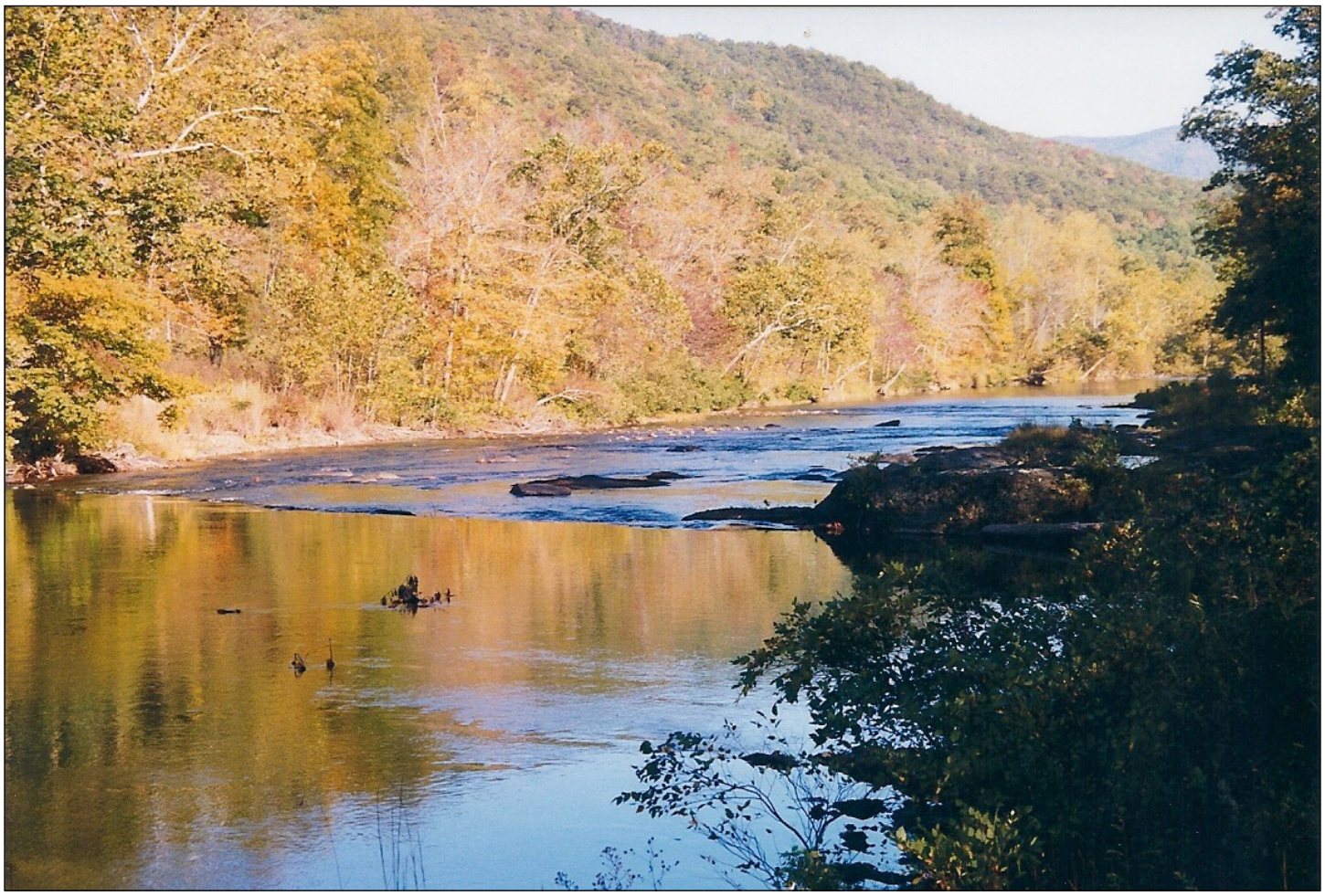
Vol. 45, Issue No. 4

Fall 2016

The River Runs

News from the Cowpasture River Preservation Association

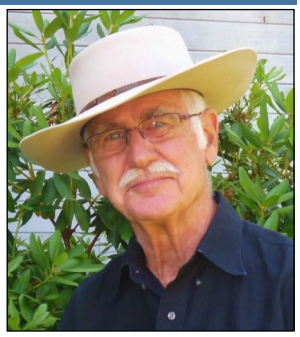


Inside This Issue:

Autumn brings gorgeous colors to the CRV! Photo by former newsletter editor, Lou Robinson (circa 2000), from his camp upstream of Griffith area.

Please send us your best ***PHOTOS*** of the river in all its seasonal glories, the people and wildlife that live there.

From the President



Cowpasture Ramblin'

Friends & Associates:

A member of long-standing recently observed, "I know that our Association's mission is to protect the River, but just what does "protect" mean?" Good question!!!

The Cowpasture River Preservation Association's charter-driven purpose is to protect both surface and ground water quality. As a 501(c)(3) nonprofit organization, we advance this charter-driven purpose through science, education and charity. In practice, we work through the volunteer efforts of three committees – Watershed Education, Water Monitoring and the Ad Hoc Pipeline Committee. Five initiatives are summarized below.

A small and dedicated cadre of Association members are making absolutely wonderful progress with our public schools, and also with several nontraditional educational groups. The Watershed Education Committee in the last eight months has touched the lives of over 600 young people hands-on, by introducing them to the insightful relationships between macro-invertebrates and water quality.

Our river monitors from the Water Monitoring Committee conduct monthly bacteria and water chemistry tests, and semi-annually for macro-invertebrate counts. There are seasonal and monthly changes, of course, but the bacteria counts would ring the bell of concern at 126 colonies of *Escherichia coli* per 100 milliliters of water, and we have not heard the bell ring (see article on page 9)!

Your Association ran computer-based predictions of erosion in rugged mountainous terrain during pipeline construction that showed as the slope increases from 10 to 30 percent, the predicted erosion increases more than fivefold (5X); and at 40 percent an almost eightfold (8X) increase. The CRPA Pipeline Committee then filed "motions in protest" with FERC over erosion risks, exposures and mitigation.

Ecologists recognize that riparian and karst terrain buffer areas are the single most effective strategy for protecting surface and ground water quality by filtering debris, sediments, nutrients and contaminants. Your Association therefore argued, before the Federal Energy Regulatory Commission, for employing the best possible science in the design, construction, and maintenance of buffer areas in this process.

The CRPA formally asked the Virginia Outdoors Foundation (VOF) to reject the Atlantic Coast Pipeline's application for the conversion of 10 conservation easements in the Cowpasture Valley for use as a pipeline right-of-way. The pipeline represents a huge "local" economic and environmental cost for our rural communities, and a FERC *Certificate of Public Convenience and Necessity* must be granted first.

So, how does the Association "protect" the watershed? First, we engage the source of threats to water quality and then, we "dance-the-dance".

With warm regards,

Nelson Hoy

Executive Director's Corner

Autumnal Greetings,


Picnic Photo by Kathy Farmer

Ah, my personal favorite of the seasons! The cool, clear days of fall signal harvest, hunting, hiking and relief from the *Dog Days* for me and mine. The summer held some real highlights, though. Bill Hardbarger organized an excellent Summer Picnic (see highlights next page) and deserves a hearty *hurrah*!

My on-going research in documenting *vernal pools* in our Alleghenny highlands region has offered chances to see beautiful parts of the watershed, where the CRV has the highest concentration of these rare mountain wetlands. I'm also soliciting opportunities to examine and photograph private "arrowhead" collections from our river valleys (see my appeal below). These academic pursuits also afford occasions for me to visit CRV land owners and friends, and to explore more of our fascinating and scenic watershed.

The importance of our persistent opposition to the proposed pipeline that would gouge through our beloved mountains and their stream valleys, is evident to me every time I venture through the CRV and beyond. It is incumbent upon us to ***Protect the Things We Love*** through advocacy, monitoring, personal engagement, and outreach.

The effectiveness of our Watershed Education efforts has been evident this season. That Committee has dramatically increased programming services with teachers and students in our region. As a veteran conservation educator, it's gratifying for me to see these outcomes, and I understand all too well the effect on natural resource protection that it yields — now and for the future. This mantra that CRPA promotes* is a variant of the oft-quoted line of West African forestry engineer, Baba Dioum (1968): "In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we are taught." That is the very process our outreach services foster!

We hope you take advantage of the fall season to enjoy outdoor recreation and reflection on what we hold dear in this part of Virginia — our waters and wild spaces. Please share your experiences and photos through our Facebook page and in future issues of this newsletter!

Naturally Yours, *Mike*

Your Executive Director is seeking invitations to examine and photograph private collections of American Indian artifacts from the Cowpasture River Valley and Allegheny highlands region. THANK YOU is expressed to the Fords (see below) and the Cowdens for their assistance in this study thus far. The 1996-98 R. Burkert presentation collection at Fort Lewis Lodge in the upper CRV was my first to catalog. A future portfolio is possible.

IMAGE LEFT: PHOTO INSET OF A 1930'S COLLECTION ASSEMBLED BY W. KENT FORD (INCLUDING FINDS BY T. M. GATHRIGHT) FROM THE JACKSON RIVER, WILSON CREEK, AND COWPASTURE RIVER VALLEYS. EXAMINED COURTESY OF MR. & MRS. W. KENT FORD, II OF MILLBORO IN BATH COUNTY, VIRGINIA.

THIS LARGEST POINT (~5.25" TL) MAY HAVE BEEN CEREMONIAL OR USED FOR ***BISON HUNTING ON THE RIVER PLAINS***.

Summer Picnic Highlights

Chief Cook & Picnic Planner, Bill Hardbarger… *makes a mean weiner*!

Photos by Kathy Farmer

CRPA folks do love to *eat, drink, and be merry*!

Spirits weren't dampened by the brief shower…
a rainbow appeared, and all had fun and fellowship.

Peaceful and scenic **Sycamore Bend on the Cowpasture**: **www.sycamorebendonthecowpasture.com**

Special ***THANKS!*** go to Amanda McGuire, our 2016 hostess, and also to Bill for all his hard work!

SPECIAL REPORT: Atlantic Coast Pipeline

Pipeline Construction Over Steep Mountains Spells:

"Environmental Degradation"

by C. Nelson Hoy, a Forester, Rancher and Conservationist

Editor's note: The following essay is the 14th in a five-year series on water resources stewardship in the Cowpasture River Watershed. The goal of the series is to create awareness among students, citizens and officials of the critical need to protect our surface and ground water resources, and to stimulate interest in progressive stewardship.

WILLIAMSVILLE – When my wife, Lizzie, and I built our home in Highland County 10 years ago, we realized that the pastureland we were excavating for a foundation and basement had been untouched by humankind since this part of the world was formed by glaciers a millions of years ago. Certainly, over this vast period of time, the landscape changed as barren rock gave way to plant life, the woodlands we see around us took form and perhaps Native Americans burned these woodlands to create grass savannas for the American Bison. But, essentially, we were digging where nature had been doing the landscaping for a very long time.

Like every farmer, rancher and forester who understands our mountainous terrain, I know the risks of reshaping the earth we live upon and work. A simple change can cause unexpected consequences and extensive secondary damage, particularly when that change affects the direction and path of water. As water creates a new path, the result, as we know from experience, is erosion. Uncontrolled runoff can take the soil, rocks, and debris in its path right into our streams and ground water aquifers. And, this kind of damage cannot easily be repaired or restored at all.

Why erosion is a key pipeline issue:

The current Atlantic Coast Pipeline (ACP) GWNF-6 Alternative Route runs up, across, and down 20 Appalachian Mountains; 19 of which are higher than 3,000 feet. However, it's not just height that matters when gauging the risk of erosion, it's also gradient, or how steep the slopes are.

According to the Dominion Pipeline Monitoring Coalition (DPMC), the pipeline will traverse *severe* slopes (with 25 to 40 percent gradient) as well as *extreme* slopes (with greater than a 40 percent gradient). Another source, the USDA Natural Resources Conservation Service, calls these mountain slopes *exceptionally* steep, varying from 10 to 80 percent. This terrain, the DPMC reports, presents severe potential for soil erosion.

The oil and gas industry recognizes the risks caused by disturbing the soil on steep terrain. According to the Intermountain Oil and Gas Best Management Practices Project, "Surface occupancy is also prohibited on slopes exceeding 30 degrees to prevent excessive soil erosion, slope failure, and mass wasting, all of which would contribute increased sediment to drainages that may affect aquatic resources."

The Best Management Practices Project also advises that on slopes greater than 25 percent, plans should be submitted to and approved by the U.S. Bureau of Land Management (BLM) for surface disturbance in these areas.

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Columbia Gas Pipeline Construction on Peters Mountain in Giles County.

Note that this Columbia Gas Pipeline was a 12" diameter project while the Atlantic Coast Pipeline project will be 42" in diameter. Further, there is no evidence in this photograph of any erosion control measures along half a mile of steep gradient. Photographic attribution is hereby given to the Dominion Pipeline Monitoring Coalition.

Assessing the potential for damage:

To assess the threat posed by erosion in our mountainous region, the Cowpasture River Preservation Association (CRPA) ran erosion predictions using a computer program developed by the U.S. Department of Agriculture that weighs seven key variables influencing rain-induced erosion: slope gradient, slope length, soil type, rainfall amount, vegetation condition, and truck and equipment traffic.

The computer model predicted soil loss in tons per acre per year during construction and before the to-be-developed Best of Class mitigation measures, as follows:

10% slope--expected erosion is 34 tons of soil per acre per year.

20% slope--expected erosion is 105 tons of soil per acre per year.

30% slope--expected erosion is 183 tons of soil per acre per year.

40% slope --expected erosion is 259 tons of soil per acre per year.

50% slope--expected erosion is 331 tons of soil per acre per year.

70% slope--expected erosion is 454 tons of soil per acre per year.

90% slope--expected erosion is 549 tons of soil per acre per year.

The findings are discouraging and do not bode well for protecting our surface waters and underground karst aquifers. As the percent of slope increases from 10 percent to 20 percent, the predicted erosion more than triples; as the slope increases from 10 to 30 percent, the predicted erosion increases more than fivefold; and as the slope increases from 10 to 40 percent, the predicted erosion approaches an almost eightfold increase. On steeper slopes the environmental threat becomes increasingly more severe, reaching as much as 549 tons of soil per acre per year.

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Stonewall Gathering Pipeline Construction in Rugged Mountainous Terrain –

Up One Side, Across the Top and DOWN the Other Side.

Note this Stonewall Gathering Pipeline in West Virginia is 36" in diameter. Now imagine that pipeline right-of-way on either side of this steep ridge then crossing a narrow V-shaped valley. Note the next photograph shows erosion and stream sedimentation.

Narrow V-shaped valleys breached by the pipeline:

The GWNF-6 Alternative Route breaches 21 narrow V-shaped valleys where effective mitigation measures become highly problematical or down-right impossible. The pipeline trench (depicted in a earlier photograph) down the steep slopes of Peters Mountain, even after back-filling and compaction, will act as the gutter-of-least-resistance for water flowing down the mountain for decades to come. The construction of access roads, equipment staging areas, fuel and lubricant storage areas in narrow valleys is virtually impossible without environmental destruction primarily because there is insufficient space to properly design, construct and maintain riparian and karst buffer areas. And remember that native brook trout habitat is destroyed by sedimentation.

Require mitigation measures before FERC approval:

Dominion Resources is asking permission to build its pipeline through some of the most rugged mountains in the Eastern United States, a region that includes 74 miles of terrain classified as highly erodible by water and 24 miles of terrain classified as slopes greater than 30 percent. Yet, they have dismissed and disregarded repeated requests by federal agencies and non-governmental organizations to address the impact of pipeline construction on soil erosion and the secondary effects on rivers and streams, ground water aquifers, wells and springs, and on wildlife habitat.

What Dominion has said is that it "has assembled a team of subject matter experts to provide input and review during the design, assessment and implementation of the best-in-class measures in steep slope portions of the project." For those of us living close to the proposed pipeline and for those who value our National Forests, this statement doesn't provide much comfort.

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Stonewall Gathering Pipeline Construction in a Flat Valley with the Stream Crossing Shown in the Lower Left-hand Corner and Heavy Stream Sedimentation Flowing Eastward Towards the Upper Right-hand Corner.

Note that this pipeline is a 36" diameter project. Further, the stream crossing location and the extensive construction staging areas are in a flat valley. Observe mud everywhere. What do you think will happen in narrow V-shaped valleys with steep gradients both east and west? Photographic attribution is hereby given to the Dominion Pipeline Monitoring Coalition.

First, there is as yet no such thing as "best-in-class" pipeline construction measures or protocols for steep terrain. The ACP in briefing the Virginia Department of Environmental Quality asserts that it will (i.e., in the future) develop best-in-class construction protocols for steep slopes.

Second, Dominion implies that these best-in-class protocols will be developed after FERC awards the "Certificate of Public Convenience and Necessity."

Third, common sense dictates that mitigation measures for erosion in rugged mountainous terrain must be designed, tested for effectiveness and publicly reviewed or vetted in advance of FERC's award.

Why does all this matter:

There's no doubt that erosion in rugged mountain terrain is a significant environmental threat, and the loss of soil is just the beginning. Other environmental damage includes heavy storm water runoff, river and stream bank scouring, sedimentation in karst terrain features, sedimentation in public and private water supplies, slope failures, landslides and damage to wildlife habitats. The list goes on and on.

Anyone who understands this landscape knows that building a pipeline up, across and down 20 tall, steep Appalachian Mountains creates unacceptable risks that are likely to cause irreparable harm – right here where we live. Let's make sure FERC gets the message: the Cowpasture River Preservation Association and its members do not believe that Dominion's proposed pipeline meets even the minimum standards of common sense protections from the erosion of soil, debris and rock into our rivers and streams or our karst ground water aquifers.

The only force standing between our rivers and karst aquifers, and environmental disaster is an informed citizenry. Let your voices be heard loud and clear in both Washington and Richmond!!!

Thank You, Mindy Brooks, for a heavy duty editing of this article.

Monitoring Water Quality

The Cowpasture Is Clean

By Puggy Farmer, Monitoring Committee Co-Chairman

Yes, the Cowpasture River *is* clean! Our monitors are in the water monthly for bacteria and water chemistry tests, as well as semi-annually for the macroinvertebrate counts. Of course there are monthly changes, but even with the occasional spike, we never reach the red zones in our findings. For example, the bacterial counts would ring the bell of concern at 126 colonies of *Escherichia coli* (E. coli) per 100 milliliters of water, and we haven't rung that bell! Great, but what is **E. coli**?

E. coli is a nasty germ (a non-beneficial bacterium) that is found in the lower intestine of warm-blooded animals and, although most strains are harmless and are important in vitamin K production and keeping pathogenic bacteria from colonizing inside our digestive tract, we do not want them in the Cowpasture River. *E. coli* enter the river within fecal matter and reproduce rapidly in the presence of oxygen. You might recall incidents of serious food poisoning warnings and even death due to *E. coli*, particularly in children.

Do we have *E. coli* in the river? Sure we do, but not at the bell-ringing level. Cattle and wild animals crossing the river pass bodily waste, and the count would be high in that vicinity, but the river – thank goodness – cleans itself. The monitors take water samples and incubate them in a special medium that is specific for *E. coli* ( ). High colony growth would indicate the river is being overwhelmed and "nasty" in water quality. A faulty septic system, someone dumping their camper waste tank in the river, or runoff from a farm could cause a spike in colonization.

One interesting and consistent finding is at the confluence of Shaws Fork with the river. Shaws Fork has two turkey farms along its route, whereas the Cowpasture passes through agricultural land. I would have thought Shaws Fork would have a higher reading due to the turkey farms, but the data confirms the Cowpasture has more *E. coli* at this confluence. This is just one example of what one might think, versus what the data shows. Don't worry, the higher Cowpasture level for *E. coli* bacteria is not bell ringing!

Actually, the best indicator of a clean Cowpasture comes from macro-invertebrates ("spineless" organisms that can be seen and identified without high magnification). These organisms have different tolerances to pollution and can either thrive or die-off in bad water. So, if we identify these "bugs" and use the ***Save Our Streams*** Multimetric Index (modified by Sarah R. Engel and J. Reese Voshell, Jr.), we can tell if the Cowpasture is clean. For example, if we identify "bugs" who like to hang out with *E. coli* and can tolerate chemicals or low dissolved-oxygen levels, then we should stay out of the river. Don't worry, our monitors report the "good bugs" are under their rocks and living happily in the river!

The monitors also check the chemistry of the water at all the stations. This is more complicated stuff and involves instruments that measure not only the pH and temperature of the water; but also conductivity, nitrogen, and phosphorus. In addition, chlorine is tested at all stations by one of our monitors.

Conductivity is the measure of water being able to carry an electrical current, and this is affected by inorganic dissolved solids such as chloride, nitrate, sulfate, calcium, and iron, being in the water. Organic solids like oil, alcohol, sugars, and phenol can lower conductivity. Conductivity is important to the monitors because the Cowpasture historically remains within a fairly constant range of conductivity. If the conductivity is suddenly outside of this range, the monitors are alerted to a possible source of pollution entering the river. Remember, many factors affect the range of conductivity.

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For example, rainwater dilutes the mineral concentration; warm temperatures cause higher conductivity, and dissolved solids are released from water flowing over soil and rocks. Geology is the primary determinant of conductivity in the Cowpasture River, so any jump out of the established range is a "red flag" of something new and possibly unwanted in the river.

Pollution from nitrogen and phosphorus (nutrient pollution) affects not only the appearance of the river but reduces the Cowpasture's ability to support aquatic life, particularly fish. Those green, slimy algal blooms are related to nutrient pollution and low dissolved oxygen levels.

Land use changes such as deforestation, intensive agriculture, and urbanization are the primary sources of nutrient pollution. Fortunately, there is little development along the Cowpasture, but intensive agriculture and a lack of proper riparian buffers can present potential pollution sources for the Cowpasture River. So the monitors check the water for high levels of nutrients.

If any of our readers are interested in more scientific information regarding specific data we have collected over the years, in support of keeping the Cowpasture clean, then the CRPA is happy to provide it. I shall defer to your co-chairman of the Monitoring Committee (see article on the next page about Roger Baroody) and Bill Jones, former Board Member and hydrologist. These gentlemen "carry the (science) ball" for the CRPA and can quickly make your eyes bulge with graphs and pages of data! I tag along and hand them instruments. My interest is in the macro-invertebrates.

The Monitoring Committee can always use extra hands... Don't hesitate to contact Puggy at **cowpastureriverhawk@yahoo.com**

Fall River Clean Up at Walton Tract RESCHEDULED – Saturday, October 15th

Volunteers will meet at the lower public access point ("rope swing") at 1:30 pm for two teams to organize and collect litter along the river at our adopted site on the national forest. Dress for outdoor litter collection. We provide the gear.

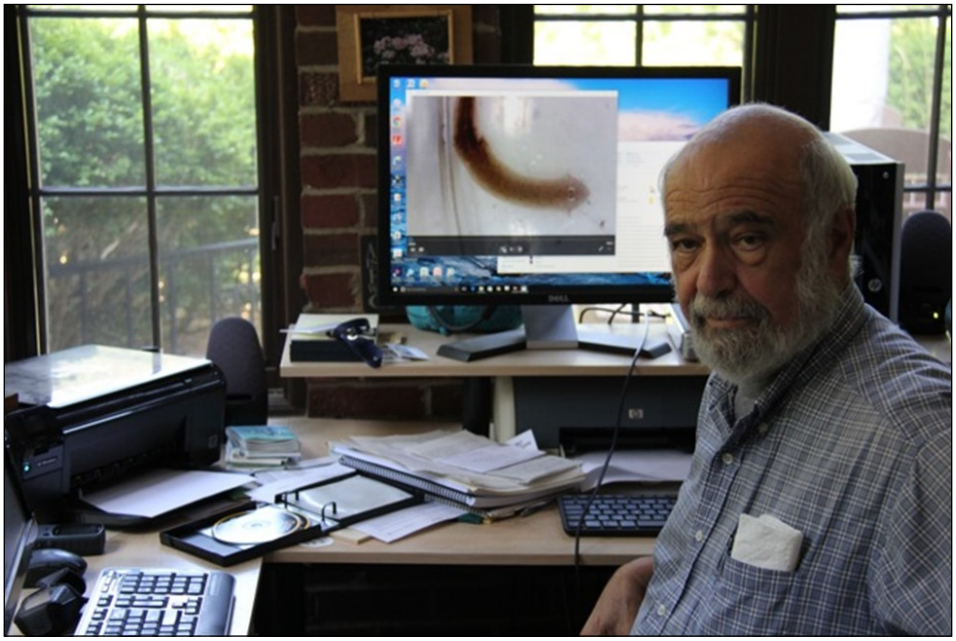
If you're interested in helping, please contact Mike at ***directorcrpa@gmail.com***

Orange is the new *green*? Twice annual clean up along the Cowpasture at the USFS Walton Tract is a traditional community service of the CRPA. Please come out and help us if you can! (archival photo)

Member Spotlight

Dedicated Volunteer:

Roger Baroody



Left: Roger Baroody, Co-Chair of River Monitoring, at his desk in Aug. 2016 (photo by Cynthia Baroody)

Roger is the Co-chairman of the CRPA Monitoring Committee and the backbone of that committee.

He grew up in Lexington, Virginia, graduated from the University of Virginia (UVA), and in 1965 began his medical research at UVA in anesthesiology. From UVA he continued in medical research at Columbia University, College of Physicians and Surgeons. After retiring from research in 1986, Roger entered Union Seminary in Manhattan, New York City and in 1992 became the Reverend Roger Baroody, Episcopal Priest.

The Cowpasture River has been familiar to Roger since 1963 when his interest in speleology (caving) brought him continually into the watershed. His interest was mapping, surveying and exploring caves along the Cowpasture. He also mapped caves in West Virginia and formed the West Virginia Cave Survey Group.

Roger is also a Virginia Master Naturalist (**www.virginiamasternaturalist.org**). His interest in wildflowers is well known, due to his beautiful wildflower pictures and lectures he gives throughout the watershed.

Roger and his wife, Cynthia, moved to Covington, Virginia in 2010 and became members of the CRPA because of their interest in our monitoring program. Roger currently manages three of the seven stations along the river, does all the monthly chemistry readings, and eight bacterial readings (The CRPA does some sampling of the Bullpasture River, because it merges with the Cowpasture). The chemistry sampling takes approximately nine hours to complete and an additional eight hours of work in his home lab. Roger and Cynthia attend almost all the macro-invertebrate counts, and Cynthia records the data from the instruments during the water chemistry sampling.

Roger Baroody is a great friend to the river, and the monitors respect not only his dedication but also his knowledge. The CRPA is fortunate to have him as a member and monitor. His dedication to the river is an inspiration to us all!

Editor's Note: This* Member Spotlight *profile article was written by Past President, Puggy Farmer.

Memories of Cowpasture Camping

A Boy at Camp Wallawhatoola *by Will Fairley, Guest Writer*

I was a camper at Wallawhatoola in the summers I think of 1947 and 1948. That was when every town, including Staunton where I lived, had an Army-Navy store selling surplus World War II gear. I remember bringing an army canteen to camp. My first cousin, Buford Tynes, was a counselor and that's how I came to be there. It seemed a long way from Staunton. It seemed like two hundred miles. Imagine my surprise the other day finding Millboro Springs on a Google map, what, sixty miles away?

The Cowpasture River was the heart and soul of Camp Wallawhatoola. Before the start of each season, counselors and campers would re-build a rock dam below the river bend to create a long swimming and boating area. There never was any better swimming, but the thing I remember best was the canoes and rowboats. I learned then that I had a knack for rowing, something that stood me in good stead ever after. To go out on the river in any kind of craft you had to be turned over in a canoe as a test. In the test we knew the counselor was going to turn the canoe over, but we never knew when. It was still a shock.

There were two seminal events with the river each year. One was the Naval Battle, in which counselors and campers in two lines of canoes filled with deflated basketballs and footballs would attack each other, throwing these missiles at the opposing line and seeking to overturn the other's crafts. The second was the River Hike. We actually hiked in the river bed itself. What a concept! We started down the Cowpasture past the rock dam and continued for what seemed like five miles and then returned. I'm sure it was refreshing.

Wallawhatoola's version of *Capture the Flag* occupied a long day and night, or maybe even two or three. It was exciting. Hiding out, raiding the campsite, and escaping prison were adventures. Campers stayed in canvas walk-in tents with I think five boys and a counselor in each. The whole camp was no more than 60 or 70 boys. At your peril did you fail to make your bed or leave your stuff lying about. While rules were observed, the atmosphere was one of enthusiastic teamwork.

An activity each camper participated in was sentry duty, with shifts, keeping a campfire going all night. I whiled away my duty time by chopping up, with a hatchet, large wood branches that had been gathered for the fire. It must have been oak wood, because counselors ribbed me something terrible the next day about the racket that went on in the middle of the night.

My favorite regular activity was the rifle range. We were in awe of the danger and the responsibility entrusted in us. Collecting the marksmen badges was a sought after reward.

Now that I know where Camp Wallawhatoola actually was, I look forward to visiting the area.

Editor's Note: Will is a new CRPA member who lives in Swarthmore, PA and found us on the internet while reminiscing about his early camping days on the Cowpasture ("Wallawhatoola") River. Welcome, Will!

…Worth a Thousand Words

Past President, John Fowler, supplied these 1952 images of Camp Wallawhatoola from his extensive collection. Pictured here are the canvas tents and "naval battle" described in Will Fairley's account.

WE COVET YOUR PHOTOS… Old AND New!

Thank You To Our Loyal Watershed Members

Includes dues and gifts received since Nov. 1, 2015. ***Thanks!*** for your continued support and ***Welcome!*** to our new members. Total donations for current campaign = ~**$41,822.00** **Bold names** = gifts received since the summer issue.

Bedrock Patrons

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Allan B. Howerton
Frank W. Morrison

Continued...

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Lynda Davies
J. Lesslie Hall, III
Jennifer Hawes
Dee Lobe
Sally Bingley
Larry & Jo Denius
Barbara Keller
Gilbert L. Ramey
Robert Farmer & Whitney McCuskey
Steve Kijak
Amy Edwards
Everette Mays, Jr.
Mike & Dorothy Hayslett
Phil & Charlotte Lucas
Wade Evans
Jim LaVier
Kathleen Gordon
Robert & Roberta Koontz
Wade A. Neely
Lois D. Jeavons
David & Julia Couey (New Member)
Garland & Jacquelin Lynn (New Member)
Ell Gordon
Mandy Owen & Mark Pellerin
Candice Dupoise
Rob Pasco
Kate Van Lear (New Member)
Paul Brinkley
Rick Webb

Junior Members

Liam Enfield
Annalise Enfield
Finn Enfield
Ava Hawkes
Miriam Hawkes
Nicholas White
Natalie White
Katherine Dupoise

In Memory of:

Donald G. Arnold
by Reis, Nelson, Rachford, & Gooch families

Donna Thomson
by Tom and Patti Watts
by David A. Jones
by Douglas and Alice Lumbard
by Michael & Catherine Madden
by Dr. John and Elizabeth Cottrell
by Michael & Catherine Madden
by Ann Howe and Robert Hilton
by Betsy and Jon Lasley
by Mandy Owen and Mark Pellerin

Paul Higgins
by Tommy and Kelly Slusser
by Dave and Sandra Peters
by Fred and Peggy Paxton
by Juanita and Patricia Savage

In Honor of:

Robert and Anne Howe Hilton
by Rob Hilton

The CRPA's annual campaign runs from Nov. 1, 2015—Nov. 6, 2016.

Our current campaign is nearly through its cycle. Dues and gifts received during this campaign are essential to the CRPA being able to carry on its mission of stewarding the Cowpasture River. Your support makes the difference! **Please renew for 2017**

Did we get it wrong? We're sorry for any errors or omissions in this list.
We are happy to correct errors. Please contact Mike at *directorcrpa@gmail.com*

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Protect The Things You Love

Please join us today. The river needs your time, talent and support!

❒ $20 Individual (minimum annual membership donation)

❒ $50 River Guardian

❒ $100 Headwaters Circle

❒ $250 Watershed Steward

❒ $500 Wallawhatoola Society

❒ >$500 Bedrock Patron

❒ Other_____(or Memorial)

❒ I am a NEW member! ❒ I am RENEWING

_____

NAME(S) As/If You Want Them Published

ADDRESS: _____

_____ _____

CITY — STATE — ZIP PHONE

E-MAIL: _____

❒ I prefer to NOT have my name published as a contributor.

❒ Please send my newsletter by email version only.

❒ I am interested in becoming a volunteer river monitor.

(Placard at the Picnic)