

## **Minutes from the Kerr 216 Water Quality Task Group Meeting - December 9, 2003 - Raleigh**

- Attendance: Team Members: Frank Yelverton, Jim Mead, Jennifer Everett, Jim Mulligan, Adugna Kebede, Pete Kornegay, Wayne Jones, Tom Augsburger, Jean Richter, Martin Lebo. Others: Michelle Woolfolk
- The attendees introduced themselves and corrections to the minutes from the November 7<sup>th</sup> meeting were requested. The only change was made by Jean Richter and had been made to the minutes circulated in Jennifer's email of November 19<sup>th</sup>.
- Frank updated 2 issues in the previous minutes. Regarding the turbine venting status at Kerr Dam, at least 3 of the 6 turbines will be aspirating units and the other 3 will be designed so they can be retrofitted if needed. Work on the first aspirated turbine will begin in the summer of 2004 and should be online within 3 months. Each additional turbine should be online in 9 month intervals. The house turbine unit will not be modified, and at present there are times when this is the only unit in operation.
- The DO gage will be installed this week and should be online by Friday December 12<sup>th</sup> with real time data. In addition to DO, the gage will provide data on temperature, water level, pH, and conductance (PS, the gage is now online at [http://waterdata.usgs.gov/va/nwis/uv?dd\\_cd=08&format=gif&period=7&site\\_no=02079500](http://waterdata.usgs.gov/va/nwis/uv?dd_cd=08&format=gif&period=7&site_no=02079500)).
- The discussion then turned to the 33 questions that were developed during the last meeting and how they would be incorporated into the PMP.
- Jim Mead discussed the differences between tasks A and B of the PMP for water quality (WQ). Task A deals with the interaction of the floodplain and channel whereas task B deals with direct affects on the channel alone. The riparian team wants to take advantage of the models the WQ team develop to determine how WQ will affect fish and other organisms. The riparian team does not plan to duplicate the efforts of the WQ team.
- Jennifer indicated that we have several model options, but a decision has not been made on what type to use. Should task A and B be combined?
- Martin indicated that Lisa Hetherman stated we need to validate the tasks in the existing PMP or revise as appropriate.
- There was a general discussion about existing models such as the Corps CWMS model and the RRBROM mass balance model developed by TNC, DWR, and Virginia Beach and how the could provide input into new water quality models.
- Martin indicated that under task C we should evaluate existing modeling tools for Kerr WQ releases.
- Jim Mulligan suggested that any model use hydrology and the salt wedge to come up with base levels in the main river channel. Then the tributary and floodplain impacts could be added. It is not necessary to have a separate main river model, as long as we have an overall model at the end. However, it is likely that a separate main river model will be developed as a building block in the process.

- Martin indicated if we include salt wedge we may need to model inputs from Albemarle and parts of Pamlico Sound. An alternative may be to assume a reasonable range of salinity values input by Albemarle Sound.
- There was a general discussion about the limits of the Kerr 216 authority. There was a consensus that only releases from Kerr could be potentially altered, not releases from Roanoke Rapids or Lake Gaston.
- Michelle suggested that we prioritize the 33 brain storming questions from the last meeting to see if modeling can answer the questions. We then went through the questions one by one to see if they fit under the existing tasks in the PMP, if the PMP needs to be expanded, or if a question could be deleted.
- The revised PMP to date is attached, but the costs for each task has not yet been evaluated. The revisions are indicated in **bold blue**. A conference call was tentatively set for January 6, 2004 to discuss the PMP in more detail.
- At the end of the meeting there was a general discussion of modeling costs. The DWQ modeling for the lower Cape Fear System, a smaller effort than the Roanoke, will cost about \$700,000.