Part V: Written Comments Received

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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

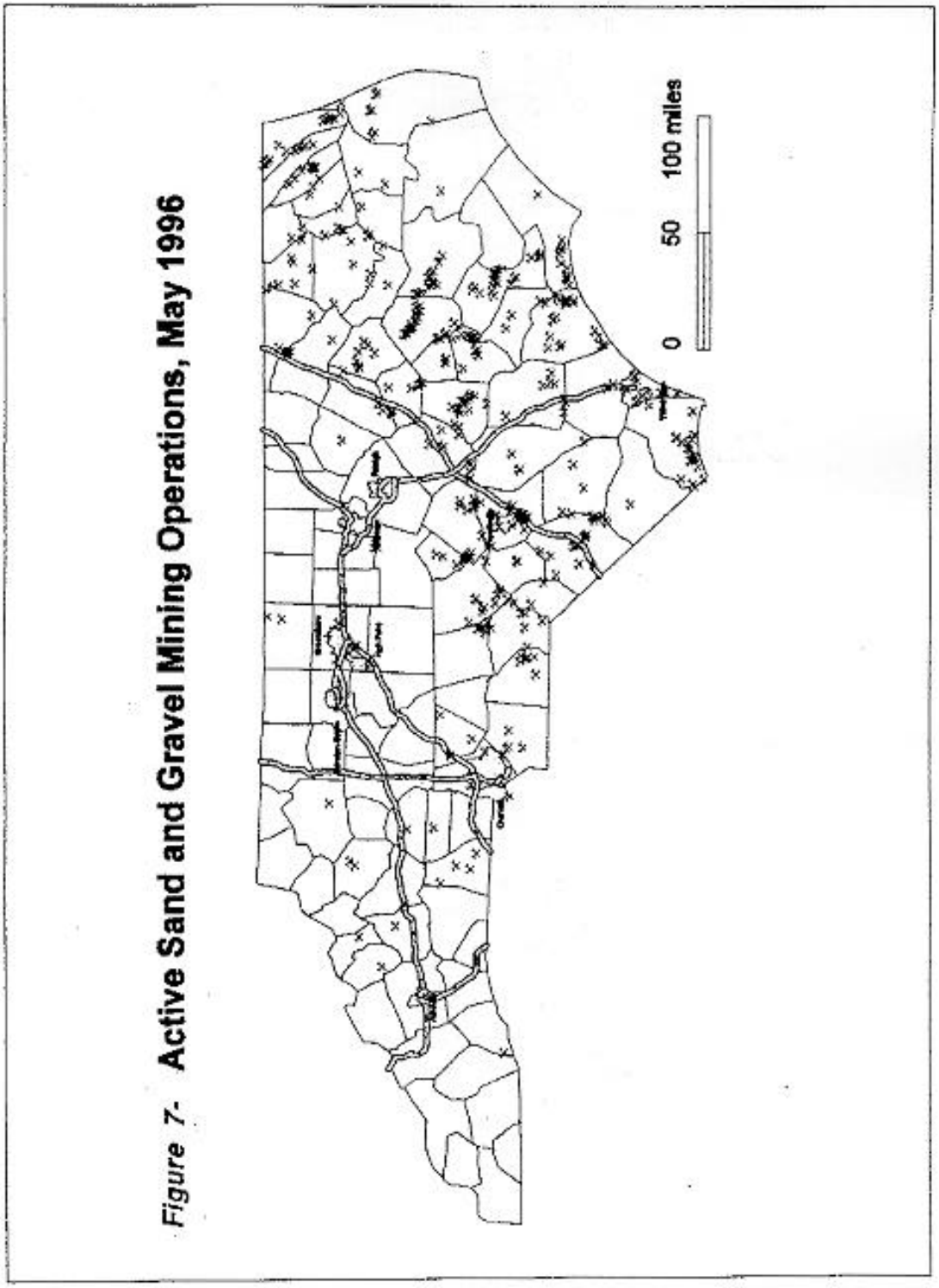
Figure 7- Active Sand and Gravel Mining Operations, May 1996
0
50
100 miles

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

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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

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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

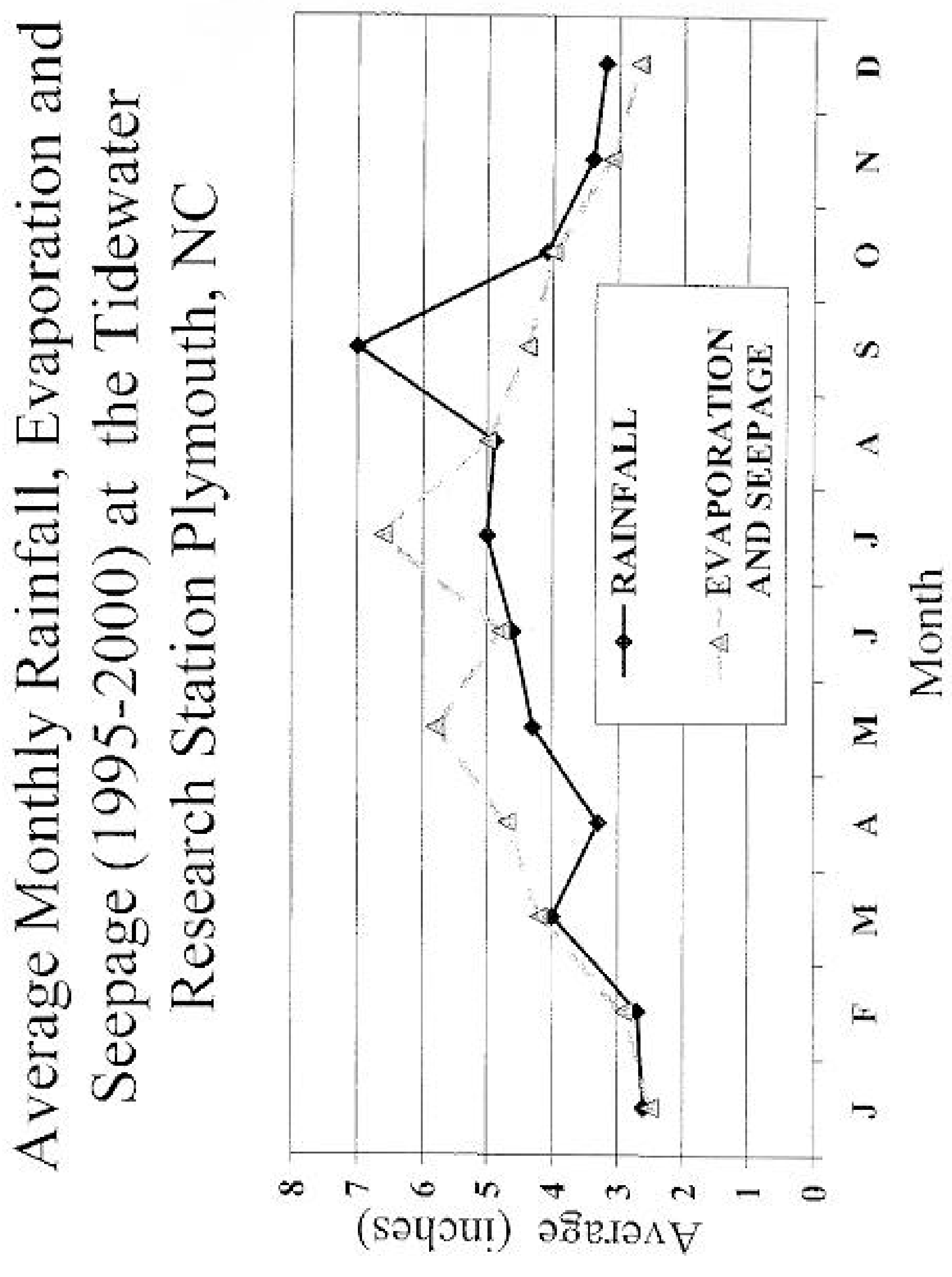
Water use in channel catfish ponds

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)
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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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September 15, 2000

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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

The Wooten Company

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[illegible]

[illegible]

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DIVISION OF
WATER RESOURCES

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 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
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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.

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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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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
Boone

Cape Fear
Wilmington

Capital
Raleigh

Central Piedmont
Charlotte

Cypress
Greenville

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

RECEIVED
SEP 12 2000
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 *

P.O. Box 1511
New Bern, NC 28561

Voice (252) 637-7972
Fax (252) 514-0051

May 9, 2000

RECEIVED
MAY 10 2000
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

Post Office Box 8

BLACK CREEK, N. C. 27813

252-243-6439 • Fax 252-206-7152

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

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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
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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.