Community of Lake James
January 10, 2006

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
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.
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 and one emergency certificate have been issued
   1998 Greensboro Emergency Certification (never used)
   July 2001 Cary/Apex/Morrisville/Wake County (for RTP South)
   March 2002 Charlotte-Mecklenburg Utilities

- North Carolina Administrative Code Section T15A:02G.0400
Interbasin Transfer Certification Process

1. Notification/Consultation
   - Determine Grandfathered Capacity

2. SEPA Draft EA/EIS
3. Petition to EMC

4. 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.*
Catawba Average Day Transfers

- **Catawba**
  - 2005: 2 MGD
  - 2030: 3 MGD

- **South Fork Catawba**
  - 2005: 25 MGD
  - 2030: 71 MGD

- **Rocky**
  - 2005: 5 MGD
  - 2030: 2 MGD

- **Lower Catawba**
  - 2005: 19 MGD
  - 2030: 30 MGD

- **Broad**
  - 2005: 1 MGD
  - 2030: 1 MGD

- **South Yadkin**
  - 2005: 25 MGD
  - 2030: 71 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
Figure 2. Lake James Drainage Area Water Demand Projections Range
NC Catawba River Basin Water Supply Plan

Figure 2. Lake Norman Drainage Area Water Demand Projections Range
EIS Basin Modeling

• Variable transferable IBT quantities were modeled to see the impacts on the reservoir systems. The purpose was to analyze the impacts of
  – IBT quantities
  – IBT locations
  – IBT with increased instream flow requirements.
1. “MG 08” – MG with 2008 demands.
2. “MG 08 CF” – MG with 2008 demands considering IBT from Cowan Ford [Lake Norman].
3. “MG 35” - MG with increased demands for 2035.
4. “MG 35 CF” – MG with increased demand for 2035 considering IBT from Cowan Ford [Lake Norman].
5. “MG 35 MI” – MG with increased demands for 2035 considering IBT from Mountain Island.
6. “MG 35 NGO” – MG with 2035 demands considering increased instream flow requirements recommended by NGOs.
7. “MG 35 CF NGO” – MG with 2035 demands and IBT from Cowan Ford considering increased instream flow requirements recommended by NGOs.
# Performance Measures Sheet

Lake James (including the Catawba River Bypassed Reach, Paddy Creek Bypassed Reach and the Bridgewater Regulated River Reach)

<table>
<thead>
<tr>
<th>Recreation Interests</th>
<th>MG 08</th>
<th>MG 08 CF</th>
<th>MG 35</th>
<th>MG 35 CF</th>
<th>MG 35 MI</th>
<th>MG 35 NGO</th>
<th>MG 35 CF NGO</th>
<th>MG 35 LIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimize days/yr of restricted lake boat launching</td>
<td>30</td>
<td>30</td>
<td>34</td>
<td>34</td>
<td>34</td>
<td>35</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Minimize days/yr of potentially restricted dock access</td>
<td>48</td>
<td>48</td>
<td>54</td>
<td>54</td>
<td>54</td>
<td>64</td>
<td>63</td>
<td>49</td>
</tr>
<tr>
<td>Minimize reservoir area with restricted lake navigation</td>
<td>33%</td>
<td>33%</td>
<td>43%</td>
<td>36%</td>
<td>36%</td>
<td>43%</td>
<td>43%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Updated 06/01/05
Simulated LIP Stages to see the Impacts of IBT Quantities

LIP Stages

Time

MG 35 CF
MG 35
MG 08
MG 08 CF
Exceedance Curve of Bridgewater Outflows Between Jan 1, 1929 and Dec 31, 2003 to see the Impacts of IBT amount
Exceedance Curves of Bridgewater Elevations
Between Jan 1, 1929 and Dec 31, 2003
to see the Impacts of IBT quantity
Comparison of Lake Elevations to see the Impact of IBT Quantities
Total Generation Plots for Bridgewater to Compare the Impacts of IBT Quantity

Generation, MWh

Year


MG 08 MG 35 MG 08 CF MG 35 CF
Simulated LIP Stages to see the Impacts of IBT Locations

LIP Stages

Time
Exceedance Curves of Bridgewater Elevations
Between Jan 1, 1929 and Dec 31, 2003
to see the Impacts of IBT locations

Exceedance

Elevation (ft)

MG 08  MG 35  MG 35 CF  MG 35 MI  Critical Elevation

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Simulated LIP Stages to see the Impacts of Increased Instream Flows with IBT
Exceedance Curve of Bridgewater Outflows
Between Jan 1, 1929 and Dec 31, 2003
to see the Impacts of Increased Stream flows over IBT

Exceedance

Flow (cfs)

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Exceedance Curves of Bridgewater Elevations
Between Jan 1, 1929 and Dec 31, 2003
to see the Impacts of Increased Instream flow Requirements over IBT

Exceedance Curves

Elevation (ft)

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

MG 08  MG 35  MG 35 CF
Critical Elevation  MG 35 NGO  MG 35 CF NGO

Exceedance
Comparison of the 9/2005 LIP to the 11/2005 LIP
Haze Chart of Bridgewater Elevations for Scenario 'MG 08' for the years of 1929 to 2003

Haze Chart of Bridgewater Elevations for Scenario 'MG 35' for the years of 1929 to 2003
Haze Chart of Bridgewater Elevations
for Scenario 'MG 35 NGO'
for the years of 1929 to 2003

Haze Chart of Bridgewater Elevations
for Scenario 'MG 35 CF NGO'
for the years of 1929 to 2003
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.
Additional Information
http://www.ncwater.org/Permits_and_Registration/Interbasin_Transfer/

In 1993, the Legislature adopted the Regulation of Surface Water Transfers Act (G.S. 143-215.22b). 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. However, 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
- Cape Fear/Roncova/White Water County (for RTP South)
  - A 24 mgd transfer from the Haw River basin to the Neuse River basin.
- Charlotte-Mecklenburg Utilities (CAMC)
  - A 33 mgd transfer from the Catawba River basin to the Rocky River basin.
- Piedmont Triad Regional Water Authority (Randallman Lake Project)
  - A 30.5 mgd transfer from the Deep River basin to the Haw River and Yadkin River basins.

Rules, Policies, & Regulations
- North Carolina Statute GS 143-215.22b (pdf, 108 kb)
- North Carolina Administrative Code T1A.A.025.0403 (pdf, 75 kb)
- North Carolina River Basin as defined in GS 143-215.220 (small pdf, large pdf, large pdf, large pdf, large pdf)
- Interbasin Transfer Worksheets for 2002 Local Water Supply Plans (pdf, 242 kb, doc, 723 kb)
- Certification Process (Process Flow Chart)
- Application Process

Information & Reports
- What is an Interbasin Transfer? (FAQ)
- Regulation of Surface Water Transfers - Fact Sheet (pdf)
- North Carolina River Basins as defined in GS 143-215.220 (small pdf, large pdf, large pdf)

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

Other Related Sites
- DEWQ OneStop Permit
- South Carolina
- Tennessee

If you have any questions or comments contact Phil Fragapani at Phil.Fragapani@ncmail.net or call (919) 715-0369.
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 45 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 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

2. Response to Comments by the Director of Water Quality (April 2005)
4. Appraisals on Various River (Response to Notice) (February 2005)
5. IBT Petition for the Cities of Concord and Kannapolis (May 2005)

If you would like to be included on the Division of Water Resources' 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 contactPhil Frappante at Phil.Frappante@ncdcr.gov or call (919) 716-2960.
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/

Or

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

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