



# **Town of Fuquay-Varina Interbasin Transfer Request**

## **Ground Floor Hearing Room**

### **December 9, 2025**

#### **Maya Holcomb, Division of Water Resources**



# *Outline*

## Interbasin Transfer (IBT) Basics

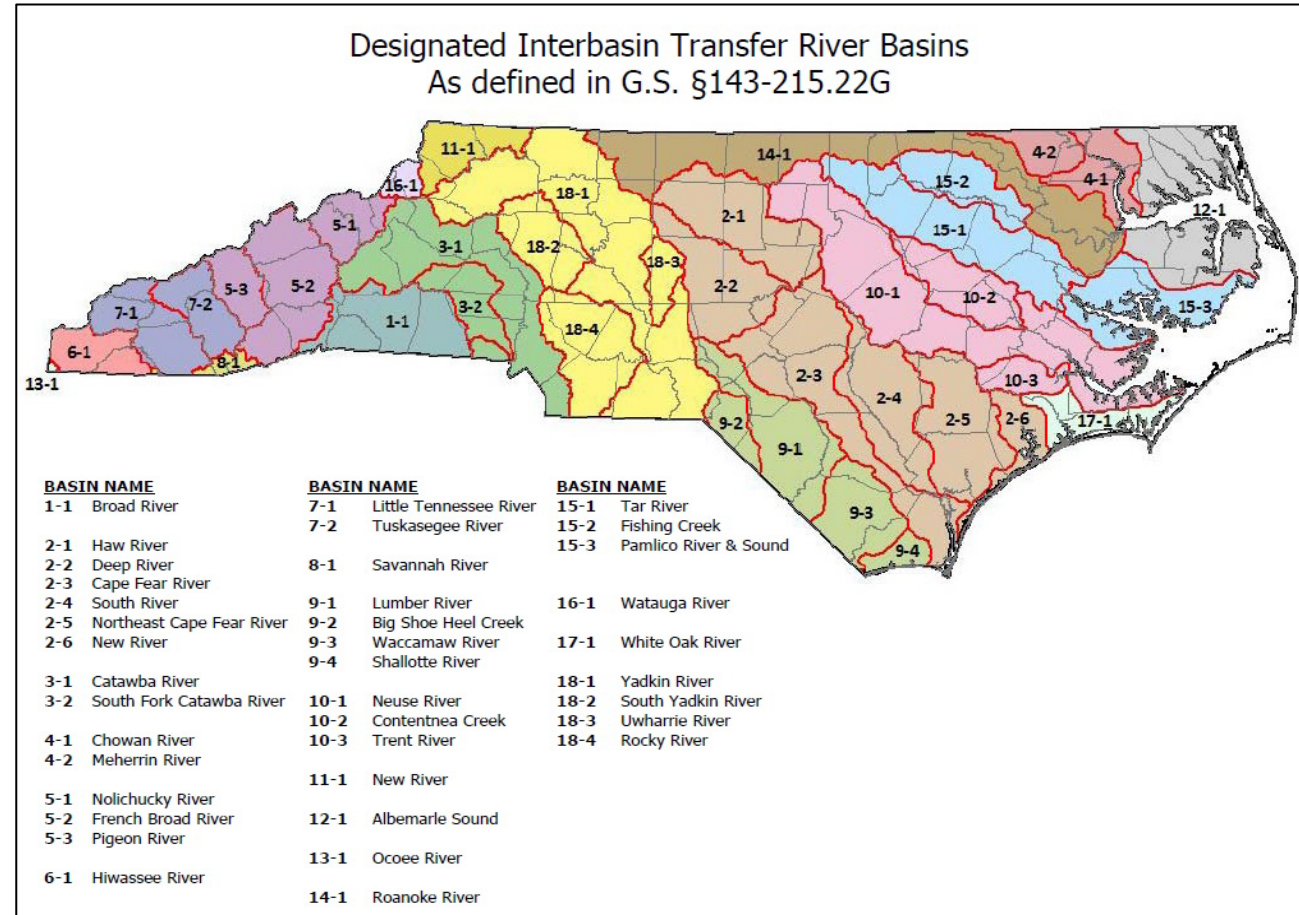
- IBT definition
- IBT statute
- IBT process description

## Town of Fuquay-Varina Proposed IBT

- Description
- Purpose and need
- Process/timeline
- OASIS Hydrologic Model
- Public Hearings

# Interbasin Transfer (IBT) Definition

The withdrawal of surface water from 1+ river basin(s) and discharge into 1+ other river basin(s)



Note: some subbasins will change on Jan 1, 2026 due to H694

# *IBT Statute Overview*

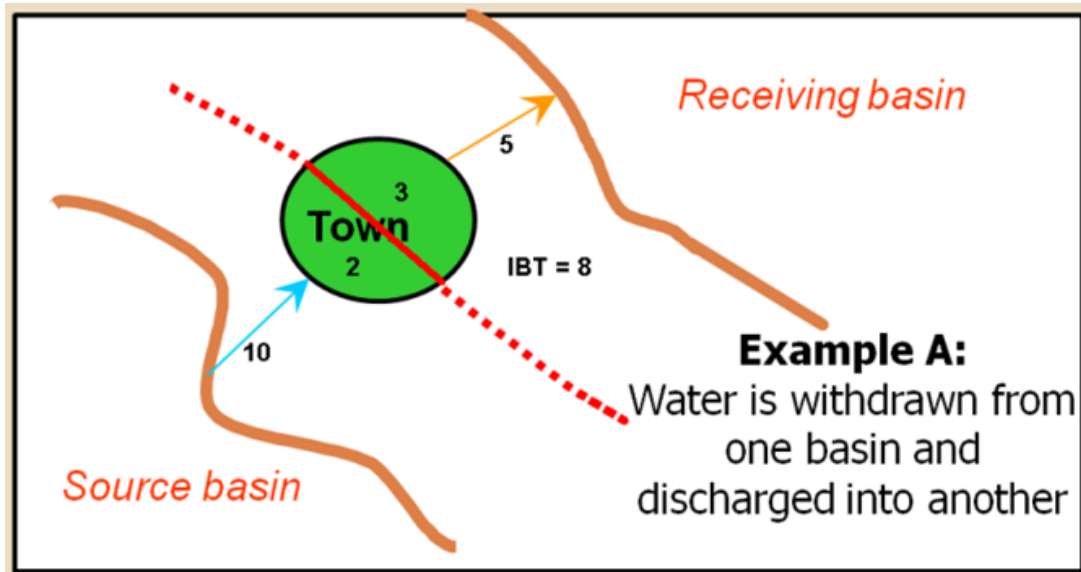
## § 143-215.22L Regulation of surface water transfers.

(a) Certificate Required: No person, without first obtaining a certificate from the Environmental Management Commission (EMC), may:

1. Initiate a transfer of 2,000,000 gallons of water or more per day, calculated as a daily average of a calendar month.
2. Exceed 3,000,000 gallons per day in any one day, from one river basin to another.

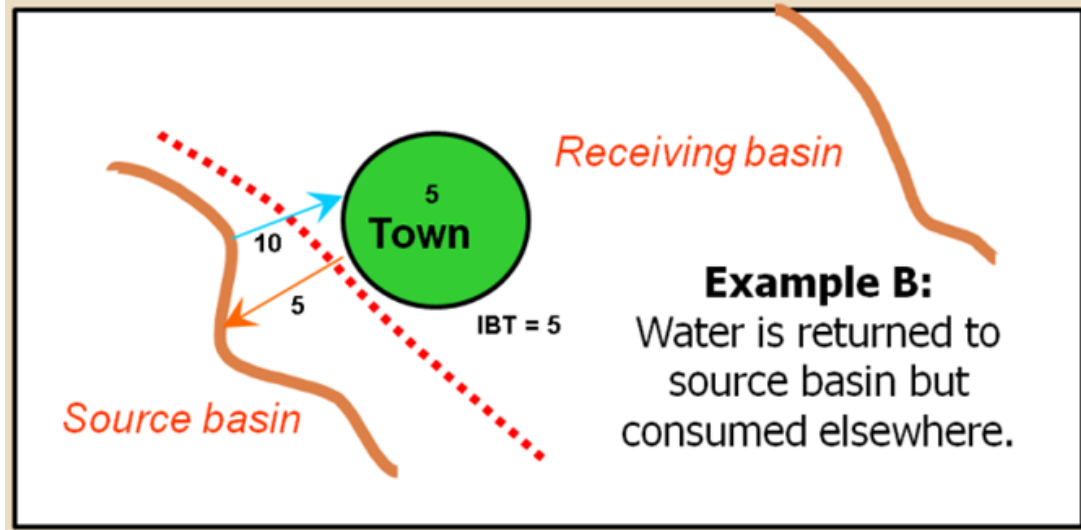


# What is an Interbasin Transfer?



- Transfer = Withdrawal – Return
- Net Transfer, Not Gross

Transfer amount equals water moved from the source basin minus water returned and consumptive use in the source basin.



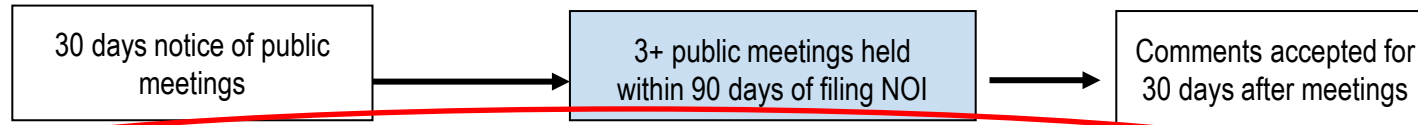
# *Findings of Fact - §143-215.22L*

The EMC shall specifically consider:

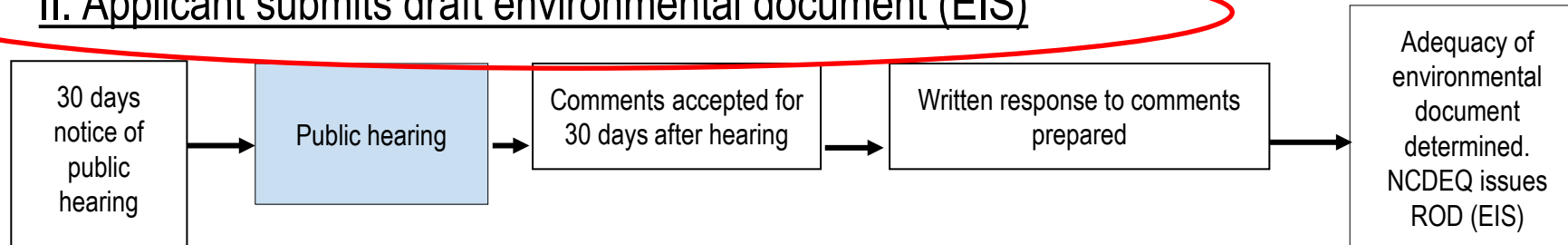
1. The necessity, reasonableness, and proposed uses of water transferred.
2. Present and reasonably foreseeable detrimental effects on the source basin.
3. Cumulative effects on the source major river basin of any water transfer or consumptive water use currently authorized or projected in a Local Water Supply Plan.
4. Present and reasonably foreseeable beneficial and detrimental effects on the receiving basin.
5. The availability of reasonable alternatives to the proposed transfer.
6. Use of impoundment storage capacity, if applicable.
7. Purposes and water storage allocations in a US Army Corps of Engineers multipurpose reservoir.
8. Whether the service area of the applicant is located in both the source and receiving basin.
9. Any other facts or circumstances reasonably necessary.

# IBT Process § 143-215.22L

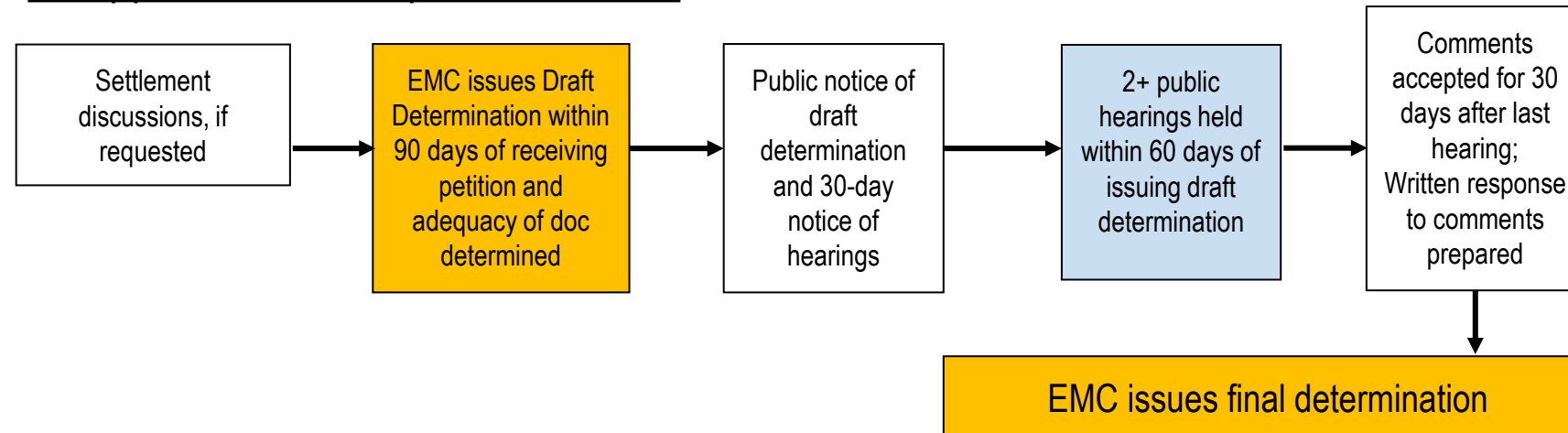
## I. Applicant submits Notice of Intent to file a petition.



## II. Applicant submits draft environmental document (EIS)

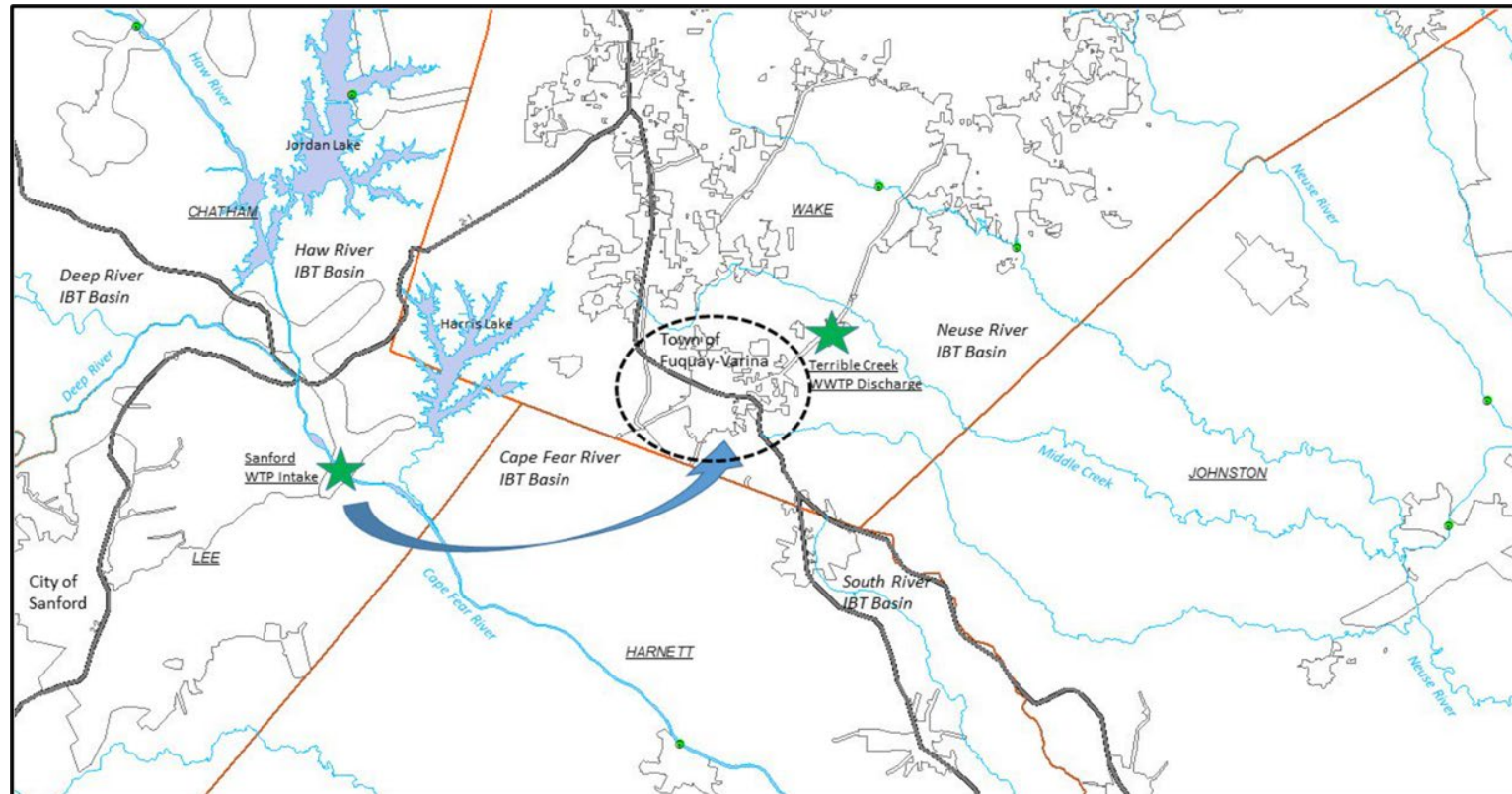


## III. Applicant submits petition to EMC



# *Town of Fuquay-Varina Requested IBT*

System/Certificate Holder	Amount	Source Basin	Receiving Basin
Town of Fuquay-Varina	6.17 mgd	Cape Fear River	Neuse River





# *Purpose and Need for Proposed Transfer*

Town's Goal: Establish a permanent, reliable water supply to replace current interlocal agreements.

- Current water supply: 7.25 mgd
  - 1.75 mgd contract with City of Raleigh
  - 4.0 mgd contract with Harnett County
  - 1.5 mgd contract with Johnston County
- Supplies from the City of Raleigh and Johnston County, in the Neuse River Basin, will be unavailable.
- Existing supplies are projected to fall short by 2030 due to increased population growth and associated development.



# *Alternatives*

- No-action
- Alternative 1 – Surface Water, Purchase Finished Water from Raleigh Water
- Alternative 2 – Surface Water, Purchase Finished Water from Johnston County
- Alternative 3 – Surface Water, Town of Fuquay-Varina Independent Water Supply in Neuse River Basin
- Alternative 4 – Surface Water, Purchase Finished Water from City of Dunn
- Alternative 5 – Surface Water, Purchase Finished Water from Harnett County
- Alternative 6 – Surface Water, Raw Water from Jordan Lake (Cary/Apex)
- Alternative 7 – Surface Water, Raw Water from Jordan Lake (Western Intake Partnership)
- Alternative 8A – Surface Water, Town of Fuquay-Varina Intake on the Cape Fear with Return of Water to Cape Fear River Basin (Cape Fear River)
- Alternative 8B – Surface Water, Town of Fuquay-Varina Intake on the Cape Fear with Return of Water to Cape Fear River Basin (Kenneth Creek)
- **Alternative 9A/B – Surface Water, Purchase Finished Water from City of Sanford**
- Alternative 9C – Surface Water, Purchase Finished Water from City of Sanford with Return of Water to Cape Fear River
- Alternative 10 – Interbasin Transfer Minimization, Groundwater
- Alternative 11 – Interbasin Transfer Minimization, Water Reuse
- Alternative 12 – Interbasin Transfer Minimization, Additional Conservation Measures

# *OASIS Hydrologic Model*


## **OASIS Hydrologic Model**

- The OASIS hydrologic model—a computer program that simulates surface water flows within a river basin—was used to evaluate alternatives in the Town’s Draft EIS.

## **Model Access**

- The hydrologic model used in the EIS is also available by request through the DEQ website:
  - <https://www.deq.nc.gov/about/divisions/water-resources/water-planning/water-supply-planning/interbasin-transfer-certification/fuquay-varina-ibt>

## **Public Training Sessions**

- Learn how to access the hydrologic model:
  - ~~December 2, 2025—6:00 PM~~
  - December 16, 2025 – 6:00 PM
  - Email  [maya.holcomb@deq.nc.gov](mailto:maya.holcomb@deq.nc.gov) to enroll



# *OASIS Hydrologic Model*

All water demands are met 100% of the time for all scenarios under historical hydrology conditions. However, water conservation measures may need to be implemented slightly more frequently in the future.

## **Preferred Alternative: 9A/B (Purchase Finished Water from City of Sanford)**

Using historical inflows, the difference between No-Action and Alternative 9A/B (without return of water) is:

- Reduction of 4.6 cfs (3 mgd) (-1.1 percent) at the Fayetteville raw water intake
- Reduction of 3.1 cfs (2 mgd) (-0.8 percent) at the CFPUA/LCFWSA raw water intake



# *OASIS Hydrologic Model*

Comparing Alt 9A/B (preferred alternative) projections (2055) to the No Action (2055) alternative

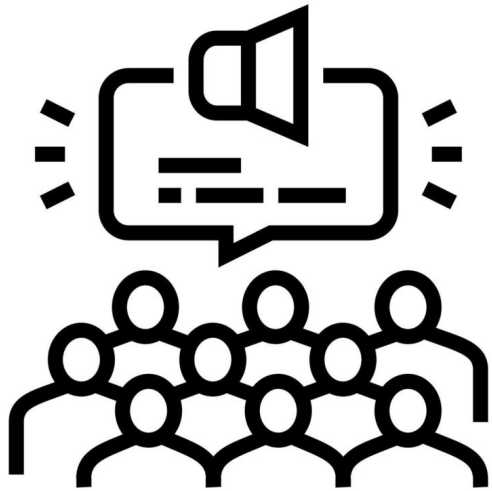
## **Water Shortage Response Plan**

- *Cary/Apex*: A median increase of 3.5 more days in water conservation measures for occurrences
- *Dunn*: An increase of 2.2% of years with an WSRP event; median increase of 1.5 days in conservation for occurrences; max event length increases by 1 day;
- *Benson*: An increase of 2.2% of years with an WSRP event; median increase of 1.5 days in conservation for occurrences; max event length increases by 1 day;
- *Fayetteville*: An increase of 2.2% of years with an WSRP event; max event length increases by 1 day;

## **Flow Metrics**

- 0.4% increase in number of days the Lillington gage doesn't meet flows of 550 cfs.
- 0.1% increase in number of days the Fayetteville intake doesn't meet flows of 600 cfs

# *Public Hearings for Fuquay-Varina's Draft EIS*



Thursday, Dec. 4, 2025, 6 p.m.

Fayetteville Technology Community College

Cumberland Hall Auditorium, 2220 Hull Road, Fayetteville, N.C. 28303

Tuesday, Dec. 9, 2025, 6 p.m.

Ground Floor Hearing Room, Archdale Building

512 N. Salisbury Street, Raleigh, N.C. 27604

Thursday, Dec. 11, 2025, 6 p.m.

Chatham County Agriculture & Conference Center

1192 U.S. Hwy 64 West Business, Pittsboro, N.C. 27312

## Contact Information



Maya Holcomb  
IBT Coordinator  
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DWR IBT website:  
<https://www.deq.nc.gov/about/divisions/water-resources/water-planning/water-supply-planning/interbasin-transfer-certification>