

FINAL

Thursday, October 23, 2008

To: The Rivanna River Basin Commission

From: The RRBC Technical Advisory Committee

Subject: TAC August 22 meeting summary

### **Discuss future presentation from StreamWatch on 2008 report**

John Murphy asked the group whether the TAC and/or Commission would be interested in a presentation on the most recent StreamWatch report and if so what the presentation should include. TAC members felt that it would be a good idea to give a presentation to the Commission, and if TAC members were interested in seeing it they could attend the meeting. Members suggested the presentation focus on how the StreamWatch report feeds into the work of the Commission and TAC and highlight the questions still remaining, since the TAC and Commission are trying to fill gaps in our knowledge. The presentation should also focus on results and what they mean, with less emphasis on sampling methodology, and should include mention of the land use effects study. It was also suggested that John give an outline of the presentation to the TAC for feedback prior to giving the presentation to the Commission.

### **Land/impervious cover map update**

John Murphy gave an update on the status of the land and impervious cover map of the Rivanna Watershed and Albemarle County that the Commission, StreamWatch, TNC and Albemarle County are working together to design and purchase. The group released an RFP for the project, received 10 proposals, interviewed 2 firms, and made a decision on the selected firm. The cost of the map will be \$75,000 +/- \$20,000. The group is now working with the consultant to refine the scope of work and project cost, and the TAC may want to provide input to the scope of work to ensure that the map provides information that the TAC and Commission can use for purposes such as hydrologic modeling (see below for summary of discussion on this topic). They hope to enter into contract with the selected vendor in September, and the map will likely take 4-6 months to complete.

### **Discuss TAC appointments**

#### *Staff Members*

Sam Austin reported that Dan Ratzlaff (Greene County) and Missy Creasy (City of Charlottesville) were appointed to the TAC by the Commission at their last meeting. Since Tamara Ambler has left her position with Albemarle County, there is now a vacancy for an Albemarle County staff member. The Albemarle County members of the Commission will need to determine whether to replace Tamara with another current staff member or wait until Tamara's replacement is hired and have that person serve on the TAC. The TAC suggests that this vacancy be filled soon. Diane Frisbee will contact Ms. Thomas and Mr. Dorrier to be sure they are aware of the vacancy and next steps.

### *Non-staff Members*

There are three vacancies for non-staff members on the TAC. At the last Commission meeting, the Commission voted to appoint Joanna Curan to the TAC, contingent on TAC approval. The TAC voted to approve this recommendation. Tamara Ambler has replaced Andrea Terry as Water Resources Manager for RWSA, and the TAC voted to recommend that the Commission appoint Tamara to the TAC to fill the RWSA vacancy. The TAC will seek to fill the third vacancy with an interested citizen with relevant technical expertise. TAC members will post names of potential citizen members on the TAC weblog in advance of the next meeting, where a decision will be made on who to recommend to the Commission for this final vacancy.

### **Discuss monitoring and potential appointment of Monitoring Subcommittee**

At the last TAC meeting, following Ken Hyer's presentation, the TAC discussed the need for monitoring in the Rivanna watershed. The group decided that it would be useful to form a Monitoring Options Workgroup to look closer into monitoring goals, needs, and potential study designs. The workgroup can then give a presentation to the TAC that describes options for monitoring. The following TAC members expressed interest in participating in the workgroup: Jeff Sitler, John Murphy, Sam Austin, Ridge Schuyler, Holly Edwards, Kristel Riddervold and Dan Ratzlaff.

### **Summary of RRBC August 14 meeting and next steps**

#### *TAC report/presentation and RRBC discussion/follow up actions*

At the August Commission meeting, the TAC gave a presentation about best management practices for mitigating altered hydrology and provided specific recommendations for next steps the Commission could take to abate this threat. The presentation included the following recommendations:

1. Based on confidence that these BMPs are effective at the site scale, the RRBC should encourage/support their use.
  - a. Utilize on all new local government facilities, especially practices that REDUCE RUNOFF and have MULTIPLE BENEFITS.
  - b. Investigate opportunities to retrofit existing public lands
  - c. Cooperative agreements with development community/ incentive programs/RRBC funded grant opportunities for private retrofits.
  - d. Proffers, permit conditions, incentives for new development
  - e. Develop technical specifications for rainwater harvesting systems so developers can easily calculate system size and use
  - f. Convene a workshop with developers, engineers and planners to educate about these practices and identify obstacles to their implementation
2. RRBC could partner with academia to conduct monitoring of existing and new BMPs to further support expectations regarding BMP performance.
3. Investigate use and effectiveness of BMPs beyond local project scale, in more rural/non-urbanizing areas to work towards broader watershed goals
  - a. further research
  - b. modeling exercises
  - c. identification of influencing/limiting factors

TAC members that attended the Commission meeting reported that the presentation was well received and there was a good discussion about the recommendations. The Commission felt that recommendations 2 and 3 were items that the TAC should work on, while recommendation 1 was something Commission members could take to their localities. Mr. Moss offered to develop a letter based on the first recommendation, and the Commission will review the letter at their next meeting and further discuss next steps for sharing this with their localities. A major point of the Commission's discussion was the fact that the localities in the watershed are different, and some localities may be more comfortable with moving forward with the recommendations than others. The TAC discussed a few possible ways the Commission could implement these recommendations, such as through development of model ordinances or accords. The bulk of the next Commission meeting will be to continue this discussion of next steps to implement the recommendations.

Ridge Schuyler also mentioned that the Chesapeake Bay Program of EPA is working on a strategy document that describes what needs to be done to protect the Chesapeake Bay watershed. This work is very similar to what the TAC and RRBC are doing for the Rivanna. The TAC may want to use this document as a template for creating a report for the Commission. The report could describe what the Commission has done to date and where they are headed. The report might also include a timeline and framework that would be easy for newly elected officials and others to read and understand. Leslie Middleton was in attendance and offered to work with Ridge and Diane to prepare a draft report, with a goal of completing the report before the October Commission meeting. The draft report will be sent to the TAC in advance for review. Ridge will post the EPA document to the TAC weblog. Because Leslie will be working on this project, the TAC decided it would be helpful to give her access to the TAC weblog.

#### *Rainwater harvesting letter*

Several months ago, the Commission sent a letter to the Virginia Department of Health (VDH) regarding the rainwater reuse regulations they were supposed to develop. The TAC and Commission are working on removing obstacles to rainwater harvesting, and the letter was a part of that effort. Ridge Schuyler followed up with Duane Roadcap at VDH who said that the restrictions on rainwater harvesting depend on the use of the rainwater. There are three uses: 1) use in the home for drinking water, 2) use in the home for non-potable uses (e.g., toilet flushing, laundry), and 3) use outside the home (e.g., irrigation). VDH and local health departments regulate the use of rainwater for drinking water, building inspectors are responsible for in-home uses for non-potable purposes, and there are no regulations or restrictions on uses outside the home. Mr. Roadcap suggested that the first area the TAC and Commission might consider addressing is the in-home use of rainwater for non-potable purposes. There are requirements that rainwater brought into the home be dyed a different color or special piping be installed to differentiate between potable water and non-potable water. Mr. Roadcap offered to bring together agencies to see if these issues can be addressed, and perhaps develop a statewide memorandum of understanding. Ridge Schuyler and Alyson Sappington will work with Mr. Roadcap on this. Kristel Riddervold also pointed out that local utilities are concerned that harvested rainwater entering the home and ultimately the wastewater system is not included in utility bills because the bills are based on the amount of potable water entering the home. Kristel is working with City staff to try to resolve this issue as well, perhaps by adding gauges to rain

cisterns to measure the volumes of rainwater being brought into the home and ultimately entering the wastewater system.

### **Discuss management practices and storm events**

John Murphy wanted to clarify with the group that the management practices the TAC is recommending will mitigate the storm events that are believed to cause excessive streambank erosion and sedimentation. John stated that most management practices are geared toward the 1" storm, and the 3 ½-4" (1 ½ year) storm is the storm that has the most channel-changing attributes. Several members of the TAC have been working with the state on developing new stormwater regulations, and said that the new regulations use the 3 ½-4" (1 ½-2 year) storm as the goal for managing water quantity (volume), and use the 1" storm as the goal for managing water quality (e.g., nitrogen and phosphorous). The TAC recommendations will track what the state will be requiring with the new regulations. John also mentioned that Maryland recently imposed an impervious cover law and said he would look into this more and share what he finds with the group. Ridge added that he recently learned that an MS4 permit was rejected in a town out west and the town is now requiring LID rather than just encouraging it.

### **Discuss need for refining model and research/testing of practices on open lands**

At their last meeting, the Commission requested that the TAC work on the following recommendation: to investigate use and effectiveness of BMPs beyond local project scale, in more rural/non-urbanizing areas to work towards broader watershed goals (including further research, modeling exercises, and identification of influencing/limiting factors). The TAC's Modeling Subcommittee has had a couple of meetings about this, and Greg Harper found in his analysis that forests and open fields were significant contributors to altered hydrology. This analysis assumed that forests are in fair condition, which according to TR-55, means that the forests are grazed. If forests are classified as in good condition rather than fair, the analysis would indicate that open lands are contributing a greater amount to the altered hydrology problem. The Subcommittee will revisit the analysis to verify the contribution of open land to the problem, and the TAC should determine what practices can be used on open lands just as they have with developed and developing lands.

The group also talked about the land/impervious cover map that will be produced and discussed the options for the land cover classification scheme. The consensus among the group was that it is important to capture land cover classes that are distinct from a hydrologic perspective, and these would include: hayfield, grazed pasture, lawn/golf course, orchard/vineyard, bare soil, and cropland. Having these categories lumped into one "open land" field would make it difficult to conduct hydrologic modeling to identify the sources of alteration and opportunities to implement management practices. The TAC indicated that these classes were a higher priority than pine plantations or streamside strips, and suggested that perhaps these two classifications could be obtained at a later date if additional resources are available. Sam Austin pointed out that when conducting hydrologic modeling, the TAC needs to keep in mind that TR-55 is meant for smaller watersheds, and if the land area in question is 200 acres or larger, TR-55 logarithmically overestimates runoff.

### **Discuss Hardware River proposal and potential for RRBC/TAC involvement**

Ridge mentioned that TNC has received \$10,000 to conduct work to protect the Hardware River watershed. The funding is primarily for looking at open land issues. Ridge asked if the Commission might be interested in matching that funding or building on it. He will bring a proposal to the next TAC meeting describing how the Commission might consider getting involved in this effort, and will post information about this to the TAC weblog.

**The next meeting was set for September 26 at 9:00 am at TNC.**

Compiled by Diane Frisbee and respectfully submitted by Samuel H. Austin, TAC Chair.

**Attachments:**

A. Moss draft letter 08Aug22