

**Meeting Minutes of the Water and Waste Management Committee of the
North Carolina Mining and Energy Commission
December 18, 2012**

1. Preliminary Matters

Committee Chair Dr. Vik Rao called the meeting to order at 9:00 a.m. He then read the ethics statement and asked Committee members whether or not they had a conflict of interest with respect to any action items on the agenda. None were expressed.

The following personnel were in attendance for all or part of the meeting:

2. Committee Members

Dr. Vik Rao (Chair)
Ivan (Tex) Gilmore
Charles Holbrook
Charlotte Mitchell
Dr. Kenneth Taylor

3. DENR Staff Members

Trina Ozer
Walt Haven
Tracy Davis
Don Rayno, Division of Water Resources

4. Others in Attendance

Refer to the meeting sign in sheets (attached to these minutes).

5. Revisions or additions to agenda

Committee Chair Rao reviewed the meeting agenda and asked if there were any revisions or additions to the agenda. None were noted by the Committee members.

6. Selection of Vice Chair

Committee Chair Rao called for volunteers to serve as the Committee Vice-Chair. Charlotte Mitchell volunteered and was selected by acclamation.

7. **Presentation: “Existing Water Withdrawal Regulations & Water Withdrawal Recommendations from the DENR’s Oil and Gas Study – April 2012.”** – Don Rayno, Division of Water Resources (see attached presentation).

Mr. Rayno outlined the following items during his presentation:

- a. goals and limitations of water withdrawals;
- b. the colonial legacy of riparian rights as the basis of N.C. water policy;
- c. the principle of reasonable use;
- d. limiting riparian rights by regulation;
- e. right of withdrawal of impounded water;
- f. federal regulation of withdrawals;
- g. the Water Use Act of 1967;
- h. the N.C. Environmental Policy Act;
- i. surface water transfers;
- j. Interbasin Transfer Certification;
- k. water use monitoring;
- l. DENR Study Recommendations;
- m. water management plan / sources

Mr. Rayno’s last slide was a surface water flow example, using data from the Deep River at Ramseur, N.C. The 7Q10 flow at that location, based on 89 years of data, is 12.7 cubic feet per second (cfs). The recommended maximum withdrawal is 20% of the 7Q10 flow, or 2.5 cfs.

8. **Presentation: “Potential Alternatives to Surface Water Withdrawals.”** - Trina Ozer, DENR Policy Analyst (see attached presentation).

Ms. Ozer outlined the following items in her presentation:

- a. potential water use alternatives such as saline water, gray water and reclaimed water;
- b. permitted wastewater discharge locations near Sanford;
- c. recycling of produced waters;
- d. abandoned or existing surface water intakes;
- e. leasing surface water from intakes below allotments.

The recommendation from her research is that using State personnel and assets to research the possibility of using saline water sources would not yield any additional

information that is not already available. Thus, staff resources should not be used to further study saline water as an alternative water source. However, DENR recommends that permit applicants be required to consider other alternative water sources for their own oil and gas production uses.

Discussion of the presentations followed with Committee Chair Rao remarking that for a three-million gallon per day water need for hydraulic fracturing, combined with the 100,000 gallons per day (gpd) withdrawal maximum, it would take 30 days to accumulate that volume of water.

Commissioner Holbrook suggested the use of alternative fracturing fluids such as Liquefied natural gas or nitrogen.

A motion was made by Commissioner Taylor and seconded by Commissioner Gilmore that staff be asked to prepare in "rule outline form" the recommendation from the NC DENR Oil and Gas Study Report for a water management plan to be submitted as part of the permitting process. The motion was approved unanimously.

Committee Chair Rao presented the draft of a two-page document he had written entitled "Operating Parameters for MEC Committee." In this document, he outlined the steps in rulemaking, stakeholder participation, and an agenda for the meeting.

Concluding Remarks

Committee Chair Rao asked if there was any other business. Hearing none, he adjourned the meeting.

The Water and Waste Management Committee adjourned at 10:52 a.m.

DENR Staff Contact for this Committee: Trina Ozer, Policy Analyst, Secretary's Office