

Northwest Florida Water Management District

Hydrologic Conditions Update January 2019 – June 2019 July 31, 2019

Executive Summary

Cumulative average rainfall for the last six months was below normal for the District. After experiencing a very wet December (2018), groundwater levels remain above normal for the eastern counties of the District, while western counties are experiencing lower than average groundwater levels. Lower than normal cumulative rainfall over the past six months have resulted in less recharge and lower streamflow in the western counties of the District, while the eastern counties are in the normal streamflow range.

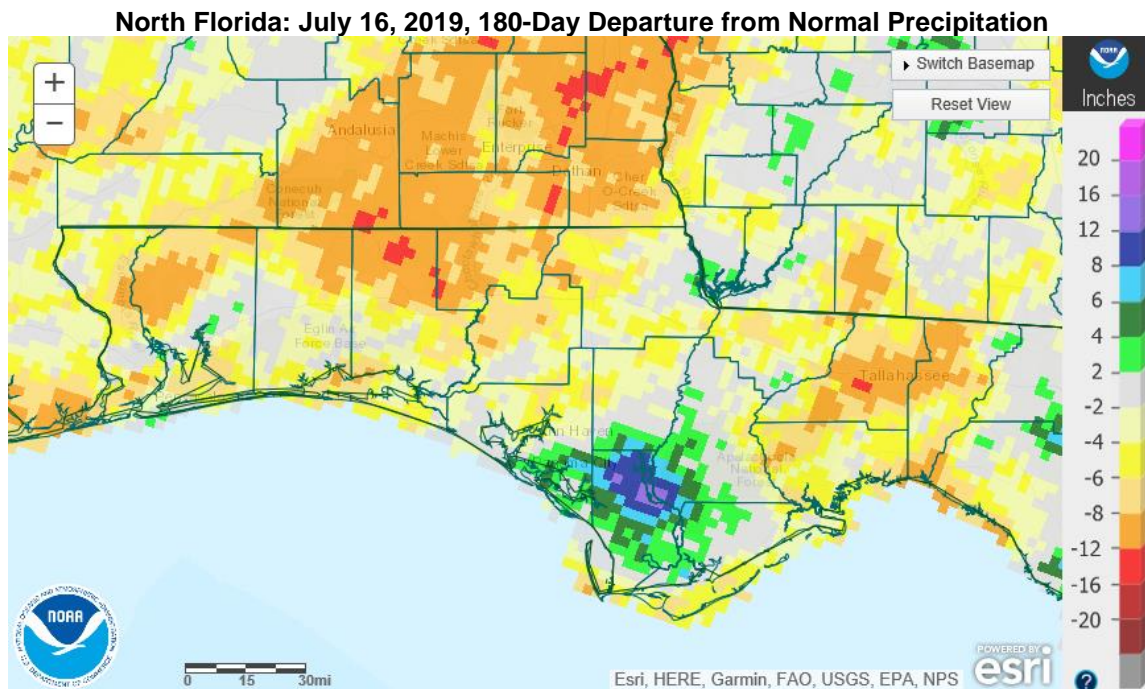
Precipitation Summary

Rainfall totals, compared to current National Weather Service Climate Normals (1981-2010 reference period), from January to June were below normal across the District at 26.37 inches (normal cumulative rainfall for this period is 29.67 inches). Rainfall in January was 28 percent above normal at 6.45 inches. February rainfall totals were 65 percent below normal at 1.72 inches. March rainfall totals were 44 percent below normal at 3.22 inches. Rainfall in April was 43 percent above normal at 5.65 inches. Rainfall in May was 39 percent below normal at 2.28 inches. Rainfall totals in June were 11 percent above normal at 7.06 inches.

Significant Events

Heavy Rainfall – June 06-09, 2019

Heavy rainfall was observed over a few days during June. Areas of the western panhandle received 5-6 inches of rainfall with locally heavier totals, while areas further east only received 2-3 inches. Shoal River and Big Coldwater Creek reached near flood stage.



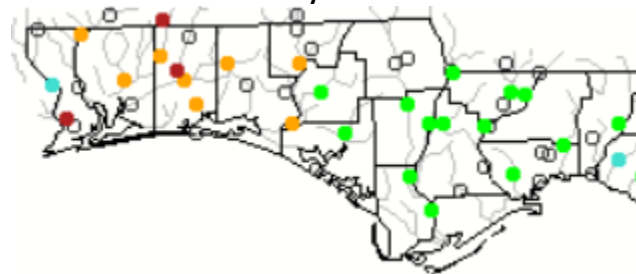
Source: <http://water.weather.gov/precip/>

Surface Water Levels and Streamflow

Most river and streamflow monitoring stations in the western and central Panhandle are in the below normal range (from below the 10th percentile up to the 24th percentile). The Apalachicola River streamflow is within the normal range for all gages (between the 25th and 75th percentiles). Streamflow of Econfina Creek in Washington and Bay counties is near-normal. Lake levels are generally declining and returning to normal pool levels throughout the District as drier conditions persist. Lake Jackson in Leon County remains at higher levels than what is typically seen during this time of the year.

Month of January streamflow compared to historical streamflow for the month of the year (NFWFMD)

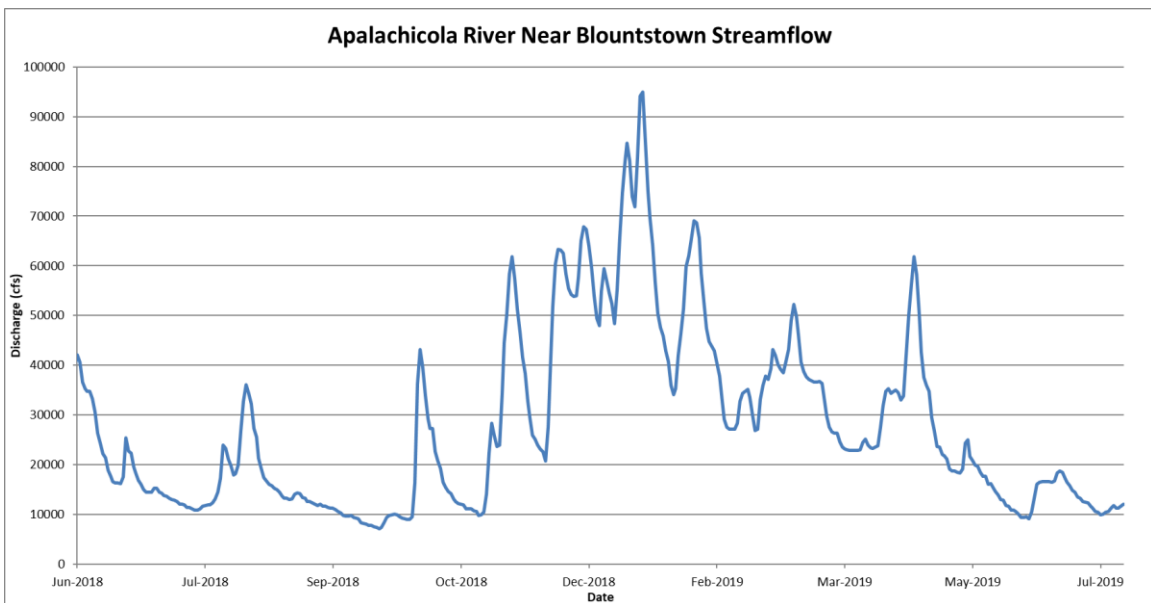
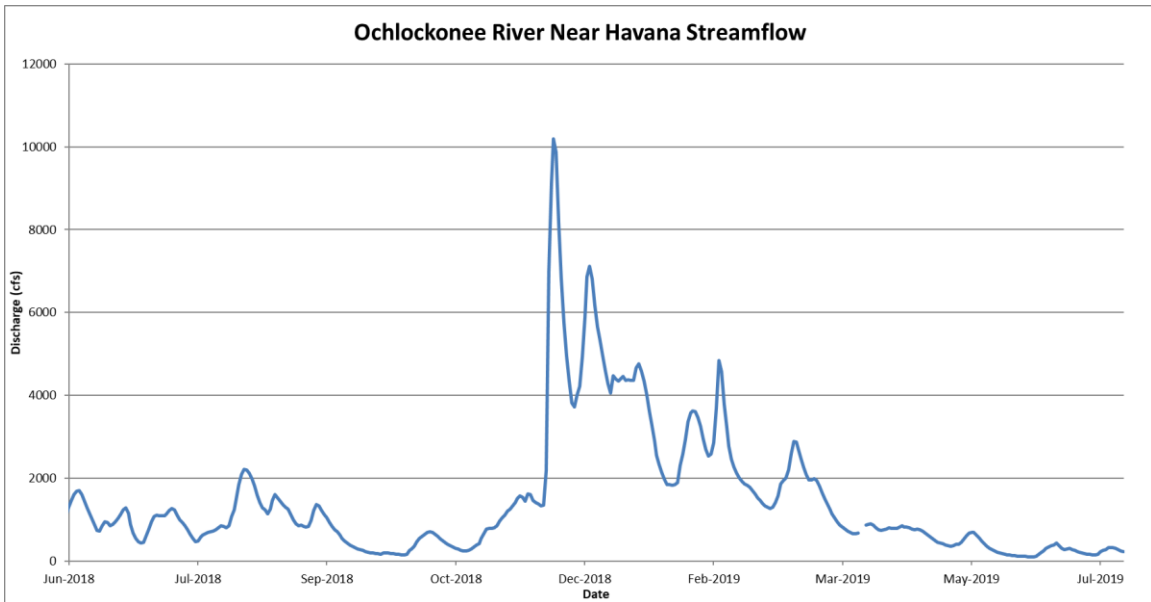
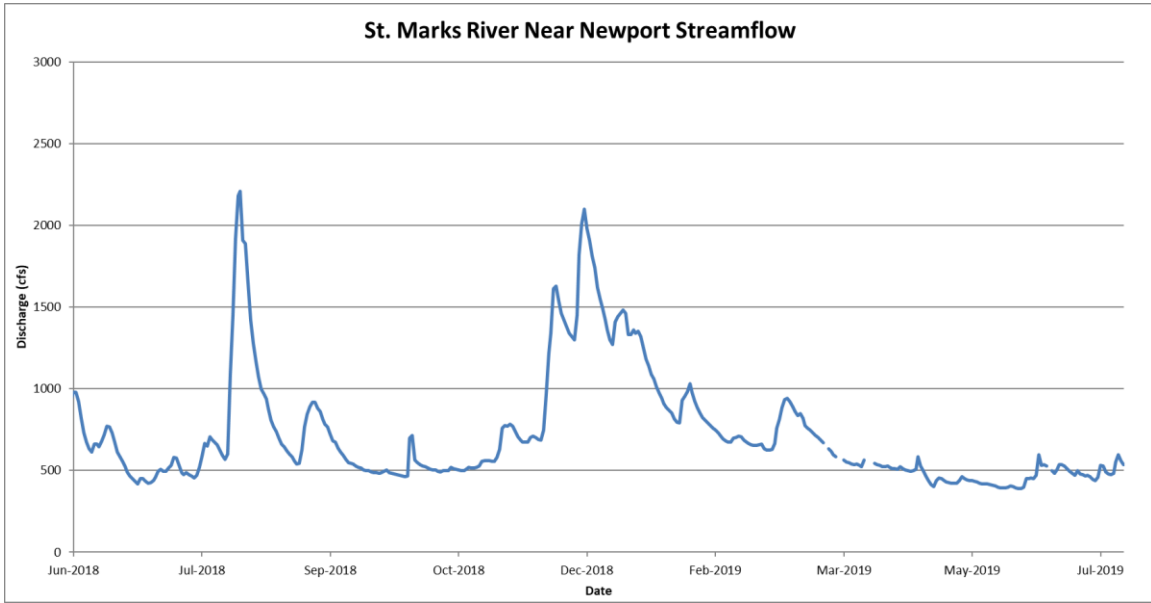
July 2019

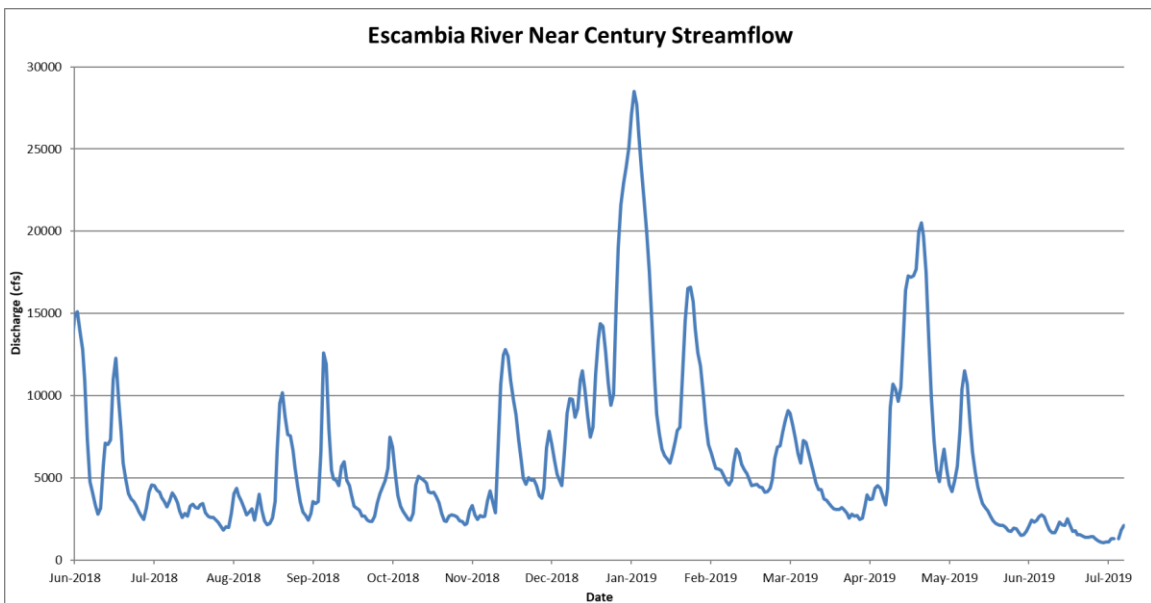
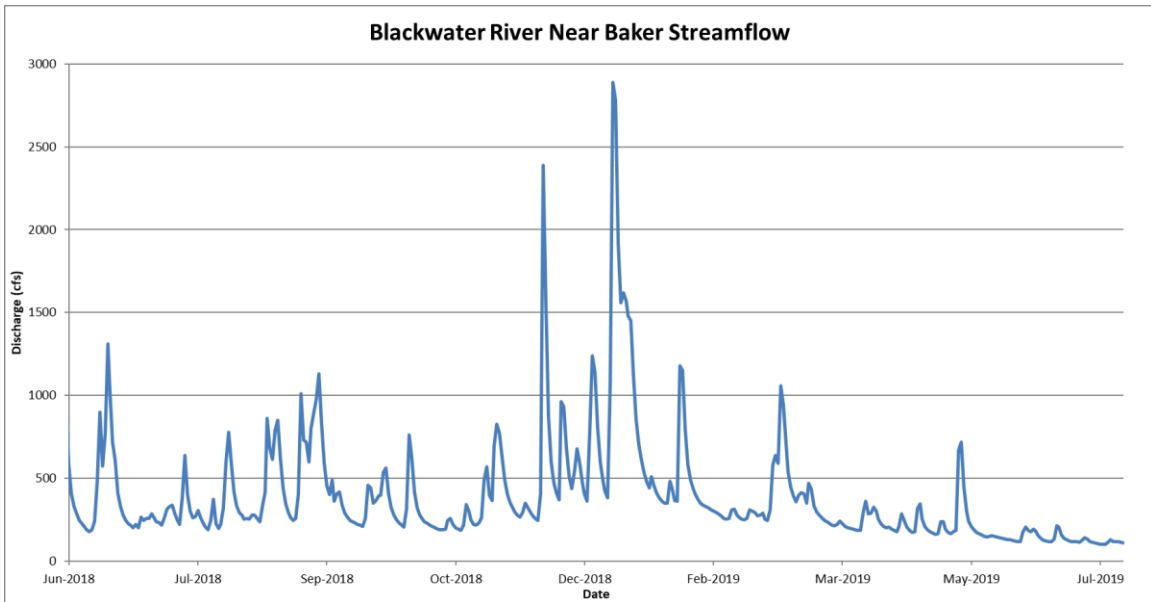
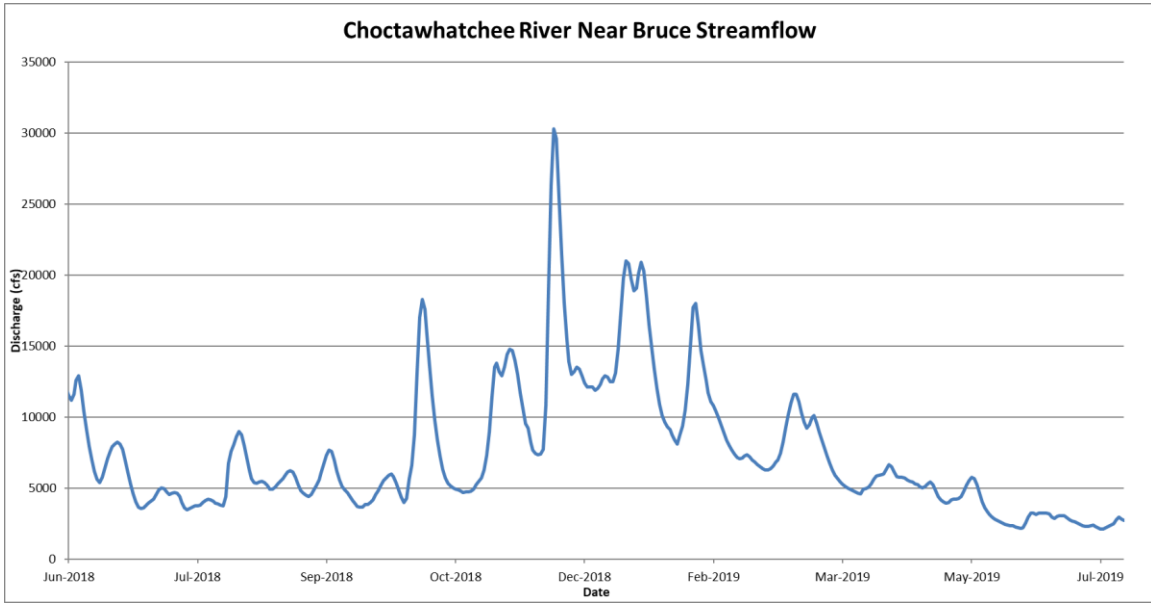


Explanation - Percentile classes							
●	●	●	●	●	●	●	○
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Lake Jackson, Leon County



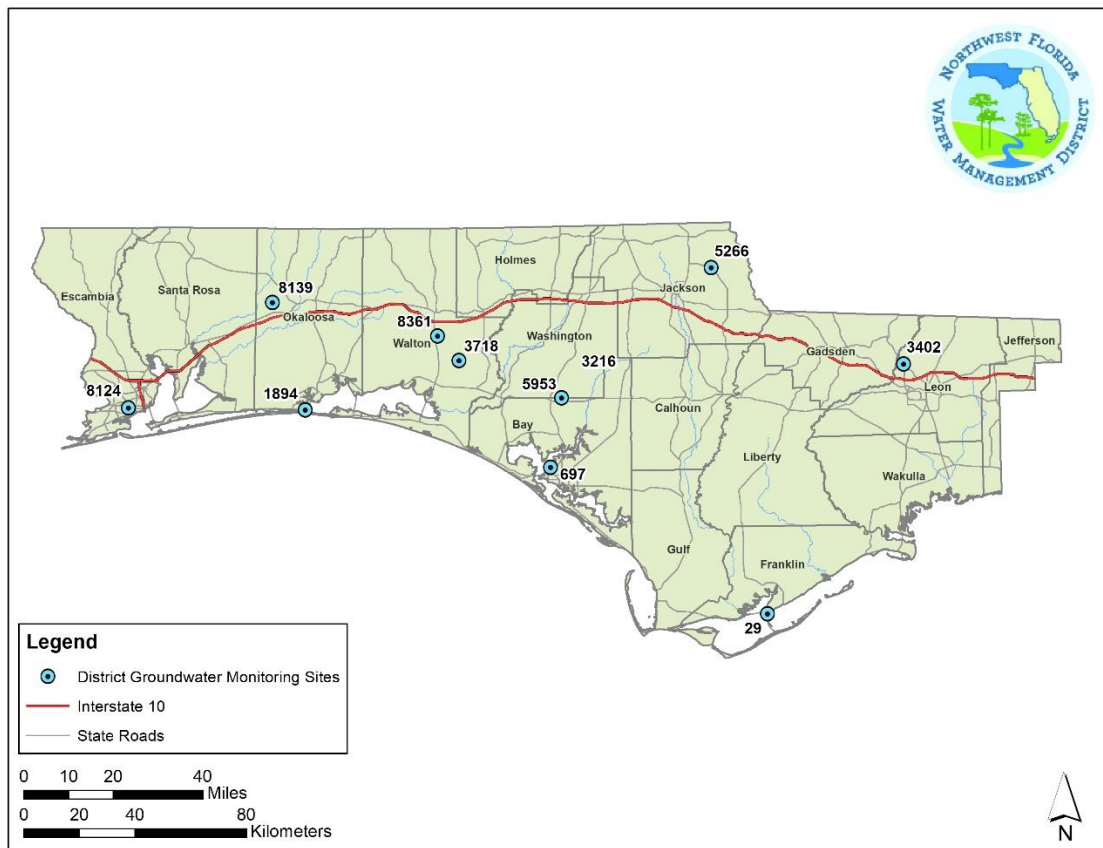


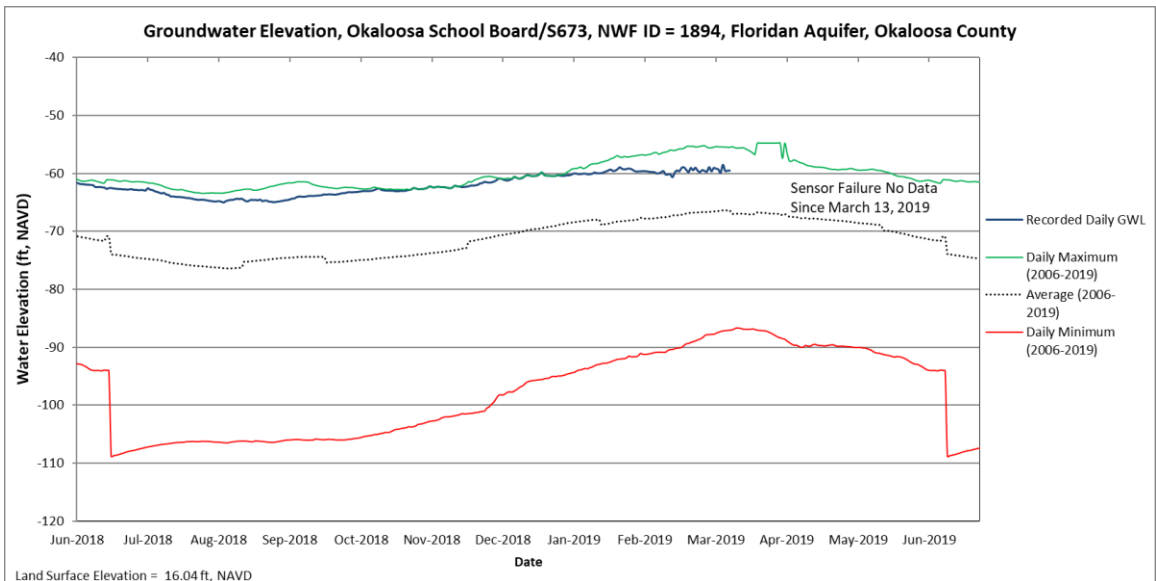
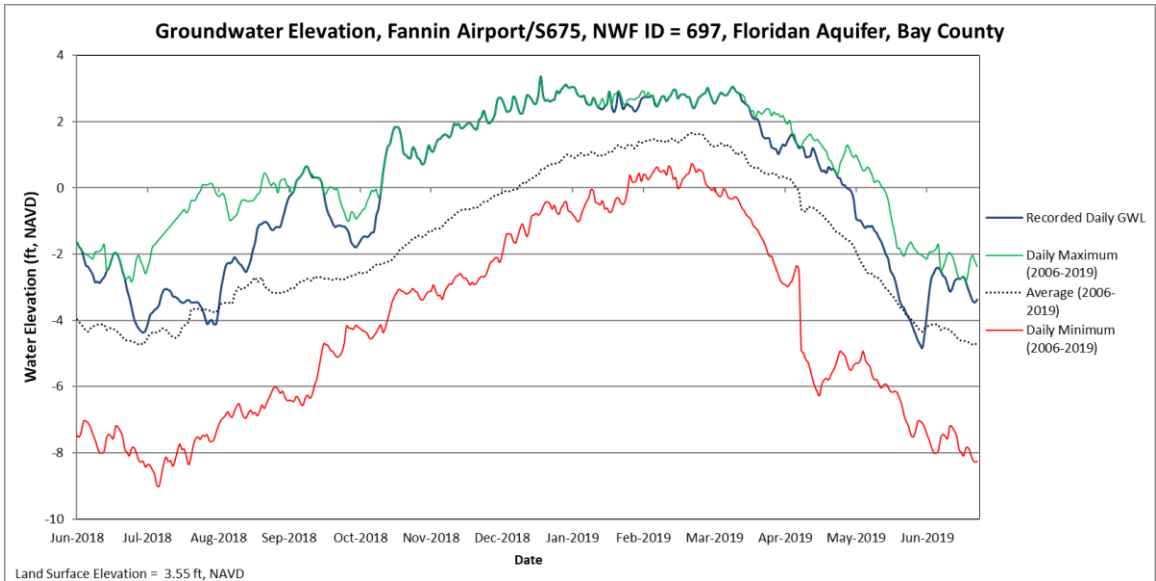
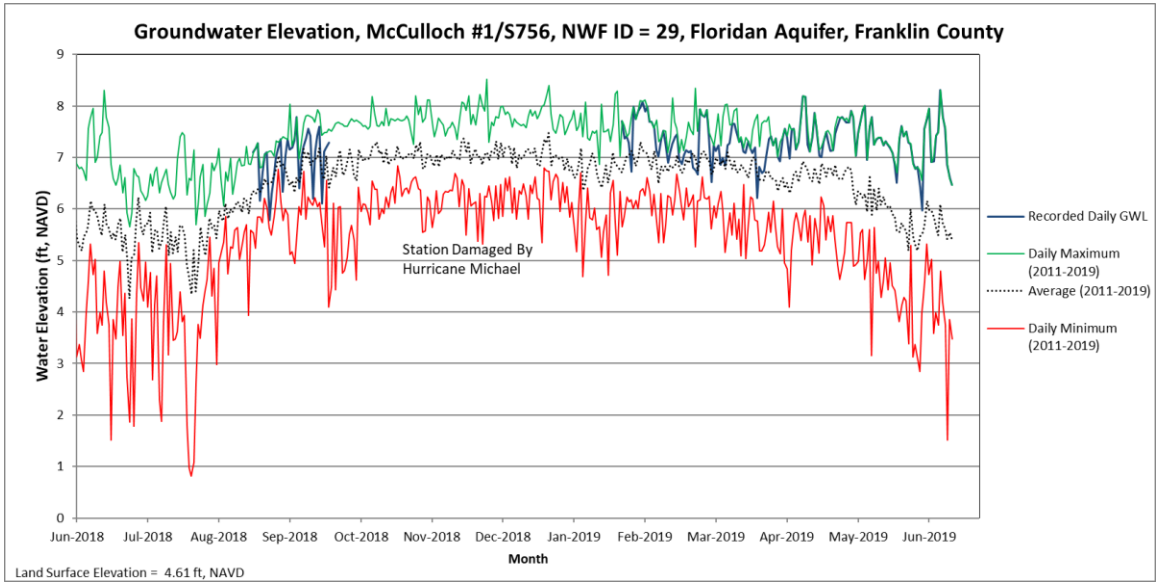


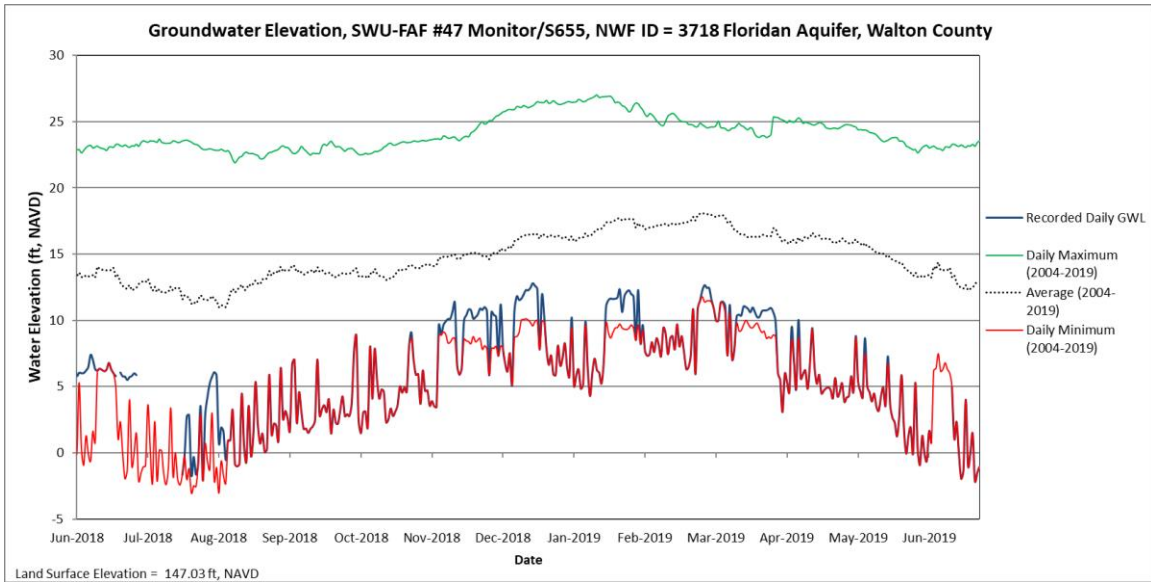
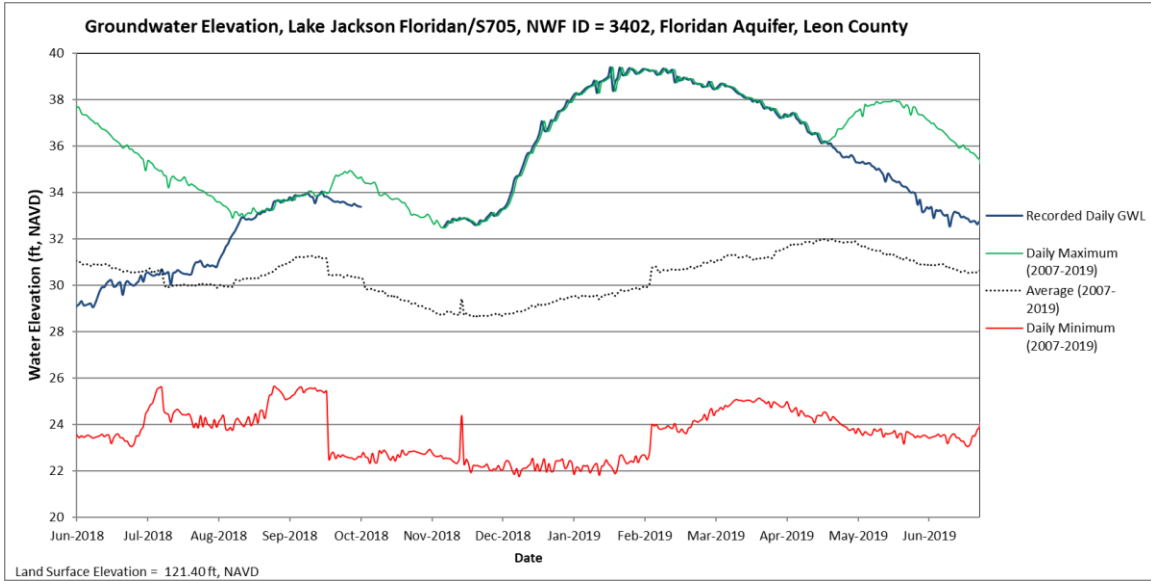
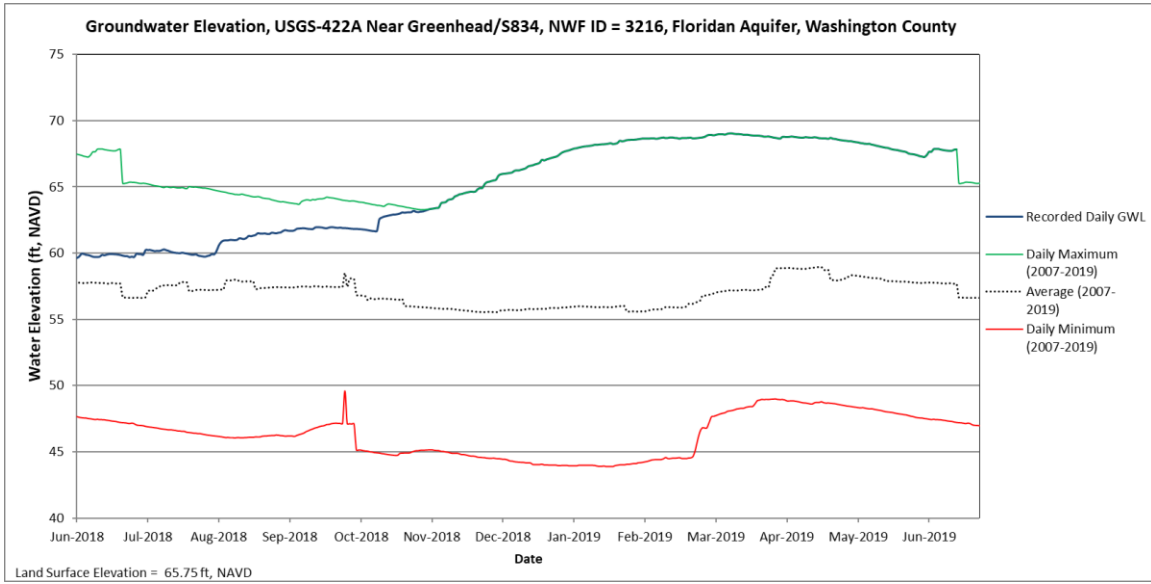
Groundwater Levels

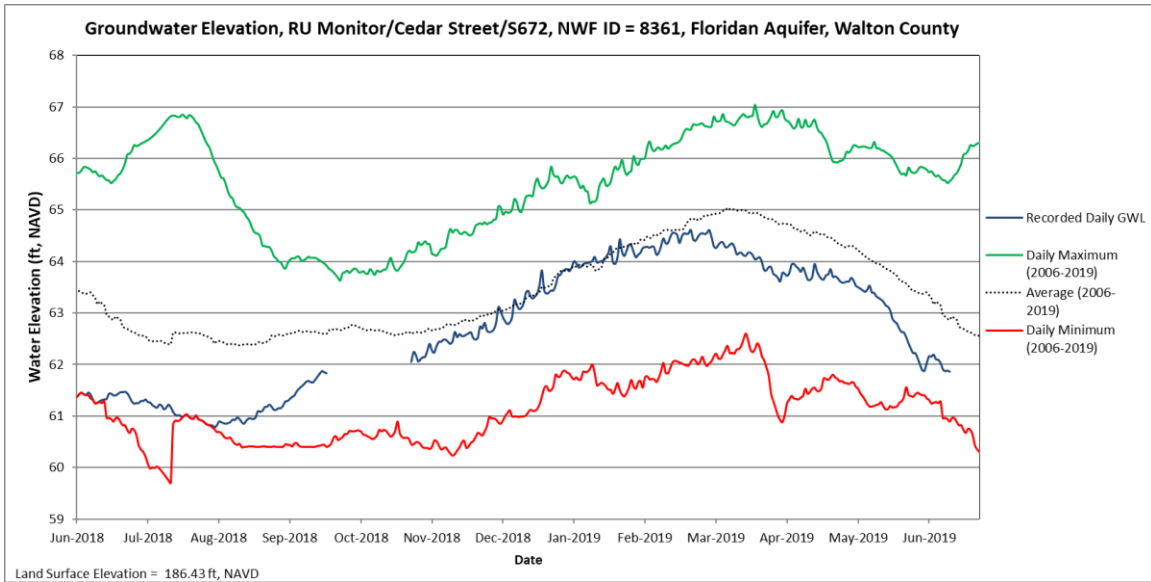
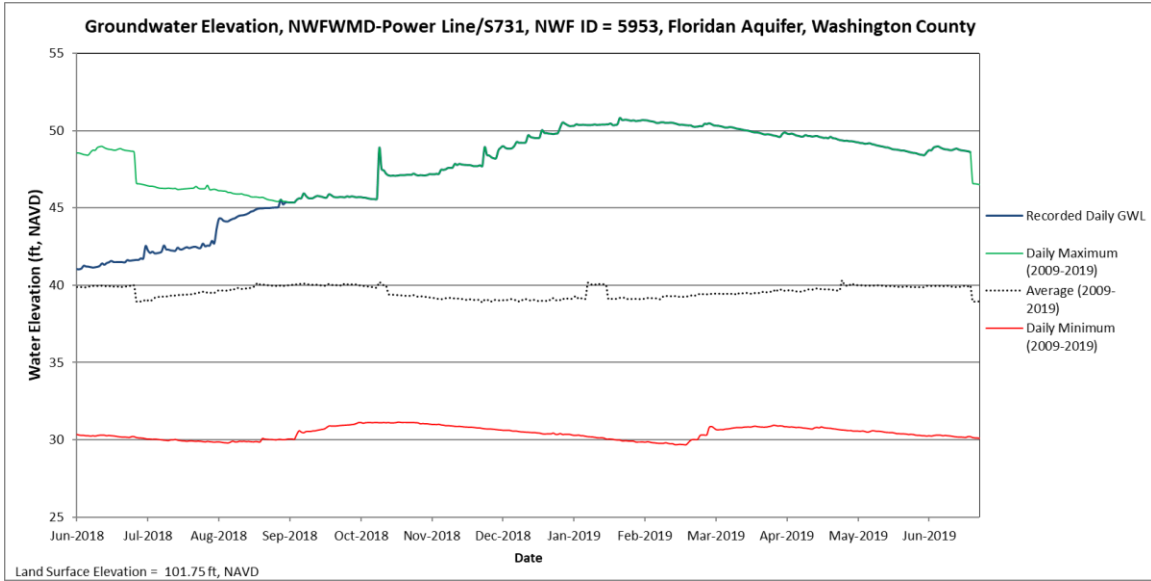
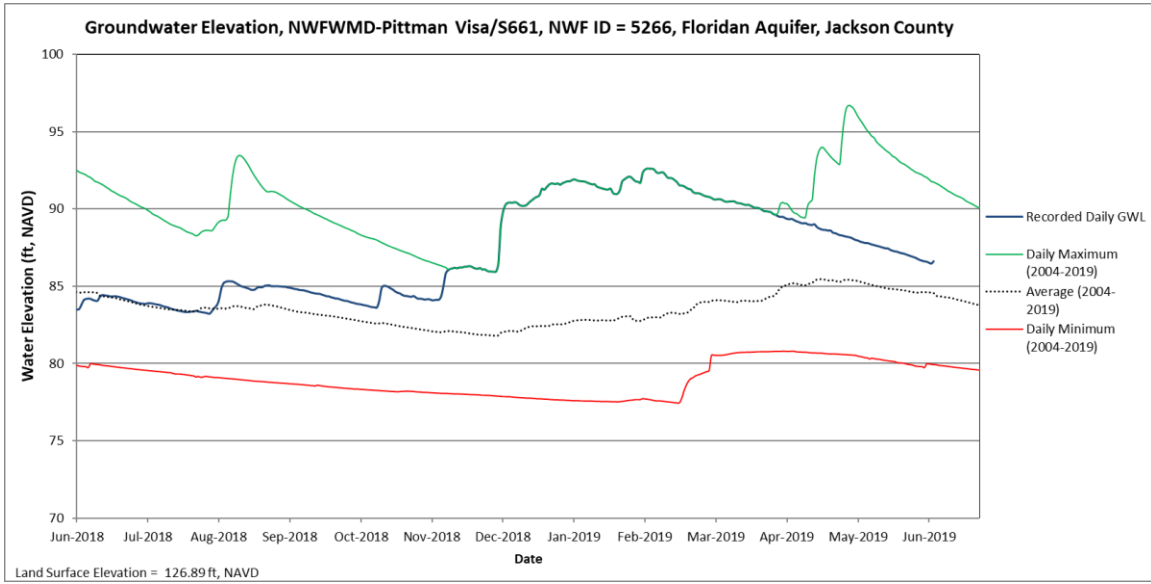
Groundwater levels across the District are generally higher than normal for the eastern counties of the District and areas of Bay and Washington counties. Levels are generally lower for the western counties where the aquifer is unconfined and is highly influenced by rainfall.

Groundwater levels in Washington and Bay counties remain higher than normal even though cumulative rainfall totals throughout the 2019 calendar year have generally been below normal, likely due to a very wet December. Water levels in the Greenhead well, NWF 3216, have consistently been held at the highest levels on record. The Fannin Airport well, NWF 697, also remained very high through most of February and March despite having low rainfall totals for those months. Groundwater levels in Leon County are returning to normal after reaching the highest levels on record for a period of six months. Groundwater levels in the western counties of the District are experiencing below normal levels, with the SWU-FAF #47 well, NWF 3178, at its lowest levels on record. The RU Monitor well in Walton county, NWF 8361, is also below normal and appears to be continuing a declining trend as rainfall deficits accumulate.







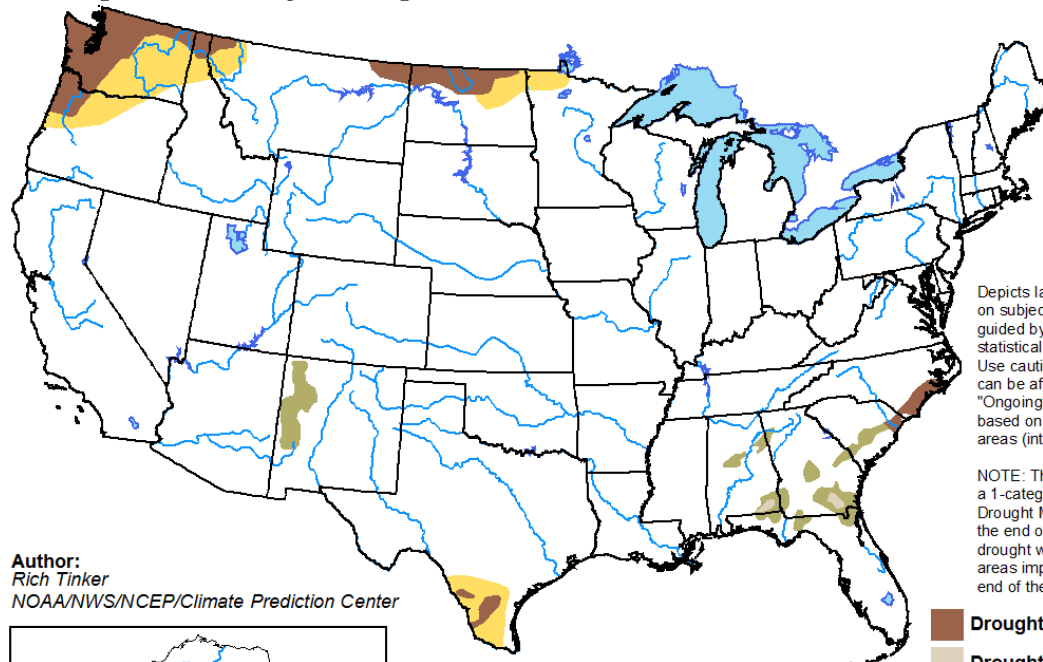


Drought Report

The U.S. Drought Monitor classifies several counties within the District as under abnormally dry to moderate drought conditions with a small area in parts of Holmes and Washington counties under a severe drought. The NOAA seasonal forecast for late June to late September predicts an above normal rainfall pattern for all 16 counties within the District, with a likely chance of drought removal. According to NOAA, the next three months have a probability for near-normal precipitation. Normal rainfall is defined as average monthly rainfall for the 1981-2010 period of reference.

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

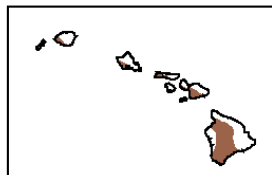
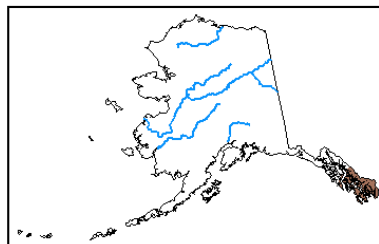
Valid for June 20 - September 30, 2019
Released June 20







Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

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NOAA/NWS/NCEP/Climate Prediction Center



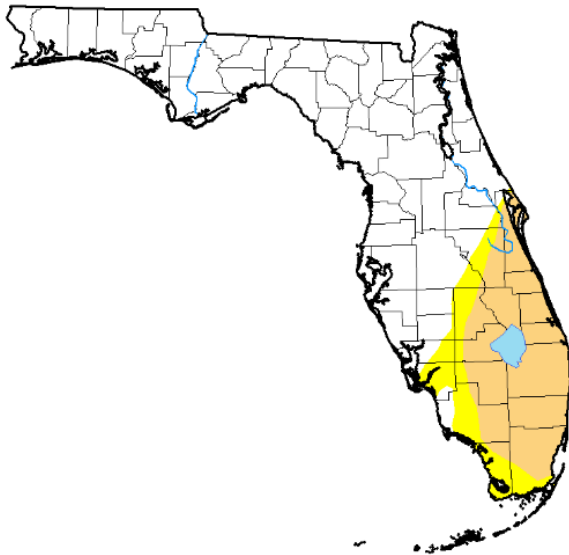
-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



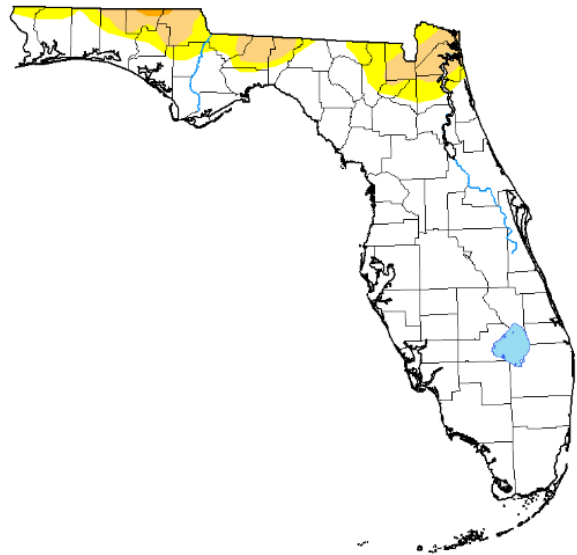
<http://go.usa.gov/3eZ73>

U.S. Drought Monitor

Florida



January 1, 2019



July 2, 2019

Drought Classification

None
 D0 (Abnormally Dry)
 D1 (Moderate Drought)
 D2 (Severe Drought)
 D3 (Extreme Drought)
 D4 (Exceptional Drought)

Statistics Comparison

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
2019-01-01	68.86	31.14	22.51	0.00	0.00	0.00	54
2019-07-02	84.45	15.55	7.16	0.22	0.00	0.00	23
Change	15.59	-15.59	-15.35	0.22	0.00	0.00	-31

<http://droughtmonitor.unl.edu/Maps/CompareTwoWeeks.aspx>