

**North Carolina Department of Environment and Natural Resources
Division of Water Resources**

**Central Coastal Plain Capacity Use Area
2013 Draft Assessment Report**

Public Meeting

**April 16, 2013
1:00 to 4:00
Lenoir Community College**



North Carolina Department of Environment and Natural Resources

Mission Statement



Preamble

It is recognized that the N.C. Department of Environment and Natural Resources' primary mission is to protect North Carolina's environment and natural resources. In executing this mission, DENR operates with the broad-based understanding that the following three fundamental principles are integral components of its protective mandate.

Fundamental Philosophy: In its essence, DENR is a service organization. Whether managing parks and zoos or issuing permits, agency personnel, operating within the confines of the regulations, must always be a resource of invaluable public assistance, rather than a bureaucratic obstacle of resistance.

Fundamental Economics: Acknowledging that a traditional cost/benefit analysis is not always fully applicable to matters of the environment and public recreation, the agency will be continually cognizant that an economic cost/benefit analysis is an integral component of DENR's public service endeavor.

Fundamental Science: That all decisions are made with a respect and understanding that environmental science is quite complex, comprised of many components, and most importantly, contains diversity of opinion. In this regard, all public programs and scientific conclusions must be reflective of input from a variety of legitimate, diverse and thoughtful perspectives.

The Outcome

That a collaborative stewardship among the citizens, government regulators and the business community will maintain and enhance North Carolina's environment and natural resources for the benefit and enjoyment of everyone living in or visiting our great state.

2013 Draft Assessment Report Public Meeting

Schedule

Introduction

**Gabrielle Chianese
CCPCUA Program Leader**

Opening Remarks

**Tom Reeder, Director
Division of Water Resources**

The 2013 Draft CCPCUA Assessment Report

**Nat Wilson, Chief
Ground Water Management Branch
Division of Water Resources**

Public Comment

North Carolina Division of Water Resources Central Coastal Plain Capacity Use Area Rules

Environmental Management Commission - August 1, 2002

TITLE 15A - DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

CHAPTER 2 - ENVIRONMENTAL MANAGEMENT

SUBCHAPTER 2E - WATER USE REGISTRATION AND ALLOCATION

15A NCAC 2E .0501 DECLARATION AND DELINEATION OF CENTRAL COASTAL PLAIN CAPACITY USE AREA

The area encompassed by the following 15 North Carolina counties and adjoining creeks, streams, and rivers is hereby declared and delineated as the Central Coastal Plain Capacity Use Area: Beaufort, Carteret, Craven, Duplin, Edgecombe, Greene, Jones, Lenoir, Martin, Onslow, Pamlico, Pitt, Washington, Wayne and Wilson. The Environmental Management Commission finds that the use of ground water requires coordination and limited regulation in this delineated area for protection of the public interest. The intent of this Section is to protect the long term productivity of aquifers within the designated area and to allow the use of ground water for beneficial uses at rates which do not exceed the recharge rate of the aquifers within the designated area.

15A NCAC 2E .0503 (7) The CCPCUA Cretaceous Aquifer Zones map shall be updated, if necessary, in the sixth, eleventh, and sixteenth years following the effective date of this Rule to account for aquifer water level responses to phased withdrawal reductions. The map update shall be based on the following conditions:

- (a) Rate of decline in water levels in the aquifers;
- (b) Rate of increase in water levels in the aquifers;
- (c) Stabilization of water levels in the aquifers;
- (d) Chloride concentrations in the aquifers.

This aquifer information shall be analyzed on a regional scale and used to develop updated assessments of aquifer conditions in the Central Coastal Plain Capacity Use Area. The Environmental Management Commission (EMC) may adjust the aquifer zones and the water use reduction percentages for each zone based on the assessment of conditions. The EMC shall adopt the updated map and reduction percentage changes after public hearing.







Central Coastal Plain Capacity Use Area (CCPCUA) - Background

In the North Carolina coastal plain, ground water is a highly utilized resource for various users. There has been evidence of present and future ground water supply shortages and potential for salt water intrusion within the area encompassed by the following 15 North Carolina counties: Beaufort, Carteret, Craven, Duplin, Edgecombe, Greene, Jones, Lenoir, Martin, Onslow, Pamlico, Pitt, Washington, Wayne, and Wilson. Within some of these counties, ground water from the Black Creek, Upper Cape Fear and Lower Cape Fear aquifers (Cretaceous aquifers) are being withdrawn at a rate that exceeds the available recharge. To address threatened ground water supplies in the region, the Environmental Management Commission (EMC) created the Central Coastal Plain Capacity Use Area on August 1, 2002. This rule established a permit system for water withdrawals that exceed 100,000 gallons per day and replaced the Capacity Use Area #1, which was established in 1968 in response to the pumping of the Castle Hayne aquifer associated with a phosphate mining operation in Beaufort County.

The CCPCUA rule established an annual withdrawal rate - the approved base rate (ABR) - for permit holders using the Cretaceous aquifers which was based on the highest water withdrawal from either the calendar year of 1997 or the period from August 1, 1999 to July 31, 2000. Permit holders will have to reduce their water withdrawals from the Cretaceous aquifers by either 30% to 75% in three phases starting 2008 and ending in 2018. Permit holders using other aquifers are issued a maximum daily water withdrawal.

The Division of Water Resources (DWR) is tasked with assessing the CCPCUA program at the beginning of each reduction phase in 2008, 2013, and 2018 and to report their findings to the EMC. In the first CCPCUA assessment in 2008, DWR recommended no change to the CCPCUA program since no reductions in water withdrawals had occurred. Permit holders at that time were continuing to use the Cretaceous aquifers to the fullest extent, while pursuing planning for alternate water sources (such as wells in shallower aquifers and/or surface water treatment plants).

Since 2008, significant water reductions from the Cretaceous aquifers have occurred (up to 90% in some areas) and alternate water sources are being used. Some examples are: The Neuse Regional Water and Sewer Authority, which serves Lenoir and part of Pitt County with treated Neuse River water; Greenville Utilities Commission, which supplies treated Tar River water to

customers in Greene County and the town of Farmville; in Onslow and Craven counties, surficial and Castle Hayne well-fields along with treatment plants have been constructed and put online; and in Martin County a surface water treatment plant is under construction to supply treated Roanoke River water to their residents.

Goals and Recommendations

The Division of Water Resources strives to implement this program so that we can use coastal ground water resources to the fullest extent in a long-term sustainable way. DWR has observed positive ground water rebounds in some areas due to the use alternate water sources. DWR feels that the CCPCUA rules are effective and would like to continue with keeping the rule in place unchanged. However, DWR requests more flexibility from the EMC in the CCPCUA program, so that DWR can work with permit holders on an individual basis.

DWR proposes to have a criteria driven permit review process. If a permit holder meets the requirements then DWR will issue a temporary permit for five years at the current permitted annual water withdrawal amount.

How to Submit Comments

Persons interested in this proposal are encouraged to make relevant verbal comments at this public meeting or submit written comments by June 1, 2013. It is very important that all interested parties make their views known to the EMC whether in favor or opposed to any and all provisions of the proposal. Written comments, data, or other information relevant to this proposal may be submitted to:

CCPCUA@lists.ncmail.net

Or

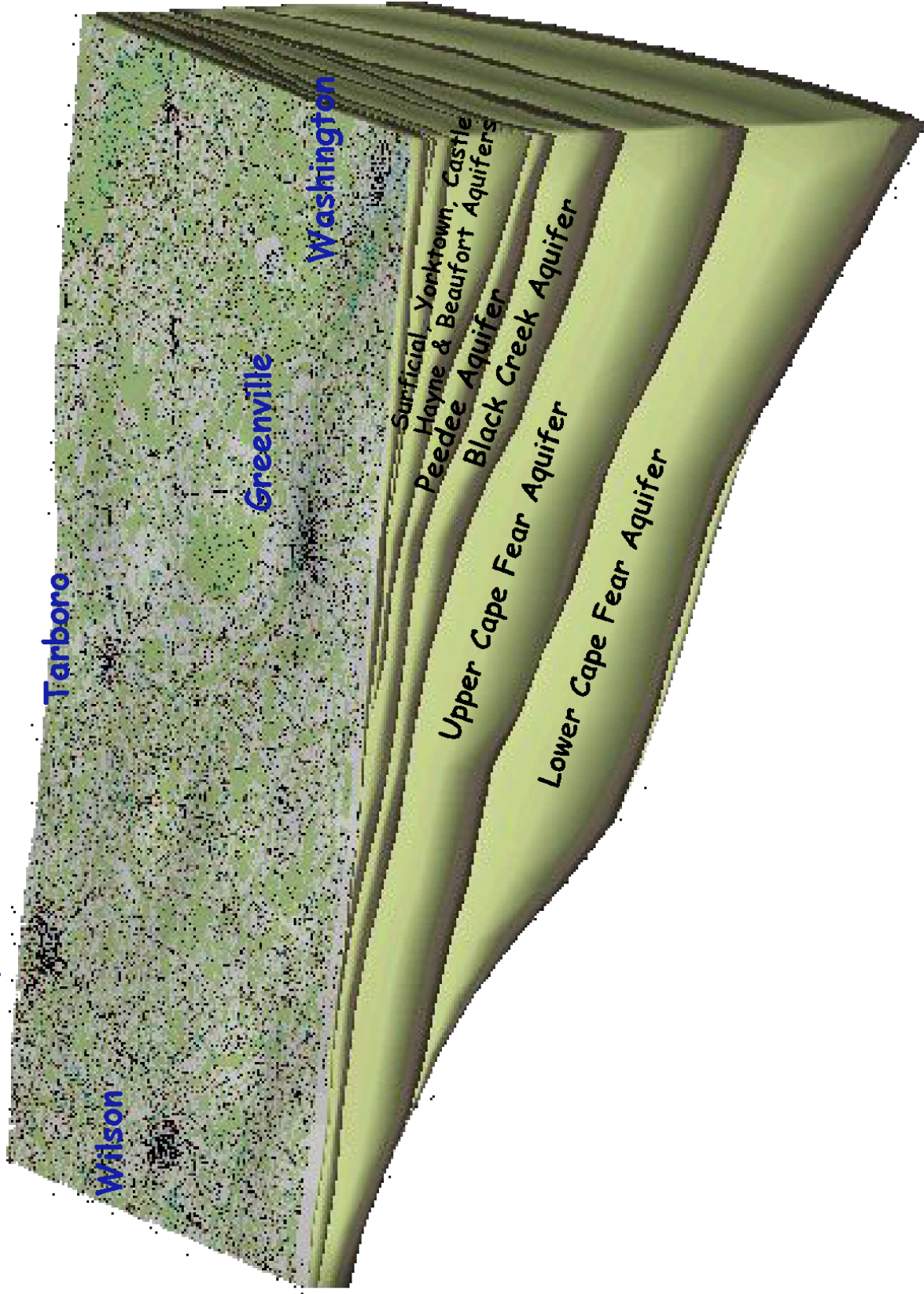
Gabrielle Chianese
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A pdf copy of the Draft 2013 CCCPCUA Assessment can be found at:

www.ncwater.org/CCPCUA2013assessment

For questions, please contact Gabrielle Chianese at 919-707-9008 or gabrielle.chianese@ncdenr.gov

Rocky Mount



Cross-section of North Carolina's Coastal Plain Aquifers

CCPCUA Cretaceous Aquifer Zones

