

**Final Summary  
Technical Advisory Committee  
Rivanna River Basin Commission**

July 13, 2007

2:00 pm

The Nature Conservancy  
490 Westfield Road, Charlottesville

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**Attendance**

***TAC Members***

***Present:***

Ms. Tamara Ambler, Albemarle County

Mr. Sam Austin, USGS Virginia Water Science Center

Mr. Roger Black, Fluvanna County

Ms. Kate Cooper, Fluvanna County

Ms. Louise Finger, Virginia Department of Game and Inland Fisheries

Ms. Rochelle Garwood, Thomas Jefferson Planning District Commission

Mr. Chris Gensic, City of Charlottesville

Mr. Ed Imhoff

Mr. John McClain, Virginia Department of Transportation

Mr. John Murphy, StreamWatch

Ms. Kristel Riddervold, City of Charlottesville

Ms. Alyson Sappington, Thomas Jefferson Soil and Water Conservation District

Mr. Ridge Schuyler, The Nature Conservancy

Ms. Andrea Terry, Rivanna Water and Sewer Authority

Mr. Greg Wilchels, Culpeper Soil and Water Conservation District

***Absent:***

Mr. Travis Estes, Greene County

Ms. Stephanie Golon, Greene County

Mr. Greg Harper, Albemarle County

Mr. David Hirschman, Center for Watershed Protection

Mr. Wil Smith, U.S. Fish and Wildlife Service

***Rivanna River Basin Commission (Commission) Members Present***

Ms. Sally Thomas, Albemarle County Board of Supervisors

Mr. John Martin, Albemarle County Citizen

**1. Introductions**

Mr. Schuyler welcomed the group. He said that at some point, the TAC should appoint a Chair to run meetings and give reports to the Commission from TAC meetings. In the interest of time

though, he thought it best if he ran this meeting and a Chair is established for future meetings. Everyone agreed. Participants introduced themselves.

## **2. Background on Rivanna River Basin Commission**

Mr. Schuyler provided a brief background on the purpose of the Commission, how the Commission was established, the role of the Technical Advisory Committee, and the roles of the fiscal agent and project manager.

## **3. Discuss major threats to health of the Rivanna watershed and identify top three threats the Commission should focus on**

The purpose of this discussion was to come up with the top threats to the watershed and make a recommendation to the Commission about what threat(s) the Commission should focus on. The goal was to determine if there was consensus on certain threats and to get a sense of how confident everyone was about the importance of the threats to the health of the watershed. The group reviewed a list of threats TNC compiled and discussed whether any threats that should be added to the list. There was some discussion of whether the list included threats to the health of the system or threats to the interaction of humans with rivers and streams. For example, bacteria does not really affect aquatic life but is a human health concern. Several members of the group thought that altered hydrology should be added to the list. “Altered hydrology/landscape changes” was added to the list and the final list included the following threats:

Altered hydrology/landscape changes

Bacteria

Dam management/flow regimes

Increased temperature

Invasive species

Low dissolved oxygen

Nutrients

pH

River blockages (crossings, dams)

Sedimentation

Toxins (e.g., pesticides, heavy metals)

Members used colored dots to vote for the top three threats and indicated their confidence level in their votes. Altered hydrology/landscape changes, sedimentation, and dam management/flow regimes were overwhelmingly ranked as the top three threats. The level of confidence in the votes varied among members of the group.

There was further discussion on the altered hydrology threat and the relationship between altered hydrology and sedimentation. Mr. Schuyler said that sedimentation is likely a result of altered hydrology and asked the group if there were other effects of altered hydrology. The group talked about the reduced infiltration associated with altered hydrology, which ultimately leads to lower flows in streams and rivers. High stream flows which cause scouring and removal of habitat in stream channels was also discussed.

Mr. Schuyler stated that it seems the group is focused on three threats that are quite related and asked the group to think further about the manifestation of altered hydrology on the system. He said they know it leads to sedimentation, lowered baseflows, and changes in habitat because of scouring, but the TAC needs to think about which of these threats is having the biggest effect on the health of the watershed. There was some discussion that it depends on where you are in a stream and your proximity to the altered hydrology. For example, scour may be a problem in the upper portion of a stream, and deposition of the sediment that is scoured out may cause a problem downstream.

#### **4. Discuss situational diagram of sources and causes of sedimentation**

The group reviewed a situational diagram of the sources and cause of sedimentation that TNC developed. The point was brought up that the sources and magnitude of the different sources of sediment may vary depending on where you are in the watershed and site conditions. For example, after a storm, construction sites can be big contributors of sediment but may not be as important between storms. There was also a good bit of discussion about the importance of altered hydrology in contributing to sedimentation.

Mr. Schuyler asked the group what recommendation the TAC should make to the Commission. Several members felt that the TAC should have further discussions before making a recommendation. The group discussed the need to come to consensus about the level of confidence in the threats and the sources of the threats to determine what next steps should be. Several members emphasized the importance of striking a balance between not spending too much time or money on studies but having enough information to be confident in moving forward. For example, if the collective opinion of the TAC is that they know with confidence without paying for any studies that altered hydrology is the biggest problem facing the health of the system, the TAC can move forward with a focus on management strategies to abate the threat. However, if the TAC does not have enough confidence in threats and sources of threats to move forward, they need to figure out what information is needed to reach that confidence level (e.g., literature review, collecting field data). Part of the intent of this discussion was for members to rank the sources they think are biggest contributors to the sedimentation problem, but due to a lack of time, this was deferred until the next meeting.

Mr. Schuyler suggested that the TAC start the next meeting with further discussion of altered hydrology and sedimentation, perhaps with a revised situational diagram based on the threat of altered hydrology. The TAC decided that they should tell the Commission that the TAC has a high degree of confidence that altered hydrology and sedimentation are very high threats to the health of the watershed, but that they would like to delve deeper into these threats before making recommendations about next steps the Commission should take. It was also suggested that it might be a good idea to include the University of Virginia in these discussions, and the TAC decided to recommend to the Commission that Jeff Sitler, Hydrogeologist and Environmental Compliance Manager with UVA, be appointed to the TAC.

### **Attachments**

A. Situational Diagram 07Jul13