Member Organizations Present

Catawba River Water Supply Project
Charlotte-Mecklenburg Utility Department (CMUD)
City of Belmont
City of Camden
City of Gastonia – Two Rivers Utilities
City of Hickory
City of Newton
City of Lenoir
City of Morganton
City of Mount Holly
City of Rock Hill
City of Statesville
Duke Energy
International Paper
Invista
Lincoln County
Lugoff-Elgin Water Authority
NC DENR Division of Water Resources
SCDNR
Town of Granite Falls
Town of Long View
USGS
NC Wildlife Resource Commission

Other Organizations Present

HDR
Kearns & West, Inc.
Union County
York County Water and Sewer

Member Organizations Not Present
American & Efird
Bessemer City
Chester Metropolitan District
City of Cherryville
City of Lincolnton
City of Marion
Clariant Corporation
National Marine Fisheries Service
Resolute Forest Products
SCANA
SC DHEC
Siemens Westinghouse
Springs Industries
The Greens at Rock Hill
Town of Dallas
Town of Mooresville
Town of Valdese
Introductions, Agenda Review, and Announcements

1. Ed Bruce, Duke Energy, opened the annual meeting of the Catawba-Wateree Drought Management Advisory Group (CW-DMAG) and welcomed participants. He provided a brief background on the CW-DMAG, which was formed as part of the Catawba-Wateree Relicensing and is identified in the Low Inflow Protocol (LIP), which is a part of the Comprehensive Relicensing Agreement (CRA). The group meets at least once a year when the Basin is not in a drought. He explained he was facilitating the meeting on behalf of Ken Kearns from Kearns & West, who normally facilitates the meeting, who couldn’t attend.

2. Sheena Robinson, CMUD, gave a safety briefing. Bruce asked for introductions and reviewed the meeting agenda.

Update on Drought Conditions and Low Inflow Protocol (LIP) Status

3. Bruce provided an LIP update (see email from Elana Kimbrell on 5/30/14 for link to all presentations). He showed each of the drought triggers specified in the LIP. He reviewed the concept of the Storage Index (SI), which is a ratio of the remaining usable storage in all 11 reservoirs in the system, divided by the total usable storage (full pond). He pointed out that the Basin has experienced very high inflows during the past year and a half. The summer of 2013 and the beginning of this summer are the first in several years that the Basin has been above the target SI, which is the SI if all the lakes were at their Summer Target Elevation as defined in the CRA.

4. Bruce shared the U.S. Drought Monitor map, which indicated normal conditions in the Catawba-Wateree River Basin, as did the NC DENR map of drought conditions in the same basin.

5. Bruce reviewed the history of the streamflow gages. The CW-DMAG found the four-month rolling average provided a better indicator than the six-month rolling average, which had been originally specified in the LIP. As of the week of the meeting, the four-month rolling average streamflow was 100.3 percent of its historical average, and the six-month rolling average was 116.7 percent of its historical average.

6. The CW-DMAG continues to use the two oldest groundwater gages with long periods of records for groundwater conditions. When all eight of the new gages installed as part of the basin groundwater network have been operating for five years, then the CW-DMAG will begin officially using all ten. Bruce noted groundwater levels are currently high, and showed a graph of the groundwater network with groundwater levels since 2009, which shows a seasonal pattern of fluctuations.

Update on Duke Energy System Operations

7. George Galleher, Duke Energy, gave an update on Duke Energy’s system hydrological information. He noted the Basin’s 2013 rainfall was greater than the long-term average. The forecast for June and July is above-average precipitation, while August looks somewhat drier – although that prediction may change as the summer progresses. Streamflow gages indicate above average levels. Temperatures along the coast are estimated to be about normal, while inland may be cooler than average. Soil moisture is expected to be normal. Twelve named storms are forecast for the season, including two major hurricanes – which is about average. El Niño may be developing which normally make the Southeast wetter than normal.
8. Galleher concluded by noting Duke Energy seeks to maintain levels in Lake Norman such that when there is a large rainfall event, they have enough storage. He added that there is no planned maintenance work for any of the hydro developments in the Basin.

**Meteorology and South Carolina Drought Response**


10. Mizzell explained the South Carolina Drought Response Program originated in 1985 and was revised in 2000. SCDNR was designated to coordinate the state’s response. Mizzell described the Drought Response Committee as defined in the Drought Response Act. There is an interagency state-level committee and also four regional committees. The regional committee members are nominated by the Governor, a process that has made it procedurally difficult to fill the committee vacancies. There can be up to a 30-35 percent vacancy for some regions.

11. Bruce asked if the South Carolina portion of the Catawba-Wateree Basin is in two different drought management regions. Mizzell confirmed it is. Drought conditions are determined for each county.

12. Mizzell explained water systems should submit their drought response plans and ordinances online (http://www.dnr.sc.gov/climate/sco/Drought/drought_login.php), and she demonstrated how to use the SCDNR website to look up water system information. SC DHEC is will be sending out notifications related to this as part of the surface water withdrawal permits. Drought plans should be revisited every year to be sure they reflect the permit requirements.

13. Mizzell mentioned that 2013 had been predicted to have an above normal hurricane season, and instead it was a quiet season. She also concurred with the meteorological information Gallaher had previously shared.

**North Carolina Basin Modeling Status**

14. Don Rayno, NC DENR, noted NC DENR’s Division of Water Quality was merged with the Division of Water Resources. He identified the five basin models NC DENR has developed as part of its basin planning efforts, with the goal of identifying potential conflicts between water use and availability. The basins where models have been developed are: the Cape Fear/Neuse River Basin Hydrologic Model; the Broad River Basin Hydrologic Model; the Roanoke River Basin Reservoir Operations Model; the CW Water Management Group (WMG)’s Water Supply Master Plan CHEOPS Model (discussed later in the meeting by Duke Energy and HDR); and the Tar River Basin Hydrologic Model. NC DENR is required by law to prepare hydrologic models for each of its major river basins.

15. The North Carolina Ecological Flows Science Advisory Board met frequently between 2010 and 2013, and submitted a report in November 2013 to NC DENR, with recommendations on the percent of flows necessary for maintaining ecological integrity.

16. Jonathan Williams, HDR, clarified the ecological flows evaluation does not affect Federal Energy Regulatory Commission (FERC)license flow requirements as extensive site-specific studies are usually performed as part of that process.

17. Kevin Mosteller, HDR, raised a concern about next steps for basin planning in North Carolina, given differing views of how ecological flows should be factored in, and the capacity of the Environmental Management Commission. Rayno acknowledged these concerns.

**Catawba-Wateree Water Management Group (WMG) Master Plan**

18. Jeff Lineberger, Duke Energy, and Mosteller gave an overview of the CWWMG Water Supply Master Plan. Lineberger provided a brief background on the plan, which many participants at the meeting had been involved with over the course of the past four years. He suggested it was the CWWMG’s most significant accomplishment thus far, adding that it is a “living” document intended to evolve
over time. The CWWMG is currently giving presentations about the plan across the Basin, seeking adoption by various boards. He emphasized the goal of the plan is to manage the Basin to allow for growth and economic development and extend the water supply as long as possible. The plan is available on the CWWMG website (www.catawbawatereewmg.org). He recommended reading the Executive Summary for a good summary of the plan.

19. Mosteller showed a short video that was created to help provide information about the plan. He continued the presentation with additional information about how the plan was prepared. He explained one of the reasons it was initiated was because the 2006 Water Supply Study found the Basin’s capacity for growth in water use would be reached by mid-century. The Master Plan was commissioned in 2010, and funded by the Duke Energy Foundation, NC DENR, SC DNR, and the CWWMG. After a draft report was prepared, feedback was obtained through a series of meetings with a stakeholder advisory team of 19 outside organizations. The plan includes a refined hydrologic model (CHEOPS) and evaluations of numerous scenarios.

20. The plan recommends the following to extend the capacity of the Basin: increase water use efficiency; lower critical water intakes/elevations for power plants and public water supply; raise target lake levels during summer months; and enhance drought responsiveness through the Low Inflow Protocol. Successful implementation of the plan’s recommendations would extend the capacity of the Basin to sustain growth through 2100.

21. Bruce pointed out the plan has implications for the LIP. The CW-DMAG will be tasked with analyzing these implications and making recommendations, so Duke Energy can formally modify the LIP as needed.

Catawba-Wateree Relicensing Update

22. Keith Finley, Duke Energy, gave a presentation on the status of the Catawba-Wateree Relicensing, on behalf of Mark Oakley. The previous license expired in August of 2008, and FERC has granted annual extensions since then. A major milestone took place when the National Marine Fisheries Service (NMFS) issued its Biological Opinion on July 8, 2013, with a “No Jeopardy” determination for endangered aquatic species. The terms and conditions of this determination are: limitations on in-water work during sturgeon spawning season; design of Trap-Sort-Truck (TST) facility to minimize sturgeon “take” risk; sturgeon handling protocol; verification of sturgeon spawning habitat created; and verification of water quality enhancements. Duke Energy has additional questions about the Biological Opinion, but is not planning on challenging the decision.

23. Finley stated the South Carolina Water Quality Certification remains outstanding, as FERC denied Duke Energy’s petition for need for the certification to be waived since it was not issued within a required one-year timeframe. Duke Energy expects the best case scenario would be receiving a new license in the first quarter of 2015, and the worst case scenario would be receiving it at the end of 2016.

24. Finley reviewed the achievements in the so far related to the CRA, including preparations for new public access areas and an ongoing fish passage demonstration project on the Yadkin River Basin that may be deployed below Lake Wateree in the future.

Results of 2013 Annual Water Use Reporting and 2014 Reporting Requirements

25. Jonathan Williams, HDR, presented the results of the 2013 Annual Water Use Report and provided meeting participants with a CD containing the report. The report was also posted to CWWMG website. HDR has compiled this report every year since 2006.

26. CW-DMAG members using water in the basin are required to report water withdrawals and returns to Duke Energy, to maintain a historical water use record for the Basin. In the past, the annual report has compared each year’s water use to the levels projected for that year in 2006. Going
forward, the comparison will be to the Master Plan’s projections (which are lower than the estimates from 2006). The report also evaluates categorical water use for CWWMG members only.

27. Williams stated 2013 water use was 18 percent lower than the Master Plan projections for the year. This is in part due to above average inflows. He also noted that agricultural water use numbers decreased from the 2012 values because of a refinement in their methodology (instead of including the agricultural water use of entire counties, only water use from the areas actually in the Basin is included).

28. Williams also reviewed the reporting requirements for 2014. The template remains the same. He mentioned that water treatment plant discharges (filter backwash) and wastewater treatment plants with an NPDES (National Pollutant Discharge Elimination System) permit should be shown as a separate return on the template, not just subtracted from withdrawal numbers. He reminded WMG members that for categorical water use, if their billing categories don’t match the form’s categories, they can continue to submit their data as is with a note of explanation. Bruce sends a reminder about the water use reporting at the beginning of January, and the data is due to HDR by January 31.

29. It was asked whether the report accounts for unbilled water in the withdrawals, such as evaporation. Williams responded the data should be the actual raw water intake amount withdrawn at the water supply source. The categorical water use data CWWMG members provide is different – it is obtained from the billing departments.

Update on Residential Water Use

30. Elana Kimbrell, Kearns & West, presented charts on residential water use. These charts compared the combined residential water use across the Basin to pre-2007 unrestricted water use. Another chart split out Charlotte-Mecklenburg Utility Department from the others due to size differences. Charlotte-Mecklenburg Utility Department reached pre-2007 unrestricted water use levels in March 2014 for the first time since 2007, and the other water suppliers exceeded pre-2007 water use on several occasions.

Conclusion

31. Bruce concluded the meeting, noting this is a critical time of year for water management in the Basin. If flows continue to be above average, there shouldn’t be any concerns the rest of the year. However, droughts can come on suddenly in the Basin because it is small compared to the amount of water use.