M E M O R A N D U M

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

THROUGH: Dean Powell, Bureau Chief, Water Supply

FROM: SFWMD Staff Water Supply Advisory Team

DATE: March 22nd, 2016

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 were in the median percentile range for this time of year. About half of the surface and groundwater stations across the KB recorded decreases in water levels during the last seven days. Stages in the Upper East Coast (UEC) canals C-23, C-24, and C-25 were at 22.36, 20.23, and 20.67 feet, respectively, well above the 14 feet NGVD agricultural cutoff level. Most UEC surficial aquifer wells are in the upper 10th to 30th percentile range for this time of year. Surface and groundwater levels decreased in about half of the stations in the Biscayne aquifer. Approximately half of the USGS Biscayne aquifer monitor wells are in their upper 10th percentile range at this time. Most of the remainder is split between the median and lower 10th to 30th percentile ranges.

In the Lower West Coast (LWC), groundwater levels decreased in approximately three quarters of the monitor wells over the last seven days. About eighty percent of the wells in the surficial aquifer are in their upper 10th to 30th percentile range or higher. Almost half of the Lower Tamiami aquifer wells are also in their upper 10th to 30th percentile range or higher. Approximately fifty percent of Sandstone aquifer monitor wells are also in the upper 10th to 30th percentile range or higher for this time of year. About three quarters percent of the Mid-Hawthorn aquifer wells are at median levels or higher for this time of year, with the remainder in the lowest 10th percentile range. **Figure 1** is a USGS map showing conditions on March 21st, 2016, from a 7-day running average of daily recorded water levels compared to the statistical distribution of daily water levels for the period of record for selected sites in southern Florida.

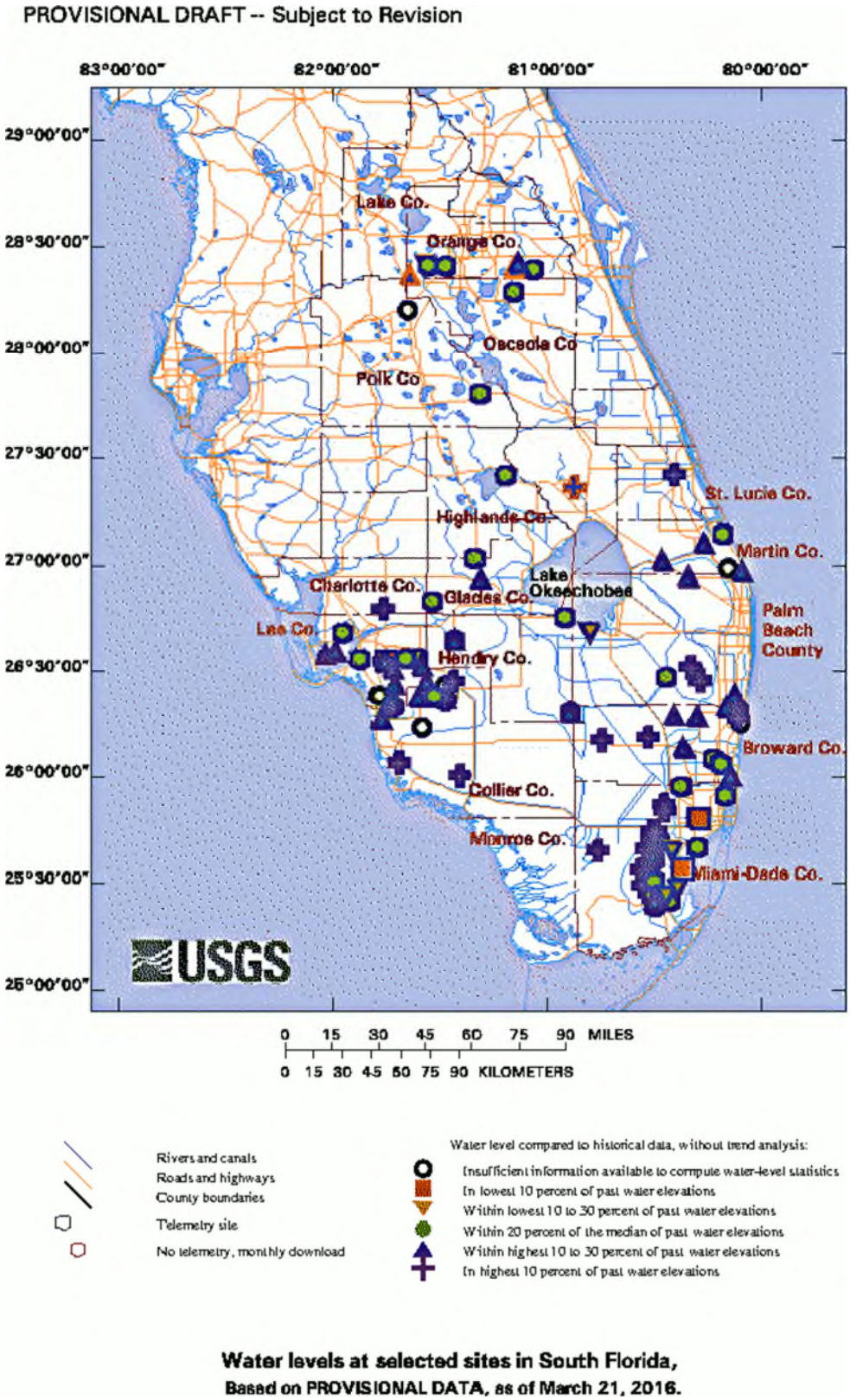

Figure 1. Current Water-level Conditions in South Florida (source: USGS, http://www.sflorida.er.usgs.gov/ddn_data/index_ndt.html)

Water Supply Technical Input to LORS2008

The Palmer Index for Lake Okeechobee (LOK) Tributary Conditions is -0.34, 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 Flow Sub-Band, and the risk to water supply is categorized as "moderate." The Climate Prediction Center's (CPC) Precipitation Outlook is projected as "above normal" for one month and "above normal" for three months, leaving both the one month outlook and the three month outlook in the "low" risk category. The LOK Seasonal Net Inflow Forecast is in the "normal to extremely wet" range, with "low" risk to water supply. The Multi-Seasonal Net Inflow Forecast is projected as "normal," with "moderate" risk to water supply. The stages in the Water Conservation Areas are all above line 1 and are in the "low" risk category. Groundwater levels in LEC Service Areas are in the "low" risk category. The Year-Round Irrigation Rule is in effect for the LEC Service Areas. **Figure 2** summarizes the water supply risk indicators.

LORS2008 Implementation on 3/21/2016 (ENSO El Nino Condition):

Water Supply Department Technical Input

Water Supply Outlook:

District wide, Raindar rainfall 0.38 inches for the week ending 3/21/2016. Lake stage on 3/21/2016 is 15.25 ft, down 0.19 ft from last week.

The updated March 2016 SFWMM Dynamic Position Analysis percentile graph and tracking chart for Lake Okeechobee show that the lake stage is in the Low Operational Sub-Band.

The LORS2008 tributary indices are classified as **Normal**. The PDSI indicates normal condition and the LONIN is Dry. The classification is based on the wetter of the two.

Water Supply Risk Evaluation

Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Low Flow Sub-Band	M
	Palmer Index for LOK Tributary Conditions	-0.34 (Normal)	L
	CPC Precipitation Outlook	1 month: Above Normal	L
		3 months: Above Normal	L
	LOK Seasonal Net Inflow Forecast	1.14 ft (Normal to Extremely Wet)	L
	AMO warm/El Nino		
	LOK Multi-Seasonal Net Inflow Forecast	2.48 ft (Normal)	M
	AMO warm/El Nino		
WCAs	WCA 1: Site 1-7, Site 1-8T, & Site 1-9 Average	Above Line 1 (16.42 ft)	L
	WCA 2A: Site 2-17 HW	Above Line1 (12.12 ft)	L
	WCA-3A: 3 Station Average (Site 63, 64 and 65)	Above Line 1 (10.94 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 forecasts use slightly different classification intervals than those used by the 2008-LORS for classifying the tributary hydrologic condition (THC).

Figure 2. Water Supply Risk Indicators