



## Rivanna River Basin Commission

A CONFLUENCE OF INTERESTS

February 28, 2012

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Subject: Route 29 Bypass, Agency Scoping

Dear Mr. Collins,

Thank you for your letter of January 27, 2012, inviting comment from the Rivanna River Basin Commission on whether there is new information or circumstances relevant to environmental concerns and bearing on the proposed project and its impacts since completion of the previous studies.

The Rivanna River Basin Commission (RRBC) was enabled by Virginia statute in 2004 and has been meeting since 2007. We are charged with providing guidance for the stewardship and enhancement of the water and natural resources of the Rivanna River Basin, including suggesting appropriate solutions to identified problems that foster resource stewardship for the environmental and economic health of the Basin.<sup>1</sup>

The previous studies mentioned in your letter include the Environmental Impact Statement (EIS) of 1992 and the Supplemental Environmental Impact Statement (SEIS) of 2003. We have reviewed these project documents and studies that have been completed since 2003, and offer the following new information and circumstances for your consideration.

1. **Virginia 2010 303(d) Report.** Since the development of the SEIS, several segments of Ivy Creek and the South Fork Rivanna River have been listed as impaired on Virginia's 303(d) list for violation of the General Standard for Benthics:

H26R-03-BEN (2008 initial listing; segment lengthened in 2010)

H26R-04-BEN (2010)

H28R-01-BEN (Initial listing dates 2006 and 2010; included in EPA approved Rivanna River Benthic TMDL Federal ID 3 34524/34525)

These impairment sources are listed as non-point source, municipal (urbanized high density area), dam/impoundment, or unknown. The completed TMDL study (H28R-01-BEN) identifies urban stormwater as the source of impairment. This study includes the South Fork Rivanna River below the South Fork Rivanna Reservoir dam.

<sup>1</sup> Chapter 5.6 (§ 62.1-69.45 et seq.) of Title 62.1 of the Code of Virginia.

The RRBC recommends that the existence of impaired waterways, identified through studies completed following the SEIS, points to the need for a comprehensive update of the SEIS to evaluate how the bypass might impact these waterways and efforts to restore their health.

2. **StreamWatch Land Use Effects Study (2011).** A key finding from the 2011 StreamWatch Land Use Study<sup>2</sup> (specific to the Rivanna River basin and developed through analysis of multi-year, multi-site sampling) is that water quality health declines rapidly as land use intensifies. Exurban streams (such as those along the path of the proposed roadway) decline rapidly with increased development or deforestation. The StreamWatch model predicts that stream health in these watersheds range from “poor to very poor” to “fair to good, leans fair.”

We recommend that a thorough review of potential impacts to all the tributaries and river segments traversed by the proposed roadway be conducted in light of this recent study of land use effects in the Rivanna watershed.

3. **Rivanna and Vicinity Land Use Land Cover Map (2009).** The RRBC and its partners produced a high resolution (1-meter) map of land use and land cover for the Rivanna watershed and surrounding areas based on 2009 aerial imagery. This map is available at <http://www.rivannariverbasin.org/Rivanna-maps-tools.php>. Land use categories have been “cross walked” (translated to equivalent land uses) with the Chesapeake Bay Model 5.3.2 by RRBC and others during the development of the Chesapeake Bay TMDL Phase II WIP submissions by local governments.

To our knowledge, this is the best land use data available for the route of the proposed roadway, and we recommend that VDOT use this in future studies and analyses.

4. **Chesapeake Bay TMDL and Virginia Watershed Implementation Plan (2010).** The route of the proposed 29 Bypass was selected and preliminary designs developed during an era when efforts to achieve water quality in the Chesapeake Bay watershed were voluntary. Since then, the USEPA developed the Chesapeake Bay TMDL (December 2010) and is working with Bay jurisdictions to develop the Phase II Watershed Implementation Plan (WIP II) to achieve pollution load reductions of nutrients and sediments. Land clearing and the resultant impervious surfaces for this roadway will have an impact on local government’s ability to achieve nutrient and sediment load reductions called for by the Bay TMDL.

We recommend that VDOT explicitly quantify the land use changes and proposed BMPs (and their drainage treatment areas) using the Chesapeake Bay Model and provide this information to local government in its evaluation of impacts of the roadway on efforts to protect and restore local stream health and contribute to the Chesapeake Bay clean up effort.

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<sup>2</sup> *StreamWatch Land Use Study*, Charlottesville: StreamWatch (2010). Accessed at <http://www.streamwatch.org/lus>.

5. **RRBC Stormwater Management and Best Management Practices (2009).** In 2009, the RRBC identified excessive sediment resulting from hydromodification (“altered hydrology”) as the prime threat to the health of Rivanna streams. RRBC recommended that Rivanna local governments practice advanced stormwater management to reduce the volume of stormwater runoff and to implement best management practices (BMPs) that are most effective in reducing the quantity of runoff in addition to treating water quality. Virginia’s new stormwater management regulations encourage BMPs that effectively manage water quantity by increasing infiltration.

If the project proceeds, RRBC encourages the use of the most effective stormwater practices based on current science and evaluation and, to the degree possible, replicate the hydrology of the original forested condition (the highest and best used from the perspective of watershed protection).

6. **Community Water Supply.** Since the preparation of the SEIS, the community water supply plan, developed by the Rivanna Water and Sewer Authority and approved by the City of Charlottesville and the Albemarle County Service Authority, is now being implemented. The water supply plan calls for increasing the impoundment at the Ragged Mountain Reservoir so that it may eventually receive water routed from the South Fork Rivanna River via a pipeline system that will connect the two reservoirs.

The recently adopted community water supply plan that includes a pipeline connecting the South Fork and Ragged Mountain reservoirs is a significant new project since the SEIS in 2003, and this suggests the need for a comprehensive review of the impacts of the roadway anticipated during the construction and operational use.

We appreciate this opportunity to offer our comments on new factors, studies, and circumstances that exist that are relevant to evaluating the environmental impact of the construction of a significant roadway in proximity to and over a major tributary of the Rivanna River.

Please do not hesitate to be in touch with me at (434) 971-7722 if you have any questions or wish further information.

Sincerely,



Leslie Middleton  
Executive Director

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