Beaver Creek to Get Limestone
by Bill Thorne

Beaver Creek of Little Sandy is a stream about 7 miles long that begins above Big Bear Lake and runs into Little Sandy Creek about ½ mile upstream of the Brandonville Pike. Acid soils and acid precipitation have rendered the upper 5 miles too acidic for trout for many years. The lower section has 3 Acid Mine Drainage (AMD) sites further degrading that section and Little Sandy Creek.

Friends of the Cheat (FOC) has been working to solve these problems since 1999 and reclamation work has been performed on 2 of the AMD sites and a limestone leach bed was built at Big Bear Lake to fix the poor quality water from above. FOC has accomplished this work through watershed cooperative agreements with the Federal Office of Surface Mining and a grant from EPA. The WVDEP also improved one site on Glade Run of Beaver Creek.

The project at Big Bear yielded good results and the water quality was good enough to support Native Brook trout based on 1 year’s water sampling. A transplant was made from a nearby stream in fall 2001 and the next summer a WV Division of Natural Resources (WVDNR) survey showed good reproduction. Unfortunately the system at Big Bear began to be less effective in producing alkalinity in 2002 and 2003. The leach bed was refurbished by stirring in spring of 2003. Alkalinity production increased somewhat but an additional treatment method was sought that could address acid precipitation and run-off from spring melt.

Both FOC and P. Pendleton Kennedy Chapter of Trout Unlimited (PPKCTU) started working with the WVDNR to see if limestone fines could be added to neutralize the seasonally fluctuating acid load. The simple method of dumping limestone fines into the stream has worked very well in the Monongahela National Forest streams. When water levels are up, as in spring melt periods, more limestone washes into the stream; when water levels are low, less washes into the stream. Thus, the system is self-regulating.

Mike Shingleton, DNR Coldwater Fisheries Chief, and Lou Schmidt with WVDEP/DWWM visited the stream with Keith Pitzer of FOC about one year ago and made estimates on the amount of limestone needed. Funding at that time was not available. More funding became available to the DNR and Mike and Steve Brown, DNR Planner, visited the stream with TU’s Bill Thorne and Pete VanOoyen in July 2004. A prospective dump site was determined and landowner permission was obtained.

Notification recently came that liming of the stream has been approved by state agencies and site preparation should proceed. Part of the annual amount will be dumped this fall and the remainder next spring. The funding for the liming will be shared initially by the DNR and PPKCTU.

This project will not only restore brook trout to Beaver Creek but will also contribute to the recovering Little Sandy. The cooperative efforts of FOC, PPKCTU, WVDNR, WVDEP, OSM and EPA could yet contribute to a restored fishery/ecosystem in the Beaver/Little Sandy/Big Sandy drainage.

Editor’s note: Bill Thorne is a past board member of FOC and has dedicated countless volunteer hours to restoring streams which have historically supported native brook trout populations. His concern for the survival of the transplanted fish and their eggs has never wavered.
Alas, it’s late summer as I write this for the perennially late newsletter. I can assure you, we have not been idle. For the second year in a row we have had more summer rain than normal. Cheatfest hit the driest Saturday of May on the 1st. Great effort from volunteers, vendors, agencies and other groups, and the musicians all contributed to a smooth running enjoyable festival. With the exception of some gate crashers and some late night noise makers, we received far more kudos than complaints. Income from the event dropped a bit from last year’s fest, which was off from the record 2002 festival.

Those of us on the board and staff have come to the conclusion that the festival has essentially topped out in size because of parking. Kindness and support from Laurel Highlands and Whitewater Adventurers provides parking for approximately 2000 attendees through the gate. Within that number are folks that are staying at either local campground, which are also full that weekend.

So with ten years history, the Cheat River Festival has seemingly come into its own as more than a paddling festival, with its mix of outreach, eclectic entertainment on the stage, and a somewhat laid back atmosphere that folks from all walks of life seem to appreciate.

The Downriver Race set a new record this year with 104 registered racers. The event grows and gains more and more attention each year. A special thanks goes out to Rick Gusic for organizing such a successful race. For a more detailed report on Cheatfest and possible changes for next year, read Sally Wilts’ Report on Cheatfest.

After Cheatfest, I turned back to my desk and other projects. We had endeavored to construct five projects this year plus a large project involving the Army Corps of Engineers. It now will now be four projects. More than any other source of frustration is that of committing a body of work and time to a project and having it fall through for no lack of effort. Many things can conflict with a project. Agency snafus, landowner unwillingness or program funding changes are just three complications we deal with.

I will take a bit of space here to address the issue of landowner cooperation. We appreciate the willing landowners that allow access onto their property for the purpose of addressing acid mine drainage (AMD). These projects don’t always improve the property where they are located. But all of us are downstream of someone and the benefits of treating AMD accumulate in the lower reaches of the watershed and contribute to recovery of fish and other biologic populations. Explaining the benefits of participation in reclamation projects provides an opportunity to learn more about the watershed, its history, its culture and how people feel about it.

With summer our outreach and education got underway in the capable hands of OSM/VISTA Ben Mack and OSM intern Aaron Miller. They have given stream monitoring demonstrations to Cub Scouts and 4-H club groups on several occasions. In all over 250 young people have been exposed to ideas about stream quality through these presentations.

We have won a contract with WV Division of Natural Resources to interview landowners around the Cheat Canyon area. The purpose of this survey is to ascertain more fully the land use patterns, any willingness to enter conservation easements regarding species that might be there, allowing for species surveys, public access, etc.

With everyone in the office at the same time there are four of us. This enables us to not only cover several different projects at a time but also to team up on larger projects like a recent grant proposal to EPA. This grant would provide resources for rail-to-trail development, site design and development along the river and trail, and researching historical material on early forestry, railroads, and the period of extensive coal mining in the watershed. Also covered in the grant proposal were plans to interview local residents and develop alternative sewage treatment where a community is underserved in that regard.

All this and the recreational development fostered by a rail-trail along the river would generate new economic growth in the area. This proposal could not have been generated by just one of us without dedicating weeks of research and work at the expense of other projects.

Read more about our staff and the resources that make staffing the FOC office possible in Ben Mack’s article So What Is an OSM/VISTA? and in Sally Wilts’ profile of.
Aaron Miller in *What Experiences Motivate Us?* in this issue.

We received an Environmental Excellence award from the WV Department of Environmental Protection. These awards are generally given to businesses, public service districts, sewage treatment plants and other facilities that cut emissions or minimize pollution. To be recognized in the same regard as an active player in the business arena in West Virginia is indeed an honor.

At the annual State meeting of The Nature Conservancy, FOC was honored with an award for partnership with TNC for our work in building partnerships and awareness in regards to the Cheat Canyon area. The Nature Conservancy is worldwide in its scope, applying good science and progressive planning in its efforts to protect special areas. It is an honor to be recognized by TNC and reassuring to have them involved in West Virginia.

During the same week we received word of an award of a Recreational Trail Development Grant we had submitted to purchase the ten mile Kingwood to Tunnelton-Kingwood Northern corridor. This project still needs $20,000 in non-federal matching funds and when that is identified will mark the physical beginning of rails-to-trails becoming a reality in the watershed. The Preston County Commission has agreed to accept ownership of the corridor.

It was an eventful week, and the weeks roll on. I receive word of an immediate opportunity for an extension of the OSM VISTA program with FOC. I exchange phone calls with a candidate in Massachusetts and we commit…..on faith with each other’s mission. Read more about Danielle Adams on page 7.

As I drive along the Cheat Narrows to and from the office people are fishing, boating, swimming, even picking raspberries along the road. I imagine the railroad track on the other side of the river being a public rail-trail. Bicyclists and runners are enjoying it and fisherpeople are accessing the river from that side as well. They come from here and away and converge on community restaurants, gas stations, motels and shops, enriching the local economy. I envision an interpretive watershed history center located at the old Preston coal prep plant site. Here people could access the trail, take out from the river, but moreover they could see the history and the future come together and from that coming together, see the means to plan and protect a wholesome watershed community for generations that follow. It’s a compelling idea. To that end we’ll be working upstream.
Those of you that read this newsletter thoroughly, or who may have an abiding interest in the health and protection of our trout streams, may remember the series of updates regarding anti-degradation and in particular the Tier 2.5 stream classification.

This tier of protection applies to our reproducing native trout streams, of which there are less than 600 miles in West Virginia. These streams are rare and often pristine in a world that doesn’t leave nature alone for long. The mid-Atlantic is comprised of many states without any native brook trout streams. Not only is the brook trout a national treasure, but it is a valued recreational resource for many in- and out-of-state anglers. Maybe most of all, brook trout streams are indicators that local watershed conditions are good.

It is significant to note that all non-point sources of pollution such as agriculture and timber are exempt from anti-degradation review under the implementation standards passed in 2002. A subsequent lawsuit against US Environmental Protection Agency (USEPA) filed by more than twenty environmental and conservation groups in West Virginia was successful in overturning several components of the standards. The WV Department of Environmental Protection has yet to address these changes to USEPA.

But two components that were not overruled were the notion of petitioning for “de-listing” streams that were on the Tier 2.5 list and a process for nominating streams to the list. Two local streams were nominated in 2003 by Ladd Williams, former FOC board member. This nomination went before the Environmental Quality Board (EQB) which is made up of five members with various expert backgrounds in water quality. After showing up on several meetings’ agendas and two public hearings, the Environmental Quality Board has decided these streams do indeed qualify for Tier 2.5 designation. Addressing concerns about limiting landowners rights, EQB Chairman Ed Snyder said “we’re not restricting use, we’re recognizing use.”

But the process still isn’t over yet. It goes to the next legislative session for a change in the water quality rules. There it will assuredly be under the pressure of industry, chamber of commerce, and landowner rights advocate members to kill this in rule-making committee. In a legislature that still has members wanting to dredge and straighten streams, this nomination will feel the heat.

The point of all this, if not sheer futility, is to prove how unworkable the anti-degradation implementation standards are. Native trout streams in our midst serve as reference points for other less preserved and protected streams. There were certainly many times the miles of brook trout habitat in these Appalachian mountains before the pressures of unmanaged timbering, mining and development.

We seek the qualities of undisturbed wild habitat for recreation and for the sense of security they bring to us. As citizens of planet earth, it is rewarding to know such places exist in our midst. As we look to the future it will become more and more important to plan for their lasting protection.
Many of you may be wondering: who is this person that keeps writing articles in the newsletter, and what does he do at Friends of the Cheat? And what the heck is an OSM/VISTA? First, a little background information: The OSM/VISTA program is a partnership between two federal agencies: Office of Surface Mining (OSM) and the Americorps VISTA program. OSM is an agency under the auspices of the Department of the Interior, and their mission is to “protect citizens and the environment during mining and reclamation, and to reclaim mines abandoned before 1977.” The Americorps VISTA (Volunteers In Service To America) program is dedicated to eliminating poverty through volunteers donating a year of their life to non-profit organizations.

In 2001, a partnership was formed between these two agencies and the OSM/VISTA Watershed Team was born. OSM/VISTA workers are placed in “Coal Country” (another name for the Appalachian Mountain area), the area of the country where historic coal mining has left behind a legacy of polluted water, poverty, and lack of opportunity. These volunteers strive to educate their communities, empower local citizenry, and aid in the cleanup of old mine sites.

While this may answer the question of what a VISTA is and what they do, you may still want to know what this particular VISTA does. My duties have ranged from finding volunteers for stream monitoring and Cheatfest to a project that has the ambitious goal of mapping the Cheat’s major tributaries. I also aid with fundraising, membership drives, and general office duties as needed.

The project that has taken the most of my time over the past 8 months has been the mapping project. This project was described in the Spring 2004 newsletter, and is an effort by Friends of the Cheat to pinpoint all sources of bad water in the watershed. I had the opportunity to present the progress of my project at a recent gathering of 35 OSM/VISTAs and their supervisors (including Keith and I) at the Lakeview Conference Center in Morgantown, WV. From Lakeview, there is a wonderful view of Cheat Lake, which helped set the atmosphere for the conference.

My presentation gave an in-depth demonstration of what this type of project is accomplishing at FOC and what it can do for other watershed groups as well. After the presentation was over, there were many questions from the group on how to implement something like this in their watershed. Due to the amount of interest in my project at the conference, I will write a “how to” manual on initiating this type of mapping project, including: where to get the software and computers needed for this application, how to find funding to continue the project, and suggestions on where to get help while working on the project.

Another side benefit of this project was that it gave me an opportunity to see what other OSM/VISTAs were working on in their watersheds. Their projects included many different issues, such as: sewage issues, education and outreach, and organizing volunteers for dump cleanups, just to name a few. The OSM/VISTA partnership allows watershed groups that may not have the budget to add staff to continue to serve their communities and to help fix the problems that many of us face in our watersheds.
What Experiences Motivate Us to Work for the Environment?
by Sally Wilts

Aaron Miller spent many days of his childhood at his grandmother’s house, along the banks of Pringle Run. He couldn’t help but wonder why Pringle Run ran orange and devoid of life, while the stream near his own home ran clear and was teeming with brook trout. He often wondered what could be done to restore Pringle Run, an otherwise beautiful stream, to its natural state. He graduated Magna Cum Laude from Alderson-Broaddus College with a B.S. in Environmental Science this spring and joined us for a twelve week Office of Surface Mining summer internship starting in June.

Since joining us, he has worked with Boy Scouts and 4-H campers to help them gain an appreciation of stream ecology. As we prepared to write a grant application to support our efforts to obtain funding for the rail-trails and the river access along the rail-trail, he researched health effects of sedentary lifestyles on our residents and wrote a compelling justification for rail-trails as a means to increase exercise. He is helping to write project descriptions for the Office of Surface Mining and has attended training in Geographic Information Systems provided by Canaan Valley Institute.

Prior to graduation he had served an internship with the WV Rivers Coalition where he wrote a fact sheet for legislators about antidegradation legislation in WV. He was certified as a stream monitor by WV Save Our Streams and had done volunteer stream monitoring with Friends of Decker’s Creek. He also made a trip to Belize to study tropical ecology.

Aaron’s term with us will end in mid-September and we will miss his willingness to apply his excellent comprehension of water quality issues to whatever project we are working on. He hopes to find a position in environmental science in West Virginia.

Best of luck, Aaron!

New OSM/Vista Joins Our Team

Hello from Massachusetts!

My name is Danielle Adams and I am very glad to be joining Friends of the Cheat in September as an OSM/Vista. I recently graduated from the University of New Hampshire with a degree in Environmental Conservation and a focus in Policy and Management.

During my four years at UNH I loved to spend time traveling and exploring new places. I was able to travel to compete with the crew team, to rock climb in the White Mountains with the outing club, to study environmental science and policy in New Zealand and to assist with social/environmental projects in Oklahoma and Honduras. Now that I have graduated I am definitely ready to travel to my next destination: West Virginia!

As an outdoor enthusiast, I was immediately drawn to West Virginia’s beautiful mountains and open spaces as I drove through the state earlier this summer. Personally, I was drawn to Americorps because of my eagerness to contribute to the community and to work for an organization whose mission I believed in.

Environmentally, Friends of the Cheat appealed to me due to their utilization of the “watershed approach” to restore, promote and protect the Cheat River. I am a strong supporter of using the “watershed approach” for solving environmental problems because it allows for greater awareness and understanding for everyone involved. I hope to bring enthusiasm, a strong naturalist background and a passion for community and the environment to Friends of the Cheat this September. Although it will be sad to say good-bye to friends and family in New Hampshire and Massachusetts, I am excited to soon experience the “wild and wonderful” state of West Virginia.
We Know AMD! Do You?
by Ben Mack, OSM/Vista

Here at the office of Friends of the Cheat, life isn’t always just about cleaning up acid mine drainage. We like to put our energy into other pursuits as well. Some of these include stream monitoring, mapping, and of course, the ever popular Cheatfest. However, one of my favorite parts of being FOC’s OSM/VISTA is being able to get out of the office for a day and take our education curriculum out to the kids.

This curriculum is called the Acid Mine Drainage (AMD) Awareness Curriculum. It is actually based off of a curriculum designed by Sally Wilts, FOC’s VISTA for 2002-2003. This original curriculum was called the AMD and Watershed Awareness Education Curriculum and was designed to be presented to 4th -6th graders in Preston County. The AMD Awareness curriculum uses the same materials, in addition to some new ones, that allow for presentations to many different age groups. The materials used can vary from videos to Project WET materials (water education for younger kids) to mine site visits. This curriculum will be constantly improved upon through the use of a 2004-2005 EPA Education Grant. This grant was just awarded to FOC in early August and will be used to purchase supplies for our education programs, as well as aid FOC in reaching more stakeholders in the watershed with our education programs.

The first test of our AMD Awareness Curriculum came on June 23 with the Monongalia County Weblos camp. The age range for this group was 4th and 5th graders. Sally Wilts, Aaron Miller, and I used three activities to teach the kids about water-related issues. Sally had the kids carry water in buckets to fill up 30 gallon trash cans to show how much work it is to transport water for daily use, a reality for most of the undeveloped world. Aaron showed the kids how to sample for benthic life in streams, and I ran an activity that showed the kids how the composition of a stream affects its properties. The kids rotated between the three stations every 20 minutes. The presentation was deemed successful by Jerry Keaton, the head of the camp, when he said “the kids really seemed to enjoy themselves.”

There have been other educational presentations that allowed us to continue to improve the AMD Awareness Curriculum. On July 6 & 7, 60 kids from the Preston County 4-H Older camp visited T&T #2, the site of the mine blowout that started Friends of the Cheat. After hearing the WV Department of Environmental Protection technician explain how the AMD is treated, Ralph Teter (FOC board member)spoke to the kids about the work of a coal miner. The final part of the presentation involved showing the kids a clean stream and the difference in quality and quantity of life between a clean stream and an AMD impacted stream. Bill Thorne helped by speaking about fish in the Cheat River.

There was also the opportunity to work with the younger 4-H Camp. This camp ran from July 26-30. Aaron and I taught 25 kids a day for two hours on how to sample streams for aquatic life, as well as some other parameters that are used to establish stream health. Throughout the week, we had several kids who said that “they would like to do this when they grow up.”

Other educational opportunities will include: the Water Festival at Aurora School, and working with students at Brueton School and Preston High in the fall of 2004. If you have any input on the curriculum or would like to volunteer to work with kids for a day, please contact Ben Mack at the FOC office at (304)329-3621 or by email at bmack@cheat.org.

Bill Thorne talks about the life cycle of the aquatic life stages of various insects and their importance to stream ecology with the Older 4-H campers. The campers are selecting macroinvertebrates off of the kicknet to try and identify them. They sampled in Muddy Creek, above the point where most of the Acid Mine Drainage enters the stream. The upper parts of Muddy Creek support trout populations. The group then travelled to the confluence of Martin Creek with Muddy Creek and saw the contrast of the yellow-boy coated, lifeless stream.
Memorial Hike in the Cheat Canyon
by Elsa Nadler

The Second Annual George Rosier-Minnie Bosley Memorial Spring hike was held on Saturday, May 15. The day dawned crisp and sunny with only a few threatening clouds—a perfect day for a 9.5-mile hike. Three hikers met at the Friends of Cheat parking area near Teter’s Campground and started into the canyon. After about a half a mile, the fourth hiker joined us, having missed the path to the parking area. We raised $45 to benefit Camp Mountain Heart. Allegheny Wood Products had given us written permission to use their land for this hike and requested a signed release from all participants.

The ground was soggy from the rains of the preceding week, but the trail at least was not a flowing creek. Some wildflowers were still in bloom, even though it was mid-May. We saw rattlesnake plantain, violets, phlox, Solomon’s seal, and twisted stalk in bloom and bloodroot and twinleaf already gone to seed. Throughout the hike along the Albright end we saw large cracks in the earth. At one spot, the ground had dropped to create a 12-inch-high ledge. Because the area is honeycombed with limestone caves, the cracks—some of them large—may be the result of roof falls. We also noticed sequentially numbered flagging, most with the prefix P and one with the prefix MP. I do not yet know what this means, but will ask Donna Reckart of Allegheny Wood Products. About a half mile in from Muddy Run, we met a biologist from Ohio who told us she was looking for the Cheat three-toothed snail but so far had not seen any.

Crossing Conner Run and the next creek we saw evidence of four-wheeler traffic. The vehicles appear to be coming from an access road about a mile from the Jenkinsburg trailhead. AWP has also put a timber bridge across the third creek. A half mile from the Jenkinsburg trailhead the hillside has slipped. It is now a muddy, steep slope. Three large trees provide some purchase for crossing. Hikers should be warned to cross the slip uphill from where the footpath used to be. This slip does not appear to have been caused by vehicular traffic but rather by the natural forces of nature, rain and a steep mountainside.

Our hike ended when we reached my car, which Dave Hough of Mountain Streams and Trails had graciously brought to the trailhead for us. And, no sooner had we closed the car doors, the skies opened up. We saw Dave cycling back to Albright about three miles from the trailhead and offered him a ride. He said he was already so wet he would ride his bike back.

The third annual George Rosier-Minnie Bosley Memorial Hike in the Cheat Canyon will take place on 16 October 2004. Hikers should plan to meet at 10:00 AM at the Friends of Cheat parking area off Route 26 behind Teter’s Campground. Hike organizers are attempting to locate a naturalist to lead the hike, which will traverse 9.5 miles of a fairly level but quite rocky section of the Allegheny Trail in the Cheat Canyon. Obstacles include three creek crossings (one of which has recently been bridged) in addition to a mudslide and a number of blowdowns. You can also expect to see some interesting flora and geology in this geologically active region.

This is a fund-raising hike to benefit Camp Mountain Heart, a West Virginia summer camp experience for children with heart disease. A scholarship to send a child to the camp is $400, and there is no charge to campers. We will ask for a $25 dollar donation.

Editor’s Note: This hike may have to be cancelled due to construction of a haul road on the Allegheny Trail by Allegheny Wood Products. Check with Elsa at 599-4917 or 293-3546 prior to making your plans.
Cheatfest 2004 Report
by Sally Wilts

Thanks to the hard work of our many volunteers and good weather, Cheatfest 2004 was a success. In our post-fest meeting we noted many problems that will need solutions next year, but overall the event went smoothly and generated part of the income we need to keep going.

With over 100 volunteers, there are too many to thank individually, but each of you hopefully felt that you were an important part of a worthwhile event. We have developed a core group of experienced and dedicated individuals who return year after year to contribute time and effort to the success of the festival.

All of the bands donate their performances and this year we had Eloise Milne, who was raised at the farm where the festival takes place, as a storyteller. There were 45 vendors and 21 non-profits and agency representatives. The Downriver Massacreance on Friday evening had the largest entry for this race to date.

We all felt that the size of the crowd was equal to or greater than last year, yet our gate receipts were less. Dave Bassage reminds us that illegal entry to the festival has always been problematic. Jim Snyder, Board President, has spearheaded the effort to build barbed wire fences at the Teter’s Campground fest entrance and at the border with public parking in an effort to cut the flow of people from those two areas.

The contracted security crew was ineffective this year and we had several thefts occur both during the festival and overnight. We will contract with a different security agency next year. We are considering limiting the camping on the festival grounds in an attempt to manage the noise levels generated during the night.

Illegal camping near the public parking is another perennial headache and jeopardizes the willingness of the owners of this property to allow us to use it as a parking site. Security did a poor job of monitoring this area this year. Increased patrols by our own members through the night may be needed to discourage camping. We also discussed possibly leasing the ground for the day of the festival to allow us more complete control of camping there.

We are always looking for responsible volunteers so let us know if you are interested in helping out!

Hospitality Tent Donations Feed Our Volunteers

Each year Karen Koehnlein does a great job of soliciting food donations to feed Cheatfest volunteers and organizing the crew to safely cook and serve the food. Our thanks to this year’s donors!

Thanks to our Hospitality Tent contributors!

Morgantown
Ali Baba’s Mediterranean Market
Applebee’s
Boston Beanery
Casa D’Amici
Chic-N-Bones
Maxwell’s
Mountain People’s Co-op
Quizno’s
Papa John’s Pizza
Pargo’s
Puglioni’s
Wings Ole’
WV Brewing Company

Kingwood area

Subway
Pizza Hut
Foodland
Albright Kwik Stop
Preston Distributors

Bruceton Mills
Twila’s
Bruceton Mills Grocery

Thanks to Chris Herring for Donating Her Photos

Chris Herring with Mountain Streams and Trails donated several CDs of photos she had taken along the Cheat River and other area streams. We used a picture she had taken of the Cheat Narrows section of the river on this year’s Cheatfest T-shirt.

She also donated a framed color enlargement of this photo to the Silent Auction.

Mountain Streams and Trails helped organize the Downriver Race and provided shuttle transportation as well as safety spotting along the race.
This is a list of the companies that donated to the Silent Auction or were vendors during Cheatfest 2004. Their support ensures that we will be profitable and we hope you will support them with purchases.

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<td><a href="http://www.mtmist.org">www.mtmist.org</a></td>
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<td>Mountain Streams and Trails</td>
<td>1-800-raftnow</td>
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<td>Mountain Surf, Inc.</td>
<td>301-746-5389</td>
<td><a href="http://www.mountainsurf.com">www.mountainsurf.com</a></td>
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<td>Muskrat Paddle Sports</td>
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<td><a href="http://www.muskratpaddles.com">www.muskratpaddles.com</a></td>
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<td>Mystical Crystal</td>
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<td>Ohiopyle Massage</td>
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<td>Rapidstyle</td>
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<td>River Sport School of Paddling</td>
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<td>Rocky Mountain Kayak</td>
<td>800-383-0909</td>
<td><a href="http://www.rockymountainkayak.com">www.rockymountainkayak.com</a></td>
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<td>Thought You Couldn’t Find It LPs and CDs</td>
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<td>304-457-5674</td>
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<td><a href="http://www.drybags.com">www.drybags.com</a></td>
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<td>We're Nuts</td>
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<td>Girls At Play</td>
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<td><a href="http://www.yoga-ventures.com">www.yoga-ventures.com</a></td>
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Buffalo Run Assessment
by Aaron Miller

Buffalo Run is a small tributary of the Cheat River that flows from an elevation of near 2380 feet on Briery Mountain west, northwest to its confluence with the Cheat at the Preston County Country Club. Buffalo descends approximately 1130 feet of elevation during the course of its two and a half mile flow, draining an area of approximately 7.27 square miles in all.

The drainage basin of Buffalo Run is characterized primarily by mountain hardwood forests and diverse mesophytic hardwood forests. These forested lands dominate to the north and west of Buffalo Run. It’s a somewhat different story, however, in the lower southwest region. Here, there are seven old strip mines, including three NPDES sites, which could potentially contribute to lowered water quality.

To the casual observer Buffalo Run might still appear to be pristine native trout stream. The banks are mostly vegetated, providing shade for the clear flowing waters. The substrate consists primarily of cobble, and the water cascading down the grade is well oxygenated. Many of the strip mines are overgrown and not visible from the pleasant stream banks. Only slight iron staining is present on the rocks, which is hardly noticeable compared to the vast stretches of streams painted by “yellow boy” throughout the Cheat watershed. So where are the trout?

In August of 2003 Friends of the Cheat began work to determine what kind of problem exists on Buffalo Run. To assess Buffalo Run, FOC has employed the West Virginia Save Our Streams (WVSOS) method of stream monitoring, which evaluates the quality of a stream based on several factors. Factors consist of basic water chemistries such as pH, conductivity, dissolved oxygen, and temperature as well as various physical and biological conditions. Thanks to the help of volunteers, FOC was able to sample Buffalo Run at several points along its course of flow. This enables determination of where possible contaminants are entering the stream.

Benthic macroinvertebrates were collected at each site because these bottom dwelling aquatic creatures are valuable biologic indicators. The Downstream Alliance Stream Condition Index (DASCI) was utilized to process the benthic data. DASCI compares the ratios of pollution tolerant versus pollution intolerant species present in the stream. Once this ratio and the various others are calculated the water quality can be fully assessed.

Sampling during different conditions
Sampling was conducted in August and October of 2003 and most recently in May of 2004. It is important to realize that the quality of an impaired stream will generally fluctuate throughout the year, with changing weather conditions and flows. This is why it is necessary to repeatedly sample the stream during different times of the year. For example some streams may receive higher quantities of acid mine drainage in high flows, while other streams may have lower concentrations under these same conditions due to a dilution factor. It is important to know how a stream will react to various environmental conditions before a remediation plan can be put into place.

Sampling of Buffalo Run in August was conducted during a period of low flow. When the results came in, the length of Buffalo Run rated as “fair” on the DASCI. A rating of “fair” is only one step away from “poor” on one side, and one step away from “good” on the other side. Unfortunately its average score of 64 on a scale of 100 rated it closer to “poor”. It seemed surprising results for a stream with such a pleasant appearance.

It was when the chemistry data came in, that the problems became more apparent. For example, one sampling location where Buffalo Run winds its way near an old strip mining area had a pH that measured in at only 4.6. Any pH value less than six or greater than nine in West Virginia waters is a violation of our water quality standards. Further, a value less than 5 is listed as non-supportive of aquatic life. In addition, this same site recorded manganese and sulfate concentrations that are also in violation of West Virginia’s water quality standards. Concentrations of both were high enough to be rated as threatening to aquatic life.

Sampling was then continued up a major tributary of Buffalo Run, which comes in from the south. Midway up this tributary an orange seep was noted. Sampling indicated that the water above the seep was good, but between the seep and the tributary’s confluence with Buffalo Run water quality suffered. In addition the area up hill to the southwest of this area had been...
strip-mined. Not surprisingly, the sites with the low pH near the strip job, and the area below the seep and along the strip job had the lowest DASCI. The seep itself could not be scored because it lacked invertebrates.

**October sampling results**

In October when sampling was done again the flow on Buffalo Run was considerably higher. FOC was interested to see how this would affect the water quality. Most of the sites experienced little change. But some sites experienced quite a bit of change. The site near the strip mine with the low pH was still in violation, but with a slightly higher reading of 5.3. Concentration of both sulfates and manganese also decreased to legal limits, but iron concentrations rose to 0.77 mg/l. Any value greater than 0.50 mg/l is a violation of West Virginia water quality standards and listed as threatening to aquatic life. The biggest changes, however, occurred on the tributary below the seep and bordered by a strip job. This site experienced massive decreases in iron, manganese, and aluminum. All three metals were in concentrations well beyond West Virginia water quality standards and were listed as threatening to aquatic life.

Perhaps a trend was evident. Do higher flows on Buffalo indicate poorer water quality? Sampling in May during the highest flows would highlight even worse water quality right? —Wrong, although the May sampling did yet again reveal iron concentrations above legal limits; (and therefore hazardous to aquatic life) generally the water quality was better.

**Conclusions**

Although our results to date aren’t exactly what we expected, we still think that Buffalo Run appears to be a great candidate for some reclamation work. It is not overwhelmed by acid mine drainage, but there is still room for improvement. We also now know the stretch of Buffalo Run that is that has shown the highest pollutant concentrations, which helps to narrow down where the pollution is coming from. Higher flows do seem to have an effect on water quality, but not the same effect consistently. Further sampling is a must on Buffalo Run. It is only through continued monitoring that we can devise an adequate plan to help restore Buffalo, but maybe one day brook trout can again swim in the waters of this beautiful stream.
Updates continued from previous page

in the Cheat River and its tributaries will continue to improve.

AML Re-Authorization

The existing legislation that authorizes a tax collected on every ton of coal produced and paid into the abandoned mine land (AML) fund for reclamation work is set to expire on September 30, 2004. By the time you read this, the AML program may have expired; dropped through the cracks of the congressional process. This would leave a grievous environmental injustice across the Appalachian coal region. This injustice is in the form of thousands of miles of acid streams, thousands of acres of unreclaimed mine lands and spoils, exposed highwalls, open portals, open mine shafts, and tens of thousands of households without potable water due to old mining.

Efforts at re-authorizing this program were evident this summer as interests waged a political war of wills. One AML bill was attached to an energy package that allowed oil drilling in the Arctic National Wildlife Refuge. Fortunately there were enough reasonable heads in Congress to block this.

Much of the debate revolves around a shift in coal production. When this legislation was first enacted in 1977, the Appalachian coal fields produced the majority of coal in the United States. Now and in recent years, the state of Wyoming is by far the largest coal producing state. This has resulted in Wyoming spending AML funds on projects that are non-coal related. These range from hard rock mining reclamation to infrastructure projects such as university buildings, hospitals and roads. Since most of the coal mining in Wyoming has occurred since passage of the Surface Mining Control and Reclamation Act in 1977, it stands that Wyoming has a smaller inventory of coal related sites on the inventory list awaiting reclamation.

Meanwhile, Appalachian coal states have a large inventory of abandoned sites from before 1977 that have yet to be reclaimed. One estimate is of $8.7 billion in total reclamation needs from pre-1977 coal mining. This is quite a legacy from the coal industry. The state of Wyoming feels it is paying for Appalachian problems.

Appalachian states feel they have paid for past hard industrial growth with decades of environmental degradation before the 1977 law and are still in need of resources to address this degradation. So what is the answer? It won’t be easy. Politics are politics. Everyone wants to bring something home. For now, I hope you are reading or hearing on the news that the AML program was extended for another year in its present form, giving Congress another crack at new legislation next year.

FOC is in ongoing communication with Congressman Mollohan’s office and other various environmental groups in the eastern coal region on this issue. All conservation interests across the eastern coal region hope to find an eleventh hour effort to save the AML fund. Hopefully we will be able to report a positive outcome in the next issue of Into the Canyon. In the meantime and especially before September 30th, please contact your respective Congressional Representative and Senate offices inquiring the status of AML funding and expressing concern for its continuation.

Cheat River Gauges

In August we learned of another funding crisis regarding operational funds for river gauges in the watershed. These gauges measure streamflow and are very useful for boaters to judge stream conditions. The primary agency with responsibility for the gauges is the United States Geological Survey (USGS). In communication with USGS in early August, FOC was told that USGS could not pay the total operating cost but that they were seeking alternative funding. We have just learned that Ron Evaldi with USGS has received a commitment from Allegheny Power for funding for the Parsons, Albright and Big Sandy at Rockville gauges. This is a cost of $17,500.

This announcement is welcome but leaves other gauges still unfunded. Some of these gauges have sixty years of stream flow history. It would be a shame to lose that historical perspective. We will pursue these needs and report further in the next issue of Into the Canyon.
Why Get Involved with the Friends of the Cheat?

From its headwaters in Pocahontas County, West Virginia, the Cheat River flows 157 miles to the Pennsylvania state line. In its lower 20 miles the river has been so severely polluted by acid mine drainage that it is effectively dead. Most of this damage is caused by underground and surface coal mines that were abandoned decades ago. The continuing legacy of this pollution has been the loss of fish and wildlife, aesthetic damage, degraded drinking water, and losses to the local economy from diminished recreation activities such as fishing and boating.

Our objective is to foster cooperative efforts by federal and state agencies, private industry, and local landowners to address the severe acid mine drainage problems that paint the Cheat Canyon orange and render it ecologically sterile. We need your support to create a new legacy for the Cheat River. Our membership includes fishermen, paddlers, guides and outfitters; land owners and renters; politicians and activists; geologists and biologists; small businesses and large industries; residents and folks from many states away. We are a diverse group with a common goal. Ours is a vision of a healthy river that provides multiple recreational opportunities and sustains viable local economies.

Help us make that vision a reality. Remember...Rivers carry the lifeblood of the planet... but they should not run red. Restore water quality on the Cheat! Become a member by completing the form below or by visiting our website at www.cheat.org.

*** The Board of Directors of Friends of the Cheat recently decided to offer rewards of FOC merchandise for those who are able to make sizable contributions to our organization. See the listing below for more information.

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Yes, I Want to Be a Friend of the Cheat!

Membership and Donation Form     All donations are tax-deductible
Membership includes our quarterly newsletter Into the Canyon

Basic Membership
___ Individual/family $20
___ Non-profit Organization $50
___ Business $100

Supporting Contributors
___ Stream Steward $100-$249 includes ball cap with FOC logo and choice of video
___ Watershed Watch $250 or more includes choice of video plus polo shirt with FOC logo

Want to do more? See the new contribution categories

Videos – ___ River of Promise-A Catalyst for Change or
___ River of Promise – Price of a Legacy     $15 each or 2 for $25

T-shirt - $15 ($10 with $50 or more donation) Size ___ Medium ___ Large ___ XLarge ___ XXLarge

Total amount enclosed: $_________________ Payable to: Friends of the Cheat
119 S. Price Street, Suite 206
Kingwood, WV 26537

Name _________________________________

Address ____________________________________________

City, State, Zip ________________________________

Email ____________________________________________

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Lou Schmidt, Mon Basin Coordinator for Non-point Source Pollution with the WV Department of Environmental Protection, presents a $5000 Stream Partners check to Keith Pitzer which will support our stream monitoring and outreach. Aaron Miller, Sally Wilts and Ben Mack are delighted to have support for their work.