

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: April 5, 2007

RE: March 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 (86 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 March, staff processed 42 requests for data from the public.

RAINFALL

The District received, on average, 0.95 inches of rain during March. The average March rainfall is 4.94 inches. Total rainfall for the past 12 months is 40.30 inches. The long-term average annual rainfall is 55.62 inches. Eleven of the last twelve months had below-average precipitation. For the 12-month period from April 1, 2006 to March 31, 2007, the District had a rainfall deficit of 15.32 inches, making this the second driest such period since 1932. 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. Figure 3 shows annual rainfall extremes for the District. March rainfall data are provisional, and subject to revision. Statistics are updated as revised data become available.

GROUNDWATER

Groundwater levels in 86 wells monitored in March dropped by an average of 2.8 inches. All but three of the groundwater levels within the network were below the 50th percentile of all March readings. Eighty-two percent of the levels 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 4 for a generalized representation of District groundwater levels.

SURFACEWATER

Lake levels within the District's monitoring network decreased by an average of 2.5 inches, after three months of moderate increases. Lake levels are shown compared to historic lake data on Table 2.

Due to minimal rainfall after March 3, river levels in the District declined steadily throughout the month. River elevations in the Suwannee and Coastal Rivers basins were below average for March. No all-time record low river discharges or levels were observed. March 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 15.3 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.

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Table 1. Estimated Rainfall Totals

County	Mar-2007	Mar-2006	Last 12 Months	March Average
Alachua	0.95	0.41	38.45	4.21
Baker	1.36	0.54	37.38	4.36
Bradford	0.94	0.39	33.84	4.29
Columbia	1.03	0.52	39.65	4.62
Dixie	0.91	0.43	44.76	4.79
Gilchrist	1.00	0.51	41.60	4.84
Hamilton	0.76	0.64	39.72	5.17
Jefferson	0.82	0.55	53.69	5.80
Lafayette	0.97	0.37	41.75	5.03
Levy	0.96	0.18	45.43	5.03
Madison	0.91	0.60	46.63	5.72
Suwannee	0.82	0.46	41.32	5.17
Taylor	0.77	0.53	49.69	5.34
Union	1.10	0.43	35.52	4.85

District March 2007 Average: 0.95
 District Historical March Average: 4.94
 District Historical 12-month Average: 55.62
 District Past 12-Month Total: 40.30
 District Rainfall Deficit Since January: -6.09
 District 12-month Rainfall Deficit: -15.32

(Rainfall reported in inches)

Figure 1: Comparison of District Monthly Rainfall

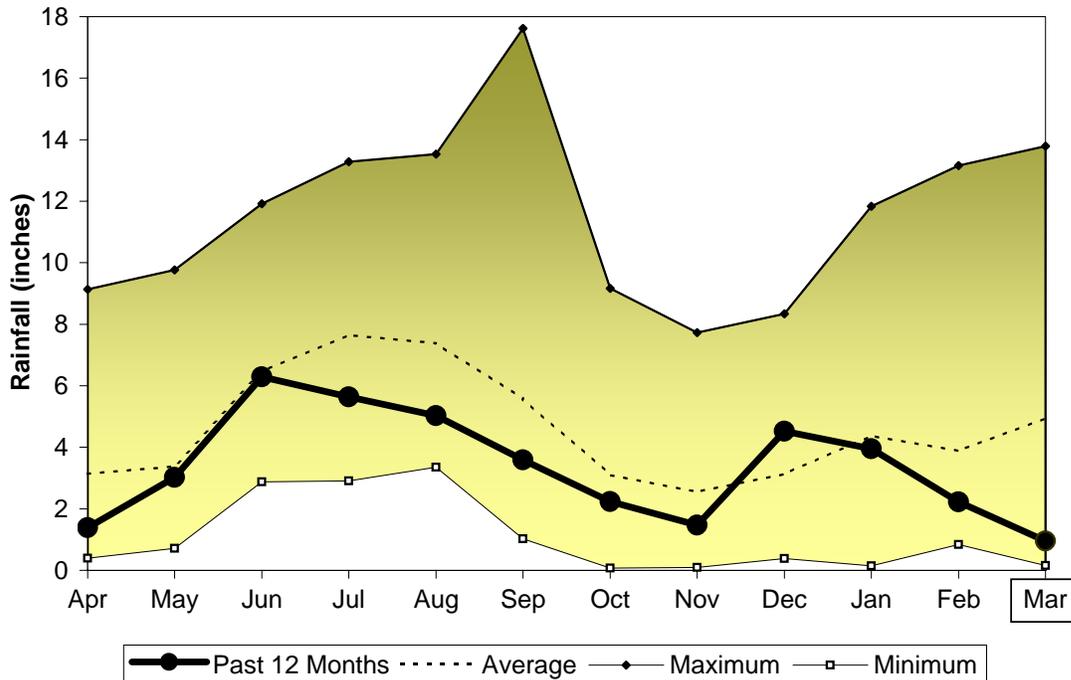


Table 2. Lake Levels within SRWMD.

Lake	Beginning Record	2007 March	2007 February	2007 January	2006 March	Monthly Change	Record Low	Record High
Lake Octahatchee	Nov-74	N/A	N/A	102.0	106.00	N/A	95.6 (3/89)	107.9 (3/05)
Cherry Lake	Nov-74	151.73	151.91	151.67	151.93	-0.18	150.8 (11/90)	154.0 (9/75)
Andrews Lake	Nov-74	76.84	77.06	76.89	77.70	-0.22	73.3 (12/01)	78.4 (12/94)
Palestine Lake	Aug-75	141.97	142.00	141.90	143.56	-0.03	139.3 (10/02)	145.2 (10/92)
Ocean Pond	Dec-74	152.90	153.00	152.82	155.06	-0.10	150.9 (8/02)	156.6 (2/98)
Governor Hill Lake	Nov-74	47.50	47.90	48.02	52.57	-0.40	46.8 (1/02)	54.3 (2/98)
Alligator Lake	Sep-65	94.10	94.34	94.42	96.91	-0.24	90.2 (4/68)	100.8 (9/04)
Lake Francis	Jun-99	140.57	140.66	140.43	N/A	-0.09	139.0 (12/01)	141.7 (9/04)
Lake Butler	Jul-57	N/A	128.74	128.55	130.55	N/A	126.8 (7/02)	134.0 (9/64)
Hampton Lake	Feb-89	N/A	128.07	128.18	130.38	N/A	124.5 (5/02)	133.4 (3/98)
Lake Sampson	Jul-57	N/A	130.47	130.26	131.49	N/A	129.5 (12/77)	136.2 (3/59)
Lake Crosby	Feb-89	129.05	129.17	129.17	131.58	-0.12	128.3 (5/01)	135.4 (10/04)
Waters Lake	Jul-72	BG	BG	BG	72.59	N/A	55.1 (2/82)	79.7 (9/04)
Low Lake	Nov-74	147.88	148.35	148.35	147.73	-0.47	146.8 (7/00)	150.3 (6/94)
Santa Fe Lake	Jul-58	138.42	138.56	138.62	141.15	-0.14	135.7 (10/02)	142.8 (1/98)
Lake Altho	Mar-76	138.02	138.33	138.09	140.05	-0.31	136.8 (7/01)	141.5 (2/98)
Snead's Smokehouse Lake	Dec-76	80.09	80.30	80.00	80.56	-0.21	78.4 (5/96)	85.4 (4/84)

Bold indicates record measurement.

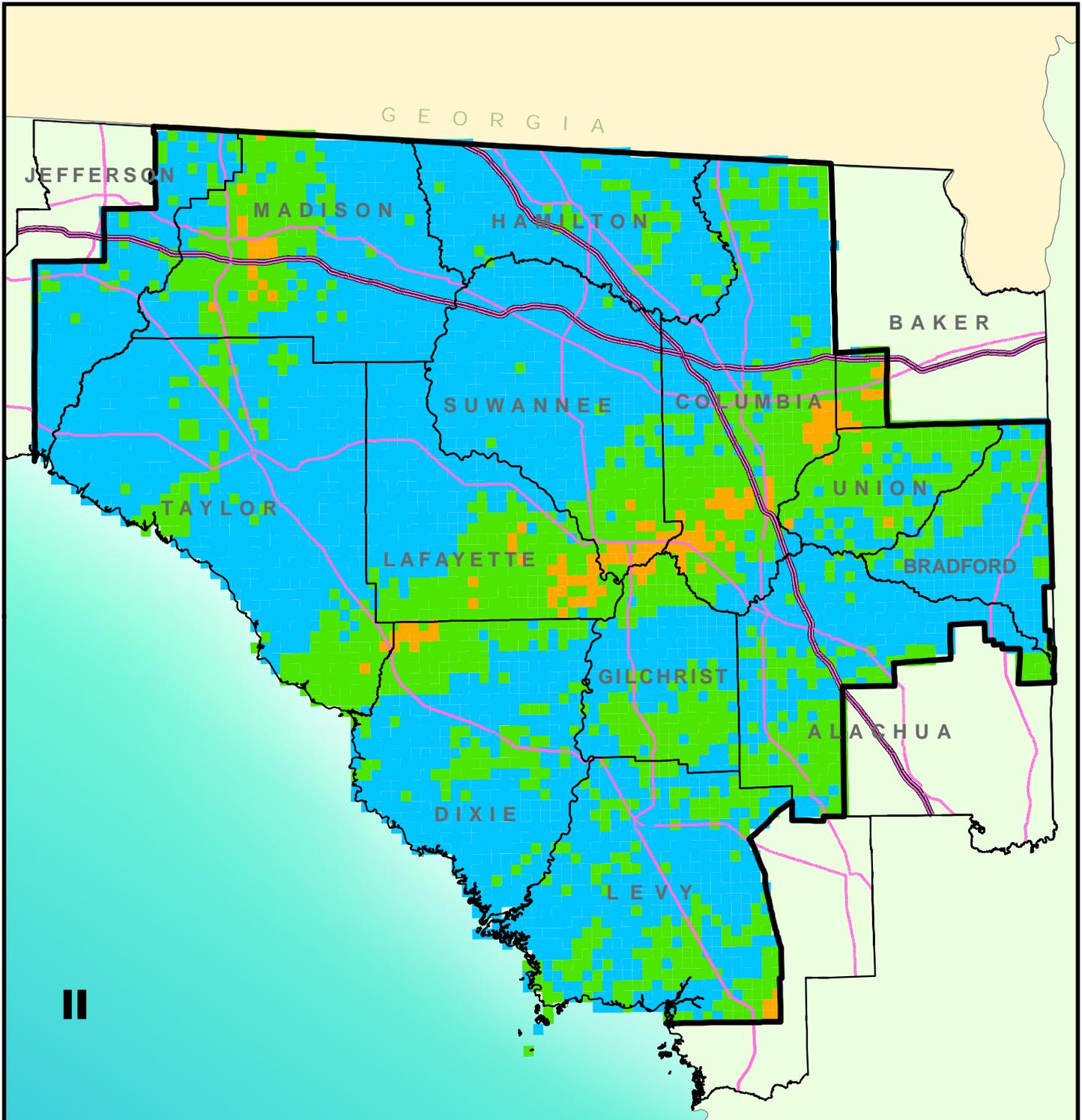
* - BG indicates lake level below gage.

N/A - Data missing

Table 3. River Levels within SRWMD.

	March 2007	Average March	March 2006	March Lowest	March Highest	Historic Low	Historic High
<u>SUWANNEE RIVER AND TRIBUTARIES</u>							
SUWANNEE RIVER @ White Springs	50.36	64.72	53.42	49.86	82.77	49.59 Jun-55	88.56 Apr-73
SUWANNEE RIVER @ Ellaville	29.92	41.75	31.69	29.92	61.56	28.55 Aug-02	68.10 Apr-48
SUWANNEE RIVER @ Branford	9.09	19.55	14.05	7.31	33.93	6.74 Jul-02	38.88 Apr-48
SUWANNEE RIVER @ Wilcox	2.14	8.70	4.57	0.97	16.27	0.37 Feb-57	21.79 Apr-48
WITHLACOOCHEE RIVER near Pinetta	54.15	61.98	54.67	53.87	84.04	53.25 Aug-02	85.85 Apr-48
SANTA FE RIVER near Fort White	21.18	23.26	21.85	21.24	27.74	21.01 Nov-02	36.20 Sep-64
<u>COASTAL RIVERS</u>							
AUCILLA RIVER at Lamont	47.01	53.38	48.42	47.21	57.60	43.50 Jun-55	59.47 Apr-73
STEINHATCHEE RIVER near Cross City	10.53	13.38	10.63	10.47	23.59	10.11 Jul-81	26.74 Sep-64
ECONFINA RIVER near Perry	16.82	21.01	18.09	16.72	26.26	15.85 Jan-76	27.13 Sep-57
FENHOLLOWAY RIVER near Foley	54.52	57.05	55.24	54.25	65.32	54.17 Aug-77	68.80 Sep-64

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



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March 2007 Estimated Rainfall

Figure 2

Major Roads

- Interstate
- US
- District Boundary
- County Boundaries

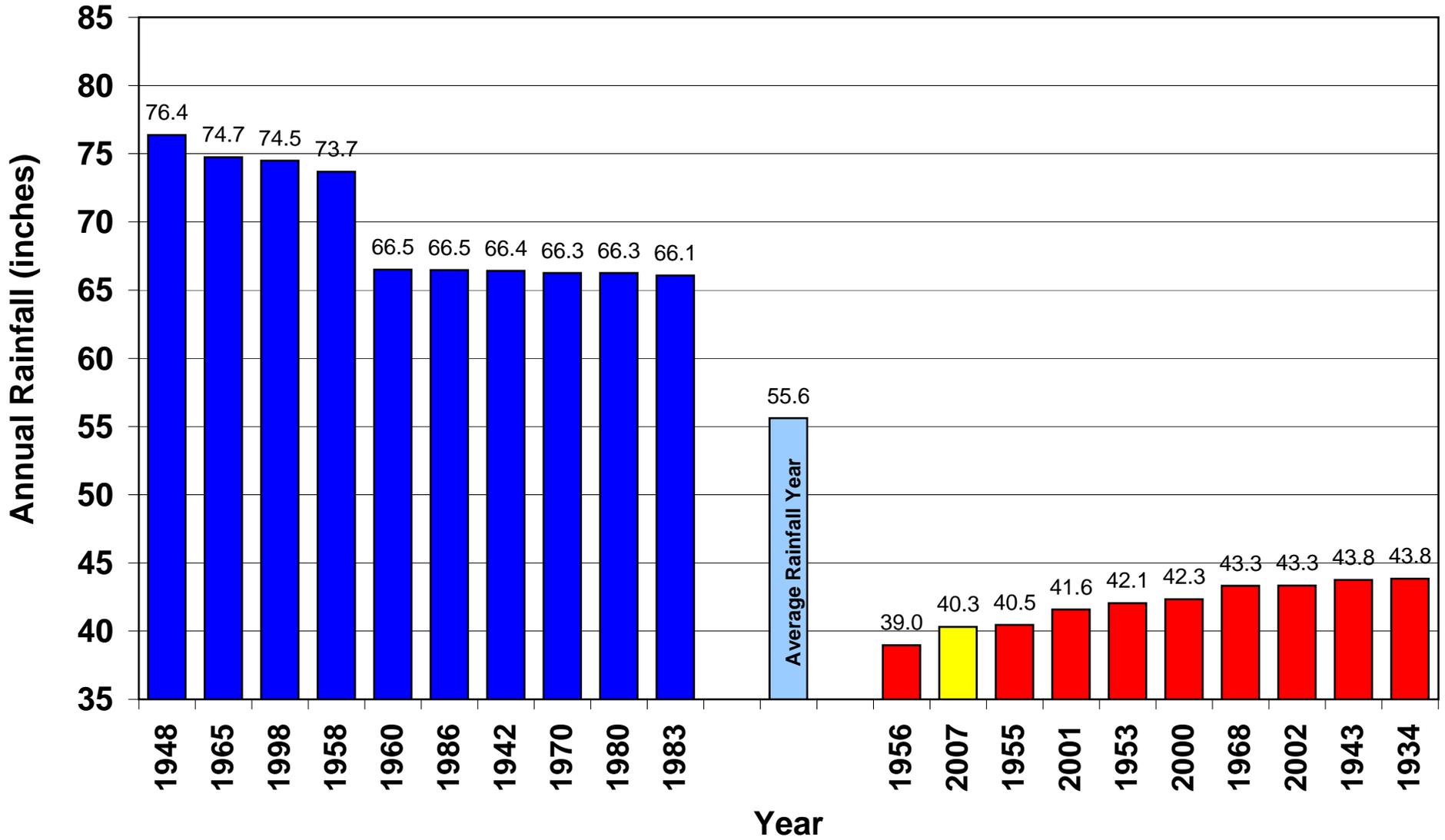
Rainfall

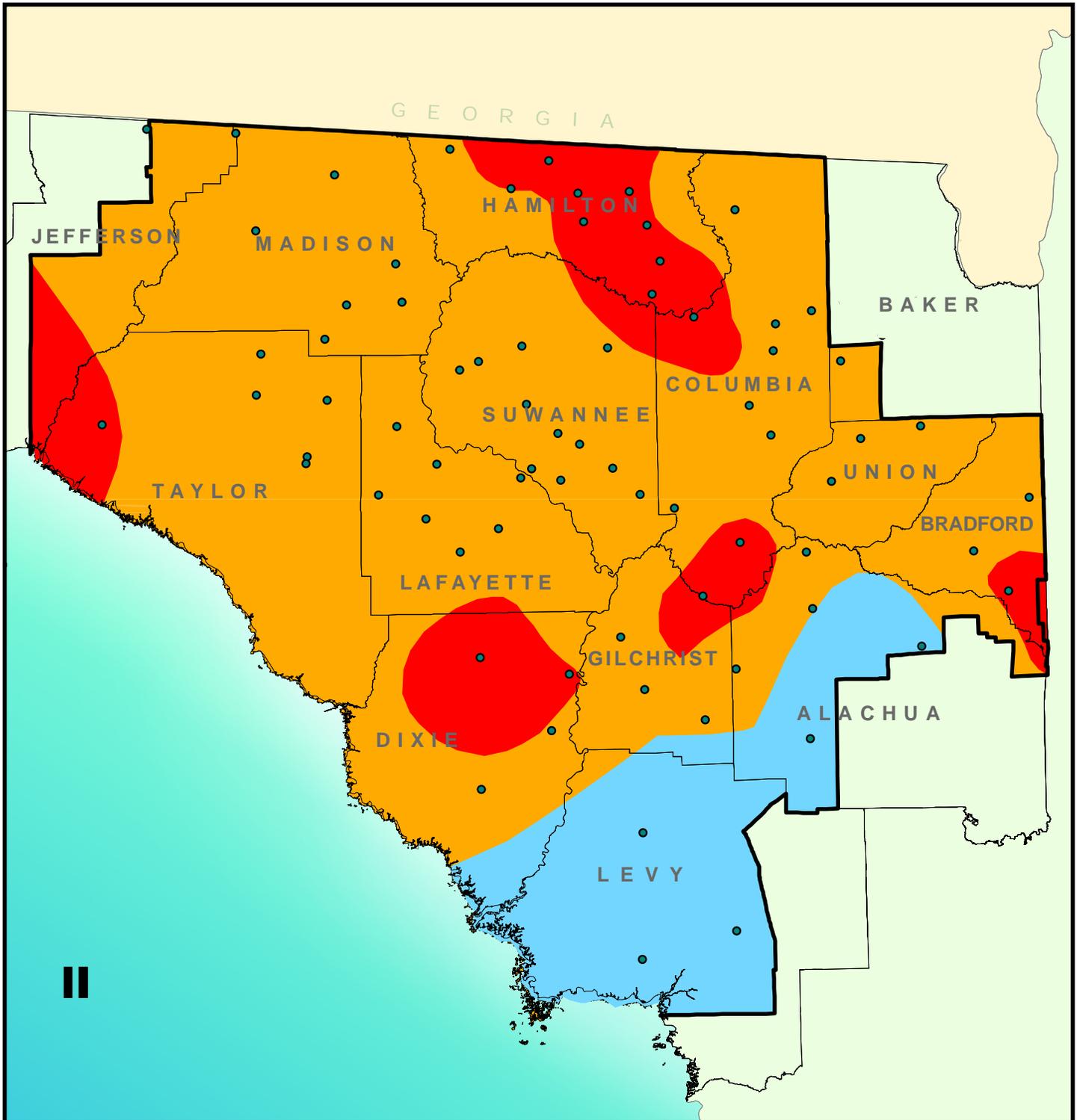
- Less than 1 inch
- 1 to 1.5 inches
- 1.5 to 2 inches



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.

Figure 3: Annual Rainfall Extremes in the SRWMD
The 10 Highest and Lowest Years
12-Month Period Beginning April 1 and ending March 31
Period of Record 1932 to 2007





Groundwater Levels March 2007

Figure 4

- High
(Greater than 75th Percentile)
- Normal
(25th to 75th Percentile)
- Low
(10th to 25th Percentile)
- Extremely Low
(Less than 10th Percentile)
- Monitoring Wells
- District Boundary



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