



# Update on Water Supply Planning and IBT Certificate Modification Request

TOWNS OF CARY, APEX, MORRISVILLE AND WAKE COUNTY

Presented to EMC Water Allocation Committee  
November 12, 2014

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# Agenda

- Purpose of Update
- Background on Current IBT Certificate
- Western Wake Regional Water Reclamation Facility Planning and Implementation
- Long Range Water Resources Planning
- IBT and Jordan Lake Allocation Request
- Upcoming Steps
- Questions

# Purpose of Update

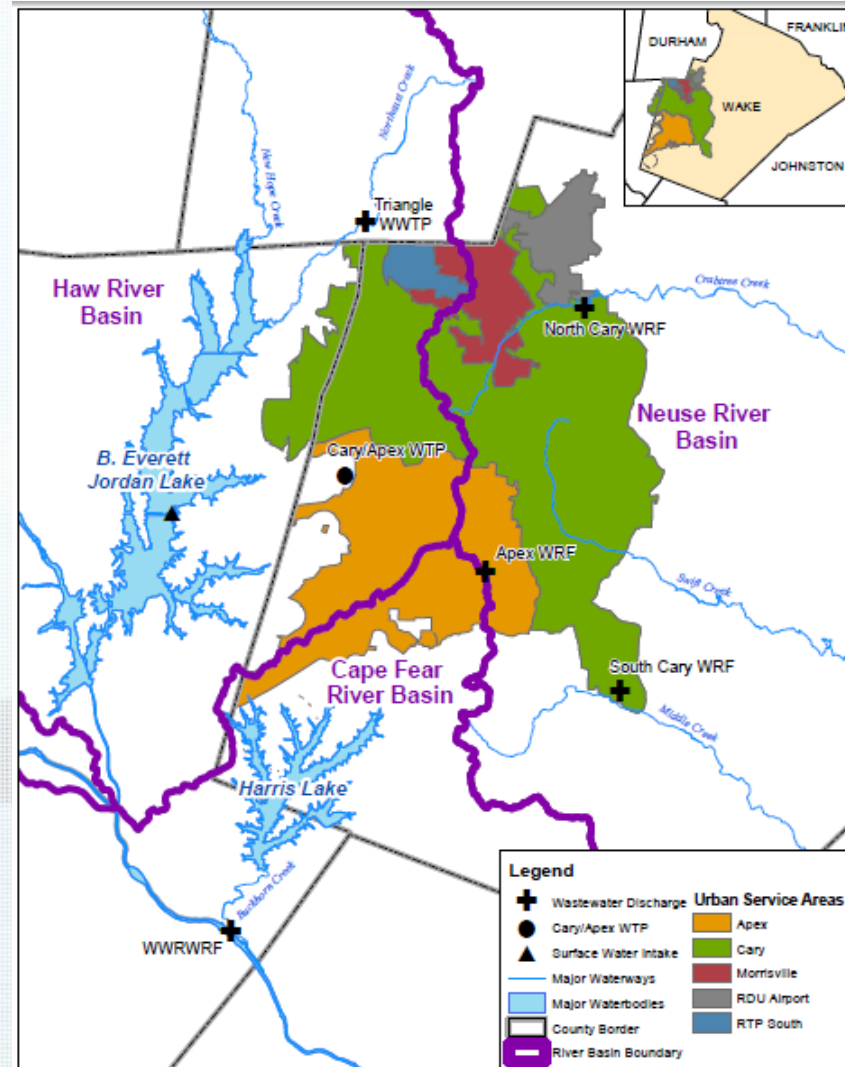
- Provide background for IBT certificate modification request (Notice of Intent submitted September 30, 2013)
  - State's IBT certificate update objectives
    - Shift IBT calculation from a maximum day value to a daily average of a calendar month value (based on current certificate planning period of 2030,) per Session Law 2013-388
    - Include transfers to the Cape Fear River subbasin (consumptive uses in the Town of Apex service area)
  - Towns' IBT certificate modification objective
    - Base modified certificate term on a 30-year planning period addressing IBT through 2045



# BACKGROUND ON CURRENT IBT CERTIFICATE

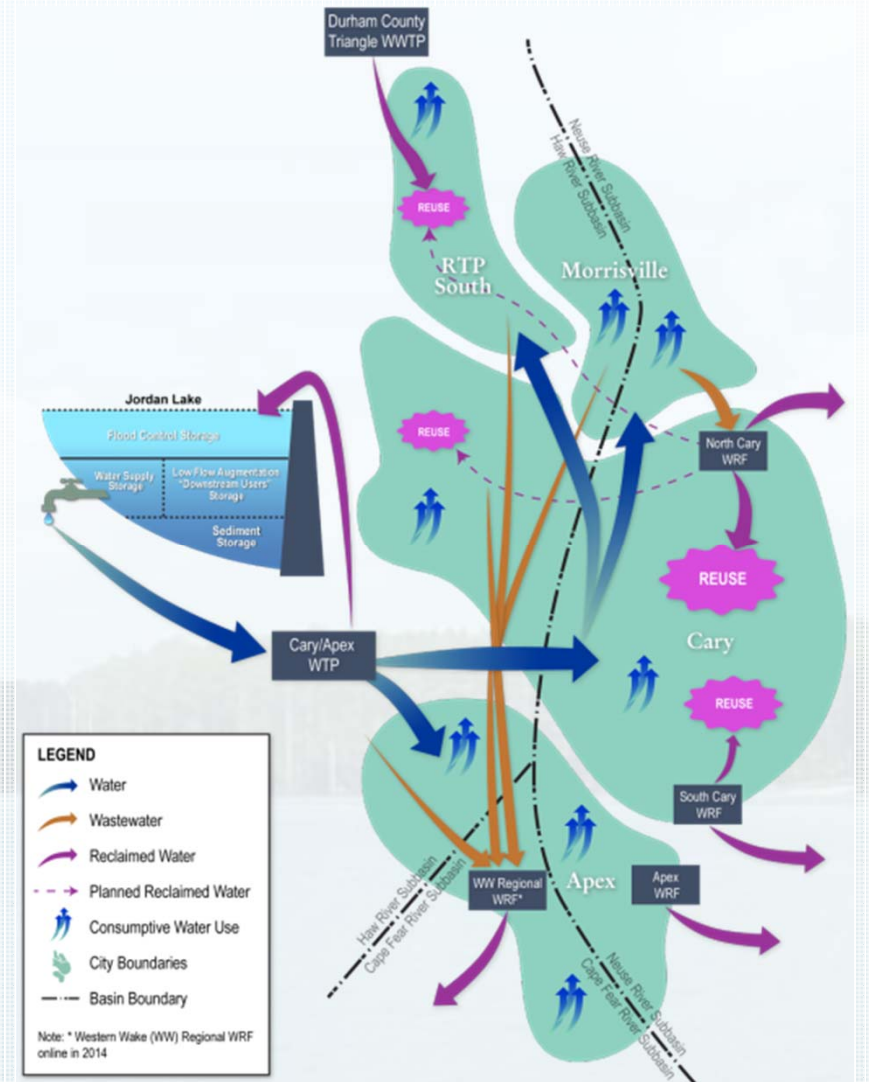
# Current IBT Certificate History

- Certificate issued in July 2001
- 2030 planning period
- EIS and ROD completed in 2000
  - Impact analyses were based on the 1<sup>st</sup> version of Cape Fear River Basin Hydrologic Model
- No detrimental impacts were predicted in EIS and none have been observed since 2001



# Current IBT Certificate Requirements

- Maximum day transfer limit of 24 mgd
  - From the Haw River Subbasin to the Neuse Subbasin
- Several certificate conditions
  - After 2010, return water to either the Haw or Cape Fear River subbasin
  - Others related to IBT monitoring, water shortage response planning, etc.
- Towns' have maintained compliance with all conditions since 2001

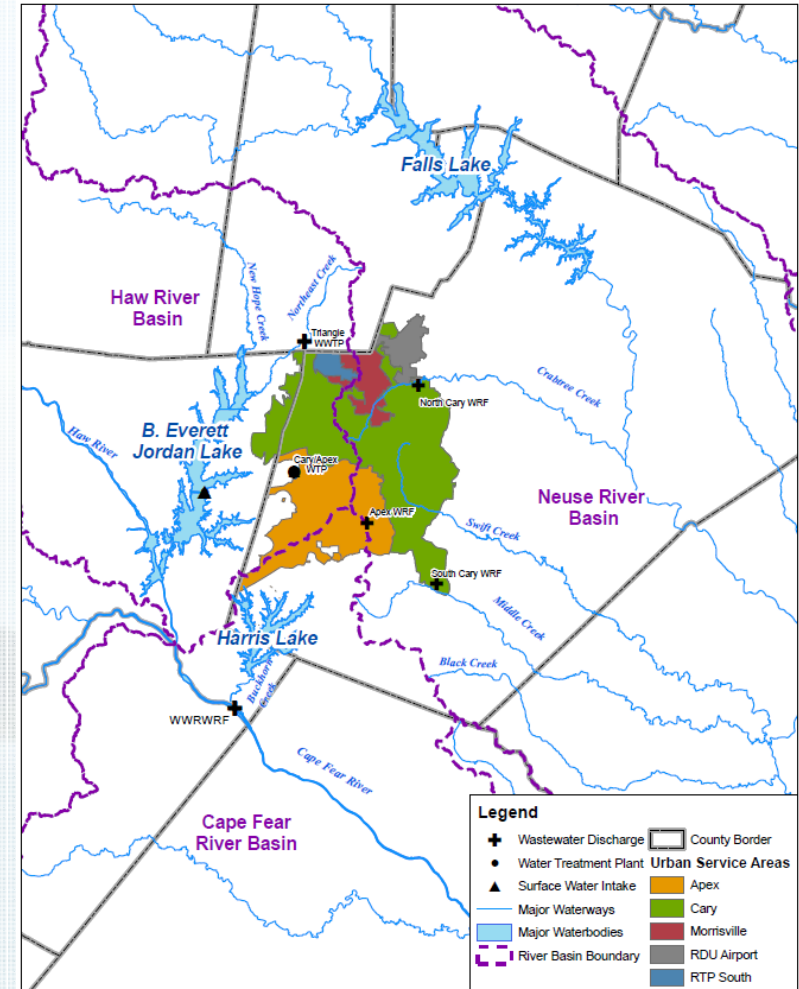




# **WESTERN WAKE REGIONAL WATER RECLAMATION FACILITY (WWRWRF) PLANNING AND IMPLEMENTATION**

# Return of Water to the Cape Fear River Basin – Western Wake Regional WRF

- Planning for WWRWRF began in 2001
  - Included the Towns of Apex, Cary, Morrisville, and Holly Springs and Wake County
- State Environmental Policy Act EIS initiated in 2005
  - Concerns identified over potential impacts to wetlands and infrastructure siting
- US Army Corps of Engineers led National Environmental Policy Act (NEPA) EIS began in 2007
  - Multiple stakeholder meetings
  - Thorough evaluation of site, pipeline and discharge alternatives
- Final NEPA EIS in December 2009 and ROD in 2010
  - Issuance of 404 permit and 401 certification in 2010
- NPDES Permit issued in 2011
  - Revised speculative limits to address TN and TP concerns
- Other Information
  - In 2005, Cary began returning water to Haw subbasin (to comply with Condition 1) by sending wastewater to the Durham County WWTP for treatment
  - In 2010, Holly Springs left the partnership.





# Western Wake Regional WRF Status

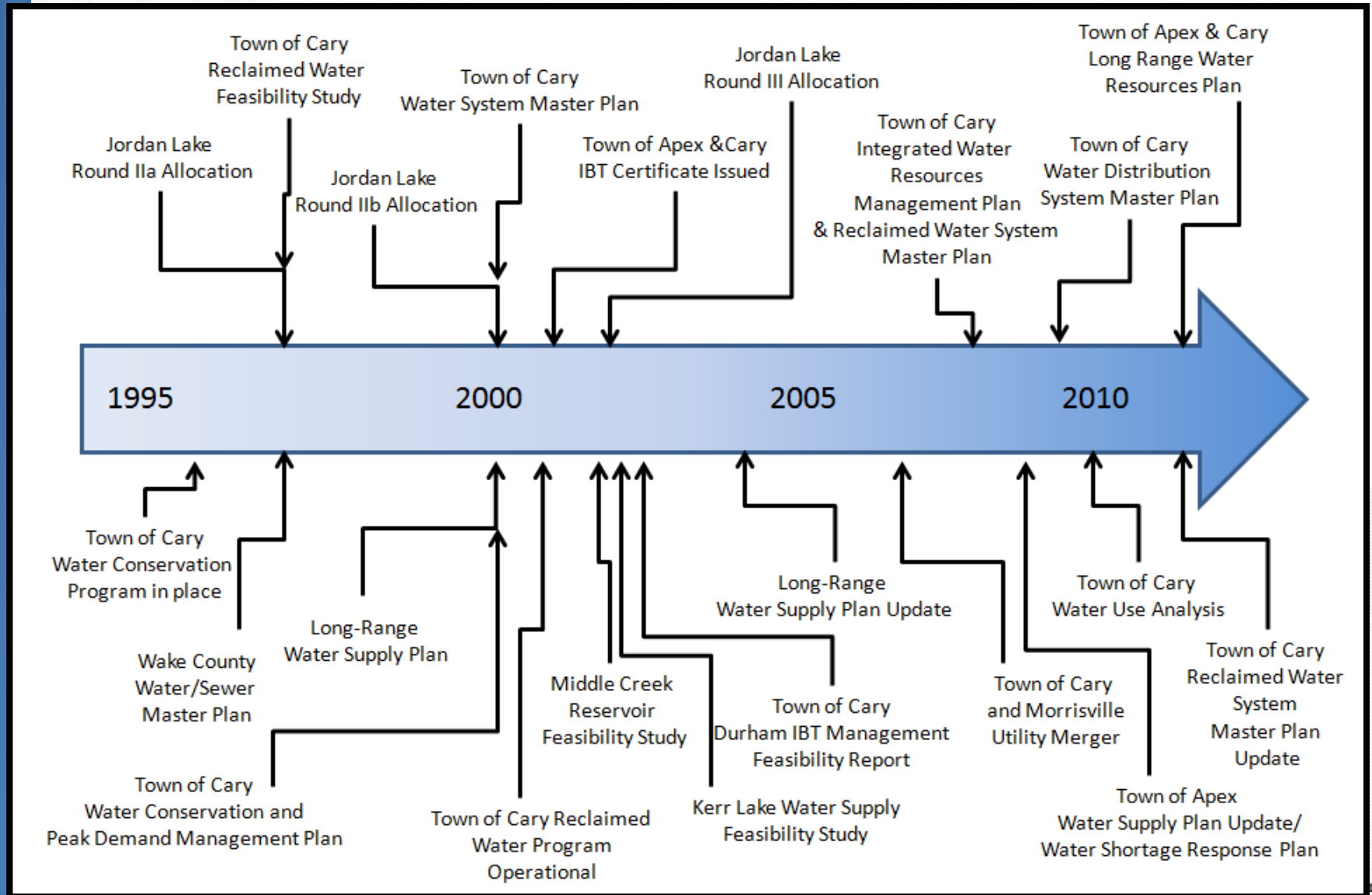
- September 2011 - Facility Construction started
- August 2014 - Discharge to Cape Fear River began
- November 19, 2014 - Open House/Dedication
- Total Facility Budget = \$290M
  - WRF = \$150M
  - Pipelines/Pump Stations = \$130M
  - Permitting/Admin/Legal = \$10M





# LONG RANGE WATER RESOURCES PLANNING

# Water Resources Planning History



# Alternatives Evaluated for the IBT Certificate Modification based on LRWRP

- No action (certificate still updated to meet State objectives)
- Increase in IBT:
  - Increase in IBT to meet 2045 demands
  - Increase in IBT to meet 2045 demands and use current permitted wastewater capacity
- Avoid IBT increase by:
  - Discharging additional untreated wastewater to the Western Wake Regional WRF
  - Discharging additional treated wastewater effluent to the Cape Fear River
  - Using a water source in the Neuse River basin
  - Using groundwater as a source
  - Utilizing additional water resources management tools

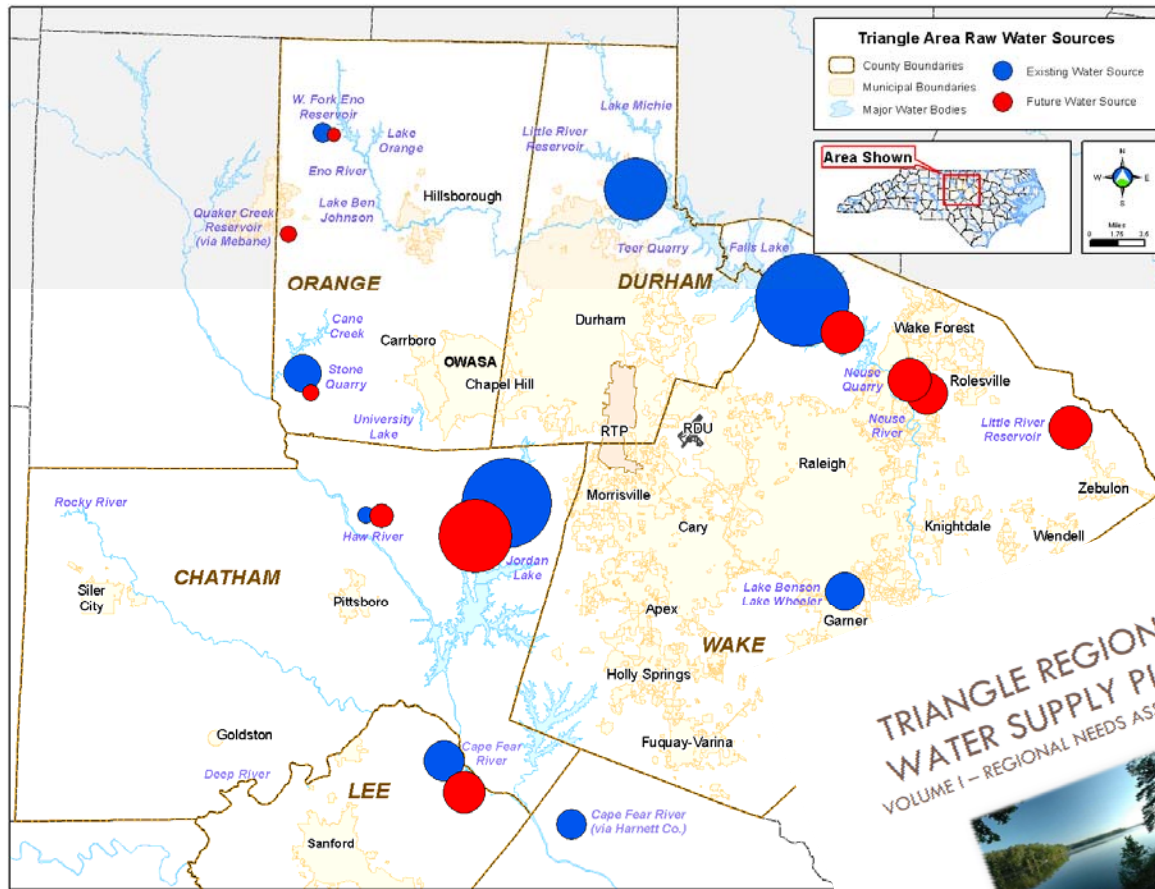


# IBT AND JORDAN LAKE ALLOCATION REQUEST

# Statute Changes and Prior EMC Approach to Jordan Lake Allocations

- Session Law 2013-388 has changed the IBT statute:
  - Allowing for a modification process for previously issued IBT Certificates
  - Changed the basis of IBT from a maximum day value to a daily average of a calendar month value
  - Other changes include the threshold requiring a certificate and for coastal counties
- Prior EMC approach to Jordan Lake allocation process required IBT certificates prior to proceeding with allocation process.

# Jordan Lake Partnership (JLP) Update



**TRIANGLE REGIONAL WATER SUPPLY PLAN**  
 VOLUME I – REGIONAL NEEDS ASSESSMENT

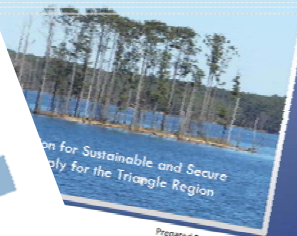


Collaboration for Sustainable and Secure Water Supply for the Triangle Region



February 20, 2012  
 (revised April 14, 2012)

**TRIANGLE REGIONAL WATER SUPPLY PLAN**  
 VOLUME II: REGIONAL WATER SUPPLY ALTERNATIVES ANALYSIS



# IBT Certificate Modification and Jordan Lake Round 4 Allocation Request

- **Update and Modification of Existing IBT Certificate**
  - Shift IBT calculation from a maximum day value to a daily average of a calendar month value (per Session Law 3013-388)
  - Include, at the request of NC DWR, transfers to the Cape Fear River subbasin (consumptive uses in the Town of Apex service area)
  - Base modified certificate term on a 30-year planning period addressing IBT through 2045 (previous IBT certificate through 2030)
- **Increase in Jordan Lake Allocation**
  - Based on a 30-year planning period through 2045 (previous allocation through 2030)
  - Aligned with IBT certificate modification request
  - Supported by the JLP Triangle Regional Water Supply Plan





# UPCOMING STEPS

# Upcoming Steps

- Towns of Apex, Cary, and Morrisville and Wake County IBT Certificate Modification
  - NOI submitted to EMC on September 30, 2013
  - Draft EA submitted to DWR in September 2014
  - Department to proceed with Public Notice in January 2015
  - EMC consideration in March or May 2015
- Jordan Lake Round 4 Allocation Process
  - Draft Allocation requests submitted to DWR in April 2014
  - Allocation requestor meeting held on August 28, 2014
  - Jordan Lake Yield Analysis completed in TBD
  - Draft Cape Fear River Basin Water Supply Plan TBD
  - Final Applications submission to DWR in TBD
  - Recommendation for EMC consideration in TBD

# Summary

- **IBT Certificate Update and Modification is needed**
  - Recent changes to G.S. 143-215.22L require updating methodologies and assumptions to be consistent with the new certificate basis.
  - As requested by DWR, transfers to the Cape Fear River subbasin need to be addressed.
  - Consistency with the planning period for the Jordan Lake Round 4 water supply allocation process, through 2045, is required.
- **The Towns have aggressively acted to minimize IBT and maintain compliance with current IBT certificate**
- **No detrimental impacts related to the existing certificate were predicted and none have been observed**



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