Community of Lake James
January 10, 2006

Regulation of Surface Water Transfers

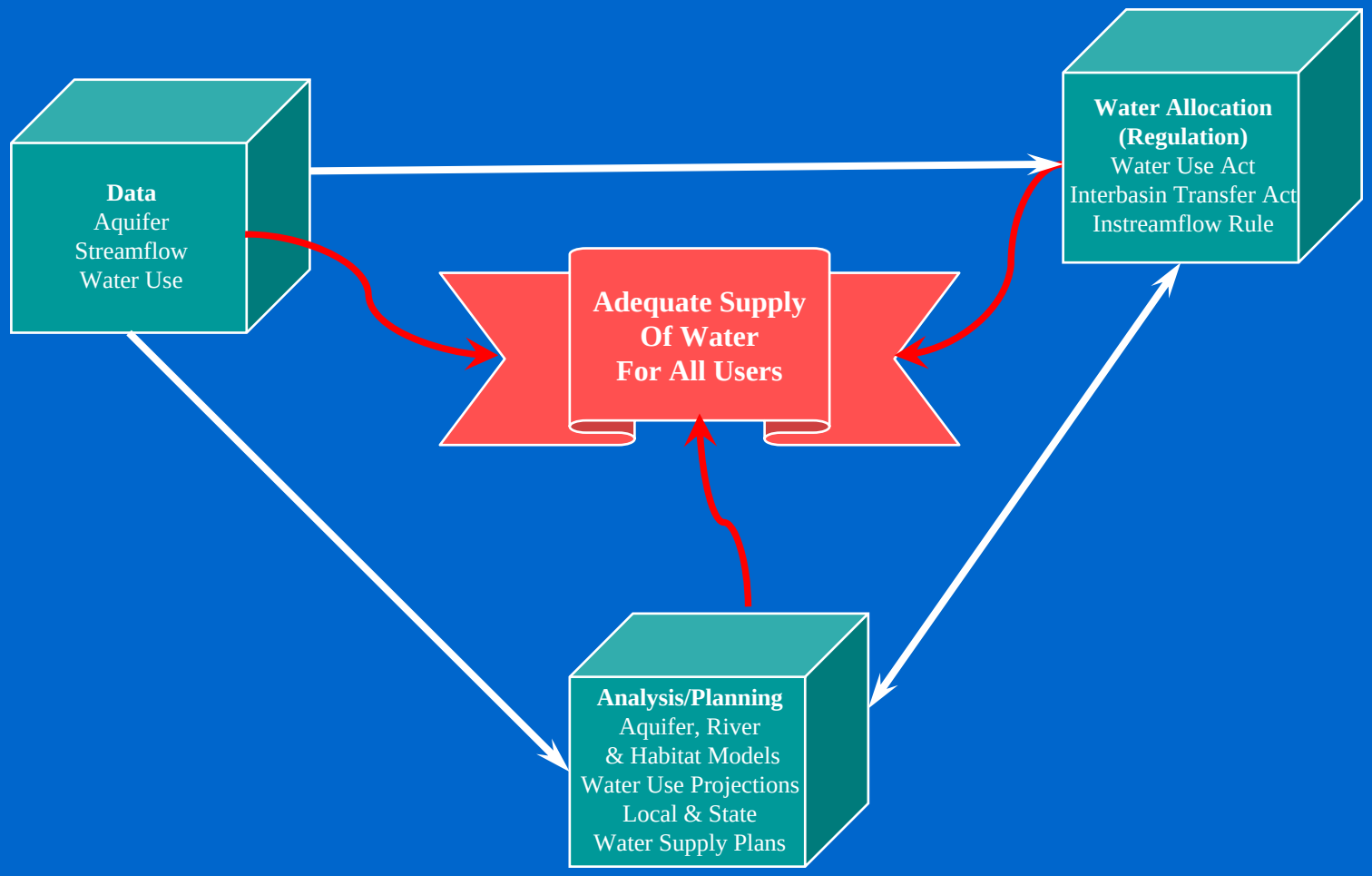
The Schizophrenic Statute -- What Is It?
An Environmental Permit or Pseudo-Rule Making or a Policy Statement or a Pseudo-Property Right?

Tom Fransen

Water Allocation Section

North Carolina Division of Water Resources

Water Supply Management Program Relationships



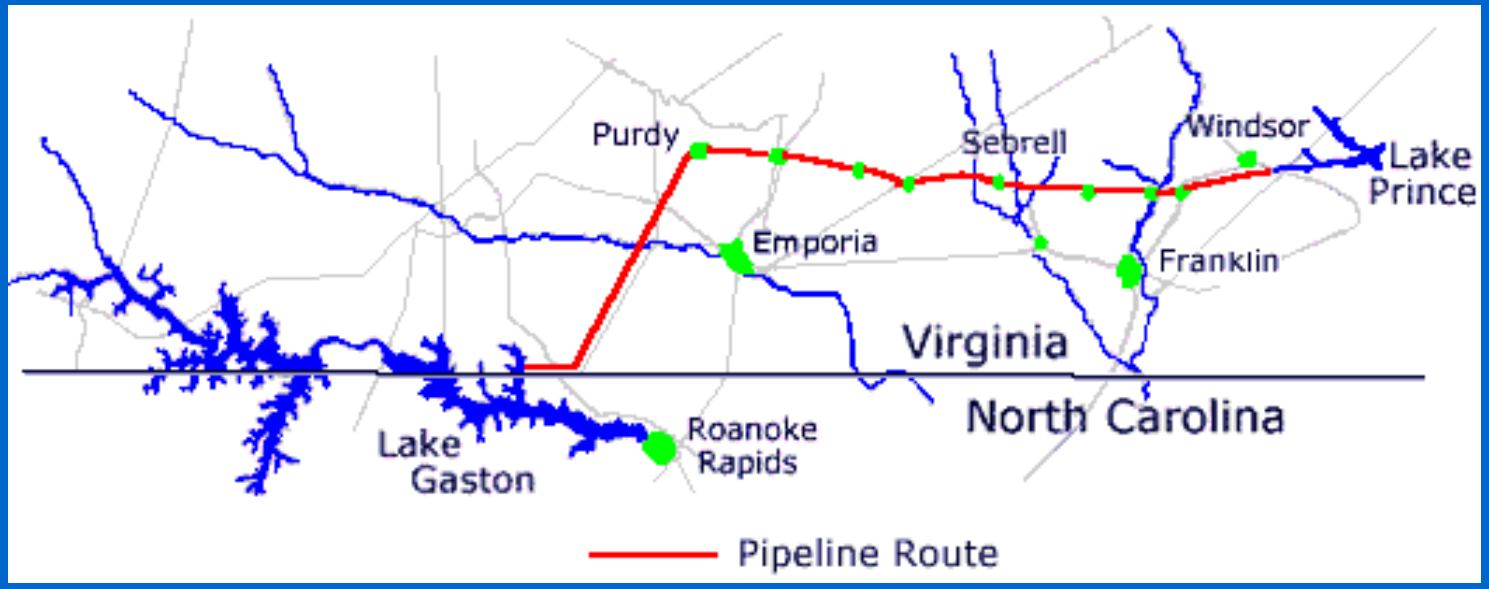
What is an Interbasin Transfer?

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

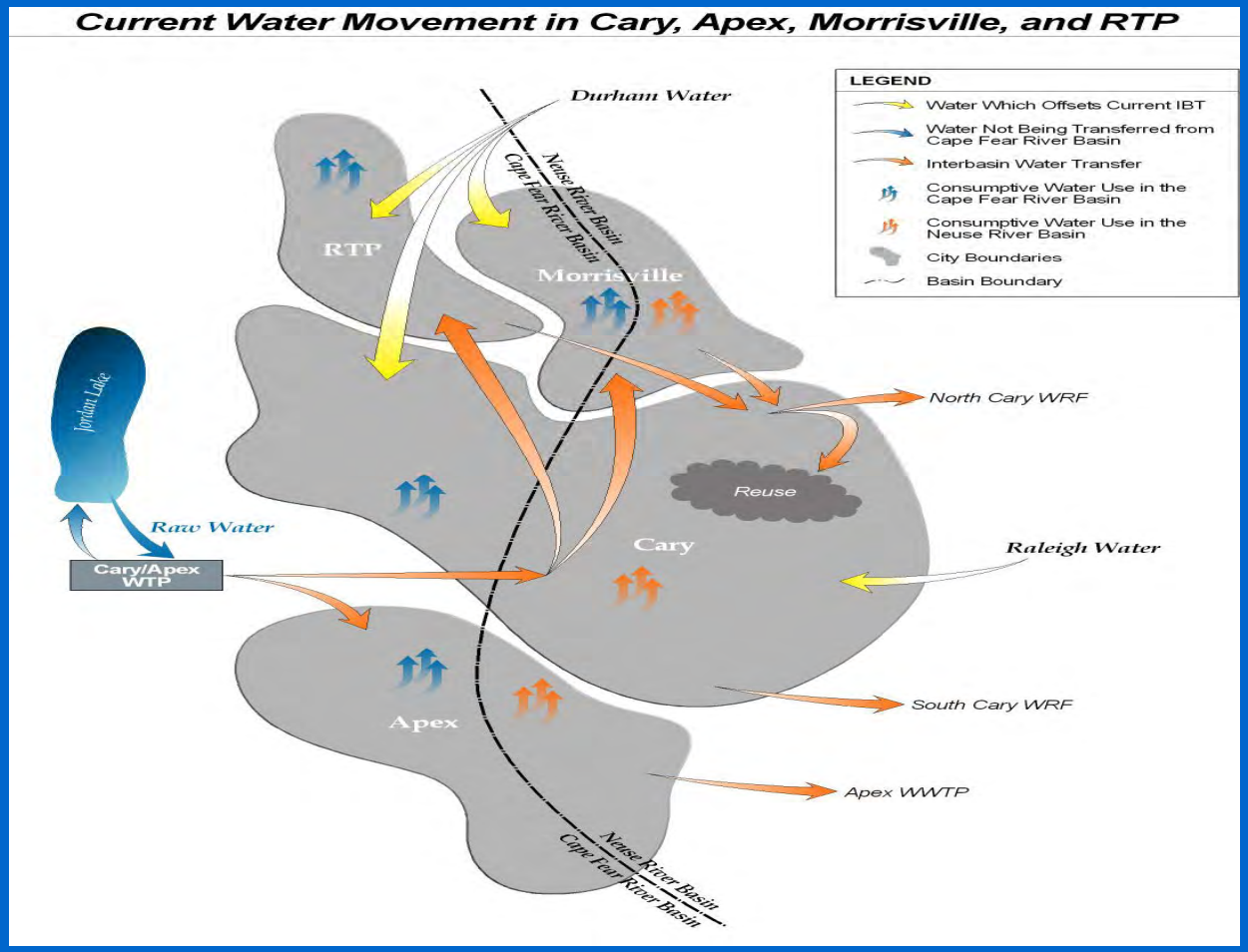
The purpose of the Interbasin Transfer Law is the take a pause to be sure it is good public policy to move the water from one river basin into another.

The Interbasin Transfer Law does NOT prohibit transfers.

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



The NC reality.



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

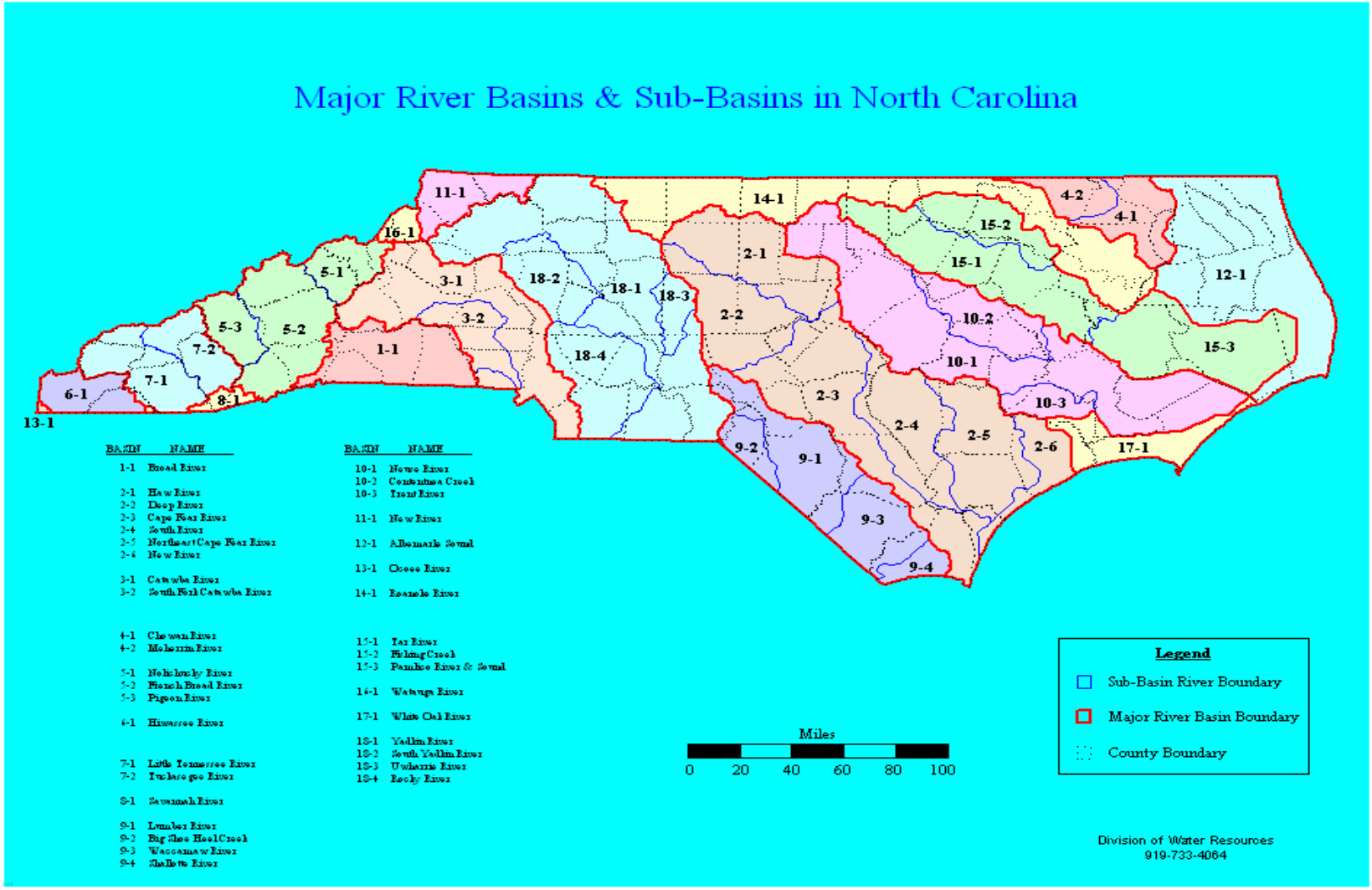
Sound basis for evaluating transfer requests

- public notice
- public hearing
- technical documentation

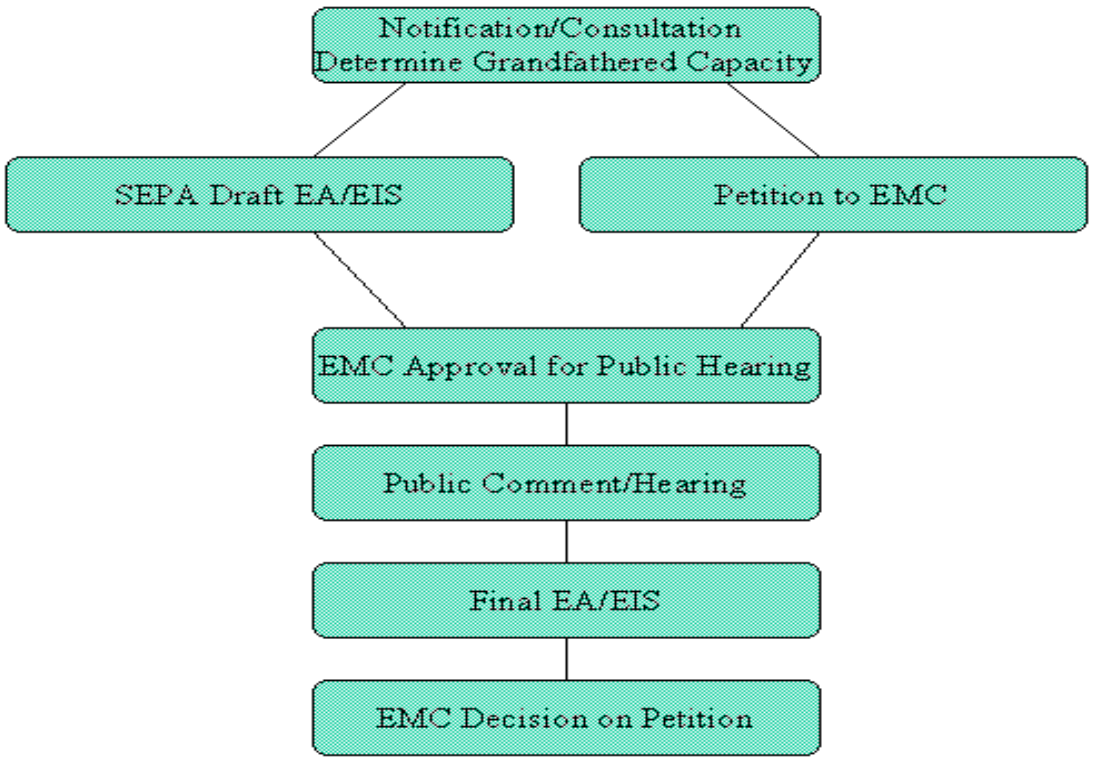
Two certifications and one emergency certificate have been issued

- 1998 Greensboro Emergency Certification (never used)
- July 2001 Cary/Apex/Morrisville/Wake County (for RTP South)
- March 2002 Charlotte-Mecklenburg Utilities

Interbasin Transfer Basin Definitions



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

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**

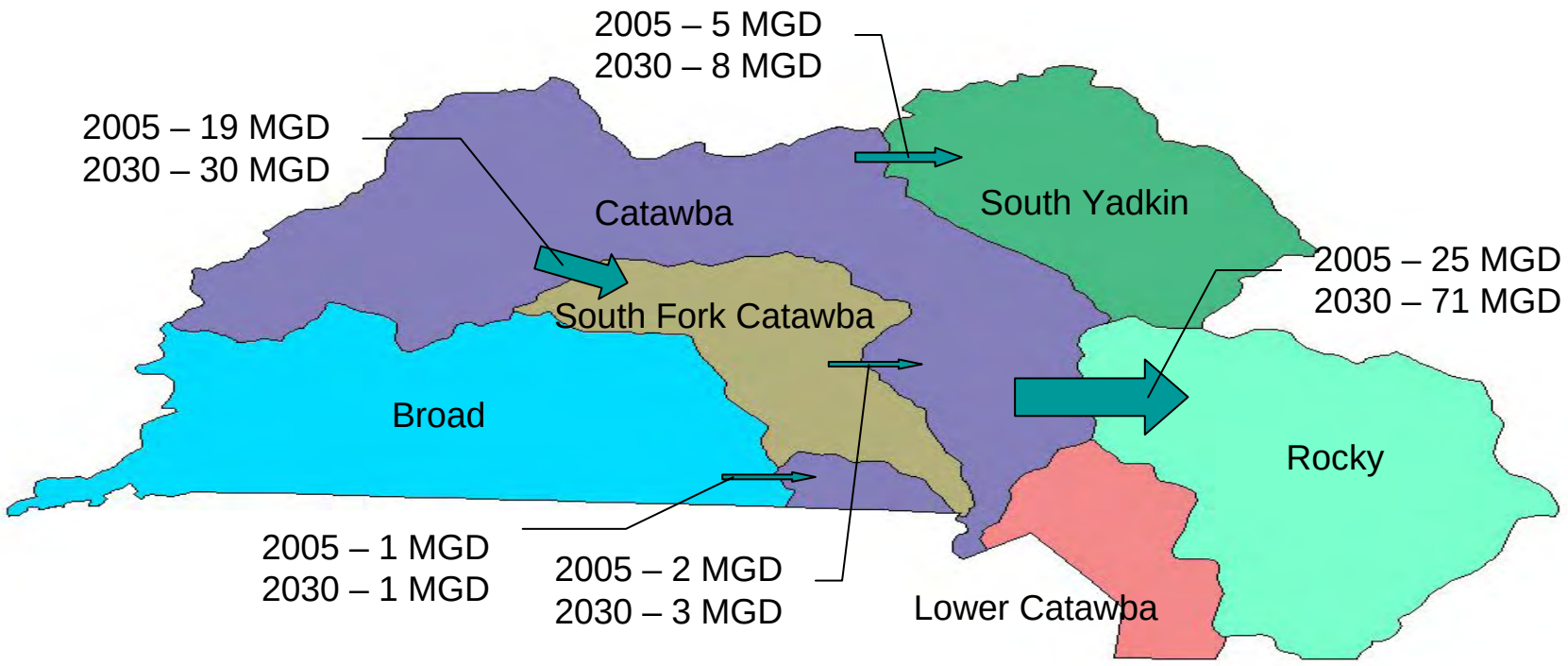
EMC Options

- **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

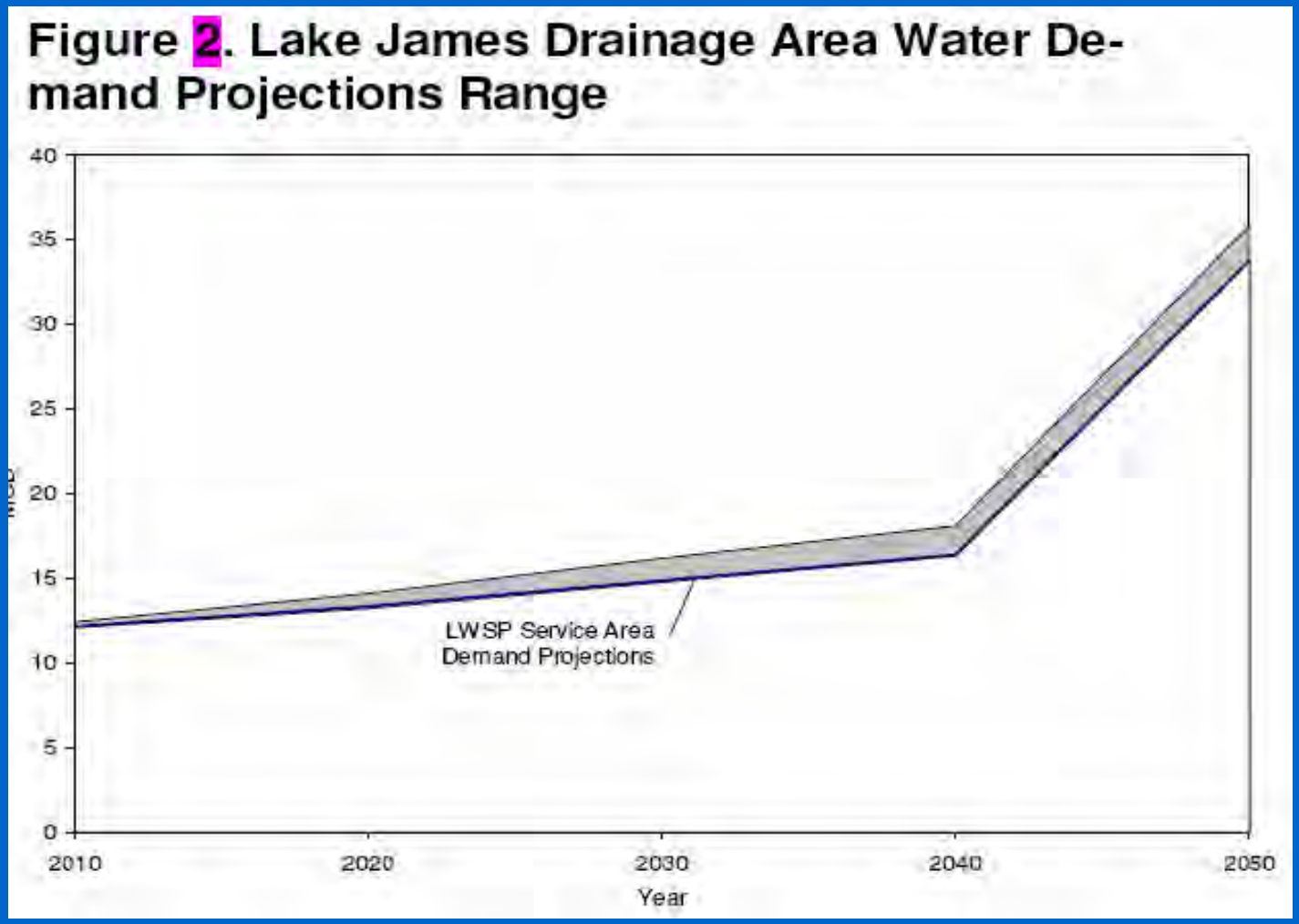


Proposed Transfer Quantity

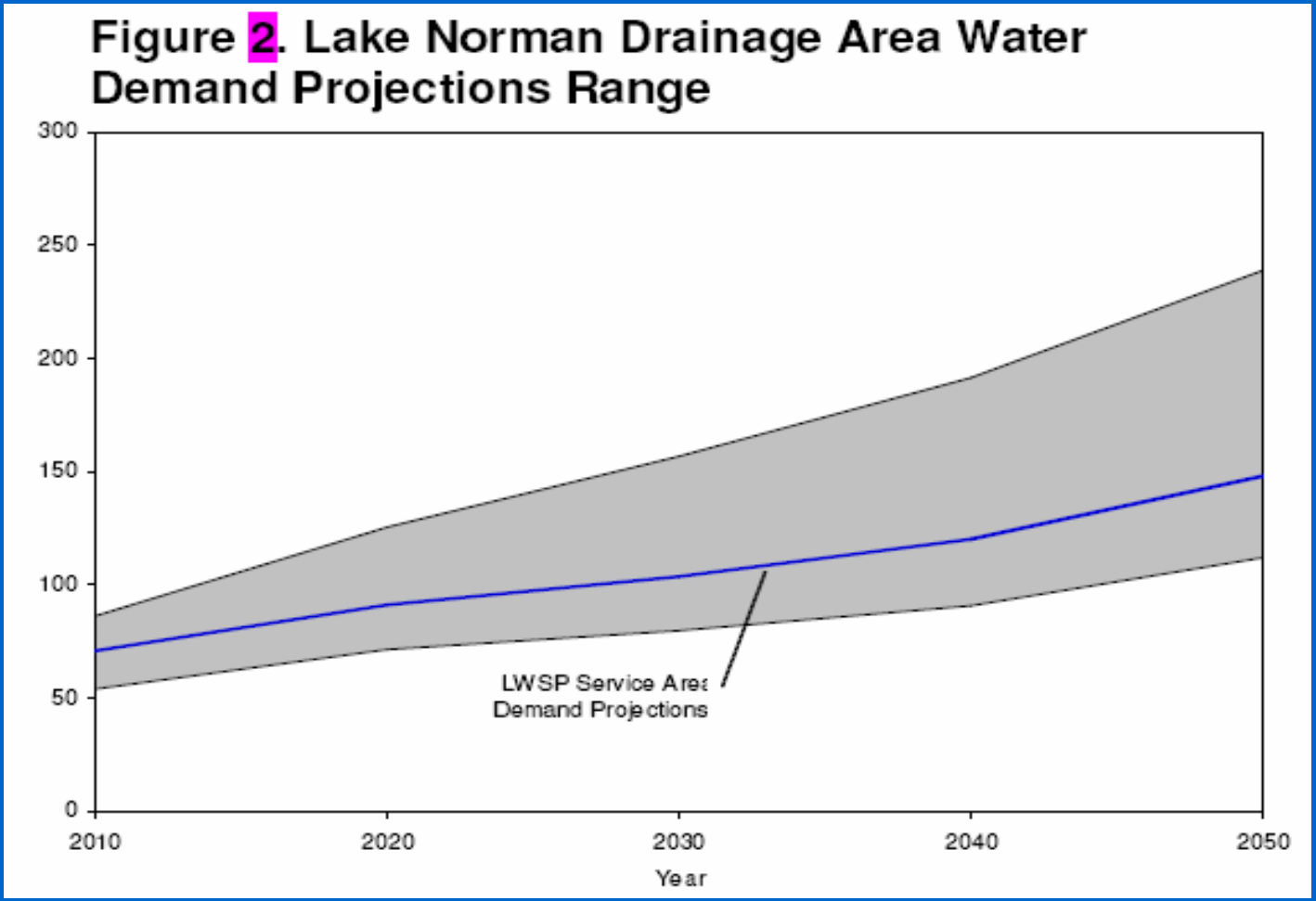
- Catawba to Rocky
  - 38 Million Gallons per Day
- Yadkin to Rocky
  - 10 Million Gallons per Day

- Transfer Limits on MAX DAY BASIS
- 24 MGD Average Day Shortfall through 2035

NC Catawba River Basin Water Supply Plan



NC Catawba River Basin Water Supply Plan



Basin Modeling

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.

Model Scenarios

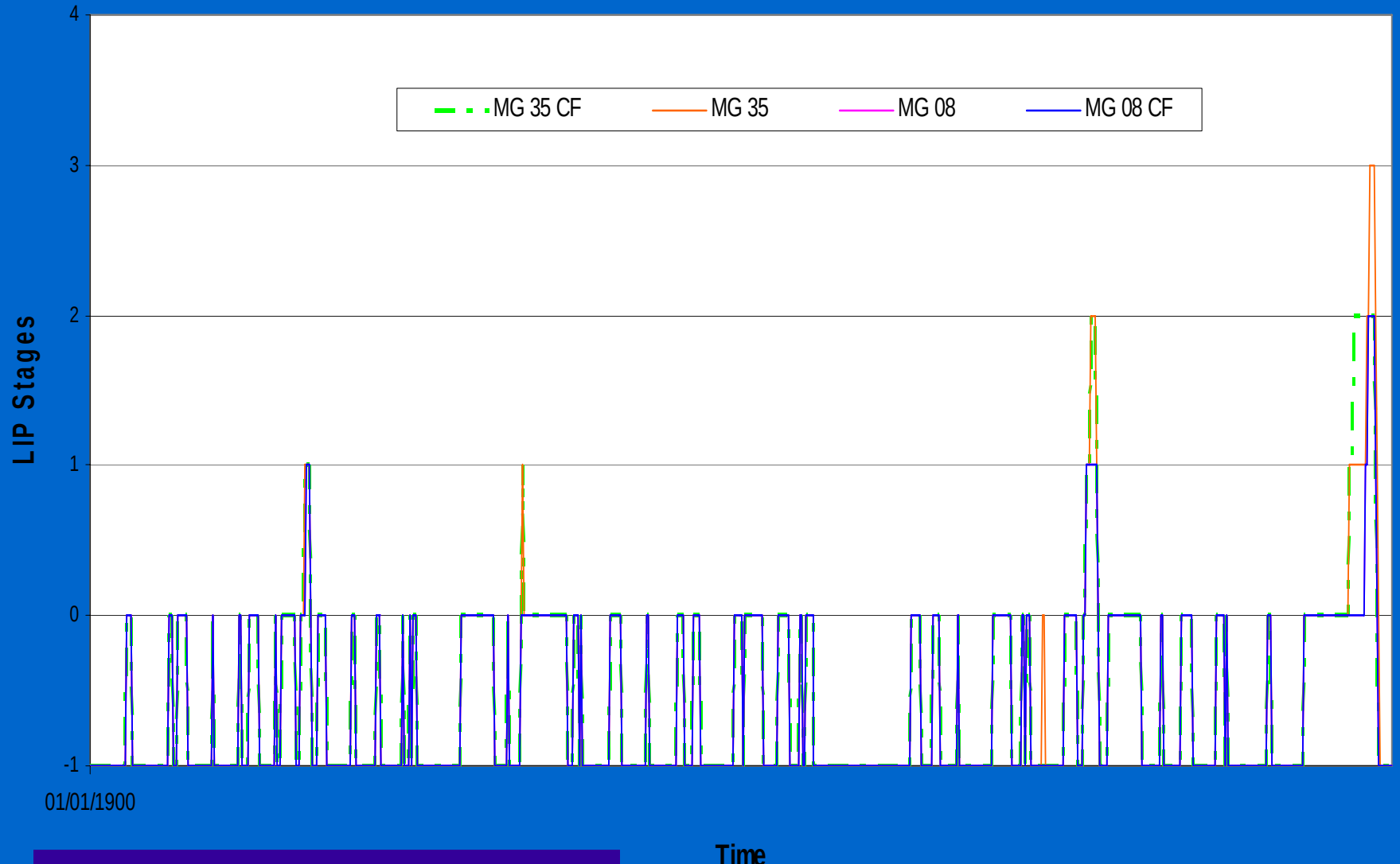
1. **"MG 08"** – MG with 2008 demands.
2. "**MG 08 CF**" – MG with 2008 demands considering IBT from Cowan Ford [Lake Norman].
3. **"MG 35"** - MG with increased demands for 2035.
4. **"MG 35 CF"** – MG with increased demand for 2035 considering IBT from Cowan Ford [Lake Norman].
5. **"MG 35 MI"** – 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.
8. **"MG 35 LIP"** – MG with 2035 demands considering new modified LIP [version November, 2005].

Performance Measures Sheet

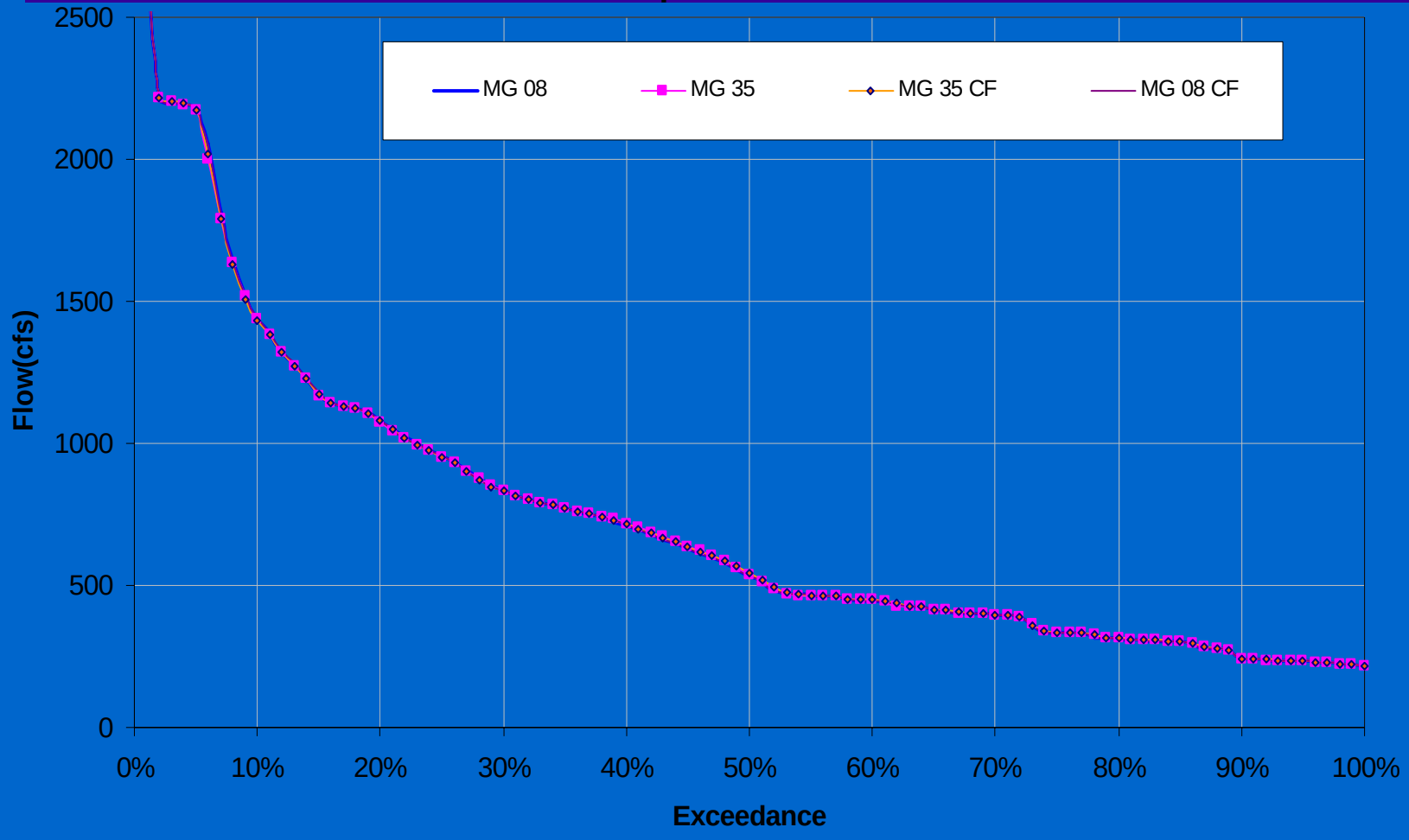
Updated 06/01/05

Performance Measures	MG 08 (1929-2003)	MG 08 CF (1929-2003)	MG 35 (1929-2003)	MG 35 CF (1929-2003)	MG 35 MI (1929-2003)	MG 35 NGO (1929-2003)	MG 35 CF NGO (1929-2003)	MG 35 LIP (1929-2003)
Lake James (including the Catawba River Bypassed Reach, Paddy Creek Bypassed Reach and the Bridgewater Regulated River Reach)								
Recreation Interests								
Minimize days/yr of restricted lake boat launching	30	30	34	34	34	35	35	30
Minimize days/yr of potentially restricted dock access	48	48	54	54	54	64	63	49
Minimize reservoir area with restricted lake navigation	33%	33%	43%	36%	36%	43%	43%	21%

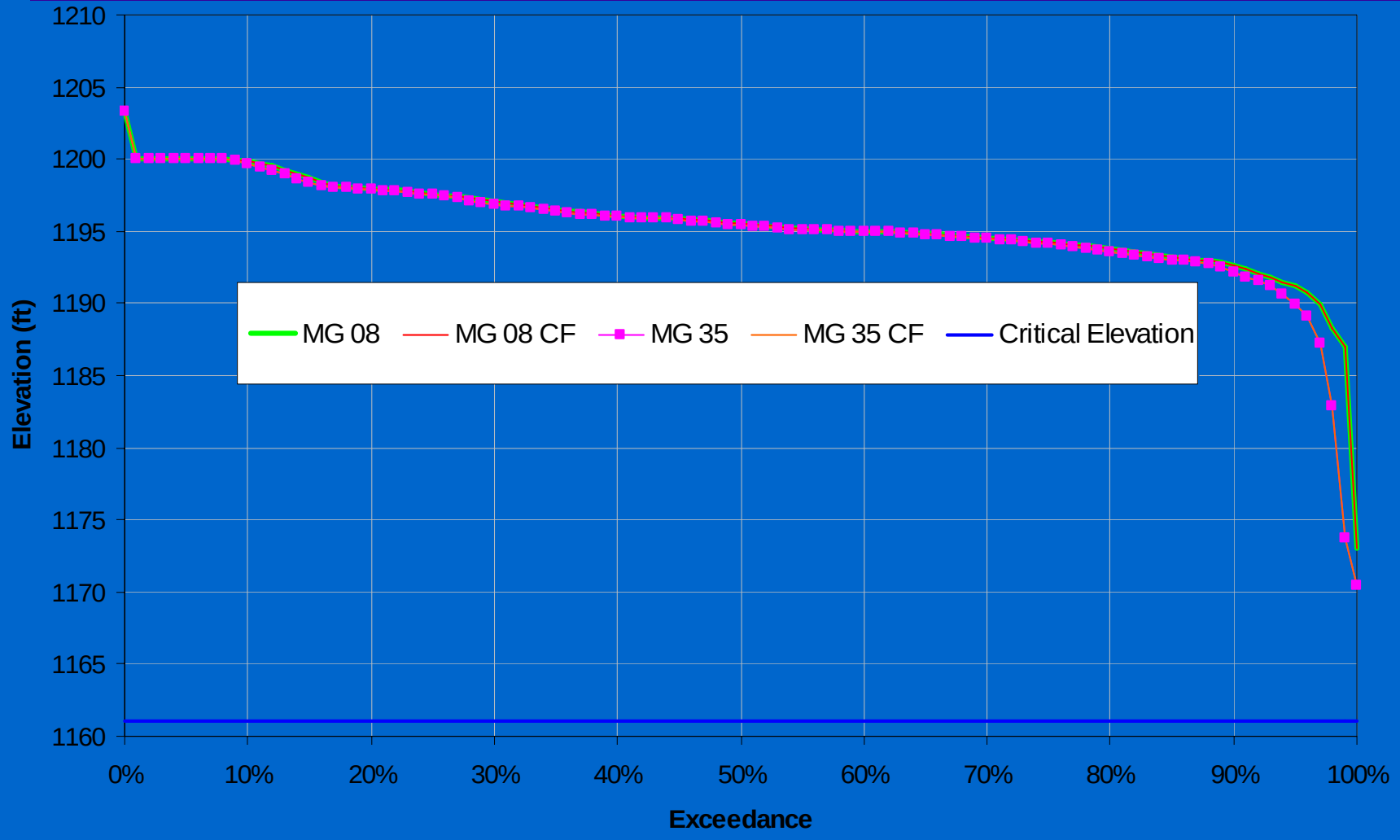
Simulated LIP Stages to see the Impacts of IBT Quantities

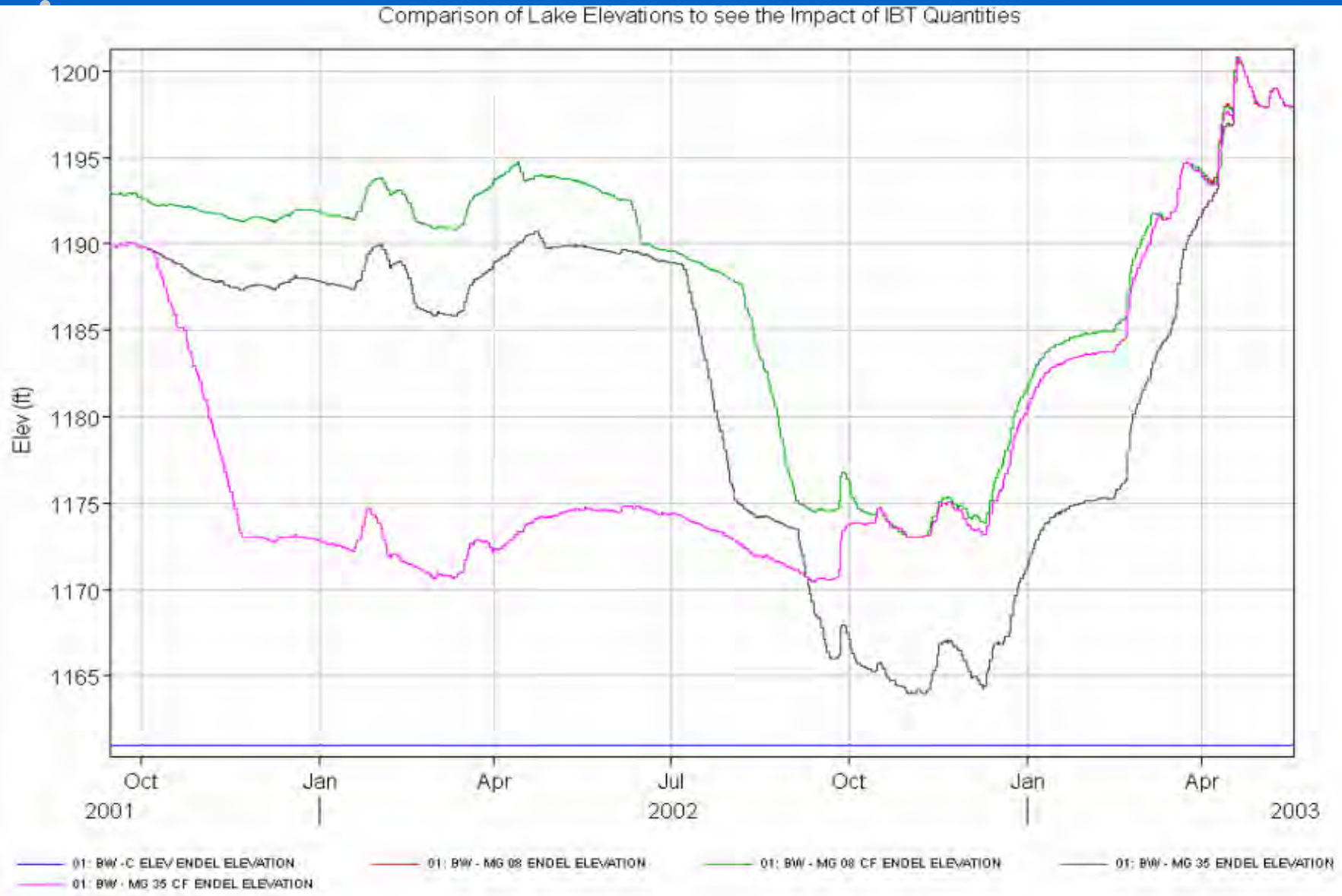


Exceedance Curve of Bridgewater Outflows Between Jan 1,1929 and Dec 31, 2003 to see the Impacts of IBT ammount

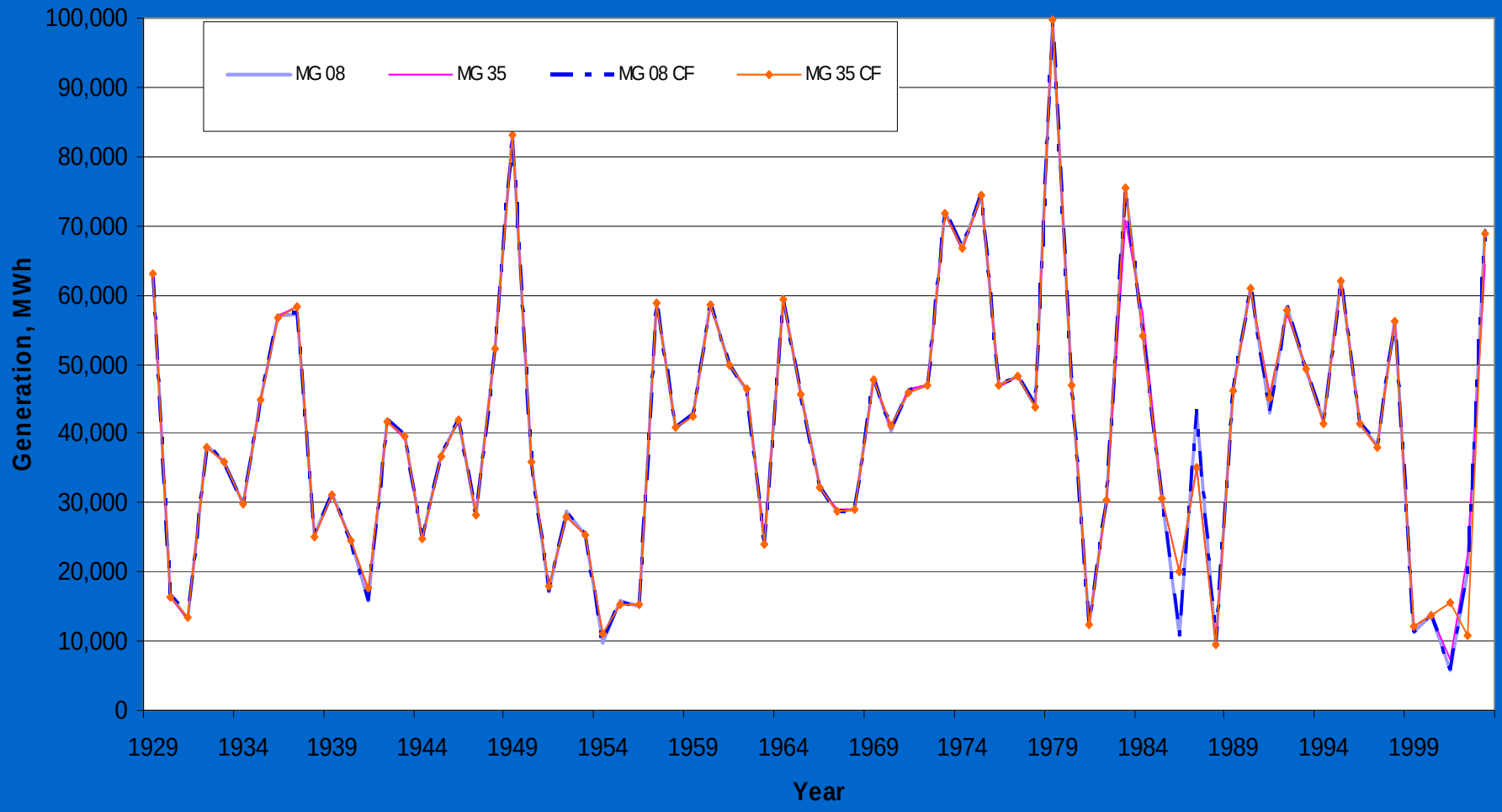


Exceedance Curves of Bridgewater Elevations Between Jan 1,1929 and Dec 31, 2003 to see the Impacts of IBT quantity

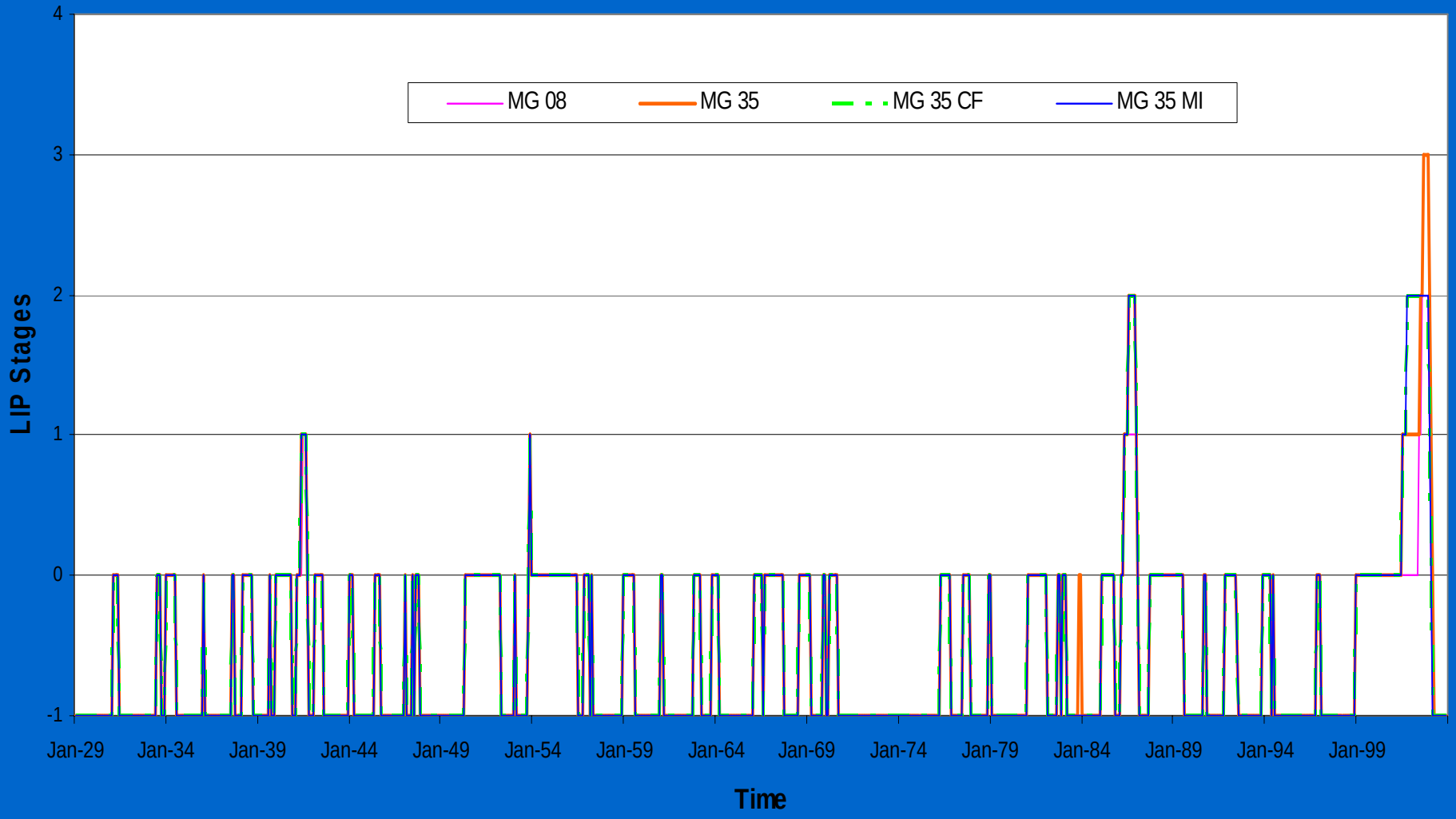



Comparison of Lake Elevations to see the Impact of IBT Quantities
Elev (ft)
1200
1195
1190
1185
1180
1175
1170
1165
Oct
2001
Jan
Apr
Jul
2002
Oct
Jan
Apr
2003
01: BW -C ELEV ENDEL ELEVATION
01: BW - MG 08 ENDEL ELEVATION
01: BW - MG 08 CF ENDEL ELEVATION
01: BW - MG 35 ENDEL ELEVATION
01: BW - MG 35 CF ENDEL ELEVATION

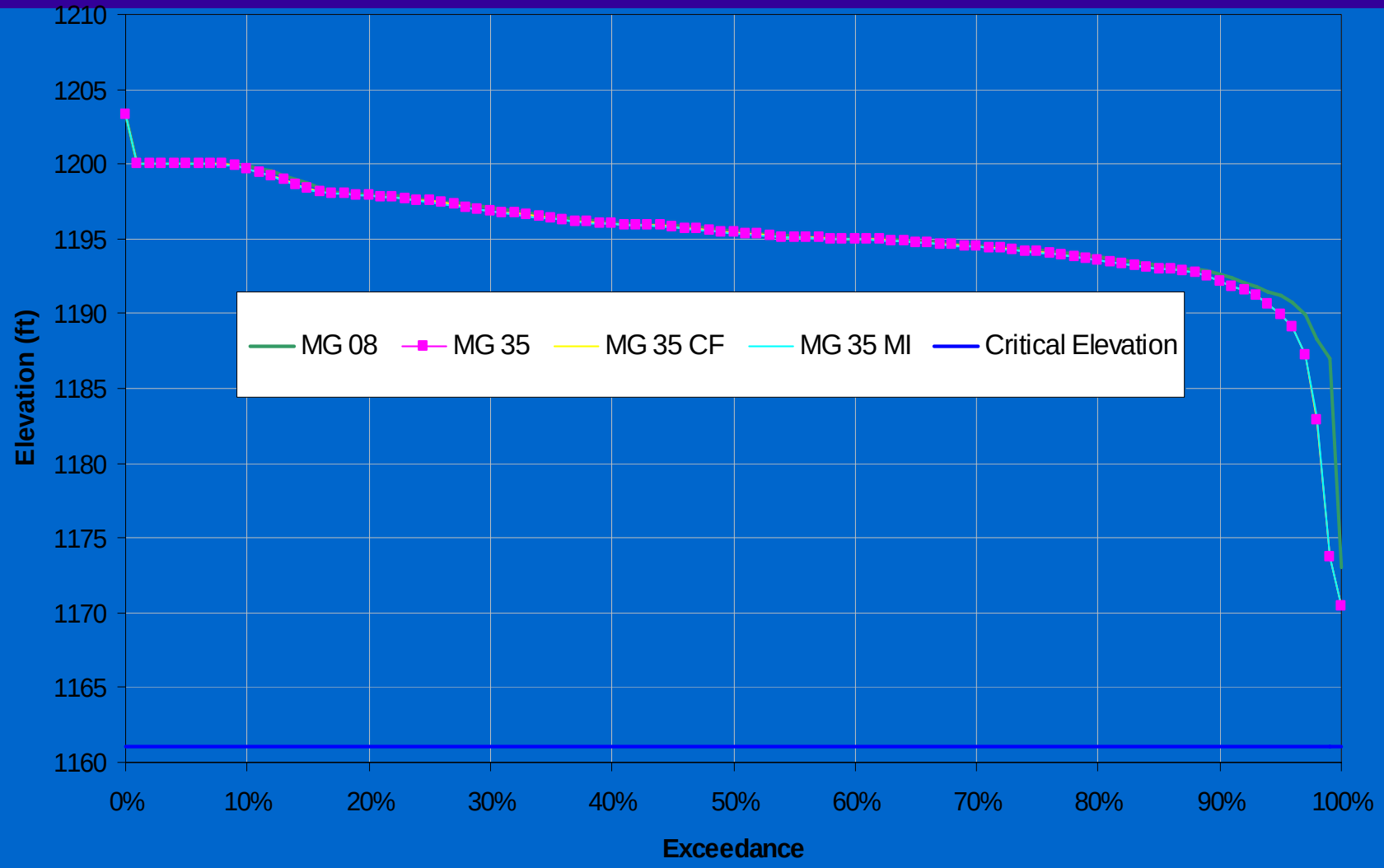
Total Generation Plots for Bridgewater to Compare the Impacts of IBT Quantity



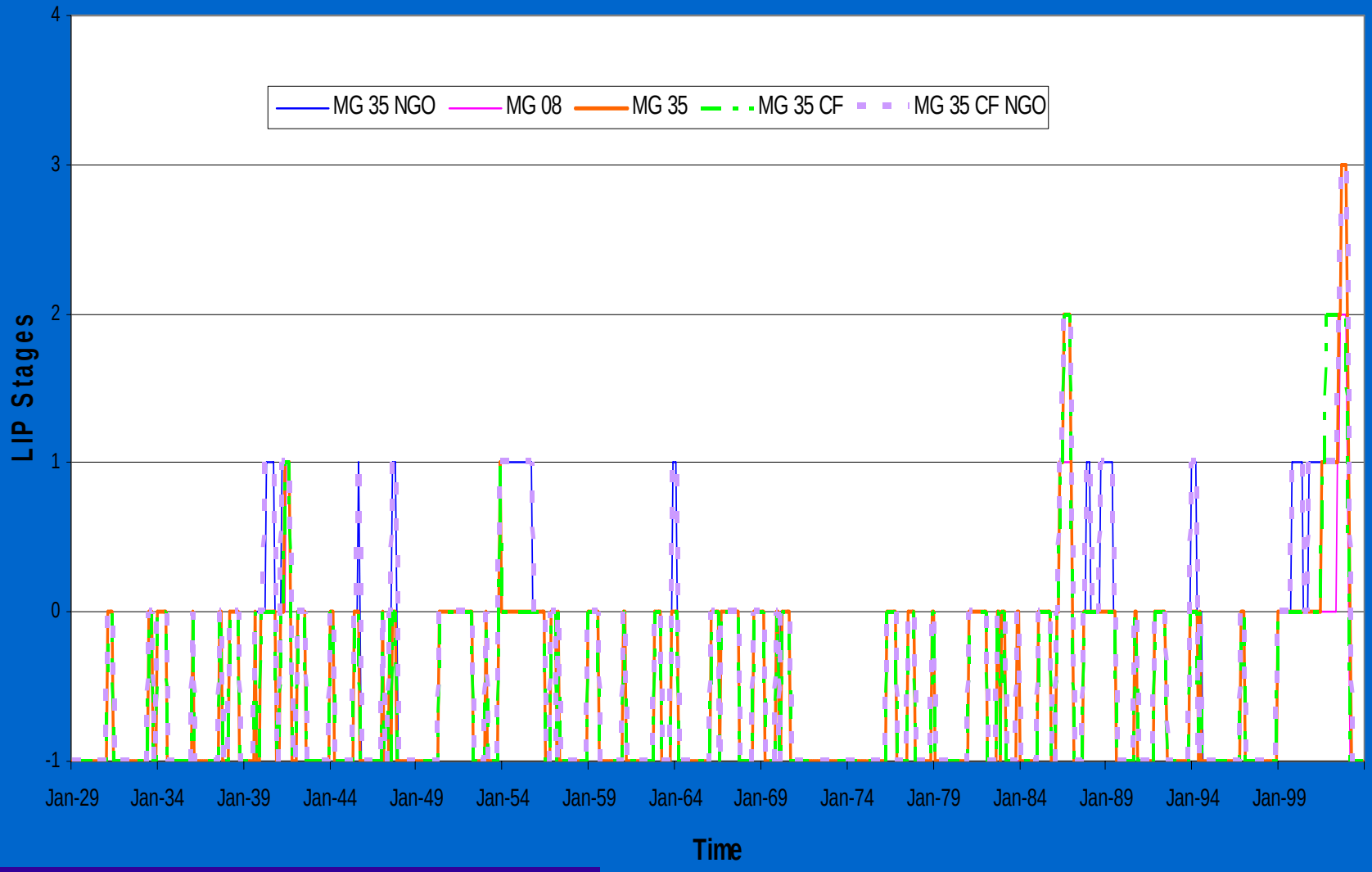
Simulated LIP Stages to see the Impacts of IBT Locations



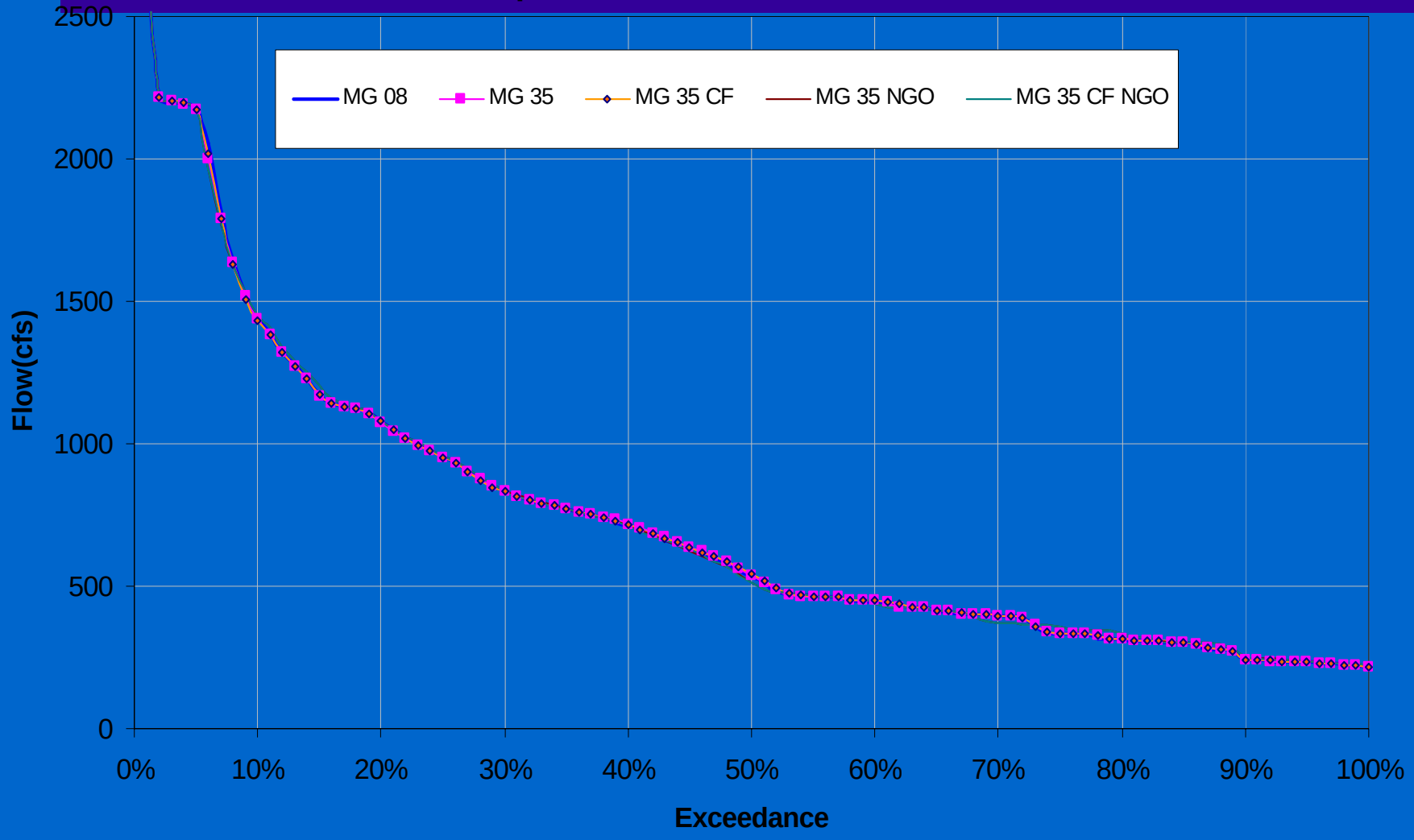
Exceedance Curves of Bridgewater Elevations Between Jan 1,1929 and Dec 31, 2003 to see the Impacts of IBT locations



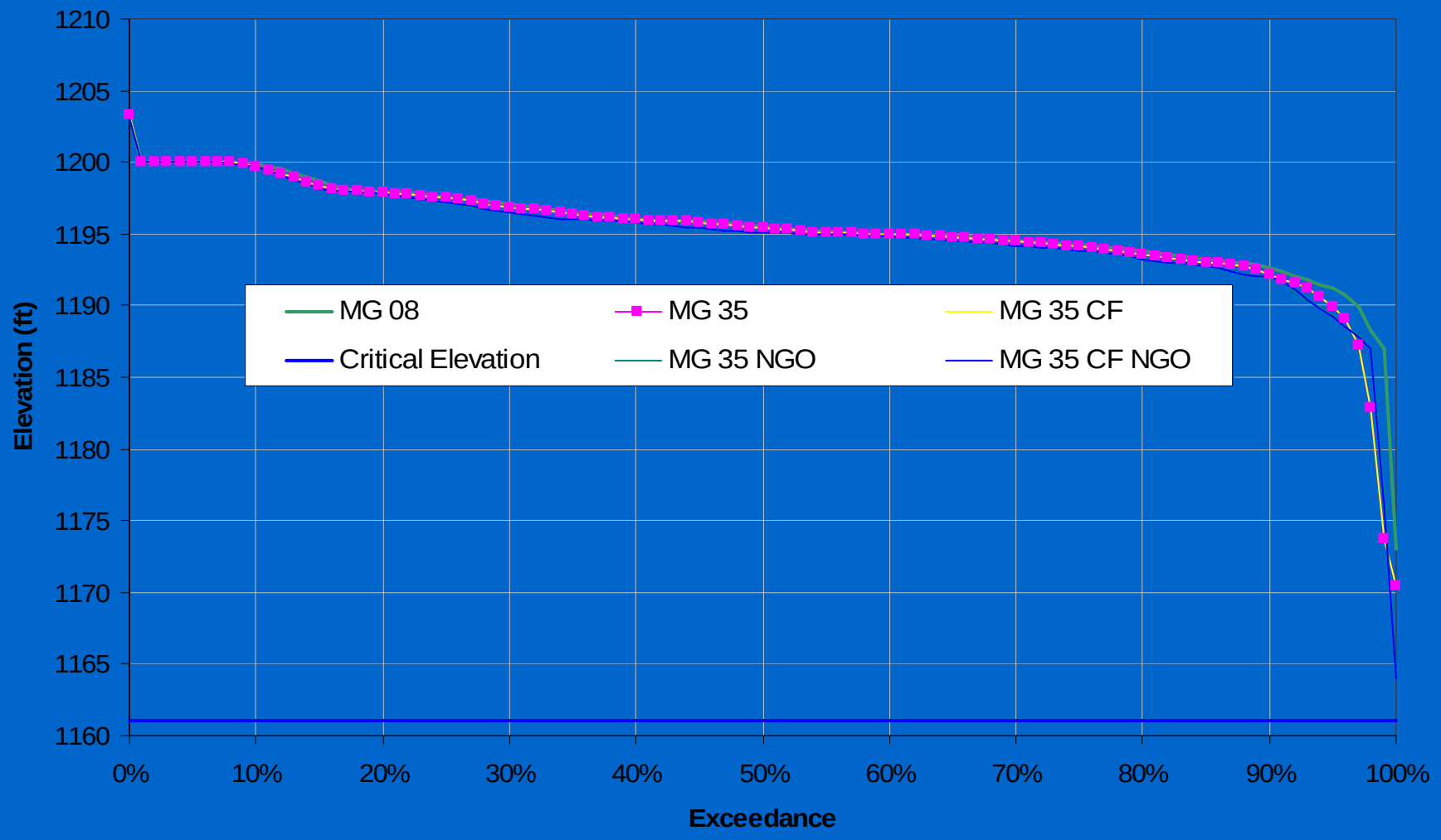
Simulated LIP Stages to see the Impacts of Increased Instream Flows with IBT



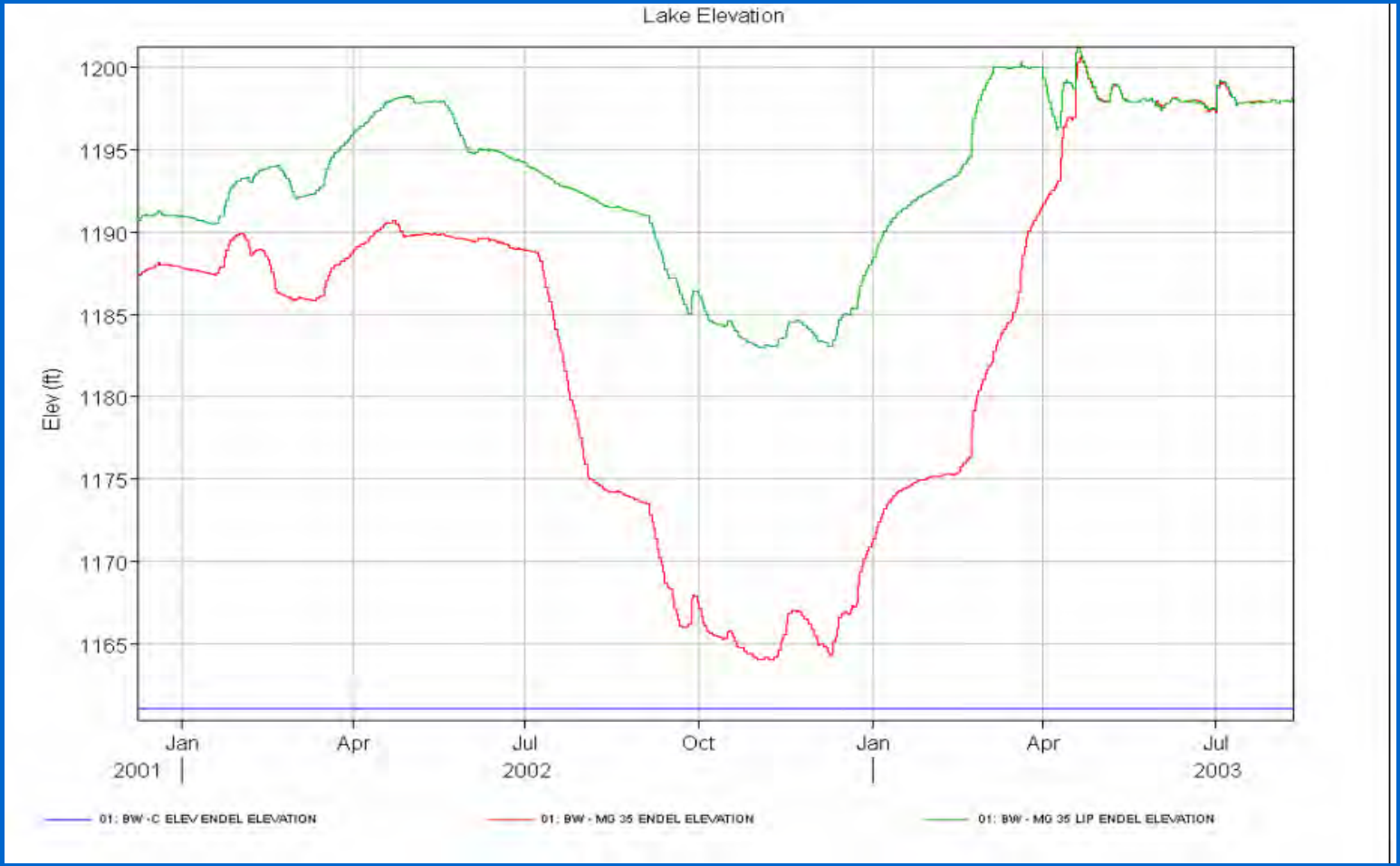
Exceedance Curve of Bridgewater Outflows Between Jan 1,1929 and Dec 31, 2003 to see the Impacts of Increased Stream flows over IBT

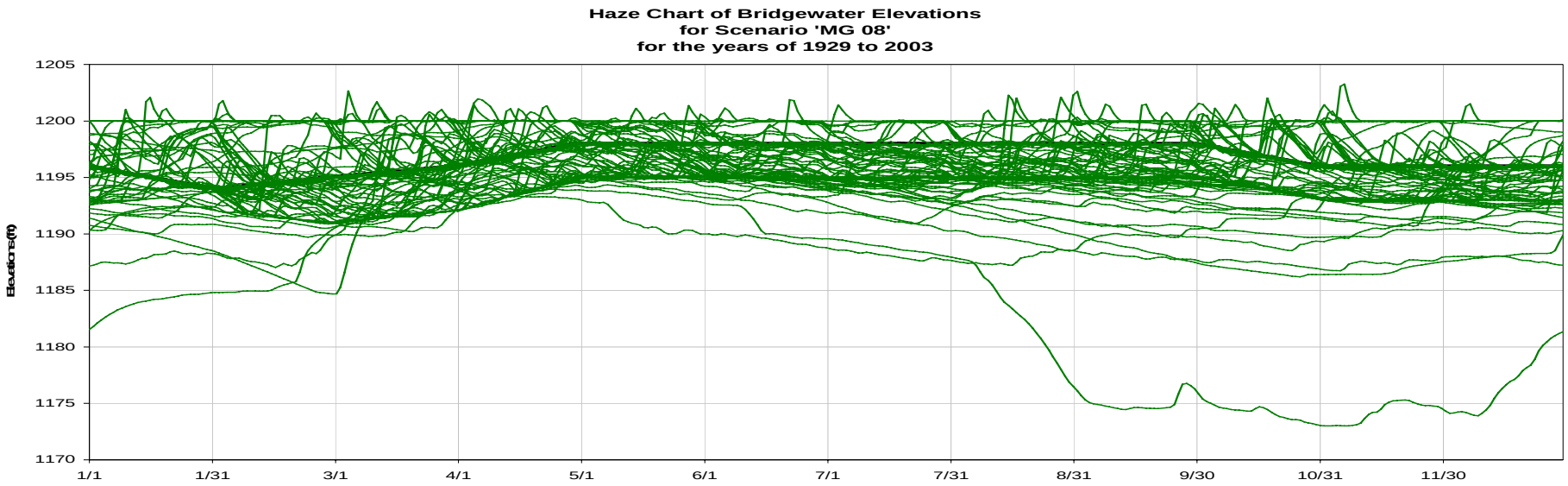


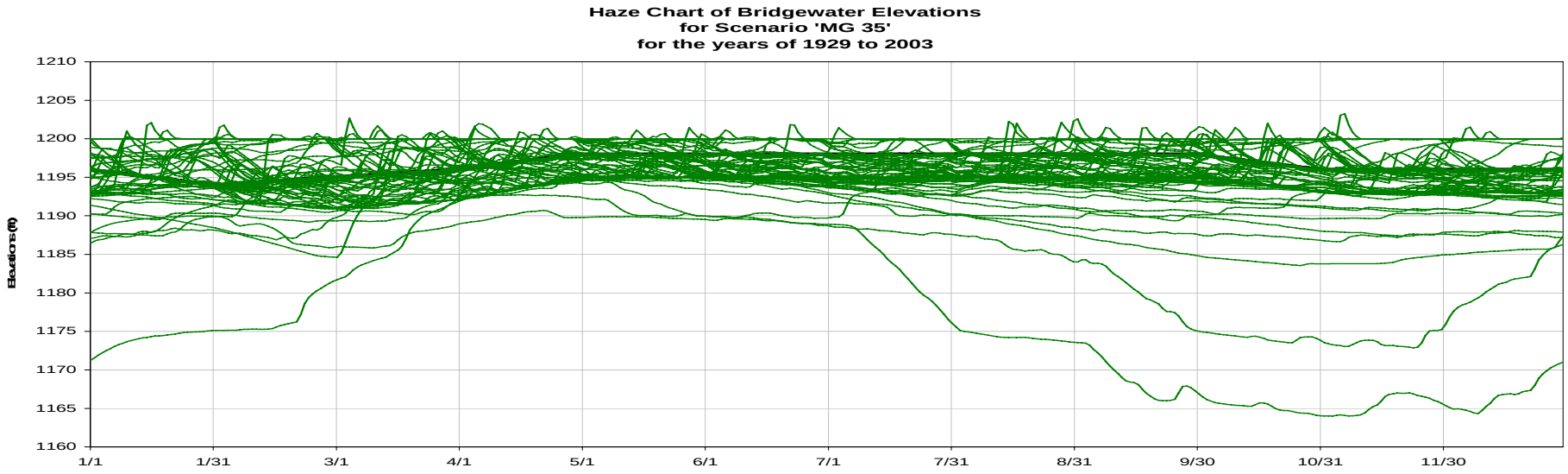
Exceedance Curves of Bridgewater Elevations Between Jan 1,1929 and Dec 31, 2003 to see the Impacts of Increased Insteam flow Requirements over IBT

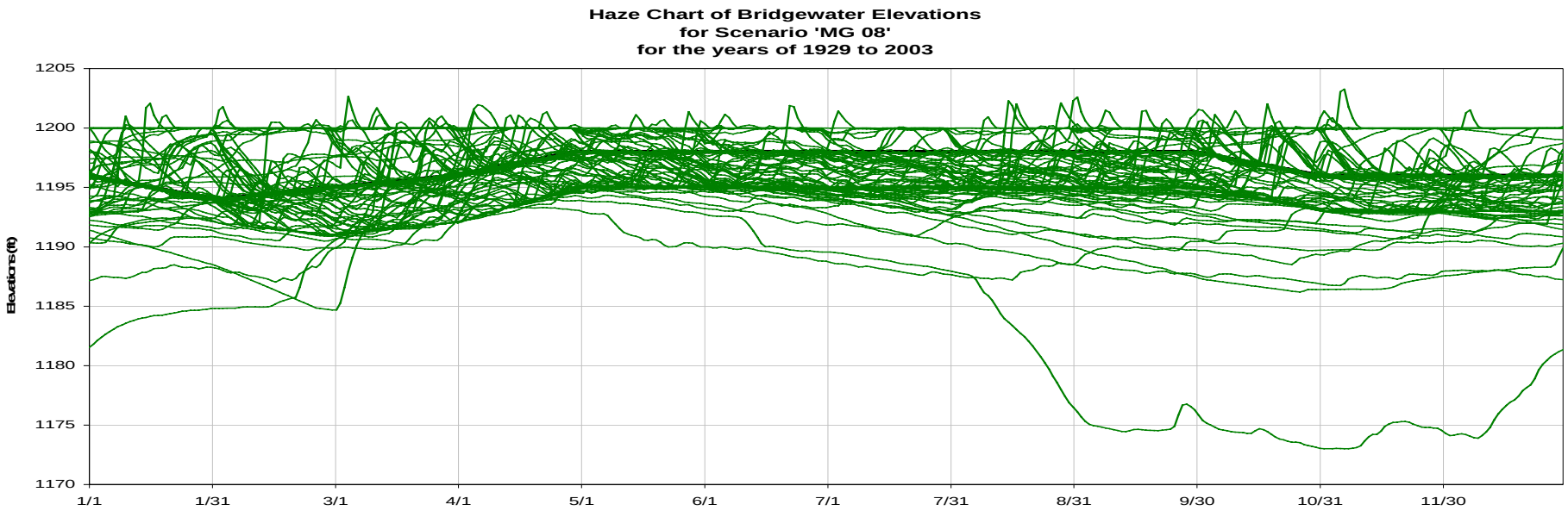


Comparison of the 9/2005 LIP to the 11/2005 LIP




Haze Chart of Bridgewater Elevations
for Scenario 'MG 08'
for the years of 1929 to 2003
Elevations (ft)
1205
1200
1195
1190
1185
1180
1175
1170
1/1
1/31
3/1
4/1
5/1
6/1
7/1
7/31
8/31
9/30
10/31
11/30


Haze Chart of Bridgewater Elevations
for Scenario 'MG 35'
for the years of 1929 to 2003
Elevations (ft)
1210
1205
1200
1195
1190
1185
1180
1175
1170
1165
1160
1/1
1/31
3/1
4/1
5/1
6/1
7/1
7/31
8/31
9/30
10/31
11/30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4/1
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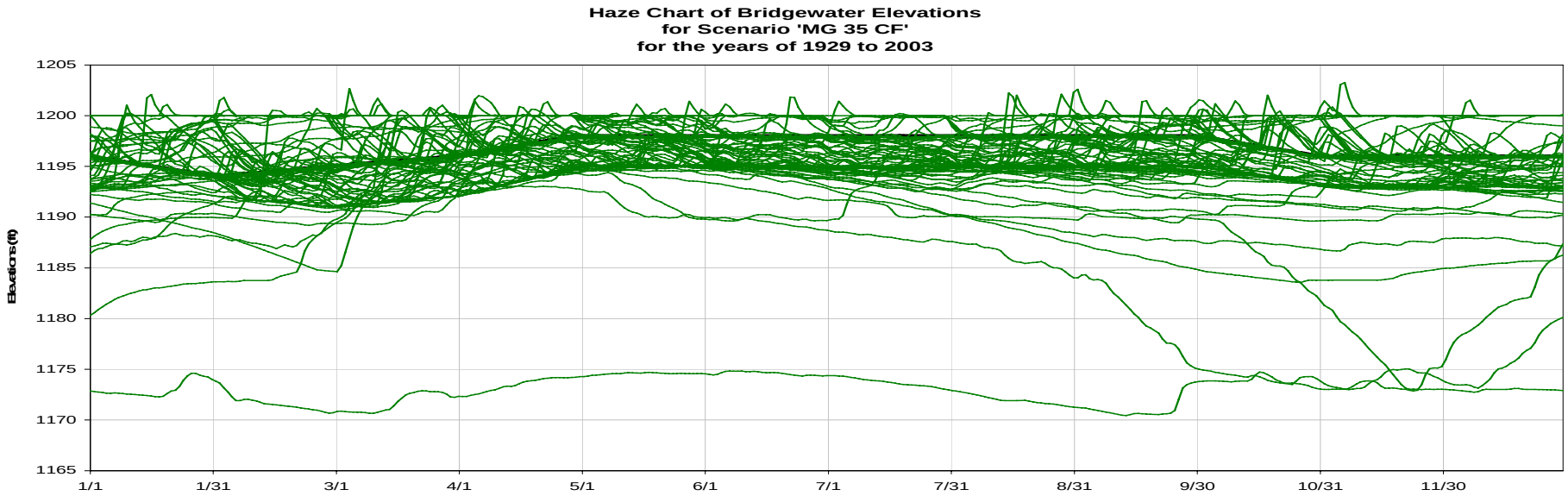
6/1
7/1
7/31
8/31
9/30
10/31
11/30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1205
1200
1195
1190
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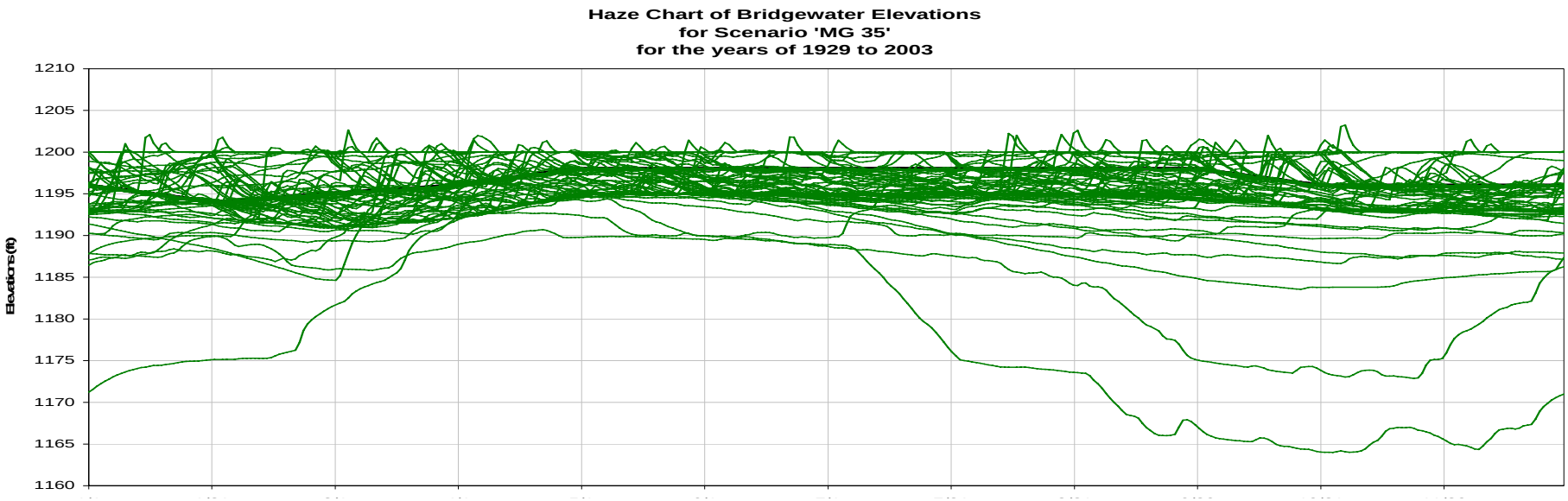
4/1
5/1
6/1
7/1
7/31
8/31
9/30
10/31
11/30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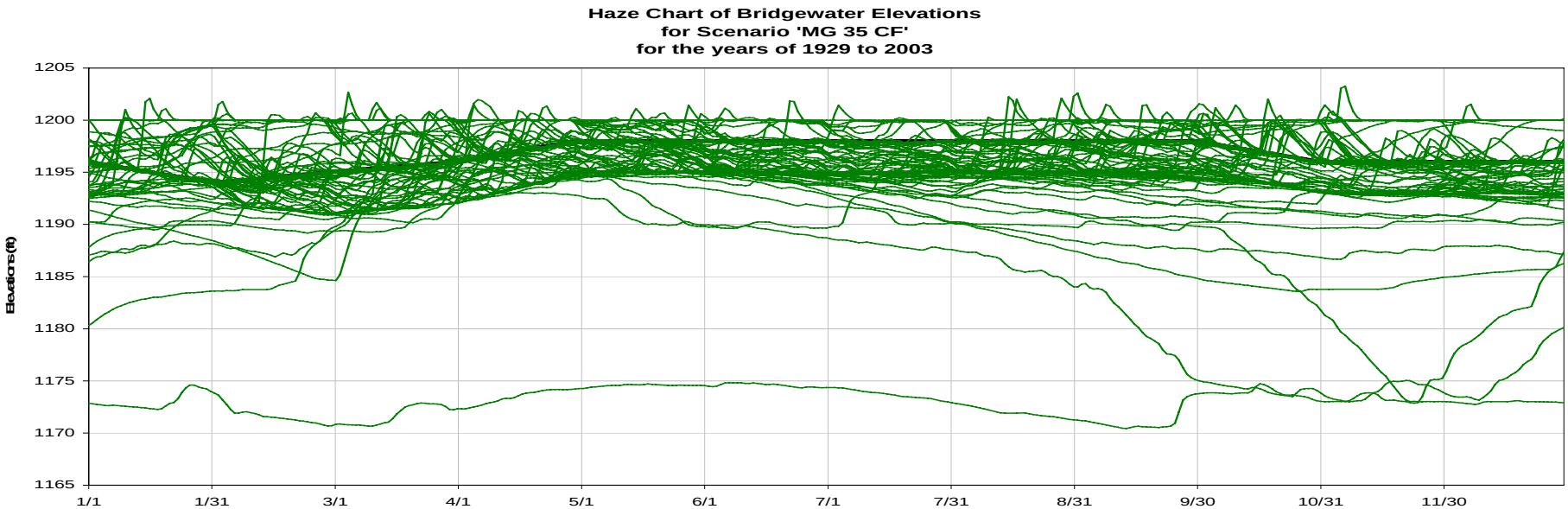
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1200
1195
1190
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1/1
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3/1
4/1
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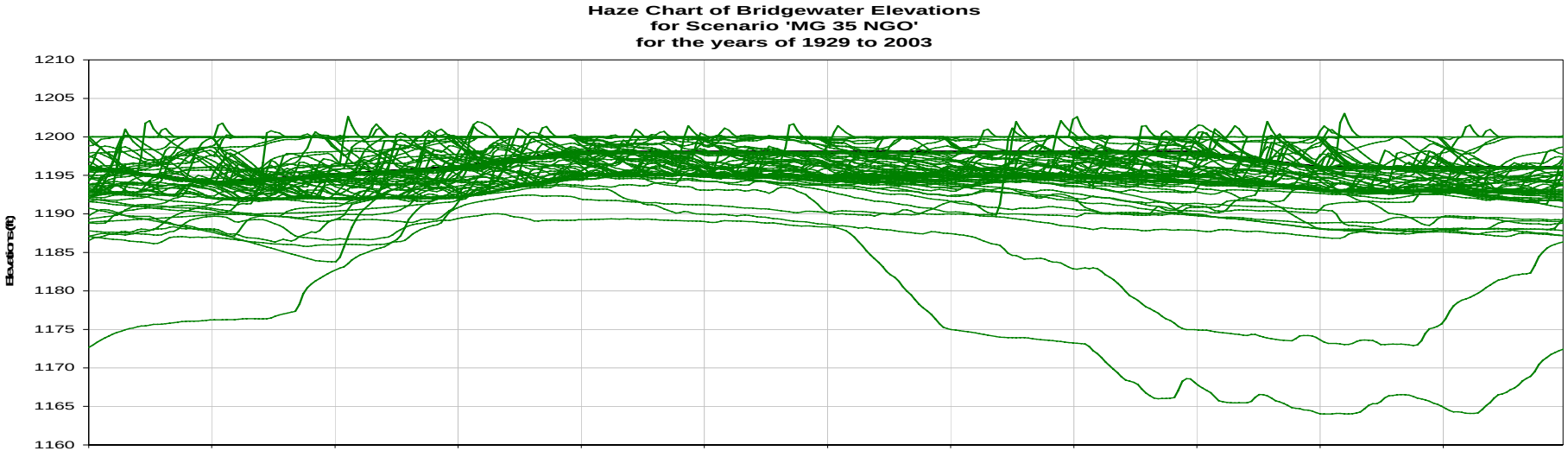
7/31
8/31
9/30
10/31
11/30


Haze Chart of Bridgewater Elevations
for Scenario 'MG 35 NGO'
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Elevations (ft)
1210
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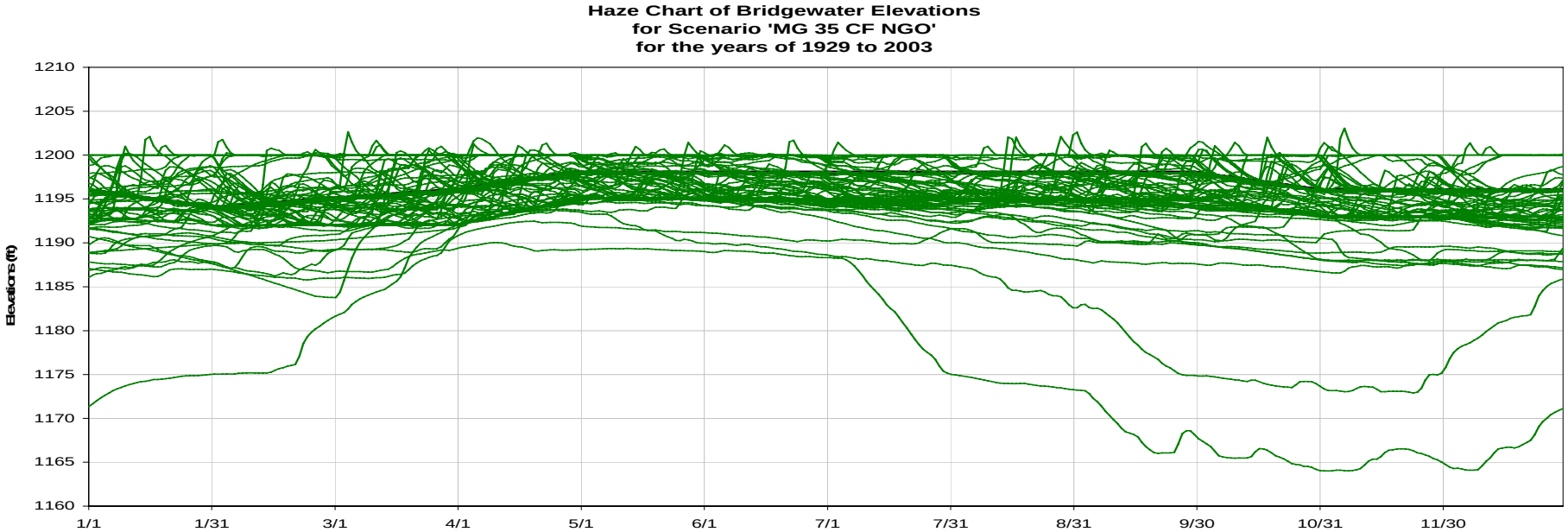
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1210
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1195
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1165
1160
1/1
1/31
3/1
4/1
5/1
6/1
7/1
7/31
8/31
9/30
10/31
11/30

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/

North Carolina Department of Environment and Natural Resources

Division of Water Resources

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Interbasin Transfer Certification

DWR Home > Permits and Registration > Interbasin Transfer

In 1993, the Legislature adopted the Regulation of Surface Water Transfers Act (G.S. 143-215.22I). 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 Virgina 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.

Additional Information

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

join-water_allocation_committee@news.ncwater.org

North Carolina Department of Environment and Natural Resources

Division of Water Resources

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Interbasin Transfer Certification Status for the Concord/Kannapolis

DWR Home > Permits and Registration > Interbasin Transfer > Status > Concord

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 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 recieved 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 (pdf format)* (May 2005)
2. *Response to Comments by the Division of Water Quality (pdf format)* (April 2005)
3. *Response to Comments by Environmental Management Commission (pdf format)* (March 2005)
4. *Impacts on Yadkin River Response (pdf format)* (February 2005)
5. *IBT Petition for the Cities of Concord and Kannapolis (pdf format)* (November 2004)
6. *Revised October 2004 Draft Environmental Impact Statement for the Cities of Concord and Kannapolis: Proposed Interbasin Transfer from the Catawba River to the Rocky River Subbasin (pdf format)* (October 2004)
7. *Draft Environmental Impact Statement for the Cities of Concord and Kannapolis: Proposed Interbasin Transfer from the Catawba River to the Rocky River Subbasin (pdf format)* (December 2003)

If you would like to be included on the Division of Water Resource'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 Fragapane at Phil.Fragapane@ncmail.net or call (919)715-0389.

NC Division of Water Resources, DENR - 1611 Mail Service Center - Raleigh, NC 27699-1611
Phone: (919)733-4064 - Fax: (919)733-3558

Last Modified: 10.26.2005

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/

Or Join Email List
join-water_allocation_committee@news.ncwater.org

Or Email
Phil.Fragapane@ncmail.net