

MEMORANDUM

TO: John Mitnik, Division Director, Operations, Engineering, and Construction

THROUGH: Peter Kwiatkowski, Section Administrator, Resource Evaluation

FROM: SFWMD Staff Water Supply Advisory Team

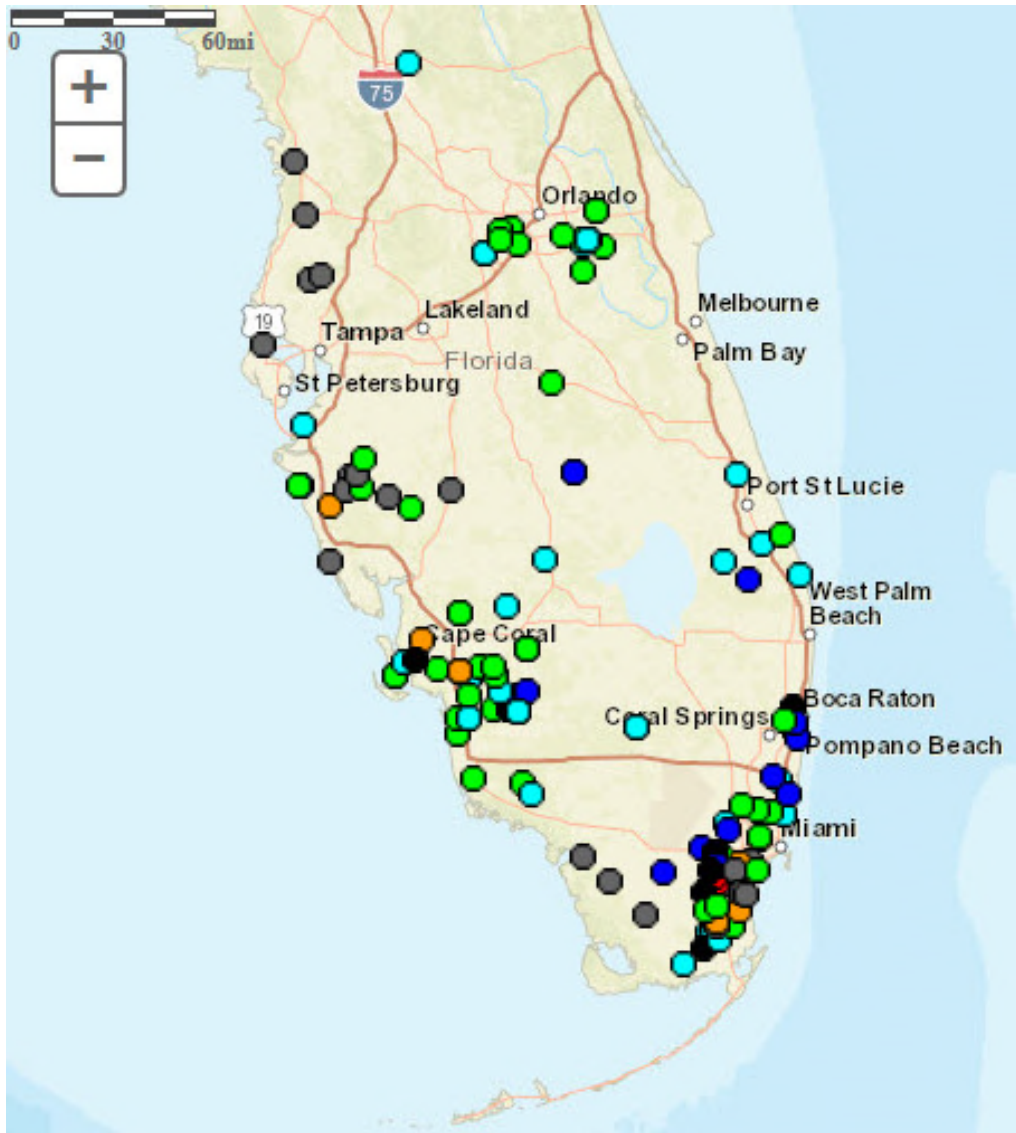
DATE: December 19, 2017

SUBJECT: Water Supply Report

District-wide Conditions

Surface and groundwater levels showed mixed trends throughout the District over the last week. The majority of United States Geological Survey (USGS) real-time wells in the Kissimmee Basin (KB) within the District boundaries are at median levels for this time of year. Approximately three quarters of the surface water and groundwater stations across the KB recorded decreases in water levels over the last week. Stages in the Upper East Coast (UEC) canals C-23, C-24, and C-25 are at 22.62, 20.67, and 22.25 feet, well above the fourteen feet agricultural cut-off. The majority of UEC surficial aquifer wells are in the upper 76th to 90th percentile range or higher for this time of year. Surface and groundwater levels decreased in the majority of the Lower East Coast (LEC) monitoring stations over the past week. Most of the USGS Biscayne aquifer monitor wells are in the median percentile range or higher for this time of year.

In the Lower West Coast (LWC), groundwater levels decreased in most of the monitor wells over the last seven days. Two thirds of the wells in the Surficial aquifer are in the upper 76th to 90th percentile range or higher, with most of the remainder at median levels. Most of the Lower Tamiami aquifer wells are also in the median percentile range or higher. About forty percent of the Sandstone aquifer monitor wells are in the upper 76th to 90th percentile range, with most of the remainder at median levels for this time of year. Approximately one third of the Mid-Hawthorn aquifer monitor wells are in the upper 76th to 90th percentile range or higher, with the remainder split between median levels and the lower 10th to 24th percentile range. **Figure 1** summarizes current water level conditions.



Explanation - Percentile classes (symbol color based on most recent measurement)						Wells		Springs	
● (Red)	● (Dark Red)	● (Orange)	● (Green)	● (Cyan)	● (Blue)	● (Black)	● (Grey)	○ (Real-Time)	■ (Continuous)
Low	<10 Much Below Normal	10-24 Below Normal	25-75 Normal	76-90 Above Normal	>90 Much Above Normal	High	Not Ranked	△ (Periodic Measurements)	■ (Continuous)

Figure 1. [Florida Real-Time Groundwater Level Network Map](#)

Water Supply Technical Input to LORS2008

The Palmer Index for Lake Okeechobee (LOK) Tributary Conditions is 1.60 classified as “normal,” and is in the “low” risk category. The LOK stage for the next two months is projected to be in the Low Sub-Band, and the risk to water supply is categorized as “moderate.” The Climate Prediction Center’s (CPC) Precipitation Outlook is projected as “normal” for one month and “below normal” for three months, leaving the one-month outlook in the “low” risk category and three-month outlook in the “moderate” risk category. The LOK Seasonal Net Inflow Forecast is in the “extremely dry” range, with “high” risk to water supply. The Multi-Seasonal Net Inflow Forecast is projected as “normal” with “moderate” risk to water supply. The stages in all Water Conservation Areas are above line 1 and are in the “low” risk category. Year-Round Irrigation Rule is in effect for the LEC Service Areas. **Figure 2** summarizes the water supply risk indicators.

LORS2008 Implementation on 12/18/2017 (ENSO Neutral Condition):

Status for week ending 12/18/2017:

District wide, Raindar rainfall was 0.00 inches for the week. Lake stage on 12/18/2017 was 15.73 ft, down 0.15 ft from last week.

The updated December 2017 SFWMM Dynamic Position Analysis [percentile graph](#) for Lake Okeechobee show that the current lake stage is in the Low Operational Sub-Band. The 2008 LORS Tributary Hydrologic Condition (THC) tributary is classified as **Wet**. The PDSI indicates Wet condition and the LONIN is Dry. The THC classification is based on the wetter of the two [indices](#).

Water Supply Risk Evaluation

Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Low Sub Band	M
	Palmer Index for LOK Tributary Conditions	1.60 (Normal)	L
	CPC Precipitation Outlook	1 month: Normal	L
		3 months: Below Normal	M
	LOK Seasonal Net Inflow Outlook	-0.32 ft (Extremely Dry)	H
	ENSO La Nina Years		
LOK Multi-Seasonal Net Inflow Outlook	2.41 ft (Normal)	M	
ENSO La Nina Years			
WCAs	WCA 1: Site 1-7, Site 1-8T, & Site 1-9 Average	Above Line 1 (17.34 ft)	L
	WCA 2A: Site 2-17 HW	Above Line 1 (13.00 ft)	L
	WCA-3A: 3 Station Average (Site 63, 64 and 65)	Above Line 1 (10.96 ft)	L
LEC	Service Area 1	Year-Round Irrigation Rule in effect	L
	Service Area 2	Year-Round Irrigation Rule in effect	L
	Service Area 3	Year-Round Irrigation Rule in effect	L

Note: The water supply risk classification based on the Palmer index, as well as the LOK seasonal and multi-seasonal net inflow outlooks use slightly different classification intervals than those used by the 2008-LORS.

Figure 2. Water Supply Risk Indicators