25 March 2003
Drought and Reservoir Status—Wilmington District

1. **Purpose of this report**: This is a status report on drought and reservoir conditions in the Wilmington District, U.S. Army Corps of Engineers. Specifically, this report will present past and current watershed rainfall and reservoir inflows and discuss future climate forecast. Individual discussions of the five Corps projects can be found just below the link to this web page. (The project reports were split up due to the size of the report to accommodate different interests.) The Corps projects are: John H. Kerr Dam and Reservoir project located on the Roanoke River, North Carolina and Virginia; Philpott Lake project located on the Smith River in the Roanoke River Basin, Virginia; B. Everett Jordan Dam and Lake project located on the Haw River in the Cape Fear River Basin, North Carolina; W. Kerr Scott Dam and Reservoir project located on the Yadkin River in the Yadkin-Pee Dee River Basin, North Carolina; and Falls Lake project located on the Neuse River in the Neuse River Basin, North Carolina. In general, all of the district project areas remain in drought status – although many lake and stream levels are near average, groundwater tables are depleted and cumulative rainfall deficits for District Watersheds range from –8 inches (Falls Lake) to –64 inches (Philpott Lake). A summary table for these projects is provided below.

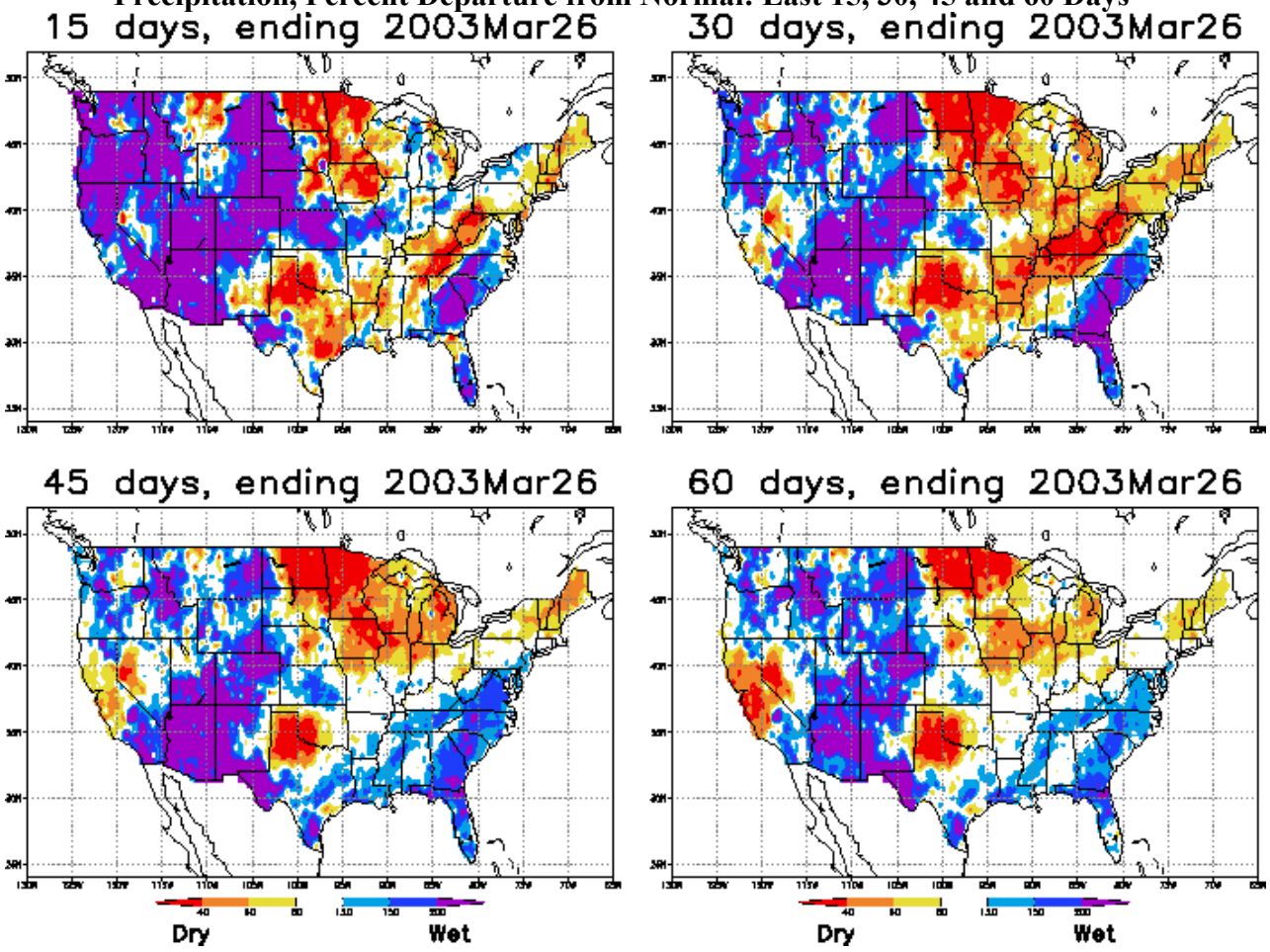
Table One—Wilmington District Reservoir Project Status

Reservoir	Current Level (feet-msl)	Guide Curve Level (feet-msl)	Trend or Status
John H. Kerr	312.69	300.29	Kerr Reservoir is **12.4 feet *ABOVE*** guide curve.
Philpott	974.51	973.37	Philpott Lake is **1.1 feet *ABOVE*** guide curve.
B. Everett Jordan	223.99	216.00	Jordan Lake is **8.0 feet *ABOVE*** guide curve.
Falls Lake	258.45	251.50	Falls Lake is **7.0 feet *ABOVE*** guide curve.
W. Kerr Scott	1030.38	1030.00	Scott Lake is **0.4 foot *ABOVE*** guide curve.

2. **Observed Rainfall Status**: The following plots show the percent departure from normal rainfall over the last 15, 30, 45 and 60-day periods. Precipitation across the District during February and March has brought the total amount of rainfall over the last 15, 30, 45 and 60-day periods to above normal status. The District has experienced rainfall on a much more regular basis in March, some in significant amounts. This is a move in the right direction towards the long road to replenishing groundwater tables and bring the District out of longterm drought conditions.

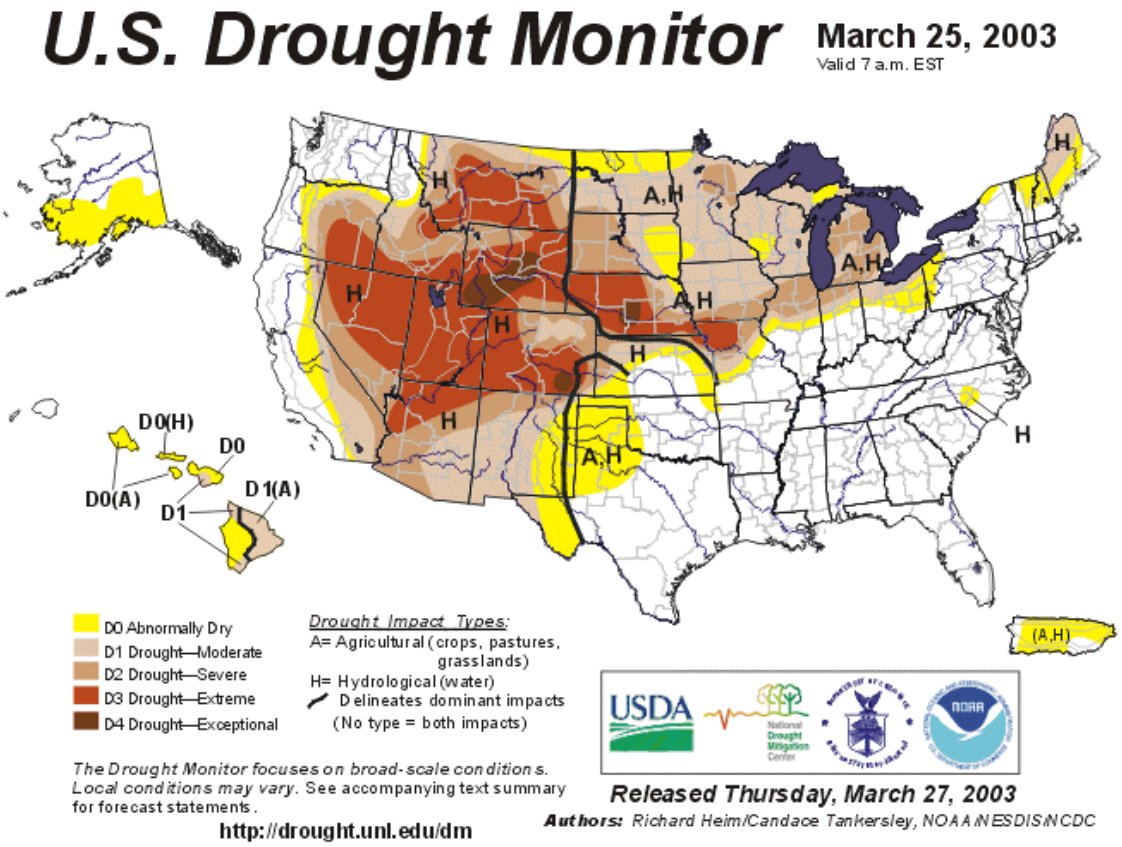
Inflow and rainfall information presented in project reports for John H. Kerr and Philpott reservoirs will demonstrate that an extended time of above average rainfall over several months is needed to reverse the drought conditions, replenish the water tables, and restore the stream flow and reservoir levels for extended periods.

Precipitation, Percent Departure from Normal: Last 15, 30, 45 and 60 Days

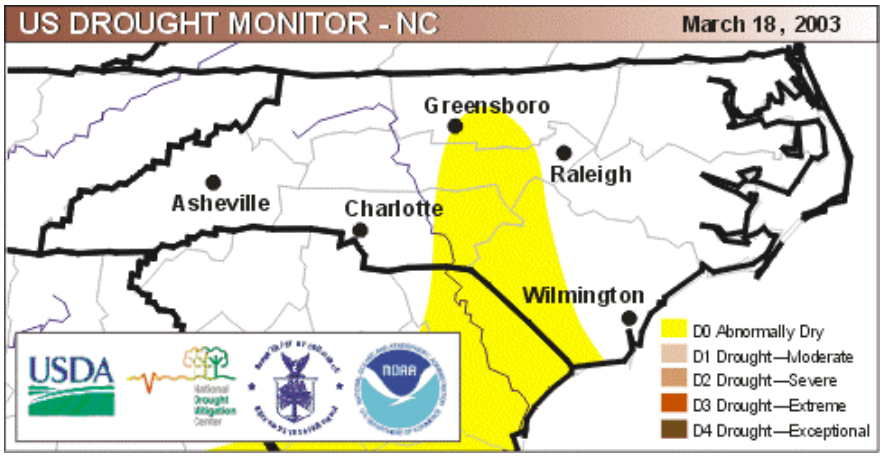


http://www.cdc.noaa.gov/Drought/

3. **Drought Monitor:** The Drought Monitor severity index is illustrated below and shows stablized short-term drought conditions over the Wilmington District. It is important to note that long-term drought conditions, including depleted groundwater tables, continue. (The Drought Index was last updated 25 March and released 27 March 2003.)



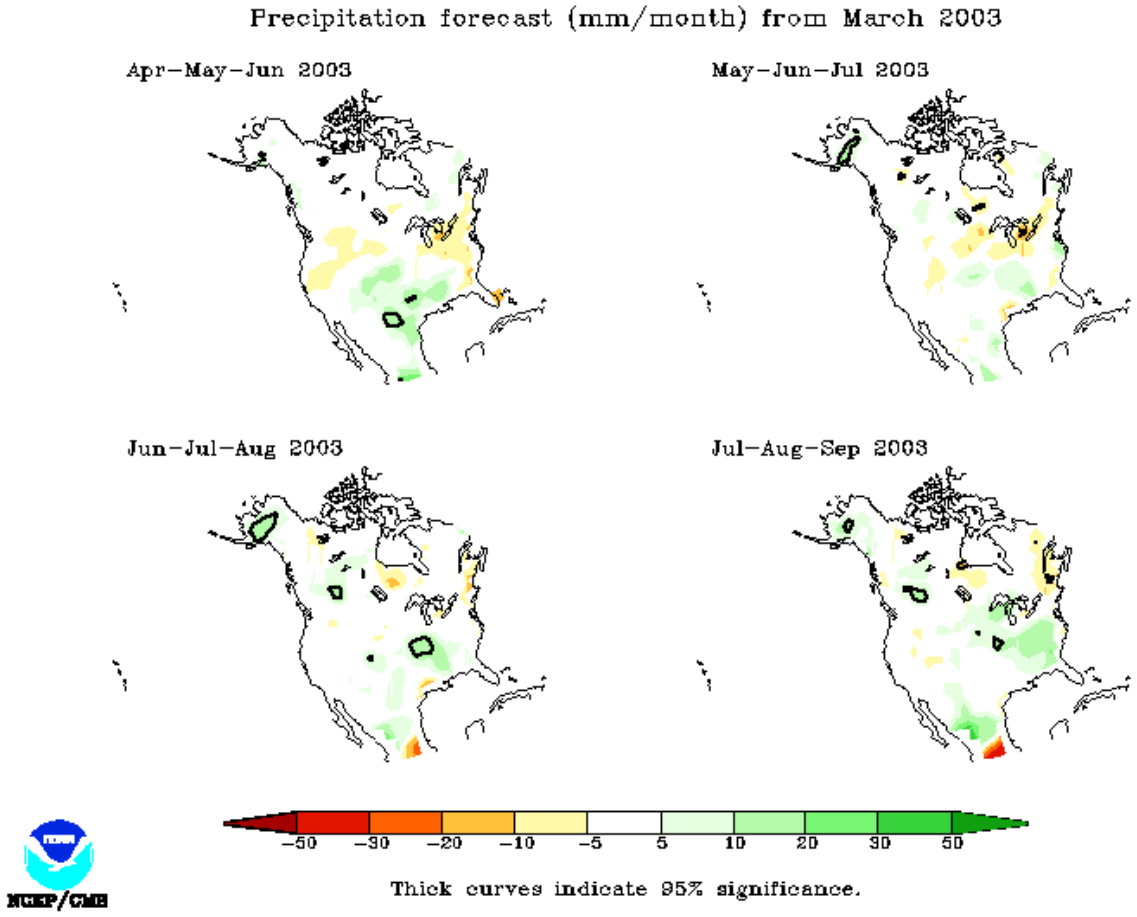
http://www.drought.unl.edu/dm/monitor.html



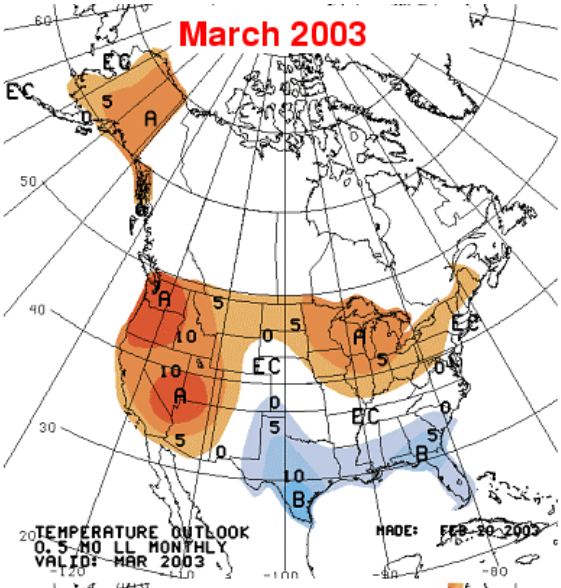
http://www.ncwater.org/Water_Supply_Planning/Drought_Monitoring_Council/

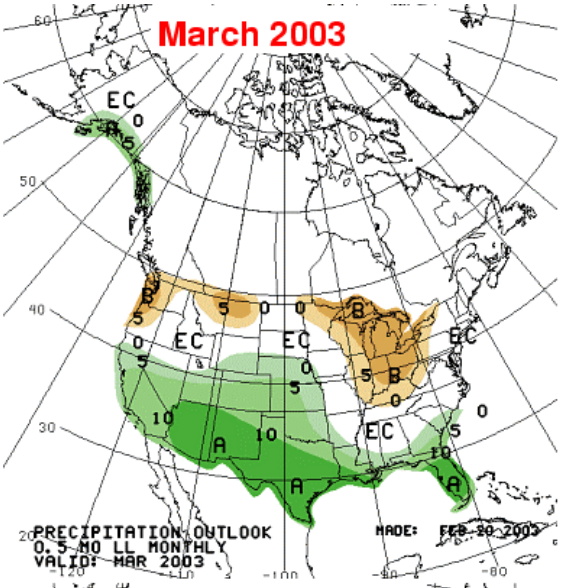
4. **General Forecast of Precipitation:** The latest long term rainfall forecasts from the Climate Modeling Branch and the Climate Prediction Center of the National Oceanic and Atmospheric Administration (NOAA) are shown below. The Climate Modeling Branch's forecast, issued March 2003, depicts below normal rainfall for District watersheds through May. It then depicts a near normal rainfall amounts through summer. (Colors in the forecast are for the three-month period shown above each of the four panels and shows the expected deviation from normal rainfall in millimeters per month.)

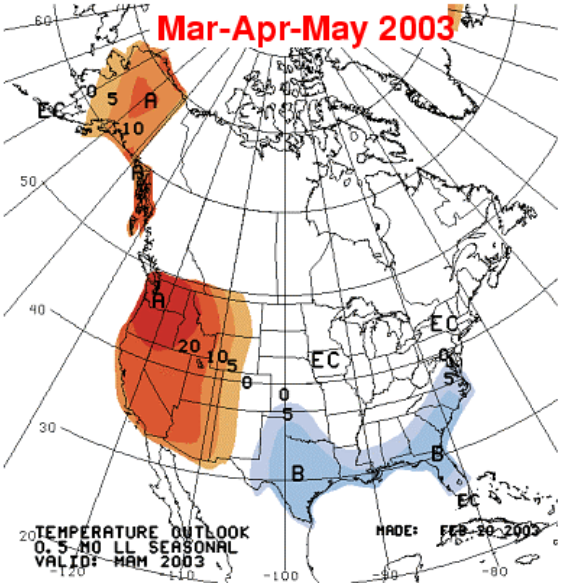
The Climate Prediction Center forecast, on the following page, shows anticipated temperature and rainfall for the next three months. It shows that slightly drier and warmer conditions are expected to occur in March. Below normal temperatures are expected to occur through May. It also shows equal chances of below normal and above normal precipitation expected for North Carolina and Virginia through May. These official forecasts are used to estimate future inflows and projected lake levels within each project report.

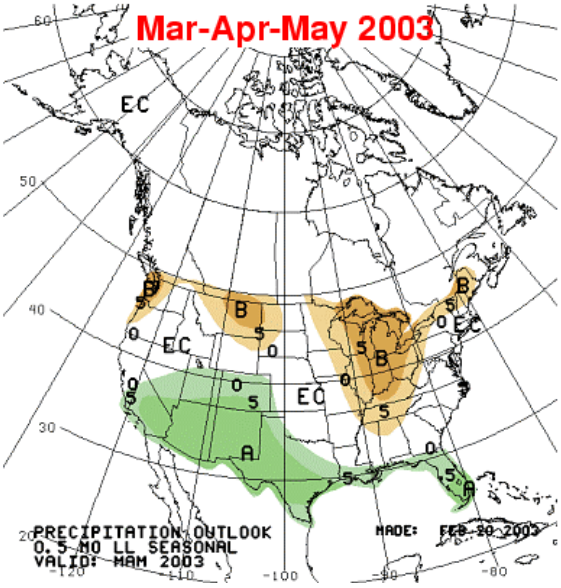


http://www.emc.ncep.noaa.gov/research/cmb/atm_forecast/images/xprecip_us_current.gif









http://www.cpc.ncep.noaa.gov/products/predictions/multi_season/13_seasonal_outlooks/color/page2.gif

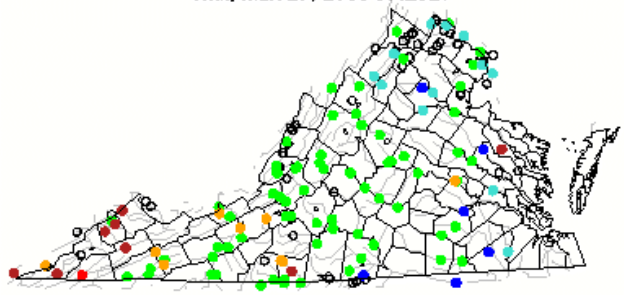
5. **River and Stream Flow Conditions**: The points on the maps shown below are the locations of stream gages maintained by the U.S. Geological Survey. The meaning of the individual points is shown in the legends located below. The left column of graphics shows current streamflow conditions. The right column of graphics depicts the average streamflow conditions for the past seven days.

A significant amount of precipitation fell across the District last week. Most streamflows were well above normal, with some reaching record high and flood damage stages. The figures showing current streamflows demonstrate how quickly flows can return to normal. Streamflows in the upper portions of District watersheds are near average. Streamflows in the lower watersheds are still showing effects of the rainfall. The majority of the gages in the District are reporting above normal streamflows on average over the 7 days ending March 25, 2003.

A table of rainfall and reservoir inflows to Wilmington District reservoirs since June 1998 is included in the project reports for Kerr and Philpott.

Current streamflows

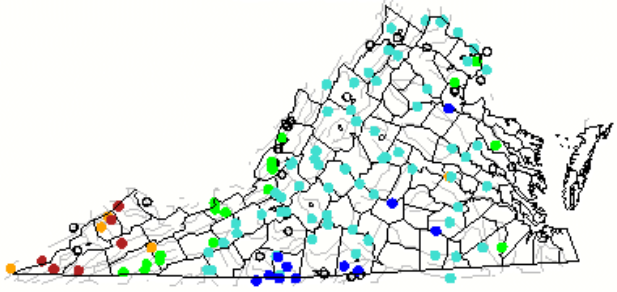
Thu., Mar. 27, 2003 07:20ET



USGS

7-day average ending March 25, 2003

Tue., Mar. 25, 2003



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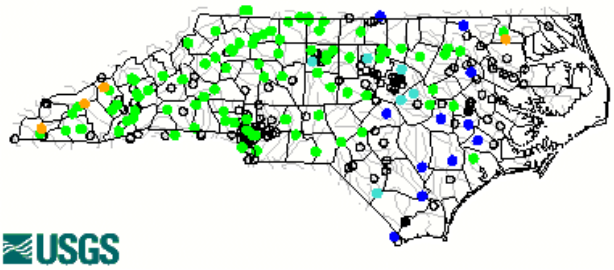
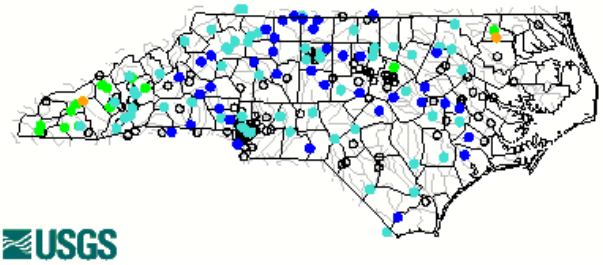


USGS

Tue., Mar. 25, 2003



USGS

Explanation	
	New record high
	≥ 90th percentile
	75th - 89th percentile
	25th - 74th percentile
	10th - 24th percentile
	< 10th percentile
	New record low

http://water.usgs.gov/waterwatch/