

## Central Coastal Plain Capacity Use Area Fact Sheet

### Background and Goal

Ground water levels collected since the early 1970s offer dramatic evidence of pressure head declines and the formation of a very large cone of depression in the Black Creek and Upper Cape Fear aquifers of North Carolina's central coastal plain. This data, along with the increasing potential for salt water encroachment near pumping centers, evidence of aquifer dewatering, and reports of extreme loss of well yield by public water system operators led to a decision by the Division of Water Resources to notify the Environmental Management Commission (EMC) of these water supply dangers in the *Central Coastal Plain Capacity Use Investigation Report*, November 1998. After a lengthy rule making process the EMC approved the Central Coastal Plain Capacity Use Area rules on May 10, 2001 (under the Water Use Act of 1967 [G.S. 143-215.11]).

The rules became effective August 1, 2002. As stated in 15A NCAC 2E .0501, "[t]he intent of this Section [the CCPCUA rules] 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..." The Division will continue to act under the authority of the EMC to regulate water withdrawals in the CCP with that goal.

### Permitting Status

Because the CCPCUA encompassed a portion of the earlier Capacity Use Area No. 1, about 70 permittees existed in the CCPCUA on August 1, 2002. Since then the number of permit holders has grown to 197 (October 20, 2005). Existing permit holders had maximum day limits on withdrawals. This practice was kept for permit holders with ground water sources other than the Cretaceous aquifers with water use reduction requirements. Permits issued to those users had annual limits which were based on documented water use from 1997 or August 1, 1999 through July 31, 2000. This usage was termed the Approved Base Rate (ABR) as defined in the CCPCUA rules. Depending on individual situations the ABR could be adjusted somewhat to account for spending plans or construction in progress.

There are currently 51 permit holders that have ABR's. Several (17) of these water users also have maximum day limits on other ground water sources they use to supply their needs. The 146 remaining permittees have only maximum day limits.

### Approved Base Rates and Cretaceous Water Banks

Those permit holders with ABRs are required to develop alternative water supplies and reduce their dependence on the Cretaceous aquifers according to a schedule established the CCPCUA rules. The reduction at the end of phase I (August 1, 2008) will change the allowed withdrawal from 55 million gallons per day to 42 million gpd for a 23% reduction. Withdrawal reductions in 2013 and 2018 (phases 2 & 3) change the allowed rate of use to 29 million gpd and 17 million gpd, respectively. These account for a 46% reduction in 2013 and 69% reduction in 2018 from the ABRs, respectively. The CCPCUA rules are written so as to adjust to aquifer conditions; if progress toward sustainable use of the aquifers is faster than anticipated, the map of reduction

zones or the number or amount of phased reductions may be changed after proper EMC and public consideration.

Permit holders with alternative water sources on-line have been given an additional incentive to contribute unused (but permitted) Cretaceous aquifer water withdrawals to a Cretaceous aquifer bank account. This feature will promote development of alternative water sources and allow permittees to make use of all the Cretaceous aquifer water available to them under their ABR and reduction schedule limits.

#### Alternative Water Supplies

Good progress is being made toward development of alternative water sources. There are examples of permittees investing in alternative ground water sources (faster recharging aquifers) on an individual water system basis or regional basis. Several water systems have come together to form regional entities to make use of surface water sources. Other systems have opted to purchase their alternative source water from another system. Whatever the solution for each public water supplier, the end result has been and will be increased interconnection and a more thorough knowledge of the potential and existing sources of water in the CCP. Many of the alternative sources and their implementing water systems are described in more detail in the *Central Coastal Plain Capacity Use Area 2004 Status Report*, August 2004 and in future status reports due every five years.

#### Ground Water Analyses

In 2008 and again in 2013, the Division will make recommendations to the EMC about changes to the CCPCUA rules because of changing aquifer conditions. This provision in the rules allows for altering reduction percentage requirements or the reduction zone map because of ground water level responses. The protection afforded the Cretaceous aquifers is only meant to be as strong as necessary to bring about sustainable water use. The analyses may determine that reductions need to be more severe in order to achieve a pattern of sustainable use. To perform the ground water analyses, the Division will use data from our network of monitoring wells and boreholes and will also make use of the water withdrawal reports, water level reports, well construction data, and subsurface information submitted by permittees.

#### Information Available on Web

There is much information available on the web at: [www.ncwater.org](http://www.ncwater.org). Links to the Water Use Act of 1967, the CCPCUA rules, guidance and background documentation, and reports and figures summarizing water use or level information are available to the public.