

# RIVANNA CURRENTS

Fall 2010



The Rivanna Conservation Society is dedicated to safeguarding the ecological, scenic, recreational and historic resources of the Rivanna River watershed.

#### **Board of Directors**

Tatyanna Patten: President, Angus Murdoch: Co-Vice President, Tim SanJule: Co-Vice President, Dan Krasnegor: Treasurer Board Members: Jack Brown, Morgan Butler, Leon Szeptycki, Deana Winslow

Roberta (Robbi) Savage: Executive Director Melanie Britt: Newsletter, Kris Parker: Illustrations

What's in a Name: Ri-van-na (ri'van'e) 1. A river in the heart of Piedmont Countrie, bestowing on her people precious natural, recreational, scenic and spiritual resources and endeared to them, her watchful stewards, on that account.

2. A Latinate form for "River of Anne."

# It's Time To Decide - Rivanna River Water Supply Plan

In 2006 RCS endorsed the Community Water Supply Plan ("CWSP") proposal that the Albemarle County Board of Supervisors, Charlottesville City Council, Albemarle County Service Authority (ACSA) and Rivanna Water and Sewer Authority (RWSA) adopted to meet the community's raw water and treatment facility needs. This plan was submitted to and permitted by the Virginia Department of Environmental Quality and the Army Corps of Engineers.

#### INSIDE THIS ISSUE:

It's Time to Decide1, 4,	5, 6, 7, 8
Calendar	2
Wilderness Survival Workshop	9
River Cleanup	10
Farewell Tanner	11
Stormwater Project Continues	11
Youth Watershed Summit	12
TeensGive Program	13
RCS Board	14
Bread & Water Dinners	14
Photo Gallery	15

The need for such a plan became evident when in 2002 central Virginia experienced a tremendous drought and our community came within 60 days of being totally out of water. The 50-year urban water supply plan proposes to meet long term demand through the augmentation and interconnection of existing reservoirs in the Rivanna watershed upstream of Charlottesville. A further goal of the CWSP is to restore the natural flow of the Moorman's River and to improve or at least maintain the flows to the Rivanna River even as the community grows and water consumption increases.

#### The Plan:

The approved and permitted 2006 plan calls for an increase in water storage capacity at the Ragged Mountain Reservoir (RMR) by building a new dam with a pool level 42 feet higher than the existing 1908 Ragged Mountain Dam. Engineering studies indicate that the Ragged Mountain Reservoir (RMR) location is well suited for storage because its small, 1.8 sq. mile forested and protected watershed prevents excess sedimentation.

# Upcoming RCS Events 2011

# Rivanna River Sojourn April 16-17, 2011

This year the Rivanna River Sojourn will be held in advance of EARTH DAY. Be sure to save the date so you are able to join us for this wonderful two day paddle along the beautiful Rivanna River.

# Clean the Bay Day June 4, 2011

The Rivanna Conservation Society, in partnership with the City of Charlottesville and the Counties of Albemarle and Fluvanna, will be hosting the Clean the Bay Day.

Volunteers are needed to help give the Rivanna its Spring Cleaning. If you are able to participate, please give us a call at 434 97-RIVER or e-mail us at aed@rivannariver.org.

# Annual Rivanna River Clean-Up September 24, 2011

Each year RCS coordinates the fall river-wide cleanup of the Rivanna. Volunteers will be needed from 10-1 p.m.

# Third Thursday Brown Bag Lunch January 20, 2011

# YOU CAN DONATE ONLINE - SIMPLY LOG ON TO OUR WEBSITE

www.rivannariver.org

Thank you!

# **Board of Directors Meetings**

6:00pm - 8:00pm

Location: Albemarle County Building
401 McIntire Road. Charlottesville. VA 22902

# **Meeting Dates:**

Jan 13	Jul 14
Feb 10	Aug 11
Mar 10	Sep 8
Apr 14	Oct 13
May 12	Nov 10
Jun 9	Dec 8

#### **RCS Office Location:**

108 5th Street SE, Suite 206 Charlottesville, VA 22902

#### Mailing Address:

P.O. Box 1501 Charlottesville, VA 22902-1501 **Fax:** 815-846-0917

Website: www.rivannariver.org
RCS Blog: http://rivannariver.wordpress.com/



# Water Health - Water Quality Monitoring System

The Rivanna Conservation Society (RCS) http://rivannariver.org and the Blue Ridge School http://www.blueridgeschool.com/ in conjunction with the Alliance for the Chesapeake Bay http://allianceforthebay.org/ are creating Water Health for the Commonwealth, a watershed-wide water quality monitoring system comprised of students and teachers from schools adjacent to or bordering the Rivanna and James Rivers.

This "Network" will begin at the headwaters of the Rivanna River in the Blue Ridge Mountains, will be expanded over time to include the James River, and will end at the Chesapeake Bay.

The project will engage middle and high school students and teachers who will participate in classroom learning, instream water quality monitoring, (chemical, biological, bacterial and physical), Student/Teacher Watershed Summits and river paddles/sojourns. The project will be comprised of eight major components:

- A "Network" of students and teachers certified to collect chemical, physical, bacterial and biological monitoring data,
- Classroom water science curricula for middle and high school students,
- Regional Youth Watershed Summit for school students participating in the "Network,"
- Regional Teacher Watershed Summit for middle and high school teachers,
- 5. River sojourns (river paddles) for students and teachers,
- Technical, educational and professional exchange of information and data collected by students and teachers,
- Student presentations before the locally elected officials in the major jurisdictions that comprise the Rivanna and James River Watersheds, and

8. Submission of collected quality assured/quality controlled data to the DEQ, ACB and World Water Monitoring Day databases.

The "Network" will initially be modeled and demonstrated at the Blue Ridge School. The concept model will be tested for a semester and then expanded to include additional schools along the Rivanna River. Once the "Network" is well established throughout the Rivanna, it will be expanded to include the full expanse of the James River.

The entire monitoring project will utilize the quality assurance project plan (QAPP) approved for the Alliance of the Chesapeake Bay. ACB and RCS will train and certify student/teacher monitors to assure consistency of results in advance of the upload to the DEQ online system.

According to the Virginia Department of Environmental Quality (VADEQ), a number of segments of the Rivanna and James Rivers are impaired - not meeting designated uses. The magnitude of the problem often increases with population growth and development. The pollution caused by point-source discharges from facilities and households increases at the confluence of the Rivanna and the James Rivers. This provides the circumstance for the silt and sediment of both streams to combine and then carry this pollution down into the Chesapeake Bay.

We expect the project to reach an estimated 415 teachers and 8,175 students over the first three years and we are in need of additional contributions from the RCS members and donors to support this important new project, so please help if you can.

continued from page 1

The approved plan calls for the existing gravity fed 13-mile pipeline connecting Sugar Hollow to the RMR, which now fills the RMR by drawing from the upper Moormans River, to be decommissioned, allowing water to flow naturally downstream to the South Fork Rivanna Reservoir ("SFRR") from where it will be pumped through a 9-mile pipeline from the SFRR to RMR.

Critics of the plan suggest that an increase in electricity use will result from the uphill pumping of water from SFRR to RMR. Supporters, however, emphasize that water is already being pumped uphill from SFRR and that the increase in energy costs associated with the new pipeline will be negligible.

The SFRR serves well as the main water source for the community because its 260 sq. mile watershed provides an average flow greatly in excess of the volume needed for the community water system. However, due to a long history of poor land use practices throughout the watershed, the SFRR is subject to significant sedimentation and has been gradually losing usable volume since its construction. And, because river flow is frequently quite low during summer months, the volume removed often leaves river flow too low to ensure the health of the river's ecosystem below the dam. Under the CWSP, high flows from the South Fork Rivanna River will be skimmed off, the sediment removed, and water pumped via the new pipeline to the RMR for storage. This same pipeline will be used to gravity feed water back to the South Fork treatment plant during dry times.

Once implemented the plan is expected to: 1) restore natural flows in the Moormans River 99% of the time, 2) restore flows at the headwaters of the watershed, and 3) significantly improve dry season in-stream flows in the South Fork Rivanna River.

Since its construction in 1966, the SFRR, which stretches for more than 7 miles upstream from its dam just west of US Rt. 29, has been steadily accumulating sediment. Due to its sedimentation tendency and shallow size, the SFRR was deemed insufficient, therefore, to meet projected future demand on its own with or without maintenance dredging, and in 1980 the search for a new reservoir site began.



#### Permit:

A Virginia Water Protection (VWP) Permit has been granted by the DEQ providing, for the first time, mandatory minimum in-stream flow requirements for both the Moormans and the South Fork Rivanna Rivers below the dams. The permit requirements were designed through two workshops attended by over 35 scientists, representatives of DEQ, the city, county and local watershed groups (with the technical support of The Nature Conservancy) and resulted in a first-of-its-kind permit in the Commonwealth under the new VWP program. Under the CWSP, in-stream flows will more closely mimic natural conditions because the minimum releases in the permit are tied to the percentage of natural flow, which in turn will improve the health of the river. When demand exceeds allowed withdrawals, demand will be met with water stored in Ragged Mountain and South Fork reservoirs. The volume of the usable storage at the newly expanded RMR is important to ensuring that the community has sufficient water to meet the community's needs and in-stream flows all the time, even during times of drought. The Sugar Hollow Reservoir will continue to be used as back up during severe drought and water will naturally flow down the Moorman's to the SFRR.

#### Population:

RCS's endorsement of the 2006 Community Water Supply Plan by no means implies that the organization favors rapid population growth or believes that land development is a good thing for watershed health. In fact, we believe current land use trends are damaging to the environment and we are especially concerned about their impacts on our river. RCS acknowledges that localities, within the existing legal framework, have very few options to directly limit population growth even if they want to, and that the City and Counties are bound by State law to plan for long-term infrastructure upgrades based on past development and population growth trends.

Moreover, population levels, while certainly important, are far from being the only factor influencing human environmental impacts. Indeed, numerous studies, including those here in the Rivanna, indicate that the level of impervious cover in a watershed, distinct from but not necessarily correlated with the population itself, is a tremendous factor in watershed health. This can be seen especially in communities such as ours, where per-capita consumption levels tend to vastly exceed any objective standard of human biological need. However, this water supply plan, as determined in the Demand Analysis (1997 and updated in 2004 and 2010), projects a lower per capita consumption than any other Virginia community and acknowledges that our present urban water per capita consumption is already low when compared with other Virginia communities.

Modest lifestyle and land use changes could enable the present, or even a substantially increased, human population to dwell comfortably in the Rivanna watershed with much less local environmental damage than we currently inflict.

#### Costs:

The Albemarle County Service Authority (ACSA) has agreed to pay for the design costs associated with expansion of the RMR, but an agreement on how to pay for construction is still in the works. Under the 2003 agreement, repair and rehabilitation costs (over half of the total plan's cost) will be shared according to usage, but a new cost share agreement has yet to be developed.

Albemarle officials and business leaders have a strong desire to take advantage of the favorable construction market having been advised that a 15% to 20% savings could be realized if they move forward swiftly.

continued from page 5

#### Support:

The Rivanna Conservation Society, The Nature Conservancy, the Southern Environmental Law Center, the Piedmont Environmental Council and the League of Women Voters have endorsed the 2006 water plan as the most cost effective and environmentally responsible option for meeting the water supply needs of our community.

## Opposition:

Opponents of the plan have raised concerns about the loss of trees at the Ragged Mountain Dam site, the cost of the dam, the other infrastructure projects included in the plan, and the fear that increasing water supply will lead to undesirable population growth.

## Agreement:

From the high pitch of the debate one would conclude that the areas of agreement are few. In fact there is community agreement on a number of points: 1) Stay within the Rivanna River Watershed, 2) Incur the least amount of environmental damage practicable, 3) Promote watershed protection and 4) Restore in-stream flows.

# **Dredging:**

Dredging advocates have claimed that SFRR could be dredged for much less money than the 2004 estimate by Gannett Fleming, the consulting firm hired to perform that study. Central to that discussion is the determination of the reasons for dredging and when to do it. To answer that question, the City and County jointly created the SFRR Stewardship Task Force composed of an array of interested parties charged with identifying how SFRR benefits the community, determining what actions would achieve those benefits, and what would happen to SFRR if those actions are not taken. The outcome of that task force was that dredging should be pursued opportunistically and outside the water supply plan. By "opportunistically" the task force

meant when the market conditions are such that maintenance dredging can be done at a relatively low cost to RWSA and rate payers.

This past summer RWSA commissioned the HDR engineering firm to conduct a more detailed dredging study to evaluate claims that dredging could be done less expensively. The study essentially confirmed the Gannett Fleming cost estimates for initial one-time dredging of SFRR to restore as much of its usable volume as possible. But it also concluded that the original study overestimated the volume that could be restored by dredging. The small differences between the two studies in the dredging cost per cubic yard of sediment removed were attributed to differences in fuel costs, since fuel cost is one of the greatest contributors to the overall cost of dredging, at the different times the studies were performed.

Following the results of the HDR study, RWSA recommended that sand recovery in the upper reaches of the reservoir be pursued, which is consistent with the SFRR Stewardship Task Force's recommendation for "opportunistic" dredging. Nevertheless, dredging the SFRR will not meet projected future demand on its own.

Dredging advocates now argue that it could be done more cheaply if the City purchased equipment and conducted continuous dredging on its own. However, at a recent meeting the City Council made it clear that the city is not interested in getting into the dredging business. At the request of the City Council, and with the approval of the ACSA Board of Directors and the County, RWSA is planning to hire HDR to prepare a Request for Proposals ("RFP") to conduct some dredging of SFRR. The scope of work of the proposed dredging that would be conducted under this RFP is unclear, but it will include, at a minimum, the recovery of sand in the upper reaches of SFRR, consistent with RWSA's recommendation.

#### City Plan:

In September, the Charlottesville City Council unanimously reaffirmed its commitment to nearly all aspects of the 2006 water supply plan but modified it to include phased construction of the new dam at RMR with an initial pool elevation of 13 feet above the current reservoir level along with dredging of the SFRR to restore its volume. Unfortunately, this proposal does not provide sufficient water to satisfy the projected demand, and it fails to meet the in-stream flow requirements mandated by the Virginia Water Protection Permit. The Albemarle County Board of Supervisors and the ACSA Board have informally approved a modification of the plan to include phased filling of a dam constructed to full height and the pursuit of dredging as a project separate from the CWSP. At the Sep-

quire these in-stream flow protections even if this requires earlier and more stringent mandatory water conservation measures whenever drought appears imminent. The City Council argues that the current system storage capacity is adequate to meet the needs of its recently steady population and water usage and that a smaller storage facility would be more environmentally friendly. However, the City's phased approach has been rejected by DEQ as not meeting that demand, nor does it meet the in-stream flow requirements of the permit and therefore cannot be considered more environmentally friendly. The City also points out that previously predicted demand has not materialized and that trends in water conservation will hold down future demand. Because the City owns the land at the RMR, they are in a relatively strong position to



tember 21st "Four Boards" meeting, the City agreed to the investigation of dredging separate from the CWSP, but did not agree to the concept of phased filling. Were the City's phased approached to be adopted, RCS urges DEQ to require that the revised permit include strong provisions to ensure that in-stream flow levels in the Moormans River and below SFRR are as strong as and comparable to those already permitted. The permit should re-

influence the design and financial details of whatever water system moves forward. Likewise, since all three reservoirs are located within Albemarle County, any modifications to include dredging will require county permits.

Recently staff at RWSA proposed a compromise that would have the new Ragged Mountain dam built to its full height but only filled to a point that

#### continued from page 7

could meet demand and provide in-stream flow benefits for the near term. According to RWSA, this will require filling to approximately 30 feet, rather than 13 feet, as the initial fill. Additionally, a numeric "trigger" would be developed and agreed upon to determine if and when the demand necessitates further filling of the reservoir without having to go back into the Natural Area for a second round of construction. This approach was informally accepted by County officials but not by City Council.



#### **Summary:**

As we gathered at the final public meeting at which the 2006 approved plan was rolled out, we congratulated ourselves on a tremendous achievement. Together we had forged a water supply plan that was internal to our own watershed, restored flows to the Moormans River and provided drinking water for the generations to follow. Then things began to fall apart and the shared vision on how to increase local water supply devolved into controversy. This protracted debate has been gut-wrenching, has brought about deep division within the local environmental community and, in some cases, has made enemies of friends. This experience reminds us that the development of public policy can be a messy process and when emotions run high it is easy to lose sight of our shared goals, perspective and objectivity.

Supporters of the plan do so because it is designed to assure sufficient water supplies for current and future populations, with enhanced aquatic diversity that will accompany increased flows to the Moormans and Rivanna rivers. No other plan meets the test of these two criteria.

Opponents of the plan are concerned about the loss of trees at the Ragged Mountain Natural Area, about the costs for major new local infrastructure, and the fear that it will encourage population growth.

#### A Call for Action

RCS supported the 2006 plan when it was proposed and continues to support the plan today because it is the most environmentally sound and cost effective way to meet our growing need for water. At the same time the organization acknowledges that, although studies have shown that dredging appears to not be a cost effective means for increasing water storage, it would be desirable to conduct some dredging of the SFRR to preserve it for other uses, and we are pleased to see that the City and County are taking the first steps toward that goal. It is our view that the community, in good faith, has commissioned studies, held public hearings, received citizen input and has debated the water supply plan for more than a decade. Positions have been articulated and differences well examined. And, whatever their perspective most folks agree that it is now time for a decision and for the healing process to begin.

It is now time for our locally elected officials to come to closure on the Water Supply Plan. If the City and County can reach agreement on the last remaining issue that separates them, phased construction versus phased filling of the enlarged Ragged Mountain Reservoir, we can finally end this debate and start construction of the plan that will provide the community with ample water for the next fifty years while, for the first time, exercising good stewardship of our rivers. It's time to decide and move forward!

# The Survival & Primitive Skills Workshop was held on Sunday December S, 2010 at the Scheier Natural Area in Palmyra.

The workshop began with a statement of attitude from Steve Pullinger, Chair of the Friends of Scheier. Pullinger said "if you have a can do, problem solving attitude your chances of survival in an emergency situation are greatly increased. But if you tell yourself that you can't get out of a bad situation, chances are - you won't."

The workshop taught young people (and their adults) the basic outdoor emergency skills of fire making, shelter construction, cordage, finding safe water, basic traps and general survival tips.



Making Fire at Scheier.

# Annual River Clean Up Draws Volunteers

On a glorious fall morning RCS members and community volunteers met at locations throughout the watershed to pick up trash and give the Rivanna River its Annual Cleanup. The Cleanup was held on Saturday September 25, 2010 from 10:00am – 1:00pm at six locations throughout the watershed;

- 1) Darden Towe Park,
- 2) Free Bridge (Rt. 250 at High Street),
- 3) Ragged Mountain Reservoir,
- 4) Reas Ford Bridge,
- 5) Riverview Park, and
- 6) South Fork Rivanna Reservoir.

Participating in this year's cleanup were more than 100 volunteers, each collecting at least one huge bag of trash. In addition to the tires, bottles, cans, diapers (yuck), waste paper and cardboard, the volunteers pulled several hundred pounds of metal and car parts out of the Rivanna. And, working with the City of Charlottesville arranged volunteers, a gigantic gasoline tank that was rolled out of the river and was taken to the metal recycling center.





The good news of this year's Cleanup is that some of the traditional sites where RCS regularly conducts Cleanup had less trash than in years past. Our hope is that the message of personal stewardship is growing and maturing in our community. Special thanks to site leaders John Holden (who led the volunteers at the South Fork Reservoir). Jamie Cato (who organized the Oakland Schools students/teachers to clean up at the Free Bridge), Angus Murdoch (who led the team at the Ragged Mountain Dam), Tanner Council (who led the Reas Fork Bridge team), and Robbi Savage (who organized the volunteers at Riverview Park while doing interviews with CBS and NBC) (see links below). And, a big Thank you goes to our super volunteers Helen Nicholaou and Mark Harris. We recognize that none of this could happen without the support and personal dedication of the RCS members and community volunteers. Thanks to one and all for a great job!

# Cleanup statistics

Number of Volunteers: 105 - Number of Sites: 6 - Number of shoreline miles cleaned: 10 - Number of bags of trash: 130 (assorted trash, including diapers, soda and beer cans, paper, cardboard, Styrofoam, fast food trash, tires, car parts, batteries, tennis balls, dog toys, plastic bottles and bags) - Pounds of debris picked up: 3,000 (with the City of Charlottesville we were able to pull out an oil tank and a refrigerator).

#### **Press Coverage:**

http://www.nbc29.com/story/13217555/saturday-served-as-cleanup-for-rivanna-river

http://www.newsplex.com/home/headlines/103795389.html

Our Program Coordinator the past three years has returned to his hometown of Norfolk. VA to become the Grassroots Coordinator for the Chesapeake Bay Foundation (CBF). Starting his career with RCS as our Administrative Assistant. Tanner, a UVA graduate with a degree in anthropology, grew in the job to become the point person for the Annual River Clean Up and the Oakland School project. He, and former RCS Board member Jim Cato, also expanded the RCS student outreach program by creating the Living Watershed Exhibit to replicate the journey that rain takes from the headwaters of the Rivanna all the way to the confluence with the James River. Tanner will be missed but we know that he will do a great job for CBF and we wish him all the best.



Tanner Council

For more than four years now RCS and its partners, the UVA Environmental Law and Conservation Clinic and the Southern Environmental Law Center, have been working on the Stormwater Codes and Ordinance project. And, while we would love to say that the effort to enhance the stormwater policies of the City of Charlottesville and the counties of Albemarle, Fluvanna and Greene, are fully updated, there is still much on our collective plate.

The first report was issued for the County of Albemarle and we are delighted to report that one of our priority recommendations – limiting the time that land can be denuded during construction and development – was approved by the Board of Supervisors and is being implemented by the County officials.

Another success of this project is the inclusion, by reference, of the Greene County Report in the County's Comprehensive Plan. Our goal now is to secure approval of our recommendations by the Greene County Board of Supervisors.

Fluvanna County is also considering our recommendations and a public meeting is being scheduled for December and our hope and expectation is that the Fluvanna Board of Supervisors will also adopt most if not all of our recommendations.

So we will continue our efforts because the runoff of sediment into the streams within the Rivanna watershed is among the most prevalent pollutant sources in our community.

#### Youth Watershed Summit on the South River

On Tuesday October 26 and on Thursday October 28 more than 145 students gathered at the Bluet Crag Farm owned by Kathryn and Bob Thomas for this year's Youth Watershed Summit. The farm was a perfect location for the water quality monitoring events because it is located on the South River, has a huge lake for watershed studies and was a recipient of the 2004 Chesapeake Award for "sustainable farming."

The event, cosponsored by Nathanael Greene Elementary School and the Rivanna Conservation Society, provided the students with the opportunity for "hands on learning" to examine the health of the South River and to analyze flowing water and lake water and to compare and contrast their monitoring results.

The young people were separated into groups, each responsible for a different aspect of the water assessment program. To understand the importance of cause and effect, the students conducted

all of the major components of water monitoring - physical (the physical characteristics of the area, the land habitat and ecology, river flows and tree canopy) biological (types and kinds of aquatic life) and chemical (pH, temperature, dissolved oxygen and clarity).

Kathy Alstat, the 4-H Coordinator for Greene County helped students chart the velocity of the stream flow to get a sense of how quickly pollution can be swept downstream.

Charles Petty, Justin Davis, and Joy Andrews took the young people into the stream to collect bugs and other critters found in the river. Once collected the students identified what was found and documented the number and kinds of aquatic life in the South River.

Robbi Savage, (Executive Director of the Rivanna Conservation Society) who led the chemical monitoring team told the students that "the chemical



Aquatic Life Monitoring (Biological)

continued on page 13

data you collect here in Greene County will be uploaded to the World Water Monitoring Day Network. This means that the results of your sampling will be linked to the data collected by young people throughout the nation and the world."

Watershed studies were also a part of the program and these studies were conducted by Jason Collier (Rapidan Service Authority/ Greene County School Board), Katie Karnes, and Bob Thomas (Blue Ridge Wildlife Consultants). "These outdoor programs help students to improve their powers of observation and can inspire them to not only look, but also see what can be found in nature" said Thomas.

Another highlight was the creation of environmental art, made from natural items found on the farm. Throughout the event, students and teachers were documenting the event on film and in their journals. These programs were led by Leslie Davis, Julie Haddix, and Kate Kraus.

To conclude the event, students gathered together to share the experiences and brief the "collective" on what they had learned. The information will be taken back to the classroom, with more discussions and other environmental sciences activities.

According to Kathryn Thomas, the event coordinator at Nathanael Greene Elementary, "our students love the watershed summit and they look forward to participating. It is an opportunity to synthesize information in a new and engaging way while evaluating their environment. This event helps our school meet the state requirements for Meaningful Watershed Education Experiences and is truly a highlight of our science curriculum. We hope to make this event an annual experience."

#### **HOLIDAY GIFTS**

Log on to our website to see the many new gift items for sale at our Web Store.

www.rivannariver.org

#### TeensGIVE Events Conclude

The 2010 series of TeensGIVE programs concluded on November 5 with more than 150 students participating in one of 8 events scheduled in the spring and fall this year.

TeensGIVE is a serving learning program for students in Charlottesville. This program offers a wide variety of experiences, each one providing opportunities to grow, learn and contribute to the community.

RCS and TeensGIVE have been partnering for the past three years. Our mutual goal is to bring young people to the Rivanna River and to engage them in chemical water quality monitoring. Working with Misty Graves and the teachers and students from Walker School, we were able to sample the water at Meadow Creek and the Rivanna at Riverview Park for pH, dissolved oxygen, temperature and turbidity (clarity). The collected data is documented and then uploaded to the World Water Monitoring Day system, liking our information with children around the world.

As a part of the data collection process we are teaching the children about the Rivanna Watershed, the source of pollution that impact the river and its tributaries and the Rivanna's relationship to the James River and ultimately the Chesapeake Bay.



**Chemical Monitoring** 

#### **RCS Elects New Board**

On September 9, 2010 the organization elected its new officers from the Board of Directors. For the year ahead the RCS management team is composed of the following.

#### **Executive Committee**

#### **President:**

Tatyanna Patten

### **Co-Vice Presidents:**

Angus Murdoch and Tim SanJule

#### Treasurer:

Daniel Krasnegor

#### **Board Members:**

John K. Brown

Morgan Butler

Leon Szeptycki

Deana Winslow

#### **Bread and Water Dinners**

Combining the love of delicious, local food and our concern for the quality of the Rivanna River and its watershed, we have created an opportunity to nourish more than just your appetite. RCS has a created its Bread and Water Project which engages area restaurants in the care of the Rivanna River. From the gross sales on the appointed night, the restaurant donates 10% to RCS in support of the clean water events and activities throughout the watershed. These include stream clean-ups, buffer planting projects, teacher and student training events, public education forums, citizen involvement programs and river paddles.

Check the RCS Website for the dates of our Bread & Water Dinners.

# RCS & the Rivanna River Need Your Help

Please consider an end of the year donation and/ or sharing the gift of clean water with a friend or family member. A remittance envelop is included for your convenience or you can donate online at www.rivannariver.org. Thank you and Happy Holidays.

We are very grateful for the willingness of these members to serve as RCS leaders and we are looking for an additional 3 persons to join them so if you have an interest in helping to guide the organization, please send us a note via e-mail at exec@rivannariver.org or give us a call at 434 97\_RIVER (977-4837).



# Webstore Open For Christmas Gifts

Log on to www.rivannariver.org for logo collar and tee shirts, ball caps, tote bags, and mugs.



Girl Scout Cleanup



Youth Watershed Summit



RCS Sells Rain Barrels



Greene County Buffer Planting



Annual River Cleanup



Greene County Buffer Planting



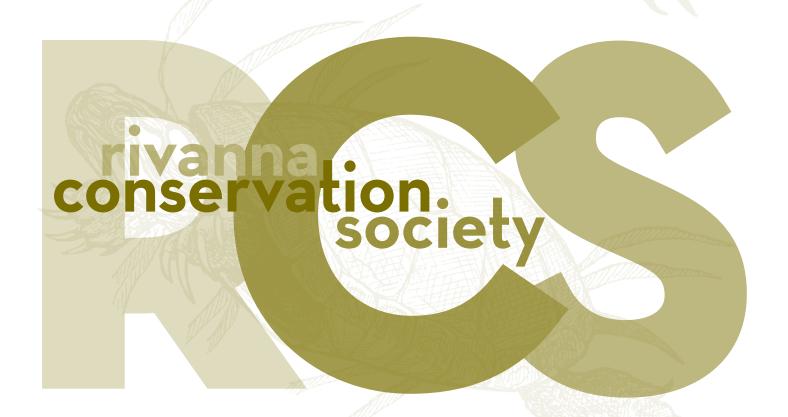
World Water Monitoring Day

Rivanna Conservation Society PO Box 1501 Charlottesville, VA 22902 Return Service Requested Non-Profit Org. U.S. Postage Paid Charlottesville, VA Permit No. 758



The date above your name is the date of your last contribution. Please consider renewing your membership if more than a year has passed.

The Rivanna Conservation Society (434)97-RIVER www.rivannariver.org



The Rivanna Conservation Society (434)97-RIVER www.rivannariver.org