

**Roanoke River Basin Bi-State Commission
Water Allocation Ad Hoc Committee**

**March 2010
Status Report**

Ad Hoc Committee Members

Name	Organization
<i>Committee Member</i>	
Gene Adesso	Roanoke River Basin Association
Bill Cox	Civil and Environmental Engineering, Virginia Tech.
Tom Fransen (Co-Chair)	Division of Water Resources, NC DENR
Bill Holman	Nicholas Institute, Duke University
Scott Kudlas (Co-Chair)	Office of Water Supply Planning, VA DEQ
Brian McCrodden	HydroLogics, Inc.
Rick Seekins	Kerr-Tar Regional COG
Richard Whisnat	UNC Institute of Government
<i>Support Staff</i>	
Jason Ericson	Office of Water Supply Planning, VA DEQ
Steve Reed	Division of Water Resources, NC DENR
Tammy Stephenson	Office of Water Supply Planning, VA DEQ
Allen Piner	US Corps of Engineers

- Summary of John H. Kerr Storage
- Draft Agreement
 - Part I – Purpose
 - Part II – Declaration of Policy
 - Part IV – Allocation of Water Supply Storage
 - Alternative 1 – Status Quo
 - Alternative 2 – Modified Status Quo
 - Alternative 3 – States purchase the storage.
 - Alternative 4 – Interstate Compact
 - Alternative 5 – A 3rd party purchase the storage.
- Next Steps

Summary of Water Supply Storage

- Total Water Supply Storage - 50,000 ac-ft
 - Based on the Water Supply Act of 1958 up to 50,000 ac-ft of the power pool can be reallocated to water supply.
 - Estimated yield 97.2 mgd
- 21,379 ac-ft currently allocated.
- 28,621 ac-ft currently unallocated.
 - 55.6 mgd yield
 - FY2010 cost \$11,567,177.15
 - FY2010 annual O&M cost \$42,931.50

Summary of Current John H. Kerr Water Supply Storage

	City of Clarksville	Old Burlington Industries Intake	Kerr Lake Regional WS	City of Virginia Beach ¹	VA Dept of Corrections	Mecklenburg Cogeneration
% Conservation Pool Between 268 & 300 ft-msl			1.050%	1.066%	0.0024%	0.063%
Estimated Storage ac-ft			10,291	10,447	24	617
Current estimated yield mgd	Avg Usage < 0.3	Avg Usage ~ 4	20	20.3	0.047	1.2
Contract	No Agreement	No Agreement	3/17/06	1/13/84	1/25/89	6/5/91

¹ The storage is based on a 60 mgd 90 day seasonal demand.

- Summary of John H. Kerr Storage
- Draft Agreement
 - Part I – Purpose
 - Part II – Declaration of Policy
 - Part IV – Allocation of Water Supply Storage
 - Alternative 1 – Status Quo
 - Alternative 2 – Modified Status Quo
 - Alternative 3 – States purchase the storage.
 - Alternative 4 – Interstate Compact
 - Alternative 5 – A 3rd party purchase the storage.
- Next Steps

PART I. PURPOSES

The purposes of this agreement are:

1. For the State of North Carolina and the Commonwealth of Virginia to provide the U.S. Army of Engineers a set of guidelines for allocation of John H. Kerr water supply allocations.
2. To preserve and protect the water resources of the Roanoke River Basin.
3. To facilitate integrated comprehensive water resources planning of the Roanoke River Basin.

PART II. DECLARATION OF POLICY

Summary of the 6 policy statements.

- 1. Sustainable use of the basin's water resources.**
- 2. Coordinated planning.**
- 3. Drought management.**
- 4. Use of the water shall not cause injury, quality or quantity.**
- 5. Allows for nonriparian use of the water.**
- 6. Use of water outside the basin is subordinate to in basin uses.**

- Summary of John H. Kerr Storage
- Draft Agreement
 - Part I – Purpose
 - Part II – Declaration of Policy
 - Part IV – Allocation of Water Supply Storage
 - Alternative 1 – Status Quo
 - Alternative 2 – Modified Status Quo
 - Alternative 3 – States purchase the storage.
 - Alternative 4 – Interstate Compact
 - Alternative 5 – A 3rd party purchase the storage.
- Next Steps

Disclaimer

The Allocation Scenarios are options identified by the Ad-Hoc Committee for the Commission's consideration. The Committee is not recommending any scenario as the preferred option. We can not official support any of the alternatives at this time. Neither State representative at this time can say which if any of the alternatives our State supports, that needs to come from the Governors' offices. Our role is to provide technical expertise to assist the Commission.

1 - Status Quo

USACE's process is adequate and no changes are needed.

■ *Pros*

- Requires no new program development or additional resources.

■ *Cons*

- Offers potential for incompatibility between federal storage allocation decisions and state water supply plans and management programs.
- This approach provides for less certainty on how much water is and will be available for water supply.

2 - Modified Status Quo

Let the USACE handle the allocation with some guidelines provided by States.

■ *Pros*

- Increases coordination between federal water storage allocation and overall state water supply management.
- Requires less disruption and fewer additional resources than approaches adopting more substantial changes to existing storage allocation procedures.
- If both States agree the USACE would be able to implement today.

■ *Cons*

- Requires program development and additional resources.
- May increase the time needed for allocation decisions.
- This approach provides for less certainty on how much water is and will be available for water supply.

3 - The States purchase the remaining storage and handle allocations.

■ *Pros*

- One of the advantages of this approach are it provides a mechanism to base allocations on the long-range needs and protects the instream needs by using updated models and planning.
- The contracts between the States and allocation holders provide for an opportunity to include additional water efficiency and drought protection measures.
- Also, this approach provides for more certainty on how much water is and will be available for water supply.

■ *Cons*

- This approach is expensive and lengthy, both to setup and process allocation applications. For both States find funds to finance their share of the \$11,567,177.15 and pass the necessary statutory authorities will likely take at least 2 years.

5 – Identify a third party to purchase the allocation.

This is similar to alternative 3.

■ *Pros*

- Cooperation between the actual users of the water would be enhanced and may result in improved efficiencies.
- The likelihood of "water grabs" may be reduced if the members of the purchasing entity establish a mutually beneficial management agreement.

■ *Cons*

- This scenario could result in the transfer of significant portions of the remaining allocation to areas outside of the Roanoke River drainage basin.
- The states role in determining the distribution of the allocation could be limited.

4 – Interstate Compact

Unlike the other alternatives reviewed, this option is broader in scope and will address basinwide water management issues.

■ *Pros*

- A commission established by an interstate compact would have authority to assist in resource management in both states.
- Cooperation between the states and efficiencies may be enhanced by the process of the creation of the compact.
- This scenario may allow for the incorporation of principles limiting water transferred outside of the basin (pro for some, con for others).

■ *Cons*

- The establishment and approval of the compact would likely be a lengthy process.
- The establishment of a commission would result in additional costs and staff during a tough budget climate.

- Summary of John H. Kerr Storage
- Draft Agreement
 - Part I – Purpose
 - Part II – Declaration of Policy
 - Part IV – Allocation of Water Supply Storage
 - Alternative 1 – Status Quo
 - Alternative 2 – Modified Status Quo
 - Alternative 3 – States purchase the storage.
 - Alternative 4 – Interstate Compact
 - Alternative 5 – A 3rd party purchase the storage.
- Next Steps

Next Steps

The Committee needs the Commission's guidance.

1. Is *Part I Purpose* satisfactory?
2. Is *Part II Declaration of Policy* satisfactory?
3. Which alternative allocation strategy should the agreement be based on?

Discussion - Questions

- Draft Agreement
 - Part I – Purpose 
 - Part II – Declaration of Policy 
 - Part IV – Allocation of Water Supply Storage
 - Alternative 1 – Status Quo 
 - Alternative 2 – Modified Status Quo 
 - Alternative 3 – States purchase the storage. 
 - Alternative 4 – Interstate Compact 
 - Alternative 5 – A 3rd party purchase the storage. 

Link to report and presentation <http://www.ncwater.org/basins/>.

PART I. PURPOSES

1. For the State of North Carolina and the Commonwealth of Virginia to provide the U.S. Army of Engineers a set of guidelines for allocation of John H. Kerr water supply allocations.



PART I. PURPOSES

2. To preserve and protect the water resources of the Roanoke River Basin.



PART I. PURPOSES

3. To facilitate integrated comprehensive water resources planning of the Roanoke River Basin



PART II. DECLARATION OF POLICY

The following principles constitute the policy that shall govern the allocation of John H. Kerr water supply storage.

- 1. Allocations/reallocations will enhance public health, safety, and welfare by fostering efficient and sustainable use of water in satisfaction of economic, environmental, and other social goals; factors that contribute to this end include:**
 - Stimulation of economic growth**
 - Protection of water quality**
 - Protection of ecological integrity and diversity**
 - Encouragement of water conservation**
 - Minimization of drought impacts on all water uses**
 - Minimization of conflict among competing water uses**
 - Maintenance of an appropriate balance between instream and offstream water uses**
 - Protection of property values and water infrastructure investment**



PART II. DECLARATION OF POLICY

2. The States and U.S. Army Corps of Engineers shall coordinate the planning and decisions pertaining to water allocation, and shall adapt and update plans and hydrologic models to ensure that actual and projected water consumption in the basin plus the water needed for instream uses does not exceed the water supply. The allocations shall be made so as to conserve the waters of the basin through suitable policies and by encouraging private efforts to conserve water and avoid waste.



PART II. DECLARATION OF POLICY

3. The States and U.S. Army Corps of Engineers shall protect the public interest in the waters of the basin by providing an orderly strategy to allocate available water efficiently and equitably in times of water shortage or water emergency.



PART II. DECLARATION OF POLICY

4.No person using the waters of the basin shall cause unreasonable injury to other water uses made pursuant to valid water rights, regardless of whether the injury results from the quality or the quantity impacts of the activity causing the injury.



PART II. DECLARATION OF POLICY

5. Uses of the waters of the basin on nonriparian or nonoverlying land are lawful and entitled to equal consideration with uses on riparian or overlying land in any administrative or judicial proceeding relating to the allocation, withdrawal, or use of water or to the modification of a water right. Nothing in this agreement shall be construed to authorize access to the waters of the basin by a person seeking to make a nonriparian or nonoverlying use apart from access lawfully available to that person.



PART II. DECLARATION OF POLICY

6. The reasonably foreseeable future water needs of users with their service areas located primarily outside the Roanoke River Basin are subordinate to the reasonably foreseeable future water needs of users with their service areas located primarily in the Roanoke River Basin. The States shall protect the reasonable needs of the basin of origin through the regulation of withdrawals.



1 - Status Quo

“First come, first severed”

Since USACE decisions about use of reservoir storage space are not intended to resolve water rights issues associated with use of the water. Deliberations concerning a request for assignment of storage rights primarily focus on satisfaction of requirements for repayment. While some consideration is given to environmental and broad water supply issues, they tend to be secondary to narrower issues of project management consistent with federal mission and mandates. This approach tends to treat allocation on a "first come, first served basis" due to its more limited perspective and the lack of a principal federal role in water allocation.



1 - Status Quo

■ *Pros*

- Requires no new program development or additional resources.

■ *Cons*

- Offers potential for incompatibility between federal storage allocation decisions and state water supply plans and management programs.
- This approach provides for less certainty on how much water is and will be available for water supply.



2 - Modified Status Quo

The current approach, with relatively modest modification, could provide a framework for a more comprehensive approach to water supply management that better integrates allocation of reservoir storage into broader water supply management programs of the affected states. The primary mechanism for improved coordination between federal reservoir managers and state water supply management would be a joint federal/state workshop for identification and analysis of related issues associated with proposals for new or expanded allocations of reservoir storage for M&I purposes.



2 - Modified Status Quo

■ *Pros*

- Increases coordination between federal water storage allocation and overall state water supply management.
- Requires less disruption and fewer additional resources than approaches adopting more substantial changes to existing storage allocation procedures.
- If both States agree the USACE would be able to implement today.

■ *Cons*

- Requires program development and additional resources.
- May increase the time needed for allocation decisions.
- This approach provides for less certainty on how much water is and will be available for water supply.



3 - The States purchase the remaining storage and handle allocations.

The basic steps for allocation using this approach would be:

- A local government would submit a request for a new or increased allocation. This typically only occurs once every 5 to 8 years.
- The States would hold a joint information meeting announcing the start of an allocation process.
- The States would work with potential applicants and other water users in the basin to update the basin hydrologic model and water supply plan.
- The applicants would submit their allocation request requested based on the needs identified in the basin water supply plan.
- Each State would make allocations for requests from applicants in their State based on their remaining unallocated water guided by the basin water supply plan.



3 - The States purchase the remaining storage and handle allocations.

■ *Pros*

- One of the advantages of this approach are it provides a mechanism to base allocations on the long-range needs and protects the instream needs by using updated models and planning.
- The contracts between the States and allocation holders provide for an opportunity to include additional water efficiency and drought protection measures.
- Also, this approach provides for more certainty on how much water is and will be available for water supply.

■ *Cons*

- This approach is expensive and lengthy, both to setup and process allocation applications. For both States find funds to finance their share of the \$11,567,177.15 and pass the necessary statutory authorities will likely take at least 2 years.



4 – Interstate Compact

The interstate compact scenario would entail the development of a compact between the State of North Carolina, the Commonwealth of Virginia and potentially the Federal Government outlining a process for management of the Roanoke River Basin's water resources, including the allocation of water storage in Kerr Reservoir. The compact would need to meet federal requirements, be ratified by both states, and would likely result in the establishment of a Commission with staff that would be funded at least partially by the signatories.

Unlike the other alternatives reviewed, this option is broader in scope and will address basinwide water management issues.



4 – Interstate Compact

Unlike the other alternatives reviewed, this option is broader in scope and will address basinwide water management issues.

- *Pros*

- A commission established by an interstate compact would have authority to assist in resource management in both states.
- Cooperation between the states and efficiencies may be enhanced by the process of the creation of the compact.
- This scenario may allow for the incorporation of principles limiting water transferred outside of the basin (pro for some, con for others).

- *Cons*

- The establishment and approval of the compact would likely be a lengthy process.
- The establishment of a commission would result in additional costs and staff during a tough budget climate.



5 – Identify a third party to purchase the allocation.

The third party purchase scenario would entail the purchase of all or a significant portion of the remaining Kerr Lake storage allocation by an entity other than the State of North Carolina or the Commonwealth of Virginia. The most likely candidate for such a purchase would be a group of municipalities. The purchasing entity would be responsible for determining the process of managing the storage and allocating and distributing the purchased storage to its members or other interested parties. While the states could play an advisory role in the development of the process for managing the allocation, the purchasing entity would ultimately be responsible. Under this scenario, applicable water withdrawal permitting requirements of the respective states would remain applicable.



5 – Identify a third party to purchase the allocation.

■ *Pros*

- Cooperation between the actual users of the water would be enhanced and may result in improved efficiencies.
- The likelihood of "water grabs" may be reduced if the members of the purchasing entity establish a mutually beneficial management agreement.

■ *Cons*

- This scenario could result in the transfer of significant portions of the remaining allocation to areas outside of the Roanoke River drainage basin.
- The states role in determining the distribution of the allocation could be limited.

