

ENVIRONMENTAL MANAGEMENT COMMISSION
 Certificate Authorizing the Greenville Utilities Commission, the Towns of Farmville and
 Winterville, and Greene County
 To Transfer Surface Water
 From the Tar River Basin to the Neuse River and Contentnea Creek Basins
 Under the Provisions of G.S. 143-215.22I

In April, 2009 the Greenville Utilities Commission (GUC), along with the Towns of Farmville, Winterville, and Greene County petitioned the Environmental Management Commission (EMC) for a Certificate to transfer 8.3 million gallons per day (MGD) from the Tar River Basin to the Contentnea Creek Basin and 4.0 MGD from the Tar River Basin to the Neuse River Basin. As part of the same Petition, they requested an emergency transfer provision that would allow the transfer of up to a total of 9.3 MGD from the Tar River Basin to the Contentnea Creek Basin and up to 4.2 MGD from the Tar River Basin to the Neuse River Basin.

A Public Hearing on the proposed transfer was held at Pitt Community College in Winterville, NC on November 5, 2009 pursuant to G.S. 143-215.22I. A Hearing Officer's report was prepared in October of 2010 and mailed to members of the EMC. The EMC considered the Petitioners' request at its regular meeting on November 18, 2010.

According to G.S. 143-215.22I(g), the EMC shall issue a transfer Certificate only if the benefits of the proposed transfer outweigh the detriments of the proposed transfer, and the detriments have been or will be mitigated to a reasonable degree. The EMC may grant the Petition in whole or in part, or deny it, and may require mitigation measures to minimize detrimental effects. In making this determination, the EMC is required to specifically consider:

1. The necessity, reasonableness, and beneficial effects of the transfer
2. Detrimental effects on the source river basin
- 2a. The cumulative effect on the source major river basin of any water transfer or consumptive water use
3. Detrimental effects on the receiving basin
4. Reasonable alternatives to the proposed transfer
5. Use of impounded storage
6. Purposes and water storage allocations in a US Army Corps of Engineers multipurpose reservoir
7. Any other facts or circumstances necessary to carry out the law.

In addition, the Certificate must require a drought management plan describing the actions a Certificate Holder will take to protect the source Basin during drought conditions.

The Commission Finds:

The members of the EMC reviewed and considered the complete record, which included the Hearing Officers' report, staff recommendations, the applicants' Petition, the Final Environmental Assessment (EA), the public comments relating to the proposed interbasin transfer, and all of the criteria specified above. Based on that record, the Commission makes the following findings of fact.

FINDING OF FACT

Greenville Utilities Commission, Farmville, Winterville, and Greene County Petition for an Interbasin Transfer Certificate

(1) Necessity, Reasonableness, and Benefits of the Requested Transfer Amount

In 2001, the North Carolina Environmental Management Commission (EMC) enacted the Central Coastal Plain Capacity Use Area (CCPCUA) rules. These regulations were developed to control ground water withdrawals in the Cretaceous Aquifers in response to decreasing ground water levels and saltwater intrusion. The CCPCUA rules require that ground water users in 15 counties reduce their consumption in three phases between 2008 and 2018. Phase 1 requires a 25% reduction from an approved base rate by 2008, Phase II requires a 50% reduction by 2013, and Phase III requires a 75% reduction by 2018. The Town of Farmville, Town of Winterville, and Greene County currently rely on the Cretaceous Aquifers for water supply and are affected by the CCPCUA rules. In order to comply with the required reductions, these communities plan to purchase potable water from the Greenville Utilities Commission.

The Greenville Utilities Commission (GUC) operates an existing surface water treatment plant (WTP) on the Tar River. This plant is capable of producing a maximum of 22.5 million gallons per day (MGD) of potable water. In 2009, Greenville's average daily water use was approximately 13 MGD. GUC's excess plant capacity is sufficient to provide the Towns of Farmville, Winterville, and Greene County with a replacement water supply through 2030. Therefore, these three communities have signed purchase agreements with GUC.

The Town of Farmville and the majority of Greene County are located in the Contentnea Creek Basin- a sub-basin to the Neuse Major River Basin. The Town of Winterville and the southwestern portion of Greene County are located in the Neuse River Basin. Since Greenville's WTP is in the Tar River Basin, GUC's sales to these communities constitute an interbasin transfer from the Tar River Basin to the Neuse River Basin and Contentnea Creek Basin.

To support the sale of water to these communities, GUC has requested an interbasin transfer certificate for the transfer of up to 8.3 MGD to the Contentnea Creek Basin and 4 MGD to the Neuse River Basin. This transfer request represents an estimated maximum-day transfer capacity to each basin through 2030. GUC does not have the ability to meet simultaneous, system-wide peak demands; therefore the purchasing systems will use banked ground water as an alternate source during times that peak demands exceed GUC's available capacity.

DWR supports this water banking concept where it is consistent with good management of the region's water resources and subject to prior review and approval of specific banking proposals. Many water systems throughout the Central Coastal Plain Capacity Use Area (CCPCUA) utilize water banking as a means of meeting their required reductions. Although all of the Petitioners are planning to bank ground water by reducing pump rates as much as possible during the early CCPCUA phases (banking will likely not be possible after 2015), there is no direct correlation between the amount of water that might be banked and the amount of the IBT request. The amount of water that might be banked by 2018 is an unforeseeable quantity. Similarly, it would be difficult to predict exactly when and how much banked water will be used. As a result, it is essential that the banked water remain as a "savings account" used by each community if and when supplemental water is required to meet peak demands. Therefore, the total volume of the anticipated water bank was not subtracted from the applicant's total IBT request.

A supplemental analysis of the amount of the request, an evaluation of the peaking factors used by the Petitioners in support of their request, and a discussion of the Petitioners' IBT management strategy is presented in the Staff Response to Comments, included as Attachment B to these findings. Based on these analyses, the Petitioners' IBT request for an 8.3 MGD maximum day transfer from the Tar River Basin to the Contentnea Creek Basin and 4.0 MGD from the Tar River Basin to the Neuse River Basin is consistent with the shortfall caused by the CCPCUA reductions.

GUC is also requesting an emergency transfer provision that would allow an additional 1 MGD transfer to the Contentnea Basin (up to 9.3 MGD total) and an additional 0.2 MGD to the Neuse Basin (up to 4.2 total). This provision would only apply during emergency events where ground water is not available to the purchasing communities (such as major mechanical/electrical failure). GUC requests that DWR notification be required to trigger the emergency transfer provision.

The Hearing Officers have chosen not to grant an emergency condition. G.S. §143-215.22L(q) specifically outlines the procedure by which water systems may request an emergency water transfer. Should the Petitioners need such a transfer, that request should be submitted to the Department in accordance with the applicable statutes.

§143-215.22L(q) Emergency Transfers. – *In the case of water supply problems caused by drought, a pollution incident, temporary failure of a water plant, or any other temporary condition in which the public health, safety, or welfare requires a transfer of water, the Secretary of Environment and Natural Resources may grant approval for a temporary transfer. Prior to approving a temporary transfer, the Secretary shall consult with those parties listed in subdivision (3) of subsection (c) of this section that are likely to be affected by the proposed transfer. However, the Secretary shall not be required to satisfy the public notice requirements of this section or make written findings of fact and conclusions of law in approving a temporary transfer under this subsection. If the Secretary approves a temporary transfer under this subsection, the Secretary shall specify conditions to protect other water users. A temporary transfer shall not exceed six months in duration, but the approval may be renewed for a period of six months by the Secretary based on demonstrated need as set forth in this subsection.*

Based on the record the Commission finds the transfer of a maximum daily amount of 8.3 MGD from the Tar River Basin to the Contentnea Creek Basin and a maximum daily amount of 4.0 MGD from the Tar River Basin to the Neuse River Basin is necessary to provide a replacement water supply to Petitioners in the Central Coastal Plain Capacity Use Area. Surface water from the source basin is readily available in that the Greenville Utilities Commission has sufficient existing water treatment plant capacity to meet these systems' needs through 2030.

Based on the record, the Commission finds that the IBT Management Strategy will be an important factor in the ability of the Petitioners to meet demands while maintaining compliance with the Central Coastal Plain Capacity Use Area Rules (15A NCAC 2E .0500) and the conditions of this Certificate. Therefore this Certificate will include a Compliance and Monitoring Plan to ensure that the maximum daily transfer amounts are not exceeded and the Petitioners' IBT Management Strategy is followed in the manner set forth in the Petition.

The Commission also finds that G.S. §143-215.22L(q) specifically outlines the procedure by which water systems may request an emergency water transfer. Should GUC need such a transfer, that request should be

submitted to the Department in accordance with the applicable statutes. Therefore an emergency transfer provision will not be granted as a condition of this Certificate.

(2) Detrimental Effects on the Source Basin

The Greenville Utilities Commission performed a hydrologic analysis to evaluate the impact of the interbasin transfer on the Tar River Basin. This analysis included the development of a long-term flow record at Greenville, the generation of flow statistics to characterize the Tar River under both existing and future water use scenarios, and a spreadsheet-based hydrologic accounting model.

The hydrologic accounting model simulates water withdrawals and wastewater discharges to predict their effect on stream flow in the Tar River. The model accounts for all existing and projected withdrawals and discharges on the Tar River, in excess of 100,000 gallons per day, from the Rocky Mount Dam to the GUC WWTP discharge. The USGS flow record developed for the Greenville gage was used as the base flow record. Model simulations included the following scenarios:

1. Current flows with no IBT
2. Current flows with 2030 average day IBT
3. Current flows with 2030 maximum IBT withdrawal
4. Predicted 2030 flows with no IBT
5. Predicted 2030 flows with 2030 average day IBT
6. Predicted 2030 flows with 2030 maximum IBT withdrawal

The hydrologic analysis performed by GUC was evaluated by the Hearing Officers and DWR staff during the comment period for the Petition. A discussion of this analysis and its conclusions are included in the Staff Responses to Comments, presented in Attachment B to these Findings. In summary, the model shows that the effects of the interbasin transfer are negligible at average stream flows and higher, with a slightly larger impact during low flows. Tidal influences were not simulated in the model.

Although each of the modeling analyses performed in support of the Petition indicate a difference between the IBT and non-IBT scenarios, it is reasonable to categorize these differences as insignificant for the following reasons:

1. The modeling analysis is conservative. DWR asked the applicant to include a number of very conservative assumptions so that a “worst case impact” could be identified. These assumptions include reducing GUC’s wastewater discharges on the Tar River by the amount of the IBT. For many of the modeling scenarios, this change removed the entire volume of GUC’s existing and projected wastewater discharge from the Tar River. The model also assumes a sustained maximum day transfer (as opposed to a predicted average day transfer with peaks approaching the max-day).
2. IBT and State Regulations require a drought management plan. GUC is required to have a Water Shortage Response Plan (WSRP) containing specific, identifiable triggers that would be put into effect in the event of drought. This plan is also required to be included in the Certificate. Therefore GUC (and the other Petitioners) would likely be under water restrictions during low flow events. GUC’s WSRP triggers are tied to the stage of water at the intake location and the location of the salt water wedge.

3. The model did not take into account tidal effects. An important feature of the lower Tar River is that it is tidally influenced. Since salt water is heavier than freshwater, the salt water wedge creates a dam-like effect that pushes freshwater upstream during low flow periods. GUC closely monitors the salt water wedge since their WTP is not designed to treat saline water. GUC has also noted instances where net negative downstream flow has been recorded; however, there has been adequate water over the raw water intake. Due to the tidal influence, the Tar River channel is never depleted. This tidal buffering effect would also reduce the impact on aquatic life during critical periods.
4. The IBT request will be met with existing infrastructure. GUC has not requested an expansion of their WTP due to this request. They have sufficient capacity in their existing WTP to meet Farmville, Greene County, and Winterville's projected demands. The direct impact of their withdrawal was evaluated in the environmental documents developed (and approved) for the construction of the water treatment plant.

Due to the above-mentioned factors, and the fact that modeling results indicate that the IBT will have minimal impact on the existing stream flow; there are no expected impacts to the wastewater assimilation capacity of the Tar River Basin. Correspondingly, there are no anticipated impacts to water quality within the source basin.

The City of Rocky Mount provided detailed comments concerning the possibility that future studies, particularly DWR's Tar River Basin Model or the Tar River Basin Plan, might reveal additional impacts to the Tar River. In response, the Hearing Officers requested that Rocky Mount and GUC jointly recommend language for the special condition. While the parties were not able to come to a mutual conclusion, each entity individually recommended verbiage that was similar to reopeners previously used by the EMC in other IBT Certificates. The most significant difference is that Rocky Mount proposed that any decision by the Commission to grant or deny a request to reopen the certificate should be subject to administrative and judicial review according to Chapter 150B of the General Statutes. However, the Hearing Officers have determined that it would not be appropriate for a condition of the Certificate to attempt to define any right a party may or may not have in challenging the EMC's decision. Therefore the Hearing Officers do not recommend that Rocky Mount's proposed language be used in the Certificate. Instead, the reopener language will be consistent with language used in other IBT Certificates.

This interbasin transfer will not spur significant growth in the source basin. Farmville, Winterville, and Greene County are not located in the Tar River Basin. Greenville is the only city in the Tar River Basin that receives water from GUC's WTP. This plant has sufficient capacity in its existing water and wastewater treatment plants to continue providing water to the City of Greenville, and doing so would not require an IBT Certificate. GUC's wastewater treatment plant will not be modified as a result of this IBT.

There are no construction activities proposed in association with this project. Therefore, no direct or indirect impacts to aquatic or terrestrial habitats are expected to occur from the proposed interbasin transfer. Similarly, indirect impacts to state and federally protected species are expected to be insignificant.

No direct or indirect impacts to hydroelectric power generation, navigation, or recreation are expected to occur within the Tar River Basin will occur as a result of the proposed transfer.

Based on the record and the results of the hydrologic evaluations that were performed, the Commission finds that the interbasin transfer is not likely to have a significant impact on the source basin. However, due to the

Commission's concerns that future studies may reveal additional impacts to the Tar River Basin, the Hearing Officers have recommended that the following reopener be added to the Certificate:

"If the Commission determines that the record on which this Certificate is based is substantially in error or if new information becomes available that clearly demonstrates that any Finding of Fact (including those regarding environmental, hydrologic, or water use impacts) pursuant to G.S. § 143-215.221(f) was not or is no longer supported or is materially incomplete, the Commission may reopen and modify this Certificate to ensure continued compliance with G.S. ch. 143, art. 21, part 2A. "

The Commission finds that to protect the source basin during drought conditions and as authorized by G.S. § 143-215.221(h), a drought management plan is required. The drought management plan will describe the actions that the Petitioners will take to protect the Tar River Basin during drought conditions.

2(a) Cumulative Effect on Source Basin of any Transfers or Consumptive Water Use Projected in Local Water Supply Plans

Data from local water supply plans, including current and projected water use, was used to develop input data sets for the hydrologic accounting model. The model accounted for all existing and proposed water withdrawals and discharges to the Tar River over 100,000 gallons per day. Based on the results of that model, there was no significant impact to the Tar River under the modeled scenarios.

Based on the record and as stated in (2) the Commission finds that the interbasin transfer is not likely to have a significant impact to the source basin. However, due to the Commission's concerns that future studies may reveal additional impacts to the Tar River Basin, the Hearing Officers have recommended that the following reopener be added to the Certificate:

"If the Commission determines that the record on which this Certificate is based is substantially in error or if new information becomes available that clearly demonstrates that any Finding of Fact (including those regarding environmental, hydrologic, or water use impacts) pursuant to G.S. § 143-215.221(f) was not or is no longer supported or is materially incomplete, the Commission may reopen and modify this Certificate to ensure continued compliance with G.S. ch. 143, art. 21, part 2A. "

(3) Detrimental Effects on the Receiving Basins

Direct Impacts

Winterville's wastewater is treated by the Contentnea Metropolitan Sewerage District via the Contentnea Creek Wastewater Treatment Plant (WWTP). This plant is permitted to discharge 2.58 MGD of wastewater to an unnamed tributary to Contentnea Creek in the Neuse River Basin.

Farmville and the majority of Greene County are located in the Contentnea Creek Basin. Farmville operates a 3.5 MGD WWTP which discharges to this Basin. The majority of the wastewater treatment in Greene County is handled by on-site septic systems; however, there are three small centralized treatment systems: the Snow Hill WWTP permitted for 0.5 MGD, the Hookerton WWTP permitted for 0.06 MGD, and the Maury Sanitary Land District WWTP permitted for 0.225 MGD. All of these facilities discharge to the Contentnea Creek Basin.

Since none of these facilities will be requesting an expansion (or changes to existing permit limits) to accommodate additional flows generated by the IBT, the IBT is not predicted to cause direct impacts to the receiving basins.

There are no construction activities proposed in association with this project. Therefore, no significant direct impacts to aquatic or terrestrial habitats within the receiving basin are expected to occur as a result of the proposed transfer. No direct or indirect impacts to navigation, recreation, or flooding are predicted to occur as a result of this proposed project based on the minimal effect on stream flows.

Indirect Impacts

Indirect impacts are expected to be insignificant and would occur with any replacement water source. However, the following information is provided as a demonstration that any indirect impacts that might occur will be mitigated. Included in the Staff Responses to Comment (Attachment B) is a detailed summary of all zoning ordinances, land use plans, and other mitigative measures that have been put in place or are under development by the Petitioners.

Green County is rural and largely agricultural. According to the NC State Demographics Unit, the County is expected to grow at a modest rate of approximately 1% per year between 2010 and 2030. The rural and agricultural nature of the County is not predicted to change once the IBT replaces ground water as a water supply; therefore indirect impacts to the receiving basin due to growth are expected to be insignificant.

The Town of Farmville has experienced limited growth in the last 15 years, adding 180 residents between 1990 and 2004. The Town does not consistently record yearly census data, nor have they conducted population projections for the near future. It is reasonable to assume that the Town will continue to grow at the historical growth rate of approximately 0.25% per year. Based on these projections, indirect impacts to the receiving basin due to growth are expected to be insignificant.

Winterville has experienced increased growth and development within the past 15 years. The Town's population more than doubled between 1990 and 2006 when the population increased at an average rate of 11% per year. Based on its close proximity to Greenville, growth in Winterville is expected to remain strong in the near future. Future projections estimate the Town's growth at 4.5-5.8% per year.

All communities in the Tar Pamlico and Neuse River Major Basins are subject to nutrient management strategies. Both the Tar Pamlico and Neuse Nutrient Strategies have requirements for wastewater discharges, agriculture, buffers, and stormwater. All of the requirements, except those involving the development of a stormwater program, are applicable on a basin-wide basis. However the stormwater program requirements only apply to those local governments of a certain size, density, or estimated impact. Pitt County (including Winterville) and Greenville are required to develop stormwater programs under the Tar Pamlico Nutrient Strategy. However Farmville and Greene County fall below the thresholds for development of a stormwater program under the Neuse Nutrient Strategy. Similarly, these governments do not fall under the stormwater Phase II program due to their population and rural nature.

Therefore, the Hearing Officers have determined that an appropriate mitigative measure, above what these communities are already required to do under the Tar Pamlico and Neuse Nutrient Management Strategies, is the implementation of Phase II post-construction stormwater controls. The intent of this measure is to control any unforeseeable impacts due to growth that may occur as a result of the transfer. As previously

stated, Pitt County (including Winterville) and Greenville are already required to develop stormwater programs consistent with the Tar Pamlico Nutrient Strategy. Therefore this Certificate requirement would primarily impact Greene County and Farmville. The Hearing Officers have determined that implementing post-construction stormwater controls in these systems would serve to put in effect the most impactful control measures while not being overly burdensome to a small, rural water system.

Based on the record, the evaluation of impacts discussed in the Staff Response to Comments (included in Attachment B), the existing Nutrient Management Strategies in effect in the Tar River and Neuse River Basins, and the overall modest level of growth expected in Pitt and Greene Counties, the Commission finds that the IBT will not cause significant detrimental effects to the Contentnea or Neuse River Basins. However the EMC has determined that it is reasonable to require the Petitioner to mitigate any minor impacts due to growth that might be expected.

The Certificate condition will read as follows:

“No unit of local government may receive surface water regulated under this Certificate unless the local government maintains, for all areas that may receive surface water regulated under this Certificate, requirements that are at least as stringent as the Division of Water Quality’s Phase 2 post-construction stormwater controls or the post-construction stormwater controls of the Universal Stormwater Management Program (USMP), for all new development that disturbs more than one acre of land, including those projects that disturb less than one acre of land but are part of a common plan of development or sale that disturbs more than one acre of land.”

(4) Alternatives to the Proposed Transfer

The Petitioner evaluated the following alternatives to the interbasin transfer:

1. Development of an independent surface water source on Contentnea Creek
2. Development of an independent ground water source
3. Purchase of finished water from the Neuse Regional Water and Sewer Authority (NRWASA)
4. Purchase of finished water from the City of Wilson
5. Purchase of finished water from the Greenville Utilities Commission

The analysis shows that all of the alternatives, with the exception of those requiring the development of additional ground water wells, would require an interbasin transfer certificate for at least one of the Petitioners (either Farmville, Winterville, or Greene County). However the ground water alternatives were not identified as a sustainable due to the potential for the EMC to designate additional Capacity Use Areas in the future.

The reservoir alternative has the greatest environmental and economic impact. It is also likely that the construction of a reservoir in Greene County would be infeasible due to technical, environmental, and permitting complications.

The option of returning water to the source basin was evaluated in the EA. This option was excluded as being technically infeasible. Wastewater service in the area is not as widespread as water service. There is no countywide, centralized wastewater treatment plant (WWTP) in Greene County. While there are three small WWTPs (Snow Hill WWTP, the Hookerton WWTP, and the Maury Sanitary Land District WWTP), residents in

unincorporated areas rely primarily on septic systems. Costs for the construction of a countywide collection and treatment system were estimated at over \$150 million. In Pitt County, wastewater is treated at the Farmville WWTP, the Contentnea Creek WWTP, and the GUC WWTP. Wastewater from the Town of Winterville is currently treated at the Contentnea Creek WWTP. According to the 2008 EA, Winterville has had discussions with GUC concerning future wastewater service, but there are no immediate plans to proceed with this option. If this option were pursued in the future, it would return a portion of the transferred water to the Tar River Basin.

Of all the identified alternatives, the only viable options were identified as the purchase of finished water from NRWASA, Wilson, or GUC. All of these options would utilize existing water treatment plant capacity and have comparable environmental impacts. Also, as previously stated, all of the purchase alternatives would require that at least one Petitioner receive an interbasin transfer Certificate. Of these options, the purchase from GUC was identified as being the most economically practicable. A detailed summary of the alternatives, including economic and environmental impacts is included in the Staff Response to Comments.

Based on the record, the Commission finds that the selected alternative of purchasing water from Greenville Utilities Commission is the least environmentally damaging, the most cost effective, and the most technically feasible alternative for Farmville, Winterville, and Greene County.

(5) Impoundment Storage

This criteria is not applicable, as the Petitioners do not have an impoundment.

(6) Multipurpose Reservoir constructed by the United States Army Corps of Engineers

This criteria is not applicable, as the Petitioners do not use a reservoir.

(7) Other Considerations

Conservation is identified in the IBT statutes and the CCPCUA rules as an important component of both programs. NCGS §143-215.22I(c)(3) states that any Petition for an IBT must include a description of the conservation measures to be used by the applicant to assure efficient use of the water and avoidance of waste.

The CCPCUA rules, 15A NCAC 2E .0504, are more specific in that they require water systems in the capacity use area to develop a water conservation plan that includes the following elements. The rules require that each community develop a schedule of implementation for any requirement that has not yet been met:

1. Adoption of a water conservation-based rate structure, such as: flat rates, increasing block rates, seasonal rates, or quantity-based surcharges.
2. Implementation of a water loss reduction program if unaccounted for water is greater than 15%.
3. 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.
4. Implementation of a retrofit program that makes available indoor water conservation devices to customers (such as showerheads, toilet flappers, and faucet aerators).

5. 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).
6. Evaluation of the feasibility of water reuse as a means of conservation, where applicable.

The Hearing Officers concur with the public comments that the importance of conservation is critical and a requisite of a community requesting IBT water. The Staff Response to Comments includes a summary of the CCPCUA requirements and how those requirements have been met by each Petitioner. The Division of Water Resources has also agreed to begin requesting this information from all CCPCUA Permit holders beginning January 2011. Any permit holder whose conservation measures fail to meet the minimum program as described in 15A NCAC 2E .0502(d)(5)(A-C) will be required to adopt measures meeting these requirements or they will be issued an NOV. All water use conservation measures described in the CCPCUA rules will have to be adopted by the permit holder before their next permit renewal. Consequently, the minimum water conservation efforts recognized in the CCPCUA rules will be met as a condition of the permit.

The Hearing Officers have also recommended the addition of a special condition to the IBT Certificate that will not allow the Petitioners to transfer water until the minimum program requirements described in NCAC 2E .0502(d)(5)(A-C) has been met. The condition reads: "No person subject to the Central Coastal Plain Capacity Use Area Rules 15A NCAC 2E .0500 may transfer water under this Certificate without first meeting the minimum conservation program requirements identified in 15A NCAC 2E .0502(d)(5)(A-C) ."

Based on the record, the requirement outlined in NCGS §143-215.221(c)(3), and the requirements of 15A NCAC 2E .0500, the Commission finds that it is reasonable to require each Petitioner subject to the Capacity Use Area Rules to meet the minimum conservation program requirements identified in 15A NCAC 2E .0502(d)(5)(A-C) before transferring water. The purpose of this requirement is to assure the efficient use of water and avoid waste.

DECISION

The Commission, on November 18, 2010, by duly made motions concludes that by a preponderance of the evidence based upon the Findings of Fact stated above that, with the limitations and conditions described herein, (1) the benefits of the proposed transfer outweigh the detriments of the proposed transfer, and (2) the detriments of the proposed transfer will be mitigated to a reasonable degree. Therefore, and by duly made motions, the Commission grants in part and denies in part the Petition of the Greenville Utilities Commission, the Town of Farmville, the Town of Winterville, and Greene County (collectively, "Certificate Holders") to transfer surface water from the Tar River Basin to the Neuse River Basin and Contentnea Creek Basin. The permitted transfer amount shall not exceed a maximum of 8.3 million gallons on any calendar day from the Tar River Basin to the Contentnea Creek Basin and shall not exceed a maximum of 4.0 million gallons on any calendar day from the Tar River Basin to the Neuse River Basin. These transfer amounts are independent of each other. This Certificate is effective immediately.

The Certificate is subject to the following conditions, imposed under the authority of G.S. § 143-215.221:

I. COOPERATION OF CO-CERTIFICATE HOLDERS

If the Certificate Holders discontinue their cooperative service agreements with each other, the Division of Water Resources ("Division") shall specify the maximum amount of water each of the joint Certificate Holders may transfer individually. The total of these amounts shall not exceed a maximum of 8.3 million gallons on any calendar day from the Tar River Basin to the Contentnea Creek Basin and shall not exceed a maximum of 4.0 million gallons on any calendar day from the Tar River Basin to the Neuse River Basin. The allocations shall be based on projections of water use for 2030 compiled by the Division at the time it is notified of the discontinuance of the cooperative service agreement. The allocations shall take effect within 90 days of the Division issuing the allocations, or at such other reasonable time as the Division specifies. At that time, each condition of this Certificate shall apply to each Certificate Holder individually and the Division may require the Certificate Holders to make individual submissions of plans, reports, etc. as necessary.

II. COMPLIANCE WITH OTHER REGULATIONS

This Certificate does not exempt the Certificate Holders or any other entity from compliance with any other requirements of law, including the Central Coastal Plain Capacity Use Area ("CCPCUA") Rules (15A NCAC 02E .0500).

III. REOPENER

If the Commission determines that the record on which this Certificate is based is substantially in error or if new information becomes available that clearly demonstrates that any Finding of Fact (including those regarding environmental, hydrologic, or water use impacts) pursuant to G.S. § 143-215.221(f) was not or is no longer supported or is materially incomplete, the Commission may reopen and modify this Certificate to ensure continued compliance with G.S. ch. 143, art. 21, part 2A.

IV. MITIGATION

No individual unit of local government may receive surface water regulated under this Certificate unless the local government maintains, throughout its jurisdiction, requirements that are at least as stringent as the

Division of Water Quality's Phase 2 post-construction stormwater controls or the post-construction stormwater controls of the Universal Stormwater Management Program ("USMP"), for all new development that disturbs more than one acre of land, including those projects that disturb less than one acre of land but are part of a common plan of development or sale that disturbs more than one acre of land.

V. CONSERVATION

Persons (including a unit of local government) subject to the CCPCUA Rules (15A NCAC 2E .0500) are required to reduce the volume and effects of withdrawals from ground waters through the minimum conservation program requirements identified in 15A NCAC 2E .0502(d)(5)(A)-(C). In order to assure that conservation measures are used by the applicant to assure efficient use of water and avoid waste (in accordance with §143-215.221(c)(3), no individual unit of local government or persons subject to the CCPCUA Rules (15A NCAC 2E .0500) may transfer water under this Certificate without first meeting the minimum conservation program requirements identified in 15A NCAC 2E .0502(d)(5)(A)-(C).

VI. DROUGHT MANAGEMENT

The Certificate Holders shall implement drought management measures that become more stringent as drought conditions increase in severity. These measures shall correspond to the most severe level of drought existing in the Tar River Basin. Prior to each Certificate Holder receiving any water under this Certificate, the Certificate Holder shall submit a Water Shortage Response Plan ("Plan") to the Division, for the Division's approval. Each Certificate Holder shall receive approval of the Plan from the Division, and shall have and maintain adequate authority and resources to implement and enforce the Plan. In order to be approved, the Plan must meet or exceed the requirements set forth in 15A NCAC 2E .0607 and be no less stringent than the Plan in Attachment A, which is incorporated herein. Any subsequent modifications to the Plan will be reviewed and approved by the Division. Adoption of the measures in Attachment A does not imply compliance with G.S. 143-355(l) or 15A NCAC 2E .0607.

The Certificate Holders shall not transfer any water to any other unit of local government unless that unit of local government agrees to be bound by this condition in full.

VII. COMPLIANCE AND MONITORING PLAN

The Certificate Holders shall report annually to the Division. The report shall detail water use over the calendar year by providing the following information:

1. Interbasin Transfer Calculation

GUC shall calculate daily and maximum-day interbasin transfers taking into account GUC's own metered water use for each billing cycle, with separate data provided for customers in the Tar River and Neuse River Basins. The calculation shall also take into account GUC's monthly average wastewater treatment plant discharge, and the daily bulk purchases from the Towns of Farmville, Winterville, and Greene County. GUC shall geocode (via the GUC GIS database) those water customers located in the Neuse River Basin so that the consumptive use for the GUC customers can be calculated. The consumptive use for Winterville, Farmville, and Greene County does not need to be calculated so long as the entire metered water use to these communities is the transfer to each of the respective Basins.

2. Ground Water Use

Farmville, Winterville, and Greene County shall submit their daily metered ground water use as reported to DWR's Ground Water Section for compliance with any CCPCUA permits. The documentation shall note the maximum-day water use by each system.

3. Banked Water Summary

Farmville, Winterville, and Greene County shall also provide a banked water summary. Each summary shall include the total volume of banked water available at the beginning and end of the calendar year, an accounting of any day during the year that banked water was used, and the total volume of banked water that was used during that day.

4. Compliance With Other Certificate Conditions

The Certificate Holders shall also provide a status report of compliance efforts for any other conditions required by this Certificate.

All annual reports shall be submitted by March 31st of the following calendar year. Following the submission of any reports under this Certificate, the Certificate Holders shall promptly provide to the Division any information requested by the Division that the Division concludes is needed to complete, correct or clarify the report. If the Certificate Holders believe that the Division's request does not conform to the reporting requirements, the parties shall confer promptly to resolve any differences.

When an annual report indicates that a daily transfer equaled or exceeded eighty (80%) percent of any transfer amount authorized by this Certificate, the Certificate Holders shall submit to the Division, by June 1 of the year in which such annual report was required, a detailed plan that specifies how the Certificate Holders intend to address future foreseeable water needs. So long as the Certificate Holders are required to have a local water supply plan, then the plan to address future foreseeable water needs shall be an amendment to the local water supply plan required by G.S. 143-355(l).

When an annual report indicates that a daily transfer equaled or exceeded ninety percent (90%) of any transfer amount authorized by this Certificate, then:

1. The Certificate Holders shall begin implementation of the plan submitted to the Division.
2. GUC shall immediately begin monthly reporting to the Division. Monthly reports shall be submitted within 45 days of the end of the month.

All reports submitted pursuant to this condition shall be signed by the Director of Public Utilities or person of similar position who shall affirm that, based on information collected during and belief formed after reasonable inquiry, the report is true, accurate and complete and that the Certificate Holder complied with the Certificate continuously throughout the year, except as specifically indicated in the report.

NOTICE: The Certificate Holders may be jointly and severally responsible for compliance with certain terms, conditions and requirements stated herein, and therefore may be jointly and severally liable for penalties assessed to enforce such terms, conditions and requirements as provided in G.S. §143-215.6A.

This is the 18th day of November, 2010.



Stephen T. Smith, Chairman

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COMMISSION

- Attachment A -

MINIMUM CRITERIA FOR DROUGHT MANAGEMENT PLAN

Section A. The Water Shortage Response Plan ("Plan") shall include provisions that are at least as stringent as the following specific procedural and substantive provisions:

Stage 1 - Water Conservation Alert

A Stage 1 water emergency shall be declared in the event of an immediate water shortage or when any of the following conditions exist:

- There are three consecutive days when water demand exceeds 80% of the water production capacity.
- The average of the daily Tar River level measurements taken at the Water Treatment Plant Raw Water Pump Station is -1.0 feet Mean Sea Level or less.
- The location of the salt water interface in the Tar River is determined to be 10 miles or less from the Water Treatment Plant Raw Water Pump Station.

Water production capacity shall be defined as the maximum volume of water that meets state and federal standards that the water treatment process can produce during a twenty-four hour period. Water production capacity can vary depending on system component reliability and raw water conditions. The salt water interface shall be defined as the point where chloride levels in the Tar River are measured at 250 milligrams per liter just below the surface. During a declared Stage 1 water emergency the following voluntary water conservation practices shall be encouraged:

- a) Inspect and repair all faulty and defective parts of faucets and toilets.
- b) Use shower for bathing rather than bathtub and limit shower to no more than 5 minutes.
- c) Do not leave faucets running while shaving, brushing teeth, rinsing or preparing food.
- d) Limit the use of clothes washers and dishwashers and when used, operate fully loaded. Operate dishwashers after the peak demand hours of 6 to 10 p.m.
- e) Limit lawn watering to that necessary for plant survival. Water lawns before the peak demand hours of 6 to 10 a.m.
- f) Water shrubbery the minimum required. Water shrubbery before the peak demand hours of 6 to 10 a.m.
- g) Limit vehicle washing.
- h) Do not wash down outside areas such as sidewalks, driveways, patios, etc.
- i) Install water saving showerheads and other devices.
- j) Use disposable and biodegradable dishes where possible.
- k) Install water saving devices in toilets such as early closing flappers.
- l) Limit hours of water-cooled air conditioners.
- m) Do not fill swimming or wading pools.

Stage 2 - Water Shortage Warning

A Stage 2 water emergency shall be declared in the event of an immediate water shortage or when any of the following conditions exist:

- There are two consecutive days when water demand exceeds 90% of the water production capacity.
- The average of the daily Tar River level measurements taken at the Water Treatment Plant Raw Water Pump Station is -1.5 feet Mean Sea Level or less.
- The location of the salt water interface in the Tar River is determined to be 7 miles or less from the Water Treatment Plant Raw Water Pump Station.

Water production capacity shall be defined as the maximum volume of water that meets state and federal standards that the water treatment process can produce during a twenty-four hour period. Water production capacity can vary depending on system component reliability and raw water conditions. The salt water interface shall be defined as the point where chloride levels in the Tar River are measured at 250 milligrams per liter just below the surface. During a declared Stage 2 water emergency the following activities shall be prohibited:

- a) Watering lawns, grass, shrubbery, trees, flower and vegetable gardens except by hand held hose, container, or drip irrigation system. A person who regularly sells plants will be permitted to use water on their commercial stock. A golf course may water their greens. State, County and City licensed landscape contractors may water by hand held hose or drip irrigation any plants under a written warranty.
- b) Filling swimming or wading pools, either newly constructed or previously drained. Make up water for pools in operation will be allowed.
- c) Using water-cooled air conditioners or other equipment, in which cooling water is not recycled, unless there are health or safety concerns.
- d) Washing any type of mobile equipment including cars, trucks, trailers, boats, or airplanes. Any persons involved in a business of washing motor vehicles may continue to operate.
- e) Washing outside surfaces such as streets, driveways, service station aprons, parking lots, or patios.
- f) Washing the exterior of office buildings, homes, or apartments.
- g) Using water for any ornamental fountain, pool, pond, etc.
- h) Serving drinking water in food establishments such as restaurants or cafeterias, unless requested to do so by a customer.
- i) Using water from a public or private fire hydrant for any reason other than to suppress a fire or other public emergency or as authorized by the General Manager or his authorized representative.
- j) Using water to control or compact dust.
- k) Intentionally wasting water.
- l) Commercial and industrial water customers shall achieve mandatory reductions in water usage through whatever means are available. A minimum reduction of 20% shall be the target, however a greater target reduction percentage may be required depending on the severity of the water emergency. Compliance with the reduction target shall be determined by the General Manager or his authorized representative. Variances to the target reduction

may be granted by the General Manager or his authorized representative to designated public health facilities.

Stage 3 – Water Shortage Danger

A Stage 3 water emergency shall be declared in the event of an immediate water shortage or when any of the following conditions exist:

- There is one day when water demand exceeds 100% of the water production capacity.
- The average of the daily Tar River level measurements taken at the Water Treatment Plant Raw Water Pump Station is -2.0 feet Mean Sea Level or less.
- The location of the salt water interface in the Tar River is determined to be 4 miles or less from the Water Treatment Plant Raw Water Pump Station.

Water production capacity shall be defined as the maximum volume of water that meets state and federal standards that the water treatment process can produce during a twenty-four hour period. Water production capacity can vary depending on system component reliability and raw water conditions. The salt water interface shall be defined as the point where chloride levels in the Tar River are measured at 250 milligrams per liter just below the surface. During a declared Stage 3 water emergency the following activities shall be prohibited, in addition to activities prohibited under Stage 2:

- a) Watering lawns, grass, shrubbery, trees, and flowers.
- b) Washing motor vehicles at commercial car wash establishments.
- c) Watering any vegetable garden except by hand held hose, container, or drip irrigation.
- d) Commercial and industrial water customers shall achieve mandatory reductions in water usage through whatever means are available. A minimum reduction of 50% shall be the target, however a greater target reduction percentage may be required depending on the severity of the water emergency. Compliance with the reduction target shall be determined by the General Manager or his authorized representative. Variances to the target reduction may be granted by the General Manager or his authorized representative to designated public health facilities.
- e) In the event that the prohibition of the activities listed above is not sufficient to maintain an adequate supply of water for fire protection, all use of water for purposes other than maintenance of public health and safety shall be prohibited. Residential water use shall be limited to the amount necessary to sustain life through drinking, food preparation and personal hygiene.

The Certificate Holders may require that commercial and industrial water customers prepare plans detailing measures to be taken by them to achieve mandatory reductions in daily water usage during Stage 2 and Stage 3 emergencies. Such plans shall be completed within sixty (60) calendar days after receipt of notice to prepare them.

Any User who is found to have failed to comply with any of the mandatory restrictions may be fined up to five hundred dollars (\$500) per day per violation. Enforcement of the mandatory restrictions and imposition of fines will be implemented according to the following schedule except in cases of gross noncompliance:

- First offense – Written warning
- Second offense – Fine up to two hundred dollars (\$200)
- Third offense and further offenses – Fine up to five hundred dollars (\$500)

Water service may be temporarily discontinued for failure to comply with the mandatory restrictions. All applicable penalty fees may be applied in the event of such service suspensions. In the event of continued noncompliance, removal of meter and service will be deemed proper and service will be discontinued and tap fees and deposits will be forfeited.

Section B. The Plan shall also include the following:

- The designation of a staff position or organizational unit responsible for the implementation of their Plan;
- Notification procedures that will be used to inform employees and water users about the implementation of the plan and required water conservation response measures;
- Specific measurements of available water supply, water demand and system conditions that will be used to determine the severity of water shortage conditions and to initiate water use reduction measures and the movement between various levels;
- Procedures that will be used to regulate compliance with the provisions of the plan;
- Procedures for affected parties to review and comment on the plan prior to final adoption;
- Procedures to receive and review applications for variances from specific requirements of the plan and the criteria that will be considered in the determination to issue a variance;
- An evaluation method to determine the actual water savings and the effectiveness of the Plan in meeting its stated objectives and reduction goals;
- Procedures for revising and updating the Plan to improve effectiveness based on the results of the evaluation method, and to adapt to new circumstances such as changes in the number or types of water sources.