Central Coastal Plain Capacity Use Area Rules
Hearing Officers' Report

North Carolina
Department of Environment and Natural Resources
Division of Water Resources
Environmental Management Commission

November 2000

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Public Hearings
Afternoon and Evening Sessions on August 8, 2000
Global TransPark Authority Education and Training Center, Kinston

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Introduction

The Environmental Management Commission, having accepted the proposed Central Coastal Plain Capacity Use Area Rules language, authorized the Division of Water Resources on May 15, 2000 to proceed with the public comment process as described in North Carolina General Statute 150B. The Division prepared the properly formatted, June 23, 2000 rules and published the text in the North Carolina Register on July 17, 2000. The Division accepted oral and written comments during the public comment period (July 17, 2000 to September 15, 2000). Those are reproduced in parts III, IV and V later in this report. The summary of public comments and responses to those comments are included in Part II. Parts III and IV are the transcripts of the two public hearings held at the Global TransPark Authority's Education and Training Center near Kinston. Part V includes all written comments received on or before September 15, 2000.

Text Changes

Comments about specific rule language and general statements about conditions or types of use offered as public comments have led the Division to recommend the following language changes:

A policy statement is added to .0501.

.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.**

Text is changed in .0502(b) so as to allow for different methods for withdrawal of ground water. Text is also changed in .0502(b)(1) to allow 180 days rather than 60 days for users to submit their initial application for water use permit.

.0502 WITHDRAWAL PERMITS

(b) No person shall withdraw ground water after the effective date of this Rule in excess of 100,000 gallons per day **by a well, group of wells operated as a system, or sump** for any purpose unless such person shall first obtain a water use permit from the Director. Existing withdrawals of ground water as of the effective date of this Rule and proposed withdrawals previously approved for funding appropriated pursuant to the "Clean Water and Natural Gas Critical Needs Bond Act of 1998" or other local, state or federally funded projects as of the effective date of this Rule shall be allowed to proceed with construction or to continue to operate under interim status until a permit has been issued or denied by the Director,

provided that persons withdrawing in excess of 100,000 gallons per day **by a well, group of wells operated as a system, or sump** comply with the following requirements:

(1) Persons conducting withdrawals in the Capacity Use Area that require a permit shall submit a permit application to the Division of Water Resources within **180** days of the effective date of this Rule.

The rule had required that water use from Cretaceous aquifers in the western portions of Duplin, Wayne, Wilson and Edgecombe counties (the unnamed Cretaceous Zone) not be increased. Further review of hydrologic data indicates that this portion of the aquifer is unconfined or poorly confined and has a greater recharge potential than other portions of the aquifer. Therefore, provisions .0503(6)(a)(iv), .0503(6)(b)(iv), .0503(6)(c)(iv) are deleted. If the effect of increased use in this area is a larger impact area, then the Declining Water Level Zone boundary may need to be changed in the future to encompass these problems.

.0503(6) PRESCRIBED WATER USE REDUCTIONS IN CRETACEOUS AQUIFER ZONES

(a)

(deleted) **(iv)** **At the end of the Phase I, permittees who are located in the Cretaceous zone, but outside of the salt water encroachment, dewatering, or declining water level zones will be required not to exceed annual water use from Cretaceous aquifers as established by their approved base rate.**

(b)

(deleted) **(iv)** **At the end of the Phase II, permittees who are located in the Cretaceous zone, but outside of the salt water encroachment, dewatering, or declining water level zones will be required not to exceed annual water use from Cretaceous aquifers as established by their approved base rate.**

(c)

(deleted) **(iv)** **At the end of the Phase III, permittees who are located in the Cretaceous zone, but outside of the salt water encroachment, dewatering, or declining water level zones will be required not to exceed annual water use from Cretaceous aquifers as established by their approved base rate.**

Similar to the western edge of the Cretaceous aquifers as referred to above, the Peedee aquifer is poorly confined and has a higher recharge potential. Therefore, provision .0503(8) is added. This language does not allow water users to exempt withdrawals from wells screened in multiple aquifers including the Peedee from the reduction requirements.

.0503(8)

The reductions specified in Rule .0503 of this Section do not apply to wells exclusively screened or open to the Peedee aquifer.

Provision .0503(9) has been added to exempt particular wells from reduction requirements provided documentation exists that shows that ground water levels in a well do not decline as regional ground water levels decline.

.0503(9)

An applicant may submit documentation supporting the exemption of a well located in the Declining Water Level Zone from the withdrawal reductions specified in Rule .0503 of this Section. This documentation must include a record of monthly static water levels from that well over at least a three-year period, ending with the month when the request for exemption is submitted. The Director may exempt a well from reductions if the water level history shows no pattern of decline during this

three-year period. A well previously exempted from the withdrawal reductions shall become subject to the reductions if water levels begin to show a pattern of decline.

Provision .0505(c) has been amended to allow for direct submission of water use information to the North Carolina Department of Agriculture and Consumer Services.

.0505 ACCEPTABLE WITHDRAWAL METHODS THAT DO NOT REQUIRE A PERMIT

(c) Agricultural water users may either register water use with the Division of Water Resources as provided in this Rule **or provide the information to the North Carolina Department of Agriculture and Consumer Services.**

The definition of the Approved Base Rate .0507(1) is amended to account for that portion of a plant nursery operation where low volume micro-irrigation is used.

.0507 DEFINITIONS

(1) Approved base rate: The larger of a person's January 1, 1997 through December 31, 1997 or August 1, 1999 through July 31, 2000 annual water use rate from the Cretaceous aquifer system, or an adjusted water use rate determined through negotiation with the Division using documentation provided by the applicant of:

(a) water use reductions made since January 1, 1992,

(b) use of wells for which funding has been approved or for which plans have been approved by the Division of Environmental Health by the effective date of this Rule,

(c) the portion of a plant nursery operation using low volume micro-irrigation, or

(d) other relevant information.

The definition of the Cretaceous Aquifer System .0507(5) is changed to define the aquifers that are part of that system of aquifers. This change emphasizes the exclusion of bedrock wells from the reduction requirements.

(5) Cretaceous aquifer system: A system of aquifers in the North Carolina coastal plain that is comprised of water-bearing earth materials deposited during the Cretaceous period of geologic time. The extent of the Cretaceous Aquifer System is defined in the hydrogeological framework **and includes the Peedee, Black Creek, Upper Cape Fear and Lower Cape Fear aquifers.**

The definition of Intermittent Users .0507(13) is amended to include aquaculture operations. If averaged over a 5 year period, their high volume water use during filling and refilling of ponds equates to a very low daily average use (much less than 100,000 gallons per day).

(13) Intermittent users: Persons who withdraw ground water less than 60 days per calendar year**;** or who withdraw less than 15 million gallons of ground water in a calendar year**; or aquaculture operations licensed under the authority of GS 106-761 using water for the initial filling of ponds or refilling of ponds no more frequently than every 5 years.**

Signatures

The Hearing Officers' Recommendation is to approve the final Central Coastal Plain Capacity Use Area Rules as delineated on pages I-5 through I-14 of this report. That language includes the changes from the June 23, 2000 version as described above.

John N. Morris
Division of Water Resources

E. Leo Green, Jr.
Environmental Management Commission

Ryan D. Turner
Environmental Management Commission

Robert E. Cook
Environmental Management Commission

TITLE 15A - DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

CHAPTER 2 - ENVIRONMENTAL MANAGEMENT

SUBCHAPTER 2E - WATER USE REGISTRATION AND ALLOCATION

SECTION .0100 - AUTHORITY

.0102 PURPOSE

~~These regulations are intended to provide for the management of water withdrawal and uses in the designated capacity use areas as needed to conserve water resources in the areas, and to maintain conditions that are conductive to the orderly development and beneficial use of these resources.~~

History Note: *Authority G.S. 143-215.12; 143-215.14;*
Eff. February 1, 1976;
Repealed Eff. August 1, 2002.

.0103 SCOPE

~~These regulations establish general and specific requirements that are applicable to all persons who withdraw, obtain or utilize water within the designated capacity use areas. Special requirements applicable to individual users will normally be included in appropriate water use permits.~~

History Note: *Authority G.S. 143-215.14;*
Eff. February 1, 1976;
Repealed Eff. August 1, 2002.

.0106 DEFINITIONS

As used herein, unless the context otherwise requires:

(1) "Director" means the Director of the Division of ~~Environmental Management.~~ Water Resources.

(2) "Division" means the Division of ~~Environmental Management.~~ Water Resources.

History Note: *Authority G.S. 87-87; 143-215.14; 143-215.21;*
Eff. March 1, 1985;
Amended Eff. August 1, 2002.

.0107 DELEGATION

(a) The Director is delegated the authority to grant, modify, revoke or deny permits under G.S. 143-215.15 and G.S. 143-215.16.

(b) The Director may delegate any permitting function given by the rules of this Subchapter.

(c) The Director is delegated the authority to assess civil penalties and request the Attorney General to institute civil actions under G.S. 143-215.17.

(d) The Director ~~of the Division of Water Resources~~ is delegated the authority to process applications and collect fees for registration of water withdrawals and transfers under G.S. 143-215.22H and G.S. 143- 215.3(a)(1b).

(e) The Director ~~of the Division of Water Resources~~ may delegate any water withdrawal or transfer registration processing functions given by the rules of this Subchapter.

History Note: *Filed as a Temporary Amendment Eff. October 14, 1991 for a period of 180 Days to Expire on April 11, 1992;*
Authority G.S. 143-215.3(a)(1); 143-215.3(a)(4);
Eff. March 1, 1985;
Amended Eff. August 1, 2002; September 1, 1994; April 1, 1992.

SECTION .0200 - CAPACITY USE AREA NO. 1

.0201 DECLARATION AND DELINEATION OF CAPACITY USE AREA NO. 1

~~The Environmental Management Commission on the 18th day of December, 1968, declared and delineated the following described geographical area a capacity use area:~~

~~"That area bounded by a line beginning at the intersection of Highway US 17 and Roanoke River, at Williamston, and running south along Highway US 17 to the Martin-Beaufort Counties line; thence northwest along the Martin-Beaufort Counties line to the Pitt County line; thence generally south along the Pitt-Beaufort Counties line to the Craven County line; thence southwest along the Pitt-Craven Counties line to the Neuse River; thence southeast along the Neuse River to New Bern; thence south along Highway US 70 to Morehead City and on to Atlantic; thence north along the eastern edge of Cedar Island, across Pamlico Sound, along the eastern edge of Great Island, to the intersection of Highways US 264 and NC 94 near the south shore of Lake Mattamuskeet; thence north along Highway NC 94 to Columbia; thence west along the south shore of Albemarle Sound to the mouth of Roanoke River; thence generally southwest along Roanoke River to Highway US 17 at Williamston, the beginning."~~

History Note: *Authority G.S. 143-215.13;*
Eff. February 1, 1976;
Repealed Eff. August 1, 2002.

.0202 PERSONS WITHDRAWING GROUNDWATER IN CAPACITY USE AREAS

~~(a) Permits Required~~
~~(1) Water Use Permit~~
~~(A) No person shall, after June 18, 1969 (as designated the Commission), withdraw, obtain or utilize surface waters or ground waters, or both, in excess of 100,000 gallons per day for any purpose unless such person shall first apply for a water use permit therefor from the Director.~~
~~(B) Application for such water use permit shall be submitted on a form approved by the Director. An approved form, may be obtained from the Department of Natural Resources and Community Development, P.O. Box 27687, Raleigh, N.C. 27611. The application shall describe the specific purpose or purposes for which the water will be withdrawn or used, and shall justify the quantity needed for each purpose. Each application submitted to the Division will be considered and acted upon as soon as practicable. Pending the Director's issuance or denial of a permit, the applicant may continue the same withdrawal or use which existed prior to the date of declaration of the capacity use area.~~
~~(C) Water use permits shall be issued for a period to be determined by the Director but not to exceed the longest of the following:~~
~~(i) 10 years, or~~
~~(ii) the duration of the existence of the capacity use area, or~~
~~(iii) the period found by the Director to be necessary for reasonable amortization of the applicant's water withdrawal and water using facilities.~~
~~(D) Each water use permit shall be subject to review, modification or renewal by the Director as set forth in Section 143-215.15(c) of the General Statutes of North Carolina (Water Use Act of 1967). Holders of water use permits will be expected to notify the Director of any major changes in usage. Review of water use permits may require the justification of continuing needs and the documentation of all water conservation measures.~~
~~(E) Water use permits shall not be transferred except with the approval of the Director.~~
~~(F) Water withdrawn under any water use permit shall be used only for the purpose(s) set forth in the permit.~~
~~(2) Well Construction Permit~~
~~(A) A well construction permit shall be obtained prior to construction of all wells except those constructed for individual domestic water supplies.~~
~~(B) Application for a well construction permit shall be made of Form GW22, "Application for Permit to Construct a Well," which can be obtained from the Division. The application shall state the purpose of the well, and shall include the proposed location, construction specifications, the estimated withdrawal rate, the location and ownership of all water supply wells within a radius of either:~~
~~(i) 1,000 feet for wells withdrawing less than 100,000 gallons per day;~~
~~(ii) 1,500 feet for wells withdrawing 100,000 to 1,000,000 gallons per day;~~
~~(iii) 2,500 feet for wells withdrawing more than 1,000,000 gallons per day; and such other information as the Director may reasonably deem necessary.~~
~~(b) Withdrawal and Water Level Controls Required~~
~~(1) Total Quantity. The water use permit issued by the Director shall establish the maximum total quantity that may be withdrawn daily, and may specify the timing of withdrawals.~~

~~(2) Maximum Withdrawal Rates. Maximum rates of withdrawal of water from individual wells or surface water intakes may be set forth in the water use permit issued by the Director, when the Director determines that such control is required to conserve water or protect the water quality.~~

~~(3) Maximum Drawdown Levels. The water use permit may specify the lowest water level that may be produced in any well or wells.~~

~~(4) Additional Provisions. The water use permit shall be issued subject to such other provisions as the Director deems necessary to conserve or protect the water resources of the capacity use area. The permit may:~~

~~(A) require that the applicant cooperate with the Division, and with other users of water in the affected area, in determining and implementing reasonable and practical methods and processes to conserve and protect the water resources while avoiding or minimizing adverse effects on the quantity and quality of water available to persons whose water supply has been materially reduced or impaired as a result of withdrawals made pursuant to water use permits;~~

~~(B) require that any portion of the water withdrawn be returned to the source or to any other stream or aquifer as approved by the Director;~~

~~(C) require the holder of a water use permit to obtain the Director's approval of the locations and distribution of individual surface water intakes and wells, and of the depths, zones, aquifers or parts of aquifers from which withdrawals may be made;~~

~~(D) require that each well or surface water intake be equipped with an approved monitoring device that will provide a continuous record of withdrawals within an accuracy of plus or minus five percent;~~

~~(E) require that observation stations or wells be installed and maintained for monitoring water levels and water quality;~~

~~(F) require that holders of water use permits unite in joint efforts to conserve water quantity and quality by any and all of the requirements in this Rule when applicable.~~

~~(c) Reports Required~~

~~(1) Well Record or Well Completion or Abandonment Report. Any person completing or abandoning any well shall furnish the Director, on Form GW-1, a certified record of the construction or abandonment of such well within a period of 30 days from completion of construction or abandonment, as required in the provisions of Article 7, Chapter 87 and Article 38, Chapter 143, General Statutes of North Carolina. The required completion report shall include the location, size, depth, casing record, method of finishing, formation log, static water level, yield data and records of any surveys, geophysical logs, test or water analyses. Samples of formation cuttings from all wells shall be furnished to the Director except when the Director specifies that such samples are not required. For wells withdrawing more than 1,000,000 gallons a day, a description of the proposed device for metering withdrawals is required. The required abandonment report shall include the location and method of sealing and plugging.~~

~~(2) Reports and Records of Withdrawal from each Source. For withdrawals of more than 100,000 gallons per day, monthly reports of daily withdrawals from each well or surface water intake shall be furnished to the Director not later than 15 days after the end of each calendar month. Withdrawals shall be measured by a method acceptable to the Director. Withdrawals of 1,000,000 gallons per day or more shall be measured by an approved metering device, equipped with an automatic chart recorder, and having any accuracy of plus or minus five percent. The required reports shall include copies of chart recordings.~~

~~(3) Reports of Water Levels. For withdrawals of less than 1,000,000 gallons per day, water level reporting, if required, may be specified in the permit. For withdrawals of 1,000,000 gallons per day or more monthly reports of water levels shall be furnished to the Director not later than 15 days after the end of each calendar month as follows:~~

~~(A) the pumping water level for each supply well as measured with a steel or electric tape from a fixed reference point each day at approximately the same hour, or at such other time intervals as may be satisfactory to the Director. The measurements shall be within accuracy limits of plus or minus 0.25 of a foot or three inches.~~

~~(B) The level of each surface water used as a source of supply, as measured by a method and at such frequency as specified in the permit.~~

~~(C) The Water levels in observation wells other than supply wells as measured from a fixed reference point at intervals specified by the permit.~~

~~(4) Other Reports. The Director may require reports of other data pertinent and necessary to the evaluation of the effects of withdrawals.~~

History Note: *Authority G.S. 143-215.14; 143-215.15;*
Eff. February 1, 1976;
Amended Eff. March 1, 1985;
Repealed Eff. August 1, 2002.

.0205 ACTIVITIES

~~Activities Requiring Prior Approval by the Commission. No construction or installation of works of improvement which may significantly affect the quantity or quality of the water resources shall be undertaken without prior approval from the Commission. These include, but are not necessarily limited to, the following:~~

~~(1) Surface Drainage Projects~~

~~(a) Any project involving the drainage or diversion of ponded or standing water, except water temporarily impounded as the result of flooding, from an area in excess of five acres;~~

~~(b) Application for approval of any such project shall include:~~

~~(i) a description of the area,~~

~~(ii) purpose of the project and method of drainage, and~~

~~(iii) a general evaluation of the probable effects of the project on the water resources.~~

~~(2) Subsurface Drainage Projects~~

~~(a) Any project involving the withdrawal or diversion of ground water, except for the purpose of water supply or agricultural use, that will probably result in lowering existing ground water levels or artesian head more than three feet for a period of one year in any area of more than five acres;~~

~~(b) Application for approval of any such project shall include a description of the area, purpose of the project and method of drainage, and a general evaluation of the probable effects of the project on the water resources.~~

~~(3) Well Mining Projects~~

~~(a) Any projects involving the removal or extraction of minerals through wells;~~

~~(b) Application for approval of any such project shall include:~~

~~(i) a description of the location and extent of the area;~~

~~(ii) methods, procedures and processes of removal or extraction;~~

~~(iii) well plugging and abandonment procedures, and~~

~~(iv) an evaluation of the effects of the water resources.~~

~~(4) Excavation Projects~~

~~(a) Any project involving the excavation of any land that lies under water;~~

~~(b) Any project involving the excavation of any single area in excess of five acres to any depth below the highest natural level of groundwater;~~

~~(c) Application for approval of any such projects shall include a description of the location and the extent of the area, purpose, depth, and excavation methods.~~

History Note: *Authority G.S. 143-215.14; 143-215.20;*
Eff. February 1, 1976;
Repealed Eff. August 1, 2002.

SECTION .0500 - CENTRAL COASTAL PLAIN CAPACITY USE AREA

.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.

History Note: *Authority G.S. 143-215.13;*
Eff. August 1, 2002.

.0502 WITHDRAWAL PERMITS

(a) Existing ground water withdrawal permits issued in Capacity Use Area No. 1 (15A NCAC 2E .0200) within the Central Coastal Plain Capacity Use Area are reissued under Section .0500 of this Subchapter and are valid until the expiration date specified in each permit. Water use permits are no longer required for withdrawals in Hyde and Tyrrell Counties as of the effective date of this Rule. Permits are not required for surface water use under Section .0500 of this Subchapter in the Central Coastal Plain Capacity Use Area as delineated in Rule .0501 of this Section.

(b) No person shall withdraw ground water after the effective date of this Rule in excess of 100,000 gallons per day by a well, group of wells operated as a system, or sump for any purpose unless such person shall first obtain a water use

permit from the Director. Existing withdrawals of ground water as of the effective date of this Rule and proposed withdrawals previously approved for funding appropriated pursuant to the "Clean Water and Natural Gas Critical Needs Bond Act of 1998" or other local, state or federally funded projects as of the effective date of this Rule shall be allowed to proceed with construction or to continue to operate under interim status until a permit has been issued or denied by the Director, provided that persons withdrawing in excess of 100,000 gallons per day by a well, group of wells operated as a system, or sump comply with the following requirements:

(1) Persons conducting withdrawals in the Capacity Use Area that require a permit shall submit a permit application to the Division of Water Resources within 180 days of the effective date of this Rule.

(2) Persons who have submitted applications shall provide any additional information requested by the Division of Water Resources for processing of the permit application within 30 days of the receipt of that request.

(3) Persons conducting withdrawals in the Capacity Use Area that require a permit shall submit water level and water use data on a form supplied by the Division four times a year, within 30 days of the end of March, June, September, and December until a permit has been issued or denied by the Division of Water Resources.

(c) Ground water withdrawals will be governed by the following standards:

(1) Adverse impacts of ground water withdrawals shall be avoided or minimized. Adverse impacts include, but are not limited to:

(A) dewatering of aquifers;

(B) encroachment of salt water;

(C) land subsidence or sinkhole development;

(D) long-term declines in aquifer water levels.

(2) Adverse impacts on other water users from ground water withdrawals shall be corrected or minimized through efficient use of water and development of sustainable water sources.

(3) In determining the importance and necessity of a proposed withdrawal the efficiency of water use and implementation of conservation measures shall be considered.

(d) An application for a water use permit must be submitted on a form approved by the Director to the North Carolina Division of Water Resources. The application shall describe the purpose or purposes for which water will be used, shall set forth the method and location of withdrawals, shall justify the quantities needed, and shall document water conservation measures to be used by the applicant to ensure efficient use of water and avoidance of waste. Withdrawal permit applications shall include the following information:

(1) Location by latitude and longitude of all wells to be used for withdrawal of water.

(2) Specifications for design and construction of existing and proposed production and monitoring wells. Exceptions may be made where specific items of information are not critical, as determined by the Director, to manage the ground water resource.

(A) Well diameter;

(B) Total depth of the well;

(C) Depths of all open hole or screened intervals that will yield water to the well;

(D) Depth of pump intake(s);

(E) Size, capacity and type of pump;

(F) Depth to top of gravel pack;

(G) Depth measurements shall be within accuracy limits of plus or minus 0.10 feet and referenced to a known land surface elevation.

(3) Withdrawal permit applications for use of ground water from the Cretaceous aquifer system shall include plans to reduce water use from these aquifers as specified in Rule .0503 of this Section. Withdrawal rates from the Cretaceous aquifer system that exceed the approved base rate may be permitted during Phase I of Rule .0503 of this Section if the applicant can demonstrate to the Director's satisfaction a need for the greater amount. Cretaceous aquifer system wells will be identified using the specifications in Rule .0502(d)(1) and .0502(d)(2) of this Section and the hydrogeological framework.

(4) Withdrawal permit applications for dewatering of mines, pits or quarries shall include a dewatering or depressurization plan that includes:

(A) a hydrogeological analysis of the dewatering or depressurization activity;

(B) the location, design and specifications of any sumps, drains or other withdrawal sources including wells and trenches;

(C) the lateral extent and depth of the zone(s) to be dewatered or depressurized;

(D) a monitoring plan that provides data to delineate the nature and extent of dewatering or depressurization;

(E) certification by an appropriate North Carolina Licensed Engineer or Geologist of all plans and hydrogeological analyses prepared to meet these requirements.

(5) Conservation Measures. The applicant shall provide information on existing conservation measures and conservation measures to be implemented during the permit period as follows:

(A) Public water supply systems shall develop and implement a feasible water conservation plan incorporating, at a minimum, the following components. Each component shall be described, including a timetable for implementing each component that does not already exist.

(i) Adoption of a water conservation-based rate structure, such as: flat rates, increasing block rates, seasonal rates, or quantity-based surcharges.

(ii) Implementation of a water loss reduction program if unaccounted for water is greater than 15 percent of the total amount produced, as documented annually using a detailed water audit. Water loss reduction programs shall consist of annual water audits, in-field leak detection, and leak repair.

(iii) Adoption of a water conservation ordinance for irrigation, including such measures as: time-of-day and day-of-week restrictions on lawn and ornamental irrigation, automatic irrigation system shut-off devices or other appropriate measures.

(iv) Implementation of a retrofit program that makes available indoor water conservation devices to customers (such as showerheads, toilet flappers, and faucet aerators).

(v) Implementation of a public education program (such as water bill inserts, school and civic presentations, water treatment plant tours, public services announcements, or other appropriate measures).

(vi) Evaluation of the feasibility of water reuse as a means of conservation, where applicable.

(B) Users of water for commercial purposes, other than irrigation of crops and forestry stock, shall develop and implement a water conservation plan as follows:

(i) an audit of water use by type of activity (for example, process make-up water, non-contact cooling water) including existing and potential conservation and reuse measures for each type of water use;

(ii) an implementation schedule for feasible measures identified in the above item for conservation and reuse of water at the facility.

(C) Users of water for irrigation of crops and forestry stock shall provide the following information:

(i) total acreage with irrigation available;

(ii) types of crops that may be irrigated;

(iii) method of irrigation (for example, wells that supply water to canals, ditches or central pivot systems or any other irrigation method using ground water);

(iv) a statement that the applicant uses conservation practice standards for irrigation as defined by the Natural Resources Conservation Service.

(6) If an applicant intends to operate an aquifer storage and recovery program (ASR), the applicant shall provide information on the storage zone, including the depth interval of the storage zone, lateral extent of the projected storage area, construction details of wells used for injection and withdrawal of water, and performance of the ASR program.

(e) The Director shall issue, modify, revoke, or deny each permit as set forth in G.S. 143-215.15. Permittees may apply for permit modifications. Any application submitted by a permittee shall be subject to the public notice and comment requirements of G.S. 143-215.15(d).

(f) Permit duration shall be set by the Director as described in G.S. 143-215.16(a). Permit transferability is established in G.S. 143-215.16(b).

(g) Persons holding a permit shall submit signed water usage and water level reports to the Director not later than 30 days after the end of each permit reporting period as specified in the permit. Monitoring report requirements may include:

(1) Amounts of daily withdrawal from each well.

(2) Pumping and static water levels for each supply well as measured with a steel or electric tape, or an alternative method as specified in the permit, at time intervals specified in the permit.

(3) Static water levels in observation wells at time intervals specified in the permit.

(4) Annual sampling by applicants located in the salt water encroachment zone and chloride concentration analysis by a State certified laboratory.

(5) Any other information the Director determines to be pertinent and necessary to the evaluation of the effects of withdrawals.

(h) Water use permit holders shall not add new wells without prior approval from the Director.

(i) The Director may require permit holders to construct observation wells to observe water level and water quality conditions before and after water withdrawals begin if there is a demonstrated need for aquifer monitoring to assess the impact of the withdrawal on the aquifer.

(j) For all water uses other than dewatering of mines, pits or quarries, withdrawals shall be permitted only from wells that are constructed such that the pump intake or intakes are at a shallower depth than the top of the uppermost confined aquifer that yields water to the well. Confined aquifer tops are established in the hydrogeological framework. Where

wells in existence as of the effective date of this Rule are not in compliance with the requirements of this provision, the permit shall include a compliance schedule for retrofitting or replacement of non-compliant wells. Withdrawals from unconfined aquifers shall not lower the water table by an amount large enough to decrease the effective thickness of the unconfined aquifer by more than 50 percent.

(k) For withdrawals to dewater mines, pits or quarries, the permit shall delimit the extent of the area and depths of the aquifer(s) to be dewatered or depressurized. Maximum well withdrawal rates, total use limits, and the permissible extent of dewatering or depressurization will be determined by the Director using available methods of hydrogeologic analysis.

(l) Withdrawals of water that cause changes in water quality such that the available uses of the resource are adversely affected will not be permitted. For example, withdrawals shall not be permitted that result in migration of ground water that contains more than 250 milligrams per liter chloride into pumping wells that contain chloride at concentrations below 250 milligrams per liter.

(m) General permits may be developed by the Division and issued by the Director for categories of withdrawal that involve the same or substantially similar operations, have similar withdrawal characteristics, require the same limitations or operating conditions, and require similar monitoring.

(n) Permitted water users may withdraw and sell or transfer water to other users provided that their permitted withdrawal limits are not exceeded.

(o) A permitted water user may sell or transfer to other users a portion of his permitted withdrawal. To carry out such a transfer, the original permittee must request a permit modification to reduce his permitted withdrawal and the proposed recipient of the transfer must apply for a new or amended withdrawal permit under Section .0500 of this Subchapter.

(p) Where an applicant or a permit holder can demonstrate that compliance with water withdrawal limits established under Section .0500 of this Subchapter is not possible because of construction schedules, requirements of other laws, or other reasons beyond the control of the applicant or permit holder, and where the applicant or permit holder has made appropriate efforts to conserve water and to plan the development of adequate water sources, the Director may issue a temporary permit with an alternative schedule to attain compliance with provisions of Section .0500 of this Subchapter, as authorized in G.S. 143-215.15(c)(ii).

History Note: *Authority G.S. 143-215.14; 143-215.15; 143-215.16; Eff. August 1, 2002.*

.0503 PRESCRIBED WATER USE REDUCTIONS IN CRETACEOUS AQUIFER ZONES

Cretaceous aquifer water use shall be reduced in prescribed areas over a 16 year period, starting from approved base rates on the effective date of this Rule. The Cretaceous aquifer system zones and the three phases of water use reductions are listed as follows:

(1) Cretaceous aquifer system zones are regions established in the fresh water portion of the Cretaceous aquifer system that delimit zones of salt water encroachment, dewatering and declining water levels. These zones are designated on the paper and digital map entitled "Central Coastal Plain Capacity Use Area Cretaceous Aquifer Zones" (CCPCUA) on file in the Office of the Secretary of State one week prior to the effective date of these Rules.

(2) The reductions specified in Rule .0503 of this Section do not apply to intermittent users.

(3) If a permittee implements an aquifer storage and recovery program (ASR), reduction requirements will be based on the total net withdrawals. The reductions specified in Rule .0503 of this Section do not apply if the volume of water injected into the aquifer is greater than the withdrawal volume. If the withdrawal volume is greater than the injected volume, reductions specified in Rule .0503 of this Section apply to the difference between the withdrawal volume and the injected volume.

(4) The reductions specified in Rule .0503 of this Section shall not reduce permitted water use rates below 100,001 gallons per day.

(5) Phase definitions:

(a) Phase I: The six year period extending into the future from the effective date of this Rule.

(b) Phase II: The five year period extending into the future from six years after the effective date of this Rule to 11 years after the effective date of this Rule.

(c) Phase III: The five year period extending into the future from 11 years after the effective date of this Rule to 16 years after the effective date of this Rule.

(6) Phase reductions:

(a) Phase I:

(i) At the end of the Phase I, permittees who are located in the dewatering zone will be required to reduce annual water use from Cretaceous aquifers by 25% from their approved base rate.

(ii) At the end of the Phase I, permittees who are located in the salt water encroachment zone will be required to reduce annual water use from Cretaceous aquifers by 25% from their approved base rate.

(iii) At the end of the Phase I, permittees who are located in the declining water level zone will be required to reduce annual water use from Cretaceous aquifers by 10% from their approved base rate.

(b) Phase II:

(i) At the end of the Phase II, permittees who are located in the dewatering zone will be required to reduce annual water use from Cretaceous aquifers by 50% from their approved base rate.

(ii) At the end of the Phase II, permittees who are located in the salt water encroachment zone will be required to reduce annual water use from Cretaceous aquifers by 50% from their approved base rate.

(iii) At the end of the Phase II, permittees who are located in the declining water level zone will be required to reduce annual water use from Cretaceous aquifers by 20% from their approved base rate.

(c) Phase III:

(i) At the end of the Phase III, permittees who are located in the dewatering zone will be required to reduce annual water use from Cretaceous aquifers by 75% from their approved base rate.

(ii) At the end of the Phase III, permittees who are located in the salt water encroachment zone will be required to reduce annual water use from Cretaceous aquifers by 75% from their approved base rate.

(iii) At the end of the Phase III, permittees who are located in the declining water level zone will be required to reduce annual water use from Cretaceous aquifers by 30% from their approved base rate.

(7) The CCPCUA Cretaceous Aquifer Zones map will 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 will 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 will 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 will adopt the updated map and reduction percentage changes after public hearing.

(8) The reductions specified in Rule .0503 of this Section do not apply to wells exclusively screened or open to the Peedee aquifer.

(9) An applicant may submit documentation supporting the exemption of a well located in the Declining Water Level Zone from the withdrawal reductions specified in Rule .0503 of this Section. This documentation must include a record of monthly static water levels from that well over at least a three-year period, ending with the month when the request for exemption is submitted. The Director may exempt a well from reductions if the water level history shows no pattern of decline during this three-year period. A well previously exempted from the withdrawal reductions shall become subject to the reductions if water levels begin to show a pattern of decline.

History Note: *Authority G.S. 143-215.15;*
Eff. August 1, 2002.

.0504 REQUIREMENTS FOR ENTRY AND INSPECTION

(a) The Division may enter and inspect property in order to evaluate wells, pumps, metering equipment or other withdrawal or measurement devices and records of water withdrawals and water levels, if:

(1) Persons conduct an activity that the Division believes requires the use of water at quantities that subject the person to regulation under these Rules;

(2) A permittee or applicant has not provided data or information on use of water and wells and other water withdrawal facilities as required by these Rules; or

(3) Water levels and chloride concentrations at the person's facility, or at nearby facilities or monitoring stations, indicate that aquifers may be damaged by overpumping or salt water encroachment, or other adverse affects that may be attributed to withdrawal by the person.

(b) All information submitted to fulfill the requirements of these Rules, or to obtain a permit under these Rules, or obtained by inspection under these Rules, shall be treated as Confidential Business Information, if requested by the applicant, and found to be such by the Division. Reports defined in Rule .0502(g) of this Section are not considered Confidential Business Information.

History Note: *Authority G.S. 143-215.19;*
Eff. August 1, 2002.

.0505 ACCEPTABLE WITHDRAWAL METHODS THAT DO NOT REQUIRE A PERMIT

(a) As of the effective date of this Rule, any person who is not subject to Rule .0502 of this Section and withdraws more than 10,000 gallons per day from surface or ground water in the Central Coastal Plain Capacity Use Area, shall register such withdrawals on a form supplied by the Division and comply with the following provisions:

(1) Construct new wells such that the pump intake or intakes are above the top of the uppermost confined aquifer that yields water to the well. Confined aquifer tops are established in the hydrogeological framework.

(2) Report surface and ground water use to the Division of Water Resources on an annual basis on a form supplied by the Division.

(3) Withdraw water in a manner that does not damage the aquifer or cause salt water encroachment or other adverse impacts.

(b) These requirements do not apply to withdrawals to supply an individual domestic dwelling.

(c) Agricultural water users may either register water use with the Division of Water Resources as provided in this Rule or provide the information to the North Carolina Department of Agriculture and Consumer Services.

History Note: *Authority G.S. 143-215.14; 143-355(k);*
Eff. August 1, 2002.

.0506 CENTRAL COASTAL PLAIN CAPACITY USE AREA STATUS REPORT

Within two years of the effective date of this Rule, and at five year intervals thereafter, the Division of Water Resources shall publish a status report on the Central Coastal Plain Capacity Use Area. The report shall include the following:

(1) Compilations of water use data,

(2) Evaluations of surface and ground water resources,

(3) Updated information about the hydrogeologic framework in the Central Coastal Plain Capacity Use Area,

(4) A summary of alternative water sources and water management techniques that may be feasible by generalized geographic location, and

(5) A status report on actions by water users to develop new water sources and to increase water use efficiency.

History Note: *Authority G.S. 143-215.14;*
Eff. August 1, 2002.

.0507 DEFINITIONS

The following is a list of definitions for terms found in Section .0500 of this Subchapter.

(1) Approved base rate: The larger of a person's January 1, 1997 through December 31, 1997 or August 1, 1999 through July 31, 2000 annual water use rate from the Cretaceous aquifer system, or an adjusted water use rate determined through negotiation with the Division using documentation provided by the applicant of:

(a) water use reductions made since January 1, 1992,

(b) use of wells for which funding has been approved or for which plans have been approved by the Division of Environmental Health by the effective date of this Rule,

(c) the portion of a plant nursery operation using low volume micro-irrigation, or

(d) other relevant information.

(2) Aquifer: Water-bearing earth materials that are capable of yielding water in usable quantities to a well or spring.

(3) Aquifer storage and recovery program (ASR): Controlled injection of water into an aquifer with the intent to store water in the aquifer for subsequent withdrawal and use.

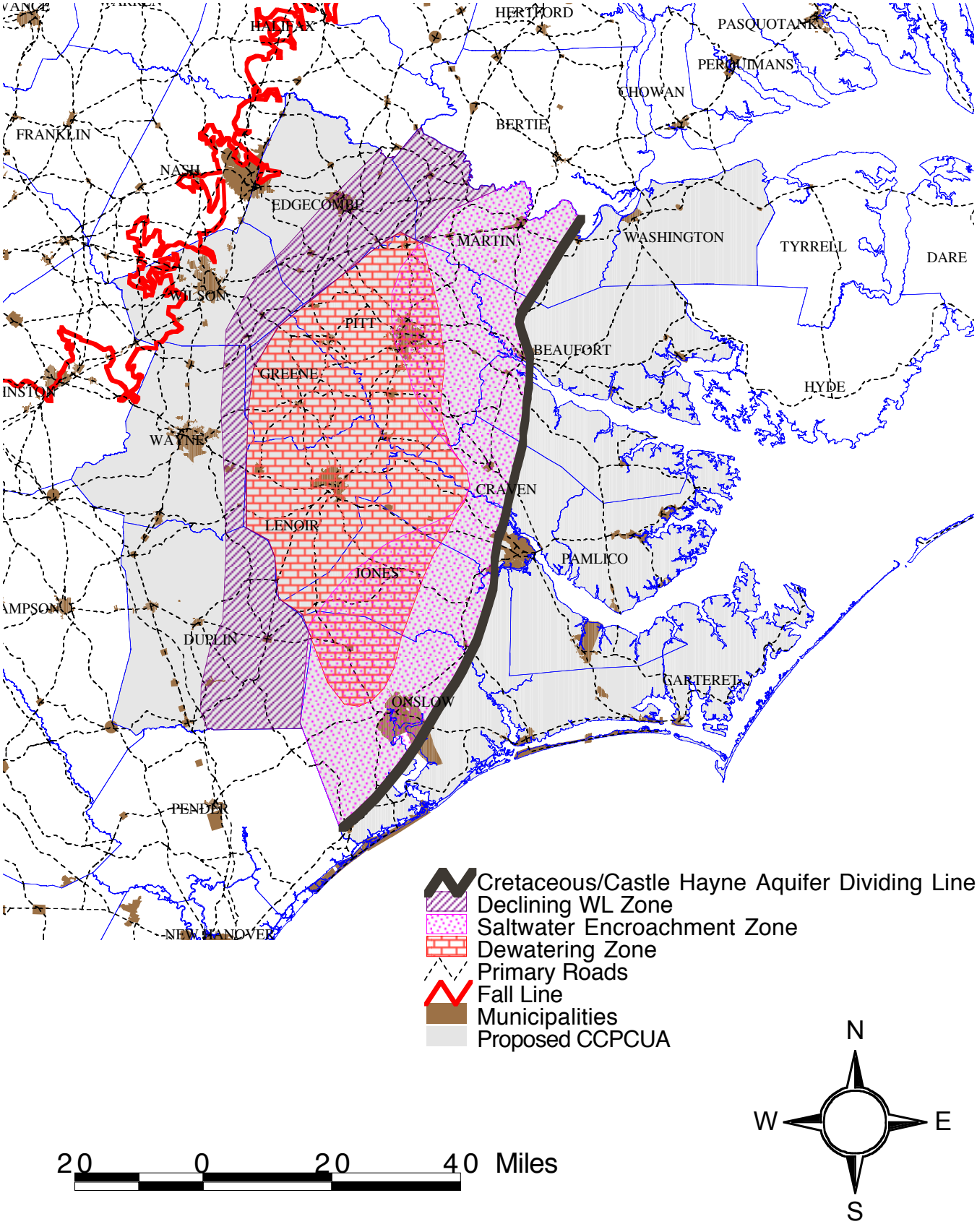
(4) Confining unit: A geologic formation that does not yield economically practical quantities of water to wells or springs. Confining units separate aquifers and slow the movement of ground water.

(5) Cretaceous aquifer system: A system of aquifers in the North Carolina coastal plain that is comprised of water-bearing earth materials deposited during the Cretaceous period of geologic time. The extent of the Cretaceous Aquifer System is defined in the hydrogeological framework and includes the Peedee, Black Creek, Upper Cape Fear and Lower Cape Fear aquifers.

(6) Dewatering: Dewatering occurs when aquifer water levels are depressed below the top of a confined aquifer or water table declines adversely affect the resource.
(7) Flat rates: Unit price remains the same regardless of usage within customer class.
(8) Fresh water: Water containing chloride concentrations equal to or less than 250 milligrams per liter.
(9) Gravel pack: Sand or gravel sized material inside the well bore and outside the well screen and casing.
(10) Ground water: Water in pore spaces or void spaces of subsurface sediments or consolidated rock.
(11) Hydrogeological framework: A three-dimensional representation of aquifers and confining units that is stored in Division data bases and may be adjusted by applicant supplied information.
(12) Increasing block rates: Unit price increases with additional usage.
(13) Intermittent users: Persons who withdraw ground water less than 60 days per calendar year; or who withdraw less than 15 million gallons of ground water in a calendar year; or aquaculture operations licensed under the authority of GS 106-761 using water for the initial filling of ponds or refilling of ponds no more frequently than every 5 years.
(14) Observation well: A non-pumping well screened in a particular aquifer where water levels can be measured and water samples can be obtained.
(15) Pumping water level: The depth to ground water in a pumping well as measured from a known land surface elevation. Measurements shall be made four hours after pumping begins. Measurements shall be within accuracy limits of plus or minus 0.10 feet.
(16) Quantity based surcharges: Surcharges billed with usage over a certain determined quantity.
(17) Salt water: Water containing chloride concentrations in excess of 250 milligrams per liter.
(18) Salt water encroachment: The lateral or vertical migration of salt water toward areas occupied by fresh water. This may occur in aquifers due to natural or man-made causes.
(19) Seasonal rates: Unit prices change according to the season.
(20) Static water level: The depth to ground water in a non-pumping well as measured from a known land surface elevation. Measurements shall be made after pumping has ceased for 12 hours. Measurements shall be within accuracy limits of plus or minus 0.10 feet.
(21) Unaccounted for water: The difference between the total water entering the system (produced and purchased) and the total metered or otherwise accounted for water usage.
(22) Water table: The water level in an unconfined aquifer.

History Note: *Authority G.S. 143-215.14;*
Eff. August 1, 2002.

CCPCUA Cretaceous Aquifer Zones



Part II: Summary Table of Comments and Responses

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Arliss Albertson, County Commissioner, Duplin County	Statement at Afternoon Public Hearing August 8, 2000	• problem is due to greater withdrawals to the east of Duplin County	L
		• pumping levels from wells are mostly 200 feet above the top of the aquifer	D
		• "Water level declines have often been less than a foot per year and have typically been less than two feet per year…"	L
		• western half of county will be limited to their approved base rate and eastern half will be cut 30% from their approved base rate— regulation goes too far	I_4
		• western half should not be subject to reduction requirements unless compelling evidence shows area is in jeopardy; should not have an approved base rate	I_4
Melvin Albritton, Maintenance Supervisor, North Lenoir Water Corporation	Letter received September 15, 2000	• North Lenoir Water Corporation pumps about 55,000,000 gallons per month and serves 5,000 accounts and Kinston Dupont Plant	L
		• "blanket rule and covers areas that do not have immediate aquifer problems"	I_1, I_4
		• do not rush to implement rules	H
		• economic development hurt in an area with other problems	E, B
		• "we understand there is a problem"	L
		• funding is needed to develop alternate sources	A
		• water conservation education is important	L
Frederick R. Allen, P.E., Executive Director, North Carolina Aggregates Association	Letter dated September 11, 2000	• numerous crushed stone, and sand and gravel quarries exist in area	L
		• do reduction specifications apply to mining operations?	I_{10}
		• why have complex permitting requirements for mines?	J_2
		• why are mines subject to requirements for studies on rates of water use and local hydrology and does this provide "double coverage" with DLR's mine permit program	J_2
		• several mines have been contacted in the search for alternate sources of water	L
		• why include adjoining creeks, streams and rivers when surface water is not permitted?	I_3

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Frederick R. Allen (continued)		• what is a ground water withdrawal, is it by wells?	I_{18}
		• quarterly reports seem excessive	I_{19}
		• sinkholes are not an adverse impact unless they are specifically linked to a ground water withdrawal	I_{16}
		• long-term decline in aquifer should not be linked to quarries	I_{10}
		• why include local ground water impacts in this rule, language is vague .0502(c)(2)	I_{16}
		• .0502(c)(3) is subjective and vague	I_{16}
		• application information can not possibly be generated in 60 days	I_4
Ed Andrews, Consulting Hydrogeologist	Statement at Afternoon & Evening Public Hearing August 8, 2000 and letter dated September 15, 2000	• include "system of prioritization" of use – 1. public health emergency, 2. potable water, 3. small utility, 4. large public utilities, 5. industrial use, 6. agricultural use, 7. lawn irrigation	J_3
		• breakdown the Cretaceous aquifer into components to allow for portions of aquifers as an alternate source, different than one that is overused	I_1
		• appeals process for removal from reduction requirements – reference appeal procedure	I_{10}, I_5
		• implement rules under the EMC's guidance at a local level – primacy – let ECCOG implement rule	L
		• in .0506 there needs to be a provision for local and regional input on aquifer conditions	I_{17}
		• no provision for new water systems using the Cretaceous aquifer	J_4
		• location by NC Grid NAD83	I_{12}
		• one foot accuracy on measurements	I_{12}
		• "public health emergency" added to .0502(p) temporary permit provision	I_5
Tony Ballance, Ballance Farms, Inc.	Statement at Evening Public Hearing August 8, 2000	• commend proposed capacity use initiative – aquifers need to be maintained for the future	L
		• could a voluntary initiative aimed at a smaller group of large volume users achieve the same results	F

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
		• if a rule is necessary then their focus should be on the problem areas	F
		• rule must not inhibit agricultural growth	C
General David B. Barker, Chairman, Global TransPark Development Commission	Letter dated September 15, 2000	• adequate water supply is critical – proposed regulatory program is necessary	L
		• rule contains many of the specifics lacking in original drafts, including base line year, step-wise approach to reduction, different geographic zones, temporary permits, and authorization of the transfer or sale of water and water use rights	L
		• delay adoption to get broader support	H
		• the state must play leadership role in planning and funding water supplies	L
		• require DWR to submit to the EMC a plan for achieving water-use reduction goals developed in cooperation with water users	L
		• EMC should adopt a resolution calling for the General Assembly to fund the planning effort and public education programs, conservation measures and development of alternative supplies	L
		• rule favors existing users over new and expanding users	J_4
Jerry Bean, Eastern Wayne Sanitary District	Statement at Evening Public Hearing August 8, 2000	• we must stop over-use of certain aquifers, but not pay a private company for access to ground water removed to accommodate mining – the water should be provided to public water systems at no charge	L, G_1
Keith R. Beavers, President, Duplin County Farm Bureau	Letter dated August 8, 2000	• farmers should have affordable, convenient access to water	C
		• limits are set too low	J_5
		• geographic scope of regulations needs refinement	F
		• farmers shouldn't have to gauge water use with meters, water use estimates by USDA/CES/NRCS should suffice	I_{19}
		• rule will impede growth	C
Harold Blizzard, Craven County Manager	Statement at Afternoon Public Hearing August 8, 2000 and letter dated September 15, 2000	• impacted by hurricanes	B
		• overuse problem did not occur overnight and will take more than 16 years to fix	H
		• state's data is unreliable, needs to be better and more scientific	D

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Harold Blizzard (continued)		• stakeholder group not truly representative – the CCPCUA Association is representative	J_6
		• fiscal analysis is "something of a joke" and totally unrealistic	A
		• rules need to fairly address the problem with least cost to users and that reduction requirements need to vary according to extent of adverse impact	F
		• Cretaceous aquifer should be protected only if the state foots the bill	A
		• "…all entities are being treated the same irrespective of the amount of water used and their corresponding impact on the aquifer."	F
Todd Bollick, Town of Bethel	Statement at Evening Public Hearing August 8, 2000	• there is a water supply issue with the Cretaceous aquifers and rule is only a starting point	L, F
		• what is proposed cost of rule – it appears grossly underestimated	A
		• what is the point in conserving water if the community is gone?	J_7
Dan K. Boone, P.E., The Wooten Company	Letter dated September 15, 2000	• endorses rule	L
		• rule provides for: flexibility of enforcement addressing the diversity of water systems and withdrawals; protecting the public from unregulated withdrawals; time for planning and implementation; collection of data; and adjustment; and affirmative action in a timely manner	L
		• the cost of not going forward with a rule is greater than with the rule	L
Helen Boyette, Citizen of Duplin County	Statement at Afternoon Public Hearing August 8, 2000 and letter dated September 15, 2000	• other problems	B
		• we need state assistance to maintain reasonable water rates	A
		• we need to use conservation measures and find new sources of water	L
		• director has too much power – should be a committee	L
		• what is the cost of permits or penalties, that information should be in the rules	I_9, I_{11}
Woody Brinson, Economic Development Director, Duplin County	Statement at Afternoon Public Hearing August 8, 2000 and letter dated September 15, 2000	• there are water problems in other areas of North Carolina	L
		• fiscal analysis underestimates cost to correct problem – $400-500 million compared to $78 million	A
		• industries will be at a competitive disadvantage if we impose conservation requirements	E

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Woody Brinson (continued)		• conservation measures for industries are not as clearly defined as they are for public water systems	I_{13}
		• where did figures come from in fiscal analysis if water sources are not metered at industries or farms – how do we know how much water industry is using without meters?	J_8
		• we are at a disadvantage for recruitment of new industries with attention on water problems – the proposed rule has already scared away some prospects	E
		• are regulations too broad based – do we need to focus on locations that are experiencing problems	F
		• why must we suddenly implement rules without full understanding of data	H
		• hard hit by Floyd, tobacco cut backs, livestock moratorium	B
		• "cookie-cutter" approach not proper	F
		• question data and fiscal analysis accuracy	D, A
		• delay adoption of rule for two years – voluntary efforts will work better than regulatory	H
		• require only monitoring of western Cretaceous area	I_4
		• re-evaluate fiscal impact	L
		• "Adjust regulations so as to not impact the operation, potential growth, and financial stability of our existing industries."	L
		• industries should use production unit based rate	I_6
Judy Brown, Assistant County Manager, Duplin County	Statement at Afternoon Public Hearing August 8, 2000	• how is an approved base rate determined for water districts with no infrastructure	I_6
		• does EMC have the authority to implement regulations that may have a negative effect on the district's ability to repay its debt service	J_9
		• devastated by hurricane Floyd	B
		• need state to provide funding (100% grant funds)	A
		• citizens of Duplin County have been encouraged to connect to public water for safe potable water, these rules will raise rates and cause those	J_{10}

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
		people to switch back to private wells – is that what we want?	
Rose Burlington, Rosebud Ranch	Letter dated August 31, 2000	• farmers must have affordable, convenient access to water – concerned about proposed rules	C
		• the rule must not impede future growth of agriculture and aquaculture	C
		• do not require permitting, reporting or restriction of surface water use	I_3
		• rule should be refined to focus on wells with declining water levels	F, D
		• permitting process should be prompt and application should be simple	L
		• farmers should not have to purchase, install and monitor meters	I_{19}
		• should be a learning experience for other areas of state – consider voluntary efforts now	L
		• DWR should not "rush" to implement water use regulations state-wide	L
Paul E. Busick, President and Executive Director, North Carolina Global TransPark Authority	Statement at Evening Public Hearing August 8, 2000 and letter dated September 15, 2000 (see comments under General David B. Barker)	• important public policy issue with three main tasks, 1. protection of aquifers, 2. develop regional alternative water sources, and 3. practical water conservation and re-use	L
		• water supply and economic well-being are not separate issues	L
		• supports objectives of proposed rule	L
		• the Global TransPark must be developed in a responsible, sustainable manner and they plan to lead by example	L
		• we need to grow the region and have an adequate supply of water	L
		• area needs state financial support	A
CEC/NC • PENC Environmental Committee, Dan K. Boone, P.E., The Wooten Company & John Eick, P.E., W.K. Dickson & Co, Inc.	Letter dated May 9, 2000	• endorse efforts by DWR to protect ground water resources	L
		• continued unregulated use of the Cretaceous aquifer system will result in irreparable damage	L
		• endorse rule	L
Eddie Coltrain, District Manager, Wayne Water Districts	Letter dated September 15, 2000	• water levels in Black Creek aquifer in eastern Wayne County do not show declines	L
		• member of CCPCUA Association	L
		• include in .0503: "Withdrawals from sources within the Cretaceous aquifer system, such as unconfined or partially confined aquifers, which	I_1, I_{10}

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Eddie Coltrain (continued)		are demonstrated by scientific evidence not to cause adverse impacts as provided in .0502(c)(1) shall be allowed in addition to the approved base rate and shall not be subject to the phase [sic] reduction requirements."	
Curtis Consolvo, Hydrogeologist with Groundwater Management Associates, Inc.	Statement at Afternoon Public Hearing August 8, 2000	• Cretaceous aquifer system is an incredible resource that is threatened by current withdrawal rates and is already damaged in places • concept of rules is needed to continue to enjoy the benefits of the resource without scrambling to find alternate sources in the future	L L
Ken Cornatzer, Town Manager, Town of Wallace	Letter dated September 8, 2000	• Town of Wallace strongly supports draft rule changes put forth by the Division of Water Resources on August 29, 2000: 1. exclude wells exclusively screened in Peedee aquifer from reductions in .0503, 2. append the following to the Cretaceous aquifer system definition – "and includes the Peedee, Black Creek, Upper Cape Fear and Lower Cape Fear aquifers.", 3. delete portions of .0503 – .0503(6)(a)(iv), .0503(6)(b)(iv), and .0503(6)(c)(iv), and 4. change application submittal deadline from 60 to 180 days [.0502(b)(1)]	I_4
Landis Davis, Belfast-Patetown Sanitary District, Wayne County	Statement at Evening Public Hearing August 8, 2000	• the extent of aquifer over-use appears to be in question – rules should be implemented only after extent of problem is determined • other problems have hurt area, rules will have adverse economic consequences	F, D B, A
Chester Ellis, Environmental Manager, Collins & Aikman	Letter dated September 15, 2000	• supports need to control water withdrawals in the CCP • supplied by public water system • water conservation plan requirements do not specify a time frame or what constitutes a "feasible" measure • past efforts at conservation should be taken into account	L L I_{13} I_{13}, I_6
Tom Ellis, NC Department of Agriculture	Letter and Minority Report from the Aquaculture Community dated May 9, 2000 and letter dated September 12, 2000	• do not adopt temporary rules – circulate for additional comments to insure adequacy • water level decline data shows problem around continuous use at industrial and population centers	L F

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Tom Ellis (continued)		Aquaculture Minority Report	
		• exempt aquaculture	C
		• most growers will not be impacted by reduction requirements as they are intermittent users	L
		• concerned about declining water levels and are not contesting need to manage ground water resources, but are concerned about methods	L
		• we are in too much of a rush to institute rules	H
		• ground water level declines are occurring at locations of large continuous users in rapidly urbanizing portions of area – rules should focus on that	F
		• rules are "hastily-arrived-at set of blanket restrictions"	F
		• costs and restrictions could severely cripple aquaculture industry	C, A
		• aquaculture is "an environmentally sound, aesthetically pleasing use of farms"	L
		• state monitoring wells do not point to aquaculture as source of water level declines – are they to wait for water level stabilization near municipalities before reduction targets are met?	D
		• efficient water use already	L
		• no control of price and therefore no way to pass along cost of regulation	L
		• potential costs include: modifying wells to facilitate water level measuring [.0502(g)(2)], purchase of water meters and plumbing [.0502(g)(1)], installation of monitoring wells [.0502(i)], daily monitoring and reporting [.0502(g)(1)], hiring consultants to determine well construction and water conservation information for application [.0502(d)(1&2) & .0502(d)(5)(B)]	A
		• no acceptable alternate water sources – can not use surface water	G_2
		• rule will impede growth of farms	C
		• public comment process will cause problems for new growers from neighbors who do not understand nature of business [.0502(e)]	I_2
		• problem did not occur overnight – why rush	H

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Tom Ellis (continued)		• rule language should be adjusted to allow for inclusion of certain aquaculture operations as intermittent users as follows: 1. "aquaculture operations licensed under the authority of GS 106-761 and which withdraw ground water 60 days or less per calendar year, not withstanding the need for initial filling and refilling of ponds on a minimum of a 5-year cycle, shall be considered an intermittent user." or 2. ".0507 (13) Intermittent users: Persons who withdraw ground water in amounts greater than 100,000 gallons per day less than 60 days per calendar year; or who withdraw less than 15 million gallons of ground water in a calendar year; or aquaculture operations licensed under the authority of GS 106-761 involved in initial filling or refilling of ponds no more frequently than every 5 years."	I_8
Denny Garner, Chairman, Greene County Board of Commissioners	Statement at Afternoon Public Hearing August 8, 2000	• Greene County is designated as within the "Dewatering Zone," but since water levels are above the top of the aquifer we should be in the "Declining Water Level Zone" • reduction requirements mean county use must reduce from 1.6 mgd to 0.4 mgd over a 16 year period and alternate water sources are not obvious • 1.06 mgd recharge potential is calculated using an estimate of 4,000 gpd/square mile and a 265 square mile area, thus 75% reduction over 16 years appears punitive; again, a reclassification to the "Declining Water Level Zone" appears appropriate • although other counties have alternatives, Greene County does not – give the Director the authority to modify reduction requirements in cases lacking alternative supplies	K G_3 K G_3, I_5
Ralph Heath, Consulting Hydrogeologist	Statement at Afternoon Public Hearing August 8, 2000	• endorses rule and pushed for it because it takes many years to identify new sources and bring them on line • see also comments from joint letter under Dr. Richard K. Spruill	L
Harold Herring, Assistant Director	Statement at Afternoon	• recognize that water level declines are a real problem "and that the days	L

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
of Public Utilities, Kinston and also represents the Neuse Regional Water & Sewer Authority	Public Hearing August 8, 2000	of cheap water is coming to an end" • "not totally against the rules," but rules need to be studied for refinement and economic impact • severely impacted by hurricanes, reductions in farming, the improvements needed to the aged wastewater collection system, and other rules • if imposed the state should provide grants to maintain reasonable water rates • engineers have estimated the Lenoir intake to cost $55 million and double our water rates • need to encourage industries east of Interstate 95 • more time is needed for initial implementation	 F B A A E H
Richard Hicks, Town Manager, Town of Farmville and Chairman of the CCPCUA Association	Statement at Afternoon Public Hearing August 8, 2000, letter dated September 13, 2000 and letter dated September 15, 2000	• move slower with rule-making – you have everyone's attention • this is a water supply issue and an economic impact issue • Farmville is facing many economic issues including Floyd recovery, agricultural, nitrogen reductions in discharge, electricity deregulation, ozone non-attainment area • Farmville does not see an alternative water source in Pitt County • support our efforts for funding – needs may be between $400 and 600 million • more monitoring wells are needed	H L B G_3 A D
		• agree there is a problem with supply from CCP aquifers, but with adequate funding from the state there would be no need for rules • rule does not consider economic impact nor the other problems facing this area • proposed rule is already hurting industrial recruitment • rule will hurt existing industry because they will not find alternate sources • there are not enough monitoring wells in 15 counties, additional	L, H A, B E G_3 D

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Richard Hicks (continued)		scientific data is needed, DWR's recent additions to the network illustrate that there are gaps in the network	
		• large users have caused cones of depression, do not reduce water usage for everyone in the 15 county region, provide money to the large users to find alternate sources of water	F
		• rules lack control over agriculture – all water users should be required to submit detailed water use figures	I_3
		• alternate sources can not be obtained in the first 6 years because of other existing regulatory requirements	I_5
		• fiscal note underestimates costs of rule	A
		• it may be difficult to phase in costs over the 16 year period	A
		• because of difficulties creating interlocal agreements that may be necessary to obtain alternative sources, the rules should specify a variance procedure	I_5
		• there are water resource problems statewide, DWR should develop a comprehensive plan for the entire state	L
		• agree with proposed change to rules to exclude the Peedee aquifer from reduction requirements	I_4
		• bedrock wells and wells in shallower aquifers should be excluded from regulation	I_4
		• legislature should provide funds for developing our understanding of the aquifer system	L
		• delay approval of rule for 2-3 years to allow for better understanding	L
		• water users should not be allowed to sell excess capacity	I_{14}
		• partially complete public water systems do not know their water needs and may be penalized or may not be able to repay loans which could prompt legal action	I_6
		• opposes facing costs of modifying wells (which may be abandoned in the future due to reduction requirements) to accept electric or steel tapes	I_{19}

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Richard Hicks (continued)		• public review process could cause delays – "Public review often changes the permit review process from a scientific basis to a political basis."	I_2
		• what are fees?	I_9
		• permit length is not stated in rule	I_{15}
		• rule does not allow for the continued use of the aquifer if many significant users move to alternate sources	J_{11}
		• we should not rush into rules there may be better options	H
		• developing a regional water supply solution may make permanent rules unnecessary	J_{12}
		• is Peedee aquifer still proposed to be removed from the proposed rules?	I_4
		• "Our first priority is to arrange for financing of the alternative water sources that would make a rule unnecessary."	L
		• numerous amendments to the rule language are proposed on the attached pages	I
Stephen F. Hines, Project Planner & Developer, Eastern Carolina Council of Governments	Statement at Evening Public Hearing August 8, 2000 and letter received September 14, 2000	• the rule will put restrictions on communities ill-prepared to deal with them and who have other problems to deal with	B
		• communities now are aware of the situation	H
		• time coupled with financial resources are needed to develop alternatives – some alternatives are more accessible	A
		• delay implementation until further input can be obtained by these affected communities – rules need to assist not hurt our citizens	H
David G. Hyatt, President, Panoramic Farms and Board Member of the North Carolina Association of Nurserymen	Letter dated September 13, 2000	• concerned about the precedent rule would set	L
		• uses best management practices to recapture 100% of irrigation water	L
		• micro-irrigation practices require clean, high quality water and only ground water meets the necessary standards	L
		• nurseries should not be subject to reductions due to their efficient use of water and recapturing of irrigation water	I_6, I_{10}
Jean Hood, Southwestern Wayne	Statement at Evening Public	• well water levels in district have not been declining so why limit	I_4

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Sanitary District	Hearing August 8, 2000	withdrawals • costs will be huge so do not require unnecessary expenditures where ground water is sustainable	A, I_4
Honorable W. J. Igoe, Mayor, Town of Faison	Letter dated September 15, 2000	• member of the CCPCUA Association • do not unfairly penalize western Duplin County	L I_4
Arthur L. Kennedy, P.E., President, The Wooten Company	Statement at Evening Public Hearing and Letter dated August 8, 2000	• endorses rule • provide flexibility in rule to allow for well-documented cases of recharge rates exceeding withdrawal • reports made available to public on initiatives to reverse current trends • increase water level monitoring • be prepared to amend rule and/or boundaries as subsequent data analysis may dictate • use hydrogeological data to allocate water use according to user class and quantity and quality required • show no favoritism • award Clean Water Bond Grant program priority points • the economy of eastern North Carolina is dependent on a reliable water supply – we need the rule to preserve these aquifers	L I_1 I_{17} D L J_3 L A L
Clifford Lee, Environmental Manager, DuPont Kinston Plant	Letter dated April 13, 2000	• endorses rule	L
Jerry Lee, Vice President, Wight Nurseries of North Carolina, Inc.	Letter dated September 6, 2000	• recognizes ground water issues exist and that steps must be taken • fiscal analysis seems to underestimate cost of rule • commission needs to allow for latitude to take into account individual circumstances as stated in GS 143-215.16(e) • commission needs to consider land investments as stated in GS 143-215.16(f) • reduction requirements based on water needs of a 25% complete nursery will negatively impact business and the local economy	L A I_5 I_5 I_6
Harry E. LeGrand, Hydrogeologist	Letter dated August 8, 2000	• endorses rule • do not postpone action, existing data is convincing	L D

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
		• need for better explanations (simpler)	L
Mark Loomis, Carolina Classics Catfish	Statement at Afternoon Public Hearing August 8, 2000 and email dated September 19, 2000	• see comments under Tom Ellis, Aquaculture Community Minority Report	
		• add to .0502(d)(2) "(H) Aquaculturists shall supply well specifications A through G at the completion of well construction within tolerances normally reported by driller."	I_{12}
		• add to .0502(d)(5) "(D) Users of water for aquaculture shall follow Best Management Practices including: i. Allow pond water levels to drop eight inches before pumping; ii. Stop pumping before water level reaches the top of stand pipe; iii. Flushing with well reserved for stock endangering emergencies; and iv. Pond refilling reserved for pond levee and bottom renovations."	I_{13}
		• add to .0502(g) "(6) Aquaculturists shall report water used for fish culture by estimates based on pump running times. Static water levels shall be measured once a month. Monitoring wells shall not be required for aquaculture facilities."	I_{19}
Wayne Malone, Kinston City Council and represents the Neuse Regional Water & Sewer Authority	Statement at Afternoon Public Hearing August 8, 2000	• NRWASA includes North Lenoir, Deep Run, Pink Hill, La Grange and Kinston	L
		• convinced there is a problem	L
		• costs are high and area needs money	A
Senator R. L. Martin and Representatives Stan Fox and Bill Owens; Co-Chairs of the Natural and Economic Resources Appropriations Subcommittee	Letter dated September 14, 2000	• ground water issue is of utmost importance to the members of the subcommittee	L
		• "…respectfully submit our strong concerns regarding the appropriateness of the rules."	L
		• evidence is clear that water levels are declining in the Black Creek and Upper Cape Fear aquifers and this "can lead to a series of adverse impacts including dewatering of the aquifers, permanent loss of water storage capacity, salt water encroachment and land subsidence or sinkhole development."	L
		• DWR needs to know the causes of the declining water levels before	D

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Senator R. L. Martin (continued)		suggesting solutions, by knowing how much water is withdrawn and the recharge rates of these aquifers	
		• DWR needs to know the correct withdrawal rates the aquifers can support to determine extent of water reductions necessary	D
		• basic approach to the problem is reasonable, but accurate reduction estimates are necessary given the potential negative impact on the economy	D
		• what practical alternatives exist for small users?	G_3
		• what is the fiscal impact?	A
		• "The implications of DWR's proposed rules have serious consequences for the citizens, municipalities and industries in the affected 15 county region that can not be ignored or dismissed."	J_{13}
		• viable alternatives must be developed to provide sustainable water supplies	L
		• "Without definitive answers to these questions, we believe that is premature to move ahead with rules as proposed."	D
		• "We understand that ultimately, water withdrawals will have to be reduced until they match recharge rates; however, the data to inform this balance is not available."	L, D
Bob Murphy, Director, Agricultural Statistics Division, NC Department of Agriculture and Consumer Services	Letter dated August 29, 2000	• all information collected by Division is protected by confidentiality (see attached)	L
Mitch Peele, North Carolina Farm Bureau Federation	Statement at Evening Public Hearing August 8, 2000	• rules have the potential to greatly affect the North Carolina farmers' quality of life	C
		• farmers have faced "unparalleled despair" in recent years	B
		• support the goal of protecting our finite water resources, but not necessarily the method	L
		• mandatory reductions may not affect farmers, but we propose that the state narrow the scope of these reductions to where adverse affects are	F

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Mitch Peele (continued)		observed	
		• rule requirements to put intakes no lower than the top of the uppermost confining aquifer may force farmers to seek expensive alternate water supplies	I_7
		• if we had known about this sooner there would not be a need for a rule because the problem would have been voluntarily addressed	F
William H. Perkins, Jr., Town Administrator, Town of Lucama	Letter dated September 14, 2000	• Town of Lucama draws water from rock wells and is not in one of the three Cretaceous zones	L
		• costly for community, need exemption	F
Horace Phillips, Chairman of the Jones County Commissioners	Statement at Afternoon Public Hearing August 8, 2000	• they have been told to put their wells in the western part of the county by the engineers for the last 25 years where water levels are declining 3 feet per year	L
		• now they are being told to use the Castle Hayne aquifer	A
		• with Floyd damage – they need grants to shift to the Castle Hayne	B, A
David Pittman, Northwestern Wayne Sanitary District David Pittman (continued)	Statement at Evening Public Hearing August 8, 2000	• Deep aquifer water is of excellent quality because of natural treatment over hundreds or thousands of years and we use it in a matter of seconds or minutes without second thought	L
		• it has won national awards for its quality and taste – it's too special for anything but drinking, yet it costs much less than $0.89 per liter (common convenience store price), that price typically buys about 1,000 gallons	L
		• rule needs to require tougher standards for conservation with rate structures that economically prohibit irrigation and random use of water	I_{13}
		• local ordinances are needed to require irrigation wells within the surficial aquifer	L
Paul H. Pittman, III, Clean Water Campaign Coordinator, North Carolina Sierra Club	Statement at Afternoon Public Hearing August 8, 2000 and letter dated September 14, 2000	• we appreciate the attention given to this growing problem	L
		• need public access to information of users of more than 10,000 gpd – agricultural reporting provision in .0505 is "secrecy shield"	I_3
		• need comprehensive water budget before issuing permits	D
		• permits should only be issued to users with clean record of compliance	L

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Paul H. Pittman (continued)		• animal operations in the central coastal plain use over 70 mgd	L
		• Bladen and Robeson Counties need to be included due to water level declines and high water use	F
		• what plan is in place to deal with the water needs of the Global TransPark?	L
Sondra Ipock Riggs, Jones County Commissioner	Statement at Evening Public Hearing August 8, 2000	• rule will put the little farmer or small water suppliers out of business	J_1
James E. Scoggins, General Manager, Wight Nurseries of North Carolina, Inc.	Letter dated September 8, 2000	• recognizes ground water issues exist and that steps must be taken	L
		• base rate of water usage should be that rate from full site development	I_6
		• because they are already using the best water conservation practices and recycling techniques, the reduction requirement should be halved	I_1, I_{10}
		• nurseries are economically important and provide many jobs for the amount of water it consumes	L
		• costs will increase as reduction requirements are met so recommend implementing a state cost-share program for development of alternative water sources	A
		• special consideration to nurseries so they can care for plants during times of drought	I_5, I_{10}
Marion Smith, Executive Director, Neuse River Foundation, Inc.	Letter dated May 9, 2000 and Statement at Afternoon Public Hearing August 8, 2000	• .0502(c)(1) & (2) – instead of "avoid or minimize" should be "avoid or minimize and mitigate"	I_{16}
		• .0505(c) – a "confidential" reporting provision defeats intended purpose and maybe illegal and certainly not considered a "trade secret"	I_3
		• qualified support of rule – aforementioned changes to rule after stakeholder process weakened the rule	L
		• must have accurate records of water use to develop a water budget and fair allocation process	I_3
		• proposed regulations are a small step in the right direction	L
Honorable Ralph Smith, Mayor, Town of Black Creek	Letter dated September 11, 2000	• opposes rule – exempt the Town of Black Creek	F
		• not in a Cretaceous Zone and they use bedrock wells, but are in Wilson County	F, I_4

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
		• rule will be costly to community and hamper growth	A
William Lee Smith, III, County Manager, Washington County	Letter dated July 13, 2000	• unfair that Washington County is included in rule, should be excluded as they use the Castle Hayne aquifer	F
Dr. Richard K. Spruill, East Carolina University	Statement at Evening Public Hearing August 8, 2000 and letter with Ralph Heath dated September 12, 2000	• the scientific community is in agreement that since the 1960's ground water is being removed from the Cretaceous aquifers faster than it is replenished – we know where the problem area is	L, D
		• rule will curtail overdraft of the aquifers in a stepwise fashion aimed at the safe yield	L
		• it will also protect against salt water encroachment and land subsidence	L
		• the rule will foster research and force users to use alternative water sources	L
		• cost is a big concern, but we face greater costs to produce water anyway and in a crisis, costs will be much worse – we are trying to prevent a crisis	L
		• some aquifers in central coastal plain are being "mined" because water is being withdrawn faster than can be recharged	L, D
		• recharge is estimated to be about 75% less than what is currently being withdrawn from the Black Creek and Upper Cape Fear aquifers	L, D
		• very large cones of depression have formed	L, D
		• continued use at current rates will cause irreparable damage to the aquifer system such as salt water intrusion, land subsidence and aquifer dewatering	L, D
		• we must reduce withdrawals to a rate equal to the rate of recharge	L, D
		• "We believe that implementation of the rule will ultimately preserve the groundwater resources in the Central Coastal Plain, and it will provide the regulatory framework for long-term best management of this vital resource."	L
		• Ralph Heath predicted in 1970 that "excessive development of the Cretaceous aquifers would result in serious groundwater problems."	L

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Dr. Richard K. Spruill (continued)		• Richard Spruill began in 1987 describing the overdraft situation in a series of talks	L
		• the data needed to evaluate this situation has and continues to be available from monitoring network and production wells	L
		• alternate sources of water exist from aquifers with higher recharge rates and surface water	L
		• "The monitoring-well network…has evolved from a few wells in the 1940's to a complex network of dozens of strategically-located wells today….Those who oppose the proposed rule based upon the assertion that our monitoring-well network is inadequate are ill-informed! The monitoring-well network in the Coastal Plain of North Carolina is, in our opinion, superior to the network in most, if not all, of our United States."	L
		• "The rule does NOT propose to eliminate use of groundwater from these two aquifers, but rather it proposes to protect the aquifer by allowing development at a sustainable rate."	L
		• "We particularly endorse this phased approach to reductions in withdrawals because it will allow developers and users of the resource to deal with the economic impacts of development of alternate water sources in a rational way, and because it will allow us to determine the definitive sustainable rate of withdrawal of the aquifer system."	L
Keith Starner, NC Rural Water Association	Statement at Afternoon Public Hearing August 8, 2000	• Sammy Boyette represented the 90 member water systems on the stakeholder group	L
		• there is need for regulation of water use in the CCPCUA and there is need for further improvement to the rules	L, F
		• consider economic impact of the rule as many of the water systems are at their debt servicing limit	A
		• fiscal note grossly underestimates costs of the rule	A
		• water users should not be able to transfer a portion of their permitted allocation for profit	I_{14}

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Keith Starner (continued)		• a system should be able to demonstrate that current or additional withdrawals will not have an adverse impact and avoid reduction requirements	I_1
		• the rules should require measurement accuracy of one half foot	I_{12}
Scott Stephens, City Engineer for Kinston	Statement at Afternoon Public Hearing August 8, 2000	• do not dispute the need for rules – we need to develop alternative sources of water	L
		• cost of water treatment plant in Lenoir County is $60 million – that cost spread over the 15 county region means a total cost of $400-500 million	L, A
		• water rates will increase 50-100% and we have many other costs (hurricanes, tobacco, air quality issues…)	B
		• capacity use designation will hurt recruitment of industry	E
		• we should be given priority for financial assistance	A
Jimmy Summers, Corporate Environmental Manager, Guilford Mills, Inc.	Letter dated August 7, 2000	• agrees with goals of rule, but is worried about economic growth	L
		• manufacturing facilities not adequately addressed in rule – growing companies will be unduly burdened	E
		• approved base rate should allow for a "production unit based rate" (# of gallons per pound of production) instead of a total volume base rate	I_6
		• growing companies, with increasing production levels is hurt compared to no-growth companies	E
		• water use efficiency would be goal shared by all companies without encouraging companies to move out of the CCPCUA	E
James Taylor, member of the Southeastern Wayne Sanitary District	Statement at Evening Public Hearing August 8, 2000	• concerned with public health aspects of the proposed rule because it will tend to increase costs of providing central water services	A
		• significant increases in rates will tend to push customers to private wells – loss of customers drives rates higher	A
		• provide state funding	A
Brent Turner, Director of Engineering, Automotive Business Unit, Guilford Mills, Inc.	Statement at Evening Public Hearing August 8, 2000	• ground water resources in the coastal plain are valuable and need to be protected – sustainable use of ground water resources is a worthy goal	L
		• rules do not adequately address manufacturing facilities in the area	E
		• rules will add a burden to growing companies while allowing	E

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Brent Turner (continued)		companies that do not provide economic growth to shoulder less of a load in this conservation effort	
		• .0507(1) approved base rate definition should be changed to be a production unit rate (X gallons per pound of production) to make facilities more efficient	I_6
Eelco H. Tinga, Jr., President, Tinga Nursery, Inc.	Letter dated September 13, 2000	• propose an additional definition: "The reductions specified in Rule .0503 do not apply to the portion of any agricultural enterprise using low-volume micro-irrigation which was in place before July 1, 2001. The base established during Phase I for micro-irrigated acreage will not be subject to reductions for those production areas which are low-volume, micro-irrigated and in use by July 1, 2001."	I_1
Jeffery B. Turner, Vice President of Environmental Resources, Murphy Family Farms	Letter dated September 15, 2000	• are permits only required for individual farms that exceed 100,000 gpd and not owners of multiple farms that collectively use more than 100,000 gpd? – includes suggested language changes for .0502(b) and .0505(a)	I_{18}
Larry B. Wooten, President, North Carolina Farm Bureau Federation	Letter dated September 15, 2000	• target parts of counties that are experiencing ground water level declines	F
		• "DWR has said that agricultural water users are not causing significant water supply problems. Therefore, farmers should not be forced to hire engineers or pay for expensive laboratory tests to comply with the rule."	C
		• prefer use of "reduction goals" rather than mandated reductions	L
		• concerned about the delineation of the critical zones	F
		• strongly encourage DWR to maintain intermittent user exemption to reductions in rule	I_8
		• agree with comments put forward by Mike Worthington – requesting exemption of micro-irrigation systems from the water use reduction formula	I_8
		• commend DWR for changing rule to allow for registration and reporting of water use by those using more than 10,000 gpd to the	I_3

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
Larry B. Wooten (continued)		Agricultural Statistics Division (ASD) through surveys	
		• still request that the rule be modified to allow reporting directly to the ASD without use of surveys	I_3
		• use of these water use data collection methods will increase knowledge of water use by agricultural interests	I_3
		• amend definition of intermittent user: "Persons who withdraw ground water in amounts greater than 100,000 gallons per day less than 60 days per calendar year; or who withdraw less than 15 million gallons of ground water in a calendar year; or aquaculture operations licensed under the authority of GS 106-761 involved in initial filling or refilling of ponds no more frequently than every 5 years."	I_8
Mike Worthington, Worthington Farms	Letter dated September 6, 2000	• nursery industry was not represented in stakeholder process	J_6
		• companies have recently invested heavily in new production areas – construction costs range from $20,000 to $40,000 per acre – depending on the crop, value can range form $50,000 to $250,000 per acre	L
		• where possible, growers have used surface waters for economic reasons (electrical costs)	L
		• nurseries are heavily invested in the most efficient forms of irrigation and need high quality water (deep aquifer water is best)	L
		• nurseries use Best Management Practice guidelines so as to not waste water	L
		• producers cannot reduce water use where the most efficient irrigation technology is used	L
		• add provision to .0503 – "The reductions specified in Rule .0503 do not apply to the portion of any agricultural enterprise using low-volume micro-irrigation which was in place before July 1, 2001. The base established during Phase I for micro-irrigated acreage will not be subject to reductions for those production areas which are low-volume, micro-irrigated and in use by July 1, 2001."	I_6, I_{10}
David C. Yaeck, Consultant, Neuse	Statement at Afternoon	• demand exceeds supply and creates threat of saltwater intrusion	L

Central Coastal Plain Capacity Use Area Rules – Summary of Public Comments

Name & Association	Type and Date of Comments	Summary of Comments	Key to Response Summary
River Foundation	Public Hearing August 8, 2000 and letter dated September 1, 2000	• no firm cutoff date [.0502(b)] will allow people to place "one last straw" into the Cretaceous aquifer	L
		• stakeholder group recommended prohibition of adverse impacts, but that has been changed to "minimized" impact [.0502(c)]	I_{16}
		• line 10, page 5 conflicts with lines 58 & 59 on page 6	I_{16}
		• "statement" on line 22, page 6 should be changed to "certification"	I_{13}
		• confidential reporting through surveys are not appropriate and not in the best interest of the residents of North Carolina	I_3
		• line 1, page 9 should be changed to require registration to include locations of new and existing wells by latitude and longitude	I_3
		• there will be costs associated with rule, but the American Public has yet to realize the true cost of water	A
		• rules do not offer opportunity for comprehensive water resources planning	L
		• existing state water supply planning should incorporate a regional approach	L
		• an effective water management plan will require a committee be formed for leadership in this long and detailed process – a planning committee would also serve to assist water users with a unified voice	L
		• without a planning committee there needs to be a rule provision requiring updates to local water supply plans that reflect capacity use requirements	L
		• rule needs penalty clause	I_{11}

Central Coastal Plain Capacity Use Area Rules
Responses to Comments

Introduction

Because many comments were repeated responses were grouped for easier reading. Please see the response key following each comment and trace it to the appropriate response section below.

A.	Cost of rule
B.	Other problems face this region
C.	Exempt agriculture – do not inhibit agricultural growth
D.	Data on the ground water problem
E.	Rule hurts industrial recruitment and growing companies
F.	Alter rule scope – refine rule
G.	Lack alternative water sources
H.	Do not rush into rules – now, people are aware of the problem
I.	Specific rule language concerns and suggested changes
J.	Miscellaneous comments
K.	Classified in wrong Cretaceous zone
L.	Comment noted

A. Cost of rule

The Central Coastal Plain Capacity Use Area rules set up a framework to guide water users as they prepare for and implement sustainable water supplies. It provides a sixteen year period of time during which users will plan and invest in alternative sources of water to make up for reductions in water use from the Cretaceous aquifers and to provide for growth in water use.

The costs of reacting to water shortages in a crisis when wells run dry would greatly exceed costs associated with planning and implementing new water sources in this predictable regulatory framework. And there is the distinct possibility that without a good planning element, caused by regulation, alternative water sources will not be as successful.

DWR's fiscal analysis dealt with determining the cost of rule implementation during the first six years of the rule. It estimated the cost of conversion to an array of new sources and answered the question required by the Administrative Procedure Act – does the proposed rule impact those affected by more than $5 million? Comparison of a $55-65 million surface water intake and

water treatment facility for Lenoir County to the $78 million impact estimated in the fiscal analysis is like comparing apples to oranges. Assuming that similar costs to those facing Lenoir County can be used to extrapolate impact on the 15 counties ($400-600 million) is not valid. The Lenoir County surface water treatment facility, as proposed, will provide water to 2025 or 2030, thus long past the first six years. Also, many water users will have lower cost alternative sources available to them.

DWR is on record as recognizing that the CCP communities will need access to funds as they plan and invest in sustainable sources. Transitioning to a sustainable water supply within a regulatory framework is the most practical, fair, and cost effective way.

B. Other problems face this region

It is unfortunate that other problems (especially those out of human control) affect this CCP region. DWR believes that the rule guides this region down the fairest path to a sustainable water supply. Once there, or even during implementation of a plan to achieve sustainability, the CCP will be better off and not be as susceptible to other problems.

C. Exempt agriculture – do not inhibit agricultural growth

Water level declines in the Black Creek and Upper Cape Fear aquifers are the combined effect of hundreds of water users. There is no "big" water user or few users causing the problem. The rule is designed to bring our total use of ground water within the limits of the aquifers' ability to recharge. The rule and statute only give the EMC and DWR the ability to regulate those using more than 100,000 gallons per day. It is fairest to apply that responsibility evenly without excluding users.

D. Data on the ground water problem

There is an extraordinary amount of data that describes this ground water situation. Data from hundreds of boreholes tell us about the subsurface materials and water levels from hundreds of wells in this 15 county area tell us where regional water level problems exist. A picture of the aquifer system has been developed that illustrates how water moves through the aquifers and how water pressures (illustrated by the water levels in wells) change over very large areas as water is withdrawn.

Water pressures are affected tens of miles away from a withdrawal point. As more wells withdraw ground water, the water pressures and therefore water levels in wells drop and form

large cones of depression. Those cones of depression have coalesced into a very large cone covering many counties. In the deepest parts of this cone of depression water levels have dropped below the top of the aquifer (dewatering the aquifer). Near the eastern parts of this cone of depression salt water intrusion is occurring. As water is withdrawn land subsidence has and is occurring at about 5 millimeters per year. The storage capacity of the aquifer is reducing. This aquifer system's capacity to yield water is diminishing in several ways as we use it in a unsustainable way – faster than it is recharged.

DWR did not discover this problem recently. Many ground water experts have documented the problem over a 35 year period. The following table illustrates part of the breadth of scrutiny and length of time devoted to this issue:

Stephenson and Johnson	1912	*The Water Resources of the Central Coastal Plain of North Carolina*; North Carolina Geologic and Economic Survey First water level data from 71 wells in Cretaceous aquifers.
Nelson and Barksdale	1965	*Interim Report on Ground Water Resources of the Kinston Area*; North Carolina Division of Ground Water First report documenting declines in Cretaceous aquifers. Reported large cone of depression in Cretaceous aquifers in Kinston area.
Narkunas	1980	*Groundwater Evaluation in the Central Coastal Plain of North Carolina*; NC Department of Natural Resources and Community Development. First to report and document severe regional declines in Cretaceous aquifers. Emphasized need for management of withdrawals in order to preserve future water supplies.
Winner and Lyke	1986	*History of Ground-Water Pumpage and Water Level Decline in the Black Creek and Upper Cape Fear Aquifers of the Central Coastal Plain of North Carolina*; USGS
Lyke and Brockman	1990	*Groundwater Pumpage and Water-Level Declines in the Peedee and Black Creek Aquifers in Onslow and Jones Counties, North Carolina, 1900-86*; USGS
Winner and Lyke	1989	*Aquifers in Cretaceous Rocks of the Central Coastal Plain of North Carolina*; USGS
Lyke and Winner	1990	*Hydrogeology of Aquifers in Cretaceous and Younger Rocks in the Vicinity of Onslow and Southern Jones Counties, North Carolina*; USGS
Winner, Lyke, and Brockman	1986	*Potentiometric Surface of the Lower Cape Fear Aquifer in the Central Coastal Plain of North Carolina, December, 1986*; USGS
Eimers, Lyke and Brockman	1989	*Simulation of Ground-Water Flow in Aquifers in Cretaceous Rocks in the Central Coastal Plain, North Carolina*; USGS

		Defined regional hydrogeology, ground water level declines, mapped cones of depression in the Cretaceous aquifers, and developed a computer model to predict future ground water declines.
Lyke, Winner and Brockman	1986	*Potentiometric Surface of the Black Creek Aquifer in the Central Coastal Plain of North Carolina, Dec. 1986*; USGS
Winner, Lyke and Brockman	1986	*Potentiometric Surface of the Upper Cape Fear Aquifer in the Central Coastal Plain of North Carolina, December, 1986*; USGS
NC Division of Water Resources	1993	*Central Coastal Plain Ground Water Model Interim Report*

E. Rule hurts industrial recruitment and growing companies

With this rule, water systems will be required to plan and move toward a sustainable water supply. That outcome will put the CCP in a much stronger position for industrial recruitment and growth of existing industries. Failure to take action to resolve the ground water depletion problem and to assure a sustainable supply for the future would threaten the economic welfare of the region.

F. Alter rule scope – refine rule

The Division, with stakeholder input, has put forward the best rule that current knowledge allows. County boundaries were chosen as the most recognizable and the fifteen counties contain the problem area completely. The eastern counties were included because the Castle Hayne aquifer underlies that area and regulations will force people to find alternative sources there. The Castle Hayne aquifer can accommodate new users and the permit system can assure that new wells are located where they will not interfere with existing users.

Limiting the regulation to a smaller number of the biggest users will not fix the problem. It is the cumulative impact of many hundreds of users that has put us where we are. The rule does require more severe reductions from the larger users because it uses percentage cutbacks in recognition that the larger users can afford more expensive alternatives. The Zones established for the Cretaceous aquifer vary the level of water use reduction to match the extent of the aquifer depletion problem.

Some suggest that voluntary efforts can solve the problem. DWR notes that water systems have had decades to reduce overdrafts and only a few have done so. Those systems that have made good investments toward sustainability do not want their efforts thwarted by those who would

take a free ride. The rule is the fairest way to assure that all water users will share the burden of developing sustainable water supplies.

G. Lack alternative water sources

G_1. Provide PCS Phosphate Mine water to public water systems for free

PCS Phosphate ground water from their depressurization wells (Castle Hayne aquifer) could be an excellent alternative source of water for many people in the CCP. However, it will take a massive investment in transmission water lines to move water westward. That investment must be returned through a cost to users.

G_2. Another water source is not acceptable

Water sources can always be treated to meet the end users' needs. The cost and practicality of alternative sources are the real questions. Each water user needs to plan for the most acceptable and lowest cost sustainable water source to meet future needs.

G_3. Alternate sources not obvious

The Division can help any affected users find alternative sources and will respond to any request for advice on alternatives.

H. Do not rush into rules – now, people are aware of the problem

Most water system representatives in the CCP or their consultants have known for decades that water levels have been declining. Many systems have lost wells due to ground water levels dropping below the pump intake where the pump intake had been lowered as far as it would go. Through all this, only a few water systems have invested and moved toward sustainable water sources. It is highly unlikely, without a rule, that equitable decisions about water source investment will occur throughout the CCP. There are decades of history from the CCP in support of this statement.

I. Specific rule language concerns and suggested changes

I_1. Need exemption from reductions for areas where water level declines are not documented

Clause .0503(9) was added to deal with this situation. "An applicant may submit documentation supporting the exemption of a well located in the Declining Water

Level Zone from the withdrawal reductions specified in Rule .0503 of this Section. This documentation must include a record of monthly static water levels from that well over at least a three-year period, ending with the month when the request for exemption is submitted. The Director may exempt a well from reductions if the water level history shows no pattern of decline during this three-year period. A well previously exempted from the withdrawal reductions shall become subject to the reductions if water levels begin to show a pattern of decline."

I_2. Public comment process

This procedure is established in the Water Use Act and is not part of this rule making effort.

I_3. Agricultural registration reporting requirements in .0505(c)

The Farm Bureau Federation explanation of this reporting requirement is found in Larry Wooten's letter of September 15, 2000 (see page V-104). It is reasonable to assume many more agricultural water users will come forward and report usage for this registration process with this alternative option.

I_4. Division of Water Resources proposed changes of August 29, 2000

1. exclude wells exclusively screened in the Peedee aquifer from reductions in .0503;
2. append the following to the Cretaceous aquifer system definition – "and includes the Peedee, Black Creek, Upper Cape Fear and Lower Cape Fear aquifers." [.0507(5)];
3. delete portions of .0503 – .0503(6)(a)(iv), .0503(6)(b)(iv), and .0503(6)(c)(iv); and
4. change application submittal deadline from 60 to 180 days [.0502(b)(1)]

I_5. Temporary permit provision .0502(p)

.0502(p) Where an applicant or a permit holder can demonstrate that compliance with water withdrawal limits established under Section .0500 of this Subchapter is not possible because of construction schedules, requirements of other laws, or other reasons beyond the control of the applicant or permit holder, and where the

applicant or permit holder has made appropriate efforts to conserve water and to plan the development of adequate water sources, the Director may issue a temporary permit with an alternative schedule to attain compliance with provisions of Section .0500 of this Subchapter, as authorized in G.S. 143-215.15(c)(ii).

I_6. Approved Base Rate .0507(1)

.0507(1) Approved base rate: The larger of a person's January 1, 1997 through December 31, 1997 or August 1, 1999 through July 31, 2000 annual water use rate from the Cretaceous aquifer system, or an adjusted water use rate determined through negotiation with the Division using documentation provided by the applicant of, 1. water use reductions made since January 1, 1992, 2. use of wells for which funding has been approved or for which plans have been approved by the Division of Environmental Health by the effective date of this Rule, 3. the portion of a plant nursery operation using low volume micro-irrigation, or 4. other relevant information.

I_7. Intake depth .0502(j)

The emboldened text allows for an unspecified amount of time to come into compliance. The Division will negotiate with applicants to determine an appropriate schedule.

.0502(j) For all water uses other than dewatering of mines, pits or quarries, withdrawals shall be permitted only from wells that are constructed such that the pump intake or intakes are at a shallower depth than the top of the uppermost confined aquifer that yields water to the well. Confined aquifer tops are established in the hydrogeological framework. **Where wells in existence as of the effective date of this Rule are not in compliance with the requirements of this provision, the permit shall include a compliance schedule for retrofitting or replacement of non-compliant wells.** Withdrawals from unconfined aquifers shall not lower the water table by an amount large enough to decrease the effective thickness of the unconfined aquifer by more than 50 percent.

I_8. Intermittent users .0507(13)

The intermittent user definition deserves attention to allow for the aquaculture form of intermittent use. Catfish farmers fill and refill their ponds on a 5-year interval. If that higher fill rate is converted to a daily rate over five years, their use would fall under 100,000 gallons per day. Please note changes as proposed in the final CCPCUA rules on page I-14.

I_9. Permit application cost

There are no permit application fees. Obviously, there are costs to both the state and to the applicant associated with application preparation, processing and reporting.

I_{10}. Reduction specifications .0503

Phased reductions will only be required for those permittees who are not classified as intermittent users and who use the Black Creek or Upper Cape Fear aquifers in one of the three Cretaceous reduction zones.

I_{11}. Penalties

Penalties and enforcement actions are delineated in the Water Use Act of 1967 and are not affected by these rules. G.S. 143-215.17 describes enforcement procedures including criminal and civil penalties and injunctive relief.

I_{12}. Accuracy of measurements and application requirements .0502(d)(1-2)

It is reasonable to require accuracy of measurements to within 0.1 feet or about an inch. Conversion between NC State Plane Coordinates and latitude and longitude does not pose a problem. We recognize that some measurements may not be known to the applicant, but the driller's information on well construction is certainly acceptable.

I_{13}. Conservation measures .0502(d)(5)

The conservation measures described in the rules form a reasonable set of requirements on water users.

I_{14}. Selling water .0502(n) & (o)

Provisions for selling water will give permit holders an incentive to conserve water and to help neighboring water systems meet short term needs by selling them water.

I_{15}. Permit duration

Permit duration is established in the Water Use Act of 1967 in G.S. 143-215.16. Typical permit duration in CUA #1 is 5 to 10 years.

I_{16}. Introduction to permitting .0502(c)

The language in this part of Rule .0502 is intentionally general as it serves to bridge the gap between the Water Use Act and these specific rules. It describes the basic principles drawn from the Act to guide permitting. It is meant to introduce the standards by which impacts are measured and to provide a basis for permitting.

I_{17}. Status report .0506

The CCPCUA status report is intended to draw together information about water use, water levels, alternative sources, and actions taken by individuals or groups of users as they plan for reductions in some ground water withdrawals and for the development of new water sources.

I_{18}. "Well or group of wells" in .0502(b)

This phrase refers to a series of wells under one ownership ("person") that works as a system, for example filling interconnected pipes. They may be spread over a large area of land. This should not be construed to mean a series of individual wells operated as individual systems under one ownership. These may or may not be spread over a large area of land. Ground water may also be withdrawn by other means such as a sump in a mine pit.

I_{19}. Reporting requirements .0502(g)

Reporting requirements and frequency of reporting will be specified in each permit and may vary with type of use or other factors.

J. Miscellaneous comments

J_1. Rule will put small water users out of business

The intentions of the CCPCUA rule are to achieve a secure and sustainable water supply by bringing ground water use in line with aquifer recharge. The rule has the least effect on smaller users (only users of more than 100,000 gallons per day are permitted) although many smaller users are required to register water use.

J_2. Mining questions and concerns

Although the main thrust of the CCPCUA rule is to equate ground water withdrawals with recharge, there are and will be many local ground water issues at stake in this region. One of these issues is the impact of mining (especially limestone quarries) through formation of sinkholes or other adverse impacts. Sometimes complex hydrogeological studies are required to assess that impact. The Division will continue to dovetail its requirements with the requirements of the Division of Land Resources Mining Program.

J_3. Use priorities

No stakeholders encountered during the last two and a half years of rule making has proposed priorities among types of water users. A prosperous economy requires a balance of municipal, industrial, and agricultural water use.

J_4. Rule doesn't allow new users

The rule does not allow for new users of the Black Creek or Upper Cape Fear Cretaceous aquifers. But, new users are possible almost everywhere using alternative sources including shallower aquifers, the Peedee aquifer, the Castle Hayne aquifer, surface water, or purchased water.

J_5. Limits are set too low

The Water Use Act specifies the 100,000 gallon per day threshold for water use permits.

J_6. Stakeholder group not representative

DWR considers all people, and the groups they represent, part of the stakeholder process. Officially, there was a stakeholder group that met between January and April, 2000 to write draft rules. This group included several local governments, industries, farmers, the League of Municipalities, the Association of County Commissioners, the Homebuilders Association, the Rural Water Association, and conservation groups. However, before and since then the rules were influenced by conversations with many other people.

J_7. What is the point of conserving water if community is gone

All communities in the region have some type of alternative water source available to them to continue to support the local economy.

J_8. How do we know amount of industrial water use?

Industrial water use is estimated using various techniques, from actual metered use to methods of extrapolation based on standard water use rates for various industries. For example, water use rates for hog production are typically 4 gallons per day per hog.

J_9. Can EMC implement regulations that cause a district to not be able to repay debt service?

It is not the intent of the EMC or the Division or the CCPCUA rules to put anyone in financial jeopardy. The greatest risk to the economy and the public finances of the region would be to continue to deplete the Cretaceous aquifer until wells run dry and no water is available to support the economy or to provide revenues to water systems.

J_{10}. Rule will push up water rates and encourage people to use private wells

The alternative water sources available to the region will have a range of costs. Some will be only modestly more expensive than present sources and some will be higher. Water costs are going up all across North Carolina as new sources have to be developed at higher costs. In some cases using private wells may be a good choice for homeowners.

J_{11}. Rule should allow for continued use of aquifer as users move to alternate sources

Continued use at the aquifer's recharge rate is allowed.

J_{12}. Regional solution may make rule unnecessary

DWR firmly believes that regional solutions will play a role, but that no regional solutions will come about without the rules.

J_{13}. Serious implications of the rule can not be ignored

The ground water level declines, dewatering, and salt water encroachment have much more serious consequences.

K. Classified in wrong Cretaceous zone

The Cretaceous Dewatering Zone is a name given to the zone where water level declines are at a high rate and there is a near-future danger of dewatering or dewatering is actually taking place. The recharge estimates by Greene County are not reliable. Recharge calculations are much more complicated, because the recharge area for a particular county is not usually the same as the surface area of that county and because the rate of recharge varies from place to place. What can safely be withdrawn from Greene County via wells is also controlled by the location and construction of those wells and the location of wells outside the County that influence water levels in Greene County. The DWR monitoring network is the best guide to map water level decline trends and tell us when our withdrawals match recharge. When water level declines stop and levels stay constant or rise, then we will know that withdrawals are in balance with recharge.

L. Comment noted

Part III: Transcript of Afternoon Public Hearing, August 8, 2000

Transcript of Afternoon Public Hearing
August 8, 2000

Hearing Officer: Leo Green

My name is Leo Green, and I am a member of the North Carolina Environmental Management Commission. I have been designated to preside at this hearing along with Ryan Turner and Bob Cook, also members of the EMC. Bob is not with us today. This public hearing is being held in compliance with state rule making requirements. The Public Notice for this hearing was sent to municipalities, counties, sanitary districts, consulting engineers, environmental groups, conservation organizations, appropriate state agencies, and interested individuals. The Notice will be recorded as part of this hearing.

The purpose of the hearing is to obtain public comment on adoption of 15A NCAC 2E .0501through .0507, amendment of 15A NCAC 2E .0106 & .0107, and repeal of 15A NCAC 2E .0102, .0103, .0201, .0202 and .0205. No official action will be taken during this hearing since the record will be left open until September 15, 2000. This will afford an opportunity for anyone who wishes to submit additional written comments. After that time, the summary of views expressed by the public and the staff recommendations will be presented to the Environmental Management Commission for final action before being presented to the Rules Review Commission.

Each person who registers and indicates a desire to make a statement will be recognized and given an opportunity to present that statement. Any person who has not previously indicated a desire to make a statement will be given the opportunity to do so after all registered speakershave been heard. All presentations will be limited to five minutes or less. If you have a prepared statement, we would like a copy as you come forward to speak.

I will call the persons who have indicated they wish to speak to the podium one at a time. To assure that our records are complete, please indicate clearly your name and whom you are representing.

As previously stated, this hearing is to obtain public comment. This is not an adversarial procedure; therefore, questions from the audience to persons making presentations will not be allowed. However, the Hearing Officers may question participants for purposes of clarification and will receive, in writing, any questions from members of the audience who wish to direct a question to a staff member or speaker.

We are dealing with ground water management issues in this hearing which are of great importance to the economic welfare of North Carolina. We appreciate your attendance today and we will listen carefully to your comments.

Before we go into it I would like to recognize two state representatives that are here with us, Mr. Russell Tucker and Joe Tolson. We appreciate your interest in this process.

Nat Wilson with the Division of Water Resources will now present the proposed rule changes.

[Verbal comments by Nat Wilson, Division of Water Resources follow]

My name is Nat Wilson. I am the lead hydrogeologist with the Division of Water Resources.

The proposed CCPCUA includes the following fifteen counties: Beaufort, Carteret, Craven, Duplin, Edgecombe, Greene, Jones, Lenoir, Martin, Onslow, Pamlico, Pitt, Washington, Wayne and Wilson. Water supplies for the western part of this region come from the Cretaceous aquifer system, primarily from the Black Creek and Upper Cape Fear aquifers. Water levels in these aquifers have been dropping at high rates of one to eight feet per year for several decades. Dewatering is known to be occurring in some areas – this is where water levels have fallen below the top of the aquifer – we know this condition harms the ability of the aquifer to transmit water. Beginning in early 1998 we began meeting with people representing public and private water systems, industries, agricultural interests, consulting engineers and geologists, municipal and county governments, and the legislature to discuss how to achieve a reliable water supply for this area.

One outcome of these discussions was our three-point strategy. The Division believes it is important to review these proposed rules in the context of our three-point strategy of monitoring, planning & regulation:

1. monitoring – an adequate ground water level monitoring network must be operated, maintained, and improved as needed to provide accurate data on the amount and rate of ground water level declines;
2. planning – the solution to the water supply problems in the Central Coastal Plain will involve careful management of Cretaceous aquifer water to use its sustainable yield while developing other water sources to meet additional needs; and

3. regulation – the Water Use Act of 1967 provides a basis for regulating water withdrawals by permit in areas where water use is exceeding the capacity of water supply.

The EMC approved a rule and we held a public hearing on that rule a year ago. Public comments called for a rule that spells things out in more detail. So, starting in February of this year and lasting through the first week in April 2000, a group of stakeholders met weekly to write the rules before you today. On May 11, 1999 the EMC approved those draft rules (with just a few modifications) for public hearing (today's meeting). I will list some of the provisions in the rule and refer you to the rule text for further information:

The rule additions and changes before you today provide for permitting of ground water use by persons using more than 100,000 gallons per day. Existing withdrawals will continue under interim status until permits are issued or denied. All municipal, industrial, and agricultural water users will follow standard water conservation measures to assure efficient use of water. Permit holders will report water use rates to allow the total demand on the aquifers to be better understood. Ground water users from 10,000 to 100,000 gallons per day will not need permits, but must register and report annual water use. Surface water users of more than 10,000 gallons per day must register and report annual water use. Agricultural water users not required to obtain a permit may report water use through confidential NCDA or USDA surveys rather than the Division of Water Resources. Temporary permits allow more time for compliance with permit conditions if events occur beyond the control of the permittee. Water use permit holders may transfer or sell water to other users within permitted amounts.

Four Cretaceous aquifer zones are defined in the rule: Dewatering, Saltwater Encroachment, Declining Water Level, and those parts of Edgecombe, Wilson, Wayne and Duplin counties outside of the named zones. Permittees in the salt water water encroachment and dewatering zones face 75% reductions in water use from the Cretaceous aquifers over three successive 25% reduction phases in the 6th, 11th, and 16th year after the effective date of the rule. Permittees in the declining water level zone face 30% reduction in water use from the Cretaceous aquifers over three successive 10% reduction phases occurring in the 6th, 11th, and 16th year after the effective date of the rule. Stable water use is required from the Cretaceous aquifers for permittees in the western parts of Edgecombe, Wilson, Wayne and Duplin counties, outside of the other three zones. The EMC can adjust the zone map and reduction amounts in the 6th, 11th, and 16th year based on current aquifer conditions.

Intermittent water users who use water less than 60 days a year or who use less than 15 million gallons per year will not be required to reduce water use in the three reduction phases. The rule provides for initial permits that can allow for increasing withdrawals during the first 6-year period to provide for growth in demand as supplemental water supplies are being planned and implemented. The purpose of this rule is to assure that the capacity of aquifers to yield water for future needs is protected. To meet future water needs, additional water sources must be developed to complement the Cretaceous aquifers.

I will now turn the meeting back over to Mr. Leo Green. Thank you.

Hearing Officer: Leo Green

Our first speaker this afternoon is Judy Brown.

[Verbal comments by Judy Brown, Assistant County Manager, Duplin County follow]

Thank you for the opportunity to appear before you today regarding the proposed Capacity Use Rules. I am Judy Brown, Assistant County Manager for Duplin County.

Duplin County has seven water districts. They are separately created entities of government with taxing authority. One of the districts has just been declared "substantially complete" for construction of water lines. One district has not even begun construction. Bottom line-----we do not have an "approved base rate" for these two districts.

Five of the seven districts that have been completed have a bond payment that equals approximately $1.2 million per year. If Duplin County has to show a reduction in water consumption of 30% from its "approved base rate," it could affect the districts ability to repay its debt service. I question whether the Commission has the authority to implement regulations that will have a negative affect on the districts' ability to make its debt payment. If the County were to look as a reduction in its "approved base rate" by not allowing additional customers to connect to the existing water systems, I do believe there would be an outcry from the citizens that this would be "taxation without representation."

Duplin County was one of the many counties that was devastated by Hurricane Floyd. We are still in a recovery mode. There were approximately 800 homes partially or totally

flooded. Duplin County is still recovering from the natural disaster. Many of these homes had private wells that were contaminated from the flood waters. We have encouraged our citizens to participate in a public water supply system so that they would have safe, potable water. I have a concern that if you implement these rules and do not provide 100% grant funds for the counties affected by it to implement them and find alternative water sources that we will have to raise the rates. To implement these rules and regulations at this time without 100% funding from the State will result in financial jeopardy for these districts.

While it is recognized that some type of rules may be necessary to protect our ground water resources, we solicit your careful review of these rules and regulations. The citizens of Duplin County have been encouraged to connect to public water supply systems. They have been encouraged to do so in order that they would have safe, potable water. If these rules and regulations are implemented, it could result in higher water costs. Higher water costs could result in some citizens coming off the public water supply and going back to private wells. Is this what we really want? Do we want citizens opting to use private wells rather than public water sources?
I submit to you a copy of my written comments to be made a part of your public hearing.

Again, thank you for the opportunity to speak on behalf of the citizens of Duplin County.

Hearing Officer: Leo Green

Our next speaker is Arliss Albertson and following him is David Yaeck.

[Written copy of verbal comments by Arliss Albertson, Duplin County Commissioner follow]

August 8, 2000
Capacity Use Rules Public Hearing
Kinston, NC

My name is Arliss Albertson. I am a member of the Duplin County Board of Commissioners. Thank you for this opportunity to comment on the State's proposed Capacity Use Rules.

Duplin County has long considered itself blessed with its abundant groundwater resources. The County's rural nature illustrated by its population of approximately 45,000 persons spread over the County's 818 square miles in combination with its deep, thick aquifers were thought to assure all of our citizens with bountiful quantities of groundwater for today and far into the future. THINGS ARE APPARENTLY ABOUT TO CHANGE.

Access to these groundwater resources will be severely restricted by the proposed Capacity Use Rules. We understand there is a problem with declining water levels in the central coastal plain; however, we believe these problems are most apparent east of Duplin County in areas with larger populations and with significantly greater groundwater withdrawals over relatively small geographical areas that have been occurring for years. Duplin County has not typically seen this problem.

Much of Duplin County has pumping levels from high capacity wells approximately 200 feet above aquifer tops. Water level declines have often been less than a foot per year and have typically been less than two feet per

year over most of the County. The proposed Capacity Use Rule will limit withdrawals in the western half of the County to its "approved base rate" while requiring a 30% reduction from its "approved base rate" in the eastern half of the County. For a rural County with abundant groundwater resources and a lack of scientific data indicating regional water declines, the proposed rule has simply gone too far.

Withdrawals in the western half of the County should not be subject to a base rate except and unless compelling evidence of declining water levels is identified which indicates the County's continued use of the resource is in jeopardy.

We believe the County has been blessed with an abundant natural resource that holds tremendous potential for positive public health impacts through its use as a supply for safe drinking water. We believe the greatest threat for use and development of this resource at this time comes not from declining water levels, but from over regulation via the proposed Capacity Use Rules. The Rules must provide the County with the opportunity to further utilize and develop its highest quality groundwaters consistent with their reasonable use and in absence of evident regional water level declines that represent near term threats to the groundwater's continued availability. The concept of a "base rate" for withdrawals in the western half of Duplin County should be eliminated.

Arliss Albertson
Duplin County Board of Commissioners

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Hearing Officer: Leo Green

Our next speaker is David Yaeck and following him is Keith Starner.

[Verbal comments by David Yaeck, Neuse River Foundation follow]

I appreciate the opportunity to place upon the record comments regarding the proposed CCPCUA. My name is David C. Yaeck, a semi-retired water resources professional now residing in New Bern, who served as Neuse River Foundation alternate on the Stakeholders' group formed to address the regulatory issues involved in the development of the proposed Capacity Use Area. I also served as chairman of the Ground Water Advisory Committee to the Delaware River Basin Commission for 18 years during which period similar issues were addressed and regulations developed in portions of New York, New Jersey, Pennsylvania, and Delaware.

A review of the available ground water database indicates an imbalance between supply and demand with the demand side of the equation outweighing available supply in portions of the defined 15-county area underlain by the Cretaceous aquifer system. Continued over drafting also increases the threat of saltwater intrusion and attendant water quality concerns.

In the interest of brevity, I have confined my comments to specific lines and paragraphs in the June 23 draft of the proposed rule. I will file more detailed written comments by the September 15 deadline.

Line 54, Page 4: The failure to set a firm cutoff date for proposed withdrawals from the CUA prior to implementation of the permit process leaves the door open for accelerated activity by those who would seek to circumvent the intent of the CUA designation by placing "one last straw" into the Cretaceous aquifer system. This round of activity injects an additional element in the planning process required for the development of alternative sources of water supply.

Lines 7 and 13, Page 5: The Stakeholders' group recommended adverse impacts of ground water withdrawals in the CUA to be prohibited. To permit any degradation of the ground water by allowing a "minimized" impact is unconscionable. Further, line 10 of the same page identifies encroachment of salt water as an adverse impact that should be avoided or minimized. This standard directly conflicts with the standard reflected in lines 58 and 59 on page 6 that states, "Withdrawals of water that cause changes in water quality such that available uses of the resource are adversely affected will not be permitted."

Line 22, Page 6: In the interest of providing the best database available, the word "certification" should be substituted for the word "statement".

Line 48, Page 8 and Line 7, Page 9: Regarding the acceptability of any water use data on a confidential basis is not in accord with any aspect of sound water resources management. Section 5 of Article 14 of the North Carolina State Constitution declares, "It shall be the policy of this state to conserve and protect its lands and waters for the benefit of all its citizenry".

To grant special consideration to a limited number of that citizenry is in conflict with that constitutional amendment adopted in 1972. Further, a complete and accurate database is paramount to present and future integrated land and water resources planning efforts by the private and public sectors. To restrict access to this vital data element is not in the best interests of the residents of North Carolina.

Line 1, Page 9: Language should be added to this subparagraph requiring the registrant to identify location of both new and existing wells by latitude/longitude for entry into the state water use data system.

In closing, I acknowledge the resolution of the water supply issue in the 15-county region is not without cost. However, as past president of the 1500-member Water Works Operators' Association of Pennsylvania, I can with certainty advance the theory that the American Public has yet to realize the true cost of water.

Thank you for the opportunity to place these brief comments on the record. Should you have any questions, I will be happy to respond.

Hearing Officer: Leo Green

Keith Starner and following him is Denny Garner. I'd also like to recognize another representative here with us, Ms. Edith Warren. We appreciate your interest.

[Verbal comments by Keith Starner, North Carolina Rural Water Association follow]

The North Carolina Rural Water Association has 90 member water systems in the proposed CCPCUA. Sammy Boyette represented NCRWA on the stakeholders group that developed the proposed rule.

NCRWA agrees that the Cretaceous aquifers are under stress and concur that there should be a rule that will regulate withdrawal and protect the aquifers in the CCPCUA. Since the stakeholders developed the proposed rule, several concerns in the details of the rules have been brought to our attention. We will submit written detailed comments on the rule during the comment period.

We urge you to consider the economic impact on the CCPCUA. The area is trying to recover from the flood of 1999 and is losing much of its income from agriculture. The rule must take into account that developing alternate resources for many of the water systems is going to be very costly. Many of the systems currently are at their debt servicing limit. They must repay their current loans and may not have the financial resources to finance the cost of alternative water supplies.

We believe the fiscal note grossly underestimates the cost to the citizens as this rule is implemented. The rule does not require systems to find alternative sources in a three phase reduction over a sixteen year period. However, many systems must face the capital cost of the total reduction in the first six years of the rule. We think the cost estimated in the fiscal note is a small percentage of the true cost of implementation.

We do not think water users should be able to sell a portion of their permitted allocation. They should be able to sell water they do not need, but not transfer a portion of their permitted allocation for profit.

If a system can demonstrate that current or additional withdrawals will not have an adverse impact on the aquifer in their area they should be able to avoid the mandated reductions set forth in the rules according to the map defining the different zones in the CCPCUA.

Requiring a system to be able to measure their water levels within one tenth of a foot in many cases is not feasible. We think accuracy within one half foot is more reasonable.

We would like to take this opportunity to applaud the Director of Water Resources, Mr. John Morris and his staff who have worked with our association to develop the proposed rule. Much has been accomplished to date, however, I believe we must continue to work during this public comment period to further improve upon the proposed rule to ensure it treats everyone fairly, allows the continued use of the aquifers to their greatest potential and to protect the aquifers for future use.

Hearing Officer: Leo Green

Next is Denny Garner and following him is Mark Loomis.

[Written copy of verbal comments by Denny Garner, Greene County Commissioner follow]

August 8, 2000
Capacity Use Rules Public Hearing
Kinston, NC

My name is Denny Garner. I am Chairman of the Greene County Board of Commissioners. I appreciate the opportunity to comment on the proposed Capacity Use Rules. Our Board is very concerned with how the proposed rules will impact Greene County.

Wells in Greene County represent the source of water for the County's public water systems. These systems provide over 95% of our residents with the opportunity to access clean, safe drinking water.

The proposed Capacity Use Rules designate Greene County within the "Dewatering zone." The term "dewatering" indicates water levels are below the top of the aquifer. Pumping levels throughout the County are typically approximately 60 feet above the top of the aquifer. A more appropriate classification would be the "Declining water levels zone."

The proposed rules will require Greene County to reduce its current usage from 1.6 MGD to 0.4 MGD over the next 16 years. Alternate water sources in Greene County are not obvious. Contentnea Creek is the primary stream in the County and its ability to provide potable drinking water is very doubtful.

The County consists of approximately 265 square miles of surface area. Recharge to the deeper aquifers in the County may be preliminarily

estimated at approximately 1.06 MGD based on a conservative presumptive recharge rate of 4,000 gpd/sq. mi. The 75% reduction over 16 years proposed by the Capacity Use Rules for Greene County appears punitive. Re-classification of the County to the "Declining water levels zone" appears more reasonable.

The great majority of the Counties within the Capacity Use Area appear to have significant alternative water sources. Greene County's alternative sources are not as apparent. If the proposed rule is successful in stabilizing or reversing declining water levels, Greene County merits consideration of reasonable increases in withdrawals due to its apparent lack of alternative supplies. We would like the proposed rules to provide the Director the authority to modify the proposed reductions in cases where alternative supplies are not available.

In summary, Greene County recognizes the problem of declining water levels within the Central Coastal Plain and agrees something should be done to address the problem. We also believe the problem is not as severe in Greene County as some of the other areas with significantly larger withdrawals. We are therefore not in agreement with the County's designation within the "Dewatering zone" or the proposed 75% reduction for Greene County over the next 16 years, particularly in view of our apparent lack of alternative water sources. In order for Greene County to support the rule, the rule must provide sufficient latitude to allow people to continue to live in the County.

Thank you for this opportunity to speak.

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Hearing Officer: Leo Green

Next is Mark Loomis and following him is Woody Brinson.

[Written copy of verbal comments by Mark Loomis, Carolina Classics Catfish follow]

Central Coastal Plains Capacity Use Water – Proposed Rules
Minority Report – The Aquaculture Community

Since water is so vital to what we as fish farmers do, we are obviously very concerned about declining water levels and vitally interested in being good stewards of the resource. We do not disagree with the data presented suggesting impending problems with the underground aquifers, but we have grave concerns regarding the methods employed in the Proposed Rules. The data clearly show that the declining water levels are specifically occurring at the locations of large continuous water users in growing metropolitan areas. Eastern North Carolina has historically struggled behind the rest of the state economically, and every effort should be made to avoid placing needless restrictions on commerce in the region. Therefore, the rule-making process should take the time to carefully study all factors in this water equation, then carefully craft rules that focus on large continuous users who are responsible for the water level declines, and avoid onerous rules that would needlessly restrict those not responsible. Unfortunately, the Proposed Rules are instead a hastily-arrived-at set of blanket restrictions that will, in our industry's case, severely cripple a small, growing crop in North Carolina which provides a much needed farming alternative to swine and tobacco.

Catfish and Hybrid Striped Bass are grown in shallow earthen ponds, usually from four to ten acres each. These are filled from deep wells initially, and then only require water seasonally to replace evaporation. Most farms are small, about 30 water acres each, providing supplemental income for rural families. There are currently 37 catfish farmers representing about 1400 acres and 23 Hybrid Bass farmers with about 400 acres. The world market for aquaculture products is growing. This type of farming represents an opportunity for small Eastern North Carolina farmers to earn a living in an environmentally sound, aesthetically pleasing use of their farms. Our concern is that the proposed rules would sharply curtail the growth and thereby the viability of our entire industry.

The following specific points contained in the Current Proposed Rules are a grave concern to us:

- Reduction targets are to be adjusted in response to water level stabilization (.0503 (g)). Our question is, stabilization of water levels where? The data clearly depict the areas of water level decline are centered on large municipal users. State monitoring wells do not point to aquaculture as a source of water level declines. The largest fish farm in the state with 270 water acres is located about 6 ½ miles from a USGS well. Water level monitoring began at this site back in 1984. The farm began operating in 1986. No decline is noted in the aquifer according to this monitoring well. Why should aquaculture be saddled with reduction targets determined by what happens in large, rapidly growing metropolitan areas?
- Aquaculture is about as efficient with water use as technology currently allows. Pumping costs are a major expense which provides a large incentive to maximize water use efficiency.
- Aquaculturists do not price their own product and therefore are unable to pass along costs to end users. The costs associated with complying with the Proposed Rules must therefore be borne by the small farmers themselves (whom the data show are not overtaxing the aquifers), as opposed to municipalities who can spread their costs around to thousands of end users. Costs potentially incurred to users include the following:

1) Cost of modifying current wells to facilitate measuring water levels, per .0502 (g)(2)
2) Purchase of water meters and cost of plumbing them in existing water lines. .0502 (g)(1)
3) Installation of monitoring wells. .0502 (i)
4) Considerable time to carry out the ***daily*** monitoring and reporting which will necessitate that already busy growers either hire an outside firm or cause them to neglect important production practices. This type of paperwork can be overwhelming to farmers. .0502 (g)(1)
5) Expensive engineering consultants would be required to help determine screen depths, size and capacity of pumps, Latitude and Longitude locations, depth to top of gravel packs, developing water conservation plans, etc. .0502 (d)(1&2), .0502 (d)(5)(B)

- There are no acceptable alternate water sources. Our industry has received a clear message from the FDA to move away from surface water due to pollutants entering the food chain. We already prefer to use the aquifers that are less suitable for drinking water, where they are available, because we ***need*** the calcium and chloride.
- *Most* of our growers would be disqualified from the mandatory reduction requirements (.0503 (b)), since they are categorized as intermittent users as defined in .0507 (13). There is an inequity in this, however. Some growers construct conservative wells and must pump for more days. This causes them to fail the intermittent user definition. This could have been avoided by instead digging a very large well, and withdrawing the same amount of water. Specific incidences can be cited upon request. Therefore, if a farmer is forced to withdraw extra water during an unusually dry season, they are no longer an intermittent user and withdrawal reductions go into effect, according to current reading of the rule.
- Many farmers begin with very small acreage and small water supplies with plans to grow. The proposed rule is a roadblock for these farmers' growth plans, both in terms of adding new wells and in trying to stay within the definition of an intermittent user.
- The public comment period may cause a problem for new growers from neighbors who don't understand the nature of our business. .0502 (e)

The Department of Water Resources tries to reassure our industry that we will not be saddled with the same requirements as municipalities and industry. We don't doubt their intentions, but are concerned with the ambiguity of this promise. Looking down the corridors of time, we are concerned with how these rules will affect our children under different administration.

The problems associated with drawdown did not happen overnight---these drawdowns have occurred and have been monitored for years. We therefore do not understand why there is a sudden rush to make rules on this issue, and we advocate more time for careful study, in order to be sure that rules are prudently adopted that address the problem without unnecessarily burdening Eastern North Carolina's economy. We do know this: the source of the problem stems from large continuous users near population centers. We believe that the rules should focus on those users. An exemption should be granted for aquaculture, because the permitting, construction, and reporting requirements would needlessly restrict an industry that does not represent a drawdown on the aquifers. The Proposed Rules would effectively halt a positive new farming alternative for Eastern North Carolina family farmers.

Hearing Officer: Leo Green

Next is Woody Brinson and following him is Horace Phillips.

[Verbal comments by Woody Brinson, Economic Development Director, Duplin County follow]

I am Woody Brinson and I am the Economic Development Director for Duplin County. Also this year, I have served as chairman of the NC Ease, which is a 16 county marketing economic development group of which 11 of the 16 member counties are affected by these proposed rules. I do not have written comments available today, but we will be submitting additional comments before the September 15 deadline in writing.

Yes, we recognize there is a problem in certain areas of the region. Yes, we also recognize there are certain problems in other areas of the state of North Carolina which are not being addressed. As I stated to John Morris in a meeting several weeks ago, while being in western North Carolina during the week of July 4th I saw him and some of his staff on a television program in which one of the staff members admitted there was problems in western North Carolina. There are problems in Greensboro. An industry that is located in Greensboro and also in Duplin County relocated jobs to Duplin County several years ago because of water problems in Greensboro, not problems in Duplin County. Also, I would say like several previous speakers the question of the fiscal analysis, it states that approximately $78 million is needed to correct the problem and find alternative sources. We have heard from consulting engineers that the problem is probably five and six fold times that, over $400-500 million will be needed in the 15 counties. Once again, this is a situation of the state imposing regulations upon local governments without a funding source. The main issue I would address as economic development director is the question of impacts on our industries and on the jobs in our 15 county region. Our existing industries need to be competitive. If we impose regulations upon them for conservation measures that are not being imposed on their competition, whether it is in state or out of state or out of the country, it puts them at a competitive disadvantage. We must work with our existing industries to be competitive and help them find financial resources. Also, when we start talking about conservation measures they are not as identified within the proposed regulations as soundly as they are concerning public water systems. This needs to be addressed much more clearly than is proposed in the regulations. Also, the issue of expansion of our existing businesses. If they are in a no growth or declining water level area, how can we expect them to expand and create new jobs and better paying jobs if they have got to cut back on their water consumption and it put them at a financial disadvantage. This must be addressed if we want eastern North Carolina to continue to grow and provide good jobs. Also, when you look at the fiscal analysis and other data, the question of where did the figures come from for industries and agriculture when most of them are not metered. We have talked with

the major industries of Duplin County that are on their own water system and we haven't found one yet that has a metered system. So how in the world do we know how much they are drawing down, the impact they are having, if there are no meters like there is at a public well. And then the question of recruitment, as I have stated to the staff before, we in Duplin County and I know of other counties in the 15 county region have already been cut by some industrial prospects just because of the proposed regulations and they see no future growth if they do come here. The other thing I would mention is another Environmental Management Regulation concerning ozone has been proposed to look at only specific areas of towns and counties. In Duplin County only one township is affected by those regulations, yet these groundwater regulations affect all 18 townships. Here again these need to be looked at much closer or are the guidelines on the proposed map way to broad and do we need to center in on just specific locations that are experiencing problems. Another issue that I would address is we have been told that these studies have been going on for about 20 years, why all of a sudden must they be implemented immediately without full, detailed scientific data being determined. As was addressed earlier and was also recognized at a meeting back in March when a presentation was made by John Morris and his staff to the legislators. This is the same area that was heavily impacted by Hurricane Floyd. It is also the same area that has seen its tobacco allotments cut by 53%. It is also the same area that has been under a livestock moratorium and without our culture the backbone of our region being able to grow, we have got to find new jobs and water may be necessary. We look at how the proposed regulations are recommended for proposal and we find that a cookie cutter approach is being made to all 15 counties, that one size fits all within certain regions. We question that this is the proper approach. Our jobs, our incomes are at stake and we ask that these be looked at very closely as stated by previous speakers. There are certain areas that have major problems, but there are other areas such as Duplin County and Greene County and the western region that have very little impact and we question the scientific data being truly accurate and the fiscal analysis being accurate either. We thank you for the opportunity and we will be submitting written reports/comments before the September 15 deadline.

Hearing Officer: Leo Green

Next is Horace Phillips followed by Richard Hicks. I'd also like to recognize another representative, Ms. Marion McLawhorn. Thank you.

[Verbal comments by Horace Phillips, Jones County Commissioner follow]

Good evening, I am Horace Phillips, chairman of the County Commissioners for Jones County and I would like to thank the board for the opportunity to make some brief comments. I will be brief because much of what's been said you get repetitious after a while and I don't want to keep saying the same things over and over.

Jones County is a small agriculture county of about 9,500 people. We have a public water system that serves about 3,200 people. We do pump out of the Black Creek Aquifer, we are part of the Cretaceous System that we are speaking about here today. We are one of the 15 counties and our static water levels do drop about 3 feet per year, which is not really dramatic. We use about 600,000 to 700,000 gallons a day. Our water system is about 25 years old. We have been told from day one to put your wells in the western part of the county by the engineers, that is where the good water is and that is what we have been doing generally for all of those years. Now we got the flip -- we can pump out of the Castle Hayne in the Pollocksville/Maysville area but we've got to reconstruct and it costs money. We just went through Hurricane Floyd and about a third of our county was under water and we still have people living out of their homes, we are trying to get people back in their homes. We do not want to raise the tax rates nor do we want to raise water rates right now. It all gets down to money and if the legislators proposing these rules on us will provide the grants to do it, we will be happy to get on with the project.

Hearing Officer: Leo Green

Richard Hicks followed by Marion Smith.

[Verbal comments by Richard Hicks, Manager, Town of Farmville follow]

Richard Hicks, Town Manager, Town of Farmville. I am also speaking as newly elected chairman of a newly formed association of water users that are impacted by these rules in this 15 county region. We currently have about 45 of the existing users that will have joined this association and have had quite a few others express interest. If I say something right I am speaking as chairman of the association, if I say something wrong I am speaking as Town Manager of Farmville.

I think we all recognize that there is a problem with the source for water and I think we are all pretty confident that there are going to be some rules to follow this public hearing. In talking with John Morris on several occasions, I think one of his concerns were in the initial stages that the stakeholders were not involved. There was a list of stakeholders that was formed, they met, they went through the rules and I can't even remember the

exact number there, but I would mention to you this evening I think you found your stakeholders, they are all here. One thing I would like to point out is we'd like you to consider not rushing into the rules. I think that is where you are going and that is probably what is going to happen but I think you have finally got everybody's interest, you have everybody's attention. We think there are some changes that need to be made to the rules. We think those can be some very positive changes and we think we have enough people interested and enough people that are concerned now, myself personally I think it is time to move a little slower. I would hate to see a set of rules adopted just because someone higher up thinks they need to been done prior to him leaving office.

There are 2 issues that I think need to be addressed. I think #1 this is a water supply issue. I think you have heard comments on that. I think the other big issue is that this is an economic impact issue. I will sort of use Farmville as an example. We just recently or are still in the process of trying to recover from Hurricane Floyd. We are an agricultural community and as all of you know agriculture has taken a big hit and will continue to in the future. The Town of Farmville discharges into the Neuse River. We just faced a significant reduction in the amount of nitrogen that could be discharged into the Neuse River. That was with significant cost to our customers. We are also in the electric business facing deregulation which we think is going to be another significant cost and impact on our customers and citizens of Farmville. Somehow or another, Farmville ended up being a non-attainment area for ozone regulations. We are the only portion of Pitt County that received this designation and it is only because a monitoring station is in Farmville. Again, I say it is a major economic issue because all these issues that we are having to face are going to put the cost to our customers and citizens beyond what we think they are capable of paying when you add all these up. We would like you to consider several items in closing here. Our newly formed organization has worked with John Morris and his staff and we appreciate his help and his willingness to come to Farmville and sit down and talk to us. We think there are some changes that need to be made as Woody Brinson said a while ago one size does not fit all. We think we have some changes that would benefit everybody and will still meet your needs in what you are proposing. So we ask that when the rules come before the EMC that you do seriously consider our proposed changes. We also again ask you to be aware of the cost and time elements involved. If you look at the Town of Farmville we don't anticipate finding an alternative water source within Pitt County and I think as alternative water sources are studied and you have to go to something like surface water I am not sure you can study, design, get the various state permits and get everything approved and constructed within 6 years. I think that may pose a serious problem. The 3rd item we ask you to consider is please support our efforts for funding. As was mentioned a while ago I think the state

fiscal note estimated about $78 million for this cost and we feel like it is going to be more like $400-600 million. We think that is a very realistic figure. Again please support our efforts and anything you can do to obtain funding for this, whether it is state or federal. Then finally we ask that you continue to look at the scientific data. We think there are quite a few areas in the aquifer that are not acting like the current study says they are. We think you need to look at those areas, we need more monitoring wells, need more data and we ask that you take a very serious look at that. Again, thank you for the opportunity to speak.

Hearing Officer: Leo Green

Marion Smith followed by Ed Andrews.

[Written copy of verbal comments by Marion Smith, Executive Director, Neuse River Foundation follow]

Central Coastal Plain Capacity Use Area Rule
Public Hearing Comments - August 8, 2000

By: Marion Smith, Executive Director
Neuse River Foundation, Inc.
Post Office Box 15451
New Bern, North Carolina 28561

We appreciate the opportunity to appear before you today and submit comments on our concerns about the proposed regulations. As one of the "stakeholders" who participated in the review and recommendations for this regulatory program, we have invested significant time and resources in studying the issues related to the proposed regulatory program.

Our mission is to protect water quality in the Neuse River and its tributaries. However, we recognize that any program restricting withdrawal from the aquifer system will force water users and water suppliers in our river basin - who must seek additional water supply sources - to consider water withdrawal from the Neuse River system. Water quality and water quantities are concerns that cannot be separated. Despite the current stresses on the Neuse River this is an inevitable consequence of circumstances that led to the over-pumping of the Black Creek Aquifer. This aquifer system is a major source of drinking water for most of the commercial and private water users in the lower Neuse region. While our primary goal is to protect the Neuse, we cannot be good stewards of that resource and ignore the problems of other natural resources like our aquifers. So our focus in participating in this process is to insure that the proposed rule represent a sound approach to the long term conservation and use for all of the water resources on which future generations and we must rely.

With the extraordinary growth and development that has, is and will occur in our river basin, water supplies have become a critical problem that we have belatedly begun to deal with. Yet, having said that, I believe that if we plan and conserve wisely we have water resources that can handle current and future need. But in order to effectively deal with increasing demands we must become much more aggressive in recognizing the limitations of our resources and develop conservation plans that prevent the type of destruction that is currently threatening the Black Creek Aquifer.

Other states have faced similar problems and developed water budgets that promote a fair allocation to all users while protecting the environmental integrity of their water resources. In order for that to occur, the state must have accurate records of water use. While we have reasonably good data on surface water withdrawal, and fair data on surface water quality, we have an extraordinarily poor data set on our aquifer system. We know salt-water intrusion is occurring, but lack any understanding of how quickly it is moving. Well fields have had to go deeper and deeper to maintain sufficient pressure and they often occur in such concentrated areas that these "cones of depression" have resulted. We lack sufficient understanding of how or whether they can recover. The only thing we know for certain is that we are currently on a course that can lead to sufficient damage that would make it impossible for us to have the benefit of their high quality drinking water in the future.

While we do not believe the proposed regulations move us far enough or fast enough to do what needs to be done in the Central Coastal Plain, they are a small step in the right direction. However, we do have serious concerns with certain provisions.

In Section.0505 (c) - a "confidential" reporting provision for agricultural users with the option to report through other agencies defeats the purpose for which this registration (for withdrawals over 10,000 gallons per day) is intended. As we deal with increasing demands on this resource, we must be able to develop water budgets in order to fairly and equitably allocate for the needs of all user groups. Singling out only one user group for whom secret report are allowed is not in the best interest of the public or the resource we intend to protect. Further we question whether or not such a provision is legal under the existing applicable statutes.

The Public Records law has a general exemption covering "trade secret" information. It currently reads as follows:

§ 132-1.2. Confidential information

Nothing in this Chapter shall be construed to require or authorize a public agency or its subdivision to disclose any information that:

(1) Meets all of the following conditions:
a. Constitutes a "trade secret" as defined in G.S. 66-152(3).
b. Is the property of a private "person" as defined in G.S. 66-152(2).
c. Is disclosed or furnished to the public agency in connection with the owner's performance of a public contract or in connection with a bid, application, proposal, industrial development project, or in compliance with laws, regulations, rules, or ordinances of the United States, the State, or political subdivisions of the State.
d. Is designated or indicated as "confidential" or as a "trade secret" at the time of its initial disclosure to the public agency.

The "trade secret" definition at G. S. 66-152(3) is:

(3) "Trade secret" means business or technical information, including but not limited to a formula, pattern, program, device, compilation of information, method, technique, or process that: patent

a. Derives independent actual or potential commercial value from not being generally known or readily ascertainable through independent development or reverse engineering by persons who can obtain economic value from its disclosure or use; and
b. Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

We submit that the quantity of irrigation water used by an agricultural enterprise has absolutely no independent commercial value arising from the secrecy of the information and therefore cannot be considered a "trade secret" under the Public Records Act.

The Capacity Use statute authorizes rules requiring the submission of water use reports and doesn't add any extra layer of trade secret protection or confidentiality. The statute says:

G.S. 143-215.14. Rules within capacity use areas; scope and procedures

(a) Following the declaration of a capacity use area by the Commission, it shall prepare proposed rules to be applied in said area, containing such of the following provisions as the Commission finds appropriate concerning the use of surface waters or ground waters or both:

(1) Provisions requiring water users within the area to submit reports not more frequently than at 30-day intervals concerning quantity of water used or withdrawn, sources of water and the nature of the use thereof.

This provision doesn't override the trade secret protection in the Public Records Act, but indicates that simple records of water use are not generally considered secret. Other industries have long provided such records without asserting confidentiality. These rules should not contain any additional confidentiality provision because all legitimate interests in confidentiality are already provided by the Public Records Act. In our view these Rules cannot add to or subtract from the Public Records Act. We do not believe the EMC has authority to adopt rules that make something confidential if the Public Records Act makes it a public record subject to disclosure.

Finally, I would argue that this provision is not even in the best interest of agricultural water users. Adequate water supply is critical to crop and animal production. Agriculture is important to the economy of the Central Coastal Plane, if they are to protect their future interest their records should be as complete and as public as the water use information submitted by other users.

Hearing Officer: Leo Green

Ed Andrews followed by Harold Herring.

[Verbal comments by Ed Andrews, Edwin Andrews Associates follow]

Commissioner Green, Commissioner Turner, Director, thank you for this opportunity.

I have four comments that are very general in nature. Really these have to do with some conceptual framework of the rules. First one that I have is I see a need and what was lacking in 15A NCAC 2L was a system of prioritization. You don't have a best use for the Cretaceous water and in other states that I have worked where they have capacity use or groundwater withdrawal controls, they have defined best use as human consumption, as an example. I think the inclusion is somewhere in Section .0503 of a system of prioritization. It would help the region to utilize the rules more effectively to optimize the rules. That is the first point. The second point is that in looking for alternate sources and beginning to investigate how these rules can apply to given counties, I found that the use of the Cretaceous aquifer system as a simple system presents a problem. You defined in the hydrogeologic framework that the Pee Dee, Black Creek and Upper Cape Fear essentially comprised the Cretaceous aquifer system. I think it would be wise in Section .0507 of the definitions to define each of the aquifers within the aquifer system so that hydrogeologists and engineers can use those. For example, if the Black Creek is not being overdrawn in a given county an area with a declining water level, then perhaps the

Black Creek portion of the Cretaceous aquifer system could be used as a water resource as an alternate source. I think it would really give a tool, but breaking it down to its components for hydrogeologists and engineers to find alternate sources that are not being adversely impacted. The 3rd point is I think there needs to be an appeals process, such as expressed by Greene County earlier. The provisions to be able to define again using the specific aquifers definition, that a given area may not be within the definitions of the rule as being adversely impacted. A particular portion of the cretaceous aquifer could be used as part of the solution and there needs to be a mechanism by which people can present an appeal to the Division of Water Resource. The 4th point and that is sort of off the wall is the concept of primacy and I have mentioned this before in talking with staff. Perhaps some of the governmental entities, counties or local governments could look at adopting these rules like they did the watershed rules for use and implementation under the EMC's guidance on a local basis. This would help them provide some flexibility for economic development. If they decide that a given industry needs the water, they have more of a local impact, more of a local feel, perhaps they can make decisions that would be more attuned to the needs of the region.

Thank you.

Hearing Officer: Leo Green

Harold Herring followed by Harold Blizzard.

[Written copy of verbal comments by Harold Herring, Assistant Director of Public Utilities, City of Kinston follow]

Harold Herring, Assistant Director of Public Utilities
Representing Neuse Regional Water & Sewer Authority

1. We represent the following:
   - Lagrange
   - Pink Hill
   - Kinston
   - Deep Run
   - Deep Run Water Corporation
   - North Lenoir Water Corporation
   - Lenoir County
   - Global Transpark
2. We realize there is a problem with our aquifer declining and that the days of cheap water is coming to an end.
3. Not totally against the rules but feel they need to be further defined and studied for this scientific data and economic impact.
4. We have been severly impacted by Hurricanes Bertha, Fran, Dennis, and Floyd and feel there are more to come. We are already economically stressed by these storms as well as reductions in our farming operations of Lenoir County.
5. We are all severly impacted by our aged wastewater collections system and their need improvements.
6. We will be impacted even more by the new collection system rules, new stormwater rules, nitrogen reduction rules, and who knows what others are to come.
7. We feel if the rule is imposed that the state should provide assistance for funding by grants in order to help us maintain reasonable water rates.
8. Over the past 18 months we have formed the Neuse Regional Water & Sewer Authority and have hired engineers to assist us in an alternative source of water that paid is estimated at $55 million.
9. This cost will cause our water rates to more than double.
10. We need help to encourage industries east of Interstate 95 not to discourage them due to farming operations.
11. We feel that more time is needed for this initial implementation.

Hearing Officer: Leo Green

Harold Blizzard followed by Scott Stevens.

[Verbal comments by Harold Blizzard, Craven County Manager follow]

My name is Harold Blizzard, Craven County Manager.

The first thing that came to my mind as I decided to speak today is something all of you have heard before, it goes something like water, water everywhere but not a drop to drink. It was only less than a year ago that most of the people in eastern North Carolina could have said the same thing and what I wonder is will we be saying the same thing in 16 years, water, water everywhere, but not a drop to drink. The cities and counties to be affected by these proposed rules recognize the problem with overuse, we realize that something has to be done. However, this problem didn't occur overnight, instead it has taken many years and it will take many more years to get it corrected but I say that it won't be done in 6 years, it won't be done in 11 years, nor will it be done in 16 years. The problem should be better defined. I think that the state's data that these rules are based on are unreliable. I think the monitoring and all the information, it's okay but I really don't think it's as scientific as it really should be, I think there should be better data. I think also the so-called stakeholder group that worked with the state in developing these rules is not truly representative of the people that will be impacted by this. As Richard Hicks spoke to you a minute ago, there is an organization that has been formed called the Capacity Use Association. This is the group that represents those that will be affected. Look at the stakeholders group that worked with the state and tell me how many that are in the Capacity Use Association are on that stakeholders group. As was mentioned earlier by someone also, the fiscal note as was prepared by DWR I believe also is something of a joke, there is absolutely no doubt that the report drastically underestimates the capital cost for transition to alternate water sources. I believe the new rules need to fairly and accurately address the problem with the least cost to the users. Larger water users should have greater reduction requirements, withdrawal limitations should vary according to the extent of adverse impact. The impact the proposed rules will have on these cities, towns, and counties will be tremendous. The rules should be more understanding of the people and the overall hardship it will place on them in the coming years. I would like to commend John Morris for his willingness to meet with the true stakeholders group to hear our concerns and at least consider some modifications to the proposed rules. Again we agree that the Cretaceous should be protected but not at any cost unless of course the state wants to foot the bill.

Thank you.

Hearing Officer: Leo Green

Scott Stevens followed by Helen Boyette.

[Verbal comments by Scott Stevens, City Engineer, Kinston follow]

Good afternoon, my name is Scott Stephens and I am the City Engineer for Kinston.

I am not here to dispute the need for the proposed capacity use area rules. We believe that we must develop alternative sources of water for the 15 county region. My concern is with the cost of alternative sources. In Lenoir County we have been studying the alternative sources of water for the past 18 months. To be in compliance of the rules in year 16 we are choosing to build a surface water treatment plant. The estimated cost of this treatment plant and water distribution mains is approximately $60 million for Lenoir County alone. Spread this cost over the 15 county region and the cost to comply with the proposed rules could well exceed $400-500 million. Since July of 1998 the City of Kinston has increased our water and sewer rates by approximately 41%. To finance our share of the proposed water treatment facility will require additional rate increases of 50-100%. Add this to the devastation created by Hurricanes Fran and Floyd, the loss of tobacco income, the air quality issues, the electric deregulation costs, the cost of the Neuse River rules that affect both our wastewater treatment plants and our urban stormwater runoff and combine that with a slow growth rate for the Kinston area and eastern North Carolina and we wonder how much more adverse economic impact this area can stand. While the remainder of the state seems to be enjoying a tremendous growth and prosperity, eastern North Carolina appears to be getting hit time and time again. Designation as a capacity use area will hurt recruitment of new industry into this area. Solutions and money to implement those solutions must be made available. What we would like to request as the rules are put into place is a study of the costs of compliance and alternatives for this region. Additionally, we are requesting that this proposed capacity use area be given priority for financial assistance from the state to help comply with these rules.

Thank you for the opportunity to speak.

Hearing Officer: Leo Green

Helen Boyette followed by Curtis Consolvo.

[Verbal comments by Helen Boyette, Chinquapin Water Association, Duplin County follow]

I am Helen Boyette and I come from Duplin County and I am in agreement with what my Duplin County people have mentioned before me.

I have read the proposed rules under Title 15A and I would just like to make a few comments. I think when you are establishing these rules we need to concern ourselves about using common sense. The hurricane affected our area and we have had a lot of other problems besides water that we have to be concerned with. Agricultural restraints and restrictions on our hog lagoons has been another problem. We need state assistance to maintain reasonable water rates. The water should be equally shared among the people at reasonable costs and all individuals should adopt conservative measures. I don't think anybody ever mentioned how you measure how much water there is available. When we consider God's gift to mankind, rain, how do we measure it and where does that enter in to all the statistics that we have. There are alternative water sources. Maybe we need to convert our sea water to drinking water. We need to recycle water such as your sewer systems, your hog lagoons, and a lot of the industries can recycle their waters to be used. We will have direct purchase of water from other sources, we may need to develop some new wells and there again I will say that we need conservation for all individuals in the water and that includes all individuals. Now what I read in the regulations is fine, but there is some of the things that I did not read and this is what I am coming to now. You have all power given to the director who alone can choose whether or not a withdrawal will cause adverse impact, who alone can choose to allow a need for the greater amount of the aquifer systems while providing the applicant to demonstrate to the satisfaction that a new well is needed, who alone grants and dismisses permits, who goes to work and tells you what the civil penalties should be, and who alone collects the fees for registration of water withdrawals and transfer. I ask is this not to much power being put into one head. I don't think the legislators, when they passed this law decided that we should have a dictorial individual and in my opinion instead of having one individual a committee should be formed and then this director could ask the chairman of the committee. I think we had one individual that is going to make all the decisions, there can be bias developed, I am not saying that this individual will do it but he can be persuaded possibly to show favoritism to different people. The other thing is you are talking about penalties and you are talking about permits, no where do I see where the cost of the permits are going to be, no where do I see what the penalties are going to be for different situations and not only that, when the money is collected how is it going to be spent, where are we going to use it. These are things I think should be listed in the rules as well as the rules that everybody needs to follow.

I thank you for having the opportunity to say something to you and I just wanted to comment about these few items. I think all the rest of the comments have been great. I appreciate being a part of it.

Hearing Officer: Leo Green

Curtis Consolvo followed by Tripp Pittman.

[Verbal comments by Curtis Consolvo, Groundwater Management Associates, Inc follow]

My name is Curtis Consolvo, I am a hydrogeologist working with Richard Spruill. We study the aquifers that serve eastern North Carolina and work with the users of those aquifers.

The Cretaceous Aquifer System is an incredible resource and we recognize that the capacity of these aquifers to store and provide water is threatened by our current withdrawal rates and in places it is already being damaged. In the time provided I am not going to try and provide details of which areas or which specific aquifers are being impacted the most or the best way to implement an equitable regulatory solution. I would just like to simply say this, that we feel the concept of the capacity use area rules is needed as the best way to keep enjoying the benefits of this resource rather than scrambling to find and provide treatment for alternative sources in the future.

Thank you.

Hearing Officer: Leo Green

Tripp Pittman followed by Wayne Malone.

[Verbal comments by Tripp Pittman, North Carolina Sierra Club follow]

My name is Tripp Pittman from Greenville and I serve as the Cleanwater Campaign Coordinator for the North Carolina Sierra Club. In addition I am an Ordained Presbyterian Minister and serve as Pastor of Nantanhala Presbyterian Church in Scotland Neck. Thank you for the opportunity to discuss proposed rules for water capacity use in the state's central coastal plain.

The North Carolina Sierra Club is a statewide organization of over 15,000 volunteers who are committed to the protection and preservation of the natural resources of our state. Recent reports about the increasing evidence of ground water supplies in eastern North Carolina have raised a sense of urgency about the importance of establishing water capacity rules, not only to protect the state's water supply capacity, but also preserve water quality. We deeply appreciate the work of everyone who has been involved in drafting the proposed rules for water capacity, however, there are a number of points about the language of the proposed rules that we feel warrant your attention. First, we are concerned about the need for public access to all information regarding any entities that withdraws over 10,000 gallons per day. The reporting provision for agricultural users in section .0505 is tantamount to a secrecy shield providing an option for confidentiality to those who withdraw more that 10,000 gallons per day. The state's water resources belongs to the people of the state and any provision which in anyway inhibits public access to information regarding the states natural resources runs counter to the publics best interest. Secondly, while we appreciate the importance of restricting the quantity of water that the various entities will be allowed to withdraw from the state supply of ground and surface water we question how the state will be able to enforce restrictions without data that supports a comprehensive water budget. In other words before any permits are issued, the state needs to have a better sense of how much water is available. In addition, permits for water use should only be issued to those who have had a clean record of compliance. The Division of Water Quality reports as well as reports given by experts from North Carolina State show that the large scale sline industry has had a major role in the completion of the states water resources. Animal facilities in the central coastal plain use over 70 million gallons of water per day. This is a tremendous amount of water and yet there is little or no provision for an industry wide approach that monitors the capacity use for the hog industry. Provisions for enforcement action are vague for repeat violators who withdraw tremendous sums of water and fail to file any reports with the state. In addition reports show that hog facilities in Bladen County and Robeson County withdraw over 1 million gallons per day. The Smithfield Foods Processing Plant alone uses over 3 million gallons per day. Such evidence as well as reports of the declining groundwater tables demonstrate the needs to include Bladen and Robeson Counties in the states provision for water capacity. Finally the setting of this meeting, The Global Transpark, raises important concerns about whether or not there is any plan in place for water capacity for such a tremendous facility in an area with depleted resources. In light of the fact that Kinston is facing a possibility of severe water shortage, there needs to be an integrated plan for both the people of Lenoir County and the Global Transpark. The Old Testament Prophet Amos said "Let justice roll down like mighty waters and righteousness like an everflowing stream." To ward against taking water for

granted and to promote the importance of using our natural resources in a way that is socially just. We appreciate the work of those involved in the rule making process as well as the responsibility of the Environmental Management Commission and we thank you for your careful attention to these concerns.

Hearing Officer: Leo Green

Wayne Malone followed by Ralph Heath.

[Verbal comments by Wayne Malone, Kinston City Council Member follow]

I am Wayne Malone on the Kinston City Council. 18 months ago I missed a meeting in the City Council, the Mayor appointed me to a WASA board. For 18 months we have been working with the North Lenoir, Deep Run, Pink Hill, La Grange, and Kinston to form a WASA, we have officially formed it. Other organizations voted and the City Council voted and we have now got a WASA.

First of all I promise you not quote the Bible. I will say that we have agreed that there is a problem. It took us a little while to realize that, to understand that, and to convince us of that. Once we were convinced there was a problem we got down to work. You have heard from other people in Kinston and Lenoir County talking about the floods and the devastation. We have a lot of elderly people in Kinston like other communities in the east and they literally can not afford $10, $20, $30, or $40 additions a month. They can't even afford the rent or their drugs. If we have a problem and we understand that, the key to this whole issue is money and with our infrastructure, falling in deregulation and our sewer system we are trying to replace to protect the Neuse River. All the costs we have, we can not afford to do this alone. We need some additional money. I am asking the legislators that are in this room, that are going to vote on this issue, to understand we can not afford it, we can not pass it on to the people.

Thank you.

Hearing Officer: Leo Green

Ralph Heath

[Verbal comments by Ralph Heath follow]

Mr. Chairman, Ladies and Gentlemen. I am probably one of the 2 or 3 people that you should blame for this whole thing we are talking about today, that is the establishment of the capacity use area. I have been concerned for many years with the declining water levels. The confined aquifers underlying the coastal plain are not quite the same as the coal mine because there is some recharge, however the recharge to these aquifers is far less than we have estimated in the past. So we are mining more water than we realize at this time. I have encouraged the Division of Water Resources to move as rapidly as they can with the establishment of the capacity use area because I realize it takes many years to identify all the alternate supplies and build the facilities to use those alternate supplies. I think that we are moving along in the right direction now. The discussions I have heard today have been extremely informative to me, in fact the reason I came down was to hear what the comments of the group were. They have been thoughtful and constructive and I have learned a great deal by being here.

Thank you.

Hearing Officer: Leo Green

We certainly appreciate all the comments that have been offered this afternoon and will assure each of you that they have been heard and they will continue to be studied as the rule making process goes through to its conclusion later this fall. We do have another hearing scheduled for 7 pm tonight here and you are certainly welcome to come back and offer comments or listen to those people. The hearing record remains open until September 15, 2000 so you may submit written comments up until that date.

Part IV: Transcript of Evening Public Hearing, August 8, 2000

Transcript of Evening Public Hearing
August 8, 2000

Hearing Officer: Ryan Turner

My name is Ryan Turner and I am a member of the North Carolina Environmental Management Commission. I have been designated to preside at this hearing along with Leo Green and Bob Cook, both members of the EMC. Bob Cook couldn't be with us tonight.

This public hearing is being held in compliance with state rulemaking requirements. The public notice for this hearing was sent to municipalities, counties, sanitary districts, consulting engineers, environmental groups, conservation organizations, appropriate state agencies, and interested individuals. The notice will be recorded as part of this hearing.

The purpose of the hearing is to obtain public comment on adoption of 15A NCAC 2E .0501 through .0507, amendment of 15A NCAC 2E .0106 and .0107, and repeal of 15A NCAC 2E .0102, .0103, .0201, .0202, and .0205. No official action will be taken during this hearing since the record will be left open until September 15, 2000. This will afford an opportunity for anyone who wishes to submit additional written comments. After that time the summary of views expressed by the public and the staff recommendations will be presented to the EMC for final action before being presented to the Rules Review Commission and the General Assembly.

Each person who registers and indicates a desire to make a statement will be recognized and given an opportunity to present that statement. Any person who has not previously indicated a desire to make a statement will be given the opportunity to do so after all registered speakers have been heard. All presentations will be limited to 5 minutes or less and please don't feel constrained to take the full 5 minutes if you don't need it. If you have a prepared statement we would like a copy as you come forward to speak.

I will call the persons who have indicated they wish to speak to the podium one at a time and then I will call up the next person in line so that you can get prepared to follow the person in front of you. To assure that our records are complete please indicate clearly your name and whom you are representing.

As previously stated this hearing is to obtain public comment this is not an adversarial procedure. Therefore questions from the audience to persons making presentations will

not be allowed, however, the hearing officers may question participants for purposes of clarification and will receive in writing any questions from members of the audience who wish to direct a question to a staff member or speaker. We are dealing with ground water management issues in this hearing which are of great importance to the economic welfare of North Carolina and we appreciate your attendance today and will listen carefully to your comments.

Now, Nat Wilson with the Division of Water Resources will present the proposed rule changes.

[Verbal comments by Nat Wilson, Division of Water Resources follow]

My name is Nat Wilson. I am the lead hydrogeologist with the Division of Water Resources.

The proposed CCPCUA includes the following fifteen counties: Beaufort, Carteret, Craven, Duplin, Edgecombe, Greene, Jones, Lenoir, Martin, Onslow, Pamlico, Pitt, Washington, Wayne and Wilson. Water supplies for the western part of this region come from the Cretaceous aquifer system, primarily from the Black Creek and Upper Cape Fear aquifers. Water levels in these aquifers have been dropping at high rates of one to eight feet per year for several decades. Dewatering is known to be occurring in some areas – this is where water levels have fallen below the top of the aquifer – we know this condition harms the ability of the aquifer to transmit water. Beginning in early 1998 we began meeting with people representing public and private water systems, industries, agricultural interests, consulting engineers and geologists, municipal and county governments, and the legislature to discuss how to achieve a reliable water supply for this area.

One outcome of these discussions was our three-point strategy. The Division believes it is important to review these proposed rules in the context of our three-point strategy of monitoring, planning & regulation:

1. monitoring – an adequate ground water level monitoring network must be operated, maintained, and improved as needed to provide accurate data on the amount and rate of ground water level declines;
2. planning – the solution to the water supply problems in the Central Coastal Plain will involve careful management of Cretaceous aquifer water to use its sustainable yield while developing other water sources to meet additional needs; and

3. regulation – the Water Use Act of 1967 provides a basis for regulating water withdrawals by permit in areas where water use is exceeding the capacity of water supply.

The EMC approved a rule and we held a public hearing on that rule a year ago. Public comments called for a rule that spells things out in more detail. So, starting in February of this year and lasting through the first week in April 2000, a group of stakeholders met weekly to write the rules before you today. On May 11, 1999 the EMC approved those draft rules (with just a few modifications) for public hearing (today's meeting). I will list some of the provisions in the rule and refer you to the rule text for further information:

The rule additions and changes before you today provide for permitting of ground water use by persons using more than 100,000 gallons per day. Existing withdrawals will continue under interim status until permits are issued or denied. All municipal, industrial, and agricultural water users will follow standard water conservation measures to assure efficient use of water. Permit holders will report water use rates to allow the total demand on the aquifers to be better understood. Ground water users from 10,000 to 100,000 gallons per day will not need permits, but must register and report annual water use. Surface water users of more than 10,000 gallons per day must register and report annual water use. Agricultural water users not required to obtain a permit may report water use through confidential NCDA or USDA surveys rather than the Division of Water Resources. Temporary permits allow more time for compliance with permit conditions if events occur beyond the control of the permittee. Water use permit holders may transfer or sell water to other users within permitted amounts.

Four Cretaceous aquifer zones are defined in the rule: Dewatering, Saltwater Encroachment, Declining Water Level, and those parts of Edgecombe, Wilson, Wayne and Duplin counties outside of the named zones. Permittees in the salt water water encroachment and dewatering zones face 75% reductions in water use from the Cretaceous aquifers over three successive 25% reduction phases in the 6th, 11th, and 16th year after the effective date of the rule. Permittees in the declining water level zone face 30% reduction in water use from the Cretaceous aquifers over three successive 10% reduction phases occurring in the 6th, 11th, and 16th year after the effective date of the rule. Stable water use is required from the Cretaceous aquifers for permittees in the western parts of Edgecombe, Wilson, Wayne and Duplin counties, outside of the other three zones. The EMC can adjust the zone map and reduction amounts in the 6th, 11th, and 16th year based on current aquifer conditions.

Intermittent water users who use water less than 60 days a year or who use less than 15 million gallons per year will not be required to reduce water use in the three reduction phases. The rule provides for initial permits that can allow for increasing withdrawals during the first 6-year period to provide for growth in demand as supplemental water supplies are being planned and implemented. The purpose of this rule is to assure that the capacity of aquifers to yield water for future needs is protected. To meet future water needs, additional water sources must be developed to complement the Cretaceous aquifers.

I will now turn the meeting back over to Mr. Ryan Turner. Thank you.

Hearing Officer: Ryan Turner

The first person to speak this evening is James Taylor followed by Mitch Peele.

[Written copy of verbal comments by James Taylor, Southeastern Wayne Sanitary District follow]

August 8, 2000
Capacity Use Rules Public Hearing
Kinston, NC

Thank you for the opportunity to speak concerning the State's proposed Capacity Use Rule. My name is James Taylor and I am a member of Southeastern Wayne Sanitary District. Our Board is very much concerned with the future of our drinking water supplies.

We are also very much concerned with the public health aspects of the proposed rule. The proposed rule, although perhaps necessary, will tend to increase the cost of providing central water services to our customers. Rates are already high. Significant ~~further~~ future increases in rates will tend to turn customers off our central water systems and back on private wells. Statistics tell us one-third of private wells are subject to contamination. Often these private wells may obtain water from the same aquifer as our public wells. The loss of customers drives rates increasingly higher. We must be very careful the proposed rule does not contribute to the dismantling of public water systems in favor of a proliferation of private wells which could further adversely impact, not favorably impact, our aquifers.

State funding to assist compliance with any mandate is essential and must be provided simultaneously with the adoption of any new rules.

Thank you.

James Taylor
Southeastern Wayne Sanitary District

Hearing Officer: Ryan Turner

Mitch Peele followed by Todd Bollick.

[Written copy of verbal comments by Mitch Peele, North Carolina Farm Bureau Federation follow]

Testimony on Proposed Central Coastal Plain Capacity Use Area Rule
August 8, 2000
North Carolina Farm Bureau Federation

Good evening. I am Mitch Peele with the North Carolina Farm Bureau Federation - our state's largest general farm organization. We constantly strive to protect and improve the quality of life for North Carolina farmers and rural families. The rules being proposed for the Central Coastal Plain Capacity Use Area have the potential to greatly affect farmers' quality of life and their ability to produce our state and nation's food and fiber.

NC farmers have faced unparalleled despair in recent years, from last year's drought and later flooding, to record low commodity prices, to the loss of much of their tobacco allotment. Existing agricultural operations are dependent on having sufficient water supplies. As farmers struggle to survive in this next century, they must explore new agricultural opportunities - all of which depend on having access to ample water supplies. Through hydroponics you can now grow crops without soil, but no one can produce crops without water. So farmers want to protect their water now and for the future. With that, we support the goal of taking steps now to manage these finite resources. However, we may not necessarily agree with everything that the State is proposing to accomplish this goal.

Farm Bureau served as one of the stakeholders that were charged with developing a rule for the Central Coastal Plain Capacity Use Area. This stakeholder effort resulted in several improvements to the proposed rule over the previous version proposed more than a year ago. Some of the improvements include: removing surface water from the permitting requirements, exempting intermittent users from the mandatory water use reductions, and allowing farmers other options for reporting their water use.

Although these improvements have been made to the proposed rule, we continue to have concerns regarding some parts in the proposed rule that could still significantly affect farmers. As the rule is currently proposed, the mandatory reductions in water use by as much as 75% over 15 years, may not affect many farmers - but the possibility does exist. Rather than prescribing these reductions over large areas that cover several counties, we propose that the state narrow the scope of these reduction zones to the parts of the aquifer that are actually showing an adverse affect. If data show that the water level is static or increasing in a particular area, there is no reason to subject them to these drastic reductions. Similarly, the scope of the entire proposed capacity use area could be redefined to focus on the most problematic parts of the identified counties.

The rule also requires well intakes to be no lower than the top of the uppermost confined aquifer. This requirement would essentially serve as a defacto prohibition on water use in areas where the water level has fallen below the top of the aquifer already, unless costly well modifications occur or unless alternate water supplies are captured. Farmers can't afford to seek and capture alternate water supplies. This requirement could be extremely costly and is simply not necessary.

Lastly, this rule must not stifle agricultural opportunities in the future. Some farmers will be able to explore alternative water supplies. But, this will not be possible in all cases. Those with the least ability to seek and use alternate sources of water must not be further penalized beyond what nature and the agricultural economy has done to them already.

Knowledge of this water supply problem should have been discussed with the stakeholders several years ago. Had we all known about this problem much sooner and been given a chance to voluntarily address it, we probably would not need to be here today testifying on this proposed rule. But, instead we are confronted with another regulatory program. Some progress has been made, but with a few additional revisions to the rule, which we will discuss further in our written testimony, the

Environmental Management Commission can produce a fair and reasonable tool that the State can administer and that will protect ground water resources for future use.

Hearing Officer: Ryan Turner

Todd Bollick followed by Paul Busick.

[Verbal comments by Todd Bollick, Town of Bethel follow]

My name is Todd Bollick and I am from the Town of Bethel which is in northern Pitt County. Our town is a member of the Central Coastal Plain Capacity Use Area Association. In the session this afternoon our Chairman, Richard Hicks gave a presentation, we agree with and fully support his comments. We would like to add our little bit.

Bethel, like everybody else here, agrees that we do have a problem with water withdrawal from the Cretaceous aquifers and we do need to work to resolve it. We also feel that the rule that is proposed now is a starting point and not a finished solution. The things that we would like to see included are: we would like to see the proposed cost addressed as it appears in the rule. It appears to be grossly underestimated. The cost to communities and water users is going to be far greater than what it shows. Our community for one, I don't know if we can afford it. It is nice to conserve water as it is all natural resources, but we need to conserve the communities that use this water. To conserve the water and not have anybody left to use it, that is going to defeat it.

Thank you.

Hearing Officer: Ryan Turner

Paul Busick followed by Tony Ballance.

[Written copy of verbal comments by Admiral Paul Busick, President, North Carolina Global Transpark Authority follow]

Comments by Admiral Paul E. Busick
President & Executive Director, N.C. Global TransPark Authority
Public Hearing on Proposed Capacity Use Rule
GTP Education & Training Center, August 8, 2000

MY NAME IS PAUL BUSICK, AND I AM THE PRESIDENT AND EXECUTIVE DIRECTOR OF THE NORTH CAROLINA GLOBAL TRANSPARK AUTHORITY.

BEFORE PROCEEDING, I WOULD LIKE TO WELCOME THE DIVISION OF WATER RESOURCES AND EACH OF YOU TO THE GTP TODAY. WE ARE PROUD OF THE REGIONAL ROLE THIS NEW EDUCATION AND TRAINING CENTER CAN PLAY IN SITUATIONS LIKE THIS – JUST AS WE ARE PROUD OF THE INSTRUCTION THAT WILL TAKE PLACE HERE... AND JUST AS WE ARE PROUD OF THE OTHER DEVELOPMENTS TAKING PLACE ELSEWHERE ON OUR SITE.

I CERTAINLY WISH TO THANK JOHN MORRIS, HIS STAFF AND THE OTHER PEOPLE WHO HAVE WORKED MANY HOURS TO DEVELOP THE PROPOSED RULE UPON WHICH WE ARE COMMENTING TODAY. THE GTP AUTHORITY WAS REPRESENTED ON THE STAKEHOLDERS' GROUP THAT WAS CONSULTED DURING THE DRAFTING PROCESS. WHILE COMPLETE CONSENSUS IS YET TO BE REACHED, THE PROCESS OF INVOLVEMENT THAT YOU HAVE INITIATED HOLDS THE BEST OPPORTUNITY FOR REACHING A SOLUTION THAT WORKS FOR ALL INVOLVED.

THIS IS AN IMPORTANT PUBLIC POLICY ISSUE – AMONG THE MOST IMPORTANT OF THOSE FACING US AS WE PLAN FOR THE FUTURE.

AND IT IS CLEAR THAT THE DIVISION OF WATER RESOURCES IS FACING THREE CHALLENGING TASKS.

THE FIRST OF THESE TASKS INVOLVES THE PROTECTION OF THE AQUIFERS IN EASTERN NORTH CAROLINA. CERTAINLY, NONE OF US WISHES TO CONTEMPLATE LIFE IN THIS REGION IF PERMANENT DAMAGE IS DONE TO THOSE VALUABLE RESOURCES.

THE SECOND TASK INVOLVES DEVELOPING REGIONAL OR BASIN-WIDE ALTERNATIVE WATER SOURCES AS WITHDRAWALS FROM THE AQUIFERS ARE REDUCED.

THE THIRD TASK INVOLVES DEVELOPING PRACTICAL APPROACHES TO WATER CONSERVATION AND TO IMPLEMENTING WATER RE-USE FOR APPLICATIONS SUCH AS IRRIGATION AND FIRE PROTECTION.

CHANGES IN THE PROGRAM AND ATMOSPHERE SURROUNDING TOBACCO HAVE JERKED THE RUG FROM UNDER EASTERN NORTH CAROLINA'S TRADITIONAL SOURCE OF INCOME... AND THE REGION IS STILL REELING FROM THE

TRIPLE WHAMMY OF TWO HURRICANES AND MASSIVE FLOODING LAST YEAR. IT CAN ILL AFFORD ANOTHER SETBACK.

CLEARLY, NEITHER THE WATER SUPPLY FOR THE REGION NOR ITS ECONOMIC WELL BEING CAN BE DEALT WITH AS SEPARATE ISSUES.

I JOIN THE OTHER SPEAKERS I'VE HEARD TODAY IN SAYING THAT WE ARE SUPPORTIVE OF THE OBJECTIVES OF THE PROPOSED CAPACITY USE RULE.

THE GTP IS A BIG, LONG-TERM ECONOMIC DEVELOPMENT PROJECT BEING BUILT IN A AREA THAT BADLY NEEDS MORE ECONOMIC OPPORTUNITY. WE REALIZE THAT THE PROJECT AND THE SURROUNDING REGION MUST BE DEVELOPED IN A RESPONSIBLE, SUSTAINABLE MANNER.

HOWEVER, I ALSO JOIN OTHERS WHO SPOKE TODAY IN SAYING THAT THE DEVELOPMENT OF ALTERNATIVE WATER RESOURCES MUST GO HAND-IN-HAND WITH THE ADOPTION AND IMPLEMENTATION OF RULES RESTRICTING THE USE OF WATER FROM THE CRETACEOUS AQUIFERS. OVERALL, WE NEED TO GROW THE REGION ... AND HAVING AN ADEQUATE SUPPLY OF WATER WILL BE CRUCIAL TO OUR HOPES FOR SUCCESS.

BALANCING THE PROTECTION OF OUR NATURAL RESOURCES WITH THE NEED TO STIMULATE GROWTH IS NEVER EASY, BUT IN THIS CASE, IT'S PARTICULARLY COMPLEX. AND THAT MAKES IT CRITICALLY IMPORTANT THAT THE STATE'S WATER RESOURCE AGENCY PLAY THE LEAD ROLE IN ~~BOTH~~ ALL ASPECTS OF THE CHALLENGE.

AND THE STATE WILL ALSO NEED TO PROVIDE LEADERSHIP WHEN IT COMES TO FINDING PRACTICAL MEANS FOR HELPING LOCAL GOVERNMENTS ADDRESS THE COSTS OF DEVELOPING ALTERNATIVE WATER SOURCES.

FURTHERMORE, AS LONG TERM SOLUTIONS ARE DEVELOPED, ACHIEVING SUCCESS WILL NOT REST SOLELY WITH THE IMMEDIATELY AFFECTED AREA, BUT WITH ALL THE UPSTREAM AND DOWNSTREAM POPULACE AS WELL.

FINALLY, I WISH TO NOTE THAT THE GLOBAL TRANSPARK CAREFULLY STUDIED WATER SUPPLY ISSUES DURING THE PROJECT'S PLANNING AND ENVIRONMENTAL PHASES. AND WE HAVE ALWAYS BEEN COMMITTED TO DEVELOPING THIS PROJECT IN A FASHION THAT IS "WATER SMART."

WE ARE ANXIOUS TO WORK WITH PLANNERS, REGULATORS, INDUSTRIES, ACADEMIC EXPERTS AND ENVIRONMENTAL GROUPS TO EXPLORE WAYS THAT THE GTP CAN PLAY A ROLE IN LEADING THE WAY TOWARDS A BETTER FUTURE FOR

EASTERN NORTH CAROLINA. WE CAN – AND WILL – DO SO BY SERVING AS AN EXAMPLE OF THE BEST WATER MANAGEMENT POLICIES AND PRACTICES. BUT WE ARE MINDFUL THAT THE "RIGHT" SOLUTIONS WILL BE THOSE THAT ENCOMPASS A REGIONAL AND STATEWIDE APPROACH, AND WE WILL WORK WITH YOU TOWARDS THOSE ENDS.

I THANK YOU FOR THIS OPPORTUNITY TO COMMENT. THE GTP AUTHORITY WILL PROVIDE ADDITIONAL COMMENTS FOR THE RECORD, AND I LOOK FORWARD TO CONTINUING TO WORK COOPERATIVELY TO FIND ANSWERS TO THE WATER SUPPLY CHALLENGES FACING NORTH CAROLINA. AGAIN, I WANT TO WELCOME YOU TO THE GTP.

Hearing Officer: Ryan Turner

Tony Ballance followed by Brent Turner.

[Written copy of verbal comments by Tony Ballance, Balance Farms, Inc follow]

Tony Ballance
Ballance Farms Inc
1362 Black Creek Rd.
Fremont, NC 27830

Nat Wilson
Division of Water Resources
DENR
1611 Mail Service Center
Raleigh, NC 27699-1611

August 8, 2000

Dear Mr. Wilson

Let me begin by stating that I commend the EMC for taking action to protect our ground water supplies, through a capacity use initiative. Good planning as was implemented in the Castle Hayne Aquifer is essential to maintaining a water source for the future. As a farmer I am very much in agreement that these aquifers need to be maintained so that rural communities without access to suitable surface water sources will be insured of an abundant supply of drinking water for the future.

However, is it really necessary to start out this planning for the future with a broadly scoped and mandatory rule that not only targets problem areas such as municipalities and industry, but Agriculture, which you as a group have indicated that you believe is not a problem? Could a voluntary initiative directed at the smaller group of consistently large volume water users achieve the same ends without such a broad and ultimately expensive rule?

If you feel that voluntary measures are not sufficient, then the rules focus and intent should be tightly focused on the problem areas first. Agricultural water users have not been identified as a problem. Therefore, I cannot see the justification, which as the rule is written now, would require farmers to install flow measuring devices on wells, much less irrigation systems (which are predominately surface water pumps), when adequate information can be based on NCDA and USDA statistics.

In closing, the rule must not inhibit the potential for agricultural growth in Eastern NC, or place unneeded financial burdens upon farmers who's livelihood depends on an abundant, and local water source.

Sincerely
Tony Ballance

<u>Hearing Officer: Ryan Turner</u>

Brent Turner followed by Landis Davis.

[Verbal comments by <u>Brent Turner</u>, Guilford Mills, Inc follow]

My name is Brent Turner. I am the Director of Engineering for the Automotive Business Unit of Guilford Mills. I thank you for the opportunity of letting me come and speak today.

We represent an industry and I wanted to read a statement that says Guilford Mills believes that ground water resources in the coastal plain are very valuable and they need to be protected. We do believe that sustainable use of ground water resources is a worthy goal. We also believe that continued economic growth and development in the coastal plain is a worthy goal. It is a belief at Guilford Mills that the proposed rules of this community do not adequately address manufacturing facilities in the affected area. We believe the proposed rules will add a burden to growing companies in the area while allowing businesses that are not providing economic growth to shoulder less of the load in this conservation effort. We do feel that the water usage can be reduced even while a company is growing. This could be done through improvements in processes as well as other conservation techniques. Guilford Mills recommends that the definition for approved base rate in Section .0507(1) of the proposed rule change be changed as follows: the definition of approved base rate should contain a provision that allows facilities to use a production unit base rate versus a total volume rate. For example, the industrial facility could choose to have an approved base rate set on X numbers of gallons per pound of production for the time periods listed in the proposed rule. This base rate would be used in other sections of the rule to determine required water and efficiency improvements. The advantages of this are discussed below: as proposed in the rule currently it potentially limits the growth of certain industries and facilities in the affected areas. The proposed rule requires phased annual water reduction based on an approved base rate. The approved base rate does not take into account production levels of industrial facilities, companies that are growing and creating additional economic opportunities in the area are penalized with that growth compared to a company that is not growing and not creating the additional economic opportunities. As a result a growing company may choose to locate additional production capacity at facilities outside the area. On the other hand the company may be faced to remove its manufacturing capabilities in the area. We believe that the production base rate in a subsequent annual water usage efficiency improvement requirements will be a more equitable way of providing a sustainable use of ground water to the area. In this way growing companies would be assured that the burden of reducing water use and increasing water use efficiency would be shared by other industries and entities in the area. In addition it would not provide incentives for companies to move production and jobs out of the area in order to meet annual water reduction requirements. All facilities would be encouraged to improve the matter of efficiency starting at the 1st phase of the

program. One of the components that I wanted to add that Mr. Wilson said and I wrote down, it says that ensured efficient use of water and we don't see how not addressing growing companies can do that. We feel that we can grow and be better at reducing our water consumption but it's not fair to reduce our growth and where a company that cuts its manufacturing to half and moves it out of the area will benefit because they will be divided by the rules that you have set forth. We feel by doing a base rate on manufacturing production by unit, by pound, by yard, by some measurement means needs to be addressed to these rules that way the growing industries will have an incentive to stay and just become better water users.

I appreciate the time.
Thank you.

Hearing Officer: Ryan Turner

Landis Davis followed by Jean Hood.

[Written copy of verbal comments by Landis Davis, Belfast-Patetown Sanitary District, Wayne County follow]

August 8, 2000
Capacity Use Rules Public Hearing
Kinston, NC

Good evening. My name is Landis Davis. I am a board member of Belfast-Patetown Sanitary District in Wayne County. I am here tonight to make comments on the proposed Capacity Use Rule.

I understand the aquifers from which many of us in the Coastal Plain receive our drinking water are currently being over used. The extent of the over use appears to be a question.

Our Board is concerned about the necessity to implement rules prior to having a thorough, clear understanding of the extent of the problem. An initial information gathering phase could provide an improved basis from which future rules could be developed. Rules that restrict the use of our groundwater could have serious adverse economic consequences. In view of the numerous challenges we already face from existing debts, past Hurricanes, the failing rural economy, and anticipated future regulatory requirements it is absolutely essential we not be further impacted by rules which have been prepared to address a problem that is not well understood.

We cannot afford a rule that puts any additional burden on this area. We must address the problem, but we must be sure we address only the problem and not create any unnecessary hardships. A better understanding of the problem would lead to a better rule.

Thank you for the opportunity to comment.

Landis Davis, Chairman
Belfast-Patetown Sanitary District

Hearing Officer: Ryan Turner

Jean Hood followed by Jerry Bean.

[Written copy of verbal comments by Jean Hood, Chairman, Southwestern Wayne Sanitary District follow]

August 8, 2000
Capacity Use Rules Public Hearing
Kinston, NC

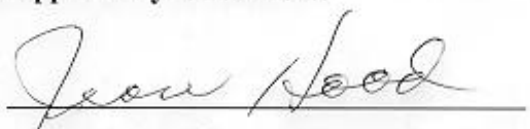
Good evening. My name is Jean Hood and I'm here to speak on behalf of Southwestern Wayne Sanitary District. I appreciate the opportunity to comment tonight concerning the proposed Capacity Use Rule and the effects it will have on our region.

Wells serving Southwestern Wayne Sanitary District have not experienced the declining water levels typical of other areas in the Central Coastal Plain, yet the proposed Capacity Use Rules propose to limit withdrawals in Southwestern Wayne Sanitary District to an "approved base rate." I question whether the State has data that justifies limiting withdrawals in Southwestern Wayne Sanitary District to an "approved base rate."

The proposed rule must address and reverse significant adverse impacts. The proposed rule should not over regulate withdrawals where significant adverse impacts are not apparent. The costs of addressing adverse impacts, although necessary, will be huge. This makes it even more important that the rule not require unnecessary expenditures where groundwater resources are sustainable. It is not logical to require alternative water sources to replace groundwater withdrawals where groundwater withdrawals are adequate and not showing significant signs of adverse impacts.

The proposed rules should be modified to allow the continued use and further development of groundwater resources in areas beyond the various zones illustrated as being adversely impacted.

Thank you for the opportunity to comment.



Jean Hood, Chairman
Southwestern Wayne Sanitary District

Hearing Officer: Ryan Turner

Jerry Bean followed by Dr. Richard Spruill.

[Written copy of verbal comments by Jerry Bean, Eastern Wayne Sanitary District follow]

August 8, 2000
Capacity Use Rules Public Hearing
Kinston, NC

My name is Jerry Bean and I am here tonight on behalf of Eastern Wayne Sanitary District.

It amazes me to read we are facing a water shortage. There is enough potential drinking water being wasted from mining activities in eastern North Carolina every day to more than meet the needs of every public water system in the proposed Capacity Use Area with lots left over. I've heard and read in the newspaper a private company has negotiated a deal with these mining companies to sell the water in anticipation of a captive market courtesy of the proposed Capacity Use Rules. We must protect our drinking water supplies. We must stop the over use of certain aquifers. We do not; however, need to pay a private company for access to what should be the public's water ~~necessary to be~~ WHICH IS BEING removed from the ground to accommodate mining.

The proposed rules should require mining companies to accomplish dewatering in a manner consistent with re-use by public water systems at no charge to public water systems.

Thank you for the opportunity to speak.

Jerry Bean, Chairman
Eastern Wayne Sanitary District

Hearing Officer: Ryan Turner

Dr. Richard Spruill followed by David Pittman.

[Verbal comments by Richard Spruill, East Carolina University follow]

Mr. Green, Mr. Turner, I appreciate this opportunity to speak to you. In the late 1970's a great citizen of Lenoir County here named Ralph Heath published a book in which he pointed out water resources in the Central Coastal Plain were already declining. The declines were the result of serious overdraft of the aquifer systems and we needed to take action with respect to these problems of decline as early as the late 1970's. I had the great honor and privilege of sitting in his hydrology class and actually passing it at North Carolina State in 1985, in which he gave a lecture giving in great detail the situation here in the Central Coastal Plain involving decline of a Cretaceous Aquifer System. Ralph retired soon after and the work continued at the US Geological Survey along with the work at the Division of Water Resources and a few scientists out here in the real world working on the effects of pumping and overpumping on our aquifer system and the feasibility of continuing development of the aquifers and the conclusion reached by all these scientists and regulatory agencies and as first put forward by Ralph Heath is a simple one, that is that since at least the 1960's water levels are declining at precipitous rates throughout the central coastal plain. They are declining for one simple reason, and that is, we are taking more water out of them than is reaching these deep, high quality aquifers. That's a significant problem and it is a problem that we have a good handle on. We know where the problems are, we know where the problem areas are. We also think we know what some of the solutions are and I will come back to that in a second.

I worked hard on the rule for the last 10 or 15 years just trying to get people to think about a rule and serve as a scientific advisor to the stakeholders group. It was a really

interesting group of people, I think all dedicated to coming up with a solution to this problem. I think the rule that is before you will effectively do a series of things. First, I think it will curtail the overdraft of the aquifers in a stepwise, time fashion aimed at what I call the safe yield of the aquifer system. I think the safe yield of the cretaceous aquifer system in the central coastal plain maybe about a fourth of the withdrawal rate currently being taken from the aquifer. I think we can curtail that overdraft in a step wise fashion with this rule. I think the rule effectively protects these vital resources in a sustainable way then and will allow us to develop the maximum amount of groundwater from these aquifers for continued growth and development of the coastal plain. I think this rule will allow effective protection which will include the mitigation or at least slowing of the rates of salt water migration towards some of our vital well fields throughout the central coastal plain, both by lateral salt water encroachment and by salt water moving upwards beneath some of our pumping centers. I think that the capacity use area rule as proposed will effectively help to reduce land subsidence. I hear a lot about the economic woes with Floyd, and my house went under with Floyd, I would like for you to think about this, if land is subsiding throughout the coastal plain in response to withdrawal of water from our aquifers can we imagine one foot of land subsidence. If you are in Greenville, the difference between a 100 year flood plain and a 500 year flood plain with respect to elevations is 5 feet, if we loose an additional foot of land surface caused by overpumping of our aquifer system just think what Floyd will do to us then. I think the rule will effectively foster research and add a research component to the development of our aquifer in the coastal plain. What we have is development, development, development. The research has come from the regulatory agencies and some scientists. Lets add a research component, but let's add something in the rule that says that the Division of Water Resources will effectively deal with the research provided by the users of this resource out here in the real world and perhaps that is missing in some places in the rule now. I think the rule, finally, effectively will force us to look at alternative sources of water.

I want to say that there are solutions to the problems out there. We can use water over again, we can utilize other aquifers, we can store water underground, we can use surface water in conjunction with our ground water. I believe that the rule is necessary to protect our vital ground water and fresh ground water resources. The rule is based on enough scientific data. We know where the problem is, we have known since the 70's where the problem areas are, we know effectively where those areas are. It's time for us to start taking some action. What I hear from our interaction with all the people out here in the real world are concerns that mainly center around cost. I am convinced that we have not really looked at cost very well. It will, let's all remember this, cost us to develop our

water resources in the future because our demands are increasing. There is going to be a certain cost for developing water resources. I am not sure that we really have a handle on how much more it will cost us to develop those water resources to meet our needs in the future in the face of the rule. I think it will be more. What I point out that we are not in a crisis situation yet, we don't have a crisis in the coastal plain, we are trying to prevent a crisis. I am convinced that the cost of dealing with this situation now will be significantly less than the cost of dealing with this situation when the crisis occurs down the road.

Finally, I would like to point out that over the last couple of years, I have developed great confidence in the scientific staff of the Division of Water Resources. I think that they can effectively administer a good rule and I think they produced a good rule for us. Our tasks should be to work together to make this good rule an excellent rule.

Thank you.

Hearing Officer: Ryan Turner

David Pittman followed by Sondra Riggs.

[Written copy of verbal comments by David Pittman, Northwestern Wayne Sanitary District follow]

August 8, 2000
Capacity Use Rules Public Hearing
Kinston, NC

I appreciate the opportunity to speak tonight regarding the proposed Capacity Use Rule. My name is David Pittman and I am a board member of Northwestern Wayne Sanitary District. Our Board is very concerned about ensuring that we preserve our water supply as a valuable resource for future generations.

We are being told declining water levels in the Central Coastal Plain are a major problem. Yet we must have good clean, safe drinking water in order to live here. The issues being discussed here tonight are complex and the pathways to solutions unclear and subject to argument.

One thing is clear. The groundwater provided by our deeper aquifers is of excellent quality courtesy of a treatment process provided by Mother Nature that has involved elaborate chemical and physical processes requiring hundreds and thousands of years. What we use in a matter of seconds or minutes and discard without second thought is not easily duplicated or replaced.

The water from our deeper aquifers has won National Awards for its quality and taste. This water is special. It is too special to be used to irrigate lawns. It is too special to wash down floors at animal houses or driveways. It is too special to be assigned a value based solely on its pumping costs by industry, agriculture or public water systems. Its best use is for drinking

water purposes. It merits being priced based on its highest use. That value appears to be approximately 0.89 cents per liter at the local convenience store. Public water systems often provide 1,000 gallons of water for a similar price.

All of us require and deserve safe drinking water. An ample supply should be available to each of us regardless of income. After all, safe drinking water is essential to support life. An ample quantity should and must be available at a low cost, affordable by all.

The random use of water over and above the quantity necessary to support basic essential activities represents a waste and abuse of our resource. The proposed Capacity Use Rule requires local governments to discontinue declining water rates for higher consumption and implement flat rates or increasing rates. The proposed rule does not go far enough in this direction. The use of water over and above the quantity necessary for essential activities SHOULD BE PRICED TO REFLECT ITS HIGHEST USE - DRINKING WATER. This price is currently $1.00 per gallon - NOT $1.00 per one thousand gallons. Said in another way, rate structures must be modified to economically prohibit irrigation and the random use of water.

One more comment is appropriate. If the public water systems price water to prevent irrigation, those electing to continue irrigation will likely construct private wells. Local ordinances must require irrigation wells be located within the surficial zone and not be allowed in these deeper aquifers used by our public water systems. Little will be accomplished if local

regulations fail to restrict new well construction in the deeper aquifers. The deeper aquifers must be regulated and protected as the source of water for our public water systems.

Thank you for listening.

David Pittman
Northwestern Wayne Sanitary District

Hearing Officer: Ryan Turner

Sondra Riggs followed by Arthur Kennedy.

[Verbal comments by Sondra Ipock Riggs, Jones County Commissioner follow]

Hi I am Sondra Ipock Riggs. I am a Jones County Commissioner and I am here representing Jones County. My other group was here this afternoon. I just would like to thank John. We asked him to do this 4 or 5 years ago when we heard of the decrease in the water because it really upset me, my family, my grandchildren and everyone else.

As you know the rules and regulations that Water Quality and DENR and everybody else have passed in the last 4 or 5 years, I have been opposed to 80% of it because the majority of them, me as a retired farmer and I am just not a woman that just cooks, I would drive combines and everything else like the rest of you men, but some of these rules and regulations you know were unnecessary. Now let me tell you what my theory is on this, it is the same thing as with digging up the gas tanks, they out to put the little man out of business. This is going to put the little farmers out of business and anybody else that has got a small water supply and I tell you why. I have already been contacted, I better not say the name because I don't have it on tape, it starts with an "E," has contacted us for them to come to our county and sell water. Let me tell you something this sister will never vote to buy water as much water as we are sitting on in Jones County and as the gentleman said here today, we probably have got the biggest Castle Hayne water under Jones County than anywhere in any of the other 15 counties. When I was

chairman of the Neuse River Council, John Bayer and all these people that are on the board in the back that's with me, I urged the 11 counties to join the 15 counties for all of us to hook up county line to line, I urged John and them to submit this to other counties. Let me tell you my reason for this, anybody can come into your county and put a well there and there is nothing you can do about it and they will be coming. I know all of you have heard the Neuse River on 20/20 and everything else, well I was raised on the Neuse River and most of all that is a pile of junk. I went down there swimming Sunday, there is nothing wrong with me today. We fish down there about every 3 days, but we won't get into that. What I want to tell you is another, I do not believe that the water is getting short, I do not doubt Mr. Spruill but let me tell you what our state governments fail to do, thank God he'll be getting out pretty soon, it will probably even get worse. What we need to do is implement the money to study this to give it to the towns, I've got a $3 million grant that I can't do a darn thing with except to fix the Black Creek. We all know the Black Creek is going dry, but I still have to put wells on it and the state doesn't have sense enough to tell me to put it on the Castle Hayne. I have got to go by the same rules. You see what I am telling you and I am not the smartest person in this room, not the smartest person in the world, but I'm not the dumbest either and I have been around a long time in these politics, 38 years, and believe me there is a money making deal behind this. I have already seen it. I was in Goldsboro last Friday the 1st thing I was approached with was to start buying from this company that wanted to buy out of Aurora but don't fall for that children. There are other ways to go. Who in the devil wants to pump it from the mountains and go on the coast and pump it back, that's sick.

Thank you.

Hearing Officer: Ryan Turner

Arthur Kennedy followed by Steve Hines.

[Written copy of verbal comments by Arthur Kennedy, President, The Wooten Company follow]

The Wooten Company

Engineering
Planning
Architecture

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Since 1936

August 8, 2000

Mr. John Morris, Director
Division of Water Resources
NCENR
Archdale Building
Raleigh, NC 27605

Dr. David Moreau, Chairman
Groundwater Committee
Environmental Management Commission
DPT UNC-CH, CB 3140
Chapel Hill, NC 27599

RE: Central Coastal Plain Capacity Use Area Rule

Gentlemen:

The purpose of my letter is to provide support to the Division of Water Resources as it endeavors to protect the groundwater resources of eastern North Carolina. In particular, we support and endorse the proposed Central Coastal Plain Capacity Use Area Rule.

I am a native of Lenoir County and a professional engineer by training and practice. My firm has been involved in numerous water supply projects in eastern North Carolina over the past 60 years. I have personally been involved in a number of these projects during my 30-year tenure at The Wooten Company.

Being familiar with the local area, I know the pride that "home folks" take in their pure artesian well water. And, I can't imagine them not wanting to take all reasonable measures to protect, preserve, and extend the life of this valuable resource that we call the cretaceous aquifer.

While I normally think of the groundwater being used only for drinking water (residential) purposes, we, of course, need the water for commerce and industry. For all of these users we need about 8.5 to 9.0 million gallons per day in Lenoir County. In addition, the farming community utilizes this resource during the crop-growing season, but I must frankly admit I have no reasonable estimate of the volume used for farming operations.

Having been involved in numerous water supply projects over the years, the engineering community has not been oblivious to the declining water level. Because of this abundant supply, we were perhaps hoping to reach a level of equilibrium in the declining water level and thereby hoping that no protective measures were necessary. However, that has not proven to be the case as water levels continue to decline.

In the face of this declining supply, efforts have been made to quantify the rate at which groundwater is being recharged or replenished. Within the past year, well-recognized and respected hydro-geologists have estimated the recharge rate in the range of 2.0 million gallons per day for all of Lenoir County. Therefore, it is not unreasonable that the proposed Capacity Use Area Rule should require the most severely impacted areas in the Central Coastal Plain to reduce their withdrawal by 75 percent over the next 15 years. Some may say the rule swings the pendulum too far; that there is insufficient evidence to warrant such drastic action. Certainly there may be detractors trying to circumvent or otherwise evade the rule. But it is clear; some regulatory action is necessary to achieve the goal that we haven't been able or willing to achieve on our own.

Rather than try to engage in an analysis of the proposed rule, I would prefer to offer several recommendations on how to either modify the rule prior to adoption or manage the rule after adoption.

1. Provide sufficient flexibility in the rule in order to allow relief in well-documented cases where the recharge rate is greater than withdrawal.
2. Ensure that reports are made available to the public on both public and private initiatives being made to reverse the current trend.
3. Increase the frequency and scope of monitoring, if necessary, in order to better monitor groundwater conditions in the future, not only to detect those areas where the trend is being reversed, but also to identify those areas where further reductions in withdrawal need to be implemented.
4. Be prepared to amend the current rule and modify the current boundaries as subsequent data analysis may dictate.
5. Determine if the hydro-geological characteristics are different for the several aquifers and utilize this data to allocate usage according to user class and quantity and quality required.
6. To the maximum extent possible, we ask the State regulators to be objective and show no favoritism among users–public and private–in managing this valuable resource.
7. Finally, as this rule is essentially an unfunded mandate, we strongly recommend that future projects which are developed to specifically address this proposed rule, be given appropriate priority points in the awarding of grants under the Clean Water Bond Grant program.

From a very personal point of view, I must admit my naiveté on this matter as a practicing engineer in the mid-1970s. I can remember the Division of Water Resources making a plea in the early 80s for local governments to monitor their well withdrawals and report draw down levels to the State. We dutifully continued to monitor data and watch the water levels decline, but we have not acted on this information.

Gentlemen, there is a legitimate water supply problem in the Central Coastal Plain. The proposed Capacity Use Area Rule is a valid attempt to require us all to work jointly to protect, preserve, and even restore this valuable resource. The economy of eastern North Carolina, and any region of that matter, is dependent upon a reliable resource of water supply. We must take these initial steps to put ourselves on the road to recovery and restoration.

By endorsing the proposed Capacity Use Area Rule, we also making the simple petition that the State be fair and equitable in its interpretation, management, and implementation of the rule.

We appreciate the opportunity to offer these comments during this rule making process. Please keep us apprised of the success we expect this rule to have.

Sincerely,

THE WOOTEN COMPANY

Arthur L. Kennedy, PE
President

ALK:sc

Hearing Officer: Ryan Turner

Steve Hines followed by Ed Andrews.

[Verbal comments by Steve Hines, Eastern Carolina Council follow]

Mr. Speaker, Ladies and Gentlemen. I am not a professional engineer, I am not a hydrologist. I represent the nine member counties of the Eastern Carolina Council. Many of you may not know me at this time because I have just recently come aboard. I am a native of Onslow County and so therefore I have grown up and lived in one of the counties that is under consideration.

The counties that I represent in the Eastern Carolina Council are: Onslow, Duplin, Carteret, Jones, Craven, Pamlico, Lenoir, Greene and Wayne. All of these counties are located within the proposed CCPCUA. Much has been said this evening and earlier today about the potential negative impact upon these 15 counties in this proposed CCPCUA. It can not be understated that should these proposals as currently presented be enacted, it will not lead to the ultimate goal of assisting these counties in the CCPCUA, it will put restrictions at this point and time on our communities that many are ill-prepared nor capable to overcome at this time. The continuing process of redevelopment from Hurricane Floyd as well as the mass reduction in tobacco crop production, affecting all of the 15 counties, by the way, in some way shape or form, require that what additional resources are available in an area be targeted to a great extent toward the successful emergence from these economic challenges. I have heard many of the speakers today remark that our communities are aware that there is a problem as well as other comments evidencing that several of our communities are actively moving toward the development of alternative water resources. It is apparent that within the proposed CCPCUA there is now an overall awareness that there is a problem. Time is of the essence but it is time coupled with financial resources to develop alternatives that is needed. The communities of the proposed CCPCUA are similar yet they all face diverse challenges. Likewise it would be very difficult to say the least to lump all of our counties and municipalities into the same basket, each community needs and deserves the time necessary to develop, obtain financing and implement their plans for alternative water resources in their respective communities. In some of our communities water alternatives are more accessible than others. We must pledge our joint resources in enabling all our communities to develop these resources while remaining cognizant to the needs of our communities that are plagued by low wealth and low tax-based economies. Certainly water is at the very essence of our ability to have quality economic development not only in the proposed CCPCUA but throughout eastern North Carolina. I urge you to delay implementation of the proposed rules until further input can be obtained by these proposed affected communities. Rules on paper Mr. Speaker have a real impact on

people, we must ensure that the rules assist and not hurt our citizens as we move forward into the future.

Thank you.

Hearing Officer: Ryan Turner

Ed Andrews

[Verbal comments by Ed Andrews, Edwin Andrews Associates follow]

Commissioner, Director. I want to thank you again for the opportunity. I made 4 points earlier this afternoon but I am not going to reiterate. One was priority, specificity, appeal process, and privacy were the 4 issues I talked about.

Now I want to talk about a specific section, get down to some nuts and bolts, as the commission needs to do in these deliberations. .0506 CCPCUA Status Reports. I think there needs to be a provision for local and regional input in development of their own reports. If they find that conditions are better than anticipated in the development of these rates, in other words, there are no adverse impacts in a given aquifer system or aquifer, then they should have the right to possibly submit a report on their own and I suggest or propose that line item six, read basically that local government, industries or permitted water users can submit regional interim reports at any time identifying significant mitigation of adverse impacts for review by the director. Seven, a determination that adverse impacts have been mitigated shall be incorporated by the director to redefine the zone mapping or result in an alteration of the prescribed water use reduction where applicable.

Thank you.

Hearing Officer: Ryan Turner

Does anybody want to speak who did not sign up? The hearing record remains open until September 15, 2000 so you may submit written comments up until that date. Thank you for showing up this evening.

Part V: Written Comments Received

NORTH LENOIR WATER CORPORATION
904 N QUEEN ST
P O BOX 1579
KINSTON NC 28503
Phone: 252-527-8352
Fax: 252-522-9663

NCDENR-DIVISION OF WATER RESOURCES
1611 MAIL SERVICE CENTER
RALEIGH, N.C. 27699-1611

Dear Sirs:

I represent NLWC, a rural water system which serves approximately 5,000 accounts and one major industry (Kinston Dupont Plant). NLWC pumps approximately 55,000,000 gallons of water each month.

NLWC has several concerns about the rule changes which impact the Capacity Use Area that has been developed. One of these concerns is that the rule is a blanket rule and covers areas that do not have immediate aquifer problems. More detailed scientific data is needed to determine more accurately the problem areas. Please do not rush into implementing rules that need to be thought through more clearly.

Economic development will be drastically impacted in an area that has recently been devastated by flooding, agricultural and livestock reductions, and other areas of economic declines.

We understand there is a declining water level problem of some proportion in most of this area. We also realize there should be rules to follow that fit the circumstances in areas of immediate concern. When these rules are implemented, funding needs to be in place to engineer and build the alternate water source needed for the affected area.

No matter how these final rules are defined and implemented, the general public needs to be informed and educated in water conservation.

We sincerely hope that you will study the ideas the Central Coastal Plain Capacity Use Area Association Members and others have brought before you, and make a logical decision to protect our aquifers while enabling water systems to operate without inhibiting growth.

Respectfully,

Melvin Albritton

Melvin Albritton
Maintenance Supervisor

NORTH CAROLINA
AGGREGATES ASSOCIATION

September 11, 2000

RECEIVED
SEP 15 2000
DIVISION OF
WATER RESOURCES

Mr. Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Subject: Comments on the Proposed CCP-Capacity Use Area Rules,
15A NCAC 2E .0102 through .0507

Dear Nat:

The North Carolina Aggregates Association and its member companies herewith submit the following comments related to the Central Coastal Plain – Capacity Use Area Rules as they currently appear in draft form. Numerous crushed stone quarries, and sand & gravel operations are located in the 15 county area (see enclosure) covered by the rule. We agree that the listed aquifers need to be protected but feel that our industry has been unfairly targeted by this rule with some unjustified requirements.

General Comments. The crushed stone, sand and gravel industry continues to be confused as to whether or not our facilities will be required to cut withdrawal volumes over the years as outlined in the rule. Crushed stone and sand and gravel sites do not withdraw from the listed aquifers but from the zones above the Cretaceous aquifer system. Since we do not withdraw from the listed aquifers we suggest that we not be forced to reduce rates and held to higher, complex permitting requirements than other similar industries. If we are required to reduce withdrawal rates, it could force the closure of some operations since the mined material would not be accessible. If this permitting system is for aquifer users, why are we included since we do not withdraw from the listed aquifers?

Please understand that quarry and sand and gravel operations do not equate to coastal phosphate operations in their impact on and use of water. Since the earlier Capacity Use Area No. 1 was developed in response to phosphate operations, it is not necessary or realistic to require the same controls on stone, sand and gravel.

Further, countless other industries and operations use water in high volumes from the zone above the aquifers. Why are we the only industry specifically mentioned in these regulations and the only industry required to conduct costly studies on our rates and local hydrology? It appears that the Department is mixing in a local ground water issue with this large-scale regional aquifer issue. The existing Mine Permit program that we must follow already covers the investigation of potential impacts to ground water. This would seem to now be "double coverage" with both regulations covering the same issue. Also, it appears that our industry is the only one to which "total use limits" will apply.

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In response to the need to develop alternative sources of water to allow reducing reliance on ground water, several mine facilities have been contacted by municipalities seeking to use mine pit pumpout water as an alternative water source. This makes sense if the water is from a shallow zone aquifer not affecting the stressed aquifers. It seems unfair to require such mine sites to be permitted when in fact the surface water will be used by others and replace water from the affected listed aquifers.

Specific Comments

.0501 Declaration and Delineation of Central Coastal Plain Capacity Use Area. By using the phrase "adjoining creeks, streams, and rivers", it is possible that areas outside of the 15 county area could be included in the rule. Is this the case, and if so, the exact area needs to be delineated and recorded on a map for future reference. If permits are not required for "surface water" under .0502 (a), why include adjoining creeks, streams, etc.?

.0502 Withdrawal Permits.

(a) What is classified as a "ground water withdrawal"? Does the rule cover all ground water withdrawals or just those from the Cretaceous aquifer system, which is made up of the Black Creek, Upper Cape Fear and the Pee Dee aquifers? This is not clear. Our mining operations withdraw from a zone above these listed aquifers. Are sand and gravel operations, for example, exempt as a surface water user?

(b) What is defined as a "well"? Quarry operations use an open sump in the pit to collect ground water. Is this type of structure considered to be a well for the purposes of this rule?

(b)(2) What is to be expected when the Division can request "any additional information"? Some information, hydrologic data for example, can require more than 30 days to prepare. More time is needed, or make the response time fit the information request.

(b)(3) Requiring water use reports every quarter seems excessive. Hydrology studies done prior to dewatering should suffice, and perhaps be supplemented with an annual report, at least until static levels remain constant at which point less frequent reports would be necessary.

(c)(1)(C) Sinkholes will occur in the coastal plain. They are normal features in coastal terrain and they should not be considered to cause an adverse impact unless they are specifically linked to the ground water withdrawal in question.

(c)(1)(D) Quarries by nature have a limited life span. Once the mineral reserves are depleted, the site is reclaimed and the water level is restored to its pre-development elevation. Such activity should not be considered as a contributor to the long-term decline in aquifers.

(c)(2) Why is the Department bringing local ground water impacts into this regulation? What guidelines will be used to decide whether water is being used efficiently or whether sustainable water sources have been developed to mitigate an "adverse impact"? This language seems excessively vague.

c)(3) This provision also is extremely subjective and vague. How does an operator know whether he has satisfied this standard?

(d) Presumably, the Division may deny a permit unless efficiency and avoidance of waste is demonstrated. On what basis will that decision be made?

(d)(2) State agencies, including DENR, have existing well construction standards and design criteria. Why not simply refer to existing specifications and standards.

(d)(4) Based on this section, it appears that all mine-related withdrawals fall into this regulation regardless of the source of the withdrawal. It appears that this section is stating that any mine site that withdraws more than 100,000 gallons per day must complete all of these steps as part of their application process. Why require all mine sites regardless of source of water withdrawal to meet these criteria? This is totally unnecessary unless the withdrawal is from the Cretaceous aquifer.

The state needs to be more specific with what a Professional Engineer or Geologist will be certifying by way of the seal. How can a licensed engineer be qualified to certify something that is so specifically geological?

The preamble states that a permit application is required within 60 days for existing withdrawals after the expected date of the rule. The studies listed in this section will be quite burdensome, time consuming and costly. This information can not possibly be generated in 60 days.

(k) This section of the rule states that the maximum withdrawal rates will be determined by the Director using available methods of hydrogeologic analysis. Again, it is recommended that existing operations should have some flexibility while a newer operation may be examined more closely. In addition, such technical data should be provided by the applicant and then confirmed by the Director.

Why does a "total use limit" for water withdrawal appear here and no where else? The mining industry appears to have been singled out for unusually stringent and detailed conditions.

(p) This provision seems to be intended to provide flexibility for "hardship" cases; however, there is no relief provided for withdrawal limits, only for the schedule.

.0503 Prescribed Water Use Reductions and Cretaceous Aquifer Zones. How exactly do the planned phase reductions relate to the quarrying operations? We do not encounter the deep aquifers as part of our operations. Do the planned phase reductions apply to our operations or is merely obtaining a permit for these operations all that is required?

.0504 Requirements for Entry and Inspection

(b) Why are reports under .0502(g) not permitted to be confidential when similar data under .0505 (b), i.e. water use surveys, are confidential? What authority allows the Director to request "any additional information" under .0502(g) and then keep such information regardless of its content, from being held confidential under .0504(b)?

Thank you for consideration of these comments and questions. We trust that answers to our questions will be provided prior to moving forward with these rules as proposed. Should you desire further information or explanation of our concerns, please contact me.

Sincerely,

Frederick R. Allen, PE
Executive Director

Enclosure

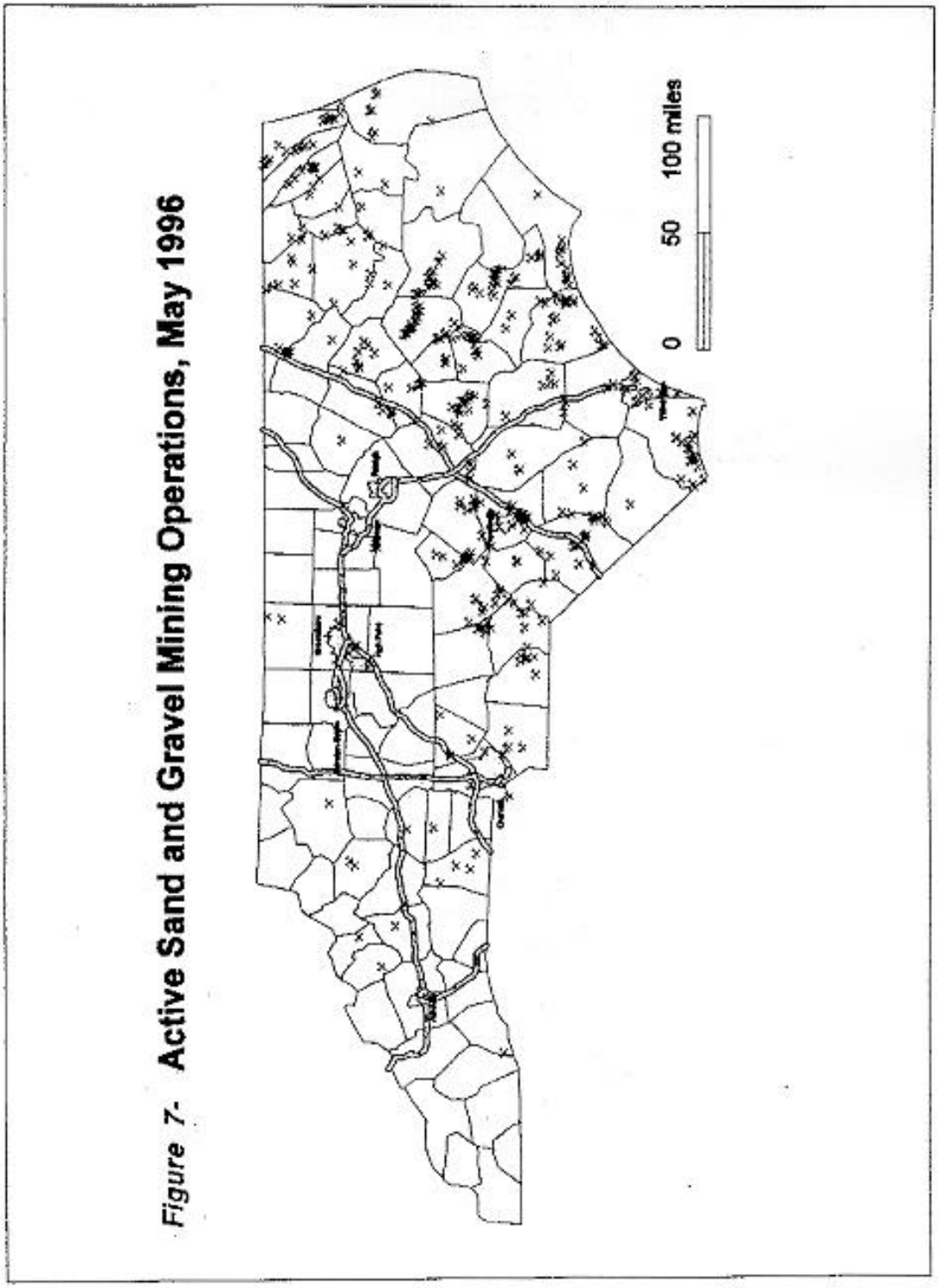
Figure 7- Active Sand and Gravel Mining Operations, May 1996
0
50
100 miles

HYDROGEOLOGY
GEOLOGY

ENVIRONMENTAL SCIENCES
SOILS

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September 15, 2000

Mr. John Morris, Director
Division of Water Resources
Department of Environment and Natural Resources
1611 Mail Service Center
Raleigh, N.C. 27699 - 1611

Re: Selected Comments pertaining to the proposed rules, "Title 15 A - Department of Environment and Natural Resources, Chapter 2 - Environmental Management, Subchapter 2E - Water Use Registration and Allocation"

Dear Mr. Morris:

The following comments are general in nature and intended as insight to the establishment of regulations that will be adaptable to the development of site specific knowledge and regional changes as the changes occur. For your convenience, I have enumerated these comments:

Section .0500 - Central Coastal Plain Capacity Use Area

1) **NEW SYSTEMS**: There is no provision in these regulations that will provide for the Director a mechanism to approve new water systems. If in the Director's or staff's opinion a hardship or exemption necessitates a temporary or permanent exemption to the rule it is not permissible in the rule as written. The director does not appear to have the authority to allow continued use at the base line or increase use as applicable. For example, there are small communities in the rural areas that are subject to shallow groundwater contamination. There may be a need for these area to shift withdrawals from contaminated shallow individual wells to a small community system that will need to withdraw greater than 100,000 gallons per day from the Cretaceous Aquifer System.

2) **PRIORITIES**: In order for the Director to approve new systems or to evaluate withdrawal reductions logically, a system of water use priority needs to be established. For example: the highest to lowest use: 1) Public Health Emergency, 2) Potable Water Potable Water, 3) Small Utility, 4) Large Public Utilities Potable Water, 5) Industrial Use, 6) Agricultural Use, 7) Lawn Irrigation, etc.

3) **CRETACEOUS SYSTEM**: The Cretaceous System is a diverse system consisting of the Pee Dee, Black Creek, Upper Cape Fear Aquifer systems and members. Grouping the adverse impact to the common Cretaceous Aquifer System prevents consulting hydrogeologist from identifying hydrologic solutions to regional problems that may exist within the Cretaceous Aquifer System. Specifically, the individual members of the Black Creek Aquifer appears to influenced by surface boundary conditions in the western counties within the CCP-CUA more than the overpumpages to the east. These regulations as written do not permit the Director sufficient discretion to permit the use of water from any Cretaceous Aquifer, in areas mapped, even if withdrawal will not have any adverse impacts.

4) **APPEAL PROCESS**: There is no "Appeal Process" within the regulation. I recommend the inclusion of a section entitled "Final Action on Permit Application to the Division," in which, applicants are advised on procedures within the Division of Water Resources and a reference to Administrative Hearings. It appears that the EMC has determined that the appeal procedure as specified in the law is evident to everyone. As a minimum, reference to the appeal procedure would be helpful to the citizens that have to abide by the regulations.

5) **PRIMACY**: Provide for "Primacy," using 15A NCAC 2E - Water Use Registration and Allocation as the guidance criteria for a regional management entity to use as a self regulator (similar the Watershed Protection Rules). Provide the Director authority to delegate implementation of the rule to the regional planning district (Eastern Carolina Council of Governments), with technical and legal control remaining with the Division of Water Resources.

6) **ERRORS**: There may be some errors or assumptions related to the zones designated as Dewatering or Excessively Declining Water Levels based on the Hydrogeologic Framework Model that will affect the zone map. It would be helpful if the Director were able to make the modification to the published zone map based on continued data updates, without going to public hearing, in the event an error or changed conditions are encountered. The frequency of scheduled public hearings (five years) should remain.

Attached is a copy of the proposed regulation, marked in red and green ink for specific items. The red strike comments are a direct quote from the comments submitted by the Central Coastal Plain Capacity Use Area Association and the green (font) are my individual comments. The most numerous items were the correction of Cretaceous Aquifer System to the principal aquifer units of Pee Dee, Black Creek and Upper Cape Fear Aquifers.

I sincerely hope that these comments are helpful. I know that you have a daunting task ahead.

Very truly yours,
EDWIN ANDREWS & ASSOCIATES, P.C.

Edwin E. Andrews III, P.G.
Consulting Hydrogeologists

EEA/sba

encl.

.0502 WITHDRAWAL PERMITS

(a) Existing ground water withdrawal permits issued in Capacity Use Area No. 1 (15A NCAC 2E .0200) within the Central Coastal Plain Capacity Use Area are reissued under section .0500 and are valid until the expiration date specified in each permit. Water use permits are no longer required for withdrawals in Hyde and Tyrrell Counties as of the effective date of this Rule. Permits are not required for surface water use or rock wells under section .0500 in the Central Coastal Plain Capacity Use Area as delineated in .0501.

(b) No person shall withdraw ground water after the effective date of this Rule in excess of 100,000 gallons per day by a well or group of wells operated as a system for any purpose unless such person shall first obtain a water use permit from the Director. Existing withdrawals of ground water as of the effective date of this Rule and proposed withdrawals previously approved for funding appropriated pursuant to the "Clean Water and Natural Gas Critical Needs Bond Act of 1998" or other local, state or federally funded projects as of the effective date of this Rule shall be allowed to proceed with construction or to continue to operate under interim status until a permit has been issued or denied by the Director, provided that persons withdrawing in excess of 100,000 gallons per day by a well or group of wells operated as a system comply with the following requirements:

(1) Persons conducting withdrawals in the Capacity Use Area that require a permit shall submit a permit application to the Division of Water Resources within ~~60~~ 180 days of the effective date of this Rule.

(2) Persons who have submitted applications shall provide any additional information requested by the Division of Water Resources for processing of the permit application within 30 days of the receipt of that request.

(3) Persons conducting withdrawals in the Capacity Use Area that require a permit shall submit water level and water use data on a form supplied by the Division four times a year, within 30 days of the end of March, June, September, and December until a permit has been issued or denied by the Division of Water Resources.

(c) Ground water withdrawals will be governed by the following standards:

(1) Adverse impacts of ground water withdrawals shall be avoided or minimized. Adverse impacts include, but are not limited to:

(A) dewatering of confined aquifers;

(B) encroachment of salt water;

(C) land subsidence or sinkhole development;

(D) long-term regional declines in aquifer water levels.

(2) Adverse impacts on other water users from ground water withdrawals shall be corrected or minimized through efficient use of water and development of sustainable water sources.

(3) In determining the importance and necessity of a proposed withdrawal the efficiency of water use and implementation of conservation measures shall be considered.

(d) An application for a water use permit must be submitted on a form approved by the Director to the North Carolina Division of Water Resources. The application shall describe the purpose or purposes for which water will be used, shall set forth the method and location of withdrawals, shall justify the quantities needed, and shall document water conservation measures to be used by the applicant to ensure efficient use of water and avoidance of waste. Withdrawal permit applications shall include the following information:

(1) Location by latitude and longitude (or NC Grid NAD83) of all wells to be used for withdrawal of water.

(2) Specifications for design and construction of existing and proposed production and monitoring wells. Exceptions may be made where specific items of information are not critical, as determined by the Director, to manage the ground water resource.

(A) Well diameter;

(B) Total depth of the well;

(C) Depths of all open hole or screened intervals that will yield water to the well;

(D) Depth of pump intake(s);

(E) Size, capacity and type of pump;

(F) Depth to top of gravel pack;

(G) Depth measurements shall be within accuracy limits of plus or minus ~~0.10~~ 1.0 feet and referenced to a known land surface elevation.

(3) Withdrawal permit applications for use of ground water from the Cretaceous aquifer system shall include plans to reduce ~~water use~~ withdrawals that have adverse impacts from these aquifers as specified in .0503. Withdrawal rates from the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear of the Cretaceous aquifer system that exceed the approved base rate may be permitted during Phase I of .0503 if the applicant can

demonstrate to the Director's satisfaction a need for the greater amount. Cretaceous aquifer system wells will be identified using the specifications in .0502(d)(1) and .0502(d)(2) and the hydrogeological framework.

(4) Withdrawal permit applications for dewatering of mines, pits or quarries shall include a dewatering or depressurization plan that includes:

(A) a hydrogeological analysis of the dewatering or depressurization activity;

(B) the location, design and specifications of any sumps, drains or other withdrawal sources including wells and trenches;

(C) the lateral extent and depth of the zone(s) to be dewatered or depressurized;

(D) a monitoring plan that provides data to delineate the nature and extent of dewatering or depressurization;

(E) certification by an appropriate North Carolina Licensed Engineer or Geologist of all plans and hydrogeological analyses prepared to meet these requirements.

(5) Conservation Measures. The applicant shall provide information on existing conservation measures and conservation measures to be implemented during the permit period as follows:

~~mi~~ ~~mu~~ (A) the following components. Each component shall be described, including a timetable for implementing each component that does not already exist.

~~qu~~ ~~ti~~ ~~(~~ ~~)~~ ~~ased~~ surcharges.

(ii) Implementation of a water loss reduction program if unaccounted for water is greater than 15 percent of the total amount produced, as documented annually using a detailed water audit. Water loss reduction programs shall consist of annual water audits, in-field leak detection, and leak repair.

~~re~~ ~~ti~~ ~~(~~ ~~)~~ on lawn and ornamental irrigation, automatic irrigation system shut-off devices or other appropriate measures.

~~; s~~ ~~e~~ ~~(~~ ~~)~~ ~~ds,~~ toilet flappers, and faucet aerators).

(v) Implementation of a public education program (such as water bill inserts, school and civic presentations, water treatment plant tours, public services announcements, or other appropriate measures).

~~er~~ ~~ap~~ ~~(~~ ~~)~~ ~~ble.~~

(B) Users of water for commercial purposes, other than irrigation of crops and forestry stock, shall develop and implement a water conservation plan as follows:

~~g~~ ~~ti~~ ~~(~~ ~~)~~ and potential conservation and reuse measures for each type of water use;

(ii) an ~~implementation~~ implementation schedule for feasible measures identified in the above item for conservation and reuse of water at the facility.

(C) Users of water for irrigation of crops and forestry stock shall provide the following information:

~~ti~~ ~~a~~ ~~(~~ ~~)~~ ~~ble;~~

(ii) types of crops that may be irrigated;

~~ga~~ ~~n~~ ~~(~~ ~~)~~ ~~od~~ using ground water);

~~; C~~ ~~s~~ ~~(~~ ~~)~~ ~~on~~ Service.

(6) If an applicant intends to operate an aquifer storage and recovery program (ASR), the applicant shall provide information on the storage zone, including the depth interval of the storage zone, lateral extent of the projected storage area, construction details of wells used for injection and withdrawal of water, and performance of the ASR program.

(e) The Director shall issue, modify, revoke, or deny each permit as set forth in G.S. 143-215.15, within 60 days of receipt of a complete application. All review comments questioning the completeness of an application shall be made within 30 days of receipt of an application or subsequent information submitted in support of an application. Permittees may apply for permit modifications. Any application submitted by a permittee shall be subject to the public notice and comment requirements of G.S. 143-215.15(d).

(f) Permit duration shall be set by the Director as described in G.S. 143-215.16(a). Permit transferability is established in G.S. 143-215.16(b).

(g) Persons holding a permit shall submit signed water usage and water level reports to the Director not later than 30 days after the end of each permit reporting period as specified in the permit. Monitoring report requirements may include:

(1) Amounts of daily withdrawal from each well.
(2) Pumping and static water levels for each supply well as measured with a steel or electric tape, or an alternative method as specified in the permit, at time intervals specified in the permit.
(3) Static water levels in observation wells at time intervals specified in the permit.
(4) Annual sampling by applicants located in the salt water encroachment zone and chloride concentration analysis by a State certified laboratory.
(5) Any other information the Director determines to be pertinent and necessary to the evaluation of the effects of withdrawals.
(6) Where additional monitoring wells are required to be constructed or where wells must be modified to provide monitoring information, construction and/or modifications as necessary shall be completed within 12 months from the time monitoring requirements are specified.

(h) Water use permit holders shall not add new wells without prior approval from the Director.

(i) The Director may require permit holders to construct observation wells to observe water level and water quality conditions before and after water withdrawals begin if there is a demonstrated need for aquifer monitoring to assess the impact of the withdrawal on the aquifer.

(j) For all water uses other than dewatering of mines, pits or quarries, withdrawals shall be permitted only from wells that are constructed such that the pump intake or intakes are at a shallower depth than the top of the uppermost confined aquifer that yields water to the well, or are operated and/or monitroed in such a manner as to prevent pumping levels from extending below the top of the uppermost confined aquifer that yields water to the well. Confined aquifer tops are established in the hydrogeological framework. Where wells in existence as of the effective date of this Rule are not in compliance with the requirements of this provision, the permit shall include a compliance schedule providing no less than 5 years for retrofitting or replacement of non-compliant wells to achieve compliance. Withdrawals from unconfined aquifers shall not lower the water table by an amount large enough to decrease the effective thickness of the unconfined aquifer by more than 50 percent.

(k) For withdrawals to dewater mines, pits or quarries, the permit shall delimit the extent of the area and depths of the aquifer(s) to be dewatered or depressurized. Maximum well withdrawal rates, total use limits, and the permissible extent of dewatering or depressurization will be determined by the Director using available methods of hydrogeologic analysis. Withdrawals shall be accomplished by means and in a manner such that the groundwater may be available for subsequent use as groundwater by any public water system requesting use of the groundwater. The withdrawal applicant shall be responsible for delivery of the groundwater to a location on the applicant's property acceptable for subsequent re-use by the public water system. Withdrawals made available for subsequent use by public water systems shall not include sources of groundwater from dewatering activities which would otherwise prohibit the use of the groundwaters by the public water system.

(l) Withdrawals of water that cause changes in water quality such that the available uses of the resource are adversely affected will not be permitted. For example, withdrawals shall not be permitted that result in migration of ground water that contains more than 250 milligrams per liter chloride into pumping wells that contain chloride at concentrations below 250 milligrams per liter.

(m) General permits may be developed by the Division and issued by the Director for categories of withdrawal that involve the same or substantially similar operations, have similar withdrawal characteristics, require the same limitations or operating conditions, and require similar monitoring.

(n) Permitted water users may withdraw and sell or transfer water to other users provided that their permitted withdrawal limits are not exceeded.

(o) A permitted water user may sell or transfer to other users a portion of his permitted withdrawal. To carry out such a transfer, the original permittee must request a permit modification to reduce his permitted withdrawal and the proposed recipient of the transfer must apply for a new or amended withdrawal permit under section .0500.

(p) Where an applicant or a permit holder can demonstrate that compliance with water withdrawal limits established under section .0500 is not possible because of construction schedules, economic hardships, Public health emergency, requirements of other laws, or other reasons beyond the control of the applicant or permit holder, and where the applicant or permit holder has made appropriate efforts to conserve water and to plan the development of adequate water sources, the Director may issue either 1) a temporary permit with an alternative schedule to attain compliance with provisions of section .0500, as authorized in G.S. 143-215.15(c)(ii), or 2) a water use permit.

(q) Where an existing industrial applicant or permit holder can demonstrate that compliance with water withdrawal limits established under Section .0500 of this Subchapter is not possible because of economic hardships, requirements of other laws, or other reasons beyond the control of the industrial applicant or permit holder, and where the industrial applicant or permit

holder has made appropriate efforts to conserve water and plan and/or implement the development of adequate water sources to the extent practical, the phase reductions required under .0503 shall not be applicable and the industrial applicant or permit holder shall be allowed to continue to operate at the approved base rate.

History Note: *Authority G.S. 143-215.14; 143-215.15; 143-215.16;*
Eff. April 1, 2001.

.0503 PRESCRIBED WATER USE REDUCTIONS IN CRETACEOUS AQUIFER ZONES

The Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear Aquifers of the Cretaceous aquifer system **water use** withdrawals that cause adverse impacts **shall be reduced in prescribed areas over a sixteen year period, starting from approved base rates on the effective date of this Rule. The Cretaceous aquifer system zones and the three phases of water use reductions are listed as follows:**

(a) Cretaceous aquifer system zones are regions established in the fresh water portion of the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear of the **Cretaceous aquifer system that delimit zones of** (1) **salt water encroachment,** (2) potential **dewatering and** (3) **declining water levels. These zones are designated on the paper and digital map entitled "Central Coastal Plain Capacity Use Area Cretaceous Aquifer Zones" (CCPCUA) on file in the Office of the Secretary of State one week prior to the effective date of these Rules.**

(b) The reductions specified in .0503 do not apply to intermittent users, or to withdrawals that do not cause adverse impacts under .0502(c) (1).

(c) If a permittee implements an aquifer storage and recovery program (ASR), reduction requirements will be based on the total net withdrawals. The reductions specified in .0503 do not apply if the volume of water injected into the aquifer is greater than the withdrawal volume. If the withdrawal volume is greater than the injected volume, reductions specified in .0503 apply to the difference between the withdrawal volume and the injected volume.

(d) The reductions specified in .0503 shall not reduce permitted water use rates below 100,001 gallons per day.

(e) Phase definitions:

(1) Phase I: The six year period extending into the future from the effective date of this Rule.

(2) Phase II: The five year period extending into the future from six years after the effective date of this Rule to 11 years after the effective date of this Rule.

(3) Phase III: The five year period extending into the future from 11 years after the effective date of this Rule to 16 years after the effective date of this Rule.

(f) Phase reductions:

(1) Phase I:

(i) At the end of the Phase I, ~~permittees who are~~ withdrawals **located in the** potential **dewatering zone** that cause adverse impacts **will be required to reduce annual ~~water use~~** withdrawals **from** (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) **of the Cretaceous aquifers** system **by 25% from their approved base rate.**

(ii) At the end of the Phase I, ~~permittees who are~~ withdrawals **located in the salt water encroachment zone** that cause adverse impacts **will be required to reduce annual ~~water use~~** withdrawals **from** (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) **of the Cretaceous aquifers** system **by 25% from their approved base rate.**

(iii) At the end of the Phase I, ~~permittees who are~~ withdrawals **located in the ~~declining~~ water level zone** that cause adverse impacts **will be required to reduce annual ~~water use~~** withdrawals **from** (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) **of the Cretaceous aquifers** system **by 10% from their approved base rate.**

(iv) At the end of the Phase I, ~~permittees who are~~ withdrawals **located in the Cretaceous zone,** that cause adverse impacts, **but outside of the salt water encroachment, ~~dewatering,~~ or ~~declining~~ water level zones will be required not to exceed annual ~~water use~~** withdrawals **from** (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) **of the Cretaceous aquifers** system **as established by their approved base rate.**

(2) Phase II:

(i) At the end of the Phase II, ~~permittees who are~~ withdrawals **located in the** potential **dewatering zone** that cause adverse impacts **will be required to reduce annual ~~water use~~** withdrawals **from the aquifer** (Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) **of the Cretaceous aquifers** system **by 50%**

from their approved base rate. Aquifers that are not experiencing adverse impacts can serve as a alternate source.

(ii) At the end of the Phase II, ~~permittees who are~~ withdrawals located in the salt water encroachment zone that cause adverse impacts will be required to reduce annual ~~water use~~ withdrawals from (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) of the Cretaceous aquifers system by 50% from their approved base rate.

(iii) At the end of the Phase II, ~~permittees who are~~ withdrawals located in the declining water level zone that cause adverse impacts will be required to reduce annual ~~water use~~ withdrawals from (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) of the Cretaceous aquifers system by 20% from their approved base rate.

(iv) At the end of the Phase II, ~~permittees who are~~ withdrawals located in the Cretaceous zone, that cause adverse impacts, but outside of the salt water encroachment, dewatering, or declining water level zones will be required not to exceed annual ~~water use~~ withdrawals from (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) of the Cretaceous aquifers system as established by their approved base rate.

(3) Phase III:

(i) At the end of the Phase III, ~~permittees who are~~ withdrawals located in the potential dewatering zone that cause adverse impacts will be required to reduce annual ~~water use~~ withdrawals from (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) of the Cretaceous aquifers system by 75% from their approved base rate.

(ii) At the end of the Phase III, ~~permittees who are~~ withdrawals located in the salt water encroachment zone that cause adverse impacts will be required to reduce annual ~~water use~~ withdrawals from (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) of the Cretaceous aquifers system by 75% from their approved base rate.

(iii) At the end of the Phase III, ~~permittees who are~~ withdrawals located in the declining water level zone that cause adverse impacts will be required to reduce annual ~~water use~~ withdrawals from (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) of the Cretaceous aquifers system by 30% from their approved base rate.

(iv) At the end of the Phase III, ~~permittees who are~~ withdrawals located in the Cretaceous zone, that cause adverse impacts, but outside of the salt water encroachment, dewatering, or declining water level zones will be required not to exceed annual ~~water use~~ withdrawals from (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) of the Cretaceous aquifers system as established by their approved base rate.

(g) The CCPCUA Cretaceous Aquifer Zones map will be updated, ~~if necessary,~~ at a minimum, 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 will be based on the following conditions:

(1) Rate of decline in water levels in the aquifers;

(2) Rate of increase in water levels in the aquifers;

(3) Stabilization of water levels in the aquifers;

(4) Chloride concentrations in the aquifers.

This aquifer information will 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 will adopt the updated map and reduction percentage changes after public hearing.

(h) Withdrawals from sources within the Creatceous aquifer system, such as uncofined or partially confined aquifer, which are demonstrated by scientific evidence not to cause adverse impacts as provided in .0502 (c) (1) shall be allowed in addition to the approved base rate and shall not be subject to the phase reduction requirements.

(i) New wells within the (the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear) of the Cretaceous aquifer system that are proposed to minimize or reduce adverse impacts created by existing wells shall be encouraged. Increases in the approved base rate shall be provided for the construction of new wells to reduce adverse impacts created by existing wells. The increase in the approved base rate shall be negotiated with the Director and shall be commensurate with the anticipated benefits.

History Note: *Authority G.S. 143-215.15;*
Eff. April 1, 2001.

.0504 REQUIREMENTS FOR ENTRY AND INSPECTION

(a) The Division may enter and inspect property in order to evaluate wells, pumps, metering equipment or other withdrawal or measurement devices and records of water withdrawals and water levels, if:

(1) Persons conduct an activity that the Division believes requires the use of water at quantities that subject the person to regulation under these rules;

(2) A permittee or applicant has not provided data or information on use of water and wells and other water withdrawal facilities as required by these rules; or

(3) Water levels and chloride concentrations at the person's facility, or at nearby facilities or monitoring stations, indicate that aquifers may be damaged by overpumping or salt water encroachment, or other adverse affects that may be attributed to withdrawal by the person.

(b) All information submitted to fulfill the requirements of these rules, or to obtain a permit under these rules, or obtained by inspection under these rules, shall be treated as Confidential Business Information, if requested by the applicant, and found to be such by the Division. Reports defined in .0502(g) are not considered Confidential Business Information.

History Note: *Authority G.S. 143-215.19;*
Eff. April 1, 2001.

.0505 ACCEPTABLE WITHDRAWAL METHODS THAT DO NOT REQUIRE A PERMIT

(a) As of the effective date of this Rule, any person who is not subject to .0502 and withdraws more than 10,000 gallons per day from surface or ground water in the Central Coastal Plain Capacity Use Area, shall register such withdrawals on a form supplied by the Division and comply with the following provisions:

(1) Construct new wells such that the pump intake or intakes are above the top of the uppermost confined aquifer that yields water to the well. Confined aquifer tops are established in the hydrogeological framework.

(2) Report surface and ground water use to the Division of Water Resources on an annual basis on a form supplied by the Division.

(3) Withdraw water in a manner that does not damage the aquifer or cause salt water encroachment or other adverse impacts.

(b) These requirements do not apply to withdrawals to supply an individual domestic dwelling.

(c) Agricultural water users may either register water use with the Division of Water Resources as provided in this rule or may provide the information through confidential water use surveys conducted by the North Carolina Department of Agriculture or the United States Department of Agriculture.

History Note: *Authority G.S. 143-215.14; 143-355(k);*
Eff. April 1, 2001.

.0506 CENTRAL COASTAL PLAIN CAPACITY USE AREA STATUS REPORT

Within two years of the effective date of this Rule, and at five year intervals thereafter, the Division of Water Resources shall publish a status report on the Central Coastal Plain Capacity Use Area. The report shall include the following:

(1) Compilations of water use data,

(2) Evaluations of surface and ground water resources,

(3) Updated information about the hydrogeologic framework in the Central Coastal Plain Capacity Use Area,

(4) A summary of alternative water sources and water management techniques that may be feasible by generalized geographic location, and

(5) A status report on actions by water users to develop new water sources and to increase water use efficiency.

History Note: *Authority G.S. 143-215.14;*
Eff. April 1, 2001.

.0507 DEFINITIONS

The following is a list of definitions for terms found in section .0500.

(1) Approved base rate: The larger of ~~a person's~~ January 1, 1997 through December 31, 1997 or August 1, 1999 through July 31, 2000 annual water use rate from the Cretaceous aquifer system, or an adjusted water use rate determined through negotiation with the Division using documentation provided by the applicant of, 1. water use reductions made since January 1, 1992, 2. use of wells for which funding has been approved or for which plans have been approved by the Division of Environmental Health by the effective date of this Rule, 3. existing and projected population served or to be served, or ~~3.~~ 4. other relevant information.

(2) Aquifer: Water-bearing earth materials that are capable of yielding water in usable quantities to a well or spring, as defined in the hydrogeologic framework. The aquifers included in the Cretaceous Aquifer System are: the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear Aquifers.

(3) Aquifer storage and recovery program (ASR): Controlled injection of water into an aquifer with the intent to store water in the aquifer for subsequent withdrawal and use.

(4) Confining unit: A geologic formation that does not yield economically practical quantities of water to wells or springs. Confining units separate aquifers and slow the movement of ground water.

(5) Cretaceous aquifer system: A system of aquifers and confining units in the North Carolina coastal plain that is comprised of water-bearing earth materials deposited during the Cretaceous period of geologic time. The extent of the Cretaceous Aquifer System is defined in the hydrogeological framework. The Cretaceous aquifer system in the Central Coastal Plain Capacity Use Area consists ofthe following aquifers (as defined in the Hydrogeologic Framework Model): the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear Aquifers. The extent of the Cretaceous Aquifer System and constituent aquifers is defined in the hydrogeological framework.

(6) Dewatering: Dewatering occurs in a confined aquifer when aquifer water levels are depressed below the top of a ~~confined~~ the aquifer ~~or water table declines adversely affect the resource.~~ Dewatering occurs in unconfined aquifers whenever water is removed from the aquifer. Dewatering of a confined aquifer is considered to be an adverse impact. Dewatering of an unconfined aquifer by an amount large enough to decrease the effective thickness of the unconfined aquifer by more than 65% is considered to be an adverse imapct.

(7) Economic hardship: An economic hardship for a public utility system exists when rates exceed high unit cost rates as defined in N.C.G.S. 159 G - 6 (b)

(8) Flat rates: Unit price remains the same regardless of usage within customer class.

(9) Fresh water: Water containing chloride concentrations equal to or less than 250 milligrams per liter.

(10) Gravel pack: Sand or gravel sized material inside the well bore and outside the well screen and casing.

(11) Ground water: Water in pore spaces or void spaces of subsurface sediments or consolidated rock.

(12) Hydrogeological framework: A three-dimensional representation of aquifers and confining units that is stored in Division data bases and may be adjusted by applicant supplied information. The hydrogeologic framework identified the locations, dimensions and characteristics of the Pee Dee, Black Creek, Upper Cape Fear and Lower Cape Fear Aquifers.

(13) Increasing block rates: Unit price increases with additional usage.

(14) Intermittent users: Persons who withdraw ground water less than 60 days per calendar year or who withdraw less than 15 million gallons of ground water in a calendar year.

(15) Efficiency of a pumping well: Potential Dewatering or apparent excessive water level declines may have been caused by gradual change in the efficiency of the well. The water level in the pumping well may be significantly lower than the water level outside the well casing in the pumped aquifer. Determination of excessive water level declines or potential Dewatering should determined after redevelopment to a measured well efficiency.

(16) Observation well: A non-pumping well screened in a particular aquifer where water levels can be measured and water samples can be obtained.

(17) Pumping water level: The depth to ground water in a pumping well as measured from a known land surface elevation. Measurements shall be made four hours after pumping begins. Measurements shall be within accuracy limits of plus or minus 0.10 feet.

(18) Quantity based surcharges: Surcharges billed with usage over a certain determined quantity.

(19) Salt water: Water containing chloride concentrations in excess of 250 milligrams per liter.

(20) Salt water encroachment: The lateral or vertical migration of salt water toward areas occupied by fresh water. This may occur in aquifers due to natural or man-made causes.

(21) Seasonal rates: Unit prices change according to the season.

(22) Static water level: The depth to ground water in a non-pumping well as measured from a known land surface elevation. Measurements shall be made after pumping has ceased for 12 hours. Measurements shall be within accuracy limits of plus or minus 0.10 feet.

(23) Unaccounted for water: The difference between the total water entering the system (produced and purchased) and the total metered or otherwise accounted for water usage.

(24) Water table: The water level in an unconfined aquifer.

(25) Surface Water Sources

(26) Pee Dee Aquifer... defined in Hydrogeologic Framework

(27) Black Creek Aquifer....defined in Hydrogeologic Framework

(28) Upper Cape Fear Aquifer...defined in Hydrogeologic Framework

(29) Observation well: A well constructed to the same aquifer as the adjacent pumping well to obtain an true static water level of the Cretaceous aquifer system. The purpose of the observation well is to eliminate error due to well hydraulics and efficiency.

History Note: *Authority G.S. 143-215.14;*
Eff. April 1, 2001.

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COMMISSION

September 15, 2000

RECEIVED
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DIVISION OF
WATER RESOURCES

Mr. John Morris, Director
Division of Water Resources
Department of Environment
and Natural Resources
1611 Mail Services Center
Raleigh, NC 27699-1611

RE: *Proposed Central Coastal Plain Capacity Use Area Rules (15A NCAC 2E .0500)*

Dear Mr. Morris:

I am writing on behalf of the North Carolina Global TransPark Development Commission (the "Commission") to comment on the proposed rules referenced above. The Commission is a public body which serves as the governing body of the Global TransPark Development Zone. The Zone consists of thirteen counties in eastern North Carolina, the majority of which are severely impacted by the proposed rules. The mission of the Commission is to assist the counties within the Zone in their economic development efforts within the region.

It is critically important to the Commission that adequate water supplies are available to support the counties' economic development efforts within the Zone. We share your agency's concern about the current rate of depletion of the region's groundwater resources. We therefore agree that a regulatory program of the sort proposed by the rules is needed to protect those resources and ensure that the region's long-term water needs are met.

I want to begin by commending the Division of Water Resources (DWR) for all of the effort that you have put into studying this important issue and developing this complex set of rules. We appreciate the commitment of DWR and other participants to seeking consensus on this difficult and controversial issue.

We also want to commend DWR and the EMC for responding to concerns of the Commission and others that the rules as originally drafted were not specific enough, particularly with respect to how permitting and water allocation would operate. The current draft rules provide more of the level of detail that we had hoped to see, and also include a number of specific features which we believe are very appropriate. These include:

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- the establishment of a presumptive base line year for water usage, coupled with the opportunity for individual users to establish alternatives baselines;

- the step-wise approach to reduction in water use over an extended period of time (16 years) which allows for the planning, financing, and construction of alternative water supplies;

- the delineation of different geographic zones subject to different regulatory requirements based on the severity of the threat to the resource in each zone;

- the use of temporary permits and alternative compliance schedules for parties who cannot comply with the rule despite their best efforts; and

- the authorization of the transfer or sale of water and water use rights.

However, notwithstanding our belief in the importance of this regulatory initiative and the substantial improvement that has been made in the draft rules, we have several concerns about the adoption of the rules in their current form. Perhaps our biggest concern is that, despite DWR's commendable efforts at outreach and consensus building, there remains considerable concern about, if not outright opposition to, the proposed rules among many stakeholders, elected officials and members of the general public in the Central Coastal Plain and with our region. In order for the proposed regulatory program to be successful, we believe that it must enjoy strong support from a broad range of affected parties and the general public. We would therefore urge you to delay adoption of the rules until you have had a full opportunity to hear and respond to these concerns. The Commission stands ready to assist you in educating the public within our region about the need for this type of regulatory program and in further refining the rules as may be necessary to achieve a broader support for their adoption.

Toward that end, we believe that it is important that the rules be carefully crafted, based on the best available science, to ensure that they impose no greater regulatory burden on eastern North Carolina than is absolutely necessary. We understand that you are already considering certain modifications to the proposed rules which would reduce the use-reduction obligations in certain parts of the proposed Capacity Use Area. We support this type of careful scrutiny and refinement of the rules.

We also want to reiterate comments that we and others made at the public hearing on these draft rules in August of this year. We believe it is critically important that, concurrent with the implementation of any regulatory program, DWR, other state agencies, and the General Assembly play a leadership role in the planning and development of alternative water supplies for our region and in assisting local governments in financing the development of such supplies.

While we know that DWR and the EMC are committed to doing their part in this regard, we would like to offer two specific suggestions in this area. First, we recommend that the rule be amended to require DWR to present to the EMC, within a prescribed period of time, a plan for achieving the water-use reduction goals established by the rule. Such a plan should be developed in consultation and cooperation with local governments and other stakeholders in the region. It should also specifically address the funding required and the financing mechanisms for implementing the plan. Second, we believe that, simultaneous with the adoption of any capacity use area rules, the EMC should adopt a resolution calling on the General Assembly to fund the planning effort described above, as well as public education programs, conservation measures, and the development of alternative water supplies.

Finally, we have some concern that the rule may favor existing users over new and expanding users. We see no reason that the rule should codify a "first in time, first in right" approach to water rights, which has never been the common law of this state. The effect of such an approach may impair some of the best opportunities for economic development in our region. Since we are not sure about the extent of this problem under the rules or the most appropriate way to address it, we would appreciate the opportunity to discuss this issue with you, your staff, and other stakeholders at your convenience.

On behalf of the Commission, I want to thank the EMC and DWR for your leadership in addressing this important issue and for the opportunity to provide these comments. We look forward to continuing to work with you.

Sincerely yours,

David B. Barker

General David B. Barker
Chairman,
Global TransPark Development Commission

DUPLIN COUNTY FARM BUREAU

TELEPHONES: 296-1498 – 289-3812
POST OFFICE BOX 749 – KENANSVILLE, NORTH CAROLINA 28349

August 8, 2000

Mr. Nat Wilson
Division of Water Resources, DENR
1611 Mail Service Center
Raleigh, NC 27699-1611

Re: Capacity Use Area

Dear Mr. Wilson:

As a Duplin County Farmer and the President of the Duplin County Farm Bureau, I am very concerned about the proposed Capacity Use Area rule to regulate water usage. Farmers must have affordable, convenient access to water. The proposed limits are set far too low for normal agricultural purposes considering the fact that one farmer who has a field of cucumbers to irrigate would use over 500,000 gallons of water per day.

The scope of the Capacity Use Area should be further refined to focus on wells with declining water levels. The rule should state that Ag users can provide water usage information based on personal information or USDA/CES/NRCS water estimates so that farmers won't have the cost of installing meters and flow devices.

Eastern North Carolina doesn't need rules that will impede the future growth of agriculture or expansion of existing operations.

Sincerely,

Keith B. Beavers

Keith Beavers, President
Duplin County Farm Bureau

KB/sk

cc: Dr. Robert E. Cook
6 Springmoore Drive
Raleigh, NC 27615

Craven County

1712

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406 Craven Street
New Bern, NC 28560
manager@cravencounty.com

Commissioners 252-636-6601
Manager 252-636-6600
Fax 252-637-0526
Finance 252-636-6603
Fax 252-636-6638
Personnel 252-636-6602
Fax 252-636-2728

September 15, 2000

Mr. Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, North Carolina 27699-1611

RE: Proposed Central Coastal Plain
Capacity Use Area Rules

Dear Mr. Wilson:

This letter is in opposition to the subject proposal and is being submitted, as directed, to you as the designated representative of the N.C. Department of Environment and Natural Resources acting on behalf of the Environmental Management Commission.

Craven County objects to the proposed Capacity Use Rules because they were developed by DENR staff in conjunction with a so-called "Stakeholders Group" that was suppose to represent those entities that have an interest in the Cretaceous aquifer. The members of the Stakeholders Group appear to have been selected to promote the philosophy of DENR rather than being true representatives of those entities whose interest is at stake and who will be adversely impacted.

Craven County objects to the proposed Capacity Use Rules because DENR has not clearly defined the problem nor has it developed a reasonable solution. The reliability of the data on which the state has developed the proposed rules is questionable. Generalizations about the condition of the Cretaceous aquifer rather than thorough and accurate scientific information have been used to force the adoption of regulations to meet DENR goals and timetables.

Craven County objects to the proposed Capacity Use Rules because the prescribed timetable for groud-water withdrawal reduction is not realistic and too severe. The condition of the Cretaceous aquifer as described by DENR did not occur overnight. It has taken many years for it to get to this point and it should not be expected to be completely corrected in six years, eleven years, or even sixteen years as proposed.

Craven County

Craven County objects to the proposed Capacity Use Rules because all entities are being treated the same irrespective of the amount of water used and their corresponding impact on the aquifer. Larger water users should be required to have greater reduction requirements. Withdrawal limitations should vary according to the extent of adverse impact in specific locations. Larger water users are also the entities who can better afford to make changes or seek alternative water sources.

Craven County objects to the proposed Capacity Use Rules because the Fiscal Note as prepared by DENR is totally unrealistic. There is no doubt the report drastically underestimates capital costs that entities will incur for transition to alternate water sources as required by the proposed rules.

Any new rules should fairly and accurately address the problem and offer solutions with the least cost to the users. The impact the proposed rules will have on the cities and counties in the affected area will be tremendous. Everyone wants to protect our environment and in this case the Cretaceous aquifer, but let us not forget the people in the process. The state should be more understanding of the true hardship this will place on most people in eastern North Carolina.

Sincerely,

Harold Blizzard
Craven County Manager

HB:dbj

xc: Senator Beverly Eaves Perdue
Senator R. L. Martin
Representative William Wainwright
Representative Scott Thomas
Representative William Owen, Jr.
Craven County Board of Commissioners
Richard Hicks

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DIVISION OF
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September 15, 2000

Mr. Nat Wilson
Division of Water Resources
1611 MSC
Raleigh, NC 27699 1611

Re: Central Coastal Plain Capacity Use Area Rule

Dear Mr. Wilson:

My May 9, 2000 letter to the Groundwater Committee made in behalf of the CEC/NC and PENC Environmental Committee supports the Central Coastal Plain Capacity Use Area Rule. Since the writing of that letter, I have been a part of numerous discussions regarding a need for the Rule and alternative provisions within the Rule. Although some rewording and clarifications are desirable, the reasons for, the concept and the structure of the Rule remain.

The Rule, as proposed, provides for flexibility of enforcement addressing the diversity of the water systems and withdrawals throughout the area; provides for protection of the Public by controlling otherwise for uncontrolled and unregulated withdrawals of groundwater; provides the time needed for the planning and implementation of alternative water supplies; provides for the collection of data to help in the understanding of the complexity of the groundwater system; and provides for adjustment to the Rules that may be necessary as our understanding of the groundwater system in eastern North Carolina improves. Most importantly, the Rule provides for affirmative action in a timely manner.

There has been several discussions regarding costs. While the cost of implementing the Rule may cause concern, the cost of not going forward with the Rule would be greater in the long run.

I continue to endorse going forward with the implementation of the Rule.

I appreciate this opportunity to communicate my position. Should you have any questions, please contact me.

Sincerely,

THE WOOTEN COMPANY

Dan K. Boone, P.E.

DKB/pw

To: Mr. Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, N. C. 27699-1611
Fax (919) 733-3555

From: Mrs.Helen Boyette,Secretary
Chinquapin Water Association
P. O. Box 10
Chinquapin, N. C. 28521

Re: The Public Hearing on the Proposed Central Coastal Plain Capacity Use Area on August 8,2000.

I appreciate very much having had the opportunity to express my personal concerns in regard to the proposed rules under Title 15A, and your patience to listen to the various comments brought before your committee. Several comments had already been expressed by others from Duplin County such as Woody Brinson indicating the necessity of the availability of water to attract industies, and Judy Brown who asked the question how can we provide water to customers receiving water on newly installed water lines which have been approved by the Federal Government, and how do we pay back this debt?

I further suggest that we use common sense in setting up all these rules. The Hurricane affected our area, and these people certainly do not need more rules to live by, they already have enough headaches just trying to build back their homes, their crops are flooded, most of their livestock is gone, their savings are gone, and now you wish to limit their supply of water and require permits and fines is they do not comply. Also the environmentalist have placed severe restraints and restriction on hog lagoons, and want them faced out. In my book we need state assistance to maintin reasonable water rates. Water should be equally shared among the people at a reasonable price without penalties. All individuals should adopt conservative measures for use of water, and each one of us should consider alternative water sources, such as converting sea water to drinking water, recyling water used in hog lagoons, industries and sewer plant. Possibly direct purchase of water from other sources, and drilling new wells.

Also after reading these regulations it is not what I read in these regulation, it is what I did not read. Especially all the power given to the Director who alone can choose whether or not withdrawal will cause adverse impact, who alone can choose to allow a need for the greater amount crataceous aquifer system wells providing the applicant can demostrate to his satisfaction that new wells are needed, who alone grants or denies permits, who alone assesses civil penalties, and who alone collects fees for registration of water withdrawals and transfers. I ask, "is this not too much power under one head"? Do we not call this Dictoral Power, we are in a democracy, and in my opinion a committee should be formed with the director as chairman. There is always the possibility of bias persuasion and conflict of interest. In regard to permits and penalties how is the money collected, and how will it be spent.

DUPLIN COUNTY
North Carolina Economic Development Commission

September 15, 2000

Mr. Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

RE: Proposed Central Coastal Plain Capacity Use Area

Dear Mr. Wilson:

Enclosed are some additional comments to enter into the record of the proposed Central Coastal Plain Capacity Use Area public hearing that was held on August 8, 2000. Thank you for the cooperation shown by Mr. John Morris and you to me and the other citizens of the area as we have discussed these proposed regulations.

Please enter these additional comments into the record. If you have any questions please contact me at 910-296-2180.

Sincerely,

Woody Brinson

Woody Brinson
Executive Director

Enclosure

PO Box 929 ▲ Kenansville, North Carolina 28349-0929 ▲ Location: 260 Airport Road
910-296-2180 ▲ 800-755-1755 ▲ FAX 910-296-2184 ▲ email: duplinedc@duplinet.com

COMMENTS CONCERNING PROPOSED
CENTRAL COASTAL PLAIN
CAPACITY USE AREA

BY

WOODY BRINSON
EXECUTIVE DIRECTOR
DUPLIN COUNTY
ECONOMIC DEVELOPMENT COMMISSION

SEPTEMBER 15, 2000

Please enter these comments into the record of the August 8, 2000 Public Hearing.

As stated on August 8, 2000 at the public hearing in Kinston, North Carolina, we, the Duplin County Economic Development Commission, believe that a voluntary effort between the Division of Water Resources, local governments, industries, and other users, and the General Assembly can, and will, achieve the same goals that are in the proposed CCPCUA regulations. We do not think the State of North Carolina should impose the regulations until further studies are done and funding for the alternative sources is identified and part of the funding made available by the State.

The fifteen-county area of the CCPCUA has already been impacted by many forces over the past several years – cuts of over 50 per cent in tobacco allotments, the loss of thousands of jobs in the textile and apparel industries, moratoriums on livestock production, and the floods of September, 1999 to name a few. We, the 15-county area, can not afford any more strikes against our ability to survive.

We recognize there is a problem with the Cretaceous aquifer system in certain areas. However we do not accept the findings of the DENR staff as to the magnitude of the problem throughout the entire 15-county area. Through cooperation the problems that exist can, and would, be solved. Lenoir County and the City of Kinston are one of the major problem areas and they are already working on solving their problem at an estimated cost of $60 million. Onslow County has recognized that they have a saltwater encroachment problem and are looking into solutions for their problem. Other areas of the 15-county area are also working on alternative problems. Through cooperation and monitoring of the issues by the State and the local users, the solutions to the problems can be obtained, and probably obtained in a more expedient timeframe than is outlined in the proposed regulations. A voluntary attitude can achieve more positive results than a regulatory attitude. By working together we can achieve a lot more than will ever be achieved by regulations being imposed.

The proposed regulations are sending a negative message to potential investors that are looking at the 15-county area. Site selection consultants have been led to believe that this area is "the" area of the State where growth is restricted because of water problems. We all know that there are problems in other parts of our State – Greensboro, Kannapolis, Cary, Raleigh, areas of western North Carolina to just name a few. The Division of Water Resources staff has admitted the fact that other areas of the

State have major water problems. The question that needs to be answered is "Why are regulations only being proposed for a 15-county area?" The State has a responsibility to address these water usage problems on a statewide basis. If regulations are going to be imposed, then why should not regulations be adopted that apply to all 100 counties.

We would like to make the following recommendations:

1. Delay the adoption of all CCPCUA regulations for two (2) years and work together to address the problems through voluntary means. At the end of the two-year period, look at what efforts have been made and then address the issue of whether any regulations, and what type, are needed. The State staff has stated that the problem has been looked at for about 20 years; if this be the case then why is it so imperative that regulations be adopted now if voluntary cooperation and monitoring will obtain the same results.
2. Remove the western area of the proposed area that is outside of the salt water encroachment, dewatering, or declining water level zones from the proposed regulations and require only monitoring.
3. Address the overall economic impact on the area and how these proposed regulations will effect industrial recruitment and expansion within the area.
4. Do a better fiscal evaluation of the total cost of the proposed alternative sources as proposed by the regulations. The fiscal analysis of the State staff states that the costs of alternative solution is about $78 million; Lenoir County's engineers state their cost alone will be $60 million. Various engineers anticipate that the total cost will be in excess of $400 million for the 15-county area.
5. Adjust any regulations so as to not impact the operation, potential growth, and financial stability of our existing industries. Industrial usage should be addressed on a production unit based rate rather than a total volume base rate as is in the proposed regulations. If our existing industries are to remain competitive then they will take the initiative to develop a cost-effective alternative to any problems that exist. The State should work with them to develop these cost-effective conservation alternatives through voluntary methods rather than through regulatory methods.

Give Eastern North Carolina a level playing field for its citizens. We already have too many strikes against us. In addition to the items mentioned in my second paragraph of these comments, we also have a higher level of poverty; a higher percentage of adults without a high school diploma; a higher percentage of high school dropouts; one of the highest percentages of disadvantaged children; an unemployment rate that is well above the State average; and many other problems.

A willingness to work with the staff of the Division of Water Resources to solve the problems of the Cretaceous aquifer has been shown by the formation of the Central Coastal Plain Capacity Use Area Association. The Association has already obtained nearly $100,000 through membership fees and grants to help fund a study on alternative uses and anticipates receiving more thousands of more funds for these studies.

We, and many others of the area, are committed to solving the problem and ask the State to work with us in a VOLUNTARY fashion rather than a REGULATORY fashion. By working together, by communicating, and doing more scientific studies; we can all be proud of what will be accomplished.

Thank you for allowing me to present these additional comments.

Rosebud Ranch

Rose Burlingham, Proprietor

P. O. Box 212
Falkland, NC 27827

August 31, 2000

Mr. Nat Wilson
Division of Water Resources, DENR
1611 Mail Service Center
Raleigh, NC 27699-1611

Dear Mr. Wilson:
As a rancher and concerned citizen living in the proposed Capacity Use Area, I am concern about the proposed rules for Water Use Registration and Allocation. Farmers are dependant on our natural resources, and want to protect water supplies *and* their rights for now and in the future. Since farmers *must* have affordable, convenient access to water, it is natural that we have concerns about regulations proposing to regulate and restrict water usage in the Black Creek and Upper Cape Fear aquifers.

The Capacity Use Area proposed is in the central Coastal Plains, where surface water is abundant year-round. I support recent revisions in the proposed rule that exempt ground water users. It is the aquifer levels that are of concern- after last year's flooding, it is glaringly obvious that water near and on the surface is in abundance. Since ground water levels are not in any shortage of supply, I urge the DWR to exempt surface/ground water throughout the rules- do not require permitting, reporting or restriction of surface water use. I also support exempting intermittent users from the reduction mandates.

I am extremely concerned about the rule's proposal to force reductions by as much as 75% over a 15 year period. The rule must not impede on future growth of agriculture and aquaculture in eastern North Carolina. The regulations *must* allow for expansion of existing operations and flexibility in water use from year to year. Farmers do not have the option of "trading" reduction credits or bringing in water from other aquifers. If farmers must use less than or equal to this year's water use amount for the next 15 years, how will agriculture be able to survive during the dry years ahead? The State has said that agriculture is not "the problem" causing aquifer levels to drop. Allow farmers more flexibility.

The rate at which water levels are changing in the proposed Capacity Use Area is highly variable. Some locations have "serious" problems, while other areas have normal or increasing aquifer levels. Thus, the scope of the CUA should be further refined to focus on affected wells with declining levels, rather than requiring so many operations to make costly changes and water use reductions.

Comments: Water Use Registration/Allocation- Page 2

It is also essential that the applications be simple and the permitting process be prompt. Section .0502 (b) (3) suggests it may take months for the Director to issue or deny a permit. Farming is highly weather-dependant and operates on a tight time-frame. Expedient permitting for access to water is a *must*.

In addition, farmers would like the rule to clearly state that agricultural operations may provide water use data based on personal information or USDA/CES/NRCS water use figures, rather than having to purchase, install and monitor meters and flow devices.

This should be a learning experience for other areas of the state. If aquifer depletion can be a problem in eastern N.C., where water appears so plentiful, then water shortages can occur anywhere. Other regions of the state should consider encouraging voluntary efforts now, so they never let the water sources become so low as to need regulation. I caution that DENR/DWR should not rush to implement water use regulations state-wide unless the rules and methods proposed are proven to work effectively and voluntary efforts are insufficient.

Thank you for considering my concerns. I hope that you will value my comments and the concerns of others, and come up with a solution that is fair, efficient, more flexible and less expensive for the hard-working farmers who put food on your table and money in our economy.

Sincerely,

Rose Burlingham

Rose Burlingham

State of North Carolina
Global TransPark Authority

September 15, 2000

Mr. John Morris, Director
Division of Water Resources
Department of Environment
and Natural Resources
1611 Mail Services Center
Raleigh, NC 27699-1611

RE: *Proposed Central Coastal Plain Capacity Use Area Rules (15A NCAC 2E .0500)*

Dear Mr. Morris:

I am writing on behalf of the North Carolina Global TransPark Authority (GTPA) to comment on the above-referenced proposed rules. The GTPA is an agency of the State of North Carolina and is responsible for planning, building, and operating the North Carolina Global TransPark – a complex of transportation, industrial and commercial facilities under development in Lenoir County.

It is critically important to the GTPA that adequate water supplies are available to support the development of the Global TransPark and robust economic growth in North Carolina's Central Coastal Plain. We share your agency's concern about the current rate of depletion of the region's groundwater resources. We therefore agree that a regulatory program is needed to protect those resources and ensure that the region's long-term water needs are met, and we further believe that the State must play an active role in the development of alternative water sources to help meet the region's long-term water needs.

I want to begin by commending the Division of Water Resources (DWR) for all of the effort that you have put into studying this important issue and developing the draft rules. The GTPA was represented on the stakeholders' group that helped develop the draft and appreciates both the opportunity to participate and the commitment of DWR and other participants to seeking consensus on this difficult and controversial issue.

We also want to commend DWR and the EMC for responding to concerns of the GTPA and other commenters that the rules as originally drafted were not specific enough, particularly with respect to how permitting and water allocation would operate. The current draft rules not only provide the level of detail that we had hoped to see, but also include a number of specific features that we believe are very appropriate. These include:

2780 Jetport Road, Suite A, Kinston, North Carolina 28504, Phone (252) 522-4020, Fax (252) 522-5778
Website: www.ncgtp.com

- the establishment of a presumptive base line year for water usage, coupled with the opportunity for individual users to establish alternatives baselines;
- the step-wise approach to reduction in water use over an extended period of time that allows for the planning, financing, and construction of alternative water supplies;
- the delineation of different geographic zones subject to different regulatory requirements based on the apparent severity of the threat to the resource in each zone;
- the use of temporary permits and alternative compliance schedules for parties who cannot comply with the rule despite their best efforts; and
- the authorization of the transfer or sale of water and water use rights.

However, notwithstanding our belief in the importance of this regulatory initiative and the substantial improvement that has been made in the draft rules, we have several concerns about the adoption of the rules in their current form. Perhaps our biggest concern is that, despite DWR's commendable efforts at outreach and consensus building, there remains considerable concern about, if not outright opposition to, the proposed rules among many stakeholders, elected officials and members of the general public in the Central Coastal Plain. In order for the proposed regulatory program to be successful, we believe that it must enjoy strong support from a broad range of affected parties and the general public. We would therefore urge you to delay adoption of the rules until you have had a full opportunity to hear and respond to these concerns. The GTPA stands ready to assist you in your efforts to provide information to the public regarding the status of ground water supplies and in further refining the rules as may be necessary to achieve a broader support for their adoption.

Toward that end, we believe that it is important that the rules be carefully crafted, based on the best available science, to ensure that they impose no greater regulatory burden on Eastern North Carolina than is absolutely necessary. We understand that you are already considering certain modifications to the proposed rules that would reduce the use-reduction obligations in certain parts of the proposed Capacity Use Area. We support this type of careful scrutiny and refinement of the rules.

We also want to reiterate comments that we and others made at the public hearing on these draft rules in August of this year. As any regulations are implemented, we believe it is critically important for the State to play a leadership role in the planning and development of alternative water supplies for our region and in assisting local governments in financing the development of such supplies.

While we know that DWR and the EMC are committed to doing their part in this regard, we would like to offer two specific suggestions in this area. First, we recommend that the rule be amended to require DWR to present to the EMC, within a prescribed period of time, a plan for achieving the water-use reduction goals established by the rule. Such a plan should be developed in consultation and cooperation with local governments and other stakeholders in the region. It

should accommodate anticipated growth in both population and economic development and also should specifically address the funding required and the financing mechanisms for implementing the plan. Second, we believe that, simultaneous with the adoption of any capacity use area rules, the EMC should adopt a resolution supporting the General Assembly's funding of the planning effort described above, as well as public education programs, conservation measures, and the development of alternative water supplies.

Finally, we have some concern that the rule may favor existing users over new and expanding users. We see no reason that the rule should codify a "first in time, first in right" approach to water rights, which has never been the common law of this state. The effect of such an approach may impair some of the best opportunities for economic development in our region. Since we cannot be certain about the nature, extent and disposition of this particular matter under the rules or the most appropriate way to address it, we would appreciate the opportunity to discuss this issue with you, your staff, and other stakeholders at your convenience.

On behalf of the GTPA, I again want to thank the EMC and DWR for your leadership in addressing this important issue and for the opportunity to provide these comments. We look forward to continuing to work with you to build a broad and viable consensus.

Sincerely yours,

Paul E Busick

Paul E. Busick
President and Executive Director

cc: Global TransPark Development Commission
Global TransPark Foundation, Inc.

Cut

RECEIVED
MAY 12 2000
DIVISION OF
WATER RESOURCES

CEC/NC ◆ PENC
Environmental Committee

May 9, 2000

Dr. Dave Moreau, Chairman
Groundwater Committee
Environmental Management Commission
DPT UNC-CH, CB 3140
Chapel Hill, NC 27599

Re: Central Coastal Plain Capacity Use Area Rule

Dear Dr. Moreau:

The purpose of this letter is to voice the support of the PENC/CEC Environmental Committee for the efforts made by the Division of Water Resources to protect the groundwater resources in eastern North Carolina.

The PENC/CEC Environmental Committee is made up of members of the Professional Engineers of North Carolina and Consulting Engineers Council engaged in the practice of environmental engineering and science. Our members have assisted a large majority of the public water systems and many industrial water systems with the planning, design, and operation of their systems. In this regard, we are uniquely aware of the groundwater level declines and the impact of this on the water users. We firmly believe that continued, unregulated use of the water from the cretaceous aquifer system in the Central Coastal Plain would result in irreparable damage to this resource. Proper management of the resources, therefore, is essential for the continued viability of the region.

For this purpose, we endorse the proposed Central Coastal Plain Capacity Use Rule.

We appreciate this opportunity to communicate our position to the Environmental Management Commission. Should you have any questions, please contact us.

Sincerely,

Dan K. Boone /@

Dan K. Boone, P.E.
The Wooten Company

John Eick /@

John Eick, P.E.
W. K. Dickson & Co., Inc.

DKB/pt

WAYNE WATER DISTRICTS
P.O. Box 1583
Goldsboro, N.C. 27533
(919) 731-2310

September 15, 2000

John Morris, Director
Division of Water Resources
NC Department of Environment
and Natural Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

SUBJECT: Comments on Proposed
Central Coastal Plain Capacity Use Area
Regulations

Dear Mr. Morris:

Wayne Water Districts has collected ground water monitoring data along the eastern side of Wayne County north of the Neuse River in the Black Creek Aquifer. The monitoring data indicates relatively high pressures (to include artesian overflows) with an obvious gradient approaching the Neuse River.

The data is not indicative of regional water declines in the Black Creek Aquifer in Wayne County. The data is indicative that the Black Creek Aquifer in Wayne County could be further developed as a significant water source for Wayne County.

Shallow aquifers elsewhere within the proposed Capacity Use Area may demonstrate similar characteristics. It is imperative the proposed Capacity Use Regulations allow the maximum use of ground water resources within the Capacity Use Area. In this connection, the Division of Water Resources is strongly urged to incorporate the following paragraph under Section .0503:

(h) Withdrawals from sources within the Cretaceous aquifer system, such as unconfined or partially confined aquifers, which are demonstrated by scientific evidence not to cause adverse impacts as provided in .0502 (c) (1) shall be allowed in addition to the approved base rate and shall not be subject to the phase reduction requirements.

The above paragraph is included in the modifications recommended by the Central Coastal Plain Capacity Use Area Association. I believe this paragraph to be extremely important since it provides science with an opportunity under the rule.

Wayne Water Districts represents five Sanitary Districts within Wayne County. All five are members of the Central Coastal Plain Capacity Use Area Association. All changes proposed by the Association are believed important and appropriate and are fully supported by Wayne Water Districts. Paragraph .0503 (h) is specifically mentioned due to its importance to Wayne County. Please do not mistake our support for Paragraph .0503 (h) as a lack of support for the other changes proposed by the Association.

If you have any questions, please do not hesitate to call me.

Sincerely,

WAYNE WATER DISTRICTS

Eddie Coltrain

Eddie Coltrain
District Manager

Town of Wallace

P.O. Box 849 • 316 East Murray Street • Wallace, NC 28466 • Phone (910) 285-4136 • Fax (910) 285-5135

Town Manager
KEN CORNATZER

Tax Collector
TUMIRA MIDDLETON

Town Attorney
RICHARD L. BURROWS

Mayor
CHARLES C. FARRIOR, JR.

Councilmen:
DAVID E. JORDAN, Mayor Pro-Tem
WILLIAM JEFFERY CARTER
DAVID WARREN HEPLER
GRAHAM KILPATRICK
KEVIN M. WILSON

September 8, 2000

Mr. Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Dear Mr. Wilson,

I am writing to state the Town of Wallaces' comments concerning the proposed Central Coastal Plain Capacity Use Area Rules. The Town of Wallace is a member of the Central Coastal Plain Capacity Use Area Association and we strongly support their recommended changes to the rules(see enclosed). The Town strongly believes that the aquifers in the western part of Duplin County, including Wallace, are not endangered and that growth in withdrawls from this area should be allowed. If I can be of any assistance in regards to this matter please do not hesitate to call upon me.

Sincerely,

Ken Cornatzer
Town Manager

Changes to the
Proposed Central Coastal Plain Capacity Use Area Rules
NC Division of Water Resources
August 29, 2000

1. Insert a new provision in Rule .0503: The reductions specified in Rule .0503 of this Section do not apply to wells exclusively screened or open to the Peedee aquifer.
2. Amend definition .0507(5) *Cretaceous aquifer system*. This definition will now specifically exclude Bedrock aquifer wells or wells in the shallower (younger) aquifers. The following language would be added: "...is defined in the hydrogeological framework and includes the Peedee, Black Creek, Upper Cape Fear and Lower Cape Fear aquifers."
3. Delete portions of .0503 that describe requirements of stable water use in the western area of the Cretaceous Zone through the three reduction phases. Permitted use may grow, but the declining water level zone boundary may be changed in the future if the effect of increased use is a larger impact area. Delete portions: .0503(6)(a)(iv), .0503(6)(b)(iv), .0503(6)(c)(iv).
4. Change application submittal deadline in .0502(b)(1) from 60 days to 180 days.

Collins & Aikman

Collins & Aikman Products Co.
Automotive Fabrics Division
264 Alternate
P.O. Box 208
Farmville, NC 27828
(252) 753-7400

September 15, 2000

DENR – Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Attn: Mr. Nat Wilson

Subject: Comments on Proposed Revisions to Capacity Use Rules

Dear Mr. Wilson

Collins & Aikman would like to make the following comments regarding the proposed Capacity Use Rules. Collins & Aikman supports the need to control water withdrawals in the Central Coastal Plain and prevent further deterioration of the groundwater supply. However, as a commercial user relying on a public water supply system, we are concerned of the timeframe mandated by the proposed rules and the lack of specification in the requirements associated with commercial users.

Rule .0502(d)(5)(B) requires users of water for commercial purposes to develop and implement a water conservation plan including (i) an audit of water use by type of activity and (ii) an implementation schedule for feasible measures identified for conservation and reuse. No specifics are given for timeframes or what constitutes a "feasible" measure. We request that the same consideration identified is .0502(p) and (q) for other applicants and industrial permit holders be taken into account when judging commercial users. In particular, these considerations include economic hardship, requirements of other laws, or other reasons beyond the control of the user. In addition, many industrial establishments have already investigated and implemented water reduction measures that should be considered before requiring additional "feasible" measures.

If you have any questions or require additional information, please feel free to contact me at (252) 753-7495 or Patrick McCabe of our Corporate Engineering staff at (704) 548-2021.

Thank you in advance for consideration of these comments.

Regards,
Collins & Aikman Automotive Fabrics

Chester Ellis
Environmental Manager

CC: Ms. Edith Warren – NC House
Ms. Marian McLawhorn – NC House

James A. Graham
Commissioner

North Carolina
Department of Agriculture
Aquaculture and Natural Resources

Thomas W. Ellis, III
Director

May 9, 2000

To: Mr. John Morris
Mr. Arthur Mouberry

From: Tom Ellis

Subject: Proposed Rules, Central Coastal Plain Capacity Use Area

Recently I had the opportunity to review the recommended rules for the Central Coastal Plain Capacity Use Area as proposed by the Stakeholders Group. Please accept the following comments on that draft and the proposal to adopt these rules as Temporary Rules.

The concept of a stakeholders process to bring a variety of interests together is an excellent first step in developing rules which are applicable and acceptable to the affected parties. This draft should be widely circulated for additional comment prior to going to the Environmental Management Commission. The reason for this step is two-fold. First, additional thoughts by larger numbers of reviewers, on the rules can only provide a more accurate understanding of the issues and the impact of the rules. Secondly with the current processes of the APA, it takes approximately 18 months to make corrections to rules. This demands that all care be taken to insure accuracy and adequacy before adoption.

The proposal for the Central Coastal Plain Capacity Use Area appears to be on a fast track for adoption of temporary rules. Groundwater quantity issues rarely are the result of individual actions, which surprise resource managers. It is evident from the data provided by your staff to the stakeholders that the decline in water levels has been recorded over many years. This data shows declines in areas around the growing municipal areas associated with increases in population and industry (continuous large withdrawals). It is not unreasonable to develop a monitoring and reporting system to determine management options, based on groundwater use. Correction of groundwater

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quantity issues also does not happen quickly. The use of the Temporary Rule is appropriate to address issues where the normal process will delay protection of the resource to the point of endangering it. There has been no evidence shown which indicated a critical and uncorrectable impact on the groundwater resources of this area if the normal time period and process of review is taken.

I have reviewed and discussed the Minority Report representing aquaculture interests in these rules (copy enclosed). Our Department agrees with the Minority Report and asks that you make the appropriate changes to reflect their concerns. We also request that you take the proposed rules out for extensive informal review prior to carrying them to the Environmental Management Commission. We feel that the impacts on existing agriculture operations could be considerable as well as limiting further development in the region. Therefore it would be appropriate for staff to develop and present an evaluation of the economic impacts of these rules, to all sectors of the economy, presented before adoption.

Thank you, for your consideration of this matter.

Central Coastal Plains Capacity Use Water – Proposed Rules
Minority Report – The Aquaculture Community

Fish must live and grow in water, there is no exception. This elemental concept is at the base of the concern that aquaculturalists have for these rules. Since water is so vital to what we as fish farmers do, we are obviously very concerned about declining water levels and vitally interested in being good stewards of the resource. To eventually lose the quality and quantity of groundwater that we currently enjoy will destroy our industry. We do not disagree with the data presented suggesting impending problems with the underground aquifers and are not contesting the need to manage our groundwater resources, but we have grave concerns regarding the methods employed in the Proposed Rules. Considering the time required for adoption or amendment of rules, we should not place requirements on the books until we are sure that the rules are appropriate. Doing otherwise will subject our citizens to compliance with inappropriate rules and would be wasteful of time to take forward corrections. The current process appears to be rushing forward without seeking the review necessary to insure appropriateness and minimize the burden placed upon individuals as well as companies and municipalities.

The data provided by the Division of Water Resources staff, clearly show that the groundwater levels are declining in the region being evaluated. The declines are specifically occurring at the locations of large continuous water users in the rapidly urbanizing portions of this area. Eastern North Carolina has historically struggled behind the rest of the state economically, and every effort should be made to avoid placing needless restrictions on commerce in the region. Therefore, the rule-making process should take the time to carefully study all factors in this water equation, then carefully craft rules that focus on large continuous users who are responsible for the water level declines, and avoid onerous rules that would needlessly restrict those not responsible. In our opinion, the Proposed Rules are a hastily-arrived-at set of blanket restrictions that will result in numerous unintended consequences. In the case of aquaculture, the additional cost in time and money and possible restrictions in current use, could severely cripple a small, growing portion of agriculture in Eastern North Carolina. Aquaculture is an environmentally clean production system, which provides diversification to the local farming community. Aquaculture provides an alternative to other animal agriculture opportunities for family farmers.

Catfish and Hybrid Striped Bass are grown in shallow earthen ponds, usually from four to ten acres each. These are filled from deep wells initially, and then for the most part only require water seasonally to replace evaporation. Most farms are small, about 30 water acres each, providing supplemental income for rural families. There are currently 37 catfish farmers representing about 1400 acres and 23 Hybrid Bass farmers with about 400 acres. The world market for aquaculture products is growing. This type of farming represents an opportunity for small Eastern North Carolina farmers to earn a living in an environmentally sound, aesthetically pleasing use of their farms. Our concern is that the proposed rules would sharply curtail the growth and thereby the viability of our entire industry.

The following specific points contained in the Current Proposed Rules are a grave concern to us:

- Reduction targets are to be adjusted in response to water level stabilization (.0503 (g)). Our question is, stabilization of water levels where? The data clearly depict the areas of water level decline are centered on large municipal users. State monitoring wells do not

point to aquaculture as a source of water level declines. The largest fish farm in the state with 270 water acres is located about 6 ½ miles from a USGS well. Water level monitoring began at this site back in 1984. The farm began operating in 1986. No decline is noted in the aquifer according to this monitoring well. Why should aquaculture be saddled with reduction targets determined by what happens in large, rapidly growing metropolitan areas?

- Aquaculture is about as efficient with water use as technology currently allows. Pumping costs are a major expense, which provides a large incentive to maximize water use efficiency.
- Aquaculturists, as other farmers, do not price their own product and therefore are unable to pass along costs to end users. The costs associated with complying with the Proposed Rules must therefore be borne by the small farmers themselves (whom the data show are not overtaxing the aquifers), as opposed to municipalities who can spread their costs around to thousands of end users. Most of the aquaculture operations are operated by the owner with the possible assistance of a laborer. Compliance with reporting with the associated record keeping is going to be a problem for the individual farmer who must make the management decisions on the farm, provide the labor and record any required information.
- Costs potentially incurred to users include the following:
  1) Cost of modifying current wells to facilitate measuring water levels, per .0502 (g)(2)
  2) Purchase of water meters and cost of plumbing them in existing water lines. .0502 (g)(1)
  3) Installation of monitoring wells. .0502 (i)
  4) Considerable time to carry out the ***daily*** monitoring and reporting which will necessitate that already busy growers either hire an outside firm or cause them to neglect important production practices. This type of paperwork can be overwhelming to farmers. .0502 (g)(1)
  5) Expensive engineering consultants would be required to help determine screen depths, size and capacity of pumps, Latitude and Longitude locations, depth to top of gravel packs, developing water conservation plans, etc. .0502 (d)(1&2), .0502 (d)(5)(B)

- There are no acceptable alternate water sources. Our industry has received a clear message from the FDA to move away from surface water due to pollutants entering the food chain. We already prefer to use the aquifers that are less suitable for drinking water, where they are available, because we ***need*** the calcium and chloride.
- *Most* of our growers would be not be covered by the mandatory reduction requirements (.0503 (b)), since they are categorized as intermittent users as defined in .0507 (13). There is an inequity in this, however. Some growers construct conservative wells and must pump for more days to withdraw the same amount of water that a larger pump and well can withdraw in a fewer number of days. This causes the farmer with the smaller pump/well system to fail the intermittent user definition and thus be subject to further requirements. This could have been avoided by instead digging a very large well, and withdrawing the same amount of water. Specific incidences can be cited upon request. Therefore, if a farmer is forced to withdraw extra water during an unusually dry season, they are no longer an intermittent user and withdrawal reductions go into effect, according to current reading of the rule.

- Many farmers begin with very small acreage and small water supplies with plans to grow. The proposed rule is a roadblock for these farmers' growth plans, both in terms of adding new wells and in trying to stay within the definition of an intermittent user.
- The public comment process will likely result in problems for new growers, from neighbors who don't understand the nature of our business. .0502 (e)

The Division of Water Resources has tried to reassure our industry that we will not be saddled with the same requirements as municipalities and industry, which withdraw large amounts of water on a continuous basis. We don't doubt their intentions, but are concerned with the ambiguity of this promise. Looking down the corridors of time, we are concerned with how future interpretation of these rules will affect our children under different administrations.

The problems associated with the described draw-down of the aquifer did not happen overnight--these draw-downs have occurred and have been monitored for years. We therefore do not understand why there is a sudden rush to make rules on this issue. We would like to suggest that there be more time provided to insure that rules are prudently adopted to address the problem without unnecessarily burdening Eastern North Carolina's economy. Now that the stake holders have prepared an initial plan, it is time to have this reviewed by the cities, industries, farms and citizens of the area before taking anything forward for adoption. An economic evaluation of the impact of these rules should accompany the proposals for public comment.

In closing, we do know from the information provided by your staff that the source of the problem of lowered groundwater levels stems from the areas with large continuous water users near population centers. We believe that the rules should focus on those users. An exemption should be granted for aquaculture because the permitting, construction, and reporting requirements would needlessly restrict an industry that does not represent a draw-down on the aquifers. The Proposed Rules would effectively halt the expansion and growth of aquaculture, a positive new farming alternative for Eastern North Carolina family farmers.

James A. Graham
Commissioner

North Carolina
Department of Agriculture
Aquaculture and Natural Resources

Thomas W. Ellis, III
Director

September 12, 2000

To: John Morris, Director
Division of Water Resources
DENR

From: Tom Ellis

Subject: Comments and Suggestions related to aquaculture and the Central Coastal Plain Capacity Use Area designation and regulation

I want to thank you for the openness and professionalism with which you have allowed the aquaculture community to explain the water needs of our form of farming. We learned a lot from your description of the rules and how the ground water resource must be properly utilized.

Aquaculture is a water user in the proposed area, but not a significant water consumer as described by daily or even annual withdrawals of groundwater. Enclosed are materials provided by Dr. Harry Daniels of NC State University, stationed at the Tidewater Research Station in Plymouth. This material describes the small amount of water that is required to be pumped, in order to maintain levels in aquaculture operations.

Through our discussions it became apparent that aquaculture utilizing the cretaceous aquifer would fit well in the concept of intermittent use. We have attempted to develop wording, which would acknowledge the actual utilization of water by aquaculture operations.

Below are two options for your consideration. These recognize the need for small amounts of water for short periods during the year and also acknowledge the need on a 5 to 10 year basis to drain, maintain and refill the ponds. We have no preference for one over the other. The location of this

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recognition in the rule itself is simply a matter of wordsmithing and we would leave the selection of options to your experience.

Aquaculture operations licensed under the authority of GS106-761 and which withdraw ground water 60 days or less per calendar year, not withstanding the need for initial filling and the refilling of ponds on a minimum of a 5-year cycle, shall be considered an intermittent use.

.0507 (13) Intermittent users: Persons who withdraw ground water in amounts greater than 100,000 gallons per day less than 60 days per calendar year; or who withdraw less than 15 million gallons of ground water in a calendar year; or aquaculture operations licensed under the authority of GS106-761 involved in initial filling or refilling of ponds no more frequently than every 5 years.

Thank you, again for the opportunity to explain the need for and utilization of water by aquaculture in the proposed Capacity Use Area.

cc. Commissioner Graham
Deputy Commissioner Denny
Mr. Mark Loomis
Mr. Mitch Peele
Mr. George Sullivan, President NC Aquaculture Association
Dr. Ron Hodson, UNC SEA GRANT Program, NCSU
Dr. Harry Daniels, Cooperative Extension, NCSU
Mr. Greg Barnes, NC Farm Bureau
Mr. Jim Cummings, NCDA&CS

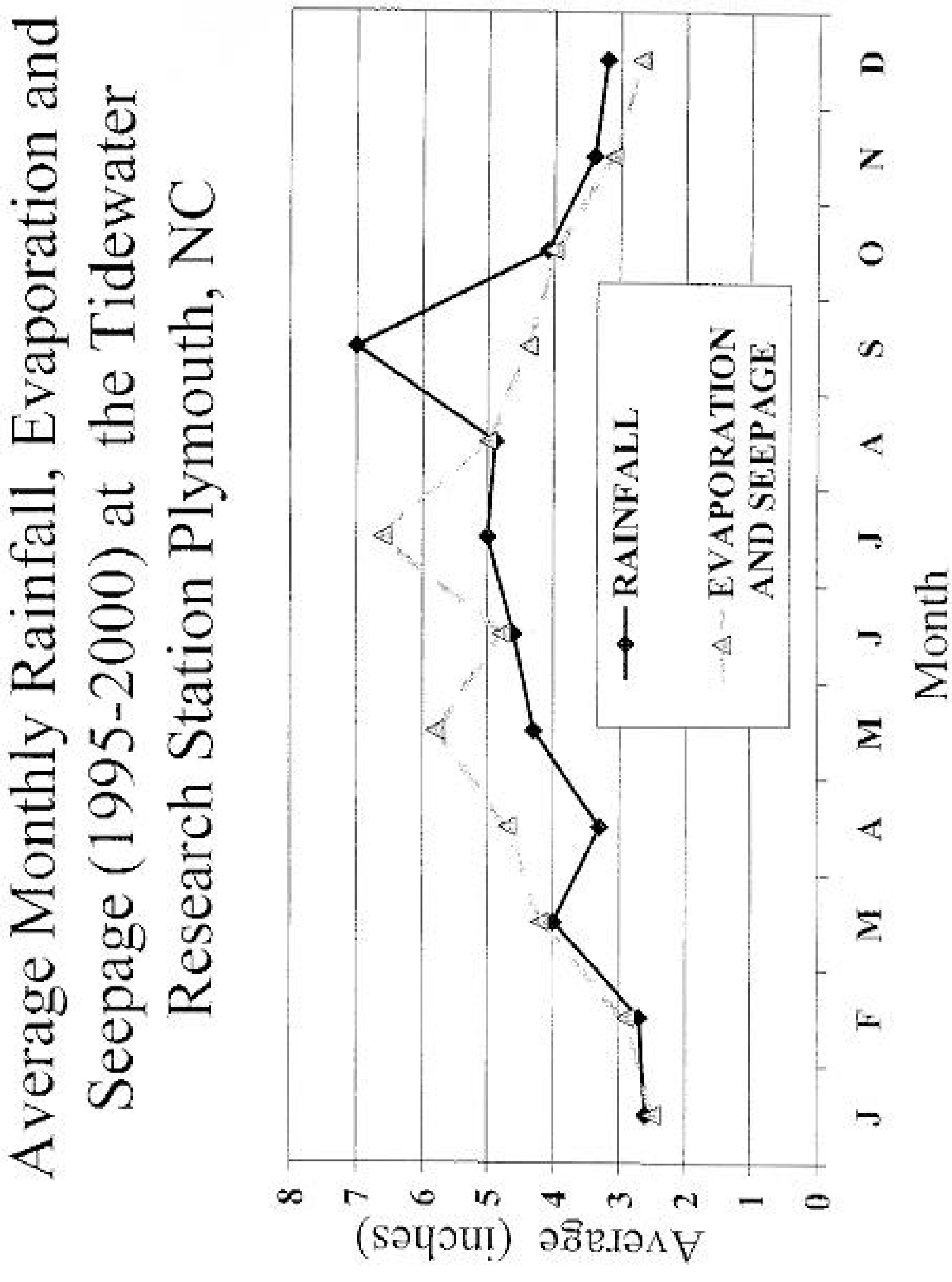
Water use in channel catfish ponds

Characterized by:

Infrequent draining and filling.
Typically 5-10+ years between pond drainings.
Ponds are drained to perform maintenance on dikes, pond bottoms and drainage structures.

Passive water control.
Water levels usually maintained 3-6 inches below the top of the drainpipe to capture rainwater.
Groundwater is added to replace losses due to evaporation and seepage.

Pond Characteristics.
Average depth is about 5 ft.
Therefore, every surface acre requires 1.6 MG of water to fill.


Average Monthly Rainfall, Evaporation and Seepage (1995-2000) at the Tidewater Research Station Plymouth, NC
Average (inches)
0
1
2
3
4
5
6
7
8
J F M A M J J A S O N D
Month
RAINFALL
EVAPORATION AND SEEPAGE

Water inputs and losses for fish ponds in Eastern North Carolina
(5-year average for 1995-2000)

Month	Precipitation (in)	Evaporation (in)	Pond Evap. (est.)	Seepage (in)	Difference P-(E+S)
Jan	2.6	2.4	1.9	0.6	0.1
Feb	2.7	2.8	2.3	0.6	-0.2
Mar	4.0	4.5	3.6	0.6	-0.2
Apr	3.3	5.1	4.1	0.6	-1.4
May	4.3	6.5	5.3	0.6	-1.6
June	4.6	5.2	4.2	0.6	-0.2
July	5.0	7.4	6.0	0.6	-1.6
Aug	4.9	5.4	4.4	0.6	-0.1
Sept	7.0	4.7	3.8	0.6	2.6
Oct	4.1	4.2	3.4	0.6	0.1
Nov	3.4	3.1	2.5	0.6	0.3
Dec	3.2	2.6	2.1	0.6	0.5
Total	49.1	53.9	43.7	7.2	-1.8

City of Kinston

Public Utilities

North Carolina
28502

September 15, 2000

Mr. Nat Wilson
Hydrogeologist
North Carolina Groundwater Section
Raleigh, N.C. 27603

Ref: Proposed Capacity Use Rules - Comments

Dear Mr. Wilson:

Please find listed below our public comments on the proposed Capacity Use Rules:

1) I am representing the Neuse Regional Water & Sewer Authority which consist of:

A) Town of LaGrange
B) Town of Pink Hill
C) City of Kinston
D) Deep Run Water Corporation
E) North Lenoir Water Corporation
F) Lenoir County
G) Global Transpark

2) We realize there is a problem with our aquifer declining and the days of cheap water is coming to an end.

3) Not against the rules, but we feel that they need to be further defined and studied for their economic impact as well as scientific data.

4) We have been severely impacted by Hurricane Bertha, Fran, Dennis and Floyd and feel there are more to come.

5) We are already economically stressed by these storms as well as the reduction in farming operations in Lenoir County and the loss of our biggest industry - Bassett Walker.

6) We are all severely impacted by our aged wastewater collection system and their needed improvements.

7) We will be impacted even more by the new collection system rules, new storm water rules, nitrogen reduction rules and who knows what others are to come.

Post Office Box 339 Kinston, North Carolina 28502-0339 Phone (252) 939-3282 Fax (252) 939-3128

8) We feel that if a rule is imposed, that the State should provide assistance for funding by Grants in order to help us maintain reasonable water rates.

9) Over the past (18) months we have formed the Neuse Regional Water & Sewer Authority and have contracted with Engineers to assist us in an alternative source of water; that price is estimated at $63 million.

10) This cost will cause our water rates to more than double.

11) We need to help encourage industries east of Interstate 95, not to discourage them.

12) We feel that more time is needed for this initial implementation and that funding is a must.

Sincerely,

Harold Herring
Assistant Director of Public Utilities/
Water Resources

TOWN OF FARMVILLE

OFFICE OF MAYOR AND TOWN MANAGER
POST OFFICE BOX 86/200 NORTH MAIN
FARMVILLE, NORTH CAROLINA 27828-0086
www.farmville-nc.com
(252) 753-5774

September 13, 2000

Mr. Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, North Carolina 27699-1611

Re: Public Comments
Central Coastal Plain Capacity Use Area

Dear Mr. Wilson:

After thorough review of the proposed rules for the Central Coastal Plain Capacity Use Area, we would like to submit the following comments from the Town of Farmville:

1. I think everyone realizes that there is a problem in the Central Coastal Plain regarding the aquifer's ability to recharge itself with the current usage. Through adequate funding for the development of alternative water sources by the State of North Carolina, we feel that a rule would be unnecessary. Rules have a way of becoming more strict over time and are often difficult to interpret. Compliance with rules always add costs to projects.

2. One thing the rule does not consider is the significant economic impact on eastern North Carolina. The cost to develop alternative water sources will be tremendous. The proposed rule will add the additional cost burden to local governments and their customers at a time when we are just trying to recover from Hurricane Floyd and the tobacco industry is suffering from tremendous cutbacks and income from this crop will be at an all time low. Pork production facilities were seen by many farmers as an opportunity to replace lost income from tobacco. Because of potential environmental problems, these facilities are under close scrutiny and are facing significant costs to eliminate their lagoon systems. Many local governments in this area are already facing tremendous costs having to comply with the nitrogen reduction rules in their wastewater being discharged into the Neuse River. Several local governments in this area are being faced with the possible loss of their electric distribution systems due to deregulation. One possible solution to this problem is a surcharge on all of the municipal electric customers. This is another monthly cost that will be added to increased water rates, increased sewer rates and a decline in agricultural income. The Town of Farmville is also facing the possibility of being declared a non-attainment area in the new ozone regulations, because of power plant emissions

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from neighboring counties. This may result in higher fuel costs for our constituents. All of these costs are being passed on to our constituents at one time, when they are having to recover from the worst natural disaster to ever hit North Carolina.

3. The proposed rules are already beginning to have an impact on industrial and commercial development in the area. Prospective industries are already beginning to question the area's ability to provide an adequate water source. In the highly competitive world of industrial recruitment, it takes very little for an industry to eliminate a site from consideration. Due to the flood and the questions regarding water supply, this area already has a black eye that will be difficult to recover from.

4. The proposed rules will also have an impact on existing industry. If an existing industry has their own well and is required to develop alternative water sources, they do not have the ability to go off of their property and pipe water back to their plant. They have no right of eminent domain or the ability to obtain encroachment agreements on public rights-of-way. In many instances they may have to look towards local governments to supply them with water, and in many cases these local governments will not have the capacity to serve additional large users. Carolina Turkeys in Duplin County has already informed the county that they plan no future expansions in that county due to the uncertainty regarding water supply. Other industries are expressing concerns.

5. The Division of Water Resources since 1998 has spent a tremendous amount of time developing an adequate monitoring system of the central coastal plain. There are still several locations in the western end of the area where additional monitoring wells are needed. Although, these monitoring wells are providing the staff with valuable information, we still feel that there is not enough data to develop a blanket rule for the entire 15 county region. There are areas where the water level is not declining, or declining at a nominal level and could probably support the current drawdowns for years to come. There are still a lot of unknowns in the aquifer and very little knowledge is available to determine recharge rates for different areas in the region. We feel that additional scientific data is needed to determine the impact on specific areas, as opposed to a blanket approach for the entire region. During this period the Division of Water Resources drilled 22 new monitoring wells and will develop an additional 27 wells by June 2001. This obviously shows that there are gaps in the network and not enough data is available.

6. It is obvious that a few large water users have overused the aquifer in their area that have caused cones of depression. Instead of drastically reducing water usage from every user in the 15 county region, we would suggest that the State of North Carolina help develop funding for these large users to switch to alternative water sources, such as surface water. If the large users are moved to alternative water sources, many of the small users could continue to use the Black Creek and Upper Cape Fear aquifer without damaging this valuable resource. Many of the smaller units of government are just not going to be able to afford switching to alternative water sources. Economies of scale will make the costs prohibitive.

7. A major concern of the proposed rules is the lack of control over agriculture. It is our

understanding that the Division of Water Resources does not have an adequate accounting of the water being used by the agricultural community. They are requesting that they be allowed to submit their data through existing agricultural agencies and not be required to meter their usage, and instead be allowed to estimate usage based on land size, application rates and other estimates. Local governments are again being asked to bear the brunt of the reduction and must provide detailed information because our wells are metered and monitored. All water users should be required to provide detailed water use figures to the Division of Water Resources.

8. In the proposed rules the first reduction must be made in the 6th year from the adoption of the rules. If a community must go to an alternative water source, such as surface water, we question the ability to obtain the necessary regulatory approvals for a surface water intake, complete the design, obtain all the other permits, begin construction and complete the project within the 6 year timetable. Current regulations may hamper the ability to move some of the projects forward. Objections to using surface water will probably surface from the N.C. Fish and Wildlife Agency and numerous environmental groups, which may further delay proposed projects.

9. Another concern about the rules is the estimated cost to local government to find alternative water sources. The Fiscal note prepared for the Division of Water Resources estimated the cost to develop alternative water sources at $70 million dollars. We have estimated the cost to be as high as $400-700 million dollars. The City of Kinston is looking at a surface water plant that will serve Kinston and Lenoir County. Their estimated cost is in excess of $50 million dollars. That is just one county in the entire 15 county region. The Division of Water Resources has indicated that the 16 year timetable will allow local governments to phase in the costs of alternative water sources. Unfortunately, this is not always possible. In many instances the capital costs must be paid upfront and debt service payments begin at that time. These upfront capital costs cannot be phased in over time.

10. In many cases, local governments will not be able to find alternative water sources within their boundaries. This will require interlocal agreements and projects that may extend into other counties. It is our understanding that in order to build a facility in another county, you must have permission from the Board of Commissioners of that county. These agreements again will take time to develop and formulate a plan of action. In some instances agreements may not be possible. We feel that some jurisdictions will just not be able to formulate a plan for alternative water sources. The rules should have an option for some local governments to obtain a variance from the rules when they have exhausted all possible solutions, or the costs of developing an alternative water source are so great as to put an undue burden on the customers of that system. If the cost of providing water and sewer to a customer is determined to be a high cost, as defined in N.C.G.S. 159 G-6(b), and will place a burden on the users, some opportunity should be available to that local government to seek relief from the rules. If costs become excessive, many rural water customers will simply go back to individual wells, which are more prone to contamination. They will continue to withdraw water from the aquifer, but will not longer be monitored for their usage. It seems that no one has a clear picture of the number of private wells in this 15 county region and the amount of water being withdrawn from the aquifer.

11. There are numerous problems statewide with water resources. Water shortages and mandatory reductions are commonplace in many areas of the state, yet the Division of Water Resources is only proposing rules in this 15 county region. It is our belief that the Division should be developing a more comprehensive plan for the entire state.

12. For the past few months, the Division of Water Resources has met in Farmville with persons that will be affected by the rules to discuss possible changes and enhancements to the rules. One proposed change is to allow the use of the Peedee aquifer. The current proposed rules should be changed to allow that. Bedrock aquifer wells or wells in the shallower (younger) aquifers should be excluded from the regulations. These should have an adequate recharge rate and could be a valuable resource for many areas within the 15 county region.

13. It appears that the Division of Water Resources has begun to develop a clearer picture of the aquifer and the impact of excessive withdrawals. I believe that they would admit that there is still a lot that they do not know about the aquifer, especially in certain areas. The Legislature should be encouraged to provide funds for the development of more scientific data that would allow for the better understanding of the aquifer system and allow local governments to utilize the aquifer to its fullest potential. There is still not a clear understanding of the amount of water that the aquifer can actually produce. We would suggest a delay in the rules of 2-3 more years to allow for the development of better data to insure that the aquifer can be used to its fullest potential. We feel that this is crucial to the economic well being of eastern north carolina and this 15 county region.

14. As proposed, the rules allow a current user to sell their excess capacity, if they move to an alternative source of water. We do not feel that any user should be given an asset to sell through the rule making process.

15. Each jurisdiction must develop a benchmark of their water usage for a calendar year and have this approved by the Division of Water Resources. In the case of Duplin County, they have just begun a county-wide water system. Many of the new lines are just being installed, so they have no past usage to base their benchmark on. Most of these county water systems are funded through Farmers Home and we question if the proposed rules would jeopardize their ability to repay their loans. An impediment to their repayment could result in legal action by the various jurisdictions.

16. The rules require that we obtain a permit to operate our wells and report the pumping and static water levels for each supply well as measured with a steel or electric tape. Many of our older wells are not capable of accepting a steel or electric tape and it would require additional expense on our part to modify these wells to provide that information. Some of these wells may be abandoned in the future if we face a 75% reduction. We currently have 11 operating wells and probably will not need that many wells in the future. We would be opposed to having to pay this costs if our plans include future abandonment.

17. The proposed rules require a public review process of our permit application. We feel that this public review, even if required by law could delay the review process by anyone who

wanted to cause problems. Public review often changes the permit review process from a scientific basis to a political basis. As with any permit process, I am sure the state will require a fee be paid by the Town for the state to review the permit, further increasing our cost. The proposed rules do not specify a length for the permit. Will we be required to pay an annual permit fee as we do in wastewater treatment and wastewater collection?

16. As a final comment, we feel that the aquifer can continue to support the current and future use of many local governments in the 15 county region without doing permanent damage to the aquifer. A one size fits all rule does not allow the flexibility for the continued use of the aquifer if many of the significant users move to alternative sources.

As I mentioned earlier, we realize that there is a problem in the aquifer. The problem did not develop overnight and it will take a long time to correct the problems. We do feel that there is a tremendous effort being put forth to make sure there is a rule adopted before the end of this calendar year. We hate to see a rule rushed to adoption when other alternatives may offer better solutions. It is our request that you consider allowing more time for the review of data from the aquifer, allow time for more detailed cost estimates on switching to alternative water sources, and allow more time to explore regional solutions to alternative water sources. The development of these solutions may make a permanent rule unnecessary. A permanent rule is just that, permanent. Local governments are spending tremendous amounts of money to explore alternative water sources. The N.C. Rural Center has indicated an interest in helping fund these evaluations. If these plans do not materialize or sufficient progress is not being made, the rule can always be put back on the table. We appreciate the time and effort John Morris and his staff has put forth in meeting with us, but continued discussions and work on the proposed rules could possibly result in a plan of action that could be supported by all of the affected parties.

If you have any questions, or if you need any additional information, please call me at (252)753-5774.

Sincerely,

Richard N. Hicks
Town Manager

Central Coastal Plain Capacity
Use Area Association
P.O. Box 86
Farmville, N.C. 27828

September 15, 2000

Mr. Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, North Carolina 27699-1611

Re: Public Comments
Central Coastal Plain Capacity Use Area

Dear Mr. Wilson:

On Thursday, September 14, 2000, the Central Coastal Plain Capacity Use Area Association met to discuss the proposed rules for the 15 county area. We would like to submit the following comments:

1. As you know we have been working on proposed revisions to the rules for several weeks now. We also wanted to take this opportunity to thank you and John Morris for taking the time out of your busy schedules to meet with our group and discuss the rules. I have attached for your review and consideration a copy of the proposed rules as we are asking that they be amended. A copy of this letter will be mailed to you and also faxed. Our proposed changes are outlined in red, so you may have to wait until you receive the handwritten copy to see the red outlines. Given the short timetable, we feel that our proposed changes represent some very positive changes to the rules as currently outlined. We do feel that given more time, we could probably assist in the development of a set of rules that would be more palatable to the majority of our members. In our previous discussions John Morris indicated that he might be willing to remove the PeeDee Aquifer from the proposed rules. We hope that proposal is still being considered, as it may prove to be a valuable water resource for a lot of our members. Our first priority to would be to arrange for financing of the alternative water sources that would make a rule unnecessary.

2. Our second comment concerns economic development. We are still concerned about the impact the proposed rule will have on economic development in eastern North Carolina. With the decline in agricultural income because of cutbacks in tobacco and new restrictions on livestock operations, the recovery efforts from Hurricane Floyd, new nutrient requirements on the Neuse River, and possible electric deregulation, the area is facing a significant number of major problems. Additional rules in this 15 county region will add additional costs to consumers that are already facing tremendous costs and losses in income. Potential and existing industries

are already beginning to show concern over the proposed rules and uncertainty of the water supply. Because of these concerns, we feel that the rules must be coupled with a source of funds that will assist in the burden of developing alternative water sources.

3. Our third comment deals with the tremendous cost of compliance that local governments will be facing once the rule is implemented. The fiscal note prepared by your agency estimates the cost of compliance in the first 6 years at approximately $70 million dollars. Our estimates put that cost at closer to $400 to $700 million dollars. Developing alternative water supplies in many instances will require a tremendous amount of capital costs, which in most instances will have to be paid up front. The demand on a lot of the smaller systems will probably be more than they can handle.

These three comments were approved by the membership of the Central Coastal Plain Capacity Use Area Association. If you have any questions, or if you need any additional information, please call me at (252)753-5774.

Sincerely,

Richard N. Hicks
Town Manager

Rule. Permits are not required for surface water use or rock wells under section .0500 in the Central Coastal Plain Capacity Use Area as delineated in .0501.

(b) No person shall withdraw ground water after the effective date of this Rule in excess of 100,000 gallons per day by a well or group of wells operated as a system for any purpose unless such person shall first obtain a water use permit from the Director. Existing withdrawals of ground water as of the effective date of this Rule and proposed withdrawals previously approved for funding appropriated pursuant to the "Clean Water and Natural Gas Critical Needs Bond Act of 1998" or other local, state or federally funded projects as of the effective date of this Rule shall be allowed to proceed with construction or to continue to operate under interim status until a permit has been issued or denied by the Director, provided that persons withdrawing in excess of 100,000 gallons per day by a well or group of wells operated as a system comply with the following requirements:

(1) Persons conducting withdrawals in the Capacity Use Area that require a permit shall submit a permit application to the Division of Water Resources within ~~60~~ 180 days of the effective date of this Rule.

(2) Persons who have submitted applications shall provide any additional information requested by the Division of Water Resources for processing of the permit application within 30 days of the receipt of that request.

(3) Persons conducting withdrawals in the Capacity Use Area that require a permit shall submit water level and water use data on a form supplied by the Division four times a year, within 30 days of the end of March, June, September, and December until a permit has been issued or denied by the Division of Water Resources.

(c) Ground water withdrawals will be governed by the following standards:

(1) Adverse impacts of ground water withdrawals shall be avoided or minimized. Adverse impacts include, but are not limited to:

(A) dewatering of confined aquifers;

(B) encroachment of salt water;

(C) land subsidence or sinkhole development;

(D) ~~long-term~~ regional declines in aquifer water levels.

(2) Adverse impacts on other water users from ground water withdrawals shall be corrected or minimized through efficient use of water and development of sustainable water sources.

(3) In determining the importance and necessity of a proposed withdrawal the efficiency of water use and implementation of conservation measures shall be considered.

(d) An application for a water use permit must be submitted on a form approved by the Director to the North Carolina Division of Water Resources. The application shall describe the purpose or purposes for which water will be used, shall set forth the method and location of withdrawals, shall justify the quantities needed, and shall document water conservation measures to be used by the applicant to ensure efficient use of water and avoidance of waste. Withdrawal permit applications shall include the following information:

(1) Location by latitude and longitude of all wells to be used for withdrawal of water.

(2) Specifications for design and construction of existing and proposed production and monitoring wells. Exceptions may be made where specific items of information are not critical, as determined by the Director, to manage the ground water resource.

(A) Well diameter;

(B) Total depth of the well;

(C) Depths of all open hole or screened intervals that will yield water to the well;

(D) Depth of pump intake(s);

(E) Size, capacity and type of pump;

(F) Depth to top of gravel pack;

(G) Depth measurements shall be within accuracy limits of plus or minus 0.10 feet and referenced to a known land surface elevation.

(3) Withdrawal permit applications for use of ground water from the Cretaceous aquifer system shall include plans to reduce ~~water use~~ withdrawals that have adverse impacts from these aquifers as specified in .0503. Withdrawal rates from the Cretaceous aquifer system that exceed the approved base rate may be permitted during Phase I of .0503 if the applicant can demonstrate to the Director's satisfaction a need for the greater amount. Cretaceous aquifer system wells will be identified using the specifications in .0502(d)(1) and .0502(d)(2) and the hydrogeological framework.

(4) Withdrawal permit applications for dewatering of mines, pits or quarries shall include a dewatering or depressurization plan that includes:

(A) a hydrogeological analysis of the dewatering or depressurization activity;

(B) the location, design and specifications of any sumps, drains or other withdrawal sources including wells

and trenches;

(C) the lateral extent and depth of the zone(s) to be dewatered or depressurized;

(D) a monitoring plan that provides data to delineate the nature and extent of dewatering or depressurization;

(E) certification by an appropriate North Carolina Licensed Engineer or Geologist of all plans and hydrogeological analyses prepared to meet these requirements.

(5) Conservation Measures. The applicant shall provide information on existing conservation measures and conservation measures to be implemented during the permit period as follows:

(A) Public water supply systems shall develop and implement a feasible water conservation plan incorporating, at a minimum, the following components. Each component shall be described, including a timetable for implementing each component that does not already exist.

(i) Adoption of a water conservation-based rate structure, such as: flat rates, increasing block rates, seasonal rates, or quantity-based surcharges.

(ii) Implementation of a water loss reduction program if unaccounted for water is greater than 15 percent of the total amount produced, as documented annually using a detailed water audit. Water loss reduction programs shall consist of annual water audits, in-field leak detection, and leak repair.

(iii) Adoption of a water conservation ordinance for irrigation, including such measures as: time-of-day and day-of-week restrictions on lawn and ornamental irrigation, automatic irrigation system shut-off devices or other appropriate measures.

(iv) Implementation of a retrofit program that makes available indoor water conservation devices to customers (such as showerheads, toilet flappers, and faucet aerators).

(v) Implementation of a public education program (such as water bill inserts, school and civic presentations, water treatment plant tours, public services announcements, or other appropriate measures).

(vi) Evaluation of the feasibility of water reuse as a means of conservation, where applicable.

(B) Users of water for commercial purposes, other than irrigation of crops and forestry stock, shall develop and implement a water conservation plan as follows:

(i) an audit of water use by type of activity (for example, process make-up water, non-contact cooling water) including existing and potential conservation and reuse measures for each type of water use;

(ii) an ~~implemention~~ implementation schedule for feasible measures identified in the above item for conservation and reuse of water at the facility.

(C) Users of water for irrigation of crops and forestry stock shall provide the following information:

(i) total acreage with irrigation available;

(ii) types of crops that may be irrigated;

(iii) method of irrigation (for example, wells that supply water to canals, ditches or central pivot systems or any other irrigation method using ground water);

(iv) a statement that the applicant uses conservation practice standards for irrigation as defined by the Natural Resources Conservation Service.

(6) If an applicant intends to operate an aquifer storage and recovery program (ASR), the applicant shall provide information on the storage zone, including the depth interval of the storage zone, lateral extent of the projected storage area, construction details of wells used for injection and withdrawal of water, and performance of the ASR program.

(e) The Director shall issue, modify, revoke, or deny each permit as set forth in G.S. 143-215.15, within 60 days of receipt of a complete application. All review comments questioning the completeness of an application shall be made within 30 days of receipt of an application or subsequent information submitted in support of an application. Permittees may apply for permit modifications. Any application submitted by a permittee shall be subject to the public notice and comment requirements of G.S. 143-215.15(d).

(f) Permit duration shall be set by the Director as described in G.S. 143-215.16(a). Permit transferability is established in G.S. 143-215.16(b).

(g) Persons holding a permit shall submit signed water usage and water level reports to the Director not later than 30 days after the end of each permit reporting period as specified in the permit. Monitoring report requirements may include:

(1) Amounts of daily withdrawal from each well.

(2) Pumping and static water levels for each supply well as measured with a steel or electric tape, or an alternative method as specified in the permit, at time intervals specified in the permit.

(3) Static water levels in observation wells at time intervals specified in the permit.

(4) Annual sampling by applicants located in the salt water encroachment zone and chloride concentration analysis

by a State certified laboratory.

(5) Any other information the Director determines to be pertinent and necessary to the evaluation of the effects of withdrawals.

(6) Where additional monitoring wells are required to be constructed or where wells must be modified to provide monitoring information, construction and/or modifications as necessary shall be completed within 12 months from the time monitoring requirements are specified.

(h) Water use permit holders shall not add new wells without prior approval from the Director.

(i) The Director may require permit holders to construct observation wells to observe water level and water quality conditions before and after water withdrawals begin if there is a demonstrated need for aquifer monitoring to assess the impact of the withdrawal on the aquifer.

(j) For all water uses other than dewatering of mines, pits or quarries, withdrawals shall be permitted only from wells that are constructed such that the pump intake or intakes are at a shallower depth than the top of the uppermost confined aquifer that yields water to the well, or are operated and/or monitored in such a manner as to prevent pumping levels from extending below the top of the uppermost confined aquifer that yields water to the well. Confined aquifer tops are established in the hydrogeological framework. Where wells in existence as of the effective date of this Rule are not in compliance with the requirements of this provision, the permit shall include a ~~compliance~~ schedule providing no less than 5 years ~~for retrofitting or replacement of non-compliant wells~~, to achieve compliance. Withdrawals from unconfined aquifers shall not lower the water table by an amount large enough to decrease the effective thickness of the unconfined aquifer by more than ~~50~~ 65 percent.

(k) For withdrawals to dewater mines, pits or quarries, the permit shall delimit the extent of the area and depths of the aquifer(s) to be dewatered or depressurized. Maximum well withdrawal rates, total use limits, and the permissible extent of dewatering or depressurization will be determined by the Director using available methods of hydrogeologic analysis. Withdrawals shall be accomplished by means and in a manner such that the groundwater may be available for subsequent use as groundwater by any public water system requesting use of the groundwater. The withdrawal applicant shall be responsible for delivery of the groundwater to a location on the applicant's property acceptable for subsequent re-use by the public water system. Withdrawals made available for subsequent use by public water systems shall not include sources of groundwater from dewatering activities which would otherwise prohibit the use of the groundwaters by the public water system.

(l) Withdrawals of water that cause changes in water quality such that the available uses of the resource are adversely affected will not be permitted. For example, withdrawals shall not be permitted that result in migration of ground water that contains more than 250 milligrams per liter chloride into pumping wells that contain chloride at concentrations below 250 milligrams per liter.

(m) General permits may be developed by the Division and issued by the Director for categories of withdrawal that involve the same or substantially similar operations, have similar withdrawal characteristics, require the same limitations or operating conditions, and require similar monitoring.

(n) Permitted water users may withdraw and sell or transfer water to other users provided that their permitted withdrawal limits are not exceeded.

(o) A permitted water user may sell or transfer to other users a portion of his permitted withdrawal. To carry out such a transfer, the original permittee must request a permit modification to reduce his permitted withdrawal and the proposed recipient of the transfer must apply for a new or amended withdrawal permit under section .0500.

(p) Where an applicant or a permit holder can demonstrate that compliance with water withdrawal limits established under section .0500 is not possible because of construction schedules, economic hardships, requirements of other laws, or other reasons beyond the control of the applicant or permit holder, and where the applicant or permit holder has made appropriate efforts to conserve water and to plan the development of adequate water sources, the Director may issue either (1) a temporary permit with an alternative schedule to attain compliance with provisions of section .0500, as authorized in G.S. 143-215.15(c)(ii), or (2) a water use Permit.

(q) Where an existing industrial applicant or industrial permit holder can demonstrate that compliance with water withdrawal limits established under Section .0500 of this Subchapter is not possible because of economic hardships, requirements of other laws, or other reasons beyond the control of the industrial applicant or permit holder, and where the industrial applicant or permit holder has made appropriate efforts to conserve water and plan and/or implement the development of adequate water sources to the extent practical, the phase reductions required under .0503 shall not be applicable and the industrial applicant or permit holder shall be allowed to continue to operate at the approved base rate.

History Note: *Authority G.S. 143-215.14; 143-215.15; 143-215.16;*

Eff. April 1, 2001.

.0503 PRESCRIBED WATER USE REDUCTIONS IN CRETACEOUS AQUIFER ZONES

Cretaceous aquifer ~~water use~~ withdrawals that have adverse impacts shall be reduced in prescribed areas over a sixteen year period, starting from approved base rates on the effective date of this Rule. The Cretaceous aquifer system zones and the three phases of water use reductions are listed as follows:

(a) Cretaceous aquifer system zones are regions established in the fresh water portion of the Cretaceous aquifer system that delimit zones of (1) salt water encroachment, (2) potential dewatering and (3) declining water levels. These zones are designated on the paper and digital map entitled "Central Coastal Plain Capacity Use Area Cretaceous Aquifer Zones" (CCPCUA) on file in the Office of the Secretary of State one week prior to the effective date of these Rules.

(b) The reductions specified in .0503 do not apply to intermittent users. or to withdrawals that do not have adverse impacts as listed under .0502 (c) (1).

(c) If a permittee implements an aquifer storage and recovery program (ASR), reduction requirements will be based on the total net withdrawals. The reductions specified in .0503 do not apply if the volume of water injected into the aquifer is greater than the withdrawal volume. If the withdrawal volume is greater than the injected volume, reductions specified in .0503 apply to the difference between the withdrawal volume and the injected volume.

(d) The reductions specified in .0503 shall not reduce permitted water use rates below 100,001 gallons per day.

(e) Phase definitions:

(1) Phase I: The six year period extending into the future from the effective date of this Rule.

(2) Phase II: The five year period extending into the future from six years after the effective date of this Rule to 11 years after the effective date of this Rule.

(3) Phase III: The five year period extending into the future from 11 years after the effective date of this Rule to 16 years after the effective date of this Rule.

(f) Phase reductions:

(1) Phase I:

(i) At the end of the Phase I, ~~permittees who are~~ withdrawals located in the potential dewatering zone that have adverse impacts will be required to reduce annual ~~water use~~ withdrawals from Cretaceous aquifers by 25% from their approved base rate.

(ii) At the end of the Phase I, ~~permittees who are~~ withdrawals located in the salt water encroachment zone that have adverse impacts will be required to reduce annual ~~water use~~ withdrawals from Cretaceous aquifers by 25% from their approved base rate.

(iii) At the end of the Phase I, ~~permittees who are~~ withdrawals located in the declining water level zone that have adverse impacts will be required to reduce annual ~~water use~~ withdrawals from Cretaceous aquifers by 10% from their approved base rate.

~~(iv) At the end of the Phase I, permittees who are located in the Cretaceous zone, but outside of the salt water encroachment, dewatering, or declining water level zones will be required not to exceed annual water use from Cretaceous aquifers as established by their approved base rate.~~

(2) Phase II:

(i) At the end of the Phase II, ~~permittees who are~~ withdrawals located in the potential dewatering zone that have adverse impacts will be required to reduce annual ~~water use~~ withdrawals from Cretaceous aquifers by 50% from their approved base rate.

(ii) At the end of the Phase II, ~~permittees who are~~ withdrawals located in the salt water encroachment zone that have adverse impacts will be required to reduce annual ~~water use~~ withdrawals from Cretaceous aquifers by 50% from their approved base rate.

(iii) At the end of the Phase II, ~~permittees who are~~ withdrawals located in the declining water level zone that have adverse impacts will be required to reduce annual ~~water use~~ withdrawals from Cretaceous aquifers by 20% from their approved base rate.

~~(iv) At the end of the Phase II, permittees who are located in the Cretaceous zone but outside of the salt water encroachment, dewatering, or declining water level zones will be required not to exceed annual water use from Cretaceous aquifers as established by their approved base rate.~~

(3) Phase III:

(i) At the end of the Phase III, ~~permittees who are~~ withdrawals located in the potential dewatering zone that have adverse impacts will be required to reduce annual ~~water use~~ withdrawals from Cretaceous aquifers by 75% from their approved base rate.

(ii) At the end of the Phase III, ~~permittees who are~~ withdrawals located in the salt water encroachment zone that have adverse impacts will be required to reduce annual ~~water use~~ withdrawals from Cretaceous

aquifers by 75% from their approved base rate.

(iii) At the end of the Phase III, ~~permittees who are~~ withdrawals located in the declining water level zone that have adverse impacts will be required to reduce annual ~~water use~~ withdrawals from Cretaceous aquifers by 30% from their approved base rate.

~~(iv) At the end of the Phase III, permittees who are located in the Cretaceous zone, but outside of the salt water encroachment, dewatering, or declining water level zones will be required not to exceed annual water use from Cretaceous aquifers as established by their approved base rate.~~

(g) The CCPCUA Cretaceous Aquifer Zones map will be updated, ~~if necessary,~~ at a minimum, 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 will be based on the following conditions:

(1) Rate of decline in water levels in the aquifers;
(2) Rate of increase in water levels in the aquifers;
(3) Stabilization of water levels in the aquifers;
(4) Chloride concentrations in the aquifers.

This aquifer information will 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 will adopt the updated map and reduction percentage changes after public hearing.

(h) Withdrawals from sources within the Cretaceous aquifer system, such as unconfined or partially confined aquifers, which are demonstrated by scientific evidence not to cause adverse impacts as provided in .0502 (c) (1) shall be allowed in addition to the approved base rate and shall not be subject to the phase reduction requirements.

(i) New wells within the Cretaceous aquifer system that are proposed to minimize or reduce adverse impacts created by existing wells shall be encouraged. Increases in the approved base rate shall be provided for the construction of new wells to reduce adverse impacts created by existing wells. The increase in the approved base rate shall be negotiated with the Director and shall be commensurate with the anticipated benefits.

(j) The reductions specified under .0503 shall not apply to wells exclusively screened or open to the PeeDee Aquifer.

History Note: *Authority G.S. 143-215.15;*
Eff. April 1, 2001.

.0504 REQUIREMENTS FOR ENTRY AND INSPECTION

(a) The Division may enter and inspect property in order to evaluate wells, pumps, metering equipment or other withdrawal or measurement devices and records of water withdrawals and water levels, if:

(1) Persons conduct an activity that the Division believes requires the use of water at quantities that subject the person to regulation under these rules;
(2) A permittee or applicant has not provided data or information on use of water and wells and other water withdrawal facilities as required by these rules; or
(3) Water levels and chloride concentrations at the person's facility, or at nearby facilities or monitoring stations, indicate that aquifers may be damaged by overpumping or salt water encroachment, or other adverse affects that may be attributed to withdrawal by the person.

(b) All information submitted to fulfill the requirements of these rules, or to obtain a permit under these rules, or obtained by inspection under these rules, shall be treated as Confidential Business Information, if requested by the applicant, and found to be such by the Division. Reports defined in .0502(g) are not considered Confidential Business Information.

History Note: *Authority G.S. 143-215.19;*
Eff. April 1, 2001.

.0505 ACCEPTABLE WITHDRAWAL METHODS THAT DO NOT REQUIRE A PERMIT

(a) As of the effective date of this Rule, any person who is not subject to .0502 and withdraws more than 10,000 gallons per day from surface or ground water in the Central Coastal Plain Capacity Use Area, shall register such withdrawals on a form supplied by the Division and comply with the following provisions:

(1) Construct new wells such that the pump intake or intakes are above the top of the uppermost confined aquifer that yields water to the well. Confined aquifer tops are established in the hydrogeological framework.
(2) Report surface and ground water use to the Division of Water Resources on an annual basis on a form supplied by the Division.

(3) Withdraw water in a manner that does not damage the aquifer or cause salt water encroachment or other adverse impacts.

(b) These requirements do not apply to withdrawals to supply an individual domestic dwelling.

(c) Agricultural water users may either register water use with the Division of Water Resources as provided in this rule or may provide the information through confidential water use surveys conducted by the North Carolina Department of Agriculture or the United States Department of Agriculture.

History Note: *Authority G.S. 143-215.14; 143-355(k);*
Eff. April 1, 2001.

.0506 CENTRAL COASTAL PLAIN CAPACITY USE AREA STATUS REPORT

Within two years of the effective date of this Rule, and at five year intervals thereafter, the Division of Water Resources shall publish a status report on the Central Coastal Plain Capacity Use Area. The report shall include the following:

(1) Compilations of water use data,
(2) Evaluations of surface and ground water resources,
(3) Updated information about the hydrogeologic framework in the Central Coastal Plain Capacity Use Area,
(4) A summary of alternative water sources and water management techniques that may be feasible by generalized geographic location, and
(5) A status report on actions by water users to develop new water sources and to increase water use efficiency.

History Note: *Authority G.S. 143-215.14;*
Eff. April 1, 2001.

.0507 DEFINITIONS

The following is a list of definitions for terms found in section .0500.

(1) Approved base rate: The larger of ~~a person's~~ January 1, 1997 through December 31, 1997 or August 1, 1999 through July 31, 2000 annual water use rate from the Cretaceous aquifer system, or an adjusted water use rate determined through negotiation with the Division using documentation provided by the applicant of, 1. water use reductions made since January 1, 1992, 2. use of wells for which funding has been approved or for which plans have been approved by the Division of Environmental Health by the effective date of this Rule, 3. existing and projected population served or to be served, or ~~3.~~ 4. other relevant information.
(2) Aquifer: Water-bearing earth materials that are capable of yielding water in usable quantities to a well or spring.
(3) Aquifer storage and recovery program (ASR): Controlled injection of water into an aquifer with the intent to store water in the aquifer for subsequent withdrawal and use.
(4) Confining unit: A geologic formation that does not yield economically practical quantities of water to wells or springs. Confining units separate aquifers and slow the movement of ground water.
(5) Cretaceous aquifer system: A system of aquifers and confining units in the North Carolina coastal plain that is comprised of water-bearing earth materials deposited during the Cretaceous period of geologic time. The Cretaceous aquifer system in the Central Coastal Plain Capacity Use Area consists of the following aquifers: Peedee Aquifer, Black Creek Aquifer, Upper Cape Fear Aquifer, and Lower Cape Fear Aquifer. The extent of the Cretaceous Aquifer System and constituent aquifers is defined in the hydrogeological framework.
(6) Dewatering: Dewatering occurs in a confined aquifer when aquifer water levels are depressed below the top of ~~a confined~~ the aquifer. ~~or water table declines adversely affect the resource.~~ Dewatering occurs in unconfined aquifers whenever water is removed from the aquifer. Dewatering of a confined aquifer is considered to be an adverse impact. Dewatering of an unconfined aquifer by an amount large enough to decrease the effective thickness of the unconfined aquifer by more than 65% is considered to be an adverse impact.
(7) Economic hardship: An economic hardship for a public utility system exists when rates exceed high unit cost rates as defined in N.C.G.S. 159 G-6 (b).
(8) Flat rates: Unit price remains the same regardless of usage within customer class.
(9) Fresh water: Water containing chloride concentrations equal to or less than 250 milligrams per liter.
(10) Gravel pack: Sand or gravel sized material inside the well bore and outside the well screen and casing.
(11) Ground water: Water in pore spaces or void spaces of subsurface sediments or consolidated rock.
(12) Hydrogeological framework: A three-dimensional representation of aquifers and confining units that is stored

in Division data bases and may be adjusted by applicant supplied information.

(13) Increasing block rates: Unit price increases with additional usage.

(14) Intermittent users: Persons who withdraw ground water less than 60 days per calendar year or who withdraw less than 15 million gallons of ground water in a calendar year.

(15) Observation well: A non-pumping well screened in a particular aquifer where water levels can be measured and water samples can be obtained.

(16) Pumping water level: The depth to ground water in a pumping well as measured from a known land surface elevation. Measurements shall be made four hours after pumping begins. Measurements shall be within accuracy limits of plus or minus 0.10 feet.

(17) Quantity based surcharges: Surcharges billed with usage over a certain determined quantity.

(18) Salt water: Water containing chloride concentrations in excess of 250 milligrams per liter.

(19) Salt water encroachment: The lateral or vertical migration of salt water toward areas occupied by fresh water. This may occur in aquifers due to natural or man-made causes.

(20) Seasonal rates: Unit prices change according to the season.

(21) Static water level: The depth to ground water in a non-pumping well as measured from a known land surface elevation. Measurements shall be made after pumping has ceased for 12 hours. Measurements shall be within accuracy limits of plus or minus 0.10 feet.

(22) Unaccounted for water: The difference between the total water entering the system (produced and purchased) and the total metered or otherwise accounted for water usage.

(23) Water table: The water level in an unconfined aquifer.

History Note: *Authority G.S. 143-215.14;*
Eff. April 1, 2001.

09-Aug-2000

Comments Delivered At The CCPCUA Public Hearing 8-8-00

Mr. Speaker;

I represent the nine member counties and member municipalities of the Eastern Carolina Council of Governments. These counties are Onslow, Duplin, Carteret, Jones, Craven, Pamlico,Lenoir, Greene and Wayne. All of our member counties are within the proposed Central Coastal Plain Capacity Use Area.

Much has been said this evening about the potential negative impact upon the fifteen counties in the proposed CCPCUA. It cannot be understated that should the proposals as presented be enacted, it will not lead to the ultimate goal of assisting the counties in the CCPCUA as they search for water resource alternatives. Rather it will put restrictions on these communities that they are ill prepared nor capable to overcome at this time. The continuing process of redevelopment from hurricane Floyd, as well as the mass reductions in allowable tobacco crop production, require that what few additional resources are available be targeted toward the successful emergence from these economic challenges.

I have heard many of those speaking today remark that our communities are aware that there is a problem as well as other comments evidencing that several communities are actively moving toward the development of alternative water resources. It is apparent that within the proposed CCPCUA, there is an overall awareness of the problem of groundwater depletion.

Time is of the essence, but it is time coupled with financial resources to develop alternatives that is needed. The communities of the proposed CCPCUA have similarities, yet they face diverse challenges. Like wise it is difficult, to say the least, to lump all of these communities into the same basket. Each community needs and deserves the time necessary to develop, obtain financing and implement THEIR plans for alternative water resources and conservation in their respective communities.

In some of our communities, alternative water resources are more accessible than in others. We must pledge our joint resources, while remaining cognizant to the needs of our communities plagued by low wealth and low tax base economies.

Certainly water is at the very essence of our ability to have quality economic development in the proposed CCPCUA and throughout eastern North Carolina. I urge you to delay implementation of these proposed rules until further input can be obtained by the proposed affected communities. Rules on paper have a real impact on people; We must insure that the rules assist and not hurt our citizens as we move forward into the future.

Stephen F. Hines
Project Planner & Developer
Eastern Carolina Council of Governments

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September 13, 2000

Environmental Management Commission
Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Dear Sirs,

I am writing this letter as a concerned Board Member of the North Carolina Association of Nurserymen. I am aware that water usage is becoming increasingly more scrutinized and regulated. Because my business is not located in the designated area, the rules concerning the Central Coastal Plain Capacity Use Area (Section .0500), do not directly effect my business. However, I am still concerned about the precedence this legislation would set concerning pumping from ground sources.

Like many other nursery operations, I have implemented practices which allow me to recapture 100% of my irrigation water. I was able to do this by consulting the Best Management Practices for container nurseries, set forth by the Southern Nursery Association, before I began construction in 1995. This publication outlined specific practices which helped me to limit water waste from run-off. At this time, nearly all of my irrigation water comes from captured surface run-off. However, I do have the ability to recharge my retention basins from ground water sources.

The ability to produce new plants via propagation is extremely important to my business. Ground water is the only viable source of irrigation water for these greenhouses. This is necessary because of the precise micro-irrigation system we are using. This system requires extremely clean, high quality water for it to function properly. Although this system requires the use of ground water, it is much more efficient and uses much less water overall than other systems.

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While building my business, I have complied with all current and many future regulations concerning water conservation and usage. I, like many other nursery businesses, have recently invested heavily in new production areas. My main concern is having the ability to recharge my surface water supply during times of drought. If I were not able to recharge these basins during these times, my business and livelihood could be in jeopardy.

In summary, I feel nurseries, that have been designed to be a totally closed system, should not be subject to reductions mandated by the Central Coastal Plain Capacity Use Area proposal. These regulations would be overly burdensome and could force many nursery businesses like mine, to close their doors. I hope you will take the points I have make into consideration before rendering your final decision.

Sincerely,

David G. Hyatt, President

Town of Faison

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FAX

September 15, 2000

FAX: 919 733 3555

Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, North Carolina 27699-1611

Dear Mr. Wilson:

The Town of Faison is a member of the Central Coastal Plain Capacity Use Area association, and we wholeheartedly agree with the stands that they recommend. It also seems that the western side of Duplin County is in the position of having stable aquifer resources. Some regulations that might be set forth and fall on Duplin County as a whole, would unfairly penalize that western section of the county.

It is the Town's recommendation that this should be taken into account.

Sincerely,

W. J. Igoe
Mayor

WJI/bd

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WATER RESOURCES

August 8, 2000

Mr. John Morris, Director
Division of Water Resources
NCDENR
Archdale Building
Raleigh, NC 27605

Dr. David Moreau, Chairman
Groundwater Committee
Environmental Management Commission
DPT UNC-CH, CB 3140
Chapel Hill, NC 27599

RE: Central Coastal Plain Capacity Use Area Rule

Gentlemen:

The purpose of my letter is to provide support to the Division of Water Resources as it endeavors to protect the groundwater resources of eastern North Carolina. In particular, we support and endorse the proposed Central Coastal Plain Capacity Use Area Rule.

I am a native of Lenoir County and a professional engineer by training and practice. My firm has been involved in numerous water supply projects in eastern North Carolina over the past 60 years. I have personally been involved in a number of these projects during my 30-year tenure at The Wooten Company.

Being familiar with the local area, I know the pride that "home folks" take in their pure artesian well water. And, I can't imagine them not wanting to take all reasonable measures to protect, preserve, and extend the life of this valuable resource that we call the cretaceous aquifer.

While I normally think of the groundwater being used only for drinking water (residential) purposes, we, of course, need the water for commerce and industry. For all of these uses we need about 8.5 to 9.0 million gallons per day in Lenoir County. In addition, the farming community utilizes this resource during the crop-growing season, but I must frankly admit I have no reasonable estimate of the volume used for farming operations.

Having been involved in numerous water supply projects over the years, the engineering community has not been oblivious to the declining water level. Because of this abundant supply, we were perhaps hoping to reach a level of equilibrium in the declining water level and thereby hoping that no protective measures were necessary. However, that has not proven to be the case as water levels continue to decline.

In the face of this declining supply, efforts have been made to quantify the rate at which groundwater is being recharged or replenished. Within the past year, well-recognized and respected hydro-geologists have estimated the recharge rate in the range of 2.0 million gallons per day for all of Lenoir County. Therefore, it is not unreasonable that the proposed Capacity Use Area Rule should require the most severely impacted areas in the Central Coastal Plain to reduce their withdrawal by 75 percent over the next 15 years. Some may say the rule swings the pendulum too far; that there is insufficient evidence to warrant such drastic action. Certainly there may be detractors trying to circumvent or otherwise evade the rule. But it is clear; some regulatory action is necessary to achieve the goal that we haven't been able or willing to achieve on our own.

Rather than try to engage in an analysis of the proposed rule, I would prefer to offer several recommendations on how to either modify the rule prior to adoption or manage the rule after adoption.

1. Provide sufficient flexibility in the rule in order to allow relief in well-documented cases where the recharge rate is greater than withdrawal.
2. Ensure that reports are made available to the public on both public and private initiatives being made to reverse the current trend.
3. Increase the frequency and scope of monitoring, if necessary, in order to better monitor groundwater conditions in the future, not only to detect those areas where the trend is being reversed, but also to identify those areas where further reductions in withdrawal need to be implemented.
4. Be prepared to amend the current rule and modify the current boundaries as subsequent data analysis may dictate.
5. Determine if the hydro-geological characteristics are different for the several aquifers and utilize this data to allocate usage according to user class and quantity and quality required.
6. To the maximum extent possible, we ask the State regulators to be objective and show no favoritism among users–public and private–in managing this valuable resource.
7. Finally, as this rule is essentially an unfunded mandate, we strongly recommend that future projects which are developed to specifically address this proposed rule, be given appropriate priority points in the awarding of grants under the Clean Water Bond Grant program.

From a very personal point of view, I must admit my naiveté on this matter as a practicing engineer in the mid-1970s. I can remember the Division of Water Resources making a plea in the early 80s for local governments to monitor their well withdrawals and report drawdown levels to the State. We dutifully continued to monitor data and watch the water levels decline, but we have not acted on this information.

Gentlemen, there is a legitimate water supply problem in the Central Coastal Plain. The proposed Capacity Use Area Rule is a valid attempt to require us all to work jointly to protect, preserve, and even restore this valuable resource. The economy of eastern North Carolina, and any region of that matter, is dependent upon a reliable resource of water supply. We must take these initial steps to put ourselves on the road to recovery and restoration.

By endorsing the proposed Capacity Use Area Rule, we also making the simple petition that the State be fair and equitable in its interpretation, management, and implementation of the rule.

We appreciate the opportunity to offer these comments during this rule making process. Please keep us apprised of the success we expect this rule to have.

Sincerely,

THE WOOTEN COMPANY

Arthur L. Kennedy, PE
President

ALK:sc

DuPont Fibers
P.O. Box 800
Kinston, North Carolina 28502-0800
Phone: (919) 522-6111

DuPont Fibers

April 13, 2000

Mr. John Morris Director
Division of Water Resources
Department of Environment and
Natural Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Dear John,

I am writing to thank you and your staff for the outstanding commitment you have shown in listening and responding positively and constructively to the many voices in the community of Eastern North Carolina in building a regulation for the Central Coastal Plain Capacity Use Area. I very much appreciated your diplomacy in handling the many divergent perspectives of the stakeholder group and feel this heavily contributed to the success that we ultimately achieved. DuPont firmly believes that the revised rule has significant and long lasting merit and is representative of what a stakeholder process is capable of when properly directed and managed, as this one was. We believe this provides an excellent example of what should be a component of the rulemaking process for every major environmental rule.

No doubt there will always be those who will find dissatisfaction with the proceedings. DuPont, however, and we feel sure the majority of the stakeholders, is now supportive of the proposal and stands ready to publicly support the Department in its promulgation efforts for this rule. We also would like to offer any support that may be needed in the development of the permanent rule later this year.

Thanks again, and we look forward to working with you on this issue in the future.

Very truly yours,

Clifford Lee
Environmental Manager
DuPont Kinston Plant

Cc: Bill Holman, Secretary – NCDENR
Nat Wilson, DWR

Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

September 6, 2000

Mr. Wilson,

I am submitting written comments to the Proposed rule establishing the Central Coastal Plain Capacity Use Area. I would like to begin by saying that we understand the groundwater issues of the area and recognize steps must be taken to preserve the resource. Based upon the public hearing I attended in Kinston on August 8, I have concerns about the cost estimates developed by the State of 78 million dollars for the fifteen county area when the city of Kinston alone estimates their cost to be 55 million dollars. I mention this, because it may effect the State's ability to pursue the initial 25 % reduction in groundwater by 2007. To anticipate compliance with the ultimate goal of 75% reduction in pumpage will require municipalities to put infrastructure in place within the first six-year period.

Another area of concern is for those of us who have made substantial capital investment in the Capacity Use Area and are only a small percentage toward completion. Since 1996 we have invested several million dollars in the effected area into a wholesale production nursery that has water availability at its very core for success. The business is also only at 25% completion. While we can show conversion to surface water and reuse of water at a much greater extent than originally planned; establishing a base rate compared to a reduction of current groundwater pumpage is not feasible. North Carolina General Statutes, The Water Use Act of !967; 143-215.16(e) states,"In any case where a permit applicant can prove to the Commission's satisfaction that the applicant was withdrawing or using water prior to the date of declaration of a capacity use area, the Commission shall take into consideration the extent to which such prior use or withdrawal was reasonably necessary in the judgement of the Commission to meet its needs, and shall grant a permit which shall meet those reasonable needs. Provided, however, that the granting of such permit shall not have unreasonably adverse effects upon other water uses in the area, including public use, and including potential as well as present use." We realize the Capacity Use Area is being established due to the potential adverse effects upon all water users. We urge the Commission to leave the Division of Water Resources the latitude to take individual circumstances into consideration for the economic benefit of the area.

4588 Brothers Rd. • P.O. Box 303 • LaGrange, NC 28551 • (919) 566-9784 • FAX (919) 566-9786 • Toll Free 1-800-790-9194

143-215.16(f) of the Water Use Act states, "The Commission shall also take into consideration in the granting of any permit the prior investments of any person in lands, and plans for the usage of water in connection with such lands which plans have been submitted to the Commission within a reasonable time after June 27, 1967. Provided, however, that the granting of such permit shall not have unreasonably adverse effects upon other water uses in the area, including public use, and including potential as well as present use." Since this was not being considered as a Capacity Use Area in 1967, permittees should be given the same consideration when establishing their base permit amounts pursuant to the effective date of the proposed rule.

In closing, we believe that our operation can contribute to the conversion to surface water from groundwater, we can show our wise use of the resource through conservation, capture and reuse, our's is an issue of timing. With a facility at only 25% complete, setting a base rate, from which a reduction is to be calculated, will have a negative impact on our business and the local economy. We again ask that the Commission give the Division of Water Resources the latitude to take individual circumstances, investments and economic benefits into consideration when determining the best use of the resource.

Respectfully,

Jerry Lee
Vice President

HARRY E. LeGRAND
Hydrogeologist

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Raleigh, NC 27609

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E-mail hlegrand@msn.com

August 9, 2000

Statement by Harry LeGrand On the Proposed Coastal Plain Capacity Use Area Public Hearing on August 8.

I am an independent hydrogeologist living in Raleigh. Yesterday, I rode to the meeting with Ralph Heath. We, together, have 100 years of experience and study of ground-water conditions in the Coastal Plain. We agree that the plan for reducing withdrawal of ground water from the aquifer system is proper.

I will give a brief historical perspective. While being the only ground-water specialist in North Carolina 50 years ago and while working with the US Geological Survey in Raleigh, I and Dr. Stuckey, then State Geologist, met with two Dupont officials in 1949 concerning the development of well water for a proposed plant north of Kinston. . The ready quantity and good quality of the water in the aquifer system appealed to Dupont, who went forward with the plant.

In 1956 I wrote a report for the North Carolina Department of Conservation and Development that summarized ground-water conditions in North Carolina. This report has a picture of a new well in Kinston, being tested at 1,500 gallons a minute. I reported that throughout the State there was no serious overdraft of ground water and that only a fraction of water available was used. Then, I did not foresee the heavy withdrawal of water in this aquifer system that would come later. Things have changed, as we see from the records now shown.

Before 1980, I had written several reports and scientific papers which caution nationwide against overdevelopment and contamination of ground water, pointing out that we should not go beyond the brink of harmful ground-water actions. Careful brinkmanship in management of ground-water resources was suggested.

The need for reducing withdrawal of water from this aquifer system is convincing and urgent. Trying to postpone corrective action while collecting new data is not proper. At this time, also, there is a need for everyone to have a better explanation in understandable language as to how the ground water system works under natural and also under pumping conditions. I propose that a short, clearly understandable report be prepared without specific quantitative data and without pinpointing a lot of specific places. The report would have clear illustrations about how water gets in the water-table and confined aquifers and how it gets out. This complex background information has been described

and needs no new data for that purpose. I have written several papers that have many general and useful statements about the natural conditions in this coastal-plain aquifer system, and Ralph Heath has reports that explain the conditions under withdrawal of water. Some effort should be directed to get the best of this and other background material in a simplified report for everyone to understand. The report would show how similar and different conditions occur in various places. For example, ground-water flow in parts of Contentnea Creek drainage basin differs from that beneath the upland between the Neuse and Cape Fear Rivers. This type of report can be prepared readily by several key persons and an illustrator in a few months and does not preempt or interfere with the good useful data program and plans in progress. After reflecting on the various opinions expressed at the meeting, I am convinced that the good program you have underway may not survive without a report for officials and the public to understand better the full nature of ground-water behavior. I am directing a fully explanation of the type of report that I am considering to John Morris in a separate letter, and I will be pleased to discuss it further with you both.

It is clear that the natural replenishment of water from rainfall is much too slow to cope with the lowering of water levels by heavy pumping in some places and that corrective action is needed. Support and cooperation by everyone is now needed to prevent severe competition and battles for costlier water that will be a necessity in the future. Corrective effort by the State, which should have been considered as early as 1980, may not be perfect, but it is surely in the right direction.

Harry E. LeGrand

Harry E. LeGrand
Independent Hydrogeologist

copies
Ralph Heath
Richard Spruill

Subject: changes to proposed CCPCUA rules
Date: Tue, 19 Sep 2000 09:06:09 -0400
From: "Robert Mayo" <rmayo@cccatfish.com>
To: "Tom Ellis" <tom.ellis@ncmail.net>, "Nat Wilson" <nat.wilson@ncmail.net>, "John Morris" <john.morris@ncmail.net>

Dear Gentlemen,

Please find enclosed our proposal for changes to the rules, section .0502. We also support Tom Ellis' proposed changes for aquaculturists to be defined as intermittent users.

Best Regards,

Mark Loomis

P.S. from Rob Mayo---I hope you will still accept this proposal---I attempted to email this for Mark last Friday, and thought it was sent properly (apparently not).
RM

CCPCUA Revisions.doc	**Name:** CCPCUA Revisions.doc **Type:** Microsoft Word Document (application/msword) **Encoding:** base64 **Download Status:** Not downloaded with message

Changes to
Proposed Central Coastal Plain Capacity Use Area Rules
Aquaculture Community
September 4, 2000

Aquaculture represents an environmentally friendly alternative to other types of agriculture providing supplemental income or as a full-time business that can be a lifesaver for family farms. Catfish Farming, in particular, is an efficient use of water resources returning about a dollar in revenue for every 40 gallons of water used. Aquaculture within the CCPCUA is represented almost exclusively by catfish farming.

Since aquaculture is not believed to be the primary cause of water level declines and since farmers have limited resources to deal with the same regulatory constraints, we ask that the following changes be made to the current proposed rule:

1. Add to the end of .0502 (d) (2), after subparagraph (G), "(H) Aquaculturists shall supply well specifications A through G at the completion of well construction within tolerances normally reported by driller.
2. Add to .0502 (d) (5) as follows: "(D) Users of water for aquaculture shall follow Best Management Practices including:
   i. Allow pond water levels to drop eight inches before pumping;
   ii. Stop pumping before water level reaches the top of stand pipe;
   iii. Flushing with well reserved for stock endangering emergencies;
   iv. Pond refilling reserved for pond levee and bottom renovations."
3. In section .0502 (g) add: "(6) Aquaculturists shall report water used for fish culture by estimates based on pump running times. Static water levels shall be measured once a month. Monitoring wells shall not be required for aquaculture facilities."

NORTH CAROLINA GENERAL ASSEMBLY
STATE LEGISLATIVE BUILDING
RALEIGH 27603

To: John Morris, Director Division of Water Resources

From: Co-Chairs of the Natural and Economic Resources Appropriations Subcommittee

Re: Public Comment on Central Coastal Plain Capacity Use Area

Date: September 14, 2000

The issue of groundwater management in the Central Coastal Plain is of utmost importance to members of the Natural and Economic Resources Appropriations Subcommittee. During the 2000 Session of the General Assembly it became apparent that this groundwater issue presented enough complexity to warrant further legislative study. Consequently, the NER subcommittee adopted a special provision in the budget bill mandating further review of this issue during the interim. We have begun to explore the problems and potential solutions and recognize that they will require considerable attention in the near future. Nevertheless, at this point in time, we feel it is important to comment officially on the proposed rules regarding the Central Coastal Plain Capacity Use Area (CCPCUA). Specifically, as the House and Senate Chairs of the NER appropriations subcommittees, we feel we must respectfully submit our strong concerns regarding the appropriateness of the rules.

The subcommittee had its first Water Capacity Use meeting in late August with a presentation from John Morris, Director of the Division of Water Resources (DWR). His presentation focused on three fundamental questions: (1) What is the problem? (2) How do we solve it? and (3) When will the problem be solved? At time of his presentation, the Subcommittee publicly expressed many concerns with the proposed rules. As co-chairs of the subcommittee, we feel that many of those concerns were not adequately addressed. Thus, we would like to express those concerns again.

We agreed with John Morris and his staff at DWR that evidence exists to support the argument that the water levels in the Black Creek and the Upper Cape Fear aquifers are declining at a rate faster than they are recharging. We also understand that declining water levels can lead to a series of adverse impacts including dewatering of the aquifers, permanent loss of water storage capacity, salt water encroachment and land subsidence or sinkhole development. While all these outcomes are possibilities, it seems to us, as laypersons, that you would need to know the causes of the declining water levels before you could suggest solutions. DWR does not know precisely

how much water is being withdrawn from these aquifers. They can't, since not all the water users are required to register their withdrawals. They also do not know with certainty the recharge rate of these aquifers. Without this information, how can they know the correct withdrawal rates that the aquifers can support? It is our belief that this type of information is extremely important to know when trying to determine the extent of water reductions necessary.

While DWR's basic approach to the problem is reasonable, the need for accuracy in the proposed reductions is of utmost importance given the potential negative impact these reductions will have on the economy of Eastern North Carolina. The proposed rule will require all users of greater than 100,000 gpd of water in all or large portions of eight counties in the CCPCUA to reduce water withdrawals by up to 75% over the next 16 years. We are told that the 100,000 gpd value is a relatively low threshold and will include many small industries and municipalities. What does a 75% reduction mean for a small town serving 3,000 or 4,000 people? What are the practical alternatives for these small users? What is the true fiscal impact to the water service providers and end users? The implications of DWR's proposed rules have serious consequences for the citizens, municipalities and industries in the affected 15 county region that can not be ignored or dismissed. Viable alternatives need to be developed to provide small and large users with long-term sustainable water supplies. Without definitive answers to these questions, we believe that is premature to move ahead with rules as proposed.

We understand that ultimately, water withdrawals will have be reduced until they match recharge rates; however, the data to inform this balance is not available. Given the tremendous impact these proposed rules will have on economic development in Eastern NC, we seriously question the wisdom of moving ahead with the rules as proposed.

R. L. Martin
Senator R.L. "Bob" Martin

Stan Fox
Representative Stan Fox

Bill Owens
Representative Bill Owens

James A. Graham
Commissioner

North Carolina
Department of Agriculture
and Consumer Services
Agricultural Statistics Division

Robert M. Murphy
State Statistician

August 29, 2000

TO: John Morris, Director
Water Resources Division,
Department of Environment and Natural Resources

FROM: Bob Murphy, Director
Agricultural Statistics,
North Carolina Department of Agriculture and Consumer Services

SUBJECT: Central Coastal Plain Capacity Use Area Rule

During previous discussion the possibility of having the NCDA&CS Agricultural Statistics Division collect water used via a survey, and also establish a procedure to allow voluntary water use were agreed to.

If confidentiality becomes an issue I assure you that all information collected by this division is protected from disclosure by state and federal regulations. The protection is provided for by the North Carolina General Statute and United States Code. The specifics of these regulations are attached.

If you have any questions or I can be further assistance please call me at (919) 733-7293.

Attachment

BM/ems

United States Department of Agriculture/North Carolina Department of Agriculture & Consumer Services
P.O. Box 27767, Raleigh, North Carolina, 27611 • (919) 733-7293 • (919) 856-4394 • FAX (919) 856-4139
Internet address: http://www.ncagr.com • E-mail address: agstat@ncmail.net

North Carolina General Statute

Part 5. Cooperation between Department and United States Department of Agriculture, and County Commissioners.

§ 106-24.1. Confidentiality of information collected and published.

All information published by the Department of Agriculture pursuant to this Part shall be classified so as to prevent the identification of information received from individual farm operators. All information received pursuant to this Part from individual farm operators shall be held confidential by the Department and its employees. Information collected by the Department from individual farm operators for the purposes of its animal health programs may be disclosed by the State Veterinarian when, in his judgment, the disclosure will assist in the implementation of these programs. (1979, c. 228, s. 3; 1993, c. 5, s. 1.)

Effect of Amendments. — The 1993 amendment, effective March 10, 1993, added the last sentence.

United States Code

Title 18, Section 1905

Disclosure of Confidential Information Generally. Whoever, being an officer or employee of the United States or of any department or agency thereof, or agent of the Department of Justice as defined in the Antitrust Civil Process Act (15 U.S.C. 1311-1314), publishes, divulges, discloses, or makes known in any manner or to any extent not authorized by law any information coming to him in the course of his employment or official duties or by reason of any examination or investigation made by, or return, report or record made to or filed with, such department or agency or officer or employee thereof, which information concerns or relates to the trade secrets, processes, operations, style of work, or apparatus, or to the identity, confidential statistical data, amount or source of any income, profits, losses, or expenditures of any person, firm, partnership, corporation, or association; or permits any income return or copy thereof or any book containing any abstract or particulars thereof to be seen or examined by any person except as provided by law; shall be fined not more than $1,000, or imprisoned not more than one year, or both; and shall be removed from office or employment.

Town of Lucama

September 14, 2000

Jo: John Morris, Dir. of Water Resources

NC Department of Environment
Environmental Management Commission
1611 Mail Service Center
Raleigh, NC 27699-1611

Re: Written comments on the proposed rule establishing the Central Coastal Plain Capacity Use Area

Dear Ladies and Gentlemen:

I am writing to you in regards for your request for written comments concerning the proposed rule that has been developed by the Division Water Resources for the proposed Central Coastal Plain Capacity Use Area or CCPUA.

I am the Town Administrator of the Town of Lucama, NC. Lucama is located in Wilson County so therefore, it falls under regulation by this proposed rule. We in Lucama would like to register our deep concerns and objections with falling under the purview of the proposed rule. We have had the opportunity to examine the proposed rule and Donnie Barnes, Public Services Superintendent and I, did attend the 3:00 p.m. public hearing in Kinston, NC that was held on August 8, 2000.

In our understanding, the CCPUA has three distinct zones where it has been determined that water withdrawals have had an adverse affect on the Cretaceous Aquifer system of the area. These zones have been identified as Declining Water Level Zone, Saltwater Encroachment Zone and Dewatering Zone. Our community is not located in any of these zones. In addition, our wells are rock wells and draw no water from the Cretaceous aquifer system that is noted in the proposed rule making. Hence, the only reason that we are potentially affected at all by this proposed rule is by virtue of our location within the boundaries of Wilson County.

This rule, while it has good intentions, will be very costly to our community if it is made to apply to us. We object to the prospect of having this rule apply to our community since it is evident that we are not in a position to contribute to the problem as pointed out by your own scientific data. The Town of Lucama

P.O. Box 127 • Lucama, North Carolina 27851 • (252) 239-0560 • Fax (252) 239-9707
email: lucama@eccentral.com

respectfully asks that it be exempted from the application of the rule and ask that the proposed rule be amended to exempt other communities that are also in our situation. Quite frankly, we feel that the rule would be an incredible burden to impose on a community in our situation and feel that the costs would be great to us if we are made to comply. Please consider our objections fully and we hope that you will grant our exemption request and/or recommended change to the rule.

Sincerely,

William H. Perkins, Jr.

William H. Perkins, Jr.
Town Administrator

Cc: file

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NORTH CAROLINA CHAPTER

Regional Groups

Blue Ridge
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Cape Fear
Wilmington

Capital
Raleigh

Central Piedmont
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Cypress
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Foothills
Winston-Salem

Haw River
Burlington

Headwaters
Durham

Medoc
Rocky Mount

Orange-Chatham
Chapel Hill

Piedmont Plateau
Greensboro

Pisgah
Brevard

South Mountains
Morganton

WENOCA
Asheville

Thursday, 14 September, 2000

The Environmental Management Commission
c/o Nat Wilson
DENR/ Division of Water Quality
1611 Mail Service Center
Raleigh, NC 27699-1611

Dear Members of the Environmental Management Commission:

The North Carolina Chapter of the Sierra Club is deeply concerned about the increasing evidence of present and future ground water overdrafts and potential water supply shortages and damages to aquifers within the fifteen county area of the Central Coastal Plain. The tremendous growth and development that has and will continue to occur in eastern North Carolina has raised the sense of urgency about the importance of developing water budgets that promote a fair allocation to all users while protecting the integrity of the State's natural resources. Thus, we appreciate the attention that the Ground Water Committee has given to drafting the proposed rules for water capacity use in the Central Coastal Plain. However, there are a number of points about the language of the proposed rules that we feel warrant your attention.

First, we are concerned about the wording of the agricultural use provision set forth in section 0.0505 (c) for "any person who is not subject to Rule .0502 … and withdraws more than 10,000 gallons per day from surface or ground water in the Central Coastal Plain Use Area" (.0505 a). According to the provision:

> Agricultural water users may either register water use with the Division of Water Resources as provided in this Rule or may provide the information through confidential water use surveys conducted by the North Carolina Department of Agriculture or the United States Department of Agriculture.

In our opinion, providing an option of confidentiality to agricultural users who withdraw 10,000 or more gallons of water per day, defeats the purpose of the proposed rules and provides what is essentially a secrecy shield for a select group of users. The waters of the State belong to the people of the State, and we believe that any action, which in any way inhibits public access to information regarding the State's natural resources, runs counter to the public's best interest.

Secondly, while we appreciate the importance of restricting the quantity of water that various entities will be allowed to withdraw from the State's supply of ground water and surface water, we question how the State will be able to enforce such restrictions without a comprehensive water budget. In other words, compiling data on how much water has been used is not going to do a lot of good if we don't have a better sense of how much

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Piedmont Plateau
Greensboro

Pisgah
Brevard

South Mountains
Morganton

WENOCA
Asheville

water is available. While we support a regional approach that would more fairly allocate the amount of water that is withdrawn from aquifers and surface water, as cities and farmers increasingly vie for limited resources, we feel that provisions for water use and allocation need to include data on the available water supply.

In addition, we feel that the State needs to more closely monitor the amount of water that the large-scale hog industry uses on a daily basis. Division of Water Quality data reveals that the large-scale swine industry has increased the toll on available water supplies. Current estimates show that animal facilities in the Central Coastal Plain use over 17 million gallons of water per day. And yet, there is apparently little or no provision for an industry-wide approach that monitors the capacity use for the hog industry.

Reports also show that hog facilities in Bladen and Robeson Counties use millions of gallons of water per day. The Smithfield Foods Processing Plant in Bladen County alone uses over 3 million gallons of water per day. And yet, neither Bladen nor Robeson Counties are included in the delineated area for the proposed rules. In addition, a review of capacity use records reveals that there have been significant compliance problems with large-scale animal operations that often fail to keep accurate records.

Therefore, we request that the State expand the encompassing area of consideration for water capacity use to include not only the Central Coastal Plain but also southeastern North Carolina. We ask that the State provide a comprehensive assessment of the available water supply and closely monitor the withdrawal of large-scale animal operations. And we ask that the confidentiality option in Section .0505 (c) be struck from the language of the provision and that the State take measures that will ensure that agricultural withdrawals of 10,000 or more gallons of water from the aquifers and surface water be a part of the public record.

Again, we are grateful for the work of the Ground Water Committee in addressing the serious issue of water capacity use in eastern North Carolina, and we appreciate the Environmental Management Commission's careful consideration of the concerns that we have raised.

Sincerely,

Tripp Pittman

Paul H. Pittman III
NC Sierra Club
Clean Water Campaign Coordinator

cc:
Molly Diggins, State Director
David Knight, Lobbyist
Coastal Working Group
Hog Roundtable

Chapter Office: 112 S. Blount Street • Raleigh NC 27601 • Tel: 919-833-8467 • Fax: 919-833-8460 • info@sierraclub-nc.org

Wight NURSERIES of North Carolina

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DIVISION OF WATER RESOURCES

September 8, 2000

Mr. Nathaniel C. Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Dear Mr. Wilson:

I am submitting written comments to the Proposed Rule establishing the Central Coastal Plain Capacity Use Area. I would like to begin by saying that we recognize the groundwater issues of the area and recognize that steps must be taken to preserve the resource. I would then like to share information about our business and our industry and stress the necessity of quality water for our business to exist in North Carolina. I would like to point out the water conservative measures we have already implemented. In conclusion, I have included requests that I thank you for considering as the rule is developed.

In 1996, our corporation selected North Carolina as a site to construct a wholesale nursery to grow plants in containers. Quality water availability was a very key factor in our deciding upon the location we chose near La Grange. We purchased 293 acres of land and have invested millions of dollars in physical development of the site and in plant product inventory. Because the site development and plant inventory are very expensive, we are only about 30% completed with our site development at this time.

To produce container plants requires large quantities of high-quality water that is applied to the containers on a daily basis in most cases. During periods of drought or high heat, applications of water are generally required more than once per day. In the propagation of liners, we require misting at intervals that start at three-minute intervals and diminish as rooting of the cuttings takes place. We obtain pure quality water from a 10-inch well that is 373 feet deep with a pump set at 250 feet and capable of delivering 1000 GPM. We are extremely concerned about our environment, and we believe that we should be as conservative as possible with our natural resources. We designed and constructed a water retention basin in our site development that is engineering to capture 100% of the water we pump in our irrigation processes. In 1999 we constructed a multi-pump irrigation station on this basin to recycle our water. We also employ directed pulse micro jet sprayer irrigation in the larger sized containers to limit water requirements to the absolute minimum for those containers.

Our industry in a labor-intensive industry; and on our nursery, we employ about one team member per acre of container production. At site completion 150 or more North Carolina families will earn their living from their jobs on our nursery. Our product is also very important to the agricultural economy in North Carolina. Currently there are more than 1400 nurseries in the state. These nurseries produce the crop that is number three in agricultural cash dollar receipts and is behind broilers and hogs. Our industry is a dollar and labor-intensive crop that is space concentrated. On our nursery, the wholesale commodity value is approximately $115,000 per acre. Our products are environmentally friendly, produce clean air, and give beauty to our living spaces.

We would like to request that the following be included in the proposed rule establishing the Central Coastal Plain Capacity Use Area.

4588 Brothers Rd • P.O. Box 303 • LaGrange, NC 28551 • (252) 566-9784 • FAX (252) 566-9786 • Toll Free 1-800-790-9194

1) **We request that the base rate of water usage for our developing business be at a rate that we are currently using factored up to the rate of usage projected for full site development.**
2) **We request that because we are currently employing the best water conservation practices our industry has available and maximum recycling techniques, our base rate reduction be half what is currently proposed in the rule.**
3) **We request that consideration be given to our industry because of the economic importance it has in the agriculture of North Carolina and the large amount of employment it affords for the amount of water it consumes.**
4) **We are concerned about the high costs we will experience as we establish alternative water sources from numerous low yielding wells in different aquifers, construct additional water retention basins and pumping stations, and install purification systems to clean this lower quality water to minimum utilization criteria. We request that consideration be included for the state of North Carolina to cost-share funding of the development of these alternative water sources.**
5) **We request special rules be in place that will allow us to withdraw necessary water to care for our plants during periods of extended drought and other weather-related emergencies.**

Thank you for your consideration of this input as you develop the Proposed Rule establishing the Central Coastal Plain Capacity Use Area.

Sincerely,

WIGHT NURSERIES OF
NORTH CAROLINA, INC.

James E. Scoggins
General Manager

JES:ak

Neuse River Foundation, Inc.

* serving the river and all its tributaries *

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Fax (252) 514-0051

May 9, 2000

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DIVISION OF
WATER RESOURCES

Dr. David H. Moreau, Chairman
North Carolina Environmental Management Commission
Department of City & Regional Planning
UNC-CH CB 3140
Chapel Hill, NC 27599-3140

Re: Central Coastal Plain Capacity Use Area Proposed Temporary and Permanent Rules

Dear Dr. Moreau:

As one of the participating groups in the stakeholder committee that met earlier this year, we wish to express the following concerns about provisions in the current proposal on your agenda this week:

1. In Section .0502 (c) [1] & [2] - instead of "avoid or minimize", we believe it should be "avoid or minimize and mitigate" for adverse impacts on ground water withdrawals. If we permit action that clearly has adverse impacts on this natural resource, then consistent with public policy for other resource protection (example: wetlands) we should require avoidance, minimization and appropriate mitigation.

2. In Section 0505 (a) - a "confidential" reporting provision for agricultural users defeats the purpose for which this registration (for withdrawals over 10,000 gallons per day) is intended. As we deal with increasing demands on this resource, we must be able to develop water budgets in order to fairly and equitably allocate for the needs of all user groups. Singling out only one user group for whom secret reports are allowed is not in the best interest of the public or the resource we intend to protect.

On balance we felt that the proposed rule language from the stakeholder group was insufficient to provide the protection needed for this over stressed aquifer system, however we were prepared to support it as a rational alternative to the current situation. The subsequent weakening of these proposed rules by the Ground Water Subcommittee, including the above listed items of concern should not be approved by the full EMC.

We appreciate your time and attention in reviewing our concerns.

Sincerely,

Marion Smith
Executive Director

Cc: Members of the EMC
John Morris, Director - Div. Of Water Resources
Mitch Peele, NC Farm Bureau

301 Hancock Street • New Bern, North Carolina • email

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TOWN OF BLACK CREEK

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September 11, 2000

NC Department of Environment
Environmental Management Commission
1611 Mail Service Center
Raleigh, NC 27699-1611

RE: Written comments on the proposed rule establishing the Central Coastal Plain Capacity Use Area

Dear Ladies and Gentlemen:

This letter is in response to your request for written comments concerning the proposed rule that has been developed by the NC Division of Water Resources for the proposed Central Coastal Plain Capacity Use Area or CCPUA.

The Town of Black Creek , NC is located in southern Wilson County; therefore, it falls under regulation by this proposed rule. The Black Creek Town Board strongly opposes and we have deep concerns about being included under this proposed rule.

In our understanding, the CCPUA has three different zones where it has been determined that the withdrawals of water have had an adverse affect of the Cretaceous Aquifer system of the area. These zones identified are the Declining Water Level Zone, Saltwater Encroachment Zone and Dewatering Zone. Our community is not located in any of these zones. Also, the water from our wells comes from granite rock and no water from the Cretaceous aquifer system is draw by from these wells. Therefore, the single reason that we are potentially affected at all by the proposed rule is by virtue of our location within the boundaries of Wilson County.

While we are sure there were good intentions in proposing this rule, it will be very costly to our community, both economically and growth wise, if it is made to apply to us. During past years our growth has been hampered due to high utility rates and not being qualified for many assistance programs because such a small percentage of our citizens were classified as low-income. However, in recent years we have positioned ourselves to be able to see a pattern of growth for our community. Now, with newly proposed rules such as the one we are writing about today which come without financial support from the state, we feel we are once

again being progressively held back and curtailed from growth. We feel all small municipalities such as Black Creek are being discriminated against with each newly added rule. In order to remain financially sound, as inflation increases, we need state support for these mandated regulations.

The Town Board of Black Creek would like to go on record as opposing having this rule apply to our community, since it is evident we are not contributing to the problem as pointed out by your own scientific data. Therefore, we respectfully ask that the Town of Black Creek be exempted from the application of the rule and ask that the proposed rule be amended to exempt other communities that are also in our similar situation. Please consider our objections fully and we hope you will grant our exemption request and/or recommended change to the rule.

We also extend a cordial invitation to any member of your Commission who would like to visit Black Creek and talk personally with me or other town officials about our concerns for this community.

Sincerely,

TOWN OF BLACK CREEK

Ralph M. Smith

Ralph M. Smith, Mayor

RMS:ja

COUNTY OF WASHINGTON

BOARD OF COMMISSIONERS

COPY

P.O. BOX 1007
PLYMOUTH, NORTH CAROLINA 27962
OFFICE (252) 793-5823 FAX (252) 793-1183

July 13, 2000

Mr. Wayne McDevitt, Secretary
Dept. of Environment and Natural Resources
Archdale Building
512 N. Salisbury Street
Raleigh, N. C. 27611

Dear Secretary McDevitt:

In review of recent actions by the Division of Water Resources to create rules for the purpose of regulating withdrawal of ground water in an fifteen county area, due to the water level deterioration in the Cretaceous Water Aquifer west of Washington County, the Washington County Board of Commissioners request that Washington County be removed from these regulations based upon the fact that Washington County does not withdraw from the Cretaceous Water Aquifer but from the Castle Hayne Aquifer area. Washington County is a Tier I County with construction underway for the first countywide water system. The Board of Commissioners and staff and County Engineers feel that it is unfair to have included Washington County in these regulations and ask that Washington County be removed immediately.

If you or your staff have any questions or concerns as to this request, please feel free to contact my office at 252 793-5823. Your prompt attention in this matter would be greatly appreciated by the Washington County Board of Commissioners and myself.

Sincerely,

William Lee Smith, III
County Manager

Xc: Mr. John Morris
Governor Jim Hunt
Senator Marc Basnight
Senator Bob Martin
Representative Eugene Rogers
Representative Bill Culpepper
Mr. Richard Hicks

STATEMENT REGARDING DESIGNATION OF THE CENTRAL COASTAL PLAIN CAPACITY USE AREA

To: Mr. John Morris, Director
Division of Water Resources
DENR
Raleigh, NC

From : Richard K. Spruill and Ralph C. Heath

Date: September 12, 2000

The Coastal Plain of North Carolina is underlain by an eastward-dipping and eastward-thickening sequence of sediments ranging in age from Cretaceous (about 150 million years old) to Recent. These sediments contain large amounts of groundwater, which is utilized throughout the Coastal Plain as the major source of domestic, municipal, industrial, and agricultural water. The ultimate source of this groundwater resource is infiltration and movement of precipitation through a complex groundwater system composed of interlayered aquifers and confining beds. The great complexity of the groundwater system is both a blessing and a curse! Multiple aquifers contain groundwater of significantly different water quantity and quality, and we can often tailor the water quality for the intended use of the water by selecting a specific aquifer. But the complexity of our groundwater system results in one major limiting factor, and that is the very low recharge rate to the deeper parts of the aquifers that underlie the central part of the Coastal Plain. Over the last 50 years or so, we have overdeveloped the groundwater resource by simply pumping out more groundwater from some parts of the groundwater system than can be recharged to the system naturally. Hydrologists liken this situation to "mining" of a valuable mineral resource like gold or silver, and we describe the situation in terms of "withdrawal of greater volumes of water than recharge to a particular aquifer".

The aquifers most in jeopardy from overuse in the Coastal Plain are called the Black Creek and Upper Cape Fear aquifers. Where these aquifers are overlain by thick sequences of silt and clay and/or other younger aquifers, such as in the Greenville-Kinston-New Bern-Jacksonville areas, recharge is quite low. Research by the authors of this statement indicates that recharge is as much as seventy five percent (75%) less than the volume of water currently being withdrawn in this large region. The response of the aquifers to this overdraft is a dramatic decline in water levels on a region-wide basis. We have been measuring these water-level declines in monitoring wells located throughout the Coastal Plain. The monitoring wells are part of a regional network of wells installed and maintained by both the Division of Water Resources (DENR) and the United States Geological Survey (USGS). Our conclusions from analysis of long-term water-level declines are: 1) very large cones of depression have developed over the central Coastal Plain in response to large scale over-development of the Black Creek and Upper Cape

Fear aquifers, 2) continued use at the current rate of withdrawal will cause significant and irreparable damage to the aquifer system such as saltwater intrusion, land subsidence, and aquifer dewatering, and 3) we must reduce our reliance on these two aquifers by reducing withdrawals to a rate equal to the rate of recharge.

The Central Coastal Plain Capacity Use Area Rule, currently proposed by the Division of Water Resources, is a well-designed rule aimed at preservation of our precious groundwater resources. The ultimate goal of the rule is to balance withdrawals with recharge in the Black Creek and Upper Cape Fear aquifers through a step-wise reduction over a sixteen-year time frame. We have worked throughout the rule-making process with the Division of Water Resources as scientific advisors, and we support the rule as it is currently written. We believe that implementation of the rule with ultimately preserve the groundwater resources in the Central Coastal Plain, and it will provide the regulatory framework for long-term best management of this vital resource.

Along with our statement of support for the rule, we wish to comment specifically about several aspects of the groundwater system of the Coastal Plain. We have been aware of the potential for overdraft of the Cretaceous aquifers since the 1970's. Ralph Heath described the hydrogeology of the Coastal Plain in 1970, and he predicted that excessive development of the Cretaceous aquifers would result in serious groundwater problems. Richard Spruill has described the overdraft situation in a serious of talks starting in about 1987. The data needed to evaluate the situation have been available from wells in the monitoring network and from production wells located throughout the Coastal Plain. One significant aspect of our work is the evaluation of recharge rates of the deeper aquifers. Our conclusions are that different parts of the aquifer system are recharged at different rates. For example, near the western edge of the Coastal Plain, recharge rates are much higher than for the same aquifers in the central Coastal Plain near Greenville-Kinston. This is important information because it tells us that we can develop more water from aquifers where the recharge rate is high, and we should expect to limit our withdrawal of groundwater from aquifers where the recharge rate is low. The recharge rate to the Black Creek and Upper Cape Fear aquifers in the central Coastal Plain is too low to support the current withdrawals, and we must take steps now to reduce these withdrawals. Developers of the groundwater resources have asked repeatedly, where will we find the water to replace the Cretaceous aquifer groundwater? We must develop alternate sources of water from aquifers with higher recharge rates, or we can turn to other sources such as surface water. Our point is that alternate sources of water are available to us in the central Coastal Plain, and we must begin the process of evaluation and development of them now.

As we have previously mentioned, much our knowledge of how the groundwater system responds to withdrawals of water comes from measurements in monitoring wells. The monitoring-well network in the Coastal Plain of North Carolina has evolved from a few wells in the 1940's to a complex network of dozens of strategically-located wells today. Many of the wells have been equipped with modern devices for recording water levels and transmitting the data to a central-receiving facility. The Division of Water Resources has established a field office in the heart of the Coastal Plain to coordinate

monitoring efforts. As scientists, we have consistently utilized the monitoring-well network in our analysis of groundwater conditions throughout the Coastal Plain. While there may be gaps in the monitoring-well data due to such things as failed well casings, we believe that the monitoring-well network and the records of water levels obtained from them provide a clear picture of groundwater conditions throughout the Coastal Plain. Those who oppose the proposed rule based upon the assertion that our monitoring-well network is inadequate are ill-informed! The monitoring-well network in the Coastal Plain of North Carolina is, in our opinion, superior to the network in most, if not all, of our United States!

Throughout the central Coastal Plain, we have developed the Black Creek and Upper Cape Fear aquifers for two major reasons: 1) the water is typically of very high quality and little to no treatment is required, and 2) developers of the resource assumed that there was an unlimited supply in these two aquifers. Now, substantial over-development of these aquifers threatens their future viability. The proposed rule is designed to protect this resource from ultimate demise. The rule does NOT propose to eliminate use of groundwater from these two aquifers, but rather it proposes to protect the aquifer by allowing development at a sustainable rate. Unfortunately for the current users of the Black Creek and Upper Cape Fear aquifers, our research tells us that the sustainable rate is substantially lower than the current rate of withdrawal. The rule will require a time-phased approach to reduction in withdrawals from these aquifers that will allow us to evaluate the response of the aquifer system to each reduction in withdrawals. The rule is designed to curtail reductions in withdrawals in the future when we have achieved a sustainable withdrawal rate. We particularly endorse this phased approach to reductions in withdrawals because it will allow developers and users of the resource to deal with the economic impacts of development of alternate water sources in a rational way, and because it will allow us to determine the definitive sustainable rate of withdrawal of the aquifer system.

The time for implementation of the Central Coastal Plain Capacity Use Area Rule is now. We cannot afford to continue the overdraft of the Black Creek and Upper Cape Fear aquifers. The proposed rule is well conceived, the rule is based on sound scientific data (including data from a quality monitoring well network), and the rule deals rationally with the economic environmental consequences though the time-phased approach to reductions in withdrawals. There are alternative water supplies available throughout the North Carolina Coastal Plain that can be evaluated and developed in cost effective ways. We, the developers and users of the water resources of the Coastal Plain, must look at the water supplies of the region from a new perspective. This new perspective, embodied in the proposed rule, must be based on consideration of all of our options, including CONSERVATION, WATER REUSE, AQUIFER STORAGE AND RECOVERY, SURFACE WATER, CONJUNCTIVE USE OF SURFACE WATER AND GROUNDWATER , UTILIZATION OF CURRENTLY UNDERUTILIZED AQUIFERS, etc..

Thank you for this opportunity to express out thoughts regarding this important issue. Please contact us if you need additional information of if we can be of further assistance.

Sincerely,

Richard K. Spruill, Ph.D.
Associate Professor of Geology/Hydrology
East Carolina University

Ralph C. Heath
Adjunct Professor of Geology
East Carolina University

GUILFORD FABRIC
GUILFORD MILLS, INC. • GREENSBORO, NC
P.O. Box 26969 • Greensboro, NC 27419-6969 • (336) 316-4000

August 7, 2000

Mr. Nat Wilson
Groundwater Branch, Water Allocation Section
Division of Water Resources, NC DENR
1611 Mail Service Center
Raleigh, NC
27699-1611

Subject: Submittal of Written Comments
Central Coastal Plain Capacity Use Area (CCPCUA)
Proposed Final Rules, Dated May 15, 2000

Dear Mr. Wilson:

We are submitting the following comments after review of the referenced proposed final rules that were published on May 15, 2000. Guilford Mills operates the Guilford East Plant in Duplin County and uses groundwater for textile dyeing and finishing operations there.

Guilford Mills believes that the groundwater resources in the coastal plain are very valuable and that they need to be protected. We believe that sustainable use of the groundwater resources is a worthy goal. We also believe that continued economic growth and development of the coastal plain is a worthy goal. It is the belief of Guilford Mills that the proposed rules of the CCPCUA do not adequately address manufacturing facilities in the effected area. We believe that the proposed rules will add a burden to growing companies in the area while allowing business that are not providing economic growth to shoulder less of the load in the conservation efforts. We do feel that water usage can be reduced even while a company is growing. This could be done through improvements in processes as well as other conservation techniques. The following comments and suggested changes to the proposed rules are offered in this spirit.

Guilford Mills recommends that the definition for "Approved base rate" in section .0507(1) of the proposed rules be changed as follows: The definition for "Approved base rate" should contain a provision that allows facilities (persons) to use a production unit based rate, versus a total volume base rate. For example, an industrial facility could choose to have its approved base rate set as X number

of gallons per pound of production for the time periods listed in the proposed rule. This base rate would then be used in the other sections of the rule to determine required water use efficiency improvements. The advantages of this change are discussed below.

As the proposed rule is currently written, it potentially limits the growth of certain industries and facilities in the CCPCUA. The proposed rule requires phased annual water use reductions based on the approved base rate. The approved base rate does not take into account the production levels at industrial facilities. A company that is growing and creating additional economic opportunities in the area is penalized for that growth compared to a company that is not growing and not creating additional economic opportunities. As a result, a growing company may choose to locate additional production capacity at facilities outside of the CCPCUA. On the other hand, a company faced with annual water use reduction requirements could choose to move production capacity and jobs to facilities outside of the CCPCUA in order to meet the requirements. This is clearly not good for the economy of the area.

We believe that a production-based rate and subsequent annual water use efficiency improvement requirements would be a more equitable way to provide for the sustainable use of the groundwater in the CCPCUA. In this way, a growing company would be assured that the burden of reducing water use and increasing water use efficiency would be shared by other industries and entities in the area. In addition, it would not provide an incentive for companies to move production and jobs out of the area in order to meet annual water use reduction requirements. All facilities would be encouraged to improve water use efficiency starting with the first phase of the program.

Thank you for considering this change to the proposed rules. Please call me at (336) 316-4319 if you have any questions or if you need any additional information.

Sincerely,

Jimmy Summers

Jimmy Summers
Corporate Environmental Manager

Cc: Brent Turner

TINGA NURSERY, Inc.

Outdoor Plant Specialists

FLOWERING, FRUITING, ORNAMENTAL and EVERGREEN TREES and SHRUBS

ON HIGHWAY 117, THREE MILES NORTH OF WILMINGTON

TELEPHONE: 910-762-1975

FAX: 910-763-4231

E. H. TINGA
E. H. TINGA, Jr.
H. R. TINGA

2918 CASTLE HAYNE ROAD
CASTLE HAYNE, N. C.
28429

September 13, 2000

Environmental Management Commission
Attn: Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Dear Mr. Wilson:

Re: Proposed Additional Definition Rule.0503

We would like to propose the additional definition to the rules to read as follows:

(1) The reductions specified in Rule .0503 do not apply to the portion of any agricultural enterprise using low-volume micro-irrigation which was in place before July 1, 2001. The base established during Phase 1 for micro-irrigation acreage will not be subject to reductions for those production areas which are low-volume, micro-irrigated and in use by July 1, 2001.

Thank you for your consideration in this matter.

Sincerely,

Tinga Nursery, Inc.

Eelco H Tinga Jr.

Eelco H. Tinga, Jr.
President

EHTj/gw

MURPHY
FAMILY FARMS

September 15, 2000

By Facsimile and E-mail

Mr. Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Re: Proposed Central Coastal Plain
Capacity Use Area

Dear Mr. Wilson:

Murphy Farms, Inc. appreciates the opportunity to comment on the proposed Central Coastal Plain Capacity Use Area.

Our principal comment relates to identification of those who must obtain withdrawal permits in subsection .0502(b). This proposed subsection now provides, in relevant part, that permits must be obtained by any person withdrawing ground water in excess of 100,000 gallons per day "…by a well or group of wells operated as a system…" We understand that DENR intends this language to mean that while an individual or single entity may withdraw water from multiple wells at different operating locations throughout the Area, the 100,000 gallons per day cut off will be applied to each of that individual's or entity's wells or group of wells serving a single operating location. In other words, a company such as Murphy Farms may cumulatively withdraw more than 100,000 gallons per day from all of its wells at multiple farms owned by it throughout the Area, but would have to apply for a permit only at those individual farms with withdrawals exceeding 100,000 gallons per day.

We believe this is the only workable approach to permitting. Otherwise, permits would be required for numerous small withdrawals even though they have little impact on ground water individually simply because they are under common ownership.

Although subsection .0502(b) can, and certainly should be construed as discussed above, we believe it should be modified to more clearly express its intent. Therefore, we propose that it be modified, in relevant part, as follows:

Post Office Box 750 Rose Hill, North Carolina 28458 (910) 289-2111 FAX (910) 289-2499

> *(b) No person shall withdraw ground water after the effective date of the Rule in excess of 100,000 gallons per day by a well or group of wells operated as a single functional system for any purpose unless such person shall first obtain a water use permit from the Director.*

Murphy Farms, of course, is more directly concerned with the potential impact of the permitting requirement on agricultural operations. Accordingly, to the extent DENR wishes to clearly express the intent of subsection .0502(b) with respect to agriculture, we offer the following proposed modification as an alternative to the proposal discussed above:

> *No person shall withdraw ground water after the effective date of this Rule in excess of 100,000 gallons per day by a well or group of wells operated as a system for any purpose unless such person shall first obtain a water use permit from the Director. Individual farms under common ownership shall be required to obtain a water use permit only if groundwater withdrawals by a well or group of wells operated as a system exceed 100,000 gallons per day at a single farm location.*

Also, we believe that one of these alternatives should be added to subsection .0505(a) relating to registration of withdrawals. Otherwise, this subsection could be construed to require registration of numerous very small withdrawals simply because they are under common ownership.

Again, thank you for the opportunity to submit these comments, and please do not hesitate to call if you have any questions.

Sincerely,

Jeffery B. Turner
Vice President
Environmental Resources

NORTH CAROLINA
FARM BUREAU FEDERATION

TELEPHONE (919) 782-1705 / P. O. BOX 27766 / RALEIGH, NORTH CAROLINA 27611

September 15, 2000

Mr. Nat Wilson
Division of Water Resources
Department of Environment and Natural Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Dear Mr. Wilson:

The North Carolina Farm Bureau Federation has met with your office numerous times over the past two years to discuss water supply issues in eastern North Carolina and the proposed Central Coastal Plain Capacity Use Area Rule. In addition, we served on the stakeholder team that was charged with developing language for this rule. We have appreciated each of these opportunities to share with you our concerns regarding how the proposed rule may further burden eastern North Carolina's farmers who are still struggling to recover from record low commodity prices, the loss of more than 40% of tobacco allotments, and last year's devastating floods. There have been several improvements in the proposed rule language that have occurred over the past several months, but some parts of the rule still concern us. In the following paragraphs, we will summarize our position on parts in the proposed rule that we strongly support as well as parts that still concern us.

Declaration and Delineation of Capacity Use Area (CUA)

The area defined as a CUA would encompass the entire counties of Beaufort, Carteret, Craven, Duplin, Edgecombe, Greene, Jones, Lenior, Martin, Onslow, Pamlico, Pitt, Washington, Wayne and Wilson; even though the data clearly shows that all parts of these counties are not experiencing declining water levels in the targeted Black Creek and Upper Cape Fear aquifers. A more reasonable approach would have been to delineate a more focused area that is in closer proximity to the parts of the aquifer that are experiencing problems. This type of approach is being used in the current Capacity Use Area No. 1 in the Castle Hayne Aquifer. A more focused or targeted approach would limit the burden to the areas that need the most attention.

Withdrawal Permits

Previously, we have commented that farmers should not be required to install meters to monitor water use. Rather they should be allowed to comply with reporting requirements by estimating water use based on scientifically accepted formulas that predict water use by the type of operation. NC State University, Natural Resources Conservation Service, and US Department of Agriculture specialists can work with farmers to estimate water use for irrigation, watering livestock, and managing aquaculture operations. In addition, we are concerned that requirements in the proposed rule for reporting detailed well information could force farmers to hire engineers to help them meet these requirements. The proposed rule also calls for users within the salt water encroachment zone to annually sample their wells and that chloride analysis be performed by a

State certified laboratory. The Division of Water Resources (DWR) has said that agricultural water users are not causing significant water supply problems. Therefore, farmers should not be forced to hire engineers or pay for expensive laboratory tests to comply with the rule.

Prescribed Water Use Reductions

We continue to prefer the use of reduction goals in lieu of mandated reductions as covered in this part of the proposed rule. Further, we have similar concerns regarding the delineation (size and scope) of the critical zones as did we with the CUA in general. However, we do commend DWR staff for working with agricultural stakeholders to add language that exempts intermittent users from having to meet these reductions. Clearly, sporadic or intermittent users are having little, if any, long term impact on the aquifers. We strongly encourage the DWR to maintain this provision in the proposed rule.

For several months, we have continued to discuss the proposed rule with farmers to further evaluate the potential impact of the rule on the agricultural community as a whole. Certain segments of the agricultural community have unique concerns that require further special consideration based on the proposed rule's impact on a specific commodity or type of water use. This is especially true with micro-irrigators such as is used in some ornamental nursery and greenhouse operations. Recently, your staff met with some nurserymen to discuss this very issue. We totally agree with the comments made by Mr. Mike Worthington in a letter mailed to you on September 6, 2000. We ask that you seriously consider exempting agricultural operations which use micro-irrigation systems from the prescribed water use reductions in the proposed rule. The number of operations affected by such an exemption is expected to be very minimal; however, we believe the benefits of this type of water use more than justifies the requested special consideration.

Reporting of Water Use Below 100,000 Gallons Per Day

We have meet with your office several times to discuss the issue of reporting water use below permitted levels. In earlier meetings with us, you agreed to allow agricultural users to report water use information by alternative methods. Specifically, DWR agreed to change the rule to allow agricultural users to report this information by submitting information to DWR directly, or by participating in a water use survey as conducted by the Agricultural Statistics Division (ASD) in the NC Department of Agriculture & Consumer Services and US Department of Agriculture, or by reporting water use information directly to the Agricultural Statistics Division in lieu of DWR. We commend DWR for revising the proposed rule to allow agricultural users to fulfill the reporting requirements by participating in a survey conducted by the ASD. However, DWR has yet to revise the rule to reflect the other option for reporting directly to ASD in lieu of DWR and that is not part of any survey. We ask that this change be made in the proposed rule as we had agreed.

In several discussions that we have had with the Agricultural Statistics Division and DWR, we have learned how participation by farmers in a survey or reporting information directly to ASD has advantages over reporting to DWR. Mr. Robert Murphy, Director of DWR has informed you that past experience has shown that information collected by their division is more reliable than information obtained through forced participation. Farmers are used to dealing with ASD staff and feel comfortable when sharing information with them. State (NCGS 106-24.1) and federal (US Code Title 18, Section 1905) law governs how any information collected by ASD is treated. Mr. Murphy has indicated that his staff can provide more details on how information is handled if you so choose. In addition, allowing farmers the option of reporting information through ASD surveys or to the ASD office directly has the potential to obtain more information that what would be obtained through DWR reports alone. By allowing farmers these reporting options, you have the potential of getting information from farmers who use water even below the 10,000 gallons per day threshold. These reporting options also allow the farmer to register their water use and protect future them from attempts to deny them of their water rights.

We have also discussed how ASD and DWR may collaborate to determine what the effect of new permits will be on the agricultural community within the proposed Central Coastal Plain Capacity Use Area and how annual reports could be provided to DWR for planning purposes. The overall result of these reporting options is that better and more data will be obtained from the agricultural community than what would be collected without these options.

Definitions

In meeting with various constituents of the agricultural community we have realized that although the exemption of intermittent users from the mandatory water use reductions is commendable, the current definition may not fully address activities with minimal impact on the aquifer and which also should be classified as intermittent use. Aquaculture operations represent an important part of eastern North Carolina. These operations have unique but obvious concerns that require further special consideration. We have met with your office, NC Department of Agriculture & Consumer Services, university specialists, and fish farmers to discuss aquaculture's concerns in more detail. We believe the sporadic use of water by these operations serves as a basis for classifying them as an intermittent user. Therefore, we ask that the definition of intermittent users be amended as follows: Persons who withdraw ground water in amounts greater than 100,000 gallons per day less than 60 days per calendar year; or who withdraw less than 15 million gallons of ground water in a calendar year; or aquaculture operations licensed under the authority of GS106-761 involved in initial filling or refilling of ponds no more frequently than every 5 years.

Concluding Remarks

Farmers must have easy access to water to operate their businesses. We realize the value in collecting information regarding water use in order to adequately plan for current and future

needs. Further, we understand as much as anyone the value in protecting our natural resources for future generations. We believe that with the aforementioned requested changes in the proposed rule, farmers and others can work together to achieve this goal.

Thank you for allowing us to express our thoughts and for the consideration that you will give to each of them.

Sincerely,

Larry B. Wooten

Larry B. Wooten
President

LBW:map

cc: Dr. Robert Cook
Mr. Leo Greene
Mr. Ryan Turner

Worthington Farms
Est. 1837

3661 Ballards Crossroads Greenville, NC 27834
(252) 756-3827 FAX (252) 756-9442
sales@worthingtonfarms.com
http://www.worthingtonfarms.com

September 6, 2000

Environmental Management Commission
Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611

Dear Sirs:

While traditional agriculture appears to have been represented in the stakeholders group, the most economically dynamic and growing segment of agriculture in both North Carolina and the U.S. was not. Unfortunately, the agricultural irrigators and the North Carolina Farm Bureau have no expertise concerning the ornamental nursery and greenhouse industry.

As the Past-President of the North Carolina Association of Nurserymen and a producer in the capacity use area, I hope the concerns of the nursery industry outlined in these comments will be considered carefully before the rules are finalized.

Companies have recently invested heavily in new production areas. Generally accepted construction costs for production areas range from $20,000 per acre to $40,000 per acre for overhead irrigated production space (not including plants, pots, and soil). The value of plants on an acre can easily be worth over $100,000. Micro-irrigated production can cost as much as $100,000 per acre to install (not including plants, pots, and soil). Depending on the crop, the value can range from $50,000 to $250,000 per acre.

The nursery industry is certainly concerned with declining aquifers. Where possible, most producers develop and utilize surface water for overhead irrigation as much as possible for simple economic reasons. Pumping from ground sources is more expensive because of the energy required to lift water. Overhead-irrigated production areas are generally crowned and made to be impermeable in order to effect travel immediately after irrigating. The nature of this construction facilitates recapture and reuse of irrigation water and rainfall.

Micro-irrigation is a targeted application of water using low volumes of water and, generally, low-pressure technology. Most of this micro-irrigation technology was developed in the Middle East (particularly Israel), where water conservation is imperative. Targeted application means that water is applied solely to the root zone of the plant being produced, minimizing water losses from evaporation, consumption by weeds, and run-off. With an ability to apply water in such a precise manner, it is possible to irrigate in a number of short bursts spread throughout the day using sophisticated irrigation controllers. The goal of this highly managed irrigation is to provide for the plants needs without using excessive amounts of water.

Irrigation water quality is the single most critical factor for production of ornamental nursery plants. Poor quality irrigation water can change substrate pH, interfere with uptake of required nutrients, deposit unsightly foliar residues, or clog mist nozzles, drip emitters, and micro-irrigation emitters. Micro-irrigation, which can be 80% more efficient than overhead irrigation, requires extremely high quality water. The highest quality water in eastern North Carolina is generally found in the deeper underground aquifers.

In 1990, we at Worthington Farms began researching the most efficient methods to irrigate and produce large container plants. After nearly two years of study and visits to numerous "state of the art" nurseries, we determined that "Pot-in-Pot" container production using micro-irrigation was the most efficient and environmentally conscious production method. At this time we had no knowledge of the aquifer depletion and the fact that we were operating in a Capacity Use Area. On the well-drained land in which we installed this Pot-in-Pot production, well water was the only source of irrigation water we could develop.

Even before we were aware of the current nutrient-sensitive waters management rules, we planned our nursery production using Best Management Practice guidelines outlined by university specialists in Best Management Practices, a publication of the Southern Nursery Association. These BMP's around which we have designed our nursery are highly compliant with the Neuse and Tar-Pamlico River Sensitive Waters Management rules under which we now operate. Simply expressed, best management practices limit nutrient loss by limiting water waste.

Summarizing our concerns, **producers cannot reduce water use when the most efficient application technology is utilized.** If ground water withdrawal reductions become reality where this most efficient micro-irrigation technology is used, producers, in a best-case scenario, will incur extraordinary expense to develop inferior surface water alternatives to replace their current systems. In another scenario, producers who have no significant surficial aquifers or watersheds available to capture water will be forced to scrap production areas as the reductions are enforced. We feel this is overly burdensome.

We would like to propose the additional definition to the rules to read as follows:

(1) The reductions specified in Rule .0503 do not apply to the portion of any agricultural enterprise using low-volume micro-irrigation which was in place before July 1, 2001. The base established during Phase I for micro-irrigated acreage will not be subject to reductions for those production areas which are low-volume, micro-irrigated and in use by July 1, 2001.

If you have any questions you may reach:

Mike Worthington: Cell (252) 413-8674
Sean Gurkin: Cell (252) 531-2306

Thanks for your consideration.

Sincerely,

Mike Worthington

Mike Worthington
Worthington Farms, Inc.

September 1, 2000

SUPPLEMENTAL COMMENTS

PROPOSED CENTRAL COASTAL PLAIN CAPACITY USE AREA

David C. Yaeck
New Bern, NC

Since participating in the public hearing conducted by the Environmental Management Commission on August 8 regarding the proposed CUA, I have had an opportunity to further reflect on the overall regulatory concept as well as the testimony offered by others. I welcome this opportunity to forward some additional comments based on my years of experience as a professional in the water resources field.

The language of the proposed rule offers no opportunity for comprehensive water resources planning in the affected 15-county area in Eastern North Carolina. The creation of the CUA represents a rare opportunity for affected interests to work toward a common goal of overall efficient water resources management incorporating both surface and ground water objectives. The proposed rule requires only that an applicant for a ground water withdrawal permit from the Cretaceous aquifer system include plans to reduce water use from those aquifers. It does not provide a vehicle for a regional approach to the water supply issue.

A review of the existing approach to water supply planning in the state discloses a focus on political boundaries with each county responsible for its plan on a five-year cycle. These plans, in turn, form the basis for the North Carolina state water plan. This effort should also incorporate a regional approach that emphasizes commonality in specific watersheds, basins and sub-basins to make full and effective use of available water resources.

The evolution of an effective water resources management plan for the Central Coastal Plain will be a lengthy and detailed process, but the effort can result in long-term benefits for all interests involved. To accomplish this objective, it is strongly suggested that a Central Coastal Plain Water Resources Management Committee be established incorporating in its membership those parties represented on the original Stakeholders' Group as well as such others who may logically contribute to the success of such an undertaking. Committee leadership should be from within its membership with the State Water Resources Division serving in an advisory capacity. This formalized approach to water resources management in the Central Coast Plain also presents a unified voice for those who would seek financial and other assistance in carrying out any mandate arising from the implementation of the proposed Capacity Use Area regulations.

In the event this recommendation is not adopted, there yet remains the need for coordination in the proposed CUA area regarding Cretaceous aquifer withdrawals, reductions in those withdrawals and utilization of alternative sources of supply. Some provision should be incorporated in the proposed regulations which would require those responsible for county water supply plans to immediately begin the process of updating those plans to reflect necessary management decisions in keeping with the concept of the CUA. The State Water Resources Division would then assume the responsibility for the resolution of conflicts that may arise from competing uses.

Another area of concern involves the enforcement of the CUA regulations should they be adopted. Without a penalty clause, any regulation may be difficult to properly administer. If a penalty provision for non-compliance with a state regulation exists in another statute, then that should be brought forward and incorporated in the proposed regulation. If not, then such a penalty clause should be created to properly advise those interests covered by the regulation of their obligation under its terms.

Part VI: Attachments

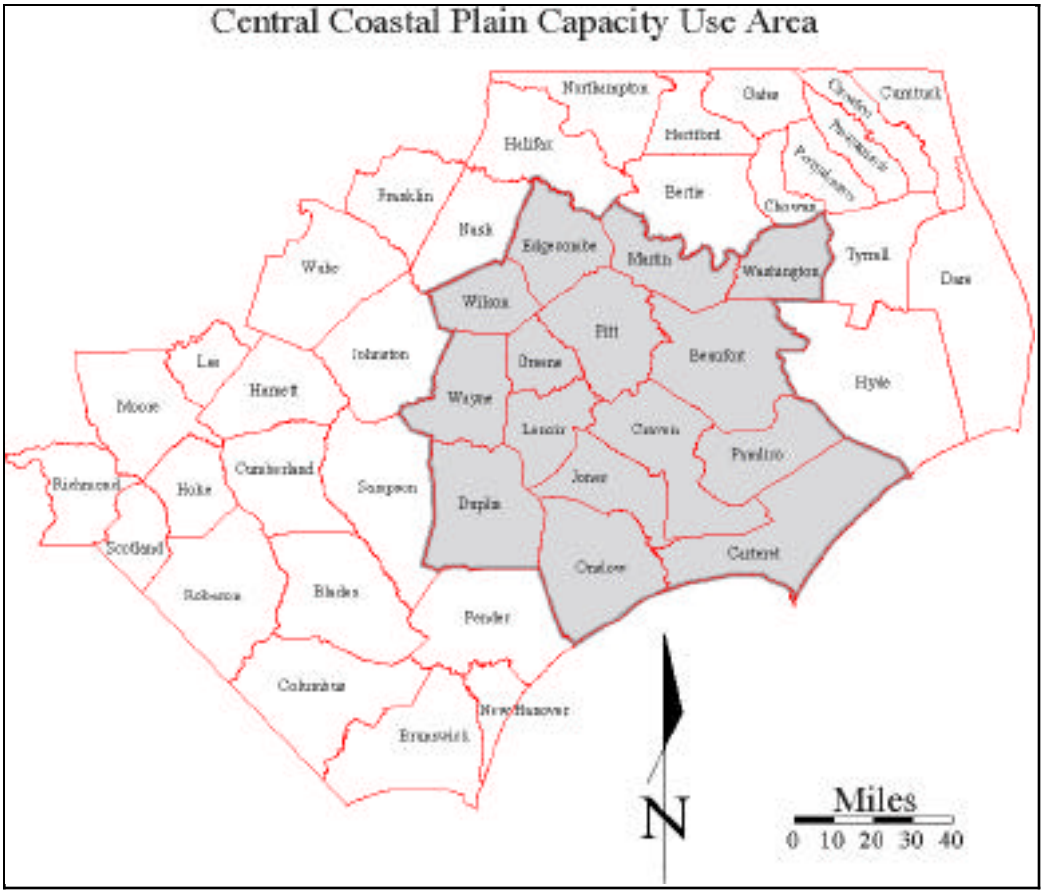
ANNOUNCEMENT

PROPOSED CENTRAL COASTAL PLAIN CAPACITY USE AREA
PUBLIC HEARING SET FOR AUGUST 8, 2000

The NC Department of Environment and Natural Resources on behalf of the Environmental Management Commission (EMC) will conduct a public hearing in order to receive public comments on the proposed Central Coastal Plain Capacity Use Area.

Public Hearing

Location:	NC Global TransPark Authority Education & Training Center 3800 Hwy 58 North Kinston, NC
Date:	August 8, 2000
Time:	3:00 - 5:00 p.m. and 7:00 - 8:00 p.m.



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BACKGROUND

There is increasing evidence of present and future ground water supply shortages 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 (see preceding figure). Within these counties ground water from the Cretaceous aquifer system (Black Creek, Upper Cape Fear, and Peedee aquifers) is being withdrawn at a rate that exceeds the available recharge. To address threatened ground water supplies in the region, the Environmental Management Commission (EMC) proposes to create the Central Coastal Plain Capacity Use Area. The proposed rules would establish a permit system for ground water withdrawals that exceed 100,000 gallons per day.

The rules were developed through a vigorous stakeholder process which involved representatives of all major interest groups. The stakeholder group met weekly from February 7 to April 3, 2000. Some stakeholders objected to the previous version of the proposed rule that had been developed by the Division of Water Resources. The new proposed rules replace the case-by-case technical evaluation of each permit application with prescriptive requirements depending on location. These requirements are designed to reduce demand on stressed aquifers in areas where monitoring indicates moderate to severe impacts. The approach calls for three rounds of reductions in ground water withdrawals. Implementation of the latter two rounds of reductions will be conditional, based on the Division's ongoing evaluation of water levels in the aquifers, and may be adjusted to assure that the prescribed cutbacks are aligned with achieving sustainable use of the aquifers.

In addition to the ground water permitting requirements, surface and ground water users who withdraw more than 10,000 gallons per day and are not subject to the permitting provisions will be required to register their water use. This information will assist the Division in assessing the impact of smaller withdrawals on available water resources

HOW TO SUBMIT COMMENTS

Persons interested in this proposal are encourage to attend the public hearing and make relevant verbal comments or submit written comments by September 15, 2000. It is very important that all interested parties make their views known to the Environmental Management Commission whether in favor or opposed to any and all provisions of the proposal. We encourage you to submit written comments as well. The proposed effective date for the final rules pursuant to this hearing process is April 1, 2001. Written comments, data, or other information relevant to this proposal may be submitted to Nat Wilson in the Division of Water Resources at the address listed below.

FOR ADDITIONAL INFORMATION

The Division of Water Resources has prepared a fiscal note and Notice of Text for these rules. This information will be published in the July 17, 2000 issue of the North Carolina Register. Copies of the proposed rules in pdf format can be found on the internet at http://www.ncwater.org/hms/gwbranch/gwb.htm A copy of the proposed rules and notice of text may also be obtained by writing or calling:

Nat Wilson
DENR/Division of Water Resources
1611 Mail Service Center
Raleigh, NC 27699-1611
(919) 715-5445

Combined List of Registered Attendees for August 8, 2000 Public Hearings

Name	Title	Association
Ralph C Heath	Consulting Hydrogeologist	
Harry E. LeGrand	Independent Hydrogeologist	
Tony Ballance	Northern Wayne County Farmer	
Vines Cobb		
Mark Loomis		Carolina Classics Catfish
Louise England		Carolina Power & Light Company
Michael D. Bliss		Carolina Turkey
Taylor Peel		Carolina Turkey
Dave Clark, PE		Carteret County
Helen Anderson Boyette		Chinquapin Water Association
Maria Alge		City of Greenville
Ricky G Langley	WS	City of Greenville Utilities Commission
Susan Rexrode	DPU	City of Havelock
Sean Duffy		City of Jacksonville
John A. Jarrell III		City of Kinston
Wayne D. Malone	City Council	City of Kinston
Scott Stevens	Engineer	City of Kinston
Allen Parrott		City of Kinston
Harold Herring	Assistant Director of Public Utilities	City of Kinston/Neuse Regional W & S Authority
Doug Ellington		Clean East Associates
Clifton W. Whitfield		Clean East Associates
Chester Ellis	Environmental Manager	Collins & Aikman Products Co
HAROLD BLIZZARD	MANAGER	Craven County
Roy Hayes	Superintendent	Craven County
Gerald Underwood		CWS of NC
BILL GRAY		DEEP RUN Water CORPORATION
Avonna Johnson		DEEP RUN Water CORPORATION
Judy Brown	Assistant County Manager	Duplin County
Arliss Albertson	Commissioner	Duplin County
Woody Brinson	Economic Development Director	Duplin County
Robert T. Hatcher		Duplin County WAter
Clifford Lee	Environmental Manager	DuPont Kinston Plant
Eric G. Lappala		Eagle Water Co/Eagle Resources
Chris Foldesi		East Carolina University
Richard Spruill		East Carolina University - Dept of Geology
Joe C McKinney	Executive Director	Eastern Carolina Council
Steve Hines		Eastern Carolina Council of Govt's

Name	Title	Association
Barry T Sutton	Manager	Eastern Pines Water Corp
Walter J. Bean		Eastern Wayne Sanitary District
EDWIN E ANDREWS, III	Consulting Hydrogeologist	Edwin Andrews & Associates
Angie Frizzell		ENSR International
H. Jack Edwards		FORK TOWNSHIP Sanitary District
Denny Garner	Chairman, County Commissioners	Greene County
Greg Martin		Greene County
Curtis Consolvo	Hydrogeologist	Groundwater Management Associates, Inc
James K. Holley		Groundwater Management Associates, Inc
Brent Turner		Guilford Mills Inc.
Donald A. Heath		Heath Farms
LARRY P. MEADOWS	MANAGER	JONES COUNTY
Sondra Ipock Riggs	Commissioner	Jones County
LEE O. HAWKINS		JONES COUNTY
Horace Phillips	Chairman, Board of Commissioners	Jones County
Jennifer J Shrader		Kinston Free Press
John Bauer	County Manager	Lenoir County
Joey Taylor		Lenoir County
Steve Whitt		Martin Marietta Materials, Inc.
ALBERT V. LEWIS, JR.		McDavid Associates
Tyndall Lewis		McDavid Associates
Cindy Kilborn		McDavid Associates
GARY R MCGILL	PRESIDENT	MCGILL ASSOCIATES, PA
Kevin Eberle		McKim & Creed, PA
Chris Windley		McKim & Creed, PA
Ed Regan		NC Association of County Commissioners
Michael Wade Worthington		NC Association of Nurserymen, Worthington Farms
Lee Padrick		NC Division of Community Assistance
Mitch Peele		NC Farm Bureau Federation
Larry B. Wooten		NC Farm Bureau Federation
Chester Lowder		NC Farm Bureau Federation
Marian McLawhorn	Representative	NC General Assembly
Edith Warren	Representative	NC General Assembly
Russell Tucker		NC General Assembly
Joe P. Tolson		NC General Assembly
Pryor Gibson		NC General Assembly
Paul Bu sick	President	NC Global Transpark Authority
Michaela Durkin		NC Global Transpark Authority
Jim Sughrue		NC Global Transpark Authority
Van W. Noah		NC Global Transpark Authority

Name	Title	Association
Tom Greenwood		NC GTP Development Commission
Paula S Thomas	Manager of Environmental Policy	NC League of Municipalities
Tina Murphrey		NC Rural Center
Dennis Lassiter		NC Rural Center
Keith Starner	geologist	NC Rural Water Association
Mike Hill		NC Rural Water Association
Debbie Maner		NC Rural Water Association
Tripp Pittman	Clean Water Campaign Coordinator	NC Sierra Club
Jim Cummings		NCDA & CS
Michael P Bell	Regional Engineer	NCDENR Division of Environmental Health
David C Yaeck	Consultant	Neuse River Foundation
Marion Smith	Executive Director	Neuse River Foundation
Melvin Albritton		North Lenoir Water Corp
S. Jerome Shaun		NORTHWEST ONSLOW WATER ASSOC
David Pittman	Board member	Northwestern Wayne Sanitation District
Nan Freeland		NRLI
Bob McLeod		Old Courthouse Nursery
Bill Harvey	Technical Director	Onslow County
Cynthia Pipkin		Pamlico County Water
Terry L Baker		PCS Phosphate Company
Linda McCarthy		PCS Phosphate Company, Kinston Div
PHIL DICKERSON	ENGINEER	PITT COUNTY
Dan Wynne		Pitt County Farm Bureau
Tom Howell, P.E.	Vice-President	Rivers & Associates, Inc.
Randy Gould		Rivers & Associates, Inc.
Mark Garner		Rivers & Associates, Inc.
Robert E. Pittman		Rivers & Associates, Inc.
Chris Reinhardt		Skelly and Loy, Inc.
Adolph Thomas		SOUTH GREENE Water CORP
James A. Taylor		Southeastern Wayne Sanitary District
Jean Hood	Chairman	Southwestern Wayne Sanitary District
Billy M. Kornegay, II		Southwestern Wayne Sanitary District
David A. Bennett		Southwestern Wayne Sanitary District
Gail P. Jones		Southwestern Wayne Sanitary District
Alan Lumpkin		Southwestern Wayne Sanitary District
BRUCE BLAND		STOKES REGIONAL WATER CORP
Arthur L. Kennedy		The Wooten Company
Todd Bullock		Town of Bethel
Joseph H. Edwards	Mayor Pro Tem	TOWN OF BEULAVILLE
Sam Blizzard		TOWN OF BEULAVILLE
Dale A. Evans		TOWN OF BEULAVILLE

Name	Title	Association
KAY H. EVANS		TOWN OF CHINQUAPIN
Bill Igoe	Mayor	Town of Faison
HON ROBERT L. EVANS	MAYOR	TOWN OF FARMVILLE
Richard Hicks	Manager	Town of Farmville
Gerald Severson		TOWN OF LA GRANGE
Hank Perkins	Town Administrator	Town of Lucama
DONNIE H BARNES	DPW	TOWN OF LUCAMA
Joe Clayton	DPW	Town of Morehead City
Phil O Webb		Town of Pinetops
David B. Drake		Town of Pinetops
JOHNNY J CHADWICK	DPW	TOWN OF POLLOCKSVILLE
Dale B. Manning		Town of Snow Hill
Gary Wayne Barmer		TOWN OF WILLIAMSTON
Teresa Savarino		UNC Chapel Hill
Lieutenant Colonel Stephen Finn	Associate Counsel, Environmental Law	US MARINE CORPS Camp LeJeune
John Brinkley		W K Dickson Inc
Eddie Coltrain		Wayne Water District
Albert Williams, Jr		Wayne Water District
Ben Casey		Wayne Water District
Ray Sullivan		Wayne Water District
Fred J. Newcomb		Wayne Water District (Belfast-Patetown Sanitary)
Landis H. Davis		Wayne Water Districts
Homer Naylor		Wayne Water Systems
George F Cribb		West Carteret Water Corp
James E Scoggins		Wight Nurseries of NC
Jerry Lee		Wight Nurseries of NC
Chris J. Brown		Wight Nurseries of NC
R. Sean Gunkin		Worthington Farms
Johnny Mac Stanley		Zelenka Nursery
Jonathan H. Ervin		Zelenka Nursery

PART 2.

REGULATION OF USE OF WATER RESOURCES.

§ 143-215.11. Short title.

This Part shall be known and may be cited as the Water Use Act of 1967.
(1967, c. 933, s. 1.)

§ 143-215.12. Declaration of purpose.

It is hereby declared that the general welfare and public interest require that the water resources of the State be put to beneficial use to the fullest extent to which they are capable, subject to reasonable regulation in order to conserve these resources and to provide and maintain conditions which are conducive to the development and use of water resources.
(1967, c. 933, s. 2.)

§ 143-215.13. Declaration of capacity use areas.

(a) The Environmental Management Commission may declare and delineate from time to time, and may modify, capacity use areas of the State where it finds that the use of groundwater or surface water or both require coordination and limited regulation for protection of the interests and rights of residents or property owners of such areas or of the public interest.

(b) Within the meaning of this Part "a capacity use area" is one where the Commission finds that the aggregate uses of groundwater or surface water, or both, in or affecting said area (i) have developed or threatened to develop to a degree which requires coordination and regulation, or (ii) exceed or threaten to exceed, or otherwise threaten or impair, the renewal or replenishment of such waters or any part of them.

(c) The Commission may declare and delineate capacity use areas in accordance with the following procedures:

(1) Whenever the Commission believes that a capacity use situation exists or may be emerging in any area of the State, it may direct the Department to investigate and report to the Commission thereon.

(2) In conducting its investigation the Department shall consult with all interested persons, groups and agencies; may retain consultants; and shall consider all factors relevant to the conservation and use of water in the area, including established or pending water classifications under Part 1 of this Article and the criteria for such classifications. Following its investigation the Department shall render a written report to the Commission. This report shall indicate whether the water use problems of the area involve surface waters, groundwaters or both and shall identify the Department's suggested boundaries for any capacity use area that may be proposed. It shall present such alternatives as the Department deems appropriate, including actions by any agency or person which might preclude the need for additional regulation at that time, and measures which might be employed limited to surface water or groundwater.

(3) If the Commission finds, following its review of the departmental report (or thereafter following its evaluation of measures taken falling short of regulation) that a capacity use area should be declared, it may adopt a rule declaring said capacity use area. A rule declaring an area to be a capacity use area shall delineate the boundaries of the area.

(4) to (6) Repealed by Session Laws 1981, c. 585, s. 3.

(7) Repealed by Session Laws 1987, c. 827, s. 167.

(d) The Commission may conduct a public hearing pursuant to the provisions of this subsection in any area of the State, whether or not a capacity use area has been declared, when it has reason to believe that the withdrawal of water from or the discharge of water pollutants to the waters in such area is having an unreasonably adverse effect upon such waters. If the Commission determines that withdrawals of water from or discharge of water pollutants to the waters within such area has resulted or probably will result in a generalized

condition of water depletion or water pollution within the area to the extent that the availability or fitness for use of such water has been impaired for existing or proposed uses and that injury to the public health, safety or welfare will result if increased or additional withdrawals or discharges occur, the Commission may issue a rule:

(1) Prohibiting any person withdrawing waters in excess of 100,000 gallons per day from increasing the amount of the withdrawal above such limit as may be established in the rule.

(2) Prohibiting any person from constructing, installing or operating any new well or withdrawal facilities having a capacity in excess of a rate established in the rule; but such prohibition shall not extend to any new well or facility having a capacity of less than 10,000 gallons per day.

(3) Prohibiting any person discharging water pollutants to the waters from increasing the rate of discharge in excess of the rate established in the rule.

(4) Prohibiting any person from constructing, installing or operating any facility that will or may result in the discharge of water pollutants to the waters in excess of the rate established in the rule.

(5) Prohibiting any agency or political subdivision of the State from issuing any permit or similar document for the construction, installation, or operation of any new or existing facilities for withdrawing water from or discharging water pollutants to the waters in such area in excess of the rates established in the rule.

The determination of the Commission shall be based upon the record of the public hearing and other information considered by the Commission in the rule-making proceeding. The rule shall describe the geographical area of the State affected thereby with particularity and shall provide that the prohibitions set forth therein shall continue pending a determination by the Commission that the generalized condition of water depletion or water pollution within the area has ceased.

Upon issuance of any rule by the Commission pursuant to this subsection, a certified copy of such rule shall be mailed by registered or certified mail to the governing body of every county, city, town, and affected political subdivision lying, in whole or in part, within the area and to every affected or interested State and federal agency. A certified copy of the rule shall be posted at the courthouse in every county lying, in whole or in part, within the area, and a notice setting forth the substantive provisions and effective date of the rule shall be published once a week for two successive weeks in a newspaper or newspapers having general circulation within the area. After publication of notice is completed, any person violating any provision of such rule after the effective date thereof shall be subject to the penalties and proceedings set forth in G.S. 143-215.17.

(1967, c. 933, s. 3; 1973, c. 698, s. 14; c. 1262, s. 23; 1977, c. 771, s. 4; 1981, c. 585, ss. 1-4; 1987, c. 827, ss. 154, 167.)

§ 143-215.14. Rules within capacity use areas; scope and procedures.

(a) Following the declaration of a capacity use area by the Commission, it shall prepare proposed rules to be applied in said area, containing such of the following provisions as the Commission finds appropriate concerning the use of surface waters or groundwaters or both:

(1) Provisions requiring water users within the area to submit reports not more frequently than at 30-day intervals concerning quantity of water used or withdrawn, sources of water and the nature of the use thereof.

(2) With respect to surface waters, groundwaters, or both: provisions concerning the timing of withdrawals; provisions to protect against or abate salt water encroachment; provisions to protect against or abate unreasonable adverse effects on other water users within the area, including but not limited to adverse effects on

public use.

(3) With respect to groundwaters: provisions concerning well-spacing controls; and provisions establishing a range of prescribed pumping levels (elevations below which water may not be pumped) or maximum pumping rates, or both, in wells or for the aquifer or for any part thereof based on the capacities and characteristics of the aquifer.

(4) Such other provisions not inconsistent with this Part as the Commission finds necessary to implement the purposes of this Part.

(b) In adopting rules for a capacity use area, the Commission shall consider the factors listed in G.S. 143-215.15(h).

(1967, c. 933, s. 4; 1973, c. 1262, s. 23; 1981, c. 585, s. 5; 1987, c. 827, ss. 154, 168.)

§ 143-215.15. Permits for water use within capacity use areas - Procedures.

(a) In areas declared by the Commission to be capacity use areas no person shall (after the expiration of such period, not in excess of six months, as the Commission may designate) withdraw, obtain, or utilize surface waters or groundwaters or both, as the case may be, in excess of 100,000 gallons per day for any purpose unless such person shall first obtain a permit therefor from the Commission.

(b) When sufficient evidence is provided by the applicant that the water withdrawn or used from a stream or the ground is not consumptively used, a permit therefor shall be issued by the Commission without a hearing and without the conditions provided in subsection (c) of this section. Applications for such permits shall set forth such facts as the Commission shall deem necessary to enable it to establish and maintain adequate records of all water uses within the capacity use area.

(c) In all cases in which sufficient evidence of a nonconsumptive use is not presented the Department shall notify each person required by this Part to secure a permit of the Commission's proposed action concerning such permit, and shall transmit with such notice a copy of any permit it proposes to issue to such persons, which permit will become final unless a request for a hearing is made within 15 days from the date of service of such notice. If sufficient evidence of a nonconsumptive use is not presented, the Commission may: (i) grant such permit with conditions as the Commission deems necessary to implement the rules adopted pursuant to G.S. 143-215.14; (ii) grant any temporary permit for such period of time as the Commission shall specify where conditions make such temporary permit essential, even though the action allowed by such permit may not be consistent with the Commission's rules applicable to such capacity use area; (iii) modify or revoke any permit upon not less than 60 days' written notice to any person affected; and (iv) deny such permit if the application therefor or the effect of the water use proposed or described therein upon the water resources of the area is found to be contrary to public interest. Before issuing a permit under this subsection, the Commission shall notify the permit applicant of its proposed action by sending the permit applicant a copy of the permit the Commission proposes to issue. Unless the permit applicant contests the proposed permit, the proposed permit shall become effective on the date set in the proposed permit. A water user who is dissatisfied with a decision of the Commission concerning that user's or another user's permit application or permit may commence a contested case under G.S. 150B-23.

(d) The Commission shall give notice of receipt of an application for a permit under this Part to all other holders of permits and applicants for permits under this Part within the same capacity use area, and to all other persons who have requested to be notified of permit applications. Notice of receipt of an application shall be given within 10 days of the receipt of the application by the Commission. The Commission shall also give notice of its proposed action on any permit application under this Part to all permit holders or permit applicants within the same capacity use area at least 18 days prior to the effective date of the

proposed action. Notices of receipt of applications for permits and notice of proposed action on permits shall be by first-class mail and shall be effective upon depositing the notice, postage prepaid, in the United States mail.

(e) Repealed by Session Laws 1981, c. 585, s. 8.

(f) (1) Recodified as 143-215.4(d) by Session Laws 1987, c. 827, s. 169.
(2), (3) Repealed by Session Laws 1987, c. 827, s. 169.

(g) Repealed by Session Laws 1987, c. 827, s. 169.

(h) In determining whether to issue, modify, revoke, or deny a permit under this section, the Commission shall consider:
- (1) The number of persons using an aquifer or stream and the object, extent and necessity of their respective withdrawals or uses;
- (2) The nature and size of the stream or aquifer;
- (3) The physical and chemical nature of any impairment of the aquifer or stream, adversely affecting its availability or fitness for other water uses (including public use);
- (4) The probable severity and duration of such impairment under foreseeable conditions;
- (5) The injury to public health, safety or welfare which would result if such impairment were not prevented or abated;
- (6) The kinds of businesses or activities to which the various uses are related;
- (7) The importance and necessity of the uses claimed by permit applicants (under this section), or of the water uses of the area (under G.S. 143-215.14) and the extent of any injury or detriment caused or expected to be caused to other water uses (including public use);
- (8) Diversion from or reduction of flows in other watercourses or aquifers; and
- (9) Any other relevant factors.

(1967, c. 933, s. 5; 1973, c. 108, s. 89; c. 698, s. 15; c. 1262, s. 23; 1977, c. 771, s. 4; 1981, c. 585, ss. 6-10; 1987, c. 827, ss. 154, 169.)

§ 143-215.16. Permits for water use within capacity use areas - Duration, transfer, reporting, measurement, present use, fees and penalties.

(a) No permit under G.S. 143-215.15 shall be issued for a longer period than the longest of the following: (i) 10 years, or (ii) the duration of the existence of a capacity use area, or (iii) the period found by the Commission to be necessary for reasonable amortization of the applicant's water-withdrawal and water-using facilities. Permits may be renewed following their expiration upon compliance with the provisions of G.S. 143-215.15.

(b) Permits shall not be transferred except with the approval of the Commission.

(c) Every person in a capacity use area who is required by this Part to secure a permit shall file with the Commission in the manner prescribed by the Commission a certified statement of quantities of water used and withdrawn, sources of water, and the nature of the use thereof not more frequently than 30-day intervals. Such statements shall be filed on forms furnished by the Department within 90 days after the adoption of an order by the Commission declaring a capacity use area. Water users in a capacity use area not required to secure a permit shall comply with procedures established to protect and manage the water resources of the area. Such procedures shall be adapted to the specific needs of the area, shall be within the provisions of this and other North Carolina water resource acts, and shall be adopted after public hearing in the area. The requirements embodied in the two preceding sentences shall not apply to individual domestic water use.

(d) If any person who is required to secure a permit under this Part is unable to furnish accurate information concerning amounts of water being withdrawn or used, or if there is evidence that his certified statement is false or inaccurate or that he is withdrawing or using a larger quantity of water or under different conditions than has been authorized by the

Commission, the Commission shall have the authority to require such person to install water meters, or some other more economical means for measuring water use acceptable to the Commission. In determining the amount of water being withdrawn or used by a permit holder or applicant the Commission may use the rated capacity of his pumps, the rated capacity of his cooling system, data furnished by the applicant, or the standards or methods employed by the United States Geological Survey in determining such quantities or by any other accepted method.

(e) In any case where a permit applicant can prove to the Commission's satisfaction that the applicant was withdrawing or using water prior to the date of declaration of a capacity use area, the Commission shall take into consideration the extent to which such prior use or withdrawal was reasonably necessary in the judgment of the Commission to meet its needs, and shall grant a permit which shall meet those reasonable needs. Provided, however, that the granting of such permit shall not have unreasonably adverse effects upon other water uses in the area, including public use, and including potential as well as present use.

(f) The Commission shall also take into consideration in the granting of any permit the prior investments of any person in lands, and plans for the usage of water in connection with such lands which plans have been submitted to the Commission within a reasonable time after June 27, 1967. Provided, however, that the granting of such permit shall not have unreasonably adverse effects upon other water uses in the area, including public use, and including potential as well as present use.

(g) It is the intention of the General Assembly that if the provisions of subsection (e) or subsection (f) of this section are held invalid as a grant of an exclusive or separate emolument or privilege, within the meaning of Article I, Sec. 7 of the North Carolina Constitution, the remainder of this Part shall be given effect without the invalid provision or provisions.

(h) Pending the issuance or denial of a permit pursuant to subsection (e) or (f) of this section, the applicant may continue the same withdrawal or use which existed prior to the date of declaration of the capacity use area.

(1967, c. 933, s. 6; 1973, c. 1262, s. 23; 1977, c. 771, s. 4; 1987, c. 827, s. 154.)

§ 143-215.17. Enforcement procedures.

(a) Criminal Penalties. - Any person who shall be adjudged to have violated any provision of this Part shall be guilty of a Class 3 misdemeanor and shall only be liable to a penalty of not less than one hundred dollars ($100.00) nor more than one thousand dollars ($1,000) for each violation. In addition, if any person is adjudged to have committed such violation willfully, the court may determine that each day during which such violation continued constitutes a separate violation subject to the foregoing penalty.

(b) Civil Penalties. -

(1) The Secretary may assess a civil penalty of not less than one hundred dollars ($100.00) nor more than two hundred fifty dollars ($250.00) against any person who violates any provisions of, or any order issued pursuant to this Part, or who violates a rule of the Commission implementing this Part.

(2) If any action or failure to act for which a penalty may be assessed under this Part is willful, the Secretary may assess a penalty not to exceed two hundred fifty dollars ($250.00) per day for each day of violation.

(3) In determining the amount of the penalty the Secretary shall consider the factors set out in G.S. 143B-282.1(b). The procedures set out in G.S. 143B-282.1 shall apply to civil penalty assessments that are presented to the Commission for final agency decision.

(4) The Secretary shall notify any person assessed a civil penalty of the assessment and the specific reasons therefor by registered or certified mail, or by any means

authorized by G.S. 1A-1, Rule 4. Contested case petitions shall be filed within 30 days of receipt of the notice of assessment.

(5) Requests for remission of civil penalties shall be filed with the Secretary. Remission requests shall not be considered unless made within 30 days of receipt of the notice of assessment. Remission requests must be accompanied by a waiver of the right to a contested case hearing pursuant to Chapter 150B and a stipulation of the facts on which the assessment was based. Consistent with the limitations in G.S. 143B-282.1(c) and (d), remission requests may be resolved by the Secretary and the violator. If the Secretary and the violator are unable to resolve the request, the Secretary shall deliver remission requests and his recommended action to the Committee on Civil Penalty Remissions of the Environmental Management Commission appointed pursuant to G.S. 143B-282.1(c).

(6) If any civil penalty has not been paid within 30 days after notice of assessment has been served on the violator, the Secretary shall request the Attorney General to institute a civil action in the Superior Court of any county in which the violator resides or has his or its principal place of business to recover the amount of the assessment, unless the violator contests the assessment as provided in subdivision (4) of this subsection, or requests remission of the assessment in whole or in part as provided in subdivision (5) of this subsection. If any civil penalty has not been paid within 30 days after the final agency decision or court order has been served on the violator, the Secretary shall request the Attorney General to institute a civil action in the Superior Court of any county in which the violator resides or has his or its principal place of business to recover the amount of the assessment.

(7) The Secretary may delegate his powers and duties under this section to the Director of the Division of Environmental Management of the Department.

(c) Injunctive Relief. - Upon violation of any of the provisions of this Part, a rule implementing this Part, or an order issued under this Part, the Secretary may, either before or after the institution of proceedings for the collection of the penalty imposed by this Part for such violations, request the Attorney General to institute a civil action in the superior court of the county or counties where the violation occurred in the name of the State upon the relation of the Department for injunctive relief to restrain the violation or require corrective action, and for such other or further relief in the premises as said court shall deem proper. Neither the institution of the action nor any of the proceedings thereon shall relieve any party to such proceedings from the penalty prescribed by this Part for any violation of same.

(1967, c. 933, s. 7; 1973, c. 698, s. 16; c. 1262, s. 23; 1975, c. 842, s. 2; 1977, c. 771, s. 4; 1981, c. 585, s. 11; 1987, c. 827, ss. 154, 170; 1989 (Reg. Sess., 1990), c. 1036, s. 4; 1993, c. 539, s. 1020; 1994, Ex. Sess., c. 24, s. 14(c).)

§ 143-215.18. Map or description of boundaries of capacity use areas.

(a) The Commission in designating and the Department in recommending the boundaries of any capacity use area may define such boundaries by showing them on a map or drawings, by a written description, or by any combination thereof, to be designated appropriately and filed permanently with the Department. Alterations in these lines shall be indicated by appropriate entries upon or additions to such map or description. Such entries shall be made under the direction of the Secretary of Environment, Health, and Natural Resources. Photographic, typed or other copies of such map or description, certified by the Secretary of Environment, Health, and Natural Resources, shall be admitted in evidence in all courts and shall have the same force and effect as would the original map or description. If the boundaries are changed pursuant to other provisions of this Part, the Department may provide for the redrawing of any such map. A redrawn map shall supersede for all purposes the earlier map or all maps which it is designated to replace.

(b) The Department shall file with the Secretary of State a certified copy of the map, drawings, description or combination thereof, showing the boundaries of any capacity use area designated by the Commission; and a certified copy of any redrawn or altered map or drawing, and of any amendments or additions to written descriptions, showing alterations to said boundaries.

(1967, c. 933, s. 8; 1973, c. 1262, s. 23; c. 1331, s. 3; 1977, c. 771, s. 4; 1987, c. 827, ss. 154, 171; 1989, c. 727, s. 218(107).)

§ 143-215.19. Administrative inspection; reports.

(a) When necessary for enforcement of this Part, and when authorized by rules of the Commission, employees of the Commission may inspect any property, public or private, to investigate:
  (1) The condition, withdrawal or use of any waters;
  (2) Water sources; or
  (3) The installation or operation of any well or surface water withdrawal or use facility.

(b) The Commission's rules must state appropriate standards for determining when property may be inspected under subsection (a).

(c) Entry to inspect property may be made without the possessor's consent only if the employee seeking to inspect has a valid administrative inspection warrant issued pursuant to G.S. 15-27.2.

(d) The Commission may also require the owner or possessor of any property to file written statements or submit reports under oath concerning the installation or operation of any well or surface water withdrawal or use facility.

(e) The Commission shall accompany any request or demand for information under this section with a notice that any trade secrets or confidential information concerning business activities is entitled to confidentiality as provided in this subsection. Upon a contention by any person that records, reports or information or any particular part thereof to which the Commission has access under this section, if made public would divulge methods or processes entitled to protection as trade secrets or would divulge confidential information concerning business activities, the Commission shall consider the material referred to as confidential, except that it may be made available in a separate file marked "Confidential Business Information" to employees of the department concerned with carrying out the provisions of this Part for that purpose only. The disclosure or use of such information in any administrative or judicial proceeding shall be governed by the rules of evidence, but the affected business shall be notified by the Commission at least seven days prior to any such proposed disclosure or use of information, and the Commission will not oppose a motion by any affected business to intervene as a party to the judicial or administrative proceeding.

(1967, c. 933, s. 9; 1973, c. 1262, s. 23; 1981, c. 585, s. 12; 1987, c. 827, ss. 154, 172.)

§ 143-215.20: Repealed by Session Laws 1987, c. 827, s. 173.

§ 143-215.21. Definitions.

Unless the context otherwise requires, the following terms as used in this Part are defined as follows:

(1), (2) Repealed by Session Laws 1987, c. 827, s. 174.

(3) "Consumptive use" means any use of water withdrawn from a stream or the ground other than a "nonconsumptive use," as defined in this Part.

(4) Repealed by Session Laws 1987, c. 827, s. 174.

(5) "Nonconsumptive use" means (i) the use of water withdrawn from a stream in such a manner that it is returned to the stream without substantial diminution in quantity at or near the point from which it was taken; or, if the user owns both sides of the stream at the point

of withdrawal, the water is returned to the stream upstream of the next property below the point of diversion on either side of the stream; (ii) the use of water withdrawn from a groundwater system or aquifer in such a manner that it is returned to the groundwater system or aquifer from which it was withdrawn without substantial diminution in quantity or substantial impairment in quality at or near the point from which it was withdrawn; (iii) provided, however, that (in determining whether a use of groundwater is nonconsumptive) the Commission may take into consideration whether any material injury or detriment to other water users of the area by reason of reduction of water pressure in the aquifer or system has not been adequately compensated by the permit applicant who caused or substantially contributed to such injury or detriment.

(6), (7) Repealed by Session Laws 1987, c. 827, s. 174.

(1967, c. 933, s. 11; 1973, c. 1262, s. 23; 1977, c. 771, s. 4; 1987, c. 827, ss. 154, 174.)

§ 143-215.22. Law of riparian rights not changed.

Nothing contained in this Part shall change or modify existing common or statutory law with respect to the relative rights of riparian owners concerning the use of surface water in this State.

(1967, c. 933, s. 12.)

§ 143-215.22A. Water withdrawal policy; remedies.

(a) It is against the public policy of North Carolina to withdraw water from any major river or reservoir if both of the following factors are present: (i) the withdrawal will cause the natural flow of water in the river or a portion of the reservoir to be reversed; and (ii) substantial portions of the water are not returned to the river system after use. For purposes of this section, a withdrawal will cause natural flow to be reversed if as a result of the withdrawal, the rate of flow in the river or discrete portion of the reservoir is 15 cubic feet per second or more, moving in a generally opposite direction than prior to the withdrawal, over a distance of more than one mile. To correct for periodic effects, including tidal influences and reservoir fluctuations, flow speed and direction shall be calculated by using annual average flow data to determine pre-withdrawal flows, and projected annual average flow assuming the maximum practical rate of withdrawal, to determine post-withdrawal flows.

(b) This section shall not be construed to create an independent cause of action by the State or by any person. This section shall not apply to any project or facility for which a withdrawal of water began prior to the date this section is effective.

(1991, c. 567, s. 1; c. 712, ss. 5, 6.)

§ 143-215.22B. Roanoke River Basin water rights.

The State reserves and allocates to itself, as protector of the public interest, all rights in the water located in those portions of Kerr Lake and Lake Gaston that are in the State.

(1995, c. 504, s. 1.)

§§ 143-215.22C through 143-215.22F: Reserved for future codification purposes.

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