

## MEMORANDUM

TO: Governing Board

FROM: Megan Wetherington, P.E., Water Resources Engineer

THRU: Jerry A. Scarborough, Executive Director  
Kirk B. Webster, Deputy Executive Director

DATE: March 9, 2007

RE: February 2007 Hydrologic Conditions Report for the District

The Hydrologic Conditions Report is compiled from data collected from four water resource-monitoring networks. The four networks are rainfall (radar-derived rainfall estimate), groundwater levels (101 wells), lake levels (17 lakes), and river levels (31 stations on 8 rivers).

Data are available to the public via the District's webpage and upon request. In February, staff processed 36 requests for data from the public.

### RAINFALL

The District received, on average, 2.22 inches of rain during February. The average February rainfall is 3.89 inches. Total rainfall for the past 12 months is 39.82 inches. The long-term average annual rainfall is 55.6 inches. Eleven of the last twelve months had below-average precipitation. As of February 28, the District had a twelve-month rainfall deficit of 15.8 inches, making this period the third driest since 1931. The District continues to experience abnormally dry conditions, according to the United States Department of Agriculture/U.S. Drought Monitor. A summary of rainfall by county and a comparison of monthly rainfall versus the long-term average are provided in Table 1 and Figure 1, respectively. Figure 2 shows the radar-derived rainfall distribution. February rainfall data are provisional, and subject to revision. Statistics are updated as revised data become available.

### GROUNDWATER

Groundwater levels in 84 wells monitored in February rose by an average of 8 inches. Ninety percent of the groundwater levels within the network were below the 50th percentile of all February readings. Nineteen wells were between the 25th and 50th percentile, while fifty wells were below the 25th percentile. The percentile is the percentage of the monthly average groundwater levels that are equal to or below this month's level. See Figure 3 for a generalized representation of District groundwater levels.

### SURFACEWATER

Lake levels within the District's monitoring network increased by an average of 1 inch, the third consecutive monthly increase. Lake levels are shown compared to historic lake data on Table 2.

River levels in the District declined throughout February, after increasing initially due to late January rains. River elevations in the Suwannee and Coastal Rivers basins were below the 30th percentile for February. No all-time record low river discharges or levels were observed. February river levels at selected monitoring stations are provided in Table 3.

### WATER CONSERVATION

The District is entering the typically dry spring season with lower than average surfacewater levels, groundwater levels, and a 15.8 inch yearly rainfall deficit. The District recommends that water conservation be an ongoing activity for all water users. The Governing Board declared a Phase I Water Shortage Advisory on November 14, 2006, requesting voluntary reductions in water use. This advisory remains in effect. The District has a variety of free water conservation information available to the public, including a Home Water Use Survey and conservation tips, wastewater reuse, and xeriscape publications. Water is conserved by using the minimum amount needed for specific applications and by irrigating lawns, plants, and crops only when necessary and in the morning before 10 a.m. and in evening hours after 4 p.m., when lower temperature and wind velocity reduce the amount of water lost to evaporation.

/dd

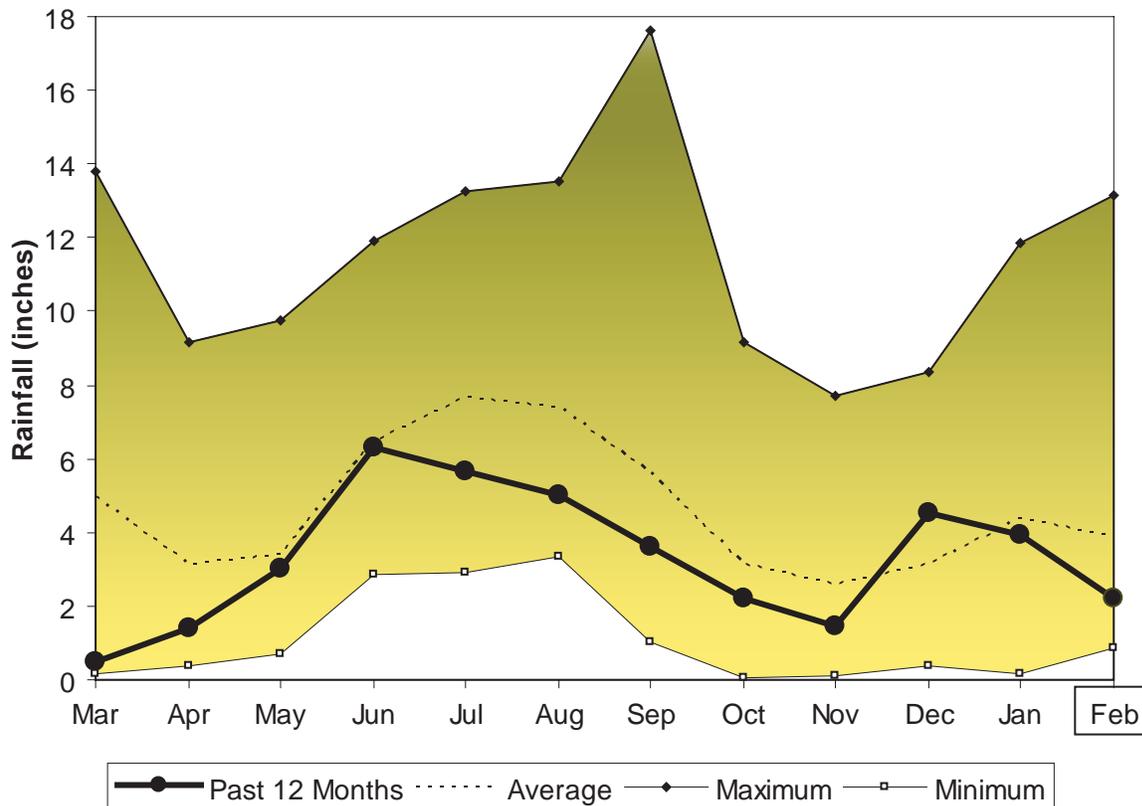
**Table 1. Estimated Rainfall Totals**

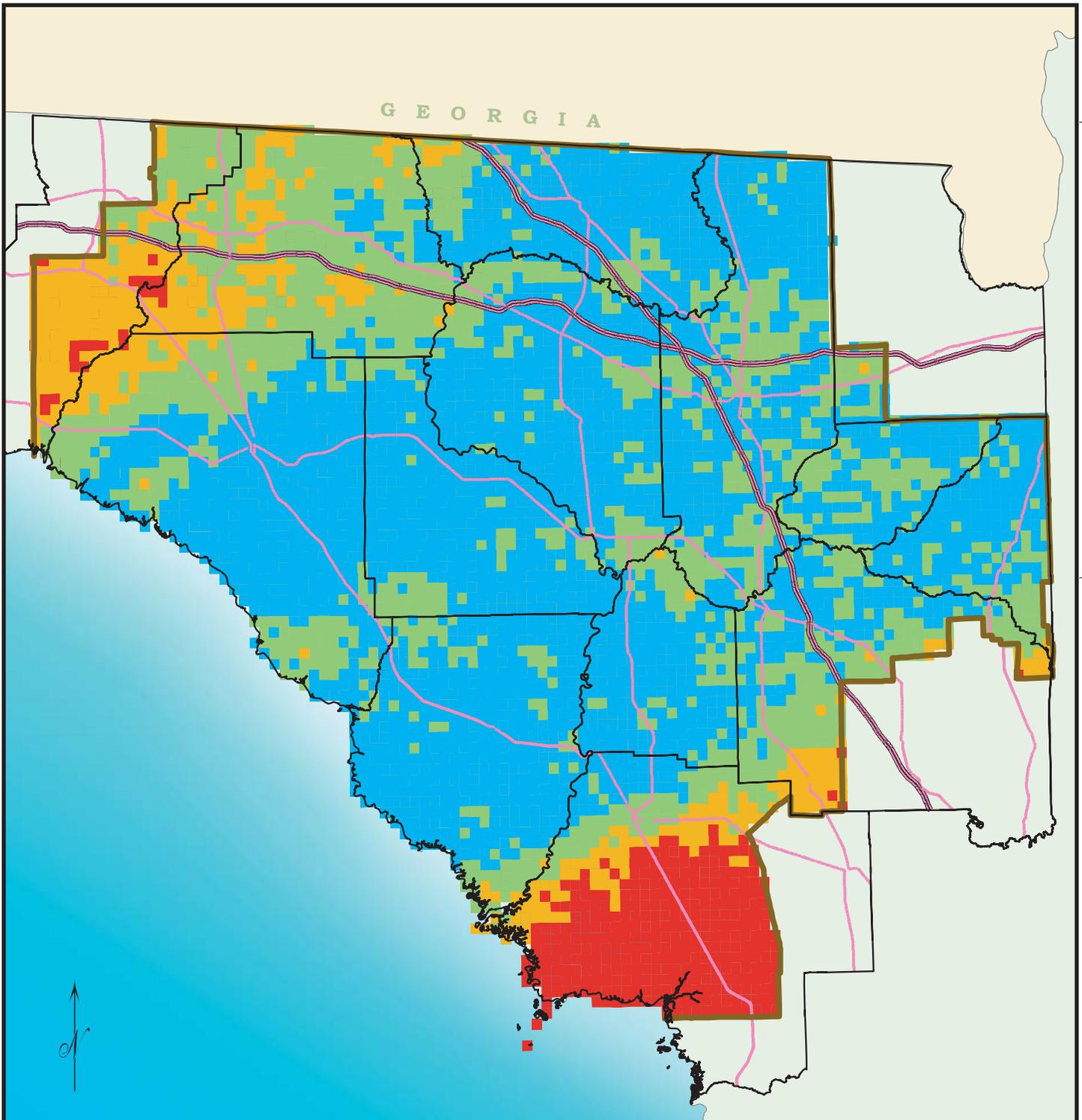
County	Feb-2007	Feb-2006	Last 12 Months	February Average
Alachua	2.34	3.99	37.90	3.59
Baker	2.16	3.51	36.56	3.44
Bradford	1.90	3.36	33.29	3.64
Columbia	1.89	3.27	39.13	3.72
Dixie	1.66	3.74	44.28	3.98
Gilchrist	1.76	4.08	41.11	4.18
Hamilton	1.81	4.22	39.61	4.01
Jefferson	3.29	4.76	53.43	4.65
Lafayette	1.63	2.65	41.15	3.98
Levy	4.38	4.02	44.64	3.63
Madison	2.70	4.51	46.32	4.36
Suwannee	1.73	3.55	40.96	3.73
Taylor	1.91	3.26	49.45	3.94
Union	1.95	3.12	34.84	3.63

District February 2007 Average: 2.22  
 District Historical February Average: 3.89  
 District Historical 12-month Average: 55.62  
 Cumulative District 12-month Rainfall: 39.82  
 Cumulative District 12-month Deficit: -15.80

(Rainfall reported in inches)

**Figure 1: Comparison of District Monthly Rainfall**





G E O R G I A

**Major Roads**

— Interstate

— US

— District Boundary

□ County Boundaries

**Rainfall**

■ Less than 2 inches

■ 2 to 3 inches

■ 3 to 4 inches

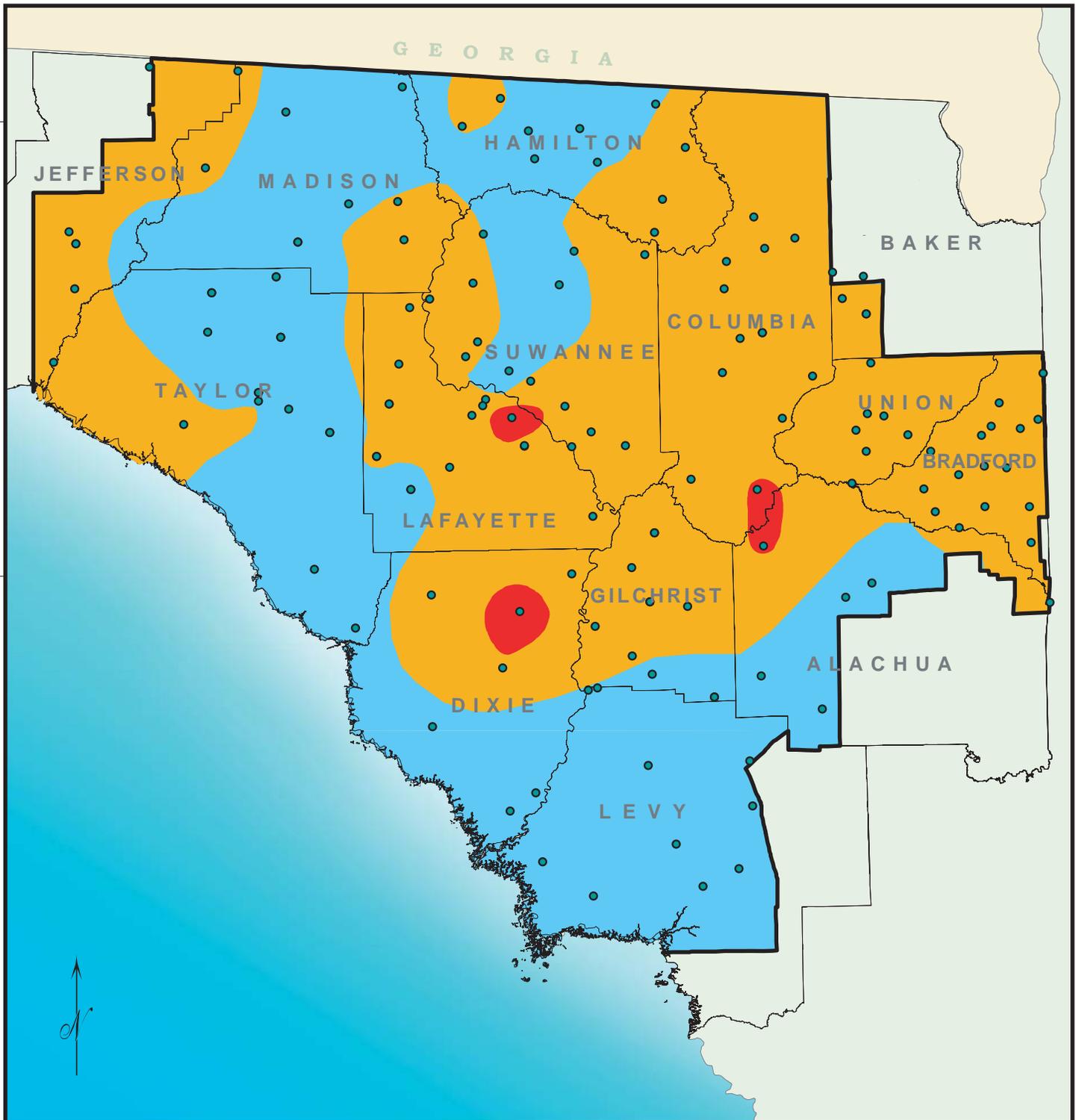
■ More than 4 inches

**February 2007  
Estimated Rainfall**

Figure 2



Note: This map was created by the Suwannee River Water Management District (SRWMD) to be used for planning purposes only. SRWMD shall not be held liable for any injury or damage caused by the use of data distributed as a public records request regardless of their use or application. SRWMD does not guarantee the accuracy, or suitability for any use of these data, and no warranty is expressed or implied. For more information please contact the SRWMD at 386-362-1001.



Groundwater Levels

- High
- Normal
- Low
- Extremely Low
- Monitoring Wells
- District Boundary

**Groundwater Levels  
February 2007**

Figure 3



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**Table 3. River Levels within SRWMD.**

	February 2007	Average February	February 2006	February Lowest	February Highest	Historic Low	Historic High
<b><u>SUWANNEE RIVER AND TRIBUTARIES</u></b>							
SUWANNEE RIVER @ White Springs	51.33	63.60	60.36	49.73	83.84	49.59 Jun-55	88.56 Apr-73
SUWANNEE RIVER @ Ellaville	30.96	39.72	37.77	29.10	61.80	28.55 Aug-02	68.10 Apr-48
SUWANNEE RIVER @ Branford	10.93	17.25	18.85	7.31	33.07	6.74 Jul-02	38.88 Apr-48
SUWANNEE RIVER @ Wilcox	2.47	7.91	6.77	0.37	15.17	0.37 Feb-57	21.79 Apr-48
WITHLACOOCHEE RIVER near Pinetta	55.35	61.95	58.40	53.92	85.41	53.25 Aug-02	85.85 Apr-48
SANTA FE RIVER near Fort White	<b>21.17</b>	22.79	22.44	21.24	28.01	21.01 Nov-02	36.20 Sep-64
<b><u>COASTAL RIVERS</u></b>							
AUCILLA RIVER at Lamont	48.29	52.97	52.01	46.61	56.68	43.50 Jun-55	59.47 Apr-73
STEINHATCHEE RIVER near Cross City	10.89	13.11	11.58	10.52	23.73	10.11 Jul-81	26.74 Sep-64
ECONFINA RIVER near Perry	18.10	20.74	21.84	16.55	25.67	15.85 Jan-76	27.13 Sep-57
FENHOLLOWAY RIVER near Foley	54.65	56.91	58.42	54.39	65.24	54.17 Aug-77	68.80 Sep-64

**Bold indicates new (provisional) record set during the month.**

**Table 2. Lake Levels within SRWMD**

Lake	Beginning Record	2007 February	2007 January	2006 December	2006 February	Monthly Change	Record Low	Record High
Lake Octahatchee	Nov-74	N/A	102.0	BG	106.31	N/A	95.6 (3/89)	107.9 (3/05)
Cherry Lake	Nov-74	151.91	151.67	151.47	152.33	0.24	150.8 (11/90)	154.0 (9/75)
Andrews Lake	Nov-74	77.06	76.89	76.52	78.10	0.17	73.3 (12/01)	78.4 (12/94)
Palestine Lake	Aug-75	142.00	141.90	141.76	N/A	0.10	139.3 (10/02)	145.2 (10/92)
Ocean Pond	Dec-74	153.00	152.82	152.62	155.16	0.18	150.9 (8/02)	156.6 (2/98)
Governor Hill Lake	Nov-74	47.90	48.02	47.77	53.15	-0.12	46.8 (1/02)	54.3 (2/98)
Alligator Lake	Sep-65	94.34	94.42	93.76	97.36	-0.08	90.2 (4/68)	100.8 (9/04)
Lake Francis	Jun-99	140.66	140.43	140.20	140.73	0.23	139.0 (12/01)	141.7 (9/04)
Lake Butler	Jul-57	128.74	128.55	128.22	131.13	0.19	126.8 (7/02)	134.0 (9/64)
Hampton Lake	Feb-89	128.07	128.18	128.14	130.70	-0.11	124.5 (5/02)	133.4 (3/98)
Lake Sampson	Jul-57	130.47	130.26	129.99	131.95	0.21	129.5 (12/77)	136.2 (3/59)
Lake Crosby	Feb-89	129.17	129.17	129.13	132.16	0.00	128.3 (5/01)	135.4 (10/04)
Waters Lake	Jul-72	BG	BG	BG	73.17	N/A	55.1 (2/82)	79.7 (9/04)
Low Lake	Nov-74	148.35	148.35	147.87	148.36	0.00	146.8 (7/00)	150.3 (6/94)
Santa Fe Lake	Jul-58	138.56	138.62	138.61	141.31	-0.06	135.7 (10/02)	142.8 (1/98)
Lake Altho	Mar-76	138.33	138.09	138.08	140.12	0.24	136.8 (7/01)	141.5 (2/98)
Snead's Smokehouse Lake	Dec-76	80.30	80.00	79.22	81.23	0.30	78.4 (5/96)	85.4 (4/84)

**Bold indicates record measurement.**

\* - BG indicates lake level below gage.

N/A - Data missing