MEMORANDUM

To: The Honorable Members of the General Assembly

Re: Virginia Roanoke River Basin Advisory Committee 2008 Annual Report

The "Virginia Roanoke River Basin Advisory Committee Annual Report," prepared pursuant to Chapter 5.4 of Title 62.1 of the Code of Virginia § 62.1-69.35:2 is available from the Department of Environmental Quality's (DEQ) website at: http://www.deq.virginia.gov/regulations/reports.html. A hard copy can be obtained by calling Greg Anderson, DEQ West Central Regional Office Water Monitoring Manager, at (540) 562-6871 or Angela Jenkins, Assistant Director of Legislative and Legal Affairs, at (804) 698-4268. The report provides information about the group's activities for 2008.

I look forward to serving the people of the Roanoke River Basin during the coming year as the VRRBAC continues its work.

Sincerely,

Mike McEvoy Chairman

michael I. M. Eng

A REPORT TO

THE HONORABLE TIMOTHY M. KAINE, GOVERNOR,

AND

THE GENERAL ASSEMBLY OF VIRGINIA

VIRGINIA ROANOKE RIVER BASIN ADVISORY COMMITTEE 2008 ANNUAL REPORT

Virginia Roanoke River Basin Advisory Committee January 5, 2009

Executive Summary

The Virginia Roanoke River Basin Advisory Committee (VRRBAC) was established in the executive branch of state government as an advisory committee to the Virginia delegation to the Roanoke River Basin Bi-State Commission. VRRBAC assists the delegation in fulfilling its duties and carrying out the objectives of the Commission, pursuant to Virginia Code § 62.1-69.39.

VRRBAC continues to advance its goals, despite the challenges noted below. Members participated in efforts involving Roanoke River Basin (Basin) issues including total maximum daily load (TMDL) studies, the Smith Mountain Lake FERC re-licensing process, and the Philpott 216 Study. VRRBAC held three meetings, learning about, and discussing, topics related to the Basin and developing positions on Basin-related issues. The counterpart North Carolina Roanoke River Basin Advisory Committee (NCRRBAC) began meeting this year and the inaugural meeting of the Roanoke River Basin Bi-State Commission is being planned for the first quarter of 2009.

This inaugural meeting of the Roanoke River Basin Bi-State Commission is exciting and holds promise for addressing issues between the two States in the Basin. Drought still plagues both States and the Raleigh area outside the Basin is considering taking water from the Kerr Reservoir (Buggs Island Lake) in the Basin. VRRBAC is interested in working with Virginia's congressional delegation and the US Army Corps of Engineers (USACE) to develop a change in Federal law and policy that would protect regions, like the Basin, with valuable natural water resources from losing these water resources to meet the needs of larger areas that may be facing the depletion of their own natural water resources due to rapid growth. Several VRRBAC members met with members and staff of the Virginia congressional delegation and staff from the USACE to discuss this issue. The USACE is encouraging the Roanoke River Basin Bi-State Commission to forge an agreement among Virginia and North Carolina to address this issue.

In the past, the General Assembly has appropriated \$2000 per year to VRRBAC for operating expenses and this source of operating funds has been invaluable to the group and should be continued. Additional funds, however, are necessary for VRRBAC to fulfill its mission and to produce more tangible products, such as position papers on the Basin issues and other educational forums on relevant topics. Such activities would allow the VRRBAC to help provide integrated management of the entire watershed, help improve and maintain environmental quality in the Basin area, and help protect public health in the Basin.

This report provides information regarding VRRBAC's activities during the 2008 calendar year and identifies issues important to the success of VRRBAC and to the Roanoke River Basin.

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I. Introduction

The Virginia Roanoke River Basin Advisory Committee (VRRBAC) was established in the executive branch of state government as an advisory committee to the Virginia delegation to the Roanoke River Basin Bi-State Commission. VRRBAC assists the Virginia delegation in fulfilling its duties and carrying out the objectives of the Commission pursuant to Va. Code § 62.1-69.39. VRRBAC is composed of 23 members that include 1 ex-officio U. S. Representative, 6 ex-officio Virginia legislative members, 13 non-legislative citizen members, and 3 ex-officio members from North Carolina. The planning district commissions (PDCs) located in the Roanoke River Basin (Basin) recommended 11 of the non-legislative citizen members of the advisory committee, while the Senate Committee on Rules and the Speaker of the House each appointed 1 non-legislative citizen member. These non-legislative citizen members reside within the Basin's watershed, represent the diversity of interests within the Basin area, and have demonstrated interest, experience, or expertise in water-related Basin issues.

The Roanoke River Basin Bi-State Commission was established as a bi-state commission composed of members from the Commonwealth of Virginia and the State of North Carolina. The purpose of the Commission is to:

- 1. Provide guidance, conduct joint meetings, and make recommendations to local, state and federal legislative and administrative bodies, and to others as it deems necessary and appropriate, regarding the use, stewardship, and enhancement of the Basin's water and other natural resources;
- 2. Provide a forum for discussion of issues affecting the Basin's water quantity, water quality, and other natural resources;
- 3. Promote communication, coordination and education among stakeholders within the Basin:
- 4. Identify Basin-related problems and recommend appropriate solutions; and
- 5. Undertake studies and prepare, publish, and disseminate information through reports, and other communications, related to water quantity, water quality and other natural resources of the Basin.

II. Meetings and Locations

VRRBAC meets throughout the Basin in an effort to make the meetings available to all Basin constituents. This year the VRRBAC held three meetings, in Richmond, Boydton, and Charlotte Court House. In addition, the Committee collaborated with Charlotte County to hold a facilitated meeting in Charlotte Court House regarding the flow release from Leesville Lake to the Staunton River. Since the Committee first convened, it has met in 17 different locations throughout the Basin. Speakers from various groups, state

agencies, and local governments have informed the Committee about pertinent issues. Local government, state, federal, and private entities have provided meeting facilities for the meetings. Such participation demonstrates the strong partnerships VRRBAC has in the region to help in carrying out its work.

III. Organization

Mike McEvoy of Roanoke is the Chairman. Read Charlton of Charlotte Court House and Robert Conner of Ebony are Vice Chairmen. These officials were elected to provide a geographical, urban, and rural balance to VRRBAC's leadership.

IV. Current Membership of VRRBAC

There are currently 20 members on the VRRBAC and one vacant position. North Carolina has not provided any ex-officio members. A list of current members is provided below.

Senator Roscoe Reynolds
Senator Frank M. Ruff
Delegate Kathy J. Byron
Delegate Thomas C. Wright, Jr.
Delegate Charles Poindexter
Delegate Onzlee Ware
Representative Tom Perriello
Mike McEvoy, Chairman, Roanoke
Read Charlton, Vice Chair, Charlotte Court House
Robert H. Conner, Vice Chair, Ebony

Walter Coles, Chatham John H. Feild, Mecklenburg Haywood J. Hamlet, Phenix Evelyn Janney, Floyd Bob Jean, Brookneal Russell Johnson, Wirtz John Lindsey, Penhook Billy Martin, Blue Ridge Tim Pace, Collinsville Mark Wagner, Huddleston

V. Non-legislative Delegates to the Roanoke River Basin Bi-State Commission

Mike McEvoy, John Feild and Haywood Hamlet are the non-legislative delegates to the Roanoke River Basin Bi-State Commission and were appointed by the Governor.

VI. Subcommittees

The VRRBAC has five subcommittees: Agriculture and Forestry, Lake Interests, Municipal Interests and Permit Holders, River Interests, and Water. These subcommittees are set up to parallel the structure of the North Carolina counterpart so that the groups can easily interface with each other. The VRRBAC has directed the subcommittees to prepare position papers on important issues for full VRRBAC consideration and adoption. The subcommittees are designed to bring together the most knowledgeable people on an issue to accomplish the work of VRRBAC. The subcommittees must receive broad-based input from as many interested parties as possible. The subcommittees have added or are seeking members that will represent stakeholders throughout the Basin. An effort is made to maintain a geographical and urban/rural balance. VRRBAC members serve as the chairs and vice-chairs of these subcommittees. Other members may serve as their particular skills are needed. The current composition of the subcommittees is listed below.

<u>Agriculture and Forestry:</u> Haywood Hamlet - Chairman, Evelyn Janney - Vice-Chairman, Walter Coles, Robert Conner, and Mark Wagner.

<u>Lake Interests:</u> Robert Conner - Chairman, Charles Poindexter - Vice-Chairman, John Feild. Other citizen members include Jean McCarter.

Municipal Interests and Permit Holders (MIPH): John Lindsey - Chairman, Mike McEvoy - Vice-Chairman and Read Charlton. Other citizen members include Barry Dunkley, William Johnson, Maureen Castern, C.J. Mitchem, and Bill Reidenbach.

<u>River Interests:</u> Bob Jean – Chairman, Read Charlton - Vice-Chairman and Billy Martin. Bud LaRoche is representing the Virginia Division of Game and Inland Fisheries (DGIF) on the Committee. Other citizen members include Pamela Kent Pettus, Maureen Castern, J. T. Davis, Jerry Lovelace, and Tom Stutts.

<u>Water:</u> Mike McEvoy – Chairman, Robert Conner - Vice-Chairman, Tim Pace, and Walter Coles. Other citizen members include William Johnson.

The River Interests subcommittee prepared a comprehensive draft report on the Basin, which included a map, a list of streams, issues, features, a list of impaired streams, a list of pertinent organizations, and a narrative summary. This report is available at http://www.deq.virginia.gov/vrrbac/subcommittees/rivers.html

The Lake Interests subcommittee held public meetings at Lake Gaston, the Kerr Reservoir, and Smith Mountain Lake concerning problems at the lakes and will utilize information gathered during these meetings to develop a position paper regarding the identified lake issues.

The Agricultural and Forestry subcommittee continues work on recommendations concerning Best Management Practices (BMPs) funding and additional BMPs for a couple of notable problem areas.

The MIPH sub-committee is working to develop a survey to inventory permit holders in the Basin, identify their current and future needs, and ascertain their water withdrawal and/or discharge from/to the Basin. It has also determined the BROOM computer model has potential to evaluate the impact of withdrawals. The focus of the group is on the long-term needs of the Basin.

The Water subcommittee has tracked pertinent developments such as nutrient criteria, wastewater reuse, and environmental funding proposals.

The sub-committees continue recruiting members and gathering information. The limited level of funding available to VRRBAC has hampered efforts at the subcommittee level.

VII. Issues and Topics of Interest:

<u>Funding of VRRBAC Activities</u>: In the past, the General Assembly has appropriated \$2000 per year to VRRBAC for operating expenses and this source of operating funds has been invaluable to the group and should be continued. Additional funds, however, are necessary for VRRBAC to fulfill its mission and to produce more tangible products, such as position papers on the Basin issues and other educational forums on relevant topics. Such activities would allow the VRRBAC to help provide integrated management of the entire watershed, help improve and maintain environmental quality in the Basin area, and help protect public health in the Basin.

Importance of Natural Resources to the Economic Vitality of the Basin: People reside in and come to the Basin area to pursue various interests including vacation, lifestyle, aesthetics, boating, fishing, etc. These activities and personal values help drive the economic engine of the local and regional area. Clean water and ample flow and supply are recognized as essential to existing beneficial uses and future economic growth. The importance of agriculture and forestry to the lifestyle and economy is notable. There are a number of tools available that offer economic incentives and help protect water quality and other resources, conserve open space/"greenfields", limit sprawl, and help preserve our way of life. These include Purchase of Development Rights (PDRs), Transfer of Development Rights (TDRs), forest riparian buffer tax credits, forest legacy perpetual easements, state and federal grants, loans, and cost share programs, Ag/Forestry Districts in some areas, conservation easements, and "Brownfields" redevelopment. It has been suggested at meetings that it might be prudent for Virginia to use some of its money earmarked for conservation to help fund "Brownfields" redevelopment. The Virginia Association of Planning District Commissions (VAPDC) had asked the General Assembly to support the Virginia Brownfields Restoration and Economic Redevelopment Assistance Fund in their 2008 Legislative Agenda, but it was not funded. Given the current financial shortfall it is not anticipated that money will be appropriated this year.

Inter-basin Transfer of Water (IBT): When IBTs occur, economic vitality can disappear with the water. In addition environmental problems may be exacerbated during drought periods. The Virginia Beach – Lake Gaston pipeline is an example of such an IBT that supplies Virginia Beach with water from Lake Gaston in the Basin. The VRRBAC recognizes that Virginia Beach has been a good neighbor in many ways but the loss of the water in the Basin can have potential adverse consequences for the Basin. During the 2001 and 2002 drought the Roanoke River Basin Association (RRBA) requested that Virginia Beach reduce its water withdrawal and at that time Virginia Beach was able to accommodate this request and significantly reduce its withdrawals. RRBA is a non-profit, 501(c)(3) tax-exempt organization whose mission is to establish and carry out a strategy for the development, use, preservation and enhancement of the resources of the Roanoke River basin in the best interest of present and future generations of Basin residents. Gene Addesso, RRBA, reported to the VRRBAC this year Virginia Beach was

requested once again to reduce its water withdrawals. This time, Virginia Beach was unable to make the requested reductions because they have a contractual agreement to provide water to Norfolk and Norfolk had built up a credit on demand and was unwilling to drop their demand. This reluctance was apparently due to some work on the Burnt Mills Dam, a flood damaged Blackwater River pumping station, and low flows in the Blackwater River causing Norfolk to experience low capacity. Therefore, while the Basin was experiencing record low in-flows, Virginia Beach continued withdrawing at their maximum level of 60 million gallons per day (mgd). This contractual agreement between Norfolk and Virginia Beach does not come up for renewal until 2030 and appears to be problematic for the Basin. There is great concern among VRRBAC members that other large urban areas may be considering the Basin as a potential source of water. Greensboro and the North Carolina Triangle area have apparently studied the Basin for this purpose. Additionally, during April 2008, the VRRBAC learned that Raleigh, Durham, Cary, and Granville County, North Carolina, have an active request in to the USACE for 26,000 acre-feet (AF) of water from Kerr Reservoir. An allocation from Kerr Reservoir was given in 2006 to Henderson, North Carolina and other partners which according to news reports resulted in the transfer of water out of the Basin, to localities as far south as Franklin County, North Carolina. This water is distributed through the Kerr Lake Regional Water System which was formed by the cities of Henderson and Oxford and serves Vance, Granville, and Warren Counties. Because infrastructure already existed to support a 10 mgd IBT, Kerr Lake Regional Water System is grandfathered to pass up to 10 mgd from the Roanoke to the Tar and Neuse River Basins without the need for a North Carolina inter-basin transfer certificate. Since a certificate was not required there was not a public review process for the grandfathering activity. However, if they ever go above 10 mgd, a certificate would be required. For new, non-grandfathered IBTs, North Carolina requires a permit for withdrawals of 2 mgd or more. VRRBAC is concerned that small inter- basin transfers are being piecemealed to fall under the 2 mgd requirement in North Carolina to require a permit.

Water Withdrawals: The recent 2006 allocation granted by the USACE to the Town of Henderson and others from Kerr Reservoir is discussed above. The water provided for in this agreement came from the USACE existing reallocation of the power pool for water supply as provided by the Water Supply Act of 1958. Also mentioned above is the active request by Raleigh, Durham, Cary, and Granville County, North Carolina, to the USACE for 26000 AF from Kerr Reservoir. This request if granted would leave only 2885 AF for reallocation in Kerr Reservoir. It is imperative that these requests be held pending until an updated policy for water allocation exists with the USACE which meets the water demands of the 21st century. The USACE acknowledges its current "first come, first served" policy does not meet current needs and contributes to increasing water disputes among States across the country. USACE staff informed VRRBAC that USACE is having an internal discussion about this issue and is working to perhaps develop a better policy. VRRBAC is interested in working with Virginia's congressional delegation and the USACE to develop a change in Federal law and policy that would protect regions, like the Basin, with valuable natural water resources from losing these water resources to meet the needs of larger areas that may be facing the depletion of their own natural water resources due to rapid growth. Several VRRBAC members met with members and staff

of the Virginia congressional delegation and staff from the US Army Corps of Engineers (USACE) to discuss this issue. The USACE is encouraging the Bi-State Commission to forge an agreement among Virginia and North Carolina to address this issue regarding the use of water from the Roanoke Basin. It is possible that some more of the remaining allocation in the Kerr Reservoir could be used up if current withdrawers increase their allocations due to lower yields brought about by the new drought of record in 2002. There are also proposed water withdrawals from the Dan River sub-basin at Milton and Eden. Reportedly there are a large number of other requests for withdrawals at Kerr Reservoir. There is concern about the impacts of these withdrawals on the river system and neighboring communities. For instance, even though the proposed Milton withdrawal would be returned to the Basin, the re-entry point would be miles down stream of the withdrawal and below Halifax. Therefore, impacts to a large section of stream and a community could be realized. The group of investors from North Carolina that purchased the Burlington plant in Clarksville along with the water intake/rights has reportedly sold the property to another investor who is talking about locating a water bottling plant there. The original investors had proposed to pipe the water to the Oxford, North Carolina area to serve a new community of 1400 residences, which would have directly impacted the Clarksville area historic water rights in that the water would no longer be available for use in the local community.

Regulation of Flow and Storage: There are interrelationships within the Basin involving flow, as events in one section of the Basin can impact other parts. VRRBAC supports the watershed concept and believes the Basin extends from the headwaters into the Albemarle Sound. Environmental, ecosystem, human health, power generation, aquatic life, and economic needs of the Basin must be balanced. The interconnection between surface water and groundwater is noted. During drought, low groundwater table levels are of concern. Drought/low flow conditions impact beneficial uses of the water and must be defined to aid the planning process. VRRBAC encourages a cooperative approach which considers and involves diverse groups of stakeholders including pertinent agencies. Increased storage has been discussed as an option to consider for future planning purposes. Model development may provide a good tool for understanding the impacts of different conditions on the Basin. The John H. Kerr 216 Study is evaluating discharge and demand data throughout the Basin. In addition the Philpott 216 study is looking at flow related issues in the Smith River below Philpott dam. The Preliminary Licensing Proposal for the Appalachian Power Smith Mountain Lake Project FERC License stated plans to set discharging flows downstream of Leesville Dam in accordance with an established protocol. The protocol would be based on a statistical model which, utilizing various trigger points would result in changes to the minimum flows to be released downstream. Many meetings among basin stakeholders, Appalachian Power DEO, DCR and DGIF have occurred in the past 2.5 years in an attempt to jointly craft a balanced release protocol to better address upstream and downstream water needs and expectations. Similar efforts to establish a more balanced release protocol have been ongoing since 2000 and often see a resurgence of public interest during periods of drought. The lake community and downstream community agreed on several of the issues regarding the release but disagreed on the maintenance of lake levels and the amount of the release. The lake community wanted higher overall lake levels maintained

and cited fire protection, emergency response, and navigational safety problems during drought conditions in addition to future water withdrawals and limits on recreation as problems. Downstream users stressed the importance of maintaining flow levels for recreation and fisheries. After receiving public comment, the State Water Control Board voted to issue a Virginia Water Protection permit to Appalachian Power. The permit contains conditions that governed minimum releases. The new releases do not take effect until FERC issues Appalachian Power Company (APCO) a new license. The important components of the permit regarding minimum releases are as follows:

- A phased approach is presented: as a drought worsens, the minimum releases are reduced, instead of having a single minimum release which was a feature of the last FERC license.
- A time of year sensitive minimum release: stream flow naturally drops in the summer and fall, and rises in the winter and spring; therefore the target flows for aquatic life in the permit reflect these natural cycles.
- A probabilistic approach to setting minimum releases: a simulation model uses an algorithm that takes into account inflow, the present storage condition, the time of year and the prospects of future inflows based upon the stream flow records of the past, and sets the minimum releases accordingly.
- An approach that takes into account the timing of recreation: under drought conditions minimal recreation flows are only provided on weekends and holidays between Memorial Day and Labor Day. In trigger 2 and trigger 3 drought conditions, minimal recreation flow is provided for only 12 hours during daylight on Saturdays. No recreation flows are specified outside of these times.
- An approach which takes into account the flows of tributaries below Leesville Dam: If Goose Creek and Big Otter Creek are running strong, releases from Leesville Dam will be reduced in order to conserve water in the lake while still meeting in-stream flow targets for aquatic life downstream.
- Adaptive management: the permit features a condition that allows DEQ to grant a
 variance if Trigger 3 activates. The permit requires that the Appalachian Power
 hold a public meeting on the performance of the operating protocol in protecting
 lake levels and in-stream beneficial uses five years after the protocol is
 implemented and report back to DEQ with any recommendations for
 modification.

The final permit was modified slightly from the draft permit. In an effort to conserve water caps were placed on the volume of water that would be released in order to try to hit the targets at Brookneal. Also APCO is allowed to switch to the lower June flows as soon as DGIF certifies that the striped bass spawning run is complete. APCO is required to build up extra storage right before the striped bass spawning run. Actual releases will vary as APCO attempts to hit their targets at Brookneal but the new minimum release is 375 cubic feet/second(cfs), down from 650 cfs in the original license.

<u>Basin-wide Dialogue</u>: A goal of the VRRBAC is to open channels of communication. It is important that dialogue take place which is representative of all areas of the Basin. Speakers representing different geographic areas and interests have addressed VRRBAC.

There must be rural and urban cooperation on water issues. Subcommittees have been directed to promote such an effort through discussion and collaboration. Broad public support of policy and regional consensus is the best way to bring about positive change associated with environmental and related health issues. Better efficiency of protection efforts will result if all partners, public, private, federal, state, and local officials, share and leverage resources. Such coordination and consensus building in the entire Basin on watershed management issues is essential to sound watershed decision making and management. Communication must extend across the boundary line of Virginia and North Carolina. In an effort to begin the dialogue with North Carolina, the Committee has invited speakers from the North Carolina Department of the Environment and Natural Resources, Albemarle-Pamlico National Estuary Program, and a North Carolina local community to discuss pertinent issues in the Basin. The importance of the Albemarle-Pamlico Estuary is recognized. There are free flowing streams that bi-state collaboration could help improve and protect. It is VRRBAC's intent to work cooperatively with North Carolina and its structure is designed accordingly. Since the counterpart North Carolina committee is now meeting it appears that the Roanoke River Basin Bi-State Commission will begin meeting next year.

Policy and Planning: VRRBAC is interested in promoting policy that protects and makes wise use of the Basin's resources. A recent initiative is to help develop an inventory of "Brownfields" sites for the Basin. To start this inventory, VRRBAC has contacted Basin localities and asked that they inventory their sites. In addition, VRRBAC worked with the Basin PDCs to target people to invite to a Brownfields Educational Forum which was held in Halifax on June 14, 2007 and attended by approximately 30 people. "Brownfields" are abandoned, idled, or under-used industrial and commercial property where expansion or redevelopment is complicated by real or perceived environmental contamination. These are attractive real estate opportunities, however, due to their location, price, and existing infrastructure. Brownfield sites attract capital reinvestment, increase local tax revenue, stimulate local economy, increase adjacent property values, retain jobs, create jobs, conserve land, and ease locality infrastructure expenses. To redevelop these sites is good public policy which provides environmental and economic benefits. It might be prudent for Virginia to use some of its money earmarked for conservation to help fund "Brownfields" redevelopment. VAPDC asked the General Assembly to support the Virginia Brownfields Restoration and Economic Redevelopment Assistance Fund in their 2008 Legislative Agenda. This was not funded last year and given the current financial conditions it is doubtful that funding will occur any time soon.

VRRBAC has participated on the Technical Advisory Committee for the State Water Policy and Regulation development and members are currently working at the local level on water supply plans. VRRBAC has participated on the John H. Kerr 216 Sponsors Advisory Committee, the Philpott 216 Water Quality and Water Supply Planning Committees, and the FERC re-licensing effort and Shoreline Management Plan development at Smith Mountain Lake.

Landfills have been a topic of discussion at many VRRBAC meetings. Members have heard and discussed pertinent planning issues including the importance of defining low flow conditions, local control of land use decisions, forestland conservation, public river

access for recreation and fishing, flooding, storm water management, water and sewer systems, and water reuse. VRRBAC has discussed new ideas on how to accomplish land conservation such as the purchase of development rights programs for farms and forests, transfer of development rights, compensation to non-industrial private forests, and the use of long term rather than perpetual conservation agreements. Members also have agreed that because Virginia and North Carolina share the Basin and both Lake Gaston and Kerr Reservoir are on the boundary of the States, a commonality in water policy and regulations could enhance the management of issues involving the two States. Opportunities also exist to work together on stream issues.

<u>Biosolids</u>: VRRBAC has discussed this growing issue at numerous meetings. Members are receiving complaints from their citizens often about out of state biosolids being spread in Virginia. Concerns are generally about odor, possible health issues, and traffic issues. Legislative members have been involved in new legislation over the last several years regarding biosolids. A VRRBAC future meeting is planned to educate the members about the new regulations, transfer of the biosolids program from VDH to DEQ, issues and concerns about the land application of biosolids including public health concerns, agronomics, the wastewater treatment plant viewpoint, and a tour of an application site.

Environmental Education: A frequent comment at VRRBAC meetings is that behavioral changes and new environmental practices start with the children. They bring the information home and get the adults on board. This is certainly true but adults need to be involved in environmental education as well. In examining its mission during 2007, VRRBAC became interested in facilitating environmental education in the region and began looking for good examples of both youth and adult education in action. To educate the VRRBAC members on pertinent Basin activities and to help identify ways the Committee might facilitate the process, a focus meeting was held on September 6, 2007 at the Riverstone Technology Center, Halifax County. Angela Neilan, DEQ, put together a panel of people involved with environmental education in the region.

A listing of techniques, aides, and methodologies used to promote environmental education includes: Standards of Learning (SOLs), Science Fairs and Envirothon competitions, Adopt a Stream/Adopt a River and Storm Drain Stenciling programs, brochures on topics such as yard care and living in karst geology, youth conservation corps, promoting stewardship and linking water quality, recreation, and natural resources to economic development and tourism, promotion of best management practices, leveraging and sharing of resources, the Virginia Naturally Network, teacher and citizen workshops on relevant topics, outdoor classrooms for schools, funding scholarships for teachers to attend environmental education conferences, environmental festivals, prepared environmental curricula, newsletters, community education programs and projects, citizen monitoring groups, and corporate sponsorship for environmental education, citizen monitoring, and roundtable activities.

Some ideas which came out of this discussion are 1.) Explore partnership opportunities which exist with the groups present, 2.) Incorporate programs such as Adopt a Stream

and Storm Drain Stenciling into school programs, 3.) Promote citizen monitoring, river roundtables and similar citizen education programs to get communities more involved, 4.) Partner and support one another on collaborative grant opportunities, 5.) Investigate environmental education offered by local community colleges, Southern Virginia Higher Education Center, Founders College, and other higher learning facilities are offering and explore how VRRBAC members how can help, and 6.) Use the State parks such as Staunton River and Fairy Stone for environmental educational events.

The session enlightened members and each other about the efforts underway in the region. Groups present at the meeting have started collaborating on projects.

Invasive Species: VRRBAC has discussed issues regarding Hydrilla and other invasive species such as Zebra mussels. The Lake sub-committee received public questions about the lack of funding to control Hydrilla at Lake Gaston and the effectiveness of treatment. The Committee listened to a presentation on the treatment of hydrilla and toured Lake Gaston to view the problem during the high growth season. Hydrilla has also been identified at Smith Mountain Lake. The Tri-County Lake Administrative Commission (TLAC) immediately initiated efforts to control and manage the Hydrilla. An area of more than 140 acres was treated with a systemic herbicide. Additionally, 10 smaller beds, in other locations, were identified later in the season and treated with a contact herbicide. TLAC is currently attempting, particularly through legislative efforts, to identify sources of funding for this initiative for future years. There have also been reports of small amounts of Hydrilla found in Kerr Reservoir.

Recreation and Fishing: Concerns have been expressed to VRRBAC about the striped bass and other fisheries. VRRBAC members have toured the Vic Thomas Striped Bass Hatchery and DGIF staff discussed the resource. White Bass reportedly came back recently after a near collapse of the fishery. The importance of fishing and other water sports to the economic health of the region is substantial. Franklin and Bedford Counties have hosted a Bass Masters Tournament at Smith Mountain Lake. American Shad and American Eel Restoration programs are being conducted in Virginia. It is noted that the Albemarle-Pamlico National Estuary Program area of influence stops at the first impound ment, even though the Estuary fisheries are impacted by the upstream structures.

Water Quality: The generally good water quality of the Basin is valued by VRRBAC and is recognized as a characteristic that must be preserved. Sediment has been identified as the most widespread pollution problem within the Basin and the State. It is understood that everything we do on the land affects the quality of water in our rivers and streams. We must prevent pollution from running off land to waterways. One obvious key to this effort is to stop forestland loss and fragmentation. A healthy forest watershed in contrast to other land uses provides a higher quantity and quality of water yields, lower storm flow peaks and volumes for a given input of rainfall, the greatest soil stability and the lowest levels of soil mass movement, gully erosion and surface erosion, and exports the lowest levels of sediment downstream. The VRRBAC members are familiar with various subjects associated with protection of water quality including storm water management, animal waste regulations, Total Maximum Daily Loads (TMDLs), Low Impact Development (LID) techniques, BMPs for agriculture, forestry, and urban development,

Biological Source Tracking (BST), Nutrient Management Plans (NMP), biosolids, forestland conservation, conservation easements, and the impact of air pollution on water quality. Water reuse, the Virginia Water Protection (VWP) permit program, and desalination have also been discussed. Proposed uranium mining in the basin has been briefly discussed and is a likely topic for further discussion within the Committee. Local and regional leadership could provide valuable support for the TMDL process and the associated implementation of BMPs and other strategies to correct pollution problems. Baseline water quality conditions should be established so that short and long term trends in water quality can be monitored.

Lakes: Smith Mountain, Leesville, Buggs Island/Kerr, Gaston, and Philpott Lakes are recognized as valuable resources for the Basin. The economic impact of these resources to the local and regional community is great. Concerns have been expressed to VRRBAC at public meetings about problems at these lakes. Some of these matters are debris management/removal, drought and low water levels, reports of bad water quality, impaired tributaries, lack of funding for water quality monitoring, placement and maintenance of navigational aides, controlling privy waste from boats, enforcement of boating laws, exotic invasive species, shoreline management plans and dock control, PCB contamination, septic tank issues, wild bird feeding and the accompanying contamination issue, siltation, recreational access, and safety issues/enforcement. Many of these issues can hurt the image of the lakes and can have a negative effect on the economy. There has been considerable concern over water safety issues. At Smith Mountain Lake, a group has interacted with the legislature and DGIF on boater training, licensing, speed, noise control and also extra patrols from DGIF. Legislation has been passed addressing increased patrols by DGIF, boater training, boating under the influence (BUI), and making it a felony to maim someone due to BUI. It has been suggested that the Lakes sub-committee prepare a position paper on lake water safety and bring a draft resolution before the Committee.

VIII. 2008 Presentations to the Committee

- Rick Linker, DEQ, "Legislation Regarding DEQ Citizen Boards"
- Jason Hill, DEQ Freshwater Probabilistic Monitoring Coordinator, "Probabilistic Monitoring Data in Virginia"
- Bill Brush, Smith Mountain Lake Association(SMLA); "Appalachian Power Company's Proposal for Water Management at the Smith Mt. Lake Project"
- Gene Addesso, RRBA; "Roanoke River Basin Association Update"
- Hank Maser, USACE, "Presentation to the Virginia Roanoke River Basin Advisory Committee"
- Phil Fragapane, NC DENR Water Resources; "NC Law Regarding the Inter Basin Transfer of Water"

- Scott Kudlas, DEQ Office of Water Supply Planning; "Virginia's Current Regulations and How That Might Change"
- Joe Hassel, DEQ, "Smith Mountain Project Draft VWP Permit"
- Cole Poindexter, Staunton River Watch; Downstream Viewpoint
- JT Davis, Friends of the Staunton River, "Downstream Viewpoint (continued)"
- Bill Brush, SMLA, "Analysis of the SM Project Draft VWP Permit"

IX. VRRBAC Resolutions and Positions

- VRRBAC is opposed to any inter-basin transfers that would have a substantial negative impact on the people of the Basin. The overall consensus of VRRBAC is that the group must protect the water resources and growth potential. Water resources are recognized as essential for the economic vitality of the Basin.
- VRRBAC is opposed to any new water withdrawal until such time that the real and
 potential needs for the foreseeable future are determined. Furthermore, VRRBAC
 intends to ask the corresponding committee in North Carolina to support this motion
 as soon as they become active.
- VRRBAC strongly supports the appropriation by the General Assembly of funds to the DEQ for grants to localities and regional planning districts to meet the requirements of the State Water Supply Planning Regulation.
- VRRBAC supports funding for controlling hydrilla at Lake Gaston and in Smith Mountain Lake.
- VRRBAC supports the recent Virginia Initiatives for Invasive Vegetation and Invasive Species to deal with hydrilla, zebra mussels, snakeheads, etc. VRRBAC favors funding for these efforts to provide leadership, technical expertise, and corrective actions as appropriate to mitigate and prevent these ecological and economic damaging agents.
- VRRBAC supports a balanced flow regime for the rivers and lakes of the Basin. It
 recommends that all governmental agencies, stakeholders, and private industry work
 together to balance all interests.
- VRRBAC is concerned with the volume of solid and bio-solid waste entering
 Virginia and the Basin. VRRBAC supported the 2005 Joint Legislative Audit and
 Review Commission study on the effectiveness of the Bio-Solids program regulations
 and management thereof and the implementation of appropriate recommendations
 from this study.

- VRRBAC supports the TMDL process and the implementation of BMPs, and other strategies such as Conservation Easements, Low Impact Development Techniques, and Nutrient Management Plans to correct pollution problems. VRRBAC strongly supports additional funding to implement these practices which will reduce pollution to streams.
- VRRBAC believes a critical issue on all the lakes is the concern for safety.
 VRRBAC supported the increased funding for DGIF to address this shortfall as traditional DGIF funding for hunting and fishing are inadequate to cover enforcement for such large recreation areas. The Virginia Compensation Board's formula of one deputy for 1500 residents should also be reviewed to include consideration of additional local law enforcement personnel for jurisdictions with large lakes.
- VRRBAC supports the inclusion of the Roanoke/Staunton River and the other
 southern rivers in all efforts to fund waste water treatment plant upgrades and other
 water quality resource improvements in Virginia; and further urges that in a spirit of
 equity such funding be provided on a pro rata basis to communities and other entities
 commensurate with the land mass and river miles in each watershed.
- VRRBAC supports the Virginia "Brownfields" Program and encourages the Basin localities to make listings of their sites so that an inventory of Basin sites is developed.
- VRRBAC supports strategic increases in funding for land conservation in the biennial budget including additional appropriations for the Virginia Land Conservation Foundation, the Office of Farmland Preservation for establishment of a state fund to match local government purchases of development rights for the preservation of working farms and forest, and the Virginia Outdoors Foundation. It is the recommendation of this Committee that these funds be appropriated in addition to, and not instead of the state tax credit currently offered for the donation of conservation easements in Virginia.
- VRRBAC is interested in working with Virginia's congressional delegation and the USACE to develop a change in Federal law and policy that would protect regions, like the Basin, with valuable natural water resources from losing these water resources to meet the needs of larger areas that may be facing the depletion of their own natural water resources due to rapid growth.

Appendix A

Chapters 5.4 and 5.5 of Title 62.1 of the Code of Virginia

Chapter 5.4

§ 62.1-69.34. Virginia Roanoke River Basin Advisory Committee established; purpose; membership; terms; meetings.

A. The Virginia Roanoke River Basin Advisory Committee, hereinafter referred to as the "Committee," is hereby established in the executive branch of state government as an advisory committee to the Virginia delegation to the Roanoke River Basin Bi-State Commission. The Committee shall assist the delegation in fulfilling its duties and carrying out the objectives of the Commission, pursuant to § 62.1-69.39. The advisory committee shall be composed of 23 members as follows: two members of the Senate, whose districts include a part of the Virginia portion of the Roanoke River Basin, to be appointed by the Senate Committee on Rules; four members of the House of Delegates, whose districts include a part of the Virginia portion of the Roanoke River Basin, to be appointed by the Speaker of the House of Delegates in accordance with the principles of proportional representation contained in the Rules of the House of Delegates; one nonlegislative citizen member at large appointed by the Senate Committee on Rules; one nonlegislative citizen member at large appointed by the Speaker of the House of Delegates; 11 nonlegislative citizen members selected by the legislative members of the advisory committee such that two are chosen from recommendations of each of the following: the Central Virginia Planning District Commission, the West Piedmont Planning District Commission, the Southside Planning District Commission, the Piedmont Planning District Commission, and the Roanoke Valley Alleghany Planning District Commission; and one member selected by the legislative members of the advisory committee from among recommendations submitted by the New River Valley Planning District Commission; and the Virginia member of the United States House of Representatives, whose district includes the largest portion of the Basin, or his designee, and three representatives of the State of North Carolina appointed in a manner as the General Assembly of North Carolina may determine appropriate. Except for the representatives of North Carolina, all nonlegislative citizen members shall be citizens of the Commonwealth of Virginia. The Virginia member of the United States House of Representatives, the members of the Virginia General Assembly, and the representatives of North Carolina shall serve ex officio without voting privileges. Of the recommendations submitted by planning district commissions authorized to recommend two members, one member shall be a nonlegislative citizen who resides within the respective planning district. However, the New River Valley Planning District Commission may recommend either one nonlegislative citizen at large who resides within the planning district or one member, who at the time of the recommendation, is serving as an elected member or an employee of a local governing body, or one member of the board of directors or an employee of the planning district commission. All persons recommended by the planning district commissions to serve as members of the advisory committee shall reside within the Basin's watershed. represent the diversity of interests in the jurisdictions comprising the respective planning district commissions, and demonstrate interest, experience, or expertise in water-related Basin issues. B. State and federal legislative members and local government officials appointed to the advisory committee shall serve terms coincident with their terms of office. Nonlegislative citizen members appointed by the Senate Committee on Rules and the Speaker of the House of Delegates to serve on the advisory committee, and ex officio members representing the State of North Carolina shall serve a term of two years. Initially, planning district commissions authorized to recommend two nonlegislative citizen members to the advisory committee shall recommend one member for a term of two years and one member for a term of one year. However, the nonlegislative citizen member recommended to serve on the advisory committee by the New River Valley Planning District Commission shall serve a term of one year. After the initial staggering of terms, the term of office of nonlegislative citizen members recommended by the planning district commissions shall be for two years. Nonlegislative citizen members recommended by planning district commissions shall be eligible for reappointment, if such members shall have attended at least one-half of all meetings of the Commission during their current term of service. Nonlegislative citizen members shall serve for no more than three consecutive two-year terms. Appointments to fill vacancies,

other than by expiration of a term, shall be made for the unexpired terms. Vacancies shall be filled in the same manner as the original appointment. The remainder of any term to which a nonlegislative citizen member is appointed to fill shall not constitute a term in determining the member's eligibility for reappointment.

The advisory committee shall elect a chairman and a vice-chairman from among its voting members. A majority of the voting members shall constitute a quorum. The meetings of the advisory committee shall be held at the call of the chairman or whenever the majority of the voting members so request.

§ 62.1-69.35. Compensation and expenses.

Legislative members of the advisory committee shall receive such compensation as provided in § 30-19.12, and non-legislative members shall receive such compensation for the performance of their duties as provided in § 2.2-2813. All members shall be reimbursed for all reasonable and necessary expenses incurred in the performance of their duties as provided in §§ 2.2-2813 and 2.2-2825. Funding for the costs of compensation and expenses of members shall be paid from such funds as may be provided to the Department of Environmental Quality in the appropriations act for this purpose.

§ 62.1-69.35:1. Staffing.

The Department of Environmental Quality shall provide staff support to the advisory committee. All agencies of the Commonwealth shall provide assistance to the advisory committee, upon request.

§ 62.1-69.35:2. Chairman's executive summary of activity and work of the advisory committee. The chairman of the advisory committee shall submit to the Governor and the General Assembly an annual executive summary of the interim activity and work of the advisory committee no later than the first day of each regular session of the General Assembly. The executive summary shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

Chapter 5.5

§ 62.1-69.36. Definitions.

As used in this chapter, unless the context requires a different meaning:

"Basin" means the Roanoke River Basin.

"Roanoke River Basin" means that land area designated as the Roanoke River Basin by the Virginia State Water Control Board, pursuant to § 62.1-44.38, and the North Carolina Department of Environment and Natural Resources.

§ 62.1-69.37. Roanoke River Basin Bi-State Commission established; purpose.

The Roanoke River Basin Bi-State Commission is hereby established as a bi-state commission composed of members from the Commonwealth of Virginia and the State of North Carolina and hereinafter referred to as the Commission. The Commission shall:

- 1. Provide guidance, conduct joint meetings, and make recommendations to local, state and federal legislative and administrative bodies, and to others as it deems necessary and appropriate, regarding the use, stewardship, and enhancement of the Basin's water and other natural resources;
- 2. Provide a forum for discussion of issues affecting the Basin's water quantity, water quality, and other natural resources:
- 3. Promote communication, coordination and education among stakeholders within the Basin;
- 4. Identify Basin-related problems and recommend appropriate solutions; and
- 5. Undertake studies and prepare, publish, and disseminate information through reports, and other communications, related to water quantity, water quality and other natural resources of the Basin.

§ 62.1-69.38. Membership; terms.

A. The Commission shall be composed of 18 voting members that include nine members representing the Commonwealth of Virginia and nine members representing the State of North Carolina. The Virginia delegation shall consist of the six legislative members appointed to the Virginia Roanoke River Basin Advisory Committee, and three nonlegislative citizen members appointed to the Virginia Roanoke River

Basin Advisory Committee, who represent different geographical areas of the Virginia portion of the Roanoke River Basin, to be appointed by the Governor of Virginia. The North Carolina delegation to the Commission shall be appointed as determined by the State of North Carolina. All members appointed to the Commission by the Commonwealth of Virginia and the State of North Carolina shall reside within the Basin's watershed. Members of the Virginia House of Delegates and the Senate of Virginia, the North Carolina House of Representatives and Senate, and federal legislators, who have not been appointed to the Commission and whose districts include any portion of the Basin, shall serve as nonvoting ex officio members of the Commission.

B. Legislative members of the Virginia delegation, federal legislators, and local government officials, whether appointed or ex officio, shall serve terms coincident with their terms of office. Nonlegislative citizen members shall be appointed to serve two-year terms, unless the member is reappointed by the appointing authorities of each state. Appointments to fill vacancies, other than by expiration of a term, shall be made for the unexpired terms. Vacancies shall be filled in the same manner as the original appointment. C. Each state's delegation to the Commission may meet separately to discuss Basin-related issues affecting their state, and may report their findings independently of the Commission. A majority of the voting members shall constitute a quoru m.

§ 62.1-69.39. Roanoke River Basin Bi-State Commission powers and duties.

A. The Commission shall have no regulatory authority.

- B. To perform its duties and objectives, the Commission shall have the power to:
- 1. Develop rules and procedures for the conduct of its business or as may be necessary to perform its duties and carry out its objectives, including, but not limited to, selecting a chairman and vice-chairman, rotating chairmanships, calling meetings and establishing voting procedures. Rules and procedures developed pursuant to this subdivision shall be effective upon an affirmative vote by a majority of the Commission members:
- 2. Establish standing and ad hoc advisory committees, which shall be constituted in a manner to ensure a balance between recognized interests. The purpose of each advisory committee shall be determined by the Commission:
- 3. Seek, apply for, accept and expend gifts, grants and donations, services and other aid from public or private sources. With the exception of funds provided by the planning district commissions and funds appropriated by the General Assemblies of Virginia and North Carolina, the Commission may accept funds only after an affirmative vote by a majority of the members of the Commission or by following such other procedures as may be established by the Commission for the conduct of its business;
- 4. Establish a nonprofit corporation to assist in the details of administering its affairs and in raising funds;
- 5. Enter into contracts and execute all instruments necessary or appropriate; and
- 6. Perform any lawful acts necessary or appropriate for the furtherance of its work.

§ 62.1-69.40. Standing and ad hoc committees.

To facilitate communication among stakeholders in the Roanoke River Basin, and to maximize participation by all interested parties, the Commission shall establish both standing and ad hoc committees. The Commission shall appoint the members of the standing and ad hoc committees, in accordance with guidelines adopted by the Commission. The standing committees shall include, but not be limited to, the following:

- 1. Permit holders. The Commission shall identify those entities that hold permits issued by a federal, state or local regulatory agency pertaining to the water of the Basin. Such entities may recommend a representative to be appointed to the committee by the Commission;
- 2. Roanoke River Basin interest groups. The Commission shall identify interest groups that may recommend a representative to be appointed to the committee by the Commission;
- 3. Public officials and government entities. The committee shall be composed of representatives of each county, city and town located completely or partially within the Basin, and any other governmental entities that the Commission deems appropriate may recommend one member to be appointed to the committee by the Commission. The committee may also include the U.S. Senators from Virginia and North Carolina or their designees, and any member of the U.S. House of Representatives or his designee, whose district includes any portion of the Basin, if such members elect to serve on the committee; and
- 4. Agriculture, forestry and soil and water conservation districts. The Commission shall identify persons who represent agricultural and forestry interests throughout the Basin and representatives from the soil and

water conservation districts within the Basin and shall appoint representatives from these groups to the committee.

§ 62.1-69.41. Staffing and support.

The Virginia Department of Environmental Quality and the North Carolina Department of Environment and Natural Resources shall provide staff support to the Commission. Additional staff may be hired or contracted by the Commission through funds raised by or provided to it. The duties and compensation of such additional staff shall be determined and fixed by the Commission, within available resources. All agencies of the Commonwealth of Virginia and the State of North Carolina shall cooperate with the Commission and, upon request, shall assist the Commission in fulfilling its responsibilities. The Virginia Secretary of Natural Resources and the North Carolina Secretary of the Department of Environment and Natural Resources or their designees shall each serve as the liaison between their respective state agencies and the Commission.

§ 62.1-69.42. Funding.

A. The Commission shall annually adopt a budget, which shall include the Commission's estimated expenses. Funding for the Commission shall be shared and apportioned between the Commonwealth of Virginia and the State of North Carolina. The appropriation of public funds to the Commission shall be provided through each state's regular process for appropriating public funds. The Virginia planning district commissions within the Basin shall bear a proportion of Virginia's share of the expenses, which may be in the form of in-kind contributions.

B. The Commission shall designate a fiscal agent.

C. The accounts and records of the Commission showing the receipt and disbursement of funds from whatever source derived shall be in such form as the Virginia Auditor of Public Accounts and the North Carolina State Auditor prescribe, provided that such accounts shall correspond as nearly as possible to the accounts and records for such matters maintained by similar enterprises. The accounts and records of the Commission shall be subject to an annual audit by the Virginia Auditor of Public Accounts and the North Carolina State Auditor or their legal representatives, and the costs of such audit services shall be borne by the Commission. The results of the audits shall be delivered to the appropriate legislative oversight committees in each state.

§ 62.1-69.43. Compensation and expenses.

A. Legislative members of the Virginia delegation to the Commission shall receive such compensation as provided in § 30-19.12, and non-legislative members shall receive such compensation for the performance of their duties as provided in § 2.2-2813. All voting members shall be reimbursed for all reasonable and necessary expenses incurred in the performance of their duties as provided in § § 2.2-2813 and 2.2-2825. However, all such expenses shall be paid from existing appropriations and funds provided to the Commission or, if unfunded, shall be approved by the Joint Rules Committee.

Members of the Virginia House of Delegates and the Senate of Virginia, and members of the Virginia Congressional delegation, who have not been appointed to the Commission, whose districts include any portion of the Basin, and who serve as nonvoting ex officio members of the Commission shall serve without compensation and expenses.

Nonlegislative citizen members appointed to any standing committees or ad hoc committees shall serve without compensation and expenses.

- B. The North Carolina members of the Commission shall receive per diem, subsistence, and travel expenses as follows:
- 1. Ex officio legislative members who are members of the General Assembly at the rate established in North Carolina G.S. 138-6;
- 2. Commission members who are officials or employees of the State or of local government agencies at the rate established in North Carolina G.S. 138-6; and
- 3. All other members at the rate established in North Carolina G.S. 138-5.

§ 62.1-69.44. Annual report required.

The Commission shall submit an annual report, including any recommendations, to the Governor and General Assembly of Virginia and the Governor and General Assembly of North Carolina.