



North Carolina Department of Environment and Natural Resources

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Governor

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FINDING OF NO SIGNIFICANT IMPACT (FONSI)

**Interbasin Transfer (IBT) Certificate Modification Request
Towns of Cary, Apex and Morrisville and Wake County (RTP South)**

The North Carolina Environmental Policy Act (G.S. §113A) requires the Division of Water Resources determine whether a proposed major agency action will significantly affect the environment. The Towns of Cary, Apex and Morrisville and Wake County Interbasin Transfer (IBT) Certificate Modification is such a major action. The modification to the IBT certificate is requested for three primary purposes:

- Modify the basis of their IBT certificate approved July 12, 2001 from a maximum day IBT calculation to IBT calculated as the daily average of a calendar month, per the changes to NCGS §143-215.22L based on Session Law 2013-388.
- Include transfers to the Cape Fear River subbasin, so that the modified certificate addresses transfers from the Haw River subbasin to both the Neuse River basin and Cape Fear River subbasin.
- Base the certificate term on a 30-year planning period, addressing the Towns' and County's IBT through 2045; resulting in a total of transfer of 33 mgd from the Haw River subbasin to the Neuse River basin and Cape Fear River subbasin on a daily average of a calendar month basis.

In order to determine whether the proposed Towns of Cary, Apex and Morrisville and Wake County IBT Certificate Modification will cause significant environmental impacts, an environmental assessment (EA) was prepared and is attached. It contains detailed information on the key issues, including a description of the proposed project, water supply alternatives, and results from analyses of the source and receiving basins detrimental effects. A thorough analysis of practicable alternatives to the proposed transfer was conducted and documented in the EA for the IBT Modification request. Those water source alternatives include:

- No Action (Alternative 1)
- Increase in Interbasin Transfer to Meet 2045 Demands (Alternative 2a) - Proposed IBT Certificate Modification (preferred alternative)
- Increase in Interbasin Transfer to Meet 2045 Demands and Use Current Permitted Wastewater Capacity (Alternative 2b)
- Avoid Interbasin Transfer Increase by Sending Additional Untreated Wastewater to the WWRWRF (Alternative 3a)
- Avoid Interbasin Transfer Increase by Discharging Additional Treated Wastewater Effluent to the Cape Fear River Basin (Alternative 3b)
- Avoid Interbasin Transfer Increase by Using a Water Source in the Neuse River Basin (Alternative 3c)
- New Water Supply Source Development
- Finished Water Capacity Purchase from a Neuse River Basin Utility
- Avoid Interbasin Transfer Increase by Using Groundwater as a Source (Alternative 3d)
- Avoid Interbasin Transfer Increase by Using Additional Water Resources Management Tools (Alternative 3e)

The source and receiving basins detrimental cumulative effects were analyzed using a hydrologic model developed for the Cape Fear and Neuse river basins. The model is used to assess the potential effects of any water withdrawal, discharge or transfer activity. Water supply data related to water systems in these models is sourced from the Division of Water Resources' Local Water Supply Plans (LWSP). The applicants have all submitted updated LWSPs and this data was used in the hydrologic model.

Hydrologic modeling results presented in the EA effectively demonstrate that the proposed water supply project will have no significant detrimental effects on the water levels in Jordan Lake. These modeling efforts included agricultural, recreational, and industrial uses, as well as upstream and downstream water supply demands from water systems. The results from the hydrologic modeling also demonstrate that the proposed project will cause no significant alterations of releases into the Haw River downstream of the B. Everett Jordan Dam. Due to these results, the proposed project is not expected to affect downstream flows in the Cape Fear River. Therefore, no direct impacts are expected from the preferred alternative as described above.

The secondary and cumulative impacts (SCI) assessments by the Towns of Cary, Apex, and Morrisville are included by reference in this EA document. The Secondary and Cumulative Impacts Master Mitigation Plans (SCIMMPs) fully address SCI within the study area. The proposed actions included in the EA have been noted in the SCIMMPs and subsequent revisions and updates to those plans (2006, 2008, 2010, and 2012). Additionally, mitigation efforts associated with any potential secondary and cumulative impacts are detailed in the SCIMMP documents.

The water supply for the Towns and Wake County is B. Everett Jordan Lake (Jordan Lake) on the Haw River in the Haw River subbasin of the Cape Fear River basin. Jordan Lake is managed by United States Army Corps of Engineers (USACE) for many purposes including water supply. The Towns of Apex and Cary jointly have a water supply allocation issued by the Environmental Management Commission (EMC). In addition, the Town of Cary administers the individual water supply allocations of the Town of Morrisville and Wake County. The water supply reallocation process of Jordan Lake has been initiated and is expected to be concluded in late 2015. This process is expected to resolve the future water supply needs of the applicants. The existing allocations for the Towns and Wake County by the EMC total 39 percent of the water supply pool (with an assumed safe yield of 39 million gallons per day [mgd]) and have individual allocations as follows:

- Cary/Apex – 32 mgd (23.5 mgd/8.5 mgd as subdivided by the Towns, respectively)
- Morrisville – 3.5 mgd
- Wake County for RTP South – 3.5 mgd

The service areas for the Towns and the County are within the Haw River IBT basin (source), the Cape Fear River IBT basin (receiving), and the Neuse River IBT basin (receiving). The percentages of the Towns' and County's service areas' land area within each IBT basin are presented below:

- Cary: Neuse River IBT basin – 71%, Haw IBT basin – 29%
- Apex: Neuse River IBT basin – 19%, Haw IBT basin – 59%, Cape Fear River IBT basin – 22%
- Morrisville: Neuse River IBT basin – 81%, Haw IBT basin – 19%
- Wake County (RTP South): Haw IBT basin – 100%

Water conservation efforts are critical to reducing water supply demands; thereby, reducing the overall IBT. Each Town uses education, regulations, and incentives to encourage water conservation by residents and businesses, including the following components:

- Water waste is prohibited.
- Irrigation systems must be operated such a way that water does not fall on impervious surfaces or allow water to accumulate and run off the property. An odd/even day irrigation schedule for all customers is in place year-round. Rain sensors are required on all automatic irrigation systems.
- The Towns use direct mailings, utility bill insert messages, appearances at community events, brochures, flyers, messages in annual drinking water quality reports, and the Town Web sites to provide water conservation information to customers.
- The Town of Cary has a tiered rate system to incentivize water conservation. The Town also charges the lowest rate for use of reclaimed water for non-potable uses, where applicable.

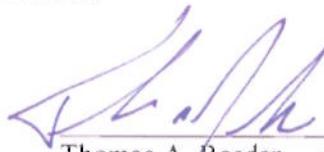
The Town of Cary's water conservation program is presented in the Long Range Water Resources Plan (LRWRP) (CH2M HILL and Brown and Caldwell, 2013), which evaluates the effectiveness of program measures and charts a course for future measure implementation. The LRWRP provides an overarching road map for water resources management for the future for each Town (CH2M HILL and Brown and Caldwell, 2013). A comprehensive summary of the Towns (Cary and Apex) existing water conservation programs can be found in each Towns' SCIMMP (CH2M HILL, 2014a; 2014c).

As evidenced in the environmental assessment, the Towns and County have been in full compliance with their current IBT certificate since it was issued in 2001, including the numerous certificate conditions. Most of the conditions in the current certificate have been superseded by the Towns' and County's actions or by new state laws and therefore should not be included in the modified certificate. The modified certificate should maintain the following conditions to ensure regional access to the Jordan Lake water supply and the certificate holder's compliance with a modified IBT certificate:

- The Towns of Cary and Apex shall be required to provide access at their existing intake site to other Jordan Lake water allocation holders that need access to utilize their allocations to the extent that this additional use is determined to be feasible by the Division of Water Resources. The cost associated with getting any necessary permits, engineering design, and associated construction costs are the responsibility of the allocation holder(s) requesting the access and not Cary and Apex.
- The IBT certificate holders will continue to submit an annual IBT compliance and monitoring report, which will be based on the existing approved compliance and monitoring plan on file with the Division of Water Resources.

The preferred alternative was selected because it meets the demonstrated water supply needs while minimizing any potential impacts resulting from the IBT. On the basis of the analysis conducted for the environmental assessment, it has been concluded that the Towns of Cary, Apex and Morrisville and Wake County IBT Certificate Modification will not have a significant adverse effect on the quality of the environment. No environmental impact statement (EIS) will be prepared and this FONSI completes the environmental review record. The FONSI and environmental assessment shall be available for inspection and comment for 30 days at the State Clearinghouse.

Summary of FONSI for publication in the Environmental Bulletin: After completion of an environmental assessment under G.S. §113A, a FONSI has been made in the case of the Towns of Cary, Apex and Morrisville and Wake County IBT Certificate Modification. Information supporting the need for the proposed project was reviewed, along with relative impacts, other alternative approaches and mitigating measures.


Thomas A. Reeder (Date) 12/17/14
Director, Division of Water Resources