M E M O R A N D U M

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

THROUGH: Peter Kwiatkowski, Section Administrator, Resource Evaluation

FROM: SFWMD Staff Water Supply Advisory Team

DATE: November 1st, 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 at median levels or higher for this time of year. Most 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 22.60, 20.85, and 20.20 feet, respectively, well above the 14 feet NGVD agricultural cutoff level. The majority of UEC surficial aquifer wells are in the median percentile range for this time of year. Surface and groundwater levels decreased in about half of the stations in the Biscayne aquifer. Approximately eighty percent of the USGS Biscayne aquifer monitor wells are in their median percentile range or higher at this time. The remainder is split between the lower 10th to 30th percentile range and the lowest 10th percentile range.

In the Lower West Coast (LWC), groundwater levels decreased in most of the monitor wells over the last seven days. Most of the wells in the Surficial aquifer are in the median percentile range for this time of year. The majority of the Lower Tamiami aquifer wells are also at median levels. Approximately seventy percent of the Sandstone aquifer monitor wells are in the median percentile range or higher for this time of year. Over half of the Mid-Hawthorn aquifer monitor wells are at median levels or higher for this time of year, with most of the remainder in the lowest 10th percentile range. **Figure 1** is a USGS map showing conditions on October 31st, 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.

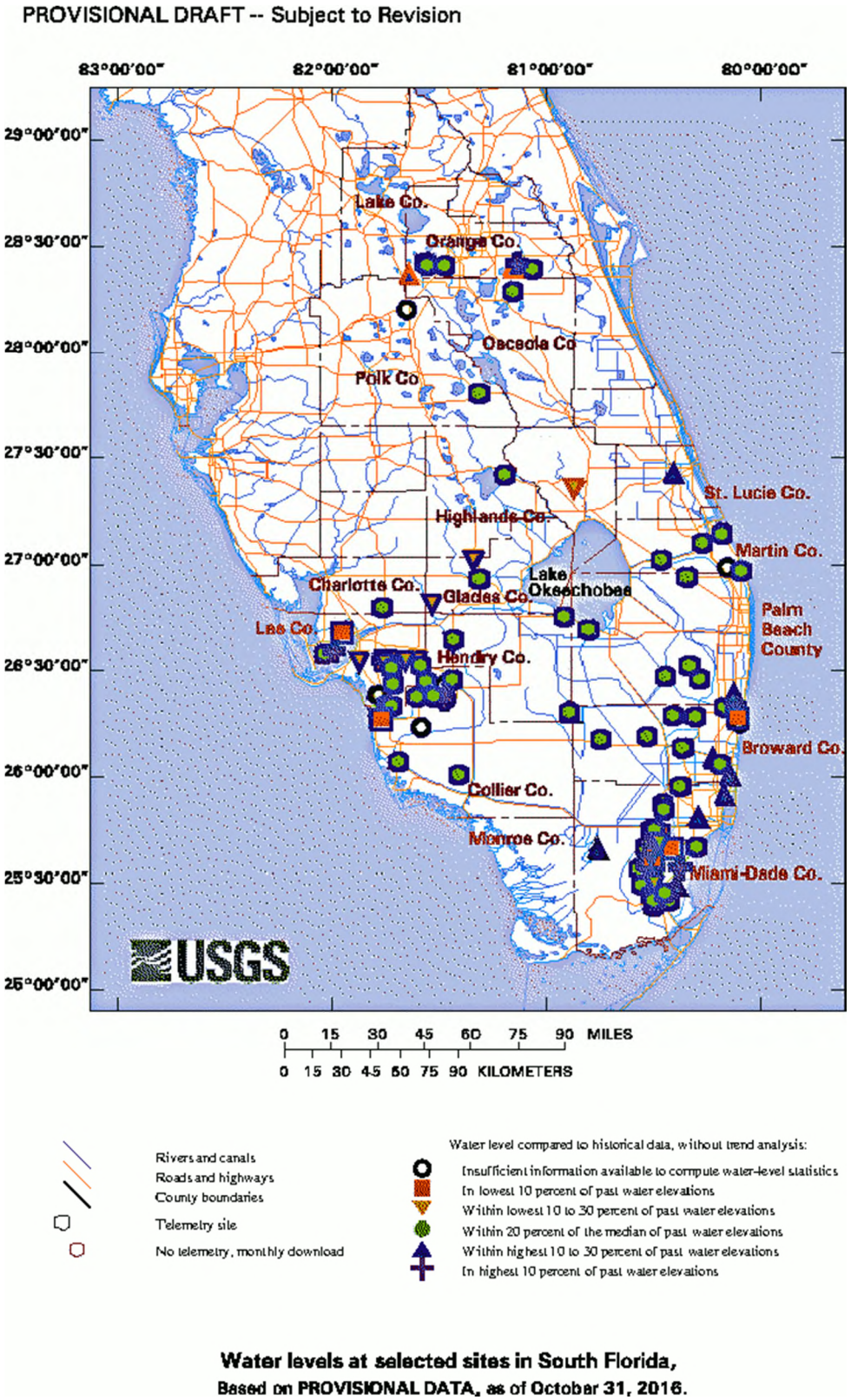

Figure 1. Current Water-level Conditions in South Florida (source: USGS, http://www.sflorida.er.usgs.gov/ddn_data/index_ndt.html)

Water Supply Technical Input to LORS2008

The Palmer Index for Lake Okeechobee (LOK) Tributary Conditions is -0.26, 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 "low." The Climate Prediction Center's (CPC) Precipitation Outlook is projected as "below normal" for one month and "below normal" for three months, leaving the both the one month and three month outlooks in the "moderate" risk category. The LOK Seasonal Net Inflow Forecast is in the "dry" range, with "moderate" risk to water supply. The Multi-Seasonal Net Inflow Forecast is projected as "wet," with "low" 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 all 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 10/31/2016 (ENSO Neutral Condition):

Status for week ending 10/31/2016:
District wide, Raindar rainfall was 0.23 inches for the week. Lake stage on 10/31/2016 was 15.49 ft, down 0.25 ft from last week.
The updated October 2016 SFWMM Dynamic Position Analysis percentile graph for Lake Okeechobee show that the current 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 Sub-Band	L
	Palmer Index for LOK Tributary Conditions	-0.26 (Normal)	L
	CPC Precipitation Outlook	1 month: Below Normal	M
		3 months: Below Normal	M
	LOK Seasonal Net Inflow Outlook	0.43 ft (Dry)	M
	ENSO Neutral Years		
	LOK Multi-Seasonal Net Inflow Outlook	3.38 ft (Wet)	L
	ENSO Neutral Years		
WCAs	WCA 1: Site 1-7, Site 1-8T, & Site 1-9 Average	Above Line 1 (16.88 ft)	L
	WCA 2A: Site 2-17 HW	Above Line1 (13.21 ft)	L
	WCA-3A: 3 Station Average (Site 63, 64 and 65)	Above Line 1 (10.60 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