

Catawba-Wateree Drought Management  
Advisory Group Meeting Summary  
November 2, 2006  
Charlotte-Mecklenburg Utilities  
Lee S. Dukes Water Treatment Plant

The Catawba-Wateree Drought Management Advisory Group (CW-DMAG) met on Thursday, November 2, 2006 under voluntary status for all members. The following are a list of the attendees:

George Galleher (Duke Energy)	Ed Bruce (Duke Energy)
Don Rayno (NCDWR)	Jeff Lineberger (Duke Energy)
Bill Stroud (Duke Energy)	Steve Gilbert (Lincoln County, NC)
Kevin Greer (City of Hickory, NC)	Mike Boyd (City of Charlotte, NC)
Kevin Mosteller (HDR Engineering)	Maeneen Klein (CMU)
Mark Townsend (City of Lenoir, NC)	Barry Gullet (CMU)
Hope Mizzell (SCDNR)	Don Danford (City of Morganton, NC)
Nick Stegall (City of Rock Hill, SC)	Melinda Chapman (USGS)
Ed Cross (City of Gastonia, NC)	Mike Bailes (Catawba River WTP)
Tom Couch (City of Camden, SC)	Curtis Weaver (USGS)
James Friday (City of Mount Holly, NC)	Barry Webb (City of Belmont, NC)
Mike Hancock (Lugoff-Elgin Water Authority)	Nat Wilson (NCDWR)
Mark Knight (Lancaster County Water and Sewer District)	

The following is a summary of the topics discussed and action items identified in the meeting:

I. Current Drought Update

Ed Bruce provided an update on the current LIP triggers of storage, inflow and the US Drought Monitor as of October 31, 2006. The Storage Index (SI) on October 31, 2006 was 71.5%, which is 103.64% of the Target Storage Index (TSI) for this time of year. This would support Normal conditions. The Streamflow Indicator (six-month average versus historical six-month average) was at 86.9%, which would support Normal conditions. The US Drought Monitor (three-month average) is -0.67, which supports Normal conditions. The three groundwater wells that exist in the basin still show groundwater levels at either a Stage 0 or Stage 1 for recovery purposes. Therefore, because the groundwater monitors have not fully recovered, Duke recommends that we stay in voluntary Stage 1 until the groundwater wells further recover.

II. Regional Drought Monitor Development and Implementation Discussion

Hope Mizzell, SC State Climatologist within SCDNR provided the CW-DMAG with an update on the development and potential implementation of a regional drought monitor for the C-W Basin. The regional drought monitoring tool can be assessed at

<http://drought.dnr.sc.gov> . The US Drought Monitor has several pros and cons associated with its use. The advantages are its interpretation is perceived as being simple, it's popular and it's updated weekly. Some of the disadvantages are that it can't regenerate historical values, it depicts broad areas of dryness and it has only been in existence since 1999. As a follow-up to the June, 2006 update, Hope has reviewed several proposed indices included in the regional drought monitor and compared their historical readings to historical storage and streamflow data. In addition, the regional technical sub-committee (see below) had a conference call with one of the U.S. Drought Monitor authors. After researching the various indices and discussing with the US Drought Monitor author, Hope recommended that the Standardized Precipitation Index (SPI) be studied further as a possible replacement indicator. Another issue that will be studied further is whether to weight the upper basin SPI higher since the upper basin precipitation may have a higher influence on storage than the lower basin.

As an action item, it was agreed that at least another year of study of the regional drought monitor SPI was needed before possible replacement of the US Drought Monitor could take place. As a reminder, the following working technical sub-committee was appointed to assist in the additional study:

- Tom Fransen (NCDWR)
- Don Rayno (NCDWR)
- Maeneen Klein (CMU)
- USGS Representative (TBD)
- Ed Bruce (Duke)
- Hope Mizzell (SCDNR)

### III. Current Water Use Trends and Future Data Reporting Discussion

CW-DMAG member organizations are required to report annual water use to Duke such that Duke can maintain the current level of water use per reservoir. The annual data can also be used as a comparison point to water use in future years. Hope Mizzell presented some options for classifying each year from a climatology standpoint based on each year being designated as a wet/normal/dry year and a cool/normal/hot year. The categories would be based on historical data from the regional drought monitor tool for the months of April through October. Hope will provide Charlotte-Mecklenburg Utilities (CMU) with this data such that CMU can determine recent historical water use levels in relation to what type of climate year it was.

### IV. Groundwater Monitoring Network

Melinda Chapman of the USGS provided an update of the proposed groundwater monitoring network for the C-W Basin. Three wells currently exist that monitor groundwater levels and USGS has proposed that seven additional well sites be developed to cover the diverse geological and geographical features of the basin. The CW-DMAG and the Catawba-Wataree Water Management Group (WMG), in accordance with the Relicensing Final Agreement, will work together to review and revise the plan for groundwater monitoring by December 31, 2007. Melinda presented an updated cost sharing plan for the network from USGS. The additional gages could be installed with \$61,000 per year from the WMG and \$50,000 per year from USGS for

three years. The annual on-going O&M is estimated at approximately \$90,000 per year for the entire network of groundwater gages once installed.

A working technical subgroup has been appointed with representatives from the following organizations to review this issue:

- Nat Wilson (NCDWR)
- USGS (Melinda Chapman)
- Duke Energy (Ed Bruce)
- SCDNR (Hope Mizzell)
- Maeneen Klein (CMU-representing the WMG)

V. Conclusion

There was no further business discussion and the meeting concluded. The meeting was followed by a WMG meeting. The next e-mail drought update will be issued by Duke in mid-November, 2006.