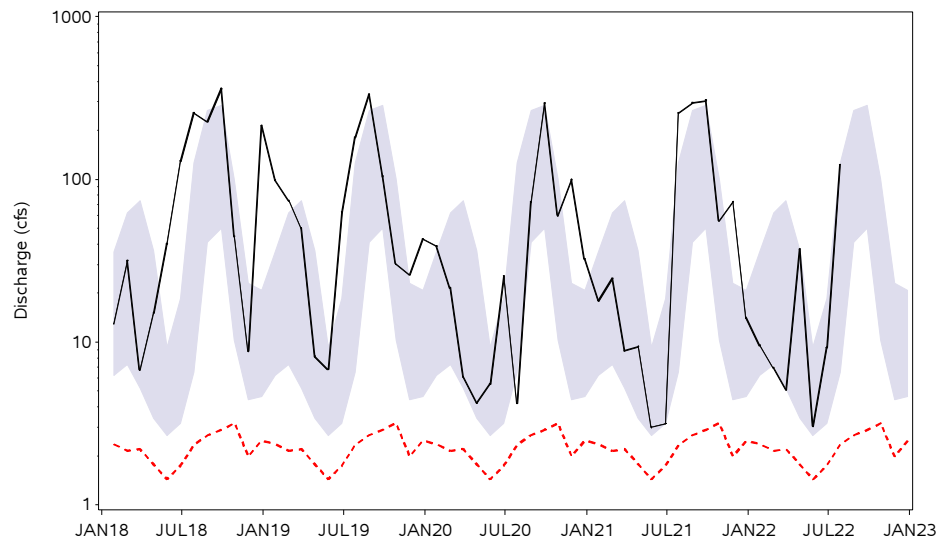
Withlacoochee R at Trilby
Northern Counties



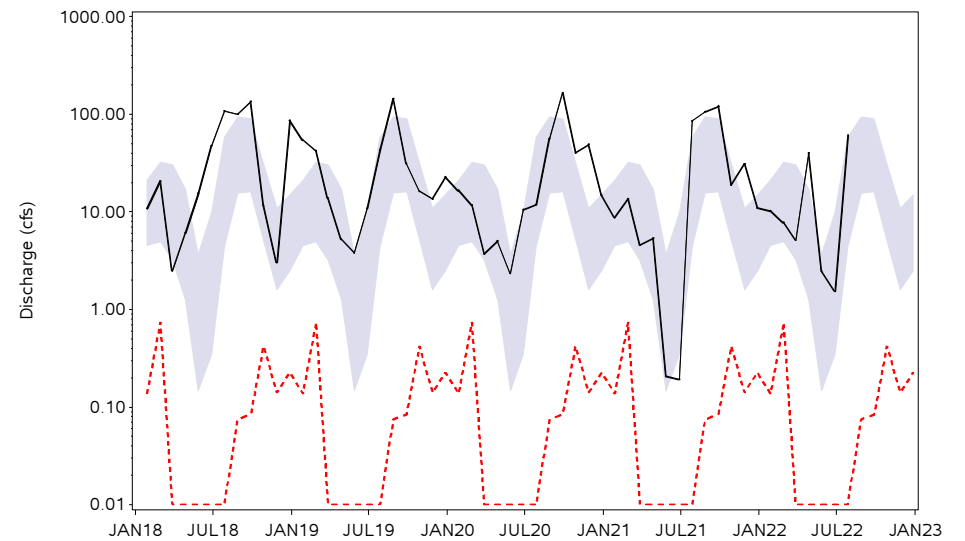
Withlacoochee R near Holder
Northern Counties



Anclole River near Elfers
Central Counties



Pithlachascotee R near New
Central Counties



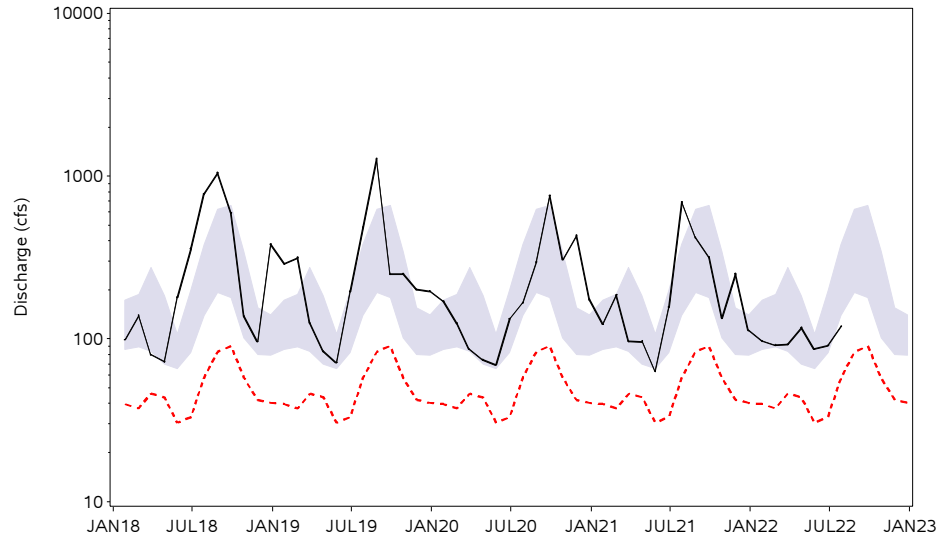
— Monthly Mean Discharge

- - - POR Monthly Low

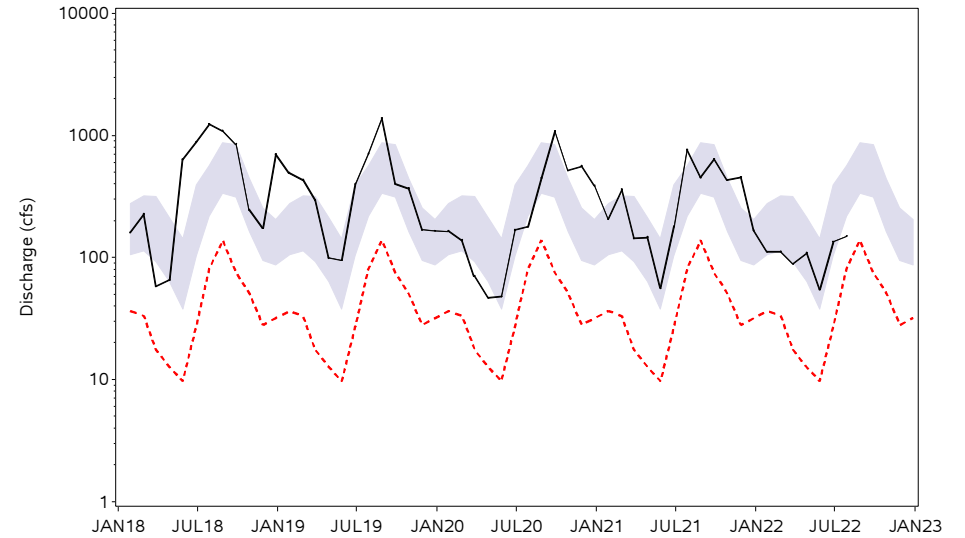
Normal Range

HYDROGRAPHS OF MAJOR STREAMS JANUARY 2018 TO JULY 2022

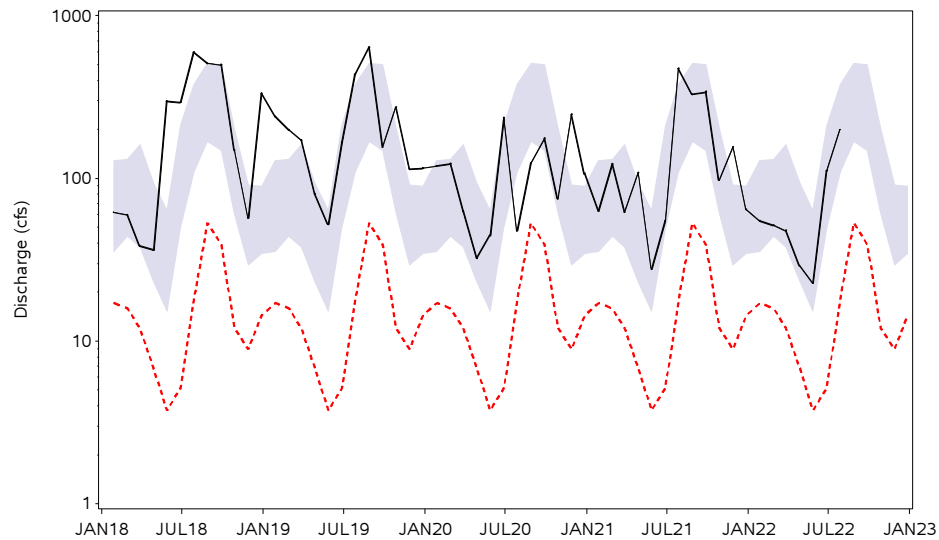
Hillsborough R near Zephyrh
Central Counties



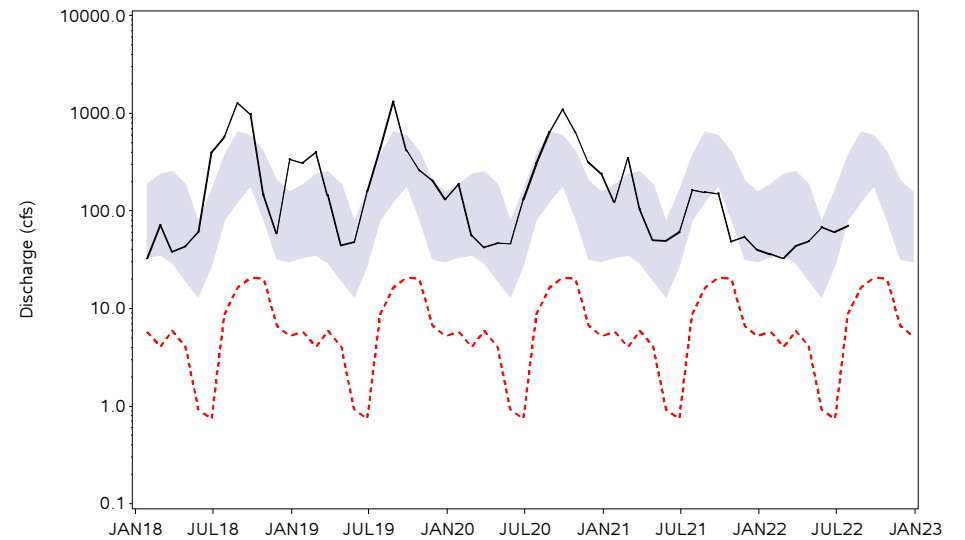
Alafia River at Lithia
Central Counties



Little Manatee R near Wima
Central Counties



Peace River at Bartow
Central Counties



— Monthly Mean Discharge

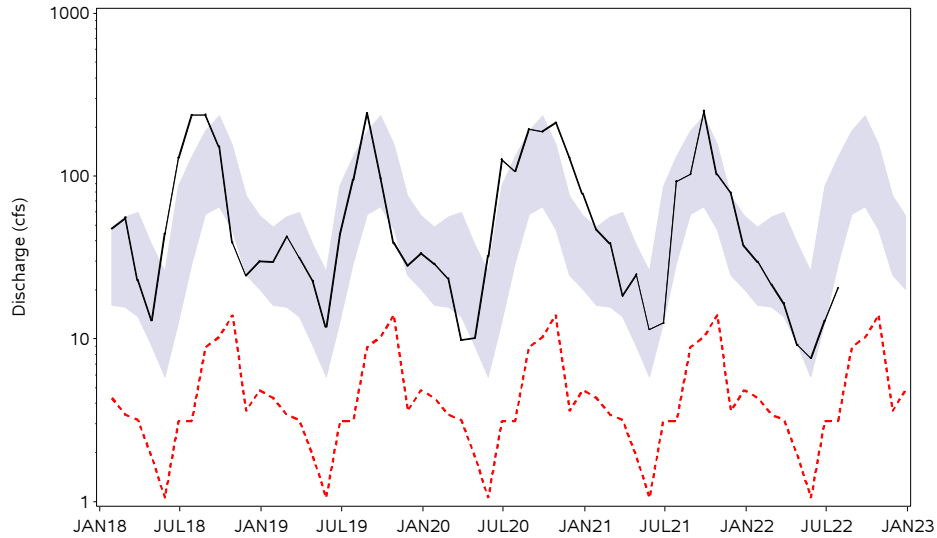
- - - POR Monthly Low

Normal Range

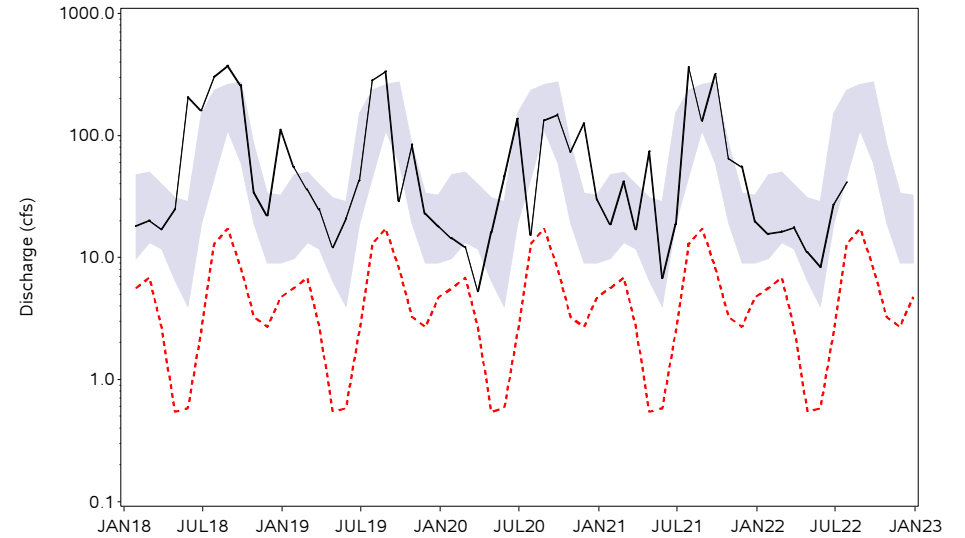
HYDROGRAPHS OF MAJOR STREAMS

JANUARY 2018 TO JULY 2022

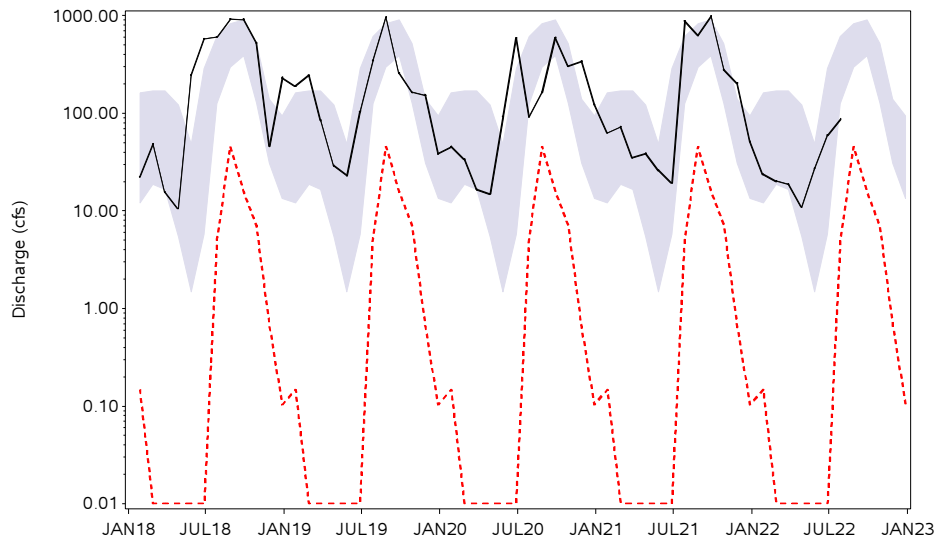
Josephine Cr near DeSoto Ci
Southern Counties



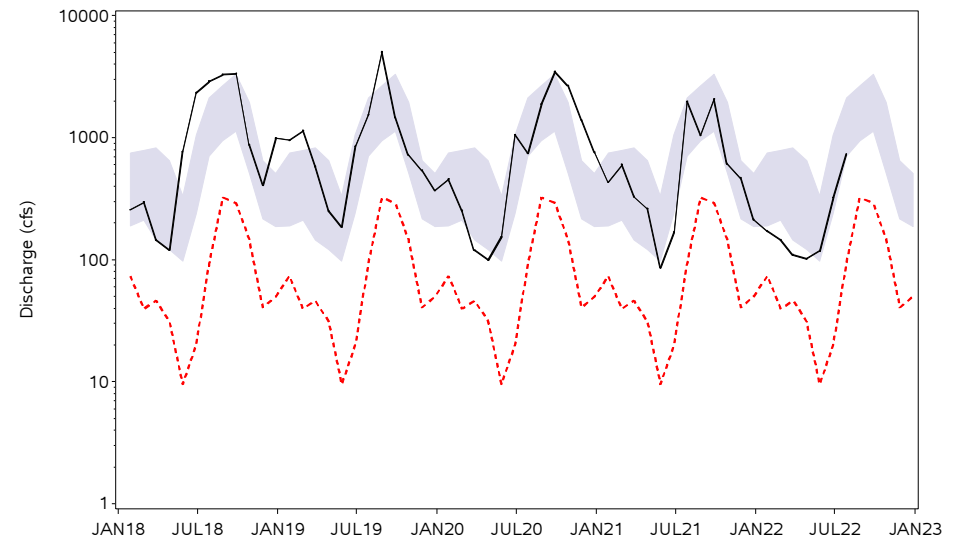
Manatee River near Myakka H
Southern Counties



Myakka River near Sarasota
Southern Counties



Peace River at Arcadia
Southern Counties



— Monthly Mean Discharge

- - - POR Monthly Low

Normal Range

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 June data, five of the six stations monitored for this report recorded increased springflow, while one station recorded decreased springflow.

Compared to July 2021 data, four of the six stations recorded decreased springflow, while one station recorded increased springflow. Data was missing for Lithia Spring for last year (i.e., month of July 2021).

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 74th, 20th and 60th percentiles, respectively, of historical July readings. Springflow measured in Sulphur, Buckhorn and Lithia Springs in the central region, was in the 14th, 19th and 81st percentiles, respectively, of historical July readings.

Low Springflow

During July 2022, Sulphur Springs recorded zero (0) discharge for several days, which is an infrequent but periodic occurrence regarding this spring.

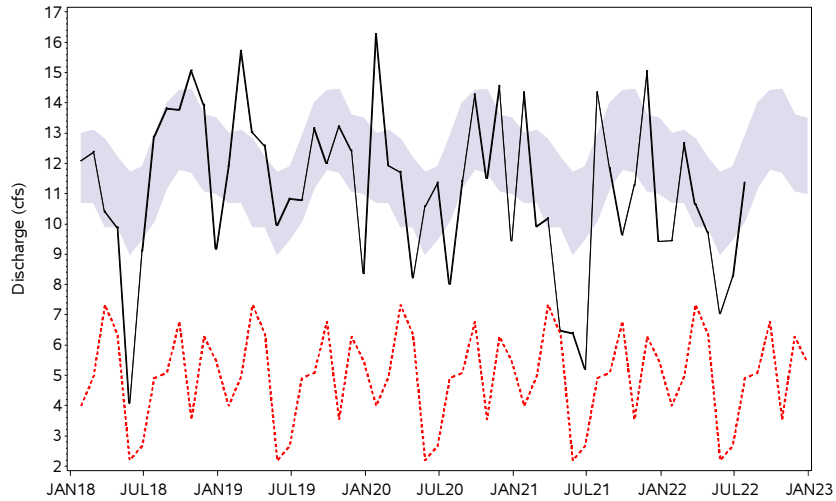
SUMMARY OF SPRINGS DISCHARGE FROM MAJOR SPRINGS (CFS), JULY 2022

| | <i>JUL 2022 Discharge</i> | <i>JUN 2022 Discharge</i> | <i>JUL 2021 Discharge</i> | <i>Change From JUN 2022</i> | <i>Change From JUL 2021</i> | <i>JUL 2022 Percentile Rank</i> | <i>Period of Record Low</i> | <i>Record Low Date</i> | <i>Period of Record High</i> | <i>Record High Date</i> |
|--------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------------|-------------------------------------|---|-------------------------------------|--------------------------------|--------------------------------------|---------------------------------|
| <i>NORTHERN COUNTIES</i> | | | | | | | | | | |
| Rainbow Springs | 706.9 | 674.3 | 668.8 | 32.6 | 38.1 | 74% | 391.0 | MAY2012 | 1060.0 | SEP1988 |
| Silver Springs | 593.7 | 618.4 | 657.0 | -24.7 | -63.3 | 20% | 141.0 | JUN2012 | 1290.0 | OCT1960 |
| Weeki Wachee Springs | 154.8 | 151.7 | 159.5 | 3.1 | -4.7 | 60% | 101.0 | JUN1994 | 257.0 | OCT2004 |
| <i>CENTRAL COUNTIES</i> | | | | | | | | | | |
| Sulphur Springs | 19.7 | 6.1 | 32.7 | 13.6 | -13.0 | 14% | 0.0 | JUL2022 | 145.0 | MAR1960 |
| Buckhorn Springs | 9.5 | 8.9 | 14.4 | 0.6 | -4.9 | 19% | 2.2 | MAY2006 | 32.7 | AUG2004 |
| Lithia Springs | 46.9 | 42.2 | M | 4.7 | M | 81% | 6.2 | OCT2012 | 91.5 | NOV2004 |

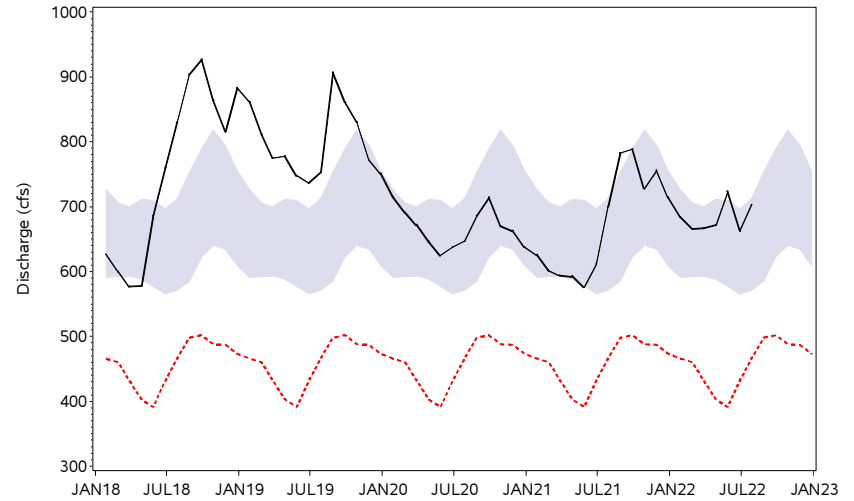
HYDROGRAPHS OF REGIONAL SPRINGS

JANUARY 2018 TO JULY 2022

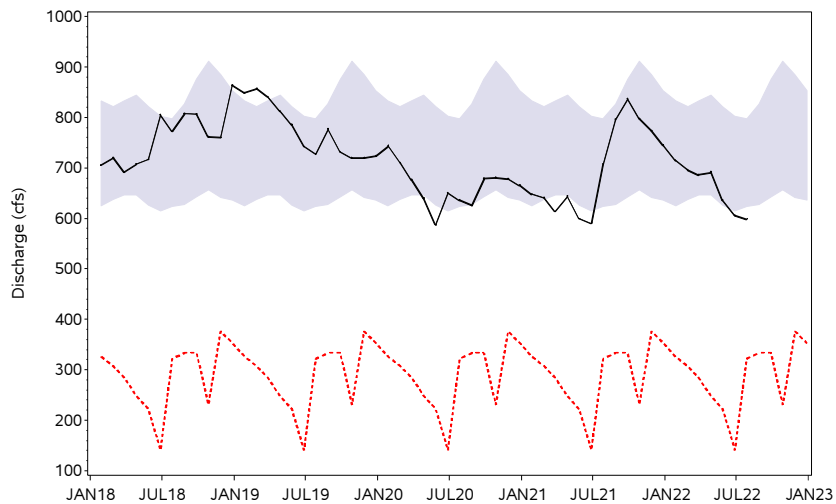
Buckhorn Main Spring
Central Counties



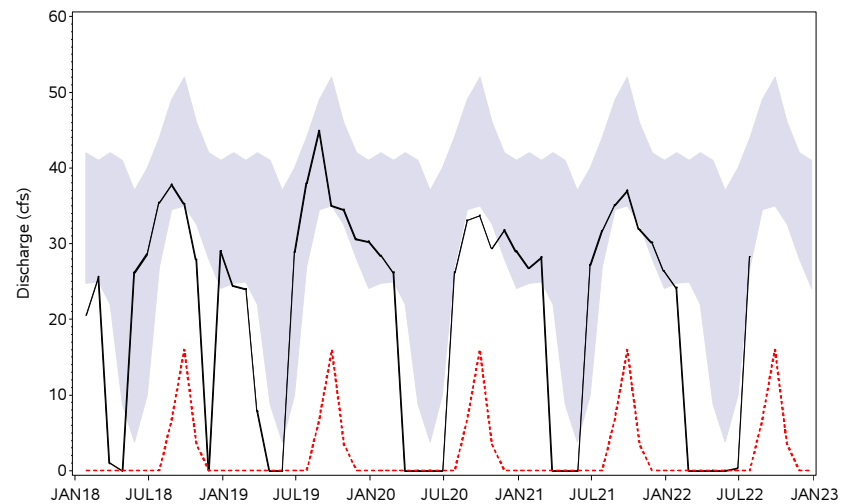
Rainbow River at Dunnellon
Northern Counties



Silver River nr Ocala
Northern Counties



Sulphur Springs (Pool) at Sulphur S
Central Counties

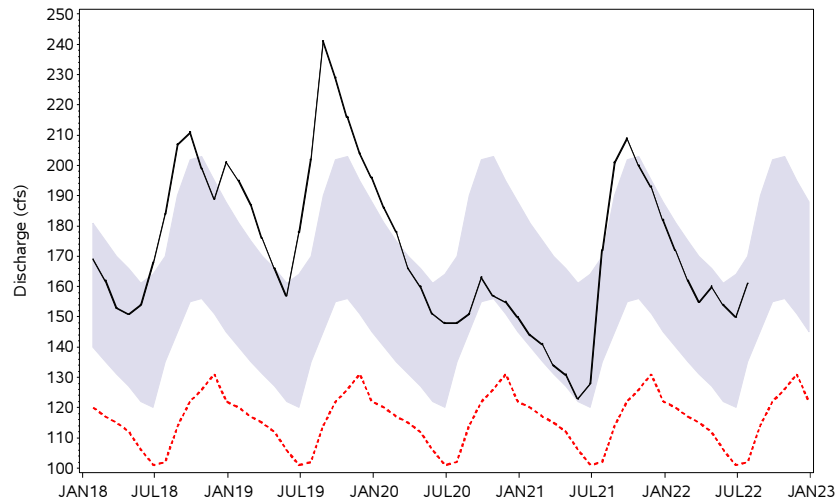


— Monthly Discharge - - - - - POR Monthly Low Normal Range

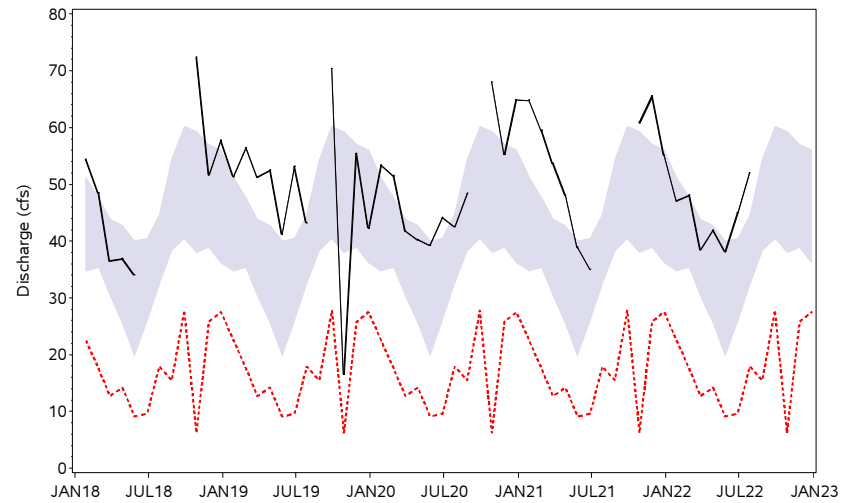
HYDROGRAPHS OF REGIONAL SPRINGS

JANUARY 2018 TO JULY 2022

Weeki Wachee River nr Brooksville
Northern Counties



Lithia Springs
Central Counties



— Monthly Discharge

- - - POR Monthly Low

Normal Range

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 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 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 aquifer wells are used to produce the potentiometric surface maps presented in this report.

Upper Floridan Aquifer

Since June, 69 of the 80 wells monitored for this report recorded water level increases, while 11 recorded decreases. Regionally, average water levels increased in the northern, central and southern counties by 0.10 foot, 1.77 feet and 3.09 feet, respectively. District-wide, the average water level in the UFA increased by 1.83 feet.

Compared to July 2021 data, 51 of the 80 wells monitored for this report recorded water level decreases, while 29 recorded increases. Regionally, the mean water level in the northern and central counties was lower by 1.01 and 1.11 feet, respectively, while it was higher in the southern counties by 0.24 foot. District-wide, average water levels in UFA wells were 0.60 foot lower than July 2021 levels.

In July, groundwater data showed that average regional 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 65th, 53rd and 55th percentiles, respectively.

SUMMARY OF UPPER FLORIDAN AQUIFER LEVELS IN REPRESENTATIVE WELLS, JULY 2022

Regional Summary:

| <i>Region</i> | <i>JUL 2022 Mean Elevation</i> | <i>JUL 2022 Relation to POR Median</i> | <i>JUL 2022 Relation to 25th Percentile</i> | <i>JUL 2022 Mean Percentile Rank</i> | <i>JUN 2022 Mean Percentile Rank</i> | <i>JUL 2021 Mean Percentile Rank</i> |
|-------------------|--|--|---|--|--|--|
| Northern Counties | 38.47 | 0.80 | 2.09 | 65% | 75% | 81% |
| Central Counties | 59.84 | 0.26 | 2.93 | 53% | 57% | 71% |
| Southern Counties | 35.09 | 0.37 | 2.04 | 55% | 65% | 63% |

Regional Wells Summary:

| <i>NORTHERN COUNTIES</i> | <i>JUL 2022 Elev</i> | <i>JUN 2022 Elev</i> | <i>JUL 2021 Elev</i> | <i>Change From JUN 2022</i> | <i>Change From JUL 2021</i> | <i>JUL Historical Low Normal</i> | <i>JUL Historical High Normal</i> | <i>Departure From Low Normal</i> | <i>JUL 2022 Percentile Rank</i> | <i>Period of Record Low</i> | <i>Record Low Date</i> | <i>Period of Record High</i> | <i>Record High Date</i> |
|--------------------------|------------------------------|------------------------------|------------------------------|---|---|--|---|--|---|-------------------------------------|--------------------------------|--------------------------------------|---------------------------------|
| CE 14 Dunnellon | 41.46 | 42.27 | 44.42 | -0.81 | -2.96 | 36.44 | 41.95 | 5.02 | 77% | 31.94 | MAY2012 | 50.90 | MAR1998 |
| Chassahowitzka 1 Deep | 7.05 | 6.88 | 7.51 | 0.17 | -0.46 | 6.06 | 7.27 | 0.99 | 77% | 4.80 | JUN2001 | 9.75 | SEP2004 |
| Inverness Dot Fldn | 32.43 | 32.21 | 32.31 | 0.22 | 0.12 | 27.55 | 30.57 | 4.88 | 86% | 21.70 | JUN2001 | 37.80 | OCT1982 |
| Mascotte Deep | 100.35 | 100.14 | 101.34 | 0.21 | -0.99 | 99.36 | 100.63 | 0.99 | 61% | 93.94 | JUN2000 | 102.66 | SEP1988 |
| North Locanto Deep | 5.05 | 4.92 | 5.45 | 0.13 | -0.40 | 4.24 | 5.48 | 0.81 | 68% | 2.94 | MAY2001 | 8.10 | OCT1982 |
| ROMP 103 Suwannee | 40.73 | 41.14 | 41.95 | -0.41 | -1.22 | 40.32 | 41.34 | 0.41 | 51% | 35.38 | AUG1992 | 48.95 | OCT1982 |
| ROMP 107 Ocala/Avon | 12.78 | 12.86 | 12.75 | -0.08 | 0.03 | 10.89 | 13.39 | 1.89 | 66% | 8.08 | AUG2007 | 19.78 | NOV1982 |
| ROMP 111 Ocala/Avon | 49.88 | 50.05 | 51.33 | -0.17 | -1.45 | 48.48 | 49.98 | 1.40 | 66% | 44.23 | JUL1992 | 53.33 | SEP2004 |
| ROMP 116 Avon Park | 33.17 | 33.13 | 35.06 | 0.04 | -1.89 | 32.20 | 33.78 | 0.97 | 48% | 29.24 | MAY2012 | 39.28 | OCT2004 |
| ROMP 119 Avon Park | 43.89 | 43.88 | 45.67 | 0.01 | -1.78 | 42.77 | 44.85 | 1.12 | 55% | 39.86 | MAY2012 | 52.20 | MAR1998 |
| ROMP 120 Avon Park | 43.84 | 43.73 | 45.23 | 0.11 | -1.39 | 41.58 | 44.81 | 2.26 | 66% | 38.71 | MAY2012 | 52.24 | MAR1998 |
| ROMP 134 Ocala/Avon | 49.40 | 49.45 | 50.57 | -0.05 | -1.17 | 43.13 | 47.00 | 6.27 | 75% | 37.80 | JUN2012 | 57.35 | APR1998 |
| ROMP 89 Ocala | 92.76 | 90.70 | 92.50 | 2.06 | 0.26 | 90.66 | 93.06 | 2.10 | 80% | 82.46 | JUN2000 | 94.93 | DEC1997 |
| ROMP 97 Avon Park | 18.64 | 18.09 | 18.46 | 0.55 | 0.18 | 15.02 | 20.61 | 3.62 | 70% | 11.84 | MAY2009 | 26.24 | SEP2004 |
| ROMP TR 124 Avon | 3.90 | 3.37 | 3.94 | 0.53 | -0.04 | 3.09 | 3.69 | 0.81 | 76% | 0.77 | SEP2004 | 7.95 | JUN1995 |
| ROMP TR 21-2 Ocala/Avpk | 3.64 | 3.33 | 3.57 | 0.31 | 0.07 | 2.91 | 3.40 | 0.73 | 77% | 0.40 | DEC1981 | 6.12 | OCT1995 |
| Sumter 13 JC 59 Up | 41.15 | 42.35 | 44.51 | -1.20 | -3.36 | 39.96 | 43.63 | 1.19 | 40% | 36.52 | MAY2012 | 47.36 | AUG2021 |
| Tidewater 1 FLDN | 54.78 | 54.49 | 55.73 | 0.29 | -0.95 | 53.06 | 56.54 | 1.72 | 55% | 48.05 | JUN2012 | 61.81 | SEP1982 |
| Webster City Fldn | 83.63 | 84.36 | 85.61 | -0.73 | -1.98 | 80.84 | 84.02 | 2.79 | 73% | 74.16 | MAY2012 | 88.77 | SEP2005 |
| Weeki Wachee Deep | 15.84 | 15.01 | 16.72 | 0.83 | -0.88 | 14.51 | 17.39 | 1.33 | 42% | 10.37 | MAY2009 | 23.61 | AUG1984 |

All elevations are referenced to NGVD 1929 datum

Regional Wells Summary (continued):

| | JUL 2022 Elev | JUN 2022 Elev | JUL 2021 Elev | Change From JUN 2022 | Change From JUL 2021 | JUL Historical Low Normal | JUL Historical High Normal | Departure From Low Normal | JUL 2022 Percentile Rank | Period of Record Low | Record Low Date | Period of Record High | Record High Date |
|-------------------------|---------------------|---------------------|---------------------|-------------------------------|-------------------------------|------------------------------------|-------------------------------------|------------------------------------|-----------------------------------|----------------------------|-----------------------|-----------------------------|------------------------|
| CENTRAL COUNTIES | | | | | | | | | | | | | |
| Bexley 2 Fldn | 62.65 | 61.02 | 62.34 | 1.63 | 0.31 | 60.76 | 62.84 | 1.89 | 73% | 56.08 | JUN2000 | 64.50 | SEP2017 |
| Coley Deep | 84.75 | 82.31 | 86.49 | 2.44 | -1.74 | 82.22 | 88.63 | 2.53 | 62% | 60.77 | JAN2010 | 93.79 | OCT1953 |
| Debuel Road Deep | 53.58 | 53.67 | 54.33 | -0.09 | -0.75 | 53.72 | 56.31 | -0.14 | 20% | 46.48 | APR2002 | 60.13 | SEP1979 |
| Hills State Park Deep | 38.49 | 37.11 | 41.00 | 1.38 | -2.51 | 38.20 | 41.12 | 0.29 | 33% | 35.35 | JUN2000 | 47.42 | DEC1997 |
| Lk Alfred Deep nr | 127.97 | 127.28 | 128.62 | 0.69 | -0.65 | 126.84 | 128.73 | 1.13 | 58% | 119.85 | MAY1974 | 131.18 | MAR1998 |
| Loughman Deep | 90.18 | 89.26 | 90.06 | 0.92 | 0.12 | 89.77 | 91.27 | 0.41 | 37% | 85.90 | MAY2001 | 93.23 | OCT1979 |
| Lykes Pasco Fldn | 66.04 | 65.75 | 68.23 | 0.29 | -2.19 | 63.92 | 67.22 | 2.12 | 51% | 56.94 | JUN2000 | 75.78 | OCT2004 |
| Masaryktown Deep | 34.33 | 33.10 | 32.01 | 1.23 | 2.32 | 25.57 | 35.64 | 8.76 | 72% | 21.89 | AUG1994 | 50.32 | SEP1984 |
| Moon Lake Deep | 31.92 | 29.91 | 31.44 | 2.01 | 0.48 | 31.35 | 31.68 | 0.57 | 54% | 26.10 | JUN2000 | 34.89 | AUG2015 |
| Pasco 13 nr Drexel | 71.76 | 71.06 | 73.50 | 0.70 | -1.74 | 71.80 | 74.50 | -0.04 | 24% | 68.00 | JUN2001 | 77.14 | JUL1960 |
| Pinellas 665 Fldn | 9.59 | 8.70 | 9.74 | 0.89 | -0.15 | 9.45 | 10.96 | 0.14 | 31% | 6.70 | MAY2006 | 14.79 | SEP1959 |
| ROMP 123 Hawthorn/Ocala | 22.25 | 15.63 | 20.84 | 6.62 | 1.41 | 18.51 | 24.48 | 3.74 | 72% | -29.47 | MAY2000 | 33.56 | FEB1998 |
| ROMP 40 Suwannee/Avon | 45.52 | 39.92 | 45.96 | 5.60 | -0.44 | 39.22 | 45.39 | 6.30 | 72% | -4.15 | JUN2000 | 57.37 | FEB1998 |
| ROMP 45 Avon Park | 73.40 | 70.58 | 75.62 | 2.82 | -2.22 | 67.01 | 70.77 | 6.39 | 67% | 31.75 | JUN1981 | 84.44 | OCT2004 |
| ROMP 48 Tampa/Suwannee | 40.77 | 34.89 | 41.08 | 5.88 | -0.31 | 34.50 | 40.86 | 6.27 | 69% | -7.87 | MAY2000 | 52.64 | FEB1998 |
| ROMP 50 Avon Park | 8.59 | 5.80 | 7.97 | 2.79 | 0.62 | 2.59 | 7.70 | 6.00 | 86% | -17.42 | FEB2018 | 14.95 | AUG1982 |
| ROMP 58 Ocala | 97.80 | 97.77 | 103.72 | 0.03 | -5.92 | 101.83 | 103.56 | -4.03 | 5% | 84.03 | JUN2000 | 111.01 | DEC2005 |
| ROMP 59 Suwannee/Avon | 73.62 | 71.45 | 76.33 | 2.17 | -2.71 | 62.09 | 71.30 | 11.53 | 76% | 33.33 | MAY1981 | 85.92 | OCT2004 |
| ROMP 60 Ocala/Avon | 73.68 | 71.02 | 75.83 | 2.66 | -2.15 | 71.10 | 70.86 | 2.58 | 32% | 25.90 | MAY1975 | 87.07 | OCT1959 |
| ROMP 66 Tampa | 19.56 | 18.64 | 20.74 | 0.92 | -1.18 | 18.77 | 19.78 | 0.79 | 49% | 12.04 | JUN1977 | 25.47 | AUG2015 |
| ROMP 76 U Fldn | 128.56 | 128.23 | 129.62 | 0.33 | -1.06 | 127.15 | 130.16 | 1.41 | 33% | 119.37 | MAY1981 | 132.92 | SEP2004 |
| ROMP 87 Avon Park | 102.42 | 100.81 | 103.92 | 1.61 | -1.50 | 102.16 | 103.96 | 0.26 | 33% | 94.90 | JUN2000 | 106.30 | FEB1998 |
| ROMP 88 Avon Park | 104.06 | 103.00 | 104.86 | 1.06 | -0.80 | 103.62 | 105.95 | 0.44 | 36% | 97.42 | JUN2000 | 107.21 | SEP2017 |
| ROMP 93 Suwannee/Avon | 73.51 | 72.64 | 74.16 | 0.87 | -0.65 | 65.82 | 73.86 | 7.69 | 73% | 59.03 | JUN2001 | 76.60 | SEP1982 |
| ROMP DV-1 Suwannee | 59.08 | 56.00 | 61.80 | 3.08 | -2.72 | 56.10 | 60.27 | 2.98 | 63% | 12.06 | JAN2010 | 65.72 | FEB1998 |
| ROMP TR 10-2 Tampa | 12.43 | 11.33 | 12.62 | 1.10 | -0.19 | 10.33 | 10.78 | 2.10 | 95% | 0.22 | MAY1981 | 14.00 | SEP2004 |
| ROMP TR 13-3 Avon Park | 15.12 | 14.38 | 14.81 | 0.74 | 0.31 | 15.23 | 16.82 | -0.11 | 20% | 10.95 | JUL1987 | 18.79 | AUG2015 |
| SR 52 And CR581 Deep | 74.20 | 72.43 | 75.96 | 1.77 | -1.76 | 66.59 | 75.81 | 7.61 | 68% | 56.96 | JUN2001 | 79.44 | AUG1965 |
| SR 577 Deep | 89.73 | 88.66 | 93.39 | 1.07 | -3.66 | 83.93 | 92.49 | 5.80 | 62% | 72.76 | JUN2000 | 98.51 | MAR1998 |
| Sanlon Ranch Fldn | 95.06 | 94.27 | 97.27 | 0.79 | -2.21 | 87.03 | 94.47 | 8.03 | 75% | 66.38 | MAY1975 | 105.27 | OCT2004 |
| Tarpon Rd Deep | 9.90 | 9.16 | 10.62 | 0.74 | -0.72 | 9.88 | 11.10 | 0.02 | 27% | 7.50 | JUN2006 | 13.48 | AUG2015 |

All elevations are referenced to NGVD 1929 datum

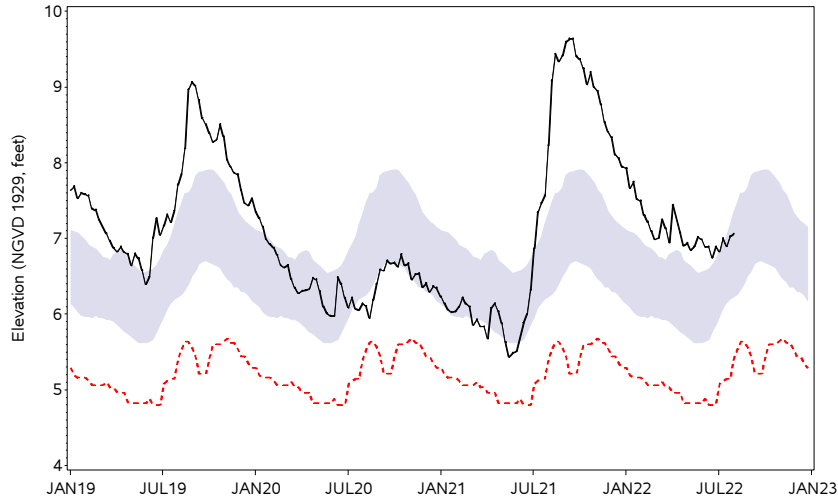
Regional Wells Summary (continued):

| | JUL 2022 Elev | JUN 2022 Elev | JUL 2021 Elev | Change From JUN 2022 | Change From JUL 2021 | JUL Historical Low Normal | JUL Historical High Normal | Departure From Low Normal | JUL 2022 Percentile Rank | Period of Record Low | Record Low Date | Period of Record High | Record High Date |
|--------------------------|---------------------|---------------------|---------------------|-------------------------------|-------------------------------|------------------------------------|-------------------------------------|------------------------------------|-----------------------------------|----------------------------|-----------------------|-----------------------------|------------------------|
| SOUTHERN COUNTIES | | | | | | | | | | | | | |
| Big Slough Deep | 33.69 | 32.94 | 33.77 | 0.75 | -0.08 | 32.66 | 34.05 | 1.03 | 56% | 26.85 | MAY2006 | 36.12 | OCT1995 |
| Cargill FA-1 Fldn | 71.87 | 68.72 | 73.73 | 3.15 | -1.86 | 65.10 | 71.53 | 6.77 | 63% | 30.50 | MAY1981 | 82.95 | OCT2004 |
| Edgeville 3 Deep | 30.94 | 26.05 | 31.83 | 4.89 | -0.89 | 30.96 | 36.97 | -0.02 | 25% | 1.13 | MAY2000 | 41.26 | OCT1979 |
| Englewood 14 Deep | 4.76 | 5.10 | 8.25 | -0.34 | -3.49 | 5.87 | 7.05 | -1.11 | 19% | -0.97 | FEB2001 | 11.37 | SEP1974 |
| Kibler Deep | 22.43 | 11.91 | 17.45 | 10.52 | 4.98 | 16.15 | 22.45 | 6.28 | 79% | -29.95 | MAY2000 | 29.30 | AUG1978 |
| Manasota 14 Deep | 17.94 | 17.40 | 18.50 | 0.54 | -0.56 | 18.52 | 21.25 | -0.58 | 4% | 15.46 | MAY2017 | 22.70 | NOV1971 |
| Marshall Deep | 45.58 | 41.82 | 44.51 | 3.76 | 1.07 | 42.17 | 46.30 | 3.41 | 79% | 8.96 | JUN2000 | 55.24 | MAR1964 |
| ROMP 16 Ocala | 48.22 | 47.44 | 47.73 | 0.78 | 0.49 | 48.04 | 49.31 | 0.18 | 34% | 28.94 | JAN2001 | 51.21 | SEP1995 |
| ROMP 17 Up Fldn | 46.79 | 45.84 | 46.33 | 0.95 | 0.46 | 46.44 | 47.67 | 0.35 | 46% | 31.89 | JUN2000 | 51.64 | OCT1994 |
| ROMP 19 West UFA Swnn | 28.01 | 26.34 | 25.81 | 1.67 | 2.20 | 25.61 | 30.17 | 2.40 | 42% | 10.99 | JUN2000 | 33.80 | SEP2017 |
| ROMP 19X UFA (SWNN) | 35.49 | 32.61 | 34.55 | 2.88 | 0.94 | 33.30 | 36.66 | 2.19 | 62% | 19.28 | JUN2000 | 40.19 | JAN1984 |
| ROMP 20 UFA (SWNN) | 23.10 | 20.11 | 23.19 | 2.99 | -0.09 | 21.10 | 23.06 | 2.00 | 74% | 11.99 | MAY2007 | 26.66 | SEP2017 |
| ROMP 22 UFA (SWNN) | 23.54 | 18.15 | 22.58 | 5.39 | 0.96 | 21.32 | 24.46 | 2.22 | 67% | -3.71 | MAY2000 | 30.18 | FEB1998 |
| ROMP 26 Suwannee/Avon | 47.26 | 45.23 | 46.26 | 2.03 | 1.00 | 46.22 | 47.99 | 1.04 | 65% | 19.48 | JAN2010 | 51.28 | OCT1979 |
| ROMP 28X Suwannee/Avon | 69.51 | 69.68 | 71.53 | -0.17 | -2.02 | 67.52 | 71.30 | 1.99 | 40% | 57.24 | JAN2010 | 74.68 | OCT1995 |
| ROMP 30 Suwannee/Avon | 50.35 | 43.39 | 50.44 | 6.96 | -0.09 | 43.90 | 50.42 | 6.45 | 69% | -0.20 | JUN2000 | 60.52 | MAR1998 |
| ROMP 31 Suwannee/Avon | 46.45 | 39.03 | 46.36 | 7.42 | 0.09 | 39.69 | 46.51 | 6.76 | 73% | -6.22 | JUN2000 | 57.92 | MAR1998 |
| ROMP 32 Low Ocala/Avpk | 33.32 | 26.50 | 32.30 | 6.82 | 1.02 | 27.65 | 34.22 | 5.67 | 81% | -17.74 | JUN2000 | 44.73 | FEB1998 |
| ROMP 43XX Avon Park | 88.46 | 87.31 | 89.87 | 1.15 | -1.41 | 85.81 | 90.39 | 2.65 | 58% | 70.93 | JAN2010 | 94.60 | MAR1998 |
| ROMP 9 UFA (SWNN) | 42.81 | 42.21 | 42.73 | 0.60 | 0.08 | 42.78 | 43.48 | 0.03 | 26% | 37.00 | JAN2001 | 46.35 | SEP2006 |
| ROMP TR 1-2 Up Fldn | 45.54 | 45.66 | 45.84 | -0.12 | -0.30 | 45.32 | 45.88 | 0.22 | 46% | 40.72 | JUN2000 | 47.22 | SEP2015 |
| ROMP TR 3-1 Up Fldn | 34.56 | 34.33 | 34.52 | 0.23 | 0.04 | 33.91 | 34.61 | 0.65 | 68% | 29.04 | JUN2000 | 35.99 | NOV2020 |
| ROMP TR 5-1 Suwannee | 19.63 | 17.68 | 19.85 | 1.95 | -0.22 | 19.26 | 20.82 | 0.37 | 46% | 13.26 | JUN2000 | 23.00 | SEP1983 |
| ROMP TR 5-2 UFA | 26.80 | 23.92 | 25.87 | 2.88 | 0.93 | 25.51 | 28.23 | 1.29 | 54% | 13.75 | MAY2006 | 31.26 | OCT1994 |
| ROMP TR 7-1 Tampa | 20.93 | 19.63 | 21.29 | 1.30 | -0.36 | 19.01 | 20.79 | 1.92 | 85% | 10.01 | JUN2000 | 24.23 | SEP2017 |
| ROMP TR 7-4 Swnn/Ocala | 19.87 | 14.32 | 17.98 | 5.55 | 1.89 | 16.84 | 19.19 | 3.03 | 88% | -3.55 | MAY2000 | 24.35 | AUG2019 |
| Romp TR SA-1 UFS | 12.04 | 8.83 | 11.42 | 3.21 | 0.62 | 11.28 | 16.48 | 0.76 | 50% | 2.89 | MAY2017 | 22.04 | SEP1999 |
| Sarasota Office Up | 19.12 | 13.84 | 18.83 | 5.28 | 0.29 | 19.87 | 26.67 | -0.75 | 21% | -3.24 | JUN2000 | 35.21 | MAR1931 |
| Verna T 0-1 | 22.38 | 15.69 | 21.07 | 6.69 | 1.31 | 20.40 | 26.41 | 1.98 | 49% | -15.73 | MAY2000 | 33.32 | JAN1984 |

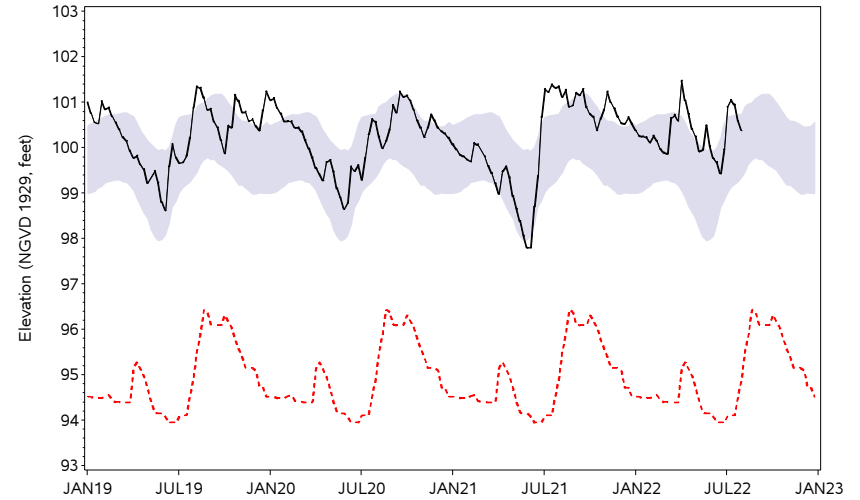
All elevations are referenced to NGVD 1929 datum

HYDROGRAPHS OF REPRESENTATIVE UPPER FLORIDAN AQUIFER WELLS JANUARY 2019 TO JULY 2022

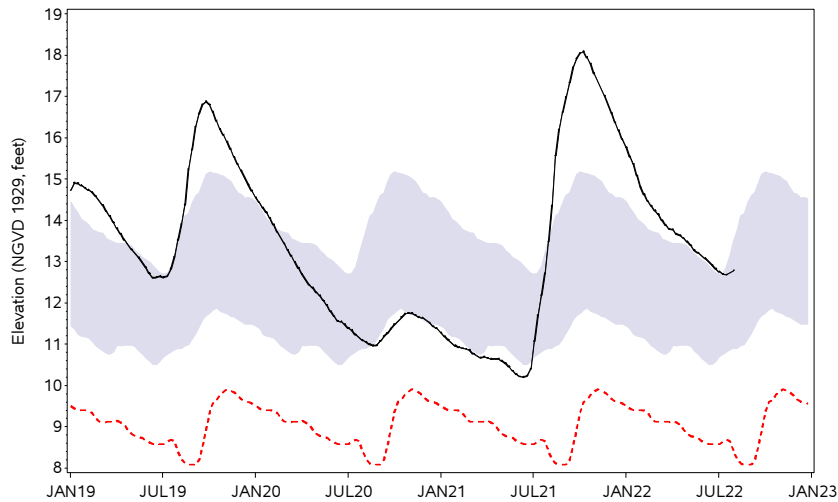
Chassahowitzka #1
Northern Region



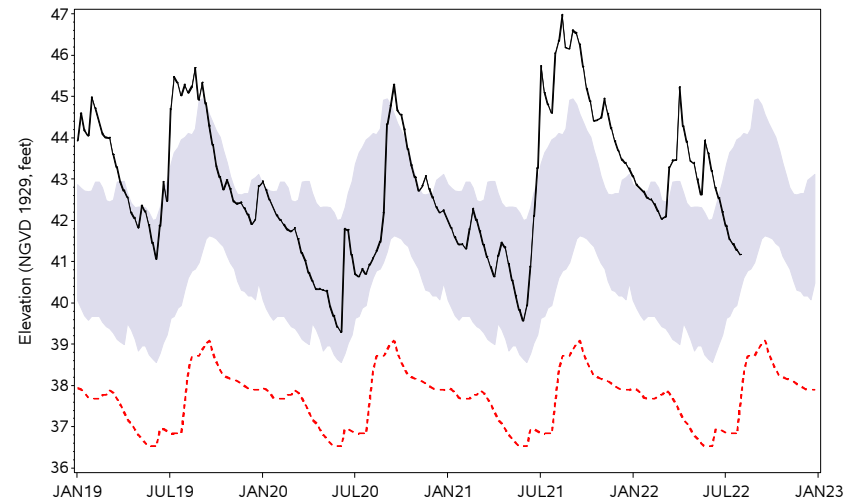
Mascotte Deep
Northern Region



ROMP 107 Ocala/Avon Park
Northern Region



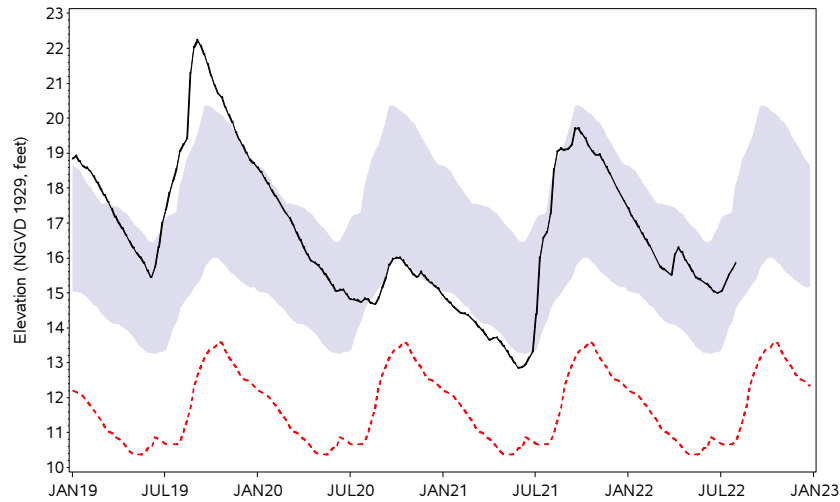
Sumter 13 Upper Fldn
Northern Region



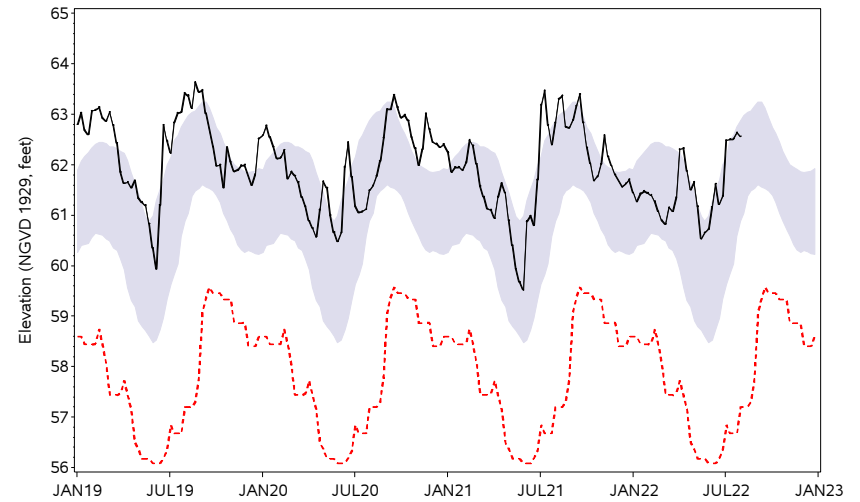
— Average Weekly Elevation - - - - - POR Weekly Low Normal Range

HYDROGRAPHS OF REPRESENTATIVE UPPER FLORIDAN AQUIFER WELLS JANUARY 2019 TO JULY 2022

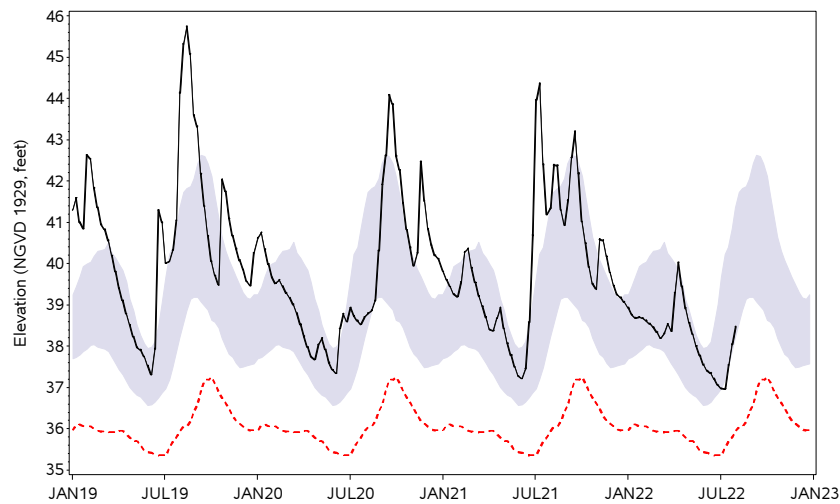
Weeki Wachee Deep
Northern Region



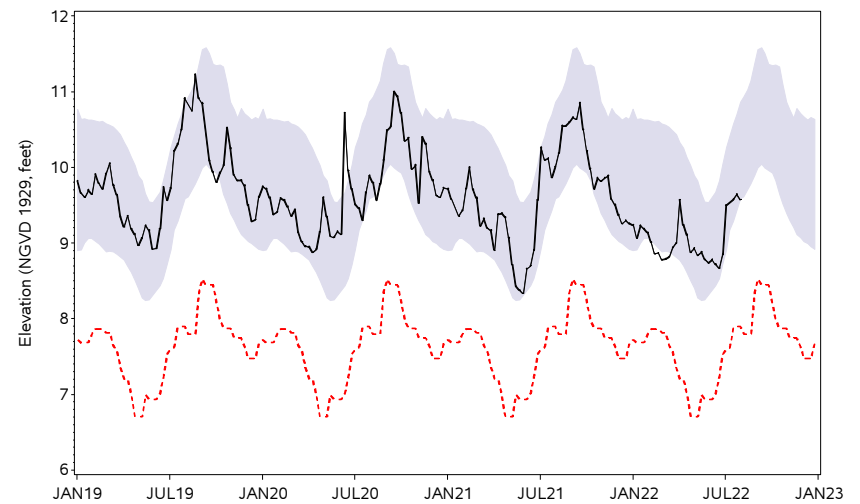
Bexley Well 2
Central Region



Hillsborough St Park Deep
Central Region



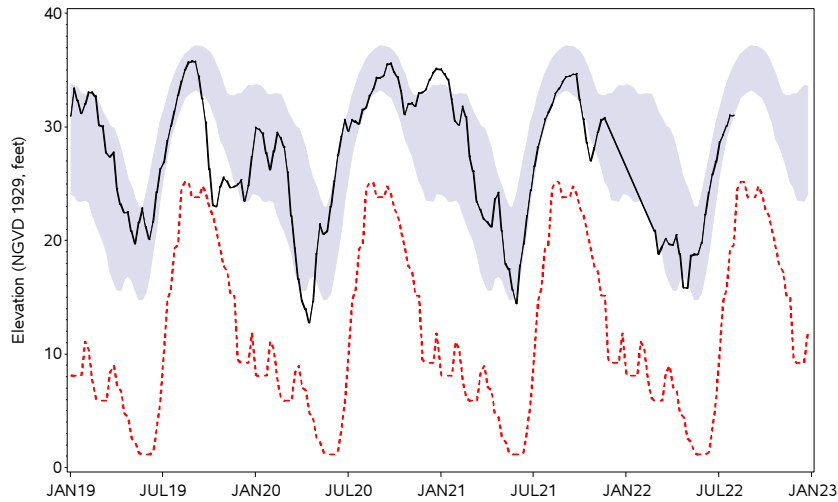
Pinellas 665
Central Region



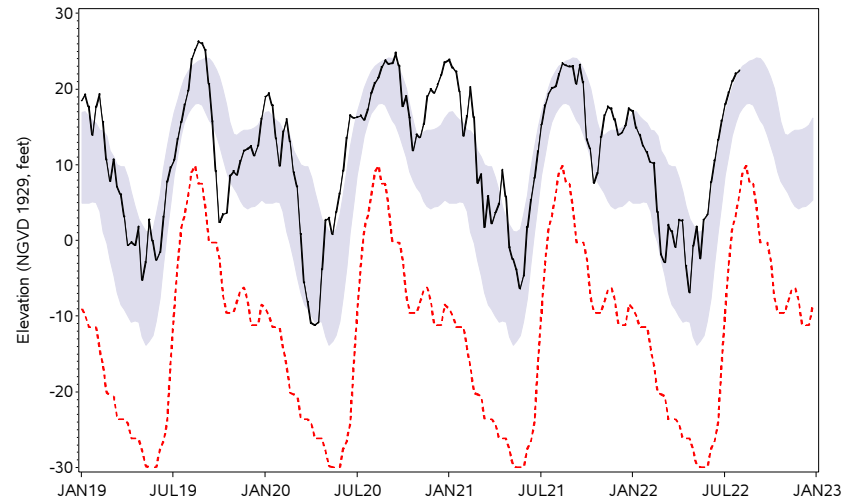
— Average Weekly Elevation - - - - - POR Weekly Low Normal Range

HYDROGRAPHS OF REPRESENTATIVE UPPER FLORIDAN AQUIFER WELLS JANUARY 2019 TO JULY 2022

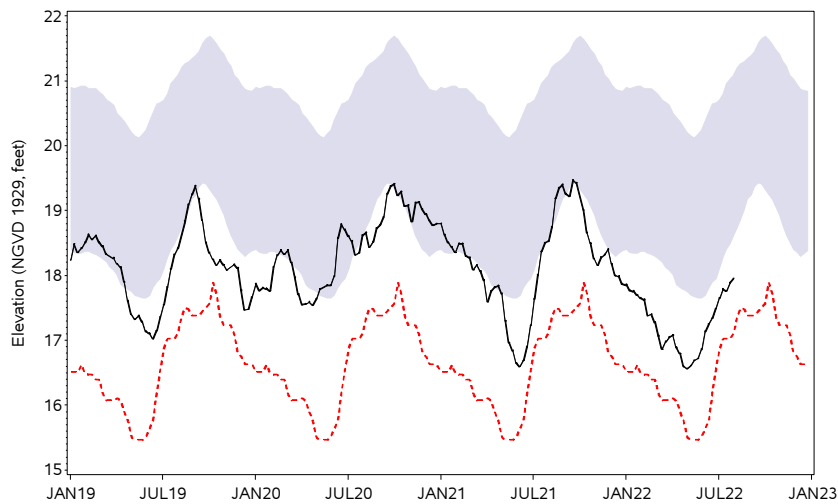
Edgeville 3 Deep
Southern Region



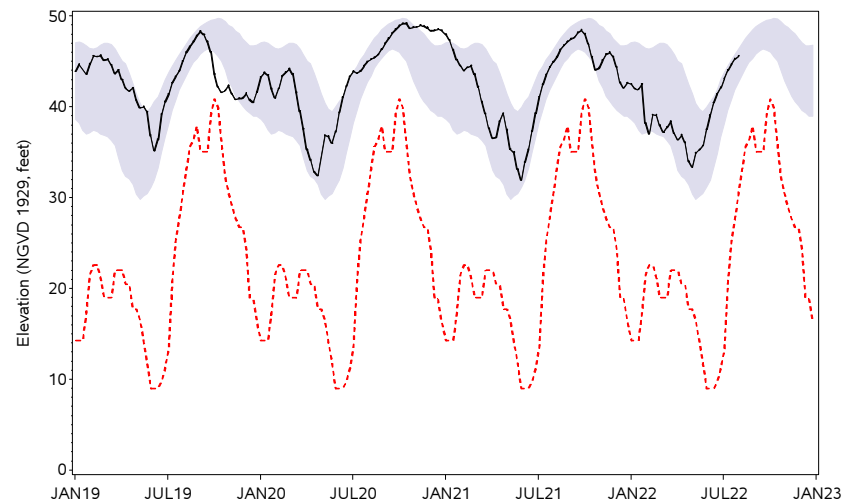
Kibler Deep
Southern Region



Manasota 14 Deep
Southern Region



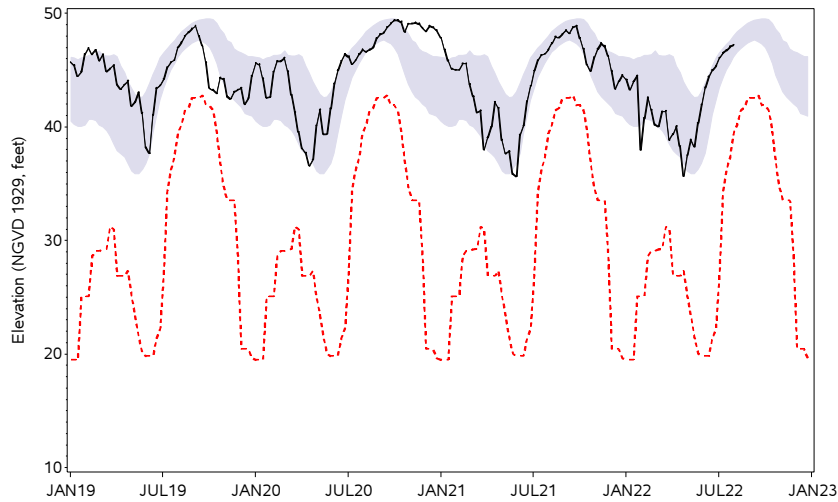
Marshall Deep
Southern Region



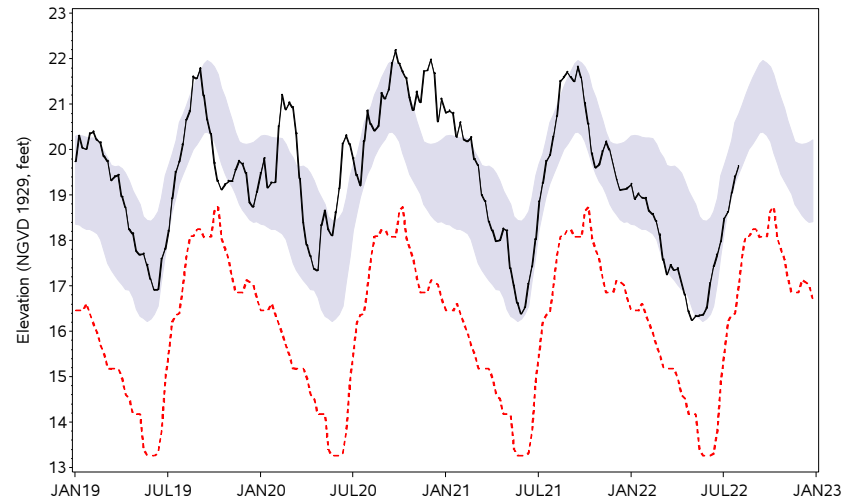
— Average Weekly Elevation - - - - - POR Weekly Low Normal Range

HYDROGRAPHS OF REPRESENTATIVE UPPER FLORIDAN AQUIFER WELLS JANUARY 2019 TO JULY 2022

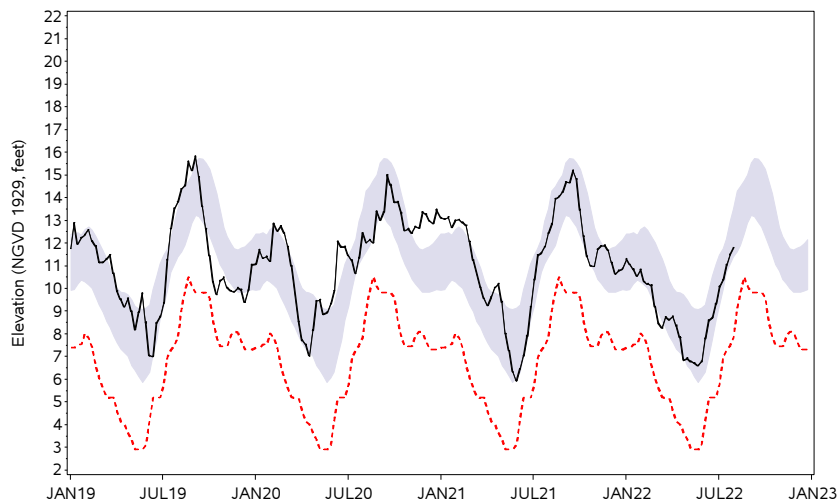
ROMP 26 Suwannee/Avon Park
Southern Region



ROMP TR 5-1 Suwannee
Southern Region

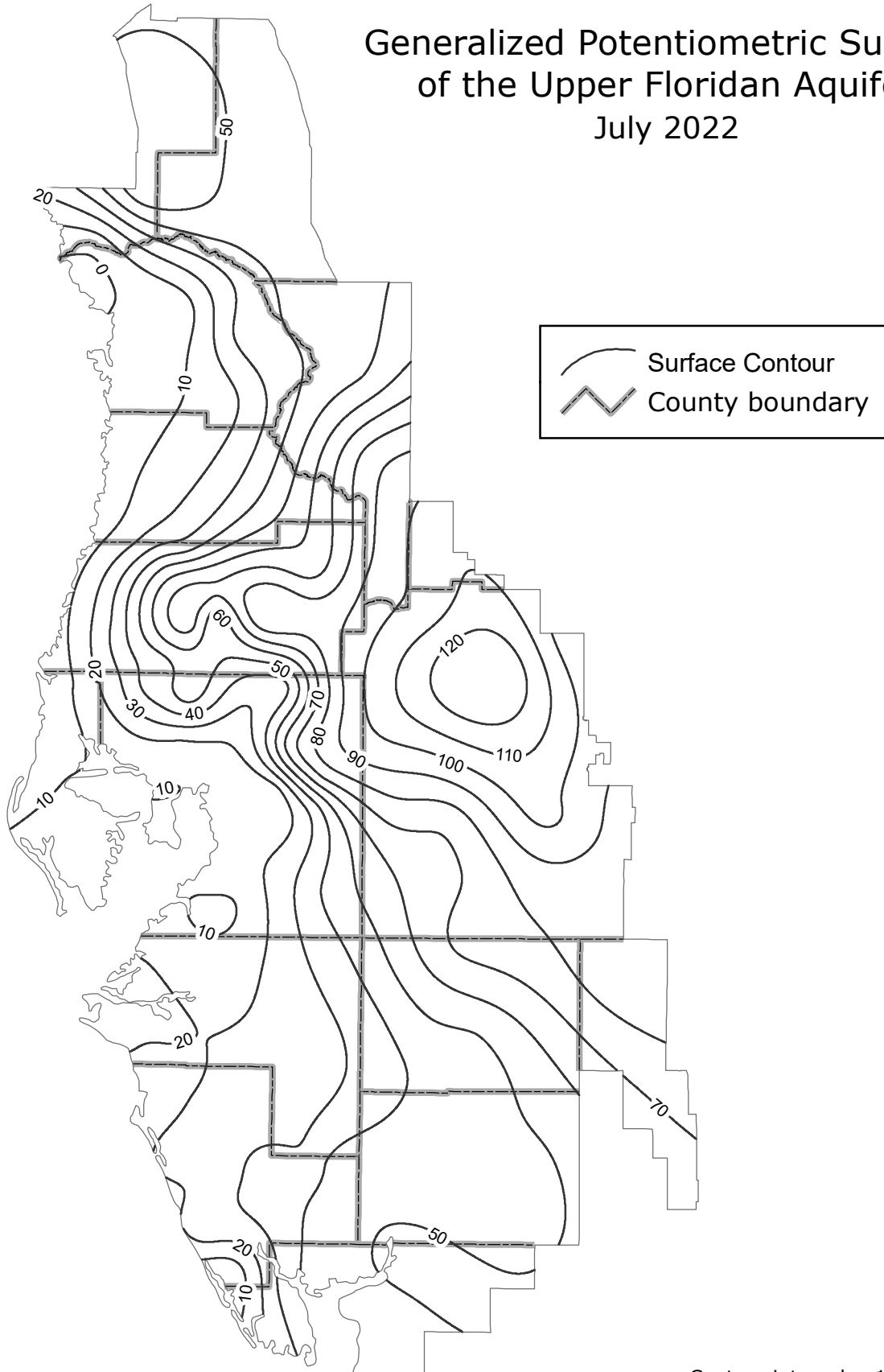


Romp TR SA-1
Southern Region



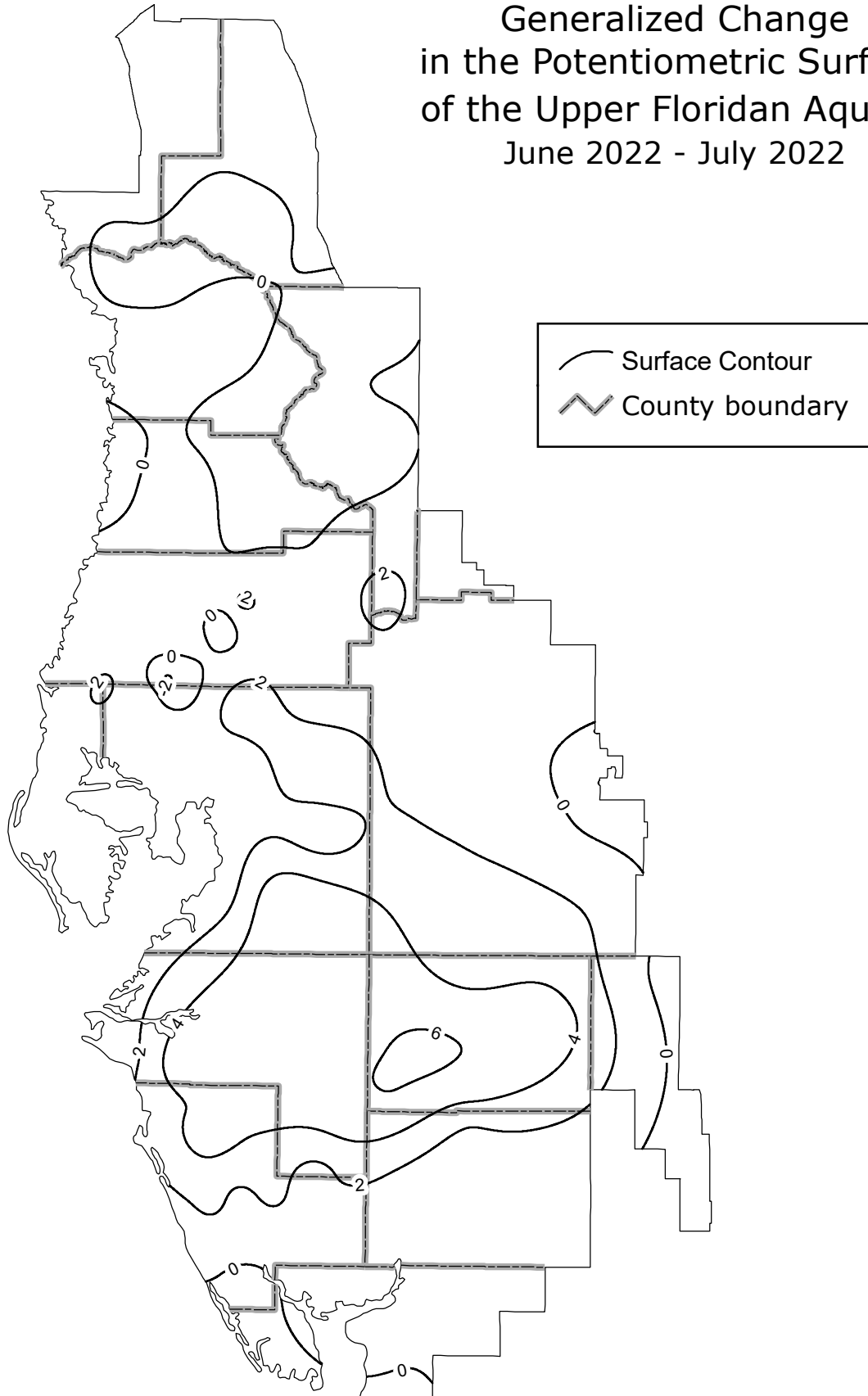
— Average Weekly Elevation - - - - - POR Weekly Low Normal Range

Generalized Potentiometric Surface of the Upper Floridan Aquifer July 2022



Compiled by J.G. Patterson

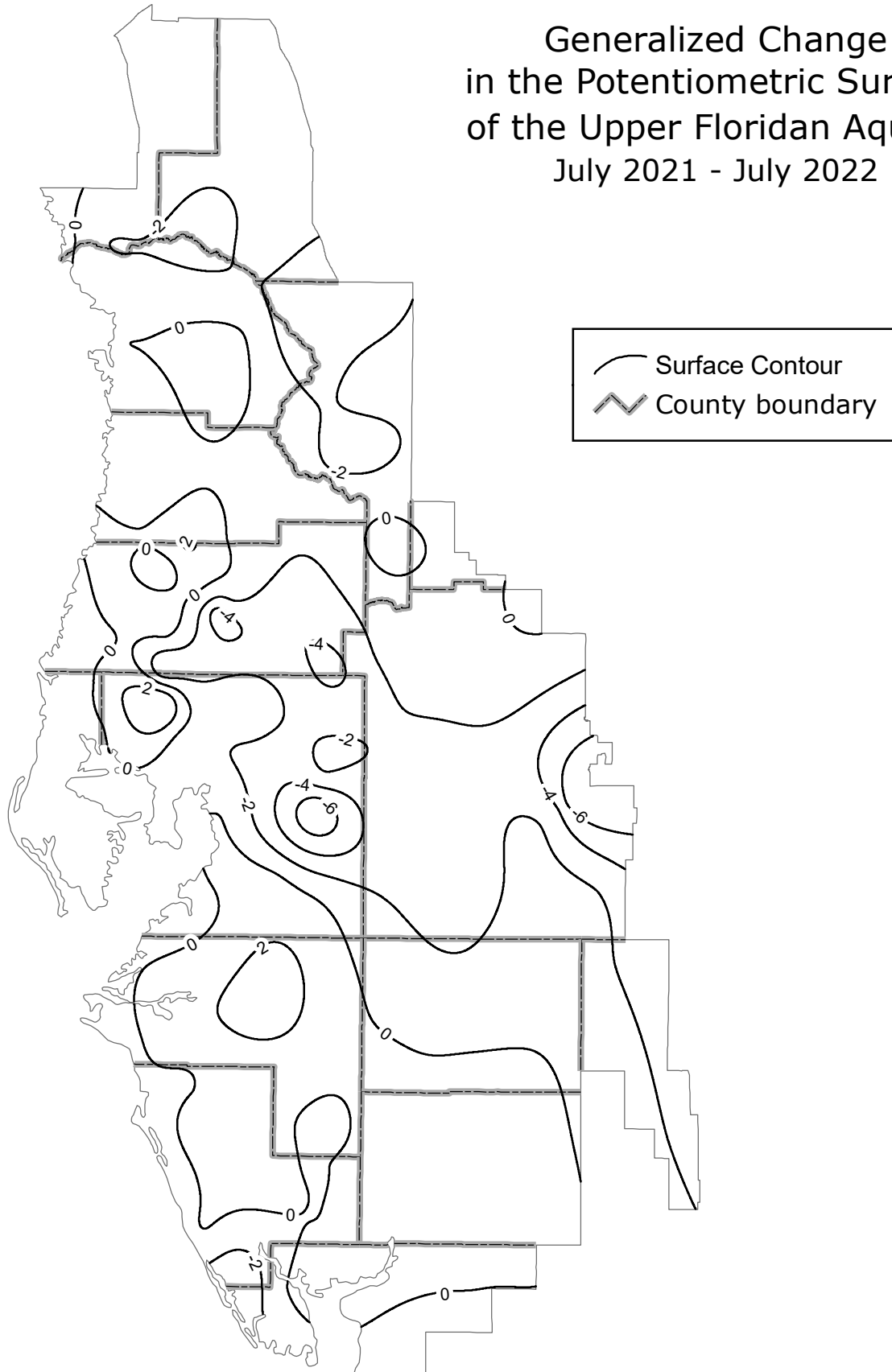
Generalized Change in the Potentiometric Surface of the Upper Floridan Aquifer June 2022 - July 2022



Compiled by J.G. Patterson

Contour interval = 2 feet

Generalized Change in the Potentiometric Surface of the Upper Floridan Aquifer July 2021 - July 2022



Compiled by J.G. Patterson

Contour interval = 2 feet

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

Weekly Aquifer Resource Index Level (Percentile)

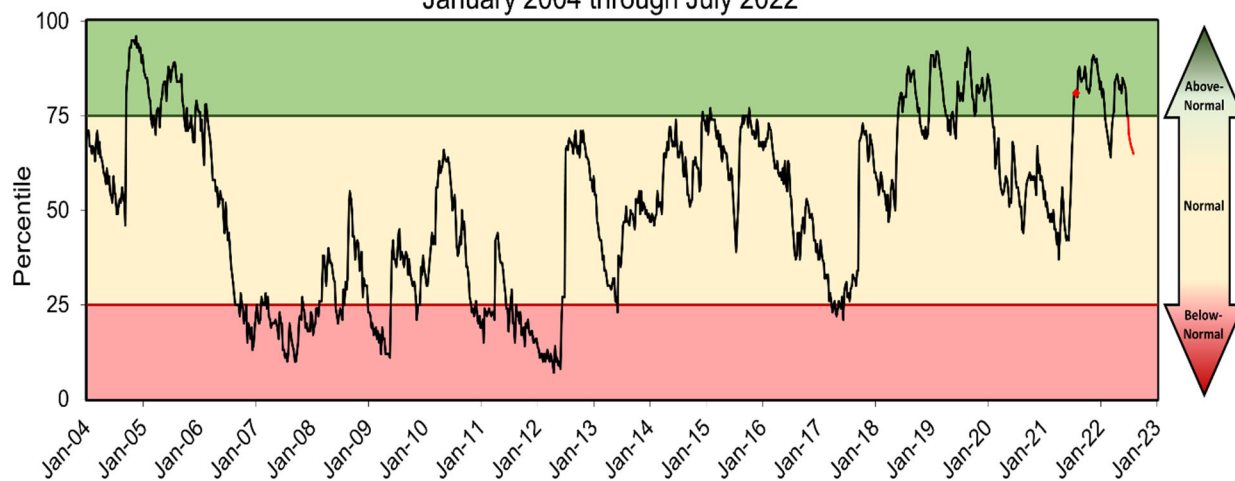
| Report Date | Northern Counties | Central Counties | Southern Counties |
|--------------------|--------------------------|-------------------------|--------------------------|
| 07/03/2022 | 70 | 56 | 67 |
| 07/10/2022 | 68 | 55 | 63 |
| 07/17/2022 | 67 | 56 | 61 |
| 07/24/2022 | 66 | 54 | 57 |
| 07/31/2022 | 65 | 53 | 55 |

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.”

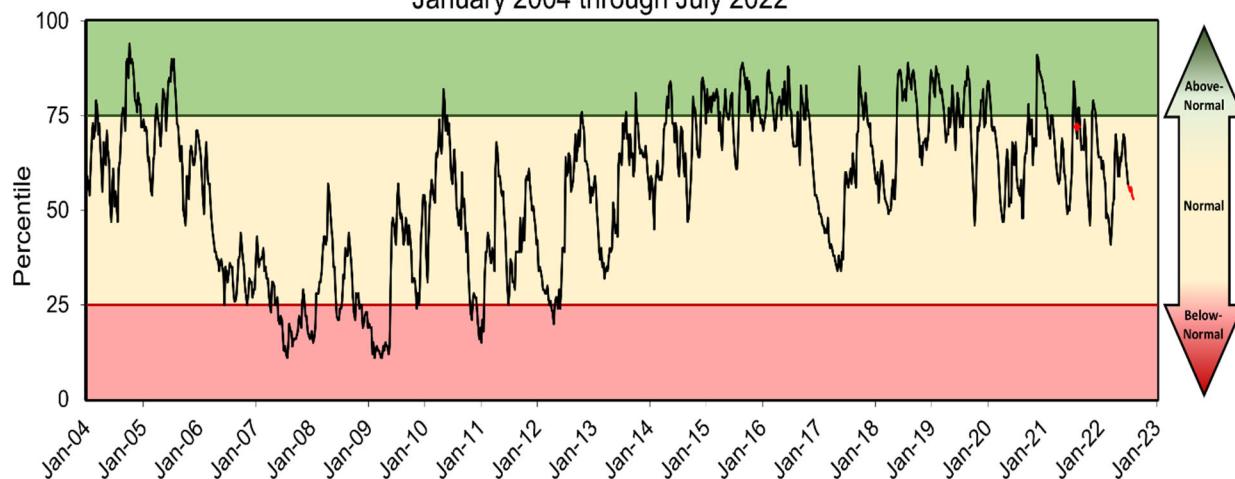
REGIONAL AQUIFER RESOURCE INDEX

July 2022

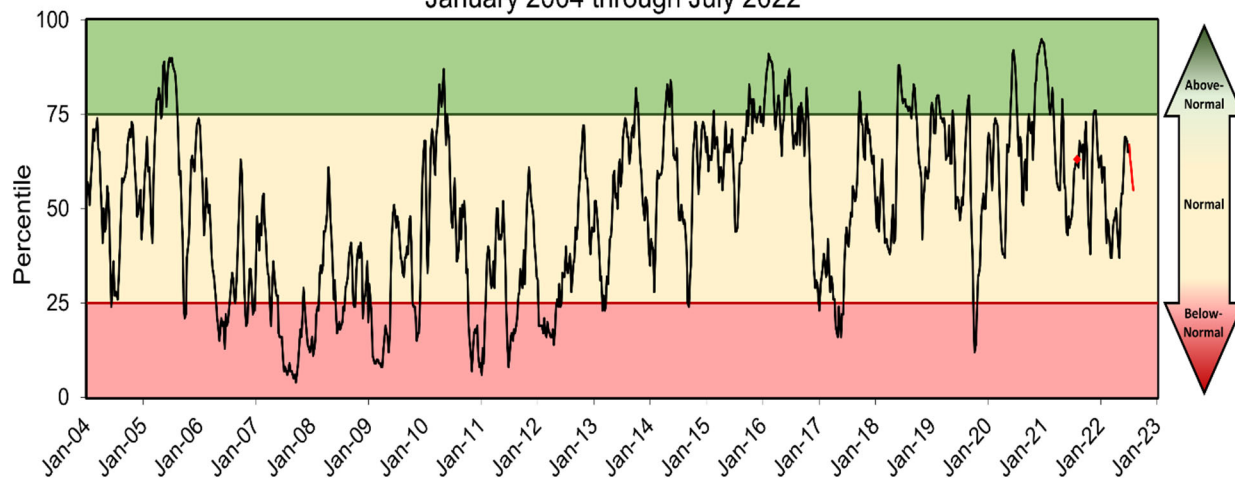
Groundwater Levels: Northern Counties
January 2004 through July 2022



Groundwater Levels: Central Counties
January 2004 through July 2022



Groundwater Levels: Southern Counties
January 2004 through July 2022



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, six of the seven reservoirs monitored for this report recorded water-level increases, while one recorded a decrease, compared to last month. The Evers, Hillsborough River, Lake Manatee, Bill Young, Peace River No. 2 and Shell Creek reservoirs posted water level increases of 0.11 foot, 0.17 foot, 1.68 feet, 0.95 foot, 4.30 feet and 0.14 foot, respectively. The Peace River No. 1 reservoir posted a water level decrease of 0.70 foot, compared to last month.

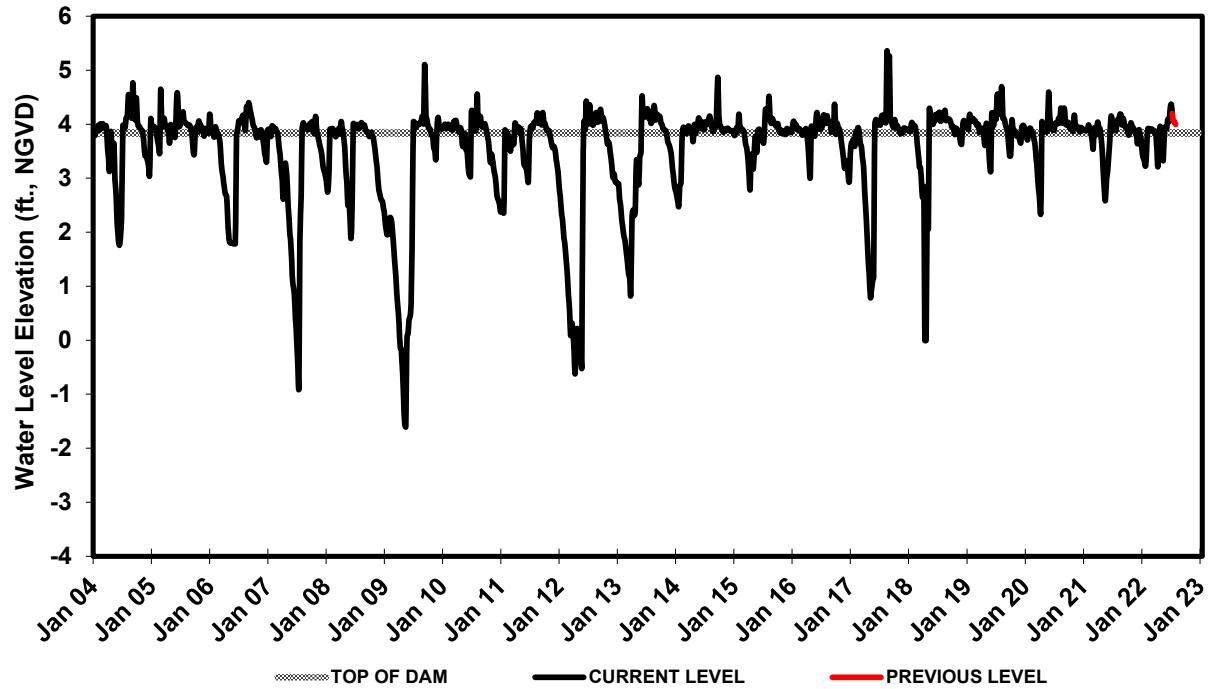
SUMMARY OF WATER LEVELS IN WATER SUPPLY RESERVOIRS (GAGE LEVEL, IN FEET)

| RESERVOIR | 2022 June | 2022 July | 2021 July | Change from Prior Month | Change from Prior Year |
|---------------------------------|----------------------|----------------------|----------------------|--|---------------------------------------|
| Evers | | | | | |
| City of Bradenton | 4.09 | 4.20 | 3.98 | 0.11 | 0.22 |
| Hillsborough | | | | | |
| City of Tampa | 22.49 | 22.66 | 21.95 | 0.17 | 0.71 |
| Lake Manatee | | | | | |
| Manatee County | 37.83 | 39.51 | 38.02 | 1.68 | 1.49 |
| C.W. Bill Young Regional | | | | | |
| Tampa Bay Water | 122.89 | 123.84 | 130.06 | 0.95 | -6.22 |
| Peace River | | | | | |
| PRMRWSA Reservoir #1 | 25.20 | 24.50 | 24.80 | -0.70 | -0.30 |
| PRMRWSA Reservoir #2 | 51.20 | 55.50 | 55.30 | 4.30 | 0.20 |
| Shell Creek | | | | | |
| City of Punta Gorda | 5.45 | 5.59 | 5.34 | 0.14 | 0.25 |

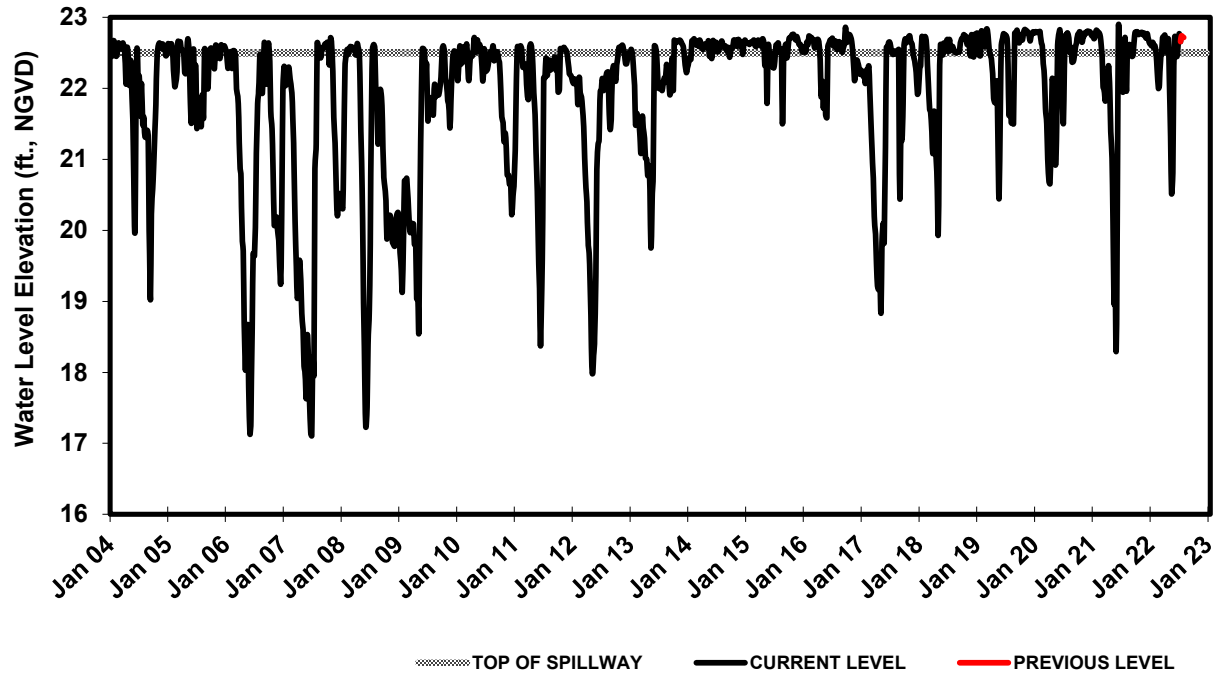
Reported data are provisional and subject to revision.

e = Estimated

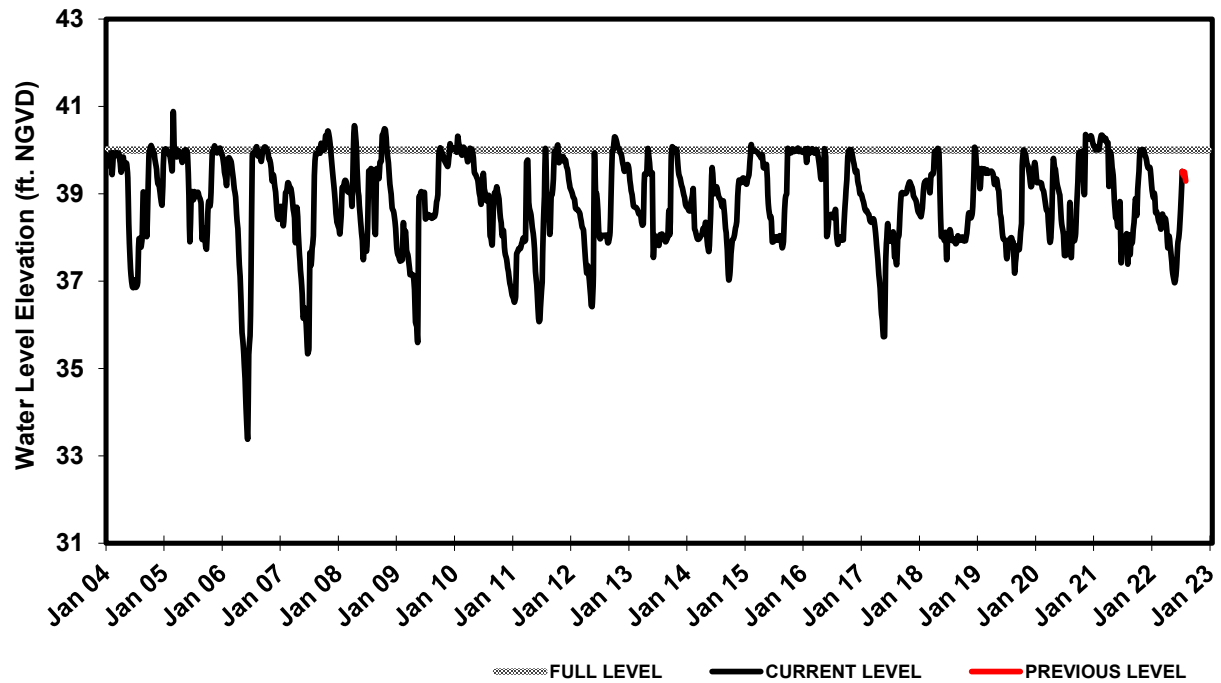
EVERS RESERVOIR City of Bradenton



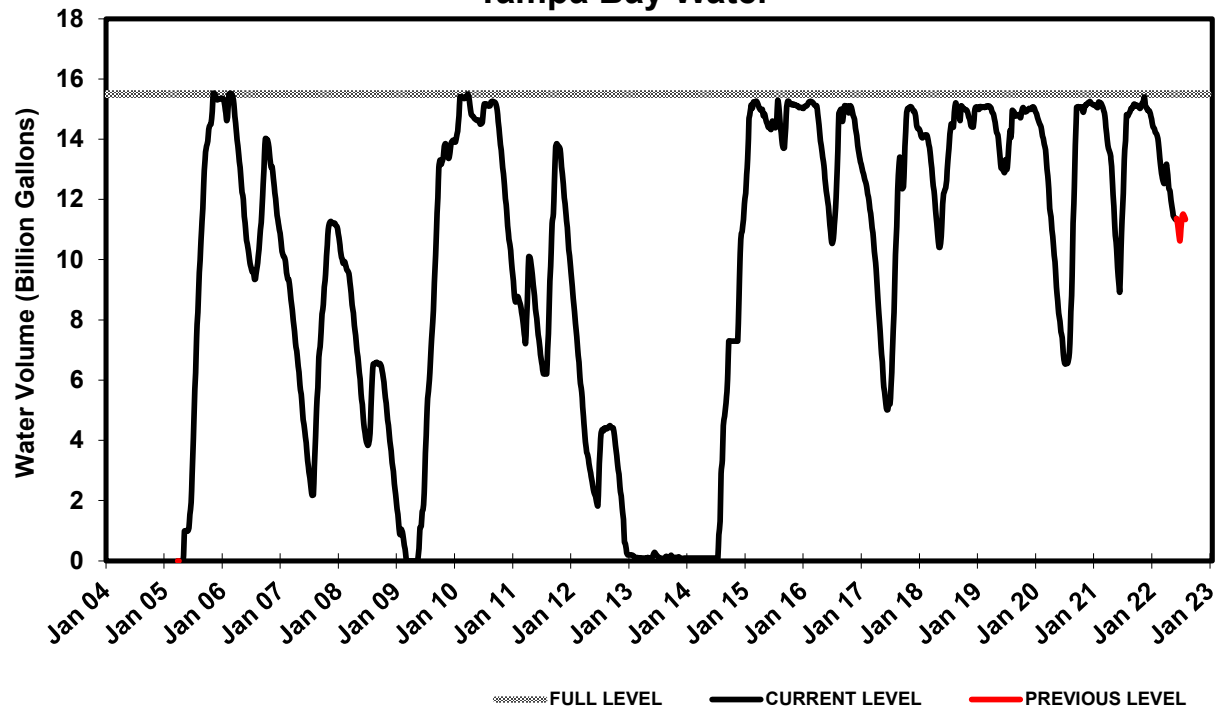
HILLSBOROUGH RESERVOIR City of Tampa



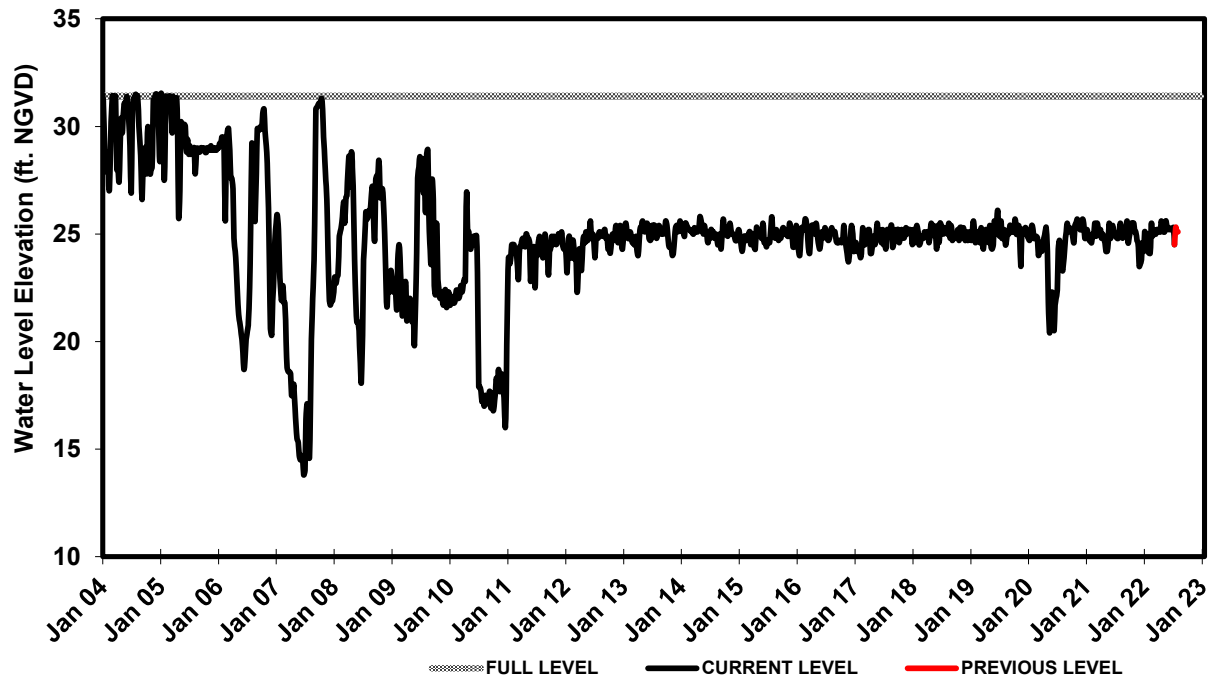
LAKE MANATEE RESERVOIR Manatee County



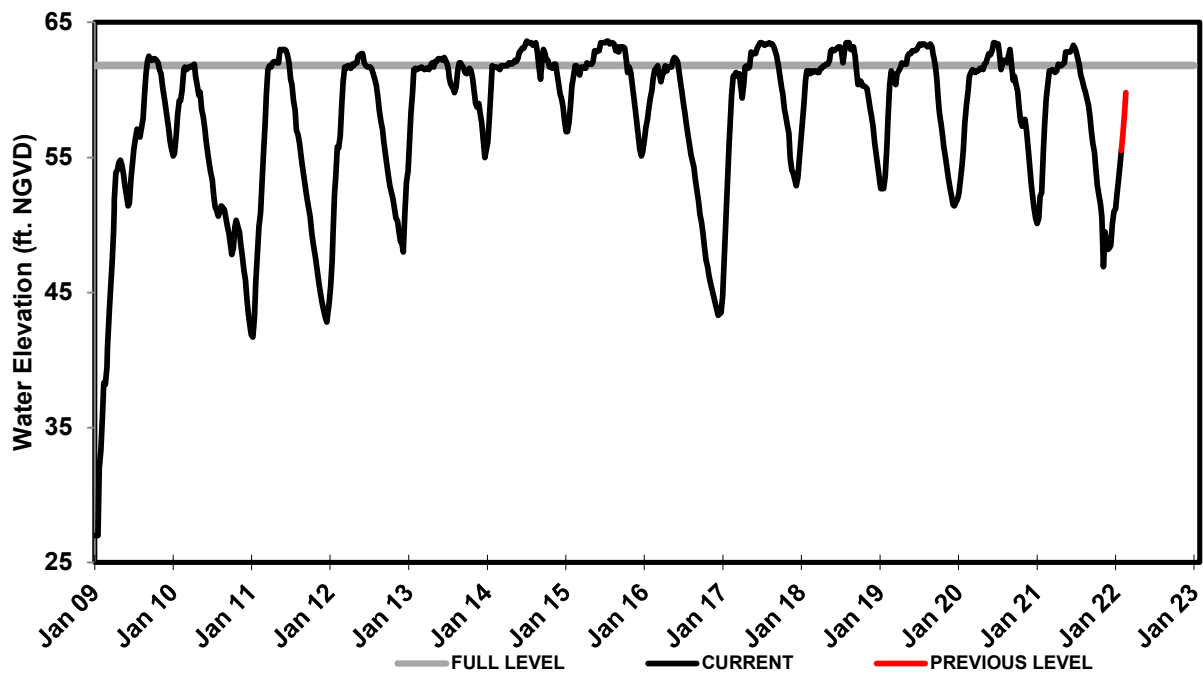
C.W. BILL YOUNG REGIONAL RESERVOIR Tampa Bay Water



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

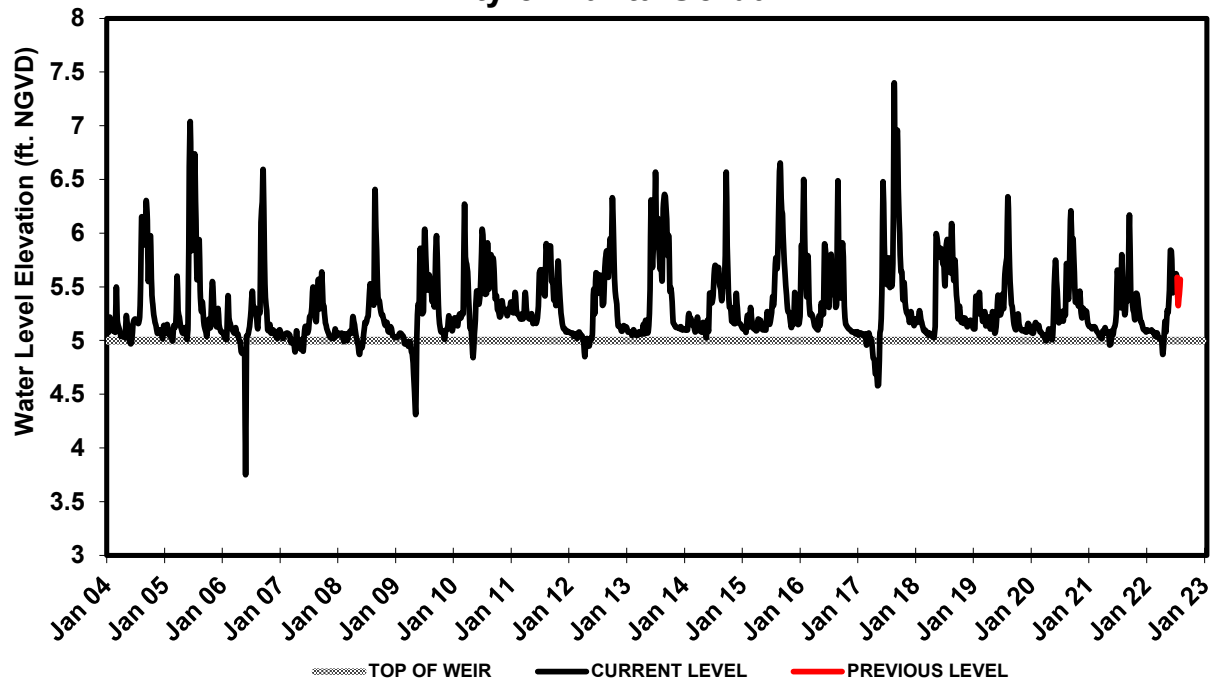


PEACE RIVER RESERVOIR No. 2
Peace/Manasota Reg. Water Supply



SHELL CREEK RESERVOIR

City of Punta Gorda



APPENDICES

Rainfall percentiles by interval and region, inches.

| Rainfall Interval | Region | 10TH Percentile (P10) | 25th Percentile (P25) | 50th Percentile (P50) | 75th Percentile (P75) | 90th Percentile (P90) |
|--------------------------|-----------------|---|---|---|---|---|
| Annual total | <i>Northern</i> | 43.19 | 48.35 | 54.01 | 58.86 | 63.46 |
| Annual total | <i>Central</i> | 41.45 | 46.10 | 52.16 | 57.28 | 63.82 |
| Annual total | <i>Southern</i> | 42.05 | 46.25 | 52.19 | 57.82 | 63.43 |
| Annual total | <i>District</i> | 43.12 | 47.22 | 52.99 | 57.46 | 62.83 |
| Dry season total | <i>Northern</i> | 15.27 | 18.42 | 23.79 | 28.72 | 32.10 |
| Dry season total | <i>Central</i> | 13.32 | 16.48 | 21.59 | 26.86 | 30.83 |
| Dry season total | <i>Southern</i> | 12.35 | 15.68 | 21.24 | 26.23 | 30.01 |
| Dry season total | <i>District</i> | 13.71 | 16.79 | 22.02 | 27.22 | 29.70 |
| Wet season total | <i>Northern</i> | 22.79 | 25.44 | 29.45 | 33.43 | 38.16 |
| Wet season total | <i>Central</i> | 23.22 | 25.79 | 29.71 | 34.86 | 39.22 |
| Wet season total | <i>Southern</i> | 24.37 | 27.37 | 30.58 | 35.88 | 41.68 |
| Wet season total | <i>District</i> | 23.92 | 27.16 | 29.97 | 34.71 | 38.93 |
| January total | <i>Northern</i> | 0.73 | 1.50 | 2.45 | 4.00 | 5.30 |
| January total | <i>Central</i> | 0.72 | 1.21 | 2.23 | 3.72 | 4.60 |
| January total | <i>Southern</i> | 0.39 | 0.93 | 1.88 | 3.31 | 4.93 |
| January total | <i>District</i> | 0.65 | 1.17 | 2.10 | 3.55 | 4.90 |
| February total | <i>Northern</i> | 0.82 | 1.42 | 2.82 | 4.08 | 5.76 |
| February total | <i>Central</i> | 0.60 | 1.12 | 2.38 | 4.17 | 5.50 |
| February total | <i>Southern</i> | 0.36 | 1.26 | 2.21 | 3.63 | 4.93 |
| February total | <i>District</i> | 0.73 | 1.32 | 2.38 | 3.94 | 5.12 |
| March total | <i>Northern</i> | 1.00 | 2.06 | 3.15 | 5.43 | 7.21 |
| March total | <i>Central</i> | 0.97 | 1.66 | 2.96 | 4.95 | 6.44 |
| March total | <i>Southern</i> | 0.81 | 1.28 | 2.56 | 4.29 | 6.68 |
| March total | <i>District</i> | 1.09 | 1.64 | 3.04 | 4.86 | 6.92 |
| April total | <i>Northern</i> | 0.65 | 1.33 | 2.38 | 3.95 | 5.52 |
| April total | <i>Central</i> | 0.51 | 0.96 | 1.87 | 3.44 | 5.59 |
| April total | <i>Southern</i> | 0.48 | 1.19 | 2.04 | 3.75 | 4.66 |
| April total | <i>District</i> | 0.65 | 1.20 | 2.24 | 3.72 | 5.12 |
| May total | <i>Northern</i> | 1.18 | 1.95 | 3.21 | 4.67 | 6.92 |
| May total | <i>Central</i> | 0.87 | 1.64 | 2.73 | 4.58 | 5.75 |
| May total | <i>Southern</i> | 1.17 | 1.91 | 3.36 | 5.22 | 6.75 |
| May total | <i>District</i> | 1.23 | 2.04 | 3.24 | 4.87 | 6.29 |
| June total | <i>Northern</i> | 4.60 | 5.47 | 7.27 | 8.63 | 10.16 |
| June total | <i>Central</i> | 3.65 | 4.79 | 6.46 | 8.27 | 9.48 |
| June total | <i>Southern</i> | 4.22 | 5.63 | 7.44 | 9.06 | 12.06 |
| June total | <i>District</i> | 4.55 | 5.46 | 7.24 | 8.60 | 10.99 |
| July total | <i>Northern</i> | 5.36 | 6.75 | 8.29 | 9.16 | 11.52 |
| July total | <i>Central</i> | 4.89 | 5.98 | 8.35 | 10.05 | 11.44 |
| July total | <i>Southern</i> | 5.68 | 6.94 | 8.11 | 9.50 | 10.99 |
| July total | <i>District</i> | 5.60 | 6.83 | 8.19 | 9.57 | 10.58 |
| August total | <i>Northern</i> | 5.44 | 6.30 | 7.31 | 9.72 | 11.33 |
| August total | <i>Central</i> | 5.52 | 6.55 | 7.90 | 9.62 | 12.03 |
| August total | <i>Southern</i> | 5.55 | 6.22 | 7.70 | 8.97 | 10.49 |
| August total | <i>District</i> | 5.65 | 6.52 | 7.70 | 9.37 | 10.67 |
| September total | <i>Northern</i> | 2.79 | 4.18 | 5.84 | 8.04 | 11.35 |
| September total | <i>Central</i> | 3.19 | 5.11 | 6.46 | 8.50 | 11.69 |
| September total | <i>Southern</i> | 4.30 | 5.46 | 6.94 | 9.33 | 11.85 |
| September total | <i>District</i> | 3.85 | 5.21 | 6.53 | 8.62 | 11.65 |
| October total | <i>Northern</i> | 0.63 | 1.27 | 2.46 | 4.40 | 6.15 |
| October total | <i>Central</i> | 0.69 | 1.39 | 2.61 | 4.03 | 6.13 |
| October total | <i>Southern</i> | 0.92 | 1.78 | 2.73 | 4.27 | 6.04 |
| October total | <i>District</i> | 1.06 | 1.57 | 2.80 | 4.15 | 5.79 |

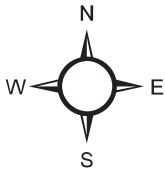
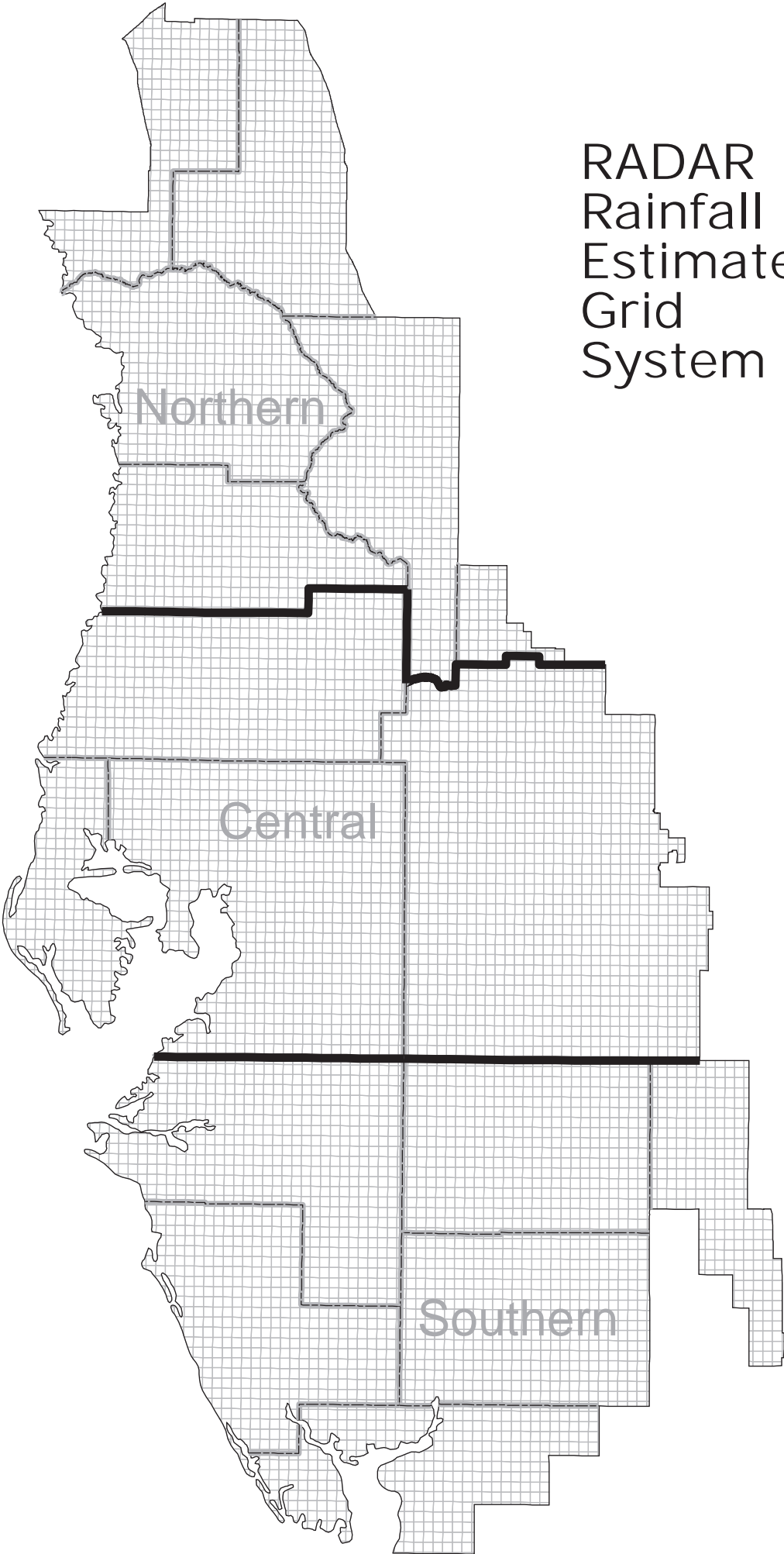
Rainfall percentiles by interval and region, inches (continued).

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

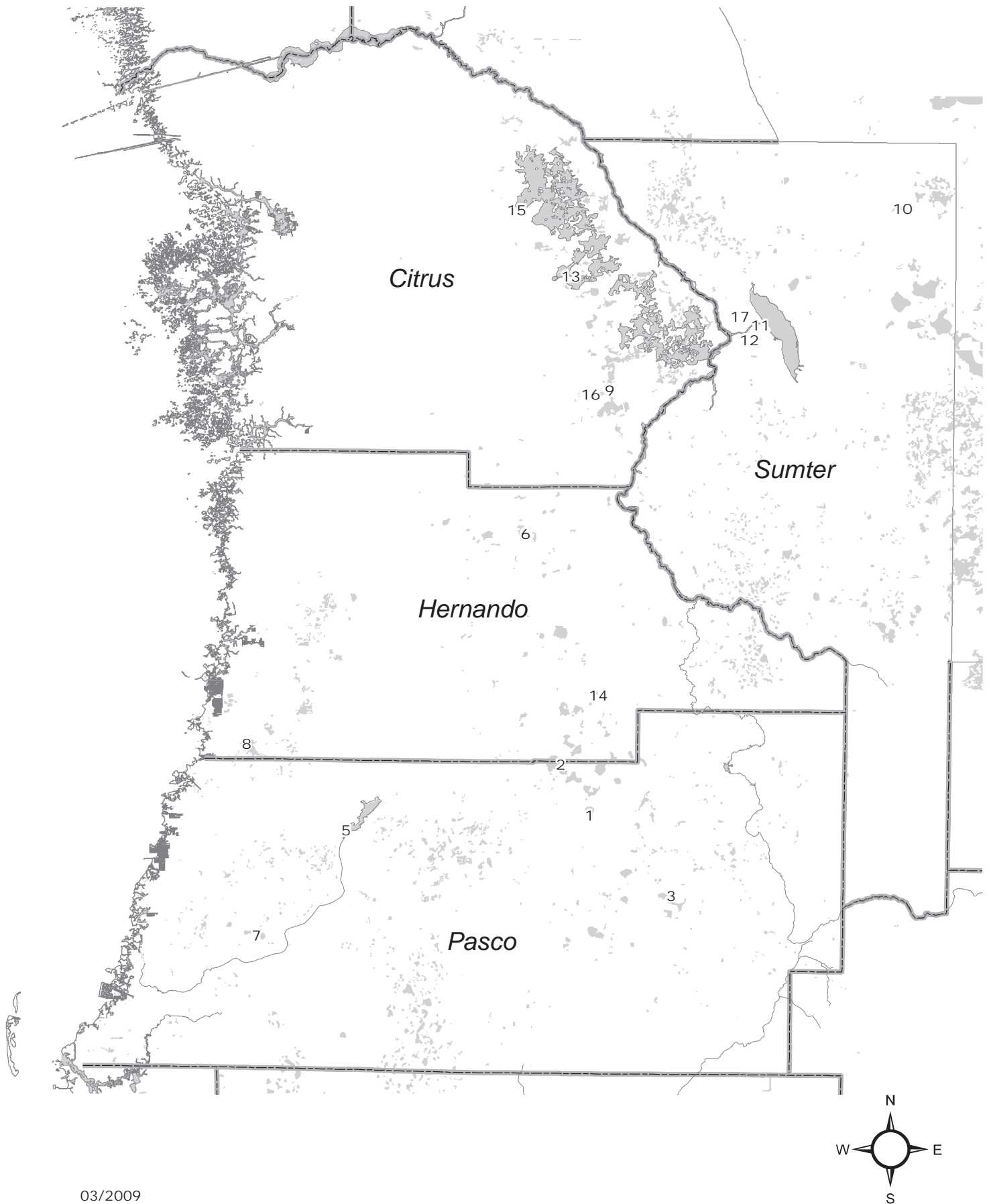
Rainfall characterization ranges

| 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 |

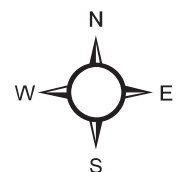
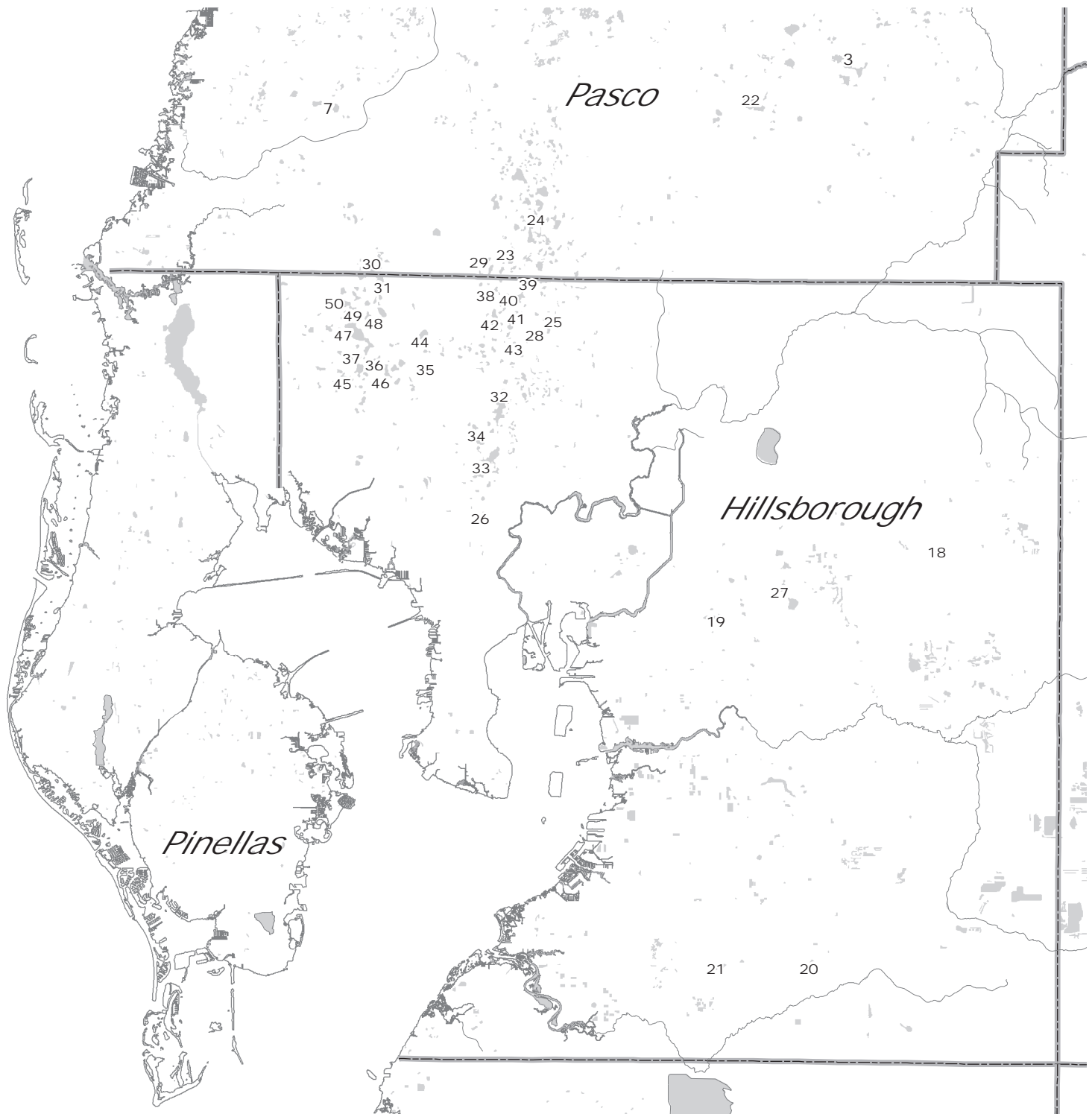
RADAR
Rainfall
Estimate
Grid
System



Selected Lake Monitoring Stations Northern Region

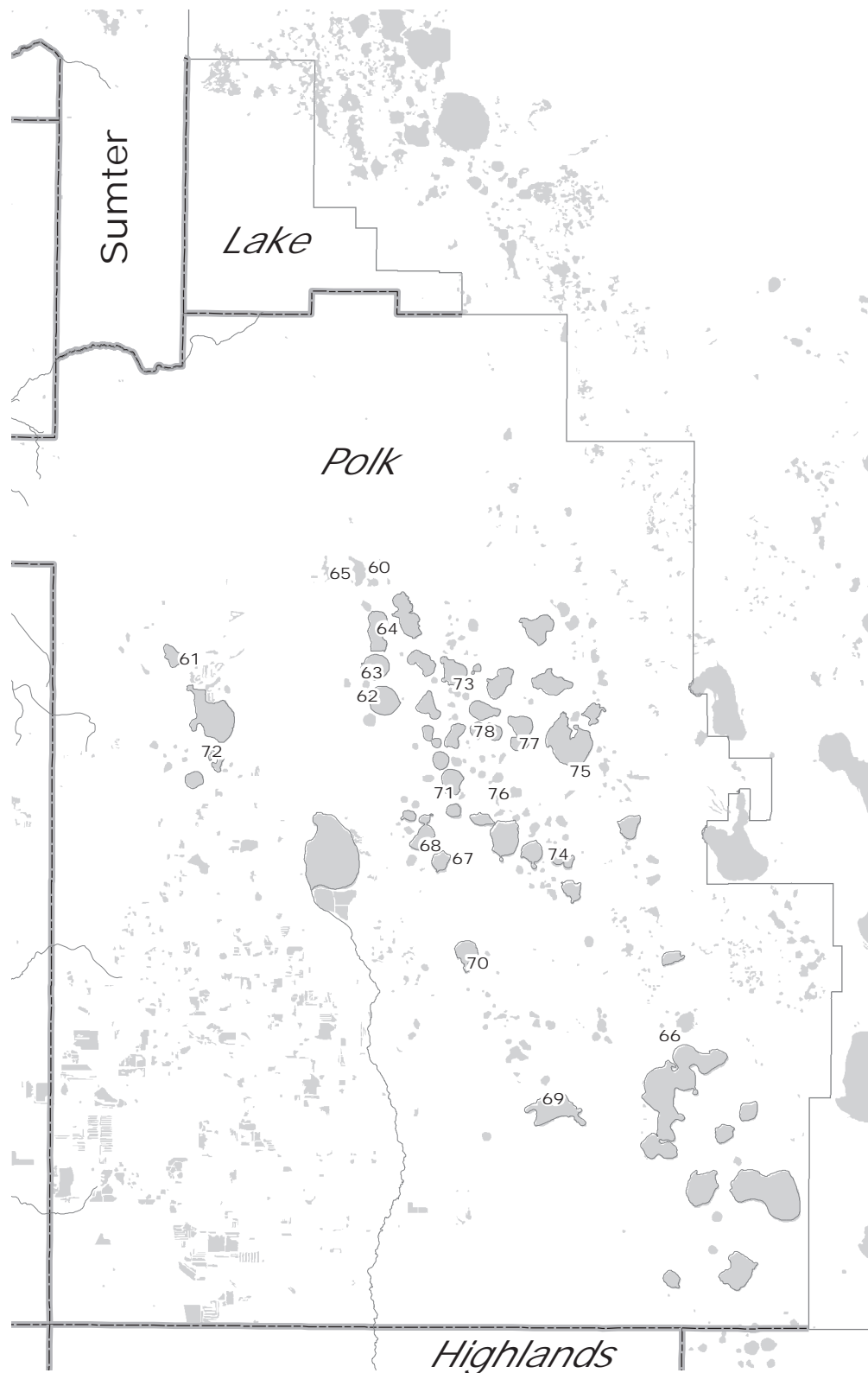


Selected Lake Monitoring Stations Tampa Bay Region



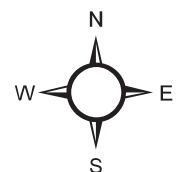
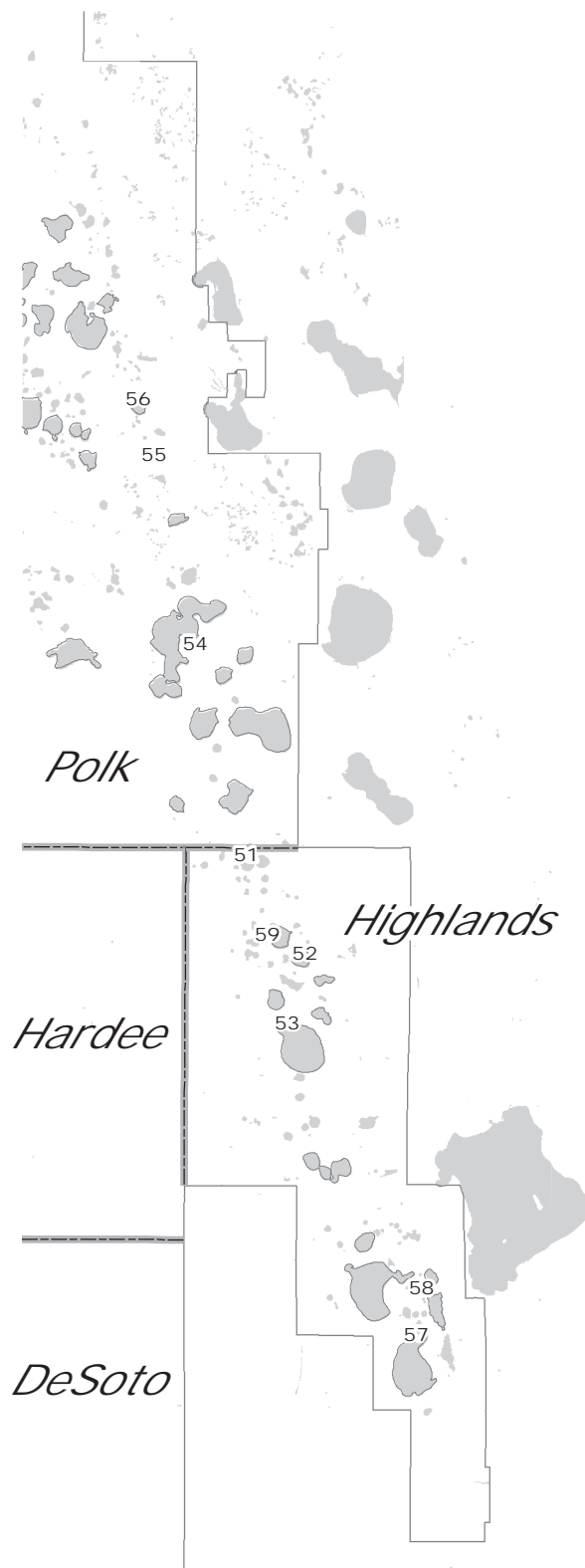
Selected Lake Monitoring Stations

Polk Uplands Region



Selected Lake Monitoring Stations

Lake Wales Ridge Region



Selected Lake Monitoring Stations

Northern Region

| <u>Map ID</u> | <u>Site Name</u> |
|---------------|-----------------------------|
| 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

| <u>Map ID</u> | <u>Site Name</u> | <u>Map ID</u> | <u>Site Name</u> |
|---------------|----------------------------|---------------|------------------|
| 18 | Mud (Walden) Lake | 40 | Lake Brooker |
| 19 | Gornto Lake | 41 | Cooper Lake |
| 20 | Carlton Lake | 42 | Lake Thomas |
| 21 | Lake Wimauma | 43 | Brant Lake |
| 22 | King Lake near San Antonio | 44 | Turkey Ford Lake |
| 23 | Lake Linda | 45 | Church Lake |
| 24 | Lake Padgett | 46 | Horse Lake |
| 25 | Keene Lake | 47 | Lake Alice |
| 26 | Egypt Lake | 48 | Lake Calm |
| 27 | Long Pond | 49 | Keystone Lake |
| 28 | Lake Stemper | 50 | Crescent Lake |
| 29 | Camp 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

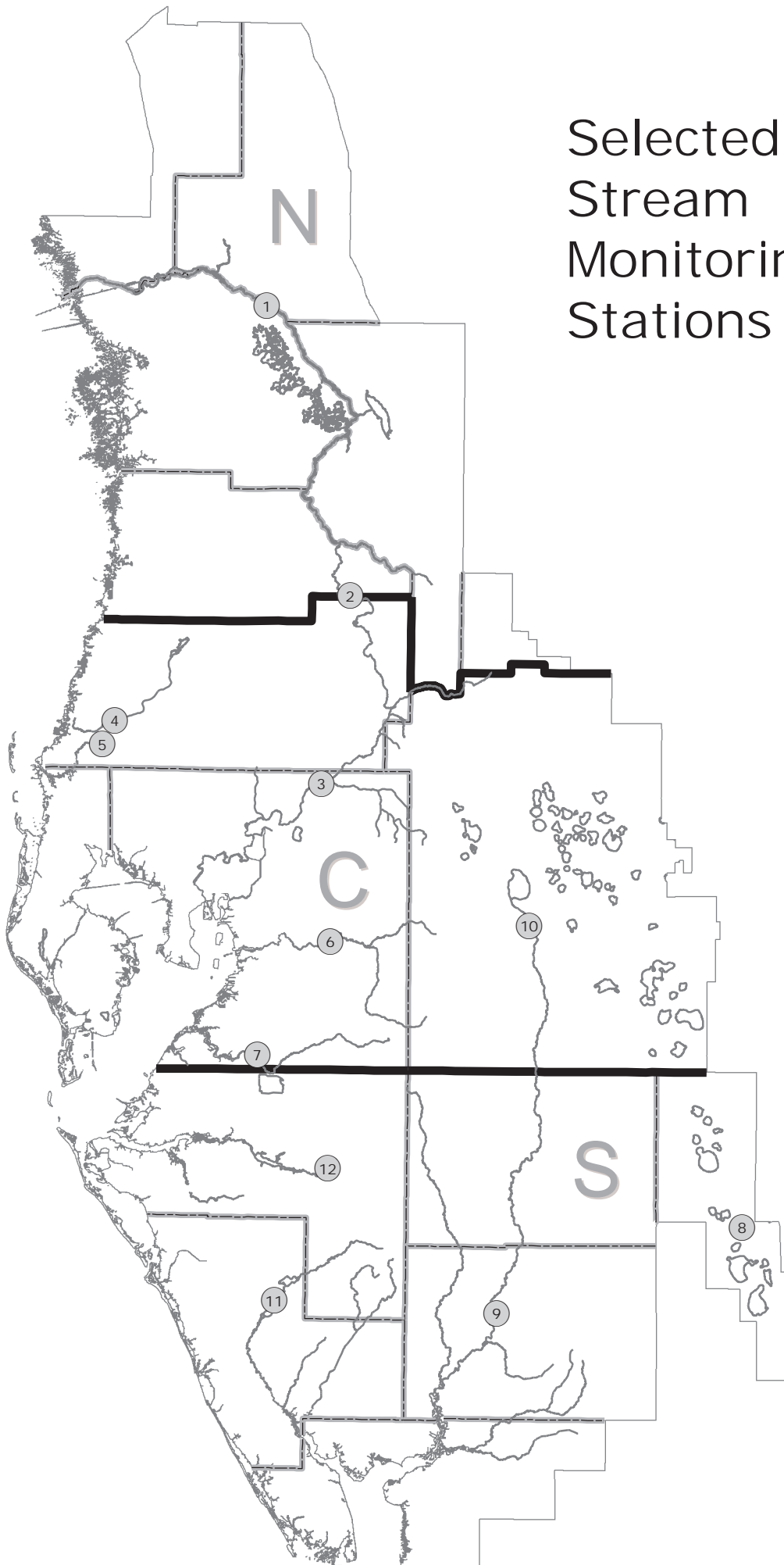
Lake Wales Ridge Region

| <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

| <u>Map ID</u> | <u>Site Name</u> |
|---------------|------------------|
| 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



Selected Stream Monitoring Stations

| <u>Map ID</u> | <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: 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

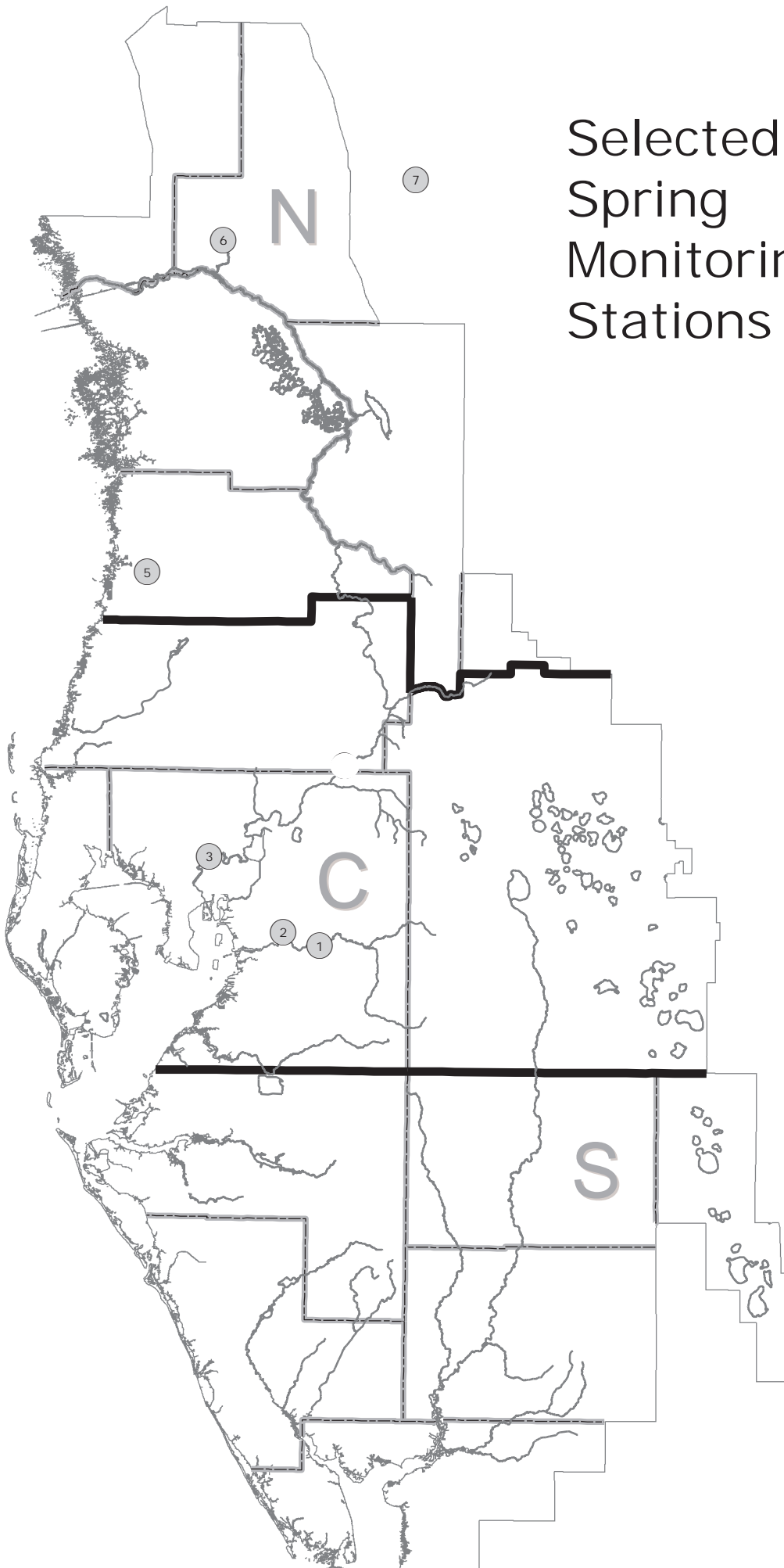
Arcadia Station (Southern Region):

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



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: | 1 st |
| 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 |
| Magnitude: | 1 st |
| 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 |
| Period-of-record: | 1932 |
| Gage: | Water-stage recorder |

WEEKI WACHEE SPRINGS (Northern Region)

| | |
|---------------------------------|--------------------------------------|
| County: | Hernando |
| Basin: | Coastal Rivers |
| Magnitude: | 1 st |
| 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: | 2 nd |
| Discharge measurement location: | 300 ft downstream from gage |
| Discharge contributes to: | Hillsborough River |
| Public Access: | Yes |
| Period-of-record: | 1956 |
| Gage: | Water-stage recorder |

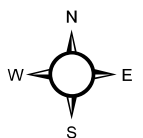
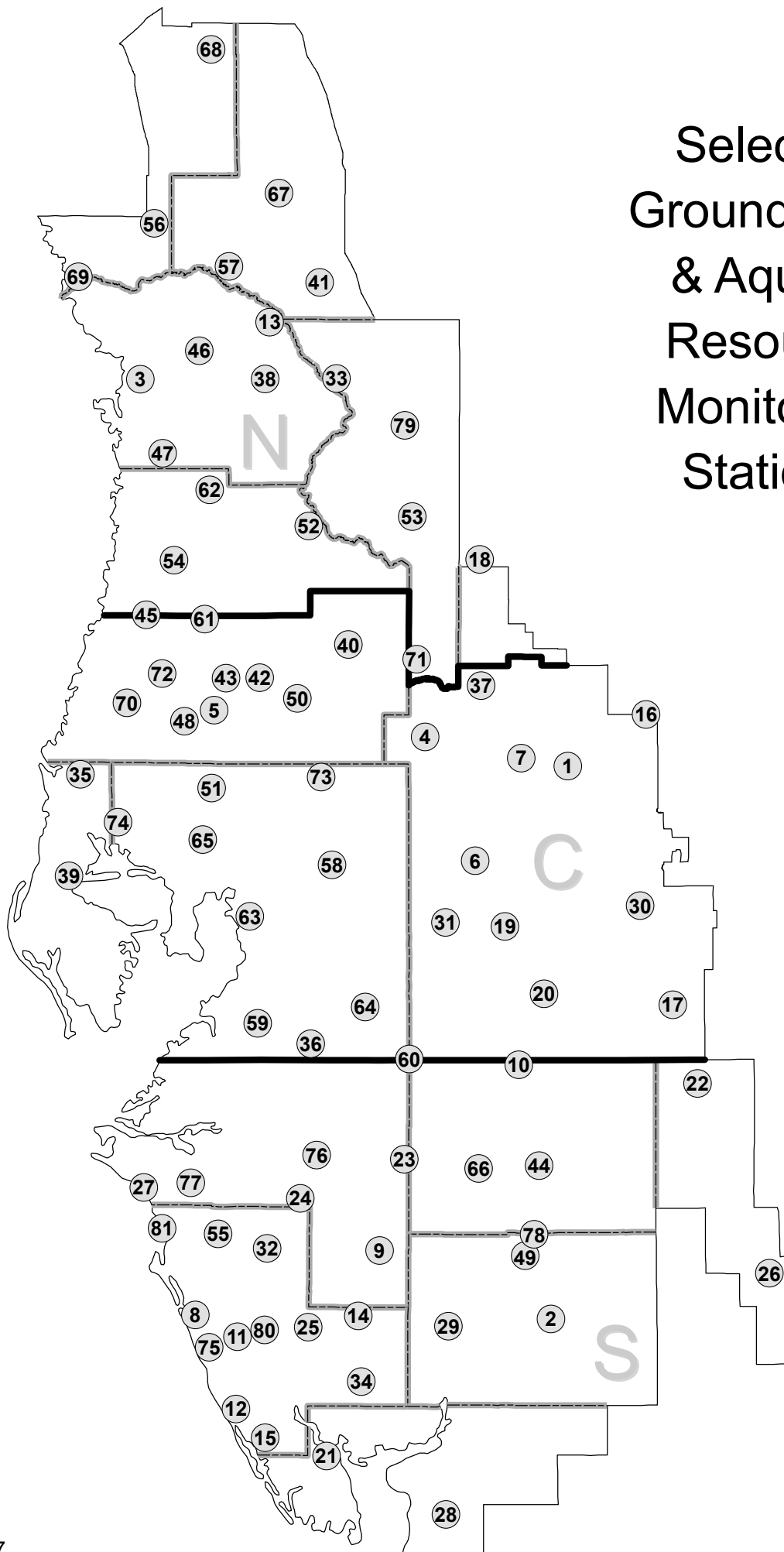
BUCKHORN SPRINGS (Central Region)

| | |
|---------------------------------|--|
| County: | Hillsborough |
| Basin: | Alafia River |
| Magnitude: | 2 nd |
| Discharge measurement location: | Difference between discharge measurements of Buckhorn Creek made 25 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 nd |
| 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 |

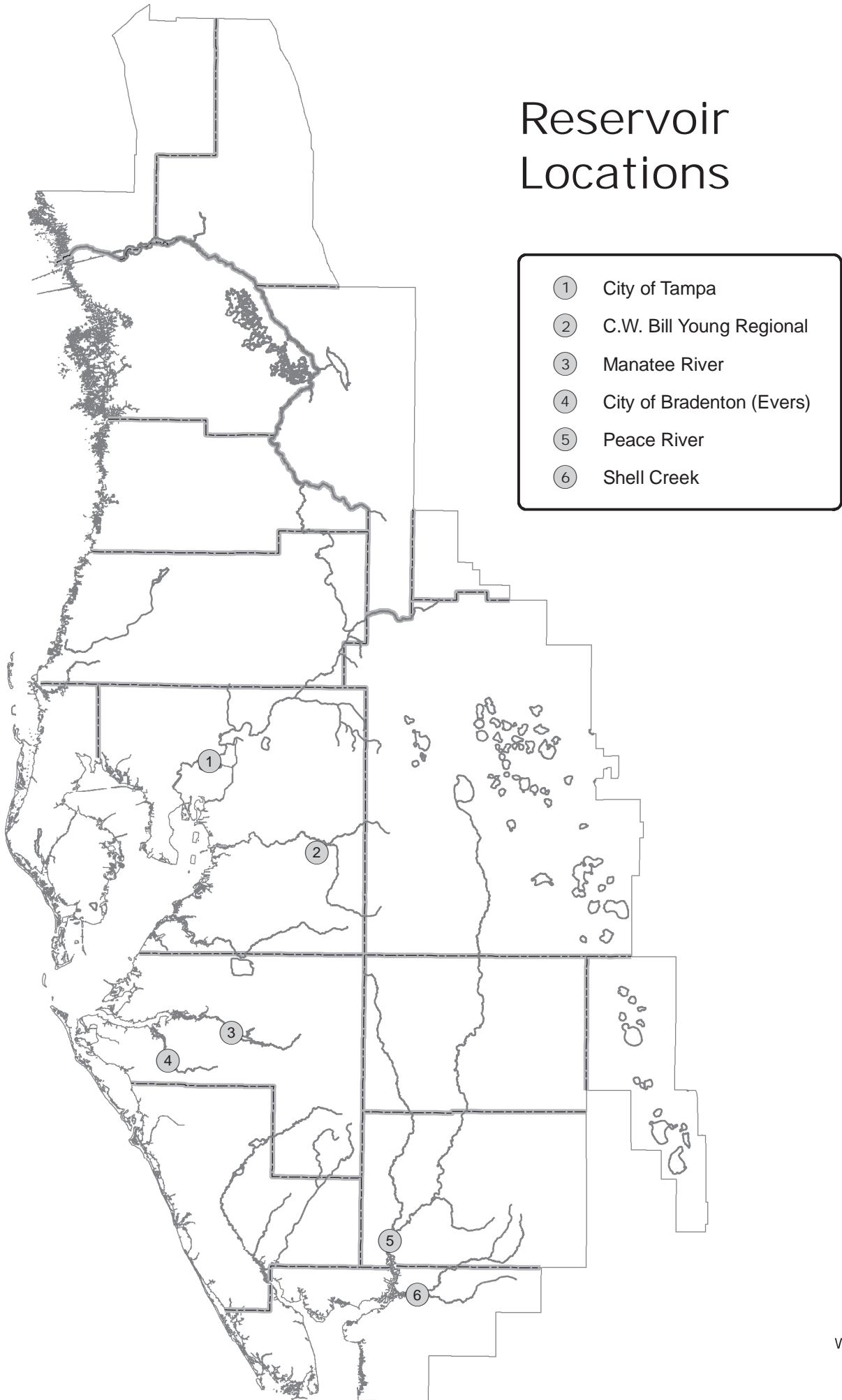
Selected Groundwater & Aquifer Resource Monitoring Stations



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 | | |
| 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 | | |

Reservoir Locations



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.