

**Yadkin Project (FERC No. 2197)
Drought Management Team Conference Call
February 24, 2011**

Participants:

Athena Strickland, Pee Dee River Coalition (PDRC)
Chris Goudreau, NC Wildlife Resources Commission (NCWRC)
Deb Owen, NC Division of Water Quality (NCDWQ)
Garry Kenny, Badin Lake Association (BLA)
Jeff Townsend, Progress Energy (PE)
Jody Johns, Long View Associates (LVA)
Larry Jones, High Rock Lake Association (HRLA)
Marshall Olson, Alcoa Power Generating Inc. (APGI)
Nob Zalme, Duke Energy Buck Steam Station
Olin Giles, Uwharrie Point Community Association (UPCA)
Rick Jackson, APGI
Robert Brown, RBPR
Wes Tyler, SC State Climatology Office

Because the U.S. Drought Monitor continues to classify portions of the Yadkin-Pee Dee River Basin as D1 “Moderate Drought” and as D2 “Severe Drought” and in accordance with the Drought Contingency Plan (DCP) for the Yadkin Project (FERC No. 2197), Marshall Olson, APGI, convened a call among interested parties to consider actual and forecasted stream flow, precipitation, and ground water levels in the basin. Marshall clarified that the DCP would be in effect until such a time when FERC issues a new license for the Yadkin Project and approves the Low Inflow Protocol (LIP) included in the Relicensing Settlement Agreement (RSA).

Marshall explained that based on the most recent LIP stage calculation (see below), the Basin is in an LIP Stage 0 (Low Inflow Watch).

February 1, 2011 LIP Stage Calculation

High Rock HWEL	=	644.8 YAD (NME minus 0.2 ft)
Actual 3-mo rolling ave inflows	=	2,409 cfs
Hist 3-mo rolling ave inflows	=	5,200 cfs (Inflow Ratio = 0.46)
Drought Index Ratio = $(0+0+1)/3$	=	0.33

Rick Jackson, APGI, provided an update on current conditions. He stated that at the time of the call (February 24, 2011) High Rock Reservoir was approximately 10-ft below the full pool reservoir elevation. Rick said that he anticipates beginning to refill High Rock on Friday evening (February 25, 2011) and expects the reservoir to rise 0.5-ft in the first week. He explained that the average inflow over the last month or so was about 2,353 cfs and APGI has been discharging 2,336 cfs. Rick projected that High Rock Reservoir would be about 4.5-ft below full pool by April 1, 2011 (assuming inflow = 40% of normal). Rick was hopeful that some of the forecasted rain would help hasten the refill.

Garry Kenny, BLA, asked Rick about APGI's plans for Narrows Reservoir (Badin Lake) during High Rock refill. Rick explained that Badin Lake is currently about 2-ft down. Rick expects Badin Lake to be about 1-ft below the full pool reservoir elevation by mid-April when the spring spawning stabilization period begins.

Nob Zalme, Duke Power, said that Duke's Buck Steam Station is in good shape with regard to water supply and temperatures. Nob thought that if High Rock was within 4.5-ft of full pool by April 1, operations would be continue to be unaffected. He said that the reservoir is, at present, only about 7-ft down at the Buck Steam Station.

Deb Owen, NCDWQ, said that while there have been no water quality issues reported, the NCDWQ is prepared to conduct drought monitoring if conditions continue to worsen.

The NCWRC did not have any comments.

Marshall Olson explained that the US Fish and Wildlife Service was unable to participate on the call, but had provided written comments to APGI in advance of the call. Mark Cantrell, USFWS, expressed concern about how the shad run in the lower Pee Dee and Santee basins may be affected by drought conditions. Specifically Mark asked for "as much water as possible" in April and May.

Larry Jones, HRLA, said he was concerned about the April 1 target elevation at High Rock because beginning April 15 APGI limits the fluctuation of the reservoir (+/- 1-ft of the April 15 reservoir elevation) through May 15 to support spring spawning. He asked APGI to shoot for a higher reservoir elevation by April 1. Larry expressed his appreciation for the High Rock drawdown and the opportunity to clean the reservoir shoreline. Larry, and others, think it may be better to schedule "Clean Sweep" during a drawdown like this one.

Garry Kenny, BLA, and Olin Giles, Uwharrie Point Community Association, had no comment.

Jeff Townsend spoke on behalf of Progress Energy. He said that Progress is continuing [operations] as usual. Athena Strickland, Domtar and PDRC, asked about PE's operating plans for Tillery and Blewett Falls moving forward. Jeff said that PE hopes to keep the reservoirs within 1-ft of full pool, as long as there is inflow. At present, the two reservoirs are full. Athena said she had noticed flows dropping recently and downstream flows are very much needed.

Wes Tyler (SC Climatology) said that March is typically one of the heaviest rainfall periods (between 5 to 9 inches); this much rain could have a significant impact.

Chris Goudreau, NCWRC, asked what happens with flows, under the LIP in Stage 1. As stated on page 1 of this summary, the DCP remains in effect until such a time when FERC issues a new license for the Yadkin Project and approves the LIP included in the RSA. Jody Johns, LVA, agreed to provide the following information from the LIP:

Table 6. LIP Flows⁽¹⁾, cfs									
Stage	High Rock (daily average maximum flow target)			Falls⁽²⁾ (daily average flow target)			Blewett Falls⁽²⁾ (continuous flow target ⁽³⁾)		
	Feb 1– May 15	May 16-31	Jun 1- Jan 31	Feb 1– May 15	May 16-31	Jun 1- Jan 31	Feb 1– May 15	May 16-31	Jun 1- Jan 31
0	2000	1500	1000	2000	1500	1000	2400	1800	1200
1	1450	1170	900	1450	1170	900	1750	1400	1080
2	1080	950	830	1080	950	830	1300	1150	1000
3	770	770	770	770	770	770	925	925	925
4	Additional measures may be determined by consensus of the Licensees and State Agencies. FERC approval of any additional measures may be required.								
1	Consistent with the goal of this LIP to conserve water while maintaining downstream flows, projects will be operated to achieve the target flows to the extent practicable as a first priority and to supplement inflows equitably from the storage reservoirs as a second priority.								
2	The LIP flow values shown in the table above reflect flow targets. These values cannot be met exactly as shown and will likely vary slightly on a real time basis from the values shown here. It is expected that the variances from the target flows will be minimal. In Stages 0-2 the releases from Blewett Falls will be within 5% of the target as measured at the USGS Rockingham gage. In stages 3-4 the releases from Blewett Falls will be between 900-950 cfs as measured at the USGS Rockingham gage.								
3	Local inflows to Blewett Falls Reservoir may be large even during extended low inflow conditions. If at any time during the implementation of the LIP local inflows to Blewett Falls Reservoir are large enough to fill Blewett Falls Reservoir to full pond, the Downstream Licensee may temporarily increase Blewett Falls generation to avoid spill.								

When a Stage 1 Low Inflow Condition is declared:

1. The Licensees will:
 - a. Notify NCDWR of declaration of a Stage 1 Low Inflow Condition via email as soon as practicable but no later than two business days after the declaration.
 - b. Implement LIP Flows as detailed in Table 6 for each project by the seventh day of the month in which a Stage 1 Low Inflow Condition is declared. To meet the LIP Flows for Stage 1 :
 - APGI will supplement Project inflows by drawing first from Narrows Reservoir until the Narrows Reservoir drawdown below its NME matches the High Rock Reservoir drawdown below its NME at the time that the Stage 1 Low Inflow Condition is declared.
 - APGI will supplement Project inflows by drawing from High Rock and Narrows reservoirs approximately equally on a foot-per-foot basis below the Normal Minimum Elevation (NME).
 - PE will supplement Project inflows by drawing from either Tillery or Blewett Falls as required.
 - c. Update their respective websites as noted in Key Definitions, Facts and Assumptions No. 4.

- d. Provide Public Water System intake owners and Non-Public Water Users with weekly updates on reservoir water elevations and inflow of water into the projects' reservoirs.
2. If they have not already done so, NCDWR will coordinate with SCDNR to conduct monthly meetings or conference calls to be held on the Monday before the second Tuesday. Monthly discussions will:
 - a. Review provisions of this LIP.
 - b. Clarify communication channels between the YPD-DMAG members.
 - c. Review hydrological status of the basin.
 - d. Review the roles of each YPD-DMAG member and discuss their plans for responding if an elevated Low Inflow Condition is declared.
 - e. Review information reporting by YPD-DMAG members, including a storage history and forecast from the Licensees, a water use history and forecast from each water user on the YPD-DMAG, and state-wide drought response status (including, but not limited to, impact to water quality, fisheries, wildlife, etc.) from the member agencies.
 - f. Public communications.
3. Owners of Public Water System intakes will complete the following activities within 14 days after a Stage 1 Low Inflow Condition is declared:
 - a. Notify their water customers of the low inflow condition through public outreach and communication efforts.
 - b. Request that their water customers implement voluntary water use restrictions, in accordance with their drought response plans. At this stage, the goal is to reduce water withdrawals by approximately 5% from the amount that would otherwise be expected. These restrictions may include:
 - Reduction of lawn and landscape irrigation to no more than two days per week (i.e. residential, multi-family, parks, streetscapes, schools, etc).
 - Reduction of residential vehicle washing.
 - c. Provide a status update to the YPD-DMAG on actual water withdrawal trends and discuss plans for moving to mandatory restrictions, if they are required.
4. Non-Public Water Users on the YPD-DMAG will complete the following activities within 14 days after a Stage 1 Low Inflow Condition is declared:
 - a. Notify their employees and/or customers of the low inflow condition,
 - b. Request that their employees and customers conserve water through reduction of water use, electric power consumption, and other means, and
 - c. Institute in-house conservation consistent with their drought management plan and minimize consumptive uses to the extent feasible.

As of March 1, 2011, the LIP stage remained a Stage 0 (Low Inflow Watch) (March 1, 2011 LIP calculation provided separately).

Marshall committed to continuing to check the US Drought Monitor and to run the LIP calculations on the first of every month. He will reconvene the DMT as appropriate.