

Status of Interbasin Transfers in NC

Regulation of Surface Water Transfers

The Schizophrenic Statute -- What Is It?

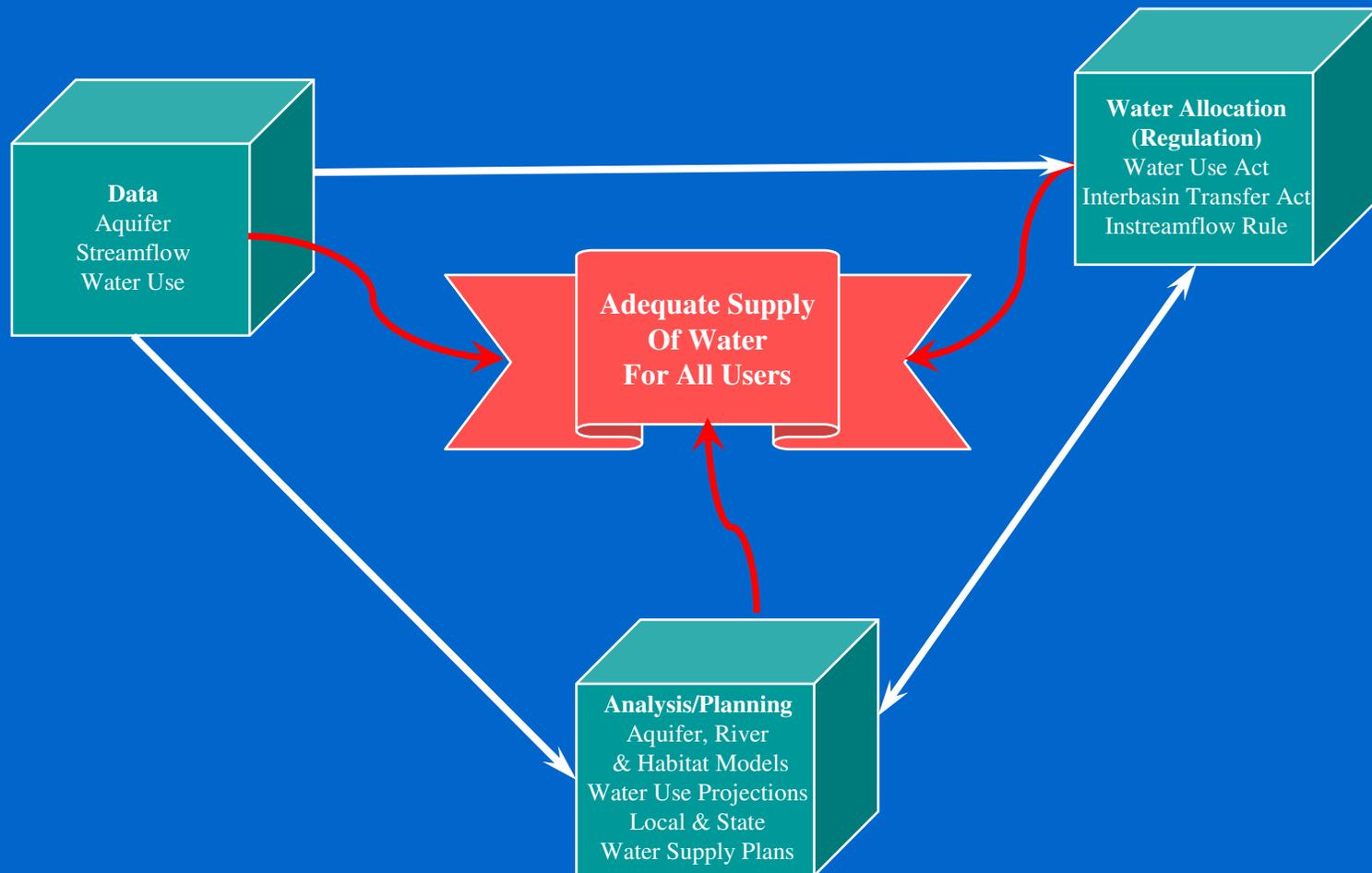
*An Environmental Permit or Pseudo-Rule Making or a Policy Statement or a
Pseudo-Property Right?*

Tom Fransen

Water Allocation Section

North Carolina Division of Water Resources

Water Supply Management Program Relationships



Relationship of DENR Water Programs





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What is an Interbasin Transfer?

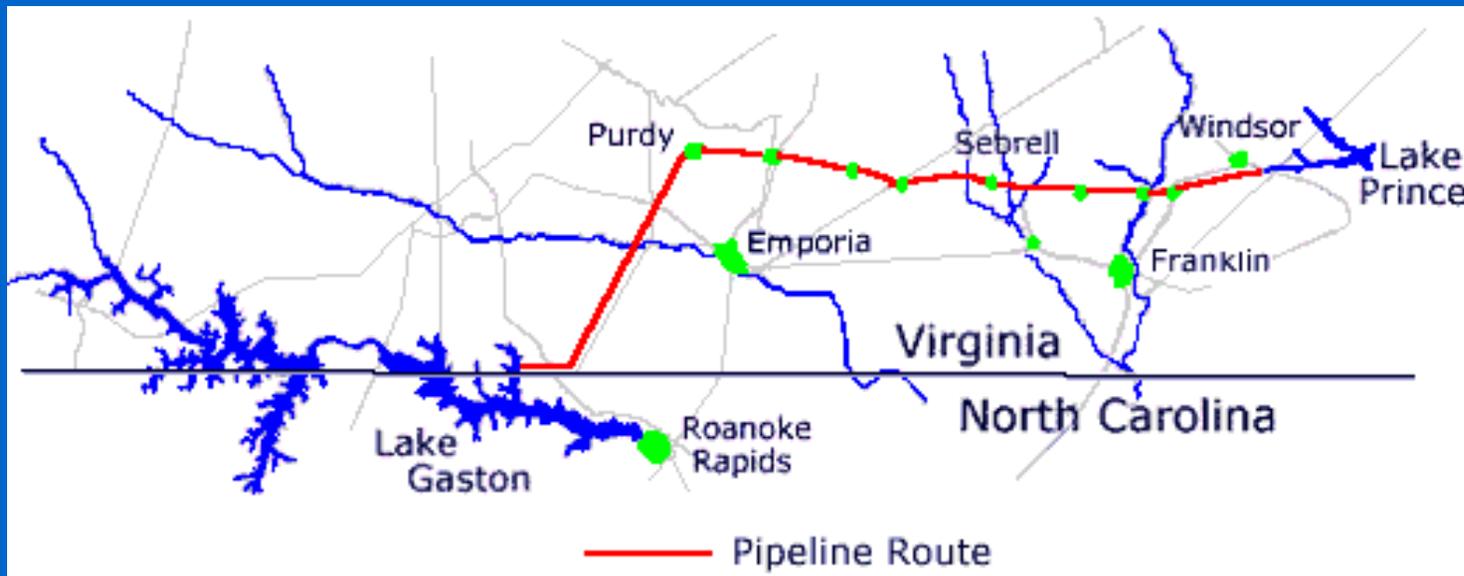
An interbasin transfer is the movement of *surface water* from one river basin into another.

The purpose of the Interbasin Transfer Law is to take a pause to be sure it is good public policy to move the water from one river basin into another.

The Interbasin Transfer Law does **NOT** prohibit transfers.

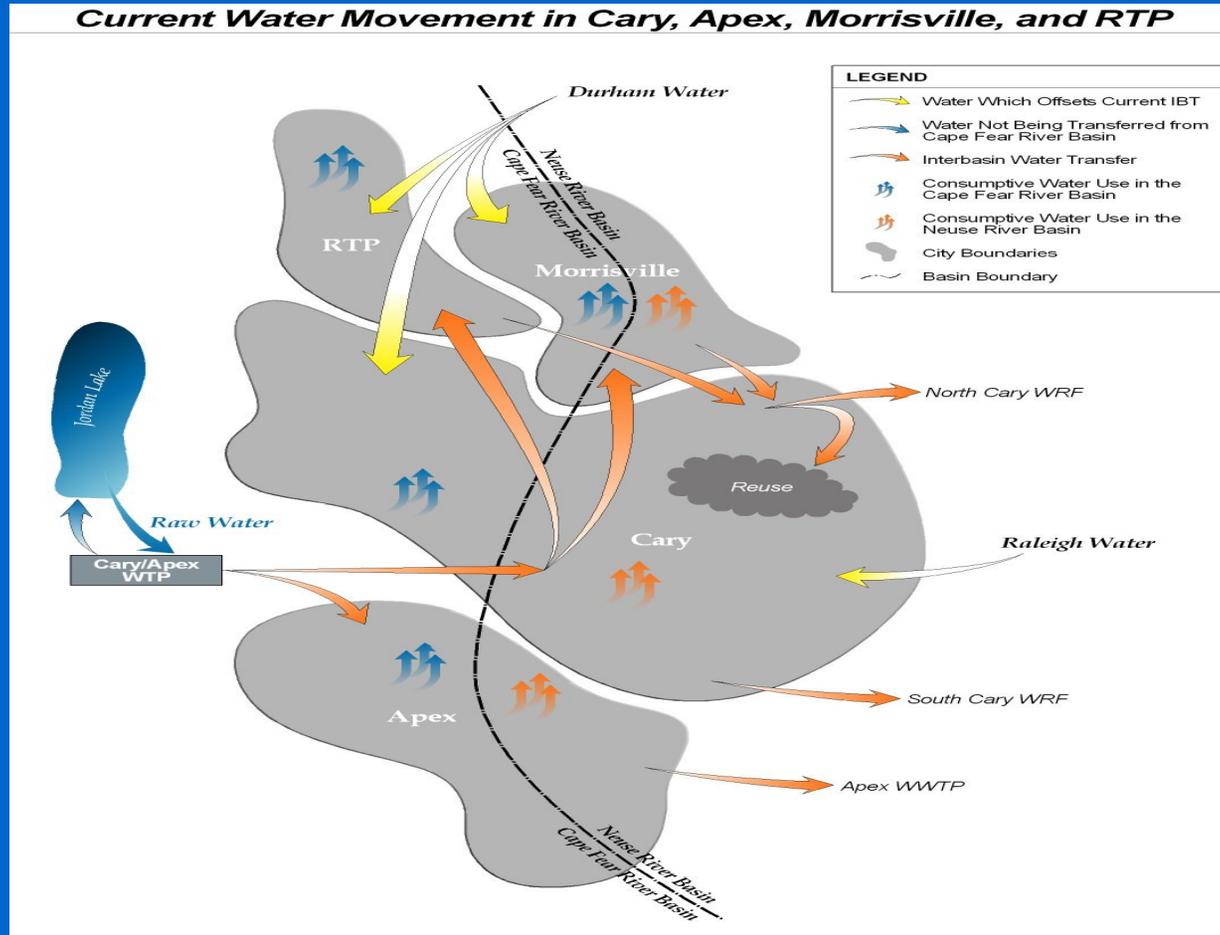
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The image most people have when they think about interbasin transfer.

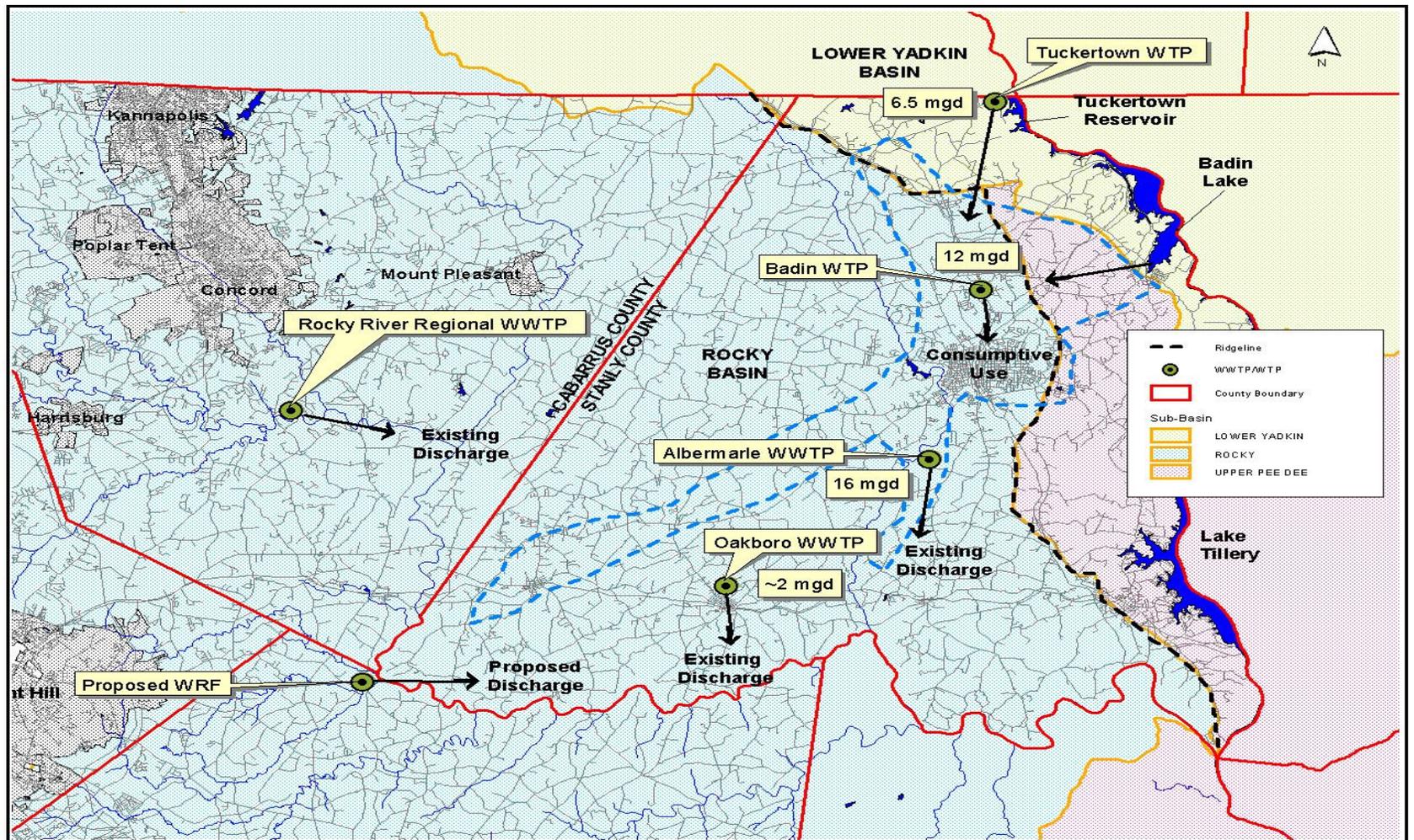


The NC reality.

Current Water Movement in Cary, Apex, Morrisville, and RTP



Another Example of the NC Reality





Regulation of Surface Water Transfers

- North Carolina Statute G.S. 143-215.22G & G.S. 143.215.22I
- North Carolina Administrative Code Section T15A:02G.0400

Effective January 1994

Modified in 1997 & 1998

EMC certification required for:

New transfers of 2 MGD or more (**maximum daily demand**)

Increase in existing transfers of 25% or more based on the year ending 7/1/1993, if 2 MGD or more

Increase in transfer capacity that existed or under construction on 7/1/1993

Owner of the pipe crossing the basin boundary is responsible for obtaining the certification

Sound basis for evaluating transfer requests

public notice

public hearing

technical documentation

Two certifications issued since enacted

1998 Greensboro Emergency Certification (never used)

July 2001 Cary/Apex/Morrisville/Wake County (for RTP South)

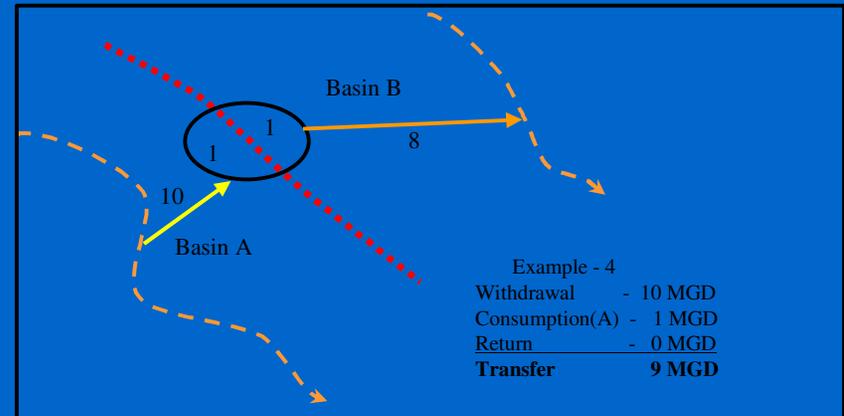
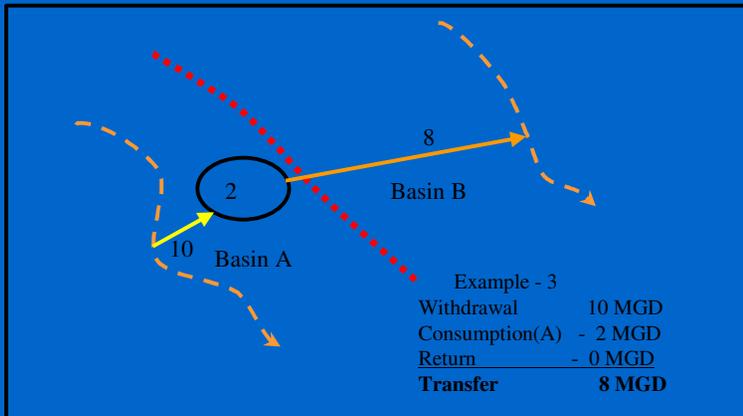
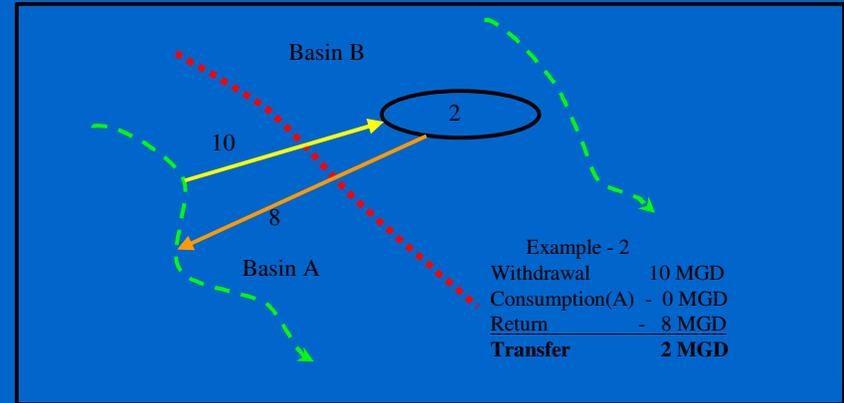
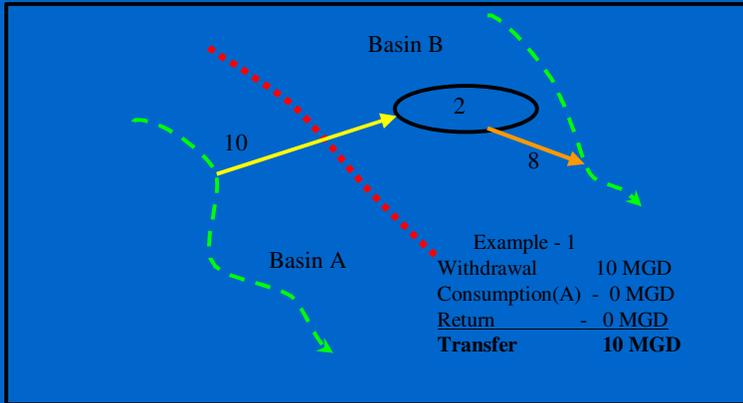
March 2002 Charlotte-Mecklenburg Utilities



Transfer = Withdrawal - Return

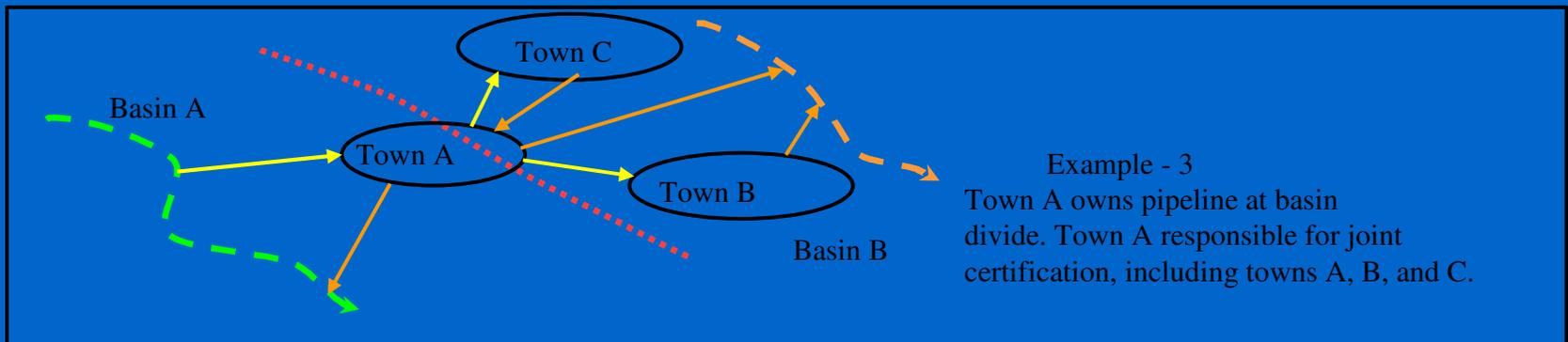
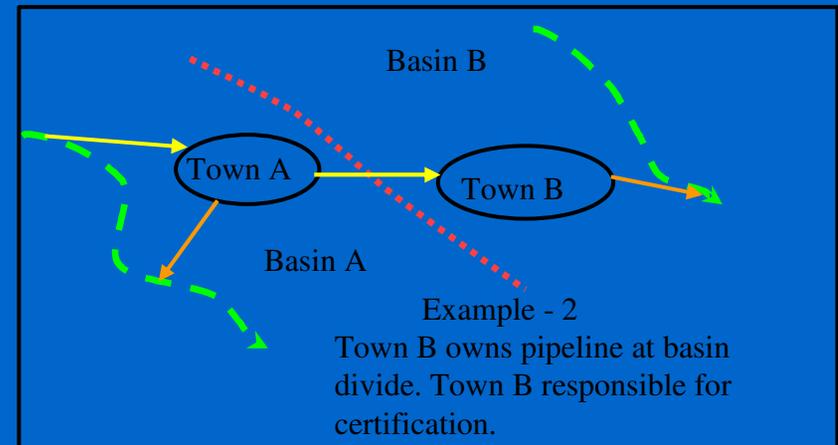
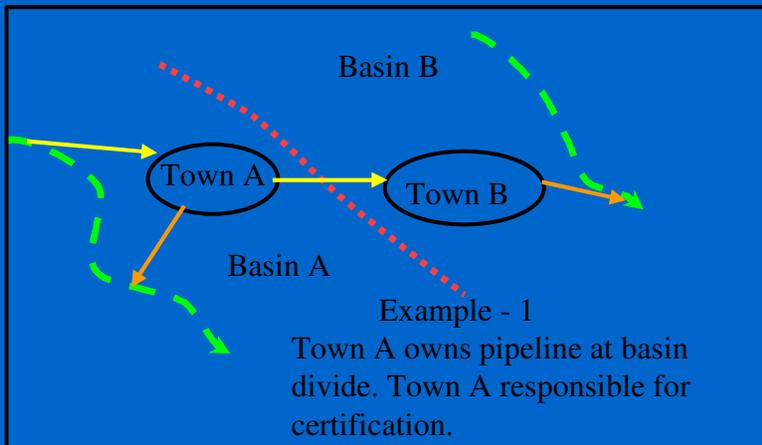
143-215.22G(3) "Transfer" means the withdrawal, diversion, or pumping of surface water from river basin and discharge of all or any part of the water in a river basin different from the origin.

T15A:02G.0401(a) The amount of the transfer shall be determined by the amount of water moved from the source basin to the receiving basin, less the amount of water returned to the source basin.



Who is responsible?

T15A:02G.0401(c) The person owning the pipe or other conveyance that carries the water across the basin boundary shall be responsible for obtaining the certificate.



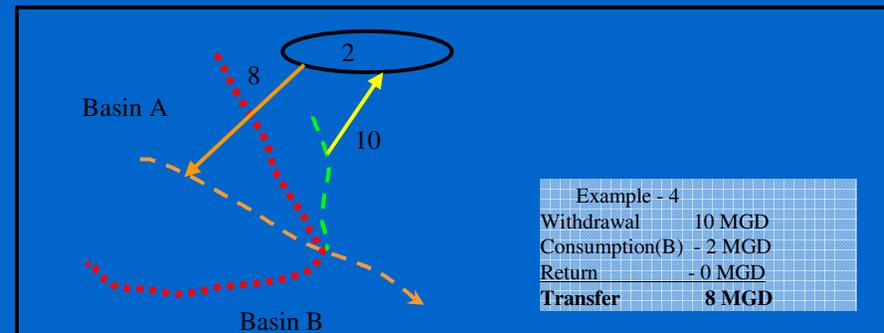
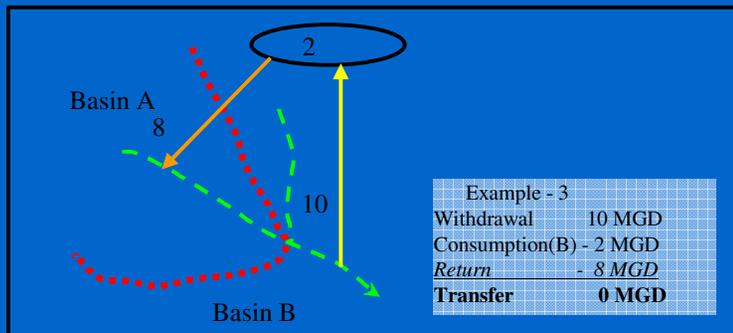
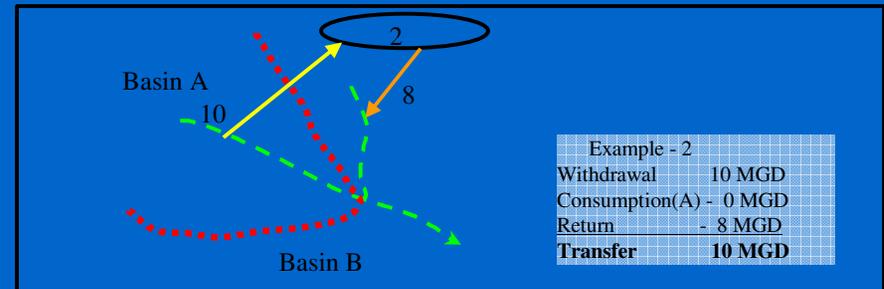
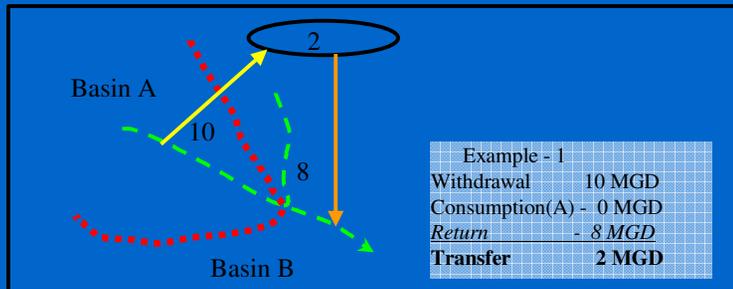
Upstream/Downstream Exemption (Cork Rule)

143-215.22G(3) The following are not transfers:

- The discharge of water upstream from the point where it is withdrawn.
- The discharge of water downstream from the point where it is withdrawn.

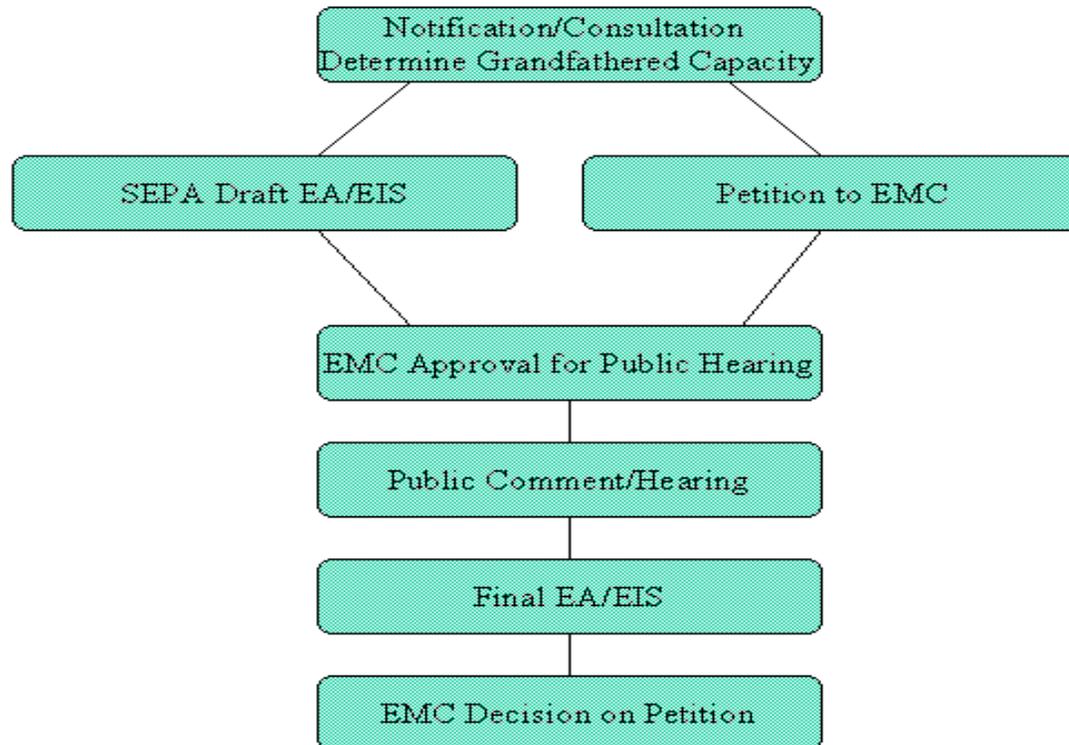
T15A:02G.0401(b) The following are not transfers:

- (1) The discharge point is situated upstream of withdrawal point such that the water discharges will naturally flow past the withdrawal point.
- (2) The discharge point is situated downstream of the withdrawal point such that the water flowing past the withdrawal point will naturally flow past the discharge point.



Interbasin Transfer Certification Process

Interbasin Transfer Certification Process



Transfer Documentation

- **Conservation measures**
- **Necessity, reasonableness, and beneficial effects**
- **Present and future detrimental effects**
 - water supply needs
 - wastewater assimilation
 - water quality
 - fish and wildlife habitat
 - recreation
 - navigation
- **Reasonable alternatives**
- **Drought Management Plan**



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Purpose of EA/EIS

- Support document to IBT petition
- Assess direct and indirect impacts
- Evaluate reasonable alternatives
- Mitigation measures



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Public Hearing Notice

Published in:

**NC Register
Newspapers**

First-class mail to:

**Registered withdrawals
Other transfer certificate holders
NPDES dischargers downstream
County Commissioners
Public water systems**



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EMC Criteria

- Necessity, Reasonableness, and Beneficial Effects
- Detrimental Effects on the Source and Receiving Basins
 - Public, Industrial, Agricultural Water Supply Needs
 - Wastewater Assimilation
 - Water Quality, Fish and Wildlife Habitat
 - Hydroelectric Power Generation
- Reasonable Alternatives
- Purposes and Storage Allocations of Army Corps of Engineers Reservoirs Established by US Congress



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EMC Options

- Approve the IBT Request
- Deny the IBT Request
- Approve the Request with Conditions

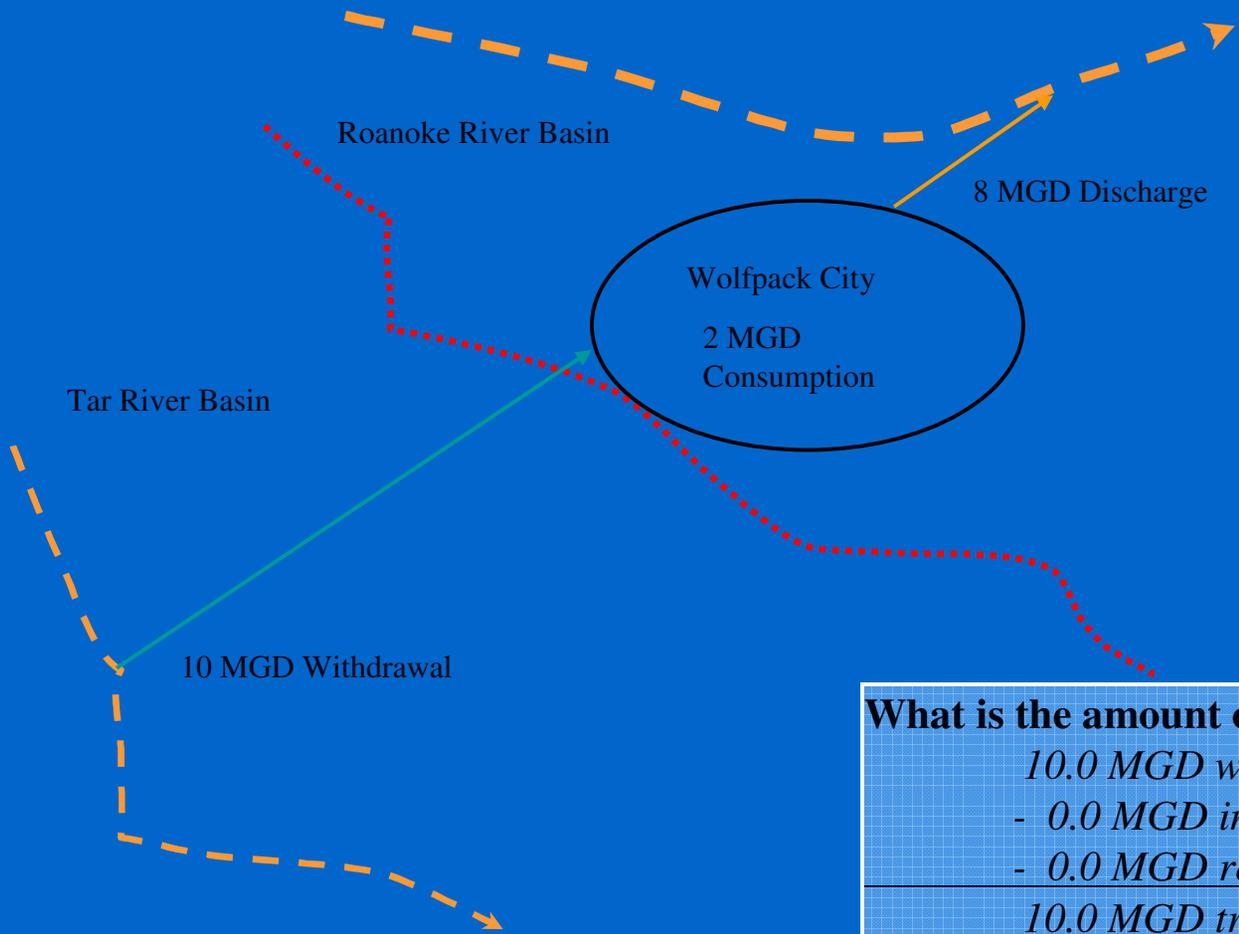


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Summary of Petition Conditions

- **Common Conditions in All Certificates**
 - *Conditions on compliance and monitoring plan.*
 - Reopener
 - Water shortage response plan requirement.
- **Cary/Apex**
 - *After 2010, water supplied from the Haw River Basin used in the Neuse River Basin shall be returned to either the Haw or Cape Fear basins.*
 - Manage Transfer in such a way that all certificate holders can fully utilize their Jordan Lake allocations.
 - Guidelines for determining individual transfer amounts, if cooperative service agreement is discontinued.
 - Access to intake conditions.
 - Buffer requirements around Jordan Lake.
- **CMU**
 - Require Mecklenburg County and the City of Charlotte to continue the stakeholder process to investigate water quantity control from single-family development and water quality control for all development until completed.
 - *A moratorium on the installation of new transfer water lines (water lines crossing the ridgeline) into Goose Creek subbasin is in effect until the impacts of additional growth urban growth on the endangered species are fully evaluated.*

Sample Illustration - 1

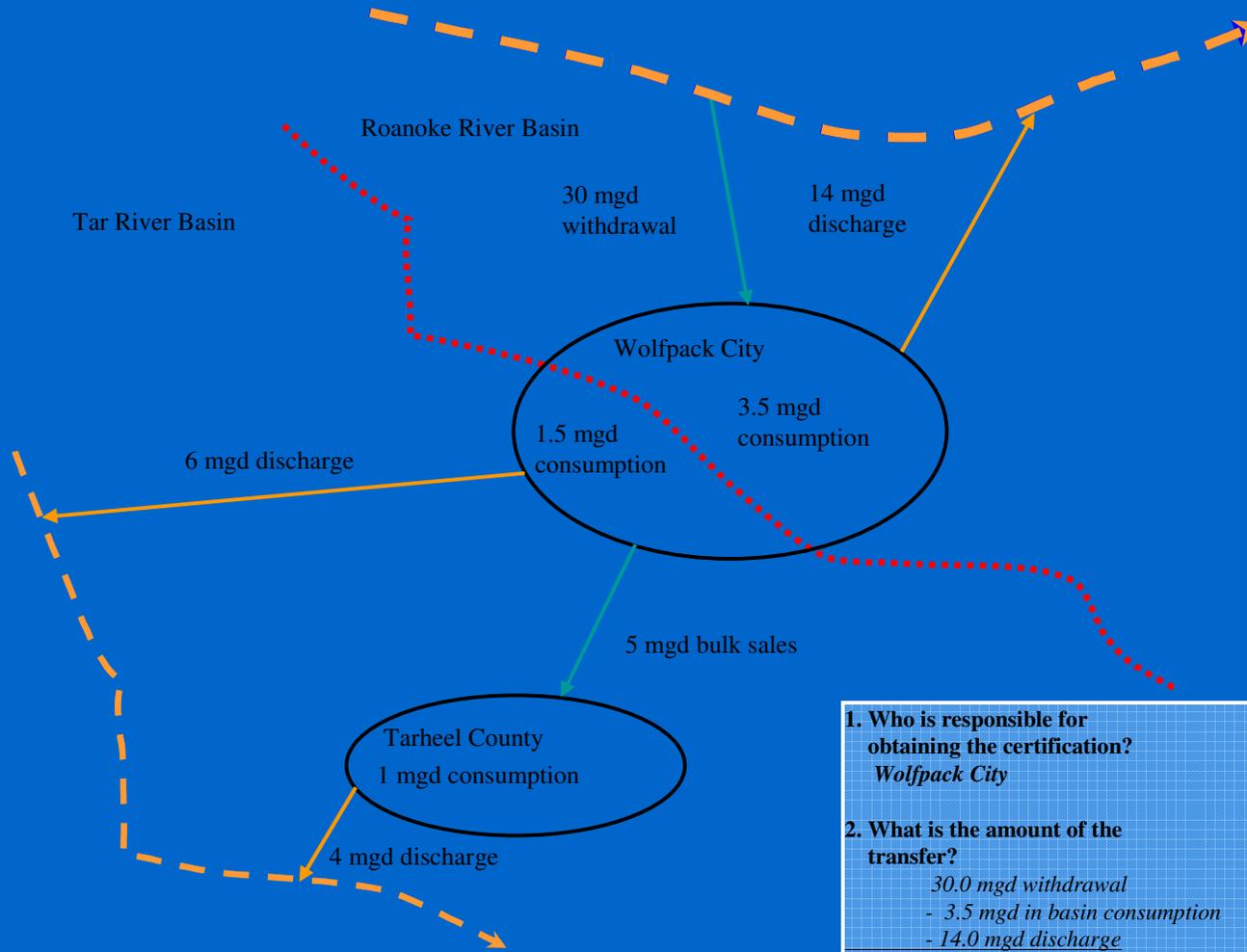


What is the amount of the transfer?

- 10.0 MGD withdrawal*
- *0.0 MGD in basin consumption*
- *0.0 MGD return*

10.0 MGD transfer from the Tar to the Roanoke.

Sample Illustration - 2



1. Who is responsible for obtaining the certification?
Wolfpack City
2. What is the amount of the transfer?
 - 30.0 mgd withdrawal*
 - 3.5 mgd in basin consumption*
 - 14.0 mgd discharge*

 - 12.5 mgd transfer from the Roanoke to the Tar.*

Exhibit 1

Grandfathered Interbasin Transfer Worksheet

Date: August 30, 1999

Water System: Charlotte-Mecklenburg Utilities

Prepared By: CH2M HILL

Section A. Average Daily Transfer (ADT) Amount for the Year Ending July 1, 1993

☆ Amount of Surface Water Transferred from 7/1/92 to 6/30/93: 1,825 million gallons.
[transfer amount = (water moved from the source basin to receiving basin¹) - (water returned to source basin)]

⊕ Total Number of Days that Transfers Occurred during the year (7/1/92 to 6/30/93): 365 days.

⊕ ADT Amount for the Year: 5 million gallons per day (MGD) [$\ominus = \star / \oplus$]

⊕ 25% increase in ADT Amount for the Year Ending 6/30/93: 6.25 MGD [$\ominus = 1.25 * \oplus$]

¹ If the transfer includes both surface and ground water, include only the surface water portion of the transfer.

Section B. Transfer Capacity as of July 1, 1993

⊕ Capacity of Transfer System Elements (existing or under construction as of July 1, 1993)

★ Water Treatment Plant (permitted capacity) 121.3 MGD

★ Transmission/Distribution System 41.1 MGD
(For transferring water from the source to the receiving basin.)

⊛ Discharge Capacity (in receiving basin) [Sum of a, b, and c] 16.12 MGD

a. Max Day WWTP Permitted Capacity 10.38 MGD
(permitted capacity 6.92 x max day/max month ratio 1.5)

b. Max Day Consumptive Loss 5.25 MGD
(excluding WWTP flows)

c. Other (specify) Union County Contract = 0.5 MGD

⊕ Transfer Capacity [Minimum of ★, ⊛, or ⊛]: 16.12 MGD

Section C. Estimating Certification Requirements

⊕ **Estimate the Year when Certification will be required based on a 25% increase in ADT: 1998**
(This is the year the average daily transfer exceeds the amount listed in ⊕. Attach an average daily transfer water balance table starting in 1993.)

⊕ **Estimate the Year when Certification will be required based on Transfer Capacity: 2000**
(This is the year the daily maximum transfer exceeds the amount listed in ⊕. Attach a maximum daily transfer water balance



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Sample Water Balance Table

Water System: Pirateville Date: April 1, 1999
 Source Basin: Cape Fear Prepared By: Water Manager
 Receiving Basin(s): Neuse

Water Balance Table - Average Daily Values ^{1,2}

Year (A)	Water System (B)	Withdrawal from Cape Fear (C)	Consumptive Loss ³		Wastewater Discharge		Total Return to Cape Fear (H)=(D)+(F)	Transfer Cape Fear to Neuse ⁴ (I)=(C)-(H)
			Cape Fear (D)	Neuse ⁴ (E)	Cape Fear (F)	Neuse ⁴ (G)		
1993	Pirateville	2.70	0.52	0.34	0.00	1.84	0.52	2.18
1997	Pirateville	3.30	0.67	0.43	0.00	2.20	0.67	2.63
2000	Pirateville	4.00	0.80	0.52	0.00	2.68	0.80	3.20
2010	Pirateville	5.30	1.07	0.69	0.00	3.54	1.07	4.23
2020	Pirateville	6.70	1.33	0.87	0.00	4.50	1.33	5.37

¹ All numbers are expressed in million gallons per day (MGD) rounded to two decimal places.

² Complete the table for both average and maximum daily demands.

³ Consumptive losses include all water use that is not directly discharged into a receiving stream, such as landscape irrigation and septic systems.

⁴ If there is more than one receiving basin, add additional columns for each basin.

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How Has Water Supply Planning Changed?

- Higher Costs – How Much?
 - Potentially higher cost alternatives.
- Better Documentation
 - Local Water Supply Plans
 - Determination of grandfathered capacity
- Permit Process
 - Coordination with other agencies
 - SEPA
 - More time and cost
- Compliance Monitoring
 - Reporting of water-use and wastewater information
 - Modified billing system to include basin information



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Summary of Current Interbasin Transfer Requests

- **Concord/Kannapolis**
- **Union County**
- **Kerr Lake Regional Water System**
- **Greenville Utilities**



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North Carolina Interbasin Transfers of 2 MGD or Greater, 1997 LWSP Data

Transfers Between Major River Basins

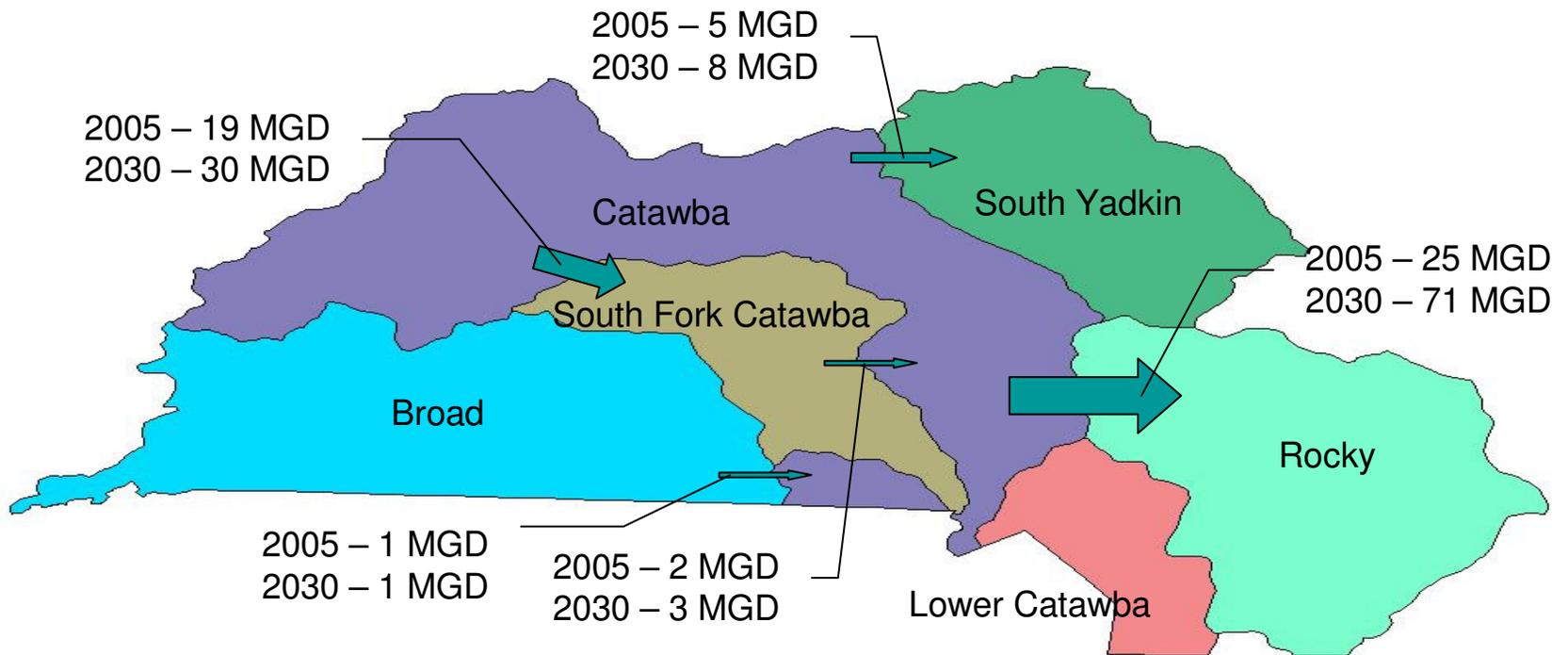
Water System	Source Basin	Receiving Basin	Estimated Average	*Estimated Maximum
			Daily Transfer (MGD)	Daily Transfer (MGD)
1King's Mountain	Broad (1-1)	Catawba (3-1)	1.2	1.9
2Brunswick Co	Cape Fear (2-3)	Shalote (9-4)	1.9	3.0
3Charlotte Mecklenburg	Catawba (3-1)	Rocky (18-4)	9.0	14.4
4Union County	Catawba (3-1)	Rocky (18-4)	5.6	9.0
5High Point	Deep (2-2)	Yadkin (18-1)	4.4	7.0
6Cary/Apex/Mrsvle/HS/RTP	Haw (2-1)	Neuse (10-1)	9.5	15.2
7Durham	Neuse (10-1)	Haw (2-1)	18.0	28.8
8Kerr Lake RWS	Roanoke (14-1)	Tar (15-1)	1.3	2.1
9Asheboro	Uwharrie (18-3)	Deep (2-2)	4.6	7.4
10Concord/Kannapolis	Catawba (3-1)	Rocky (18-4)	15.0	24.0
Estimated Total Transfer between Major Basins			70.5	112.9

Transfers Between Subbasins

1Dunn	Cape Fear (2-3)	South (2-4)	1.2	1.9
2Sanford	Cape Fear (2-3)	Deep (2-2)	1.6	2.6
3Wilmington	Cape Fear (2-3)	Northeast Cape Fear (2-5)	4.6	7.4
4Gastonia	Catawba (3-1)	South Fork Catawba (3-2)	8.4	13.4
5Hickory	Catawba (3-1)	South Fork Catawba (3-2)	5.1	8.2
6Longview	Catawba (3-1)	South Fork Catawba (3-2)	1.3	2.1
7Kannapolis	South Yadkin (18-2)	Rocky (18-4)	4.5	7.2
8Albemarle	Yadkin (18-1)	Rocky (18-4)	8.5	13.7
9Statesville	Yadkin (18-1)	South Yadkin (18-2)	5.0	8.0
Estimated Total Transfer between Subbasins			40.2	64.3

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Catawba Average Day Transfers





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Proposed Transfer Quantity

- Catawba to Rocky
 - 38 Million Gallons per Day
- Yadkin to Rocky
 - 10 Million Gallons per Day
- Transfer Limits on MAX DAY BASIS
- 24 MGD Average Day Shortfall through 2035



Additional Information

http://www.ncwater.org/Permits_and_Registration/Interbasin_Transfer/

North Carolina Department of Environment and Natural Resources

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Division of Water Resources

Interbasin Transfer Certification

[DWR Home](#) > [Permits and Registration](#) > [Interbasin Transfer](#)

In 1993, the Legislature adopted the Regulation of Surface Water Transfers Act (G.S. 143-215.221). The intention of the law is to regulate large surface water transfers between river basins by requiring a certificate from the Environmental Management Commission (EMC). In general, a transfer certificate is required for a new transfer of 2 million gallons per day (MGD) or more and for an increase in an existing transfer by 25 percent or more, if the total including the increase is 2 MGD or more. However, if a transfer facility existed or was under construction on July 1, 1993, a certificate is not required up to the full capacity of that facility to transfer water, regardless of the transfer amount.

Status of Transfer Petitions Being Processed

1. Union County
2. Cities of Concord and Kannapolis
3. Kerr Lake Regional Water System
4. Charlotte-Mecklenburg Utilities

Active Certificates

- ◆ *Cary/Apex/Morrisville/Wake County (for RTP South)*
 - A 24 mgd transfer from the Haw River basin to the Neuse River basin.
- ◆ *Charlotte-Mecklenburg Utilities (CMUD)*
 - A 33 mgd from the Catawba River basin to the Rocky River basin.
- ◆ *Piedmont Triad Regional Water Authority (Randleman Lake Project)*
 - A 30.5 mgd transfer from the Deep River basin to the Haw River and Yadkin River basins.

Information & Reports

- ◆ [What is an Interbasin Transfer? \(FAQ\)](#)
- ◆ [Regulation of Surface Water Transfers -- Fact Sheet \(html\) \(pdf\)](#)
- ◆ [North Carolina River Basins as defined in GS 143-215.22G \(small gif\)\(large gif\)\(large pdf \(523 kb\)\)](#)

Interstate Transfers

- ◆ *Virginia Beach Pipeline*
 - A withdrawal from Lake Gaston for water supply use in the City of Virginia Beach, VA

- ◆ [EMC Water Allocation Committee Meeting Notices](#)
- ◆ [EMC Water Allocation Committee Meeting Minutes](#)

Rules, Policies, & Regulations

- ◆ [North Carolina Statute GS 143-215.22G \(pdf \(105 kb\)\)](#)
- ◆ [North Carolina Administrative Code T15A-02G.0400 \(pdf \(75 kb\)\)](#)
- ◆ [North Carolina River Basin as defined in GS 143-215.22G \(small gif\)\(large gif\)\(large pdf \(523 kb\)\)](#)
- ◆ [Interbasin Transfer Worksheets for 2002 Local Water Supply Plans \(pdf \(462 kb\) .doc \(723 kb\)\)](#)
- ◆ [Certification Process \(Process Flow Chart\)](#)
- ◆ [Application Process](#)

Other Related Sites

- ◆ [DENR OneStop Permit](#)
- ◆ [South Carolina](#)
- ◆ [Tennessee](#)

If you have any questions or comments contact Phil Fragapane at Phil.Fragapane@ncmail.net or call (919)715-0389.



Questions?

Information that can be found on the WEB at the Division's
Home page: <http://www.ncwater.org/>

or

http://www.ncwater.org/Permits_and_Registration/Interbasin_Transfer/