

**FINAL Meeting Minutes
Rivanna River Basin Commission**

October 23, 2008
6:00 pm
Thomas Jefferson Planning District Commission
401 East Water Street, Charlottesville

Attendance

Rivanna River Basin Commission (Commission) Members

Present:

Mr. Lindsay Dorrier, Albemarle County Board of Supervisors
Mr. John E. Easter II, Thomas Jefferson Soil and Water Conservation District Board of Directors
Ms. Holly Edwards, Charlottesville City Council
Mr. Satyendra Huja, Charlottesville City Council
Mr. John Martin, Albemarle County Citizen
Ms. Leslie Middleton, Charlottesville Citizen
Mr. Marvin F. Moss, Fluvanna County Board of Supervisors
Mr. Clarence Peyton, Greene County Board of Supervisors
Ms. Roberta Savage, Greene County Citizen
Ms. Sally Thomas, Albemarle County Board of Supervisors
Mr. Andy Wilson, Fluvanna County Citizen

Absent:

Mr. John Gooch, Fluvanna County Board of Supervisors
Mr. Robert Runkle, Culpeper Soil and Water Conservation District Board of Directors
Mr. Carl Schmitt, Greene County Board of Supervisors

1. Call to Order

The meeting was called to order at 6 pm by Ms. Thomas.

2. Roll Call

Attendance was taken.

3. Determination of Quorum

It was determined a quorum was present.

4. Approval of the Agenda

Ms. Middleton requested an update on the website be added to the agenda. The agenda was approved with this revision. Ms. Thomas mentioned that four members of the South Fork Rivanna Reservoir Stewardship Task Force were in attendance at the meeting, and she stated that Task Force business would not be conducted at this meeting.

5. Comments from the Public

There were no comments from the public.

6. Approval of the Minutes of the Preceding Meeting

The minutes from the August 14, 2008 Commission meeting were approved without revision.

7. Report of the Chair

Ms. Thomas reported that she serves on the South Fork Rivanna Reservoir Stewardship Task Force. She also recently attended the Chesapeake Watershed Forum. There was a lot of discussion at the forum about reducing runoff. She also learned that “watershed” is not a great term to excite people, since many people don’t know what it means.

8. Report of the Fiscal Agent

Diane Frisbee provided the fiscal agent report.

Balance as of July 31, 2008	=	353,102.73
Interest Earned 08-09 (July 07 – Sept 08)	=	883.49
Balance as of September 30, 2008	=	\$353,986.22

Total Interest Earned to date = \$9,830.24.

Ridge Schuyler reported that The Nature Conservancy (TNC) has been working on finalizing the grant agreement to transfer the funds that TNC raised for the Commission to the Thomas Jefferson Soil and Water Conservation District (TJSWCD), who serves as the Commission’s fiscal agent. As discussed at the last meeting, because TNC raised these funds from private donors, TNC has a fiduciary responsibility to ensure the funds are spent for their intended purposes. The Commission will authorize expenditures, which will trigger a transfer of the funds from TNC to TJSWCD. TJSWCD will then receive and pay invoices. Mr. Schuyler distributed copies of the grant agreement that describes this arrangement. TJSWCD is reviewing the agreement now. Mr. Easter requested that Mr. Schuyler describe the process and review the grant agreement with the TJSWCD Board at their next meeting and Mr. Schuyler agreed. The Commission will also need to sign the agreement once it is finalized, and Mr. Schuyler requested that members review it soon and contact him or Ms. Thomas with any suggested revisions or questions. Mr. Easter made a motion that the grant agreement be signed by the Chair of the Commission unless she or Mr. Schuyler hear in seven days that there are problems with the agreement that cannot be fixed. Mr. Moss seconded the motion and it was approved unanimously.

Mr. Moss reported that the Fluvanna County Board of Supervisors approved contributing \$12,000 to the land/impervious cover mapping project to have the portion of Fluvanna County outside of the Rivanna watershed included in the project.

9. Reports of Committees

Mr. Austin was unable to attend the meeting, so Mr. Schuyler gave the report of the Technical Advisory Committee. The majority of the TAC’s work has been focused on the recommendations the Commission adopted at the last meeting. Many of the recommendations

might make sense to include in a proposal for grant funding, which was further discussed later in the meeting. The TAC is also continuing to work on several of the recommendations, including looking at non-urban/non-developing lands. These open lands may be significant contributors to the altered hydrology problem in the watershed. The TAC is also working on development of a rainwater harvesting specification. This spec will be incorporated into the manual being developed for the new state stormwater management regulations, and will make it easier for homeowners to size rainwater harvesting systems to facilitate broader adoption of this practice. The TAC is also looking at monitoring to measure effectiveness of stormwater management practices and determine how these practices protect the watershed and aquatic life. Mr. Schuyler also reported that Ms. Middleton offered to help write a roadmap-type report that describes how the Commission/TAC got to where they are now and where they are headed in the future. He also mentioned that he, Ms. Ambler, and Ms. Middleton recently attended a meeting about sediment and the Chesapeake Bay watershed. They were surprised at the fact that the people trying to protect the Bay had such similar questions to those the Commission and TAC have been addressing in the Rivanna. He felt that it was heartening to know that the Commission is on par with the thinking to protect the Bay but also disheartening because there is still a lot we do not know.

10. Presentation – John Murphy, StreamWatch

John Murphy gave a presentation on StreamWatch's 2005-2007 Stream Conditions Report. StreamWatch is governed by a partnership of entities, and the goal of StreamWatch is to monitor and present data about the condition of the watershed, but not to make recommendations. The 2005-2007 report was released in July and includes health assessments from numerous samples of benthic macroinvertebrate communities collected from 2005 to 2007. Assessments are based on average scores from 5-6 samples per site, collected from 31 representative streams and 4 reference streams in the Rivanna watershed. The reference streams are not typical sites, since they drain watersheds that are unusually intact. StreamWatch categorizes biological condition as very poor, poor, fair, good and very good. Streams that have poor or very poor condition are probably persistently impaired. Streams in fair condition fail the state aquatic life standard but could recover. Streams in good or very good condition meet the aquatic life standard.

The results show that about _ of Rivanna watershed streams fail the aquatic life standard (fair, poor, very poor), and about _ of the sites meet the standard (good). Only four of the 31 sites were badly impaired, and many sites lie on the cusp between good and fair. These "borderline" sites can switch between failing and passing, or passing and failing. All representative sites are degraded relative to the reference condition sites. The percentage of sites failing the standard is greater now than in last report; however, the increased failure rate is not statistically significant, and is likely due to the high number of sites in borderline condition and effects of the 2006-2007 drought. Over the past 5 years of data collection, no long-term trend in average scores across the overall watershed is evident.

StreamWatch has also analyzed relationships between stream condition and watershed land use. Results show a strong relationship between % forest cover and biological condition. When a watershed is less than 75% forested, a significant number of sites fail. At less than 65% forest, all sites are failing. StreamWatch has also looked at relationships between stream condition and land use class, which is based on forest cover and population. The land use classes include wild

and rural (80% or more forest cover and average of 45 acres/dwelling), rural exurban (85-75% forest cover and average of 30 acres/dwelling), exurban (80-60% forest cover and average of 20 acres/dwelling), and suburban (55-65% forest cover and average of 5 acres/dwelling). The wild and rural sites almost always meet the standard. Rural exurban watersheds have a slight human presence, likely including some agriculture, and a significant number of sites fail in this land use class. In exurban watersheds, a lot of sites fail, and in suburban watersheds, all sites are failing. Streams in urban watersheds are in very bad condition. StreamWatch expects to complete a Land Use Effects Study in 2010. For this study, they have added a number of sites, and are collecting additional data beyond the biological data. Additional data include streambed permeability, particle size distribution, stream channel surveys, and bacteria. They will also use the updated land and impervious cover map for this study.

Mr. Martin asked if StreamWatch would consider adding some sites on the Moormans River to establish a baseline of current condition and continue to monitor into the future to examine the effects of greater in-stream flows that will occur as part of the water supply plan. Mr. Murphy replied that this could be an interesting study but that StreamWatch would need additional funding to make this happen. Mr. Moss stated that the StreamWatch reports show a relationship between stream health and land cover, but that there has been an increase in development throughout the watershed and it seems the aquatic communities haven't really changed since there are no long-term trends. Mr. Murphy replied that the change in impervious cover in the watershed has been slight so they haven't yet seen a significant effect on the communities. The communities may be changing, but they have not been able to detect a statistically significant change yet. Ms. Thomas asked if it was possible to relate these data to something that people can connect more easily with. Mr. Murphy said that people can often relate to the fishable, swimmable classification, but that you can have a stream that fails the aquatic life standard but is still safe to swim in. He has also looked into research relating health of the aquatic bug community to health of animals higher up the food chain but has not found any definitive research that would enable him to state these connections. He will look into this further. Ms. Savage suggested that he consider developing a factsheet with questions and answers about the results explaining what the data mean and how the sampling is done. Mr. Murphy requested that a task force help him work on better ways to connect the StreamWatch data with citizens, and Mr. Schuyler and Ms. Savage offered to help with this.

11. Old and Unfinished Business

a. Land/impervious cover map update

Mr. Murphy reported that the group has selected a contractor for the mapping project and they are in final negotiations. The map will likely be done in May or June of 2009. The map will be made available to the public, likely through the websites of the localities.

b. Website update

TNC is working on compiling information for the website and will review this with the Website Subcommittee prior to sending it on to the website contractor. Members suggested using one of the images from the StreamWatch website, and looking at the website www.ilovemountains.org for ideas. This website enables users to enter a zip code and find out where their power is coming from and what mountaintops are removed for that power. The Commission's website

may have a similar feature which enables users to enter addresses and find out where in the watershed they live and their proximity to things like impaired streams. Mr. Murphy mentioned that the StreamWatch website has a similar feature and is linked to Google maps. Ms. Middleton asked to serve on the Website Subcommittee along with Mr. Moss and Ms. Savage.

12. New Business

a. Discuss Chesapeake Bay Stewardship Fund Grant

Ms. Frisbee of TNC gave a presentation about potential next steps for implementation of the recommendations the TAC presented to the Commission at their August meeting, including a potential grant opportunity. The National Fish and Wildlife Foundation, in partnership with EPA and the Chesapeake Bay Program, is seeking proposals for the Chesapeake Bay Stewardship Fund. Grants will support demonstration of innovative approaches to expand the collective knowledge about the most cost effective and sustainable approaches to dramatically reduce or eliminate nutrient and sediment pollution to the Chesapeake Bay and its tributaries. The grant amount is \$200,000 – 1 million, and a total of up to \$12.9 million will be awarded. The grant requires a 1:1 match. Pre-proposals are due October 31, invitations for full proposals will be issued December 1, and full proposals are due January 16. Awards will be announced in April and projects should begin between May and September and be completed within 2-3 years.

Ms. Frisbee went over each of the TAC recommendations and described possible next steps. The recommendations and potential next steps are below.

1. Based on confidence that these BMPs are effective at the site scale, the RRBC should encourage/support their use.
 - a. On all new government facilities include the strategies that are agreed to be Best Management Practices (BMPs) to reduce runoff, to minimize siltation, and to improve water quality
Potential Actions:
 - 1) Include recommendation in letter to localities
 - 2) Request funding for implementation of BMPs on one project in each locality. Locality would provide 1:1 match.
 - Albemarle County – Crozet Stormwater Wetlands Project
 - City of Charlottesville – Smith Aquatic Center (bioretention, rainwater harvesting)
 - Fluvanna County – High School (rainwater harvesting)
 - Greene County – Community Park (bioretention, rainwater harvesting)
 - b. For existing government facilities, explore opportunities to retrofit them using the same BMPs
Potential Actions:
 - 1) Include recommendation in letter to localities
 - 2) Charlottesville has completed an assessment of public lands to identify retrofit opportunities. Request funding to conduct

assessment of public lands using Charlottesville methodology in Albemarle, Fluvanna, and Greene counties. RRBC would provide 1:1 match.

- c. Consider organizing workshops on a county or regional basis with developers, engineers, planners and regulators to educate them on these practices and to identify obstacles in local codes that may prevent their implementation

Potential Actions:

- 1) Include recommendation in letter to localities
- 2) Request funding to host watershed symposium. RRBC would provide 1:1 match.

- d. Explore the use of proffers, permit conditions and/or incentives to encourage private developers to include the BMPs in their projects

Potential Actions:

- 1) Include recommendation in letter to localities
- 2) Request funding to develop incentive programs for each locality. RRBC would provide 1:1 match.

- e. Develop technical specifications for rainwater harvesting systems so developers can easily calculate system size and use

Potential Action:

RRBC has directed TAC to continue working on this recommendation. The TAC has been working with TNC on this and significant progress has been made.

- 2. RRBC could partner with academia to conduct monitoring of existing and new BMPs to further support expectations regarding BMP performance.

Potential Action:

Request funding to conduct monitoring of the four local government practices described in recommendation 1. RRBC would provide 1:1 match.

- 3. Investigate use and effectiveness of BMPs beyond local project scale, in more rural/non-urbanizing areas to work towards broader watershed goals (further research, modeling exercises, identification of influencing/limiting factors).

Potential Action:

RRBC has directed TAC to continue working on this recommendation. The TAC has established a Subcommittee to work on this. Perhaps seek future grant funding.

Ms. Frisbee presented a proposed budget for the five strategies which could be included in the grant proposal. The budget would include cash and in-kind matching funds from the localities and the Commission. The total grant award request would be \$1 million, and the estimated cash contribution from the Commission would be \$125,000. Mr. Murphy also mentioned that StreamWatch may be able to provide an in-kind match of \$100,000 for the monitoring program.

Discussion followed the presentation, including how to handle project management of the grant. Mr. Schuyler said that TNC could continue to serve as project manager for this grant. Ms. Middleton moved that the Commission approve moving forward with a pre-proposal and writing a letter of support for the pre-proposal. Mr. Easter seconded the motion and it was approved unanimously. TNC will work on the pre-proposal, with the help of the TAC. Ms. Middleton offered to draft the letter of support from the Commission.

b. Discuss letter drafted by Mr. Moss and next steps based on TAC recommendations

Members reviewed the letter drafted by Mr. Moss that the Commission is considering sending to the localities. Mr. Moss stated that he drafted the letter keeping in mind that Fluvanna and Greene counties may not be ready to move forward with the Commission's recommendations as quickly as Charlottesville and Albemarle County, so he took some of the recommendations out of the letter to make it more palatable to all four localities. Along with the letter, the Commission would send the information on BMPs that the TAC prepared, excluding the ratings. Ms. Savage suggested moving the 1st sentence of the 4th paragraph to the top of the letter. Ms. Middleton suggested adding more specifics to the letter about how the Commission could help the localities. It was also suggested that the letter be signed by all of the Commissioners. Mr. Moss moved that the Commission send the letter as edited to be signed by all members, and that the letter be sent to the Boards of Supervisors, City Council, and the executives of the localities. Mr. Huja seconded the motion and it was approved unanimously.

c. Update on new proposed statewide stormwater management regulations

Mr. Schuyler updated Commission members on the new regulations the state is developing for stormwater management. He distributed an excerpt from the draft regulations relating to water quantity. The Virginia Soil and Water Conservation Board has adopted these regulations and they will likely be released in spring of 2009 for public comment and go into effect in about a year. The regulations state that runoff from a development site should not exceed the energy of runoff that would have left the site in the forested condition. This is the idea that the Commission has been talking about for over a year. The Chesapeake Bay Program is promoting no runoff, but the state regulations focus on replicating the forest which does have some runoff. Mr. Schuyler stated that this is a huge step forward to address the threat of altered hydrology. The state and the Chesapeake Bay Program are looking at effectiveness of practices to achieve these goals. The work of the Commission fits very nicely with the state and Chesapeake Bay work, and the Commission is feeding into both of these efforts.

d. Define term limits for citizen Commission members

Under the Commission's charter, initial appointments of the four citizen members should be staggered as follows: two members for a term of two years and two members for a term of four years. Thereafter, citizen members shall be appointed for a term of four years. Appointments to fill vacancies, other than by expiration of a term, shall be for the unexpired terms. The terms of the citizen members were not defined when these members were appointed, so the Commission needed to decide which of the citizen members will have the 2-year and which will have the 4-year initial terms. Mr. Martin and Mr. Wilson were appointed in April 2007, and Ms. Savage and Ms. Middleton were appointed in 2008 to fill vacancies left by citizens appointed in April 2007. The Commission decided that Mr. Martin and Mr. Wilson would have 2-year terms (to

expire in April 2009) and Ms. Savage and Ms. Middleton would have 4-year terms (to expire in April 2011). The charter permits citizen members to serve two consecutive 4-year terms, so all four citizen members would be eligible for reappointment. Ms. Frisbee will follow up with the clerks of City Council and the Boards of Supervisors to inform them of these term limits.

e. Appoint new members to Technical Advisory Committee

The TAC received applications from two citizens interested in serving as non-staff TAC members – Todd Scanlon (Assistant Professor, University of Virginia Department of Environmental Sciences) and Christine May (Faculty Research Associate, James Madison University Department of Biology and Department of Geology and Environmental Science). Tamara Ambler, previously on the TAC as the Natural Resources Manager for Albemarle County, is now the Water Resources Manager for Rivanna Water and Sewer Authority and is also interested in serving as a non-staff TAC member in her new role. The TAC recommends appointing these non-staff members to the TAC. Albemarle County also currently has a staff TAC member vacancy left by Tamara Ambler. Greg Harper was in attendance and suggested that the Commission appoint Gregor Patsch to the TAC to replace Tamara. Gregor is a young engineer who works under Greg. Greg and Gregor have discussed the TAC and Gregor is interested in serving. Mr. Easter made a motion to appoint Todd Scanlon, Christine May, and Tamara Ambler as non-staff TAC members, and Gregor Patsch as Albemarle County staff TAC member. Ms. Middleton seconded the motion and it was unanimously approved.

f. Report from South Fork Rivanna Reservoir Stewardship Task Force

Mr. Martin reminded the group that four members of the Task Force were in attendance at today's meeting – Sally Thomas, John Martin, Holly Edwards, and Ridge Schuyler. Given that the Commission meeting was not noticed as a Task Force meeting, Mr. Martin stated that Task Force business should not be discussed, but he would give a brief update. Mr. Martin stated that the Task Force was put into existence by the Chairmen of Charlottesville City Council, Albemarle County Board of Supervisors, Albemarle County Service Authority, and Rivanna Water and Sewer Authority. Mr. Martin mentioned that the Task Force recently sent out a survey to gather public input on the community's expectations for the reservoir, and that there will be a public hearing on October 27 and the Task Force will tour the South Rivanna Water Treatment Plant on November 19. The Task Force is charged with preparing a report by the end of 2008. Ms. Thomas added that Task Force members have learned a lot about fish, hydrilla, accumulation of sediment in the reservoir, and other information. Mr. Moss requested that a full report from the Task Force be given at the next Commission meeting.

Greg Harper gave a presentation on accumulation of sediment in the reservoir that he also recently gave at a Task Force meeting. Mr. Harper stated that the 1st task of the Task Force is: "Utilizing historical, scientific and survey data, and current expert testimony, establish a timeline spanning at least fifty years of the expected disposition of the South Fork Rivanna Reservoir if no maintenance is performed." Mr. Harper did an analysis to answer the questions: 1) how has the surface of the reservoir changed so far and 2) how will it change over the next 50 years? To address these questions, he used past and present aerial photos to predict future sediment accumulation in the reservoir. Mr. Harper first gave an overview of the sedimentation process, and then showed a series of aerial photographs of the Ivy Creek portion of the reservoir. He used GIS to outline the surface of the reservoir in different years and calculate the acreage of the

surface. From 1974-2007, due to erosion and deposition, 5.1 acres of the reservoir surface has been filled with sediment. This accumulation was at a rate of 0.15 acres/year. Extrapolating to the future, 7.7 acres of the Ivy Creek portion of the reservoir would fill over the next 50 years. He conducted the same analysis for the main portion of the reservoir down to the bridge near Ivy Creek, and found that from 1974-2007, 17.2 acres of reservoir surface has been filled, and at the rate of 0.52 acres per year, 26.1 acres would be filled over the next 50 years. Mr. Harper's conclusions from his analyses are that open water will continue to transition to wetlands and uplands, sedimentation is more striking in the Ivy Creek area (much of the open water may be lost in the next 50 years), the main channel(s) will remain through the reservoir as it fills in, and for graphic representation, the rate of sedimentation is assumed to remain constant; but in reality, it appears to be increasing over time.

Mr. Easter asked if Mr. Harper could look at historic flow records to determine if any of the aerial photos were taken soon after big rain events which might have made the reservoir surface appear bigger than it actually is. Mr. Harper said he would look into this. Mr. Wilson asked if the Rivanna Water and Sewer Authority will fund a bathymetric study of the reservoir, and whether the Task Force would make a recommendation that this be done. Mr. Martin replied that the Task Force needs to first determine what the future uses of the reservoir are and then determine if a bathymetric study should be funded. Ridge Schuyler and Holly Edwards were not in the room during this portion of the meeting.

Mr. Schuyler and Ms. Edwards then returned to the room and Mr. Schuyler showed some photographs that he recently shared at a Task Force meeting. The photographs show an island that formed in the reservoir between 1994 and 2008. A tree was lodged in the reservoir in this location, and logs and sediment slowly accumulated around the tree over time to form the island. This and other islands are pieces of land in the reservoir that were not there before. Enough sediment has accumulated on these islands so that trees grow on them and as they grow more sediment is deposited. His conclusion is that the reservoir is not going to become a swamp, but that sediment deposition is recreating the floodplain as the stream system tries to become a free flowing natural river again.

Ms. Middleton asked if the Commission has made any comments to the Task Force and if not, whether they should. Ms. Thomas replied that John Martin has been participating on the Task Force as a representative of the Commission.

13. Adjournment

The meeting adjourned at 8:15 pm.

Attachments:

A_RRBC_Agenda_08Oct23
B_RRBC_Minutes_08Aug14_DRAFT
C_RRBC_Fiscal_summary_08Oct20
D_RRBC_TNC_Funding_agreement_08Oct23
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