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

- **Data**
  - Aquifer
  - Streamflow
  - Water Use

- **Analysis/Planning**
  - Aquifer, River
  - & Habitat Models
  - Water Use Projections
  - Local & State
  - Water Supply Plans

- **Adequate Supply Of Water For All Users**

- **Water Allocation (Regulation)**
  - Water Use Act
  - Interbasin Transfer Act
  - Instreamflow Rule
September 27, 2005
Released September 29, 2005

Public Water Supply Systems Status
Overlay
October 3, 2005
Relationship of DENR Water Programs

Water Source/Supply
Division of Water Resources

Water Supply Treatment
Division of Environmental Health

Transfer Of Water Between Basin
Division of Water Resources

Waste Water Treatment
Division of Water Quality
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 the 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.
The image most people have when they think about interbasin transfer.
The NC reality.
Another Example of the NC Reality
Regulation of Surface Water Transfers

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

**Transfers Between Major River Basins**

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

**Estimated Total Transfer between Major Basins**

<table>
<thead>
<tr>
<th>Estimated Average Total Transfer between Major Basins</th>
<th>Estimated Maximum Total Transfer between Major Basins</th>
</tr>
</thead>
<tbody>
<tr>
<td>70.5</td>
<td>112.9</td>
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</tbody>
</table>

**Transfers Between Subbasins**

<table>
<thead>
<tr>
<th>Water System</th>
<th>Source Basin</th>
<th>Receiving Basin</th>
<th>Estimated Average Daily Transfer (MGD)</th>
<th>Estimated Maximum Daily Transfer (MGD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Dunn</td>
<td>Cape Fear (2-3)</td>
<td>South (2-4)</td>
<td>1.2</td>
<td>1.9</td>
</tr>
<tr>
<td>2Sanford</td>
<td>Cape Fear (2-3)</td>
<td>Deep (2-2)</td>
<td>1.6</td>
<td>2.6</td>
</tr>
<tr>
<td>3Wilmington</td>
<td>Cape Fear (2-3)</td>
<td>Northeast Cape Fear (2-5)</td>
<td>4.6</td>
<td>7.4</td>
</tr>
<tr>
<td>4Gastonia</td>
<td>Catawba (3-1)</td>
<td>South Fork Catawba (3-2)</td>
<td>8.4</td>
<td>13.4</td>
</tr>
<tr>
<td>5Hickory</td>
<td>Catawba (3-1)</td>
<td>South Fork Catawba (3-2)</td>
<td>8.2</td>
<td>8.2</td>
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<tr>
<td>6Longview</td>
<td>Catawba (3-1)</td>
<td>South Fork Catawba (3-2)</td>
<td>1.3</td>
<td>2.1</td>
</tr>
<tr>
<td>7Kannapolis</td>
<td>South Yadkin (18-2)</td>
<td>Rocky (18-4)</td>
<td>4.5</td>
<td>7.2</td>
</tr>
<tr>
<td>8Albemarle</td>
<td>Yadkin (18-1)</td>
<td>Rocky (18-4)</td>
<td>8.5</td>
<td>13.7</td>
</tr>
<tr>
<td>9Statesville</td>
<td>Yadkin (18-1)</td>
<td>South Yadkin (18-2)</td>
<td>5.0</td>
<td>8.0</td>
</tr>
</tbody>
</table>

**Estimated Total Transfer between Subbasins**

<table>
<thead>
<tr>
<th>Estimated Average Total Transfer between Subbasins</th>
<th>Estimated Maximum Total Transfer between Subbasins</th>
</tr>
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<tbody>
<tr>
<td>40.2</td>
<td>64.3</td>
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</tbody>
</table>
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.

Example - 1
Town A owns pipeline at basin divide. Town A responsible for certification.

Example - 2
Town B owns pipeline at basin divide. Town B responsible for certification.

Example - 3
Town A owns pipeline at basin divide. Town A responsible for joint certification, including towns A, B, and C.
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

- Notification/Consultation
  - Determine Grandfathered Capacity

- SEPA Draft EA/EIS
- Petition to EMC

- EMC Approval for Public Hearing

- Public Comment/Hearing

- Final EA/EIS

- EMC Decision on Petition
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
Purpose of EA/EIS

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

- Approve the IBT Request
- Deny the IBT Request
- Approve the Request with Conditions
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.*
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
Summary of Current Interbasin Transfer Requests

• Concord/Kannapolis
• Union County
• Kerr Lake Regional Water System
• Greenville Utilities
Additional Information
http://www.ncwater.org/Permits_and_Registration/Interbasin_Transfer/
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/
Catawba Average Day Transfers

2005 – 5 MGD
2030 – 8 MGD

2005 – 1 MGD
2030 – 1 MGD

2005 – 2 MGD
2030 – 3 MGD

2005 – 19 MGD
2030 – 30 MGD

2005 – 25 MGD
2030 – 71 MGD

2005 – 1 MGD
2030 – 1 MGD
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
Exceedance Curves of Bridgewater Elevations
Between Jan 1, 1929 and Dec 31, 2003

Elevation (ft) vs. Exceedance
Exceedance Curves of Cowan Ford Elevations
Between Jan 1, 1929 and Dec 31, 2003
LIP Comparison

Simulated LIP Stages

- MG 35

Simulated LIP Stages

- MG 35 CF
Next Steps

• Final EIS
  – State Clearinghouse for minimum of 30 day comment period.

• Additional and/or extended comment period on the Final EIS and/or Petition?
  – This is a decision of the EMC hearing officers and has not been decided yet.

• Action by EMC
  – No date set at this time. It depends on the hearing officers’ decision on addition and/or extending comment period.
Interbasin Transfer Certification Status for the Concord/Kannapolis

The cities of Concord and Kannapolis are jointly in the process of petitioning the Environmental Management Commission (EMC) to approve an interbasin transfer (IBT) of 48 MGD from the Catawba River and Yadkin River Sub-Basins to the Rocky River Sub-Basin. In February 2005, the Environmental Management Commission approved the Cities' request to hold a hearing to receive public comment on the IBT petition and supporting Environmental Impact Statement (EIS). The public hearings were held June 22 in Charlotte and June 23 in Albemarle. The public comment period ended on Thursday, August 11, 2005. Comments received during the review and comment period are being addressed in the supporting EIS. An important part of addressing the concerns involves using the updated CHEOPS model of the Catawba Basin to evaluate impacts. A number of scenarios are being examined by the model, the results of which will be presented in the revised EIS. When all comments are addressed, the revised EIS will again be reviewed by the State Clearinghouse and will be open again for public comment.

**Background Documentation**

1. Public Hearing Notice (golf course) (May 2005)
2. Response to Comments by the Division of Water Quality (golf course) (April 2005)
4. Notice on Yadkin River Response (pdf format) (February 2005)
5. IBT Petition for the Cities of Concord and Kannapolis (pdf format) (November 2004)

If you would like to be included on the Division of Water Resources's mailing list to receive information relating to Interbasin Transfers and the Environmental Management Commission's Water Allocation Committee meetings, please click on the link below to send an e-mail request to join the list.

Join the Water Allocation Committee mailing list: join-water_allocation_committee@news.ncwater.org

If you have any questions or comments contact Phil Frappane at FRAPPANE@GMAIL.COM or call (919) 716-0380.

NC Division of Water Resources, DENR - 1611 Mail Service Center - Raleigh, NC 27699-1611
Phone: (919) 733-3084 - Fax: (919) 733-3599

Last Modified: 10/29/2006
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Or Join Email List
join-water_allocation_committee@news.ncwater.org

Or Email
Phil.Fragapane@ncmail.net