

Drought Update

April 21, 2006



National Conditions-February



National Conditions-March



http://drought.unl.edu/dm

Author: C. Tankersley/L. Love-Brotak, NOAA/NESDIS/NCDC

National Conditions April



http://drought.unl.edu/dm

Author: Rich Tinker, CPC/NCEP/NWS/NOAA

7-day average streamflow compared to historical streamflow for the day of the year



USGS: id-Atlan

"Mid-Atlantic and Northeast US Rivers running at record lows"

New low

Extreme Hydrologic Drought <u><</u> 5

Severe

Hydrologic

Drought

Moderate Hydrologic Drought

6 - 9

10 - 24

Below Normal Insufficient data for a hydrologic region

Jan, Feb, March 2006 Rain Index



NC Drought Management Advisory Council

•Update issued on March 28, 2006

•Catawba Basin Classified as D1-"Moderate Drought"

Drought Classifications

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought



D1 Moderate Drought Actions

- The NCDMAC advises all water users in the counties that are indicated on the US Drought Monitor Map as suffering from Moderate Drought (D1) conditions to enact the following precautions until further notice:
- Adhere to local water use restrictions.
- Participate, as appropriate, in regional and local coordination for the management of water resources.
- Stay informed on drought conditions and advisories (<u>www.ncdrought.org</u>).
- Project water needs and available water supply for a ninety day period from the issuance of this advisory.
- Assess your vulnerability to the drought conditions and adjust water usage to prolong available supply.
- Inspect water delivery system components (e.g. irrigation lines, fixtures, processing equipment, water system lines, etc.), repair leaks and ensure that existing equipment is operating as efficiently as possible.
- Minimize nonessential uses of water.
- Implement available public awareness and educational outreach programs emphasizing the need to conserve water.

SC Drought Response Committee

- Convened by SC DNR under the SC Drought Response Act
- Meeting Thursday April 27, 2006
- Orought Stages
 - Incipient
 - Moderate
 - Severe
- SC DRC could place SC under an "Incipient Drought Alert" next Friday
 - Depends on rainfall in the next 6 days
 - Incipient drought alert phase, Palmer Drought Index of -0.50 to -1.49; Crop Moisture Index of 0.00 to -1.49; Standard Precipitation Index of 0.00 to -0.99; Keetch Byram Drought Index of 300 to 399; U.S. Drought Monitor of D0; Average daily streamflow is 111%-120% of the minimum flow for two consecutive weeks; Static water level in an aquifer is between 11 feet and 20 feet above trigger level for two consecutive months;

Catawba-Wateree Project Low Inflow Protocol Update

Provided by Duke Energy April 13, 2006

If the U.S. Drought Monitor has a reading of D0-D4 as of the last day of the previous month for any part of the Catawba-Wateree River Basin that drains to Lake Wateree, the Basin will be assigned a numeric value for the current month. The numeric value will equal the highest Drought Monitor designation (e.g., D0 = 0, D4 = 4) as of the last day of the previous month that existed for any part of the Catawba-Wateree River Basin that drains to Lake Wateree. A normal condition in the Basin, defined as the absence of a Drought designation, would be assigned a numeric value of negative one (-1). A running average numeric value of the current month and the previous two months will be monitored and designated as the U.S. Drought Monitor Three-Month Numeric Average.

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U.S. Drought Monitor Three-Month Numeric Average

January DM Reading- -1 February DM Reading- +1 March DM Reading- +1 US Drought Monitor = +.333

This trigger supports a Stage 0, Low Inflow Watch

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Monitored USGS Streamflow Gages:

Ratio (Sep through Feb) =	95.6%
Ratio (Oct through Mar) =	85.4%
Ratio through April 10 =	77.3%

This ratio would support a Stage 1 Condition.

Lake Norman-2005 vs 2006

Lake Norman Water Level



Conclusion: The Catawba is in Drought Watch Mode

- Get updated drought conditions and advisories from the NC DMAC and SC DRC
- Prepare to Implement Regional Cooperation Protocols if conditions get worse
- Make drought response plans
 - Water Conservation Education Initiatives
 - Minimize Water Use
 - Conserve Available Water Supply
 - Summer = high water use, get prepared
- Hope for an increase in rain!