Participants on a tour of WV DEP’s Acid Mine Drainage Treatment at T&T mine. This site uses active treatment with daily injection of chemicals to neutralize the acidity of the outflow from the mine. It is staffed every day all year to monitor the flow and the treatment. T&T mine will be part of the Watershed Tour on August 11th.

3rd Annual Cheat Watershed Tour scheduled for August 11

You are invited to join us! We’ve arranged for the Buckwheat Express bus to take a group on our 3rd Annual Watershed Tour on Saturday August 11th. The bus will leave the parking area at Tractor Supply in Kingwood at 10 AM and return there by 1 pm.

We’ll visit our River of Promise interpretive trail along Muddy Creek, T&T Mine and several AMD treatment projects. This is the best way to learn about acid mine drainage (AMD) and the various ways that the water can be treated to neutralize the acidity and precipitate the dissolved metals. The cumulative effect of many treatment projects on receiving streams can eventually allow aquatic life to return, the goal of all of our restoration work.

We’ll supply chilled drinking water and you are welcome to bring a lunch. Wear footwear appropriate for gravel. If you plan to attend, please RSVP at 304-329-3621.

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Into the Canyon

Published by:
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Into the Canyon - 2 - Friends of the Cheat
Working Upstream
By Keith Pitzer, Executive Director,
Friends of the Cheat

It has been a drier than normal summer to date here in the Cheat Watershed. I planted more than a hundred young trees this spring and have been watering the last three weeks, trying to save as many as possible. The news carries stories of melting glaciers, record droughts and areas beset with flooding. We see changes in the makeup of plant communities and in the growth rates of some species that favor wetter or drier weather patterns, and at least to the senses, climate change seems undeniable. We also still read old-line, regressive opinions from some observers that climate change is still debatable, but they are usually connected too closely with the coal and oil industries to seem credible.

Since the government usually runs just below what the public will tolerate as acceptable, it would seem the time is approaching when we will finally see some changes in regulation regarding burning of fossil fuels, efficiency of motor vehicles and conservation of energy across the country. History will certainly report that we, as global society members, burned more than our share of the earth’s fossil fuels. One can only hope it is not too late to prevent catastrophic climate change and all that will come with it.

This realization of responsibility about climate parallels something that we are constantly reminded of in the Cheat Watershed. The staff here at Friends of the Cheat spends several days each month sampling water from abandoned mine sites. These are often sites that were worked by big coal companies who took the coal, made their profits, and walked away. Admittedly, before the 1960’s, no laws were in place to compel them to treat water or even do land reclamation. When the Surface Mining Control and Reclamation Act was finally passed in 1977, big coal loudly dubbed it “the end of coal mining in Appalachia”. But of course, it wasn’t. Annual coal production today is greater than in 1977 (and employs far fewer workers). The essential message of this is that we have historically been hesitant in our implementation of conservation measures, such as the introduction of legislation that protects our streams.

When mine operators witnessed the death of trout streams as a result of the acidic water running from their mines, I wonder if they considered the consequences to the streams. Did they connect clean streams with the quality of life in the area?

The water ran out of the mines because they often chose to make openings or portals at a low point in the coal seam, making what is called a “down dip” mine, so as to alleviate the need to pump water out of the work area underground. This saved operating costs and was the standard methodology for decades. (We may provide a personal side to this from interviews conducted this summer by OSM Intern Daniel Swan. He has met and collected the stories of several men that worked underground in area coal mines over the past fifty years. See pg 8) For these reasons, “down dip” mines are no longer permitted, but it took time to justify the reason, and the damage has been done in many watersheds.

Today, many of our elected leaders speak of a need for “balance” between economic growth and the environment. How can we speak of balance when our precious finite resources are at stake? Fresh water, clean air, public green space and wildlife habitat are under continual assault from industry. How do we identify the times and places to degrade, impair or use up? As a society we have slid into a process of valuing economic prosperity over natural wealth.

The issue of Tier 2.5 streams in West Virginia is a case in point. With the legislative passage of the Implementation Standards of the Anti-Degradation Policy of West Virginia two years ago, a volatile debate began between conservationists and landowner rights advocates. The concept of Tier 2.5 is a legislative compromise. It serves to lessen the level of protection afforded reproducing trout streams in the state. It is based on the Clean Water Act of 1972, which provides for three tiers of water quality to describe our streams. Tier 1 refers to impaired water, or water unfit for use, which is in need of restoration. Tier 2 meets the basic standards of “fishable and swimmable” and those standards need to be maintained by not allowing degradation to limit these uses. Tier 3 applies to cold water fisheries, the “waters of special concern” that are especially pristine and carry reproducing populations of trout (the West Virginia state fish). These waters are strictly protected from degradation to safeguard their biologic integrity and recreational potential.
In the early 1990s the West Virginia legislature approved the concept of Tier 2.5, the reason being that Tier 3 was too explicit in the level of protection afforded reproducing trout streams. Tier 2.5 allows some degradation if necessary for “overwhelming public benefit”. These benefits would have to be determined by the courts, but would generally be a weighing of economic value against biological value.

Implementation has lurched along through loud public meetings, closed door legislative committee meetings, and mis-information from development interests. There have been petitions to “de-list” streams and nominations to list streams. Governor Manchin has suggested a “compromise” measure of designating one-half of the presumptive list of trout streams as Tier 2.5. That would certainly be compromising for trout streams in the state, but it hardly reflects the science used by Department of Natural Resource fishery biologists over the past twenty years.

There is a poverty of spirit evident when a landowner can be convinced that his best interest lies not with protecting a native brook trout stream on his land, but rather with asserting his right or his heir’s right to engage in an activity that degrades that stream in the future.

Whether we are specifically considering property rights regarding brook trout streams, or looking more broadly at our national energy policy’s ramifications of global warming, we are running out of time to realize and admit the impact of our actions. This means thinking beyond our own lifetimes and personal economic legacies. Otherwise, our heirs and their contemporaries will collectively suffer the consequences of our shortsighted values today.

I have gone on longer than usual. If you have read this far, I thank you.

There is a gentle rain falling outside my house this evening as I write this. The rain barrels are already full and we are hopeful for rain through the night.

I am hopeful for many things this evening. One day we may reach the point that we say we have done all that we can do to restore the Cheat River Watershed, that it is as good as we can presently achieve.

To that end, we’ll be working upstream.

Danny Swan, left and Martin Tingley are the two summer interns sponsored by the Office of Surface Mining for Friends of the Cheat.

Two Summer Interns Lend a Hand this Summer

The federal Office of Surface Mining makes it possible for college students to spend twelve weeks working with watershed groups. Friends of the Cheat is very fortunate to have two interns this summer.

Martin Tingley, a Bruceton Mills resident, is studying environmental science at West Virginia Wesleyan College. Martin was first introduced to the organization through watershed research projects, and is concerned about the way Abandoned Mine Drainage and other pollutants are affecting the residents and environment of Preston County. He feels the work of the Friends of The Cheat is vital for Preston County’s health and economy, and is especially excited about work that will benefit his home county. He will be helping with stream monitoring, data analysis, and environmental education.

Danny Swan, a Morgantown resident, is studying English and Biology at Wheeling Jesuit University. He will be primarily working on compiling an oral history of the Cheat Watershed, and will also be helping with watershed research. The organization hopes his work will help to provide an historical and personal context for the people affected by the work of the Friends of The Cheat.
Cheatfest 2007 Commentary
by Sally Wilts

Perhaps it is our increasing age, but as Keith and I considered having our customary post-festival comment meeting, we just couldn’t muster enough energy, so instead conducted an email survey of our principal volunteers, vendors and nonprofits. I’ll summarize some of the comments here.

Please see our website, www.cheat.org/festival for a listing of the many sponsors, vendors, artist participants and other contributors to the festival. Our thanks to each and every volunteer who helped at the fest.

Rick Gusic, with a great crew of volunteers, once again superbly managed the Downriver Race, held on the evening prior to the festival. We broke another record with 151 racers and 143 boats, no injuries! Results are available at www.cheatriverrace.com.

The Cheatfest 5K race was held at the Preston Country Club this year to avoid the traffic problems we’ve encountered in past years. The race was managed by Aaron Miller, our 2004 OSM summer intern and Jessica Zamias, OSM VISTA, and was very successful, generating a good profit for Preston Rail-Trails. Cellular One, The Book Exchange, Kingwood Pharmacy and Black Bear Burritos all contributed to sponsoring the race.

This was the first year for our Green Technology area. Power in My Backyard (solar and wind power from Thomas, WV) and Aten Solar (New Jersey) participated, as well as WV Sustainable Communities, a program sponsored by WV DEP and the Student Conservation Association to help communities to become more energy efficient and to minimize waste.

Amanda Lachowski, who is the education program coordinator for Friends of Decker’s Creek (FODC), was able to find enthusiastic volunteers from the Arts Council of Preston County, Girl Scouts, and FODC to provide more varied kids activities. She is looking forward to next year’s fest and is requesting more space and possibly a move closer to the Art Market to make it easier for the participating artists to interact with the children.

We were fortunate to find more festival sponsors this year, as Chesapeake Energy and Allegheny Power came through with large donations. George Simms Interiors made a donation specifically for the Hospitality Café, and Karen Koehnlein was able to make some long-wished-for improvements to the area where volunteers are treated to a great variety of foods and beverages which Karen solicits as donations from a number of businesses.

We decided not to have a silent auction, and in its place, held a raffle for several donated items in the FOC tent. Few raffle tickets were sold, and we’ll need to do a better job of promoting the raffle items in future, if we decide to continue this event.

Overall, it was a successful festival and we welcomed several new vendors and nonprofit groups. We welcome suggestions for improving the festival for future years.

Rails to Trails in the Watershed – Updates

by Keith Pitzer, Executive Director FOC

Patience and persistence is the rule as we work toward acquisition and development of recreational trails in the area. The Kingwood Northern corridor between Tunnelton and Kingwood languishes in the ownership hands of Kern Valley Railroad. We have asked for the specific parcels included in the sale offering, but to date have not received this information. Working backwards from information here is challenging, but has been the only source of information regarding the property. We have $180,000 in approved Recreational Trail Grants and Division of Tourism support.

We recently received good news in our quest for the Cheat Narrows CSX corridor from Congressman Mollohan. An earmark for $300,000 was included in the House transportation bill. We have a pending Transportation Enhancement grant that could be announced soon. In addition, we have explored a partnership funding arrangement with Greer Industries and Allegheny Wood Products that would result in a win-win-win situation at the Rowlesburg end of the corridor.
From China to the Cheat: A Global Perspective
by Danny Swan, OSM intern

The 1994 T&T mine blowout near Albright was an environmental catastrophe in the Cheat watershed. The mine owners’ illicit handling of mine water made itself apparent as heavy spring rains led to a catastrophic mine blowout. The abandoned mine belched enormous volumes of acidic water directly into Muddy Creek, killing fish as far downstream as Cheat Lake. This was a fatal blow to an already impaired section of river and it further reduced an already waning number of commercial rafting customers. As the noxious water poured into the Cheat River, a catastrophe was in the works on the other side of the world, one of a similar nature but far greater implications.

The Huai River Valley is an immense watershed in central China, the lifeblood of one of the nation’s most fertile regions. The river is extremely subject to variable flows, overflowing its banks during wet seasons and drying completely during dry seasons. During the dry season, industrial waste often builds up in stagnant tributary beds, which is then washed out with the gate releases that accompany the first rains. In 1994, an unprecedented amount of toxic waste was released into the river’s main stem, threatening the health of the 150 million people who depend on the river for drinking water and agriculture. Disease rates soared, birth defects and miscarriages became the norm, and agricultural failure cast the region into economic crisis.

Meanwhile, the T&T mine blowout was bringing the Cheat’s environmental problems into the public consciousness, and Friends of The Cheat was being formed. Boaters, fishers, landowners and naturalists whose lives were touched by the river were rising up to fight for its health. Since that time, problems previously untreated have been addressed, previously undiscovered sources of acid mine drainage have been found, and significant improvements have been made. Although there is much work left to do, much progress has been made.

Similarly, the Huai River catastrophe had a large hand in bringing China’s water pollution problems into the domestic and international spotlight, forcing the government to impose discharge regulations and to eliminate several polluting factories in the area. The disaster has also brought to light many disturbing facts about China’s water situation. According to China’s State Environmental Protection Administration, more than 70% of the water in four of China’s main watersheds is unsuitable for human contact, and the same can be said for 75%-90% of China’s urban river water. Furthermore, more than 200 million people live in areas where there is zero sewage treatment. China also faces immense water shortage problems.

China’s environmental problems are rooted deeply in the nation’s recent rise in economic prosperity. In nations where mere survival is in question, economic development understandably takes precedence over environmental concerns. China’s enormous economic advancements over the last three decades have brought unprecedented prosperity to its people, especially along the coasts. Famine and starvation have largely been eliminated, and quality of life has greatly improved in urban areas. However, the environmental costs of this progress are staggering. While many of the government officials and corporate bosses have grown wealthy from the factories and mines of industrialization, and urban/rural income gaps have risen, many of China’s 800 million peasants have been forced to bear the burden of a ravaged environment.

The Cheat watershed’s environmental problems have similar roots, in that out-of-state businessmen own a large portion of the watershed’s mineral rights, spawning a sentiment summed up in the words of Kingwood native and retired miner Ed Fletcher: “Years ago, these guys...
came in here from out of state, took all the coal, and then they pulled out. They left the coal mines like that, and now the taxpayers have got to get them straightened out. That's what makes me ill."

This phenomenon of shortsighted greed is one without national boundaries, and is at the root of many environmental issues. Mr. Fletcher's sentiment is understandable, and one many of us share. The mission of the Friends of The Cheat, however, is not a crusade of blame and justice. The FOC's commitment to the restoration of the Cheat River rather represents a turn toward green thought, a hope that humanity's mistakes can be righted in a campaign of effective and applied stewardship of the earth, and that further mistakes can be prevented through stewardship of our own minds and those of our youth.

From the relatively small scale of the Cheat Watershed to the enormous scale of China's Huai River, we see that the ultimate goal is not one of individual stream monitoring, indictment of environmental law breakers, or dismantling factories. Rather, the goal is a change in world view toward green thought and sustainability, toward a symbiotic partnership between conservation and progress.

Recently having returned from a year of living and studying in Beijing, China, it is fascinating to see many of the problems faced by the Friends of The Cheat and their parallels to the Chinese environmental arena. Although the Cheat's problems are not as dire as those of the Huai, the nature of this connection is one to give us pause, and to reflect on the daunting but hopeful battle for the planet's watersheds. It is one that renders me grateful for the good-hearted people who care so deeply about our own, and it is one to give us hope for pure waters in the Cheat and around the globe.

*Special thanks to Ed Fletcher

This photo of Miles Clark was taken in 1954 or '55. He shared his memories of mining with Danny for our oral history project.

**Rockville Update**

by Keith Pitzer

The cover story of the last issue of *Into the Canyon* was Chesapeake Energy's donation of property at Rockville on the Big Sandy to Friends of the Cheat. This donation will make possible the development of some parking for boaters/hikers along the road on river right and will insure the existence of a public put in for boaters. The property lines were not fully understood, but we hope to work with adjacent landowners to restrict motorized access to the old rail grade that runs down river right to Wonder Falls and beyond. This notion seemed to resonate with the boating community, as FOC acting Chair Charlie Walbridge led fundraising efforts (much as he had for the Jenkinsburg project). We are currently at $8,100, with a goal of $10,000. Donations can be made by Paypal on our website, by credit card over the phone, or by check through the mail.

From what we have seen at Jenkinsburg, restricting motorized access reduces the amount of trash significantly. It also prevents the cuts and subsequent erosion of steep ground caused by ATVs. This might be the best course for securing access to the river corridor by responsible boaters and hikers. Stay tuned for announcements regarding Rockville and please feel free to offer comments to the FOC office at 304-329-3621 or kpitzer@cheat.org.
Oral History Project
by Danny Swan, OSM intern

It's hard to believe that summer, and my time as an FOC intern, is already on the wane. Besides routine stream monitoring and other miscellaneous activities, I've spent much of the summer working on compiling oral histories from retired miners in the Cheat watershed. The project is Keith’s idea, an effort to put a human and historical face on the work we are doing now, and to capture living history while we have the chance. I’ve personally had the opportunity to listen to stories from miners who went underground as early as the 1930’s, when coal was shot by powder and loaded by hand, a process largely forgotten in today’s mechanized mines. Below are some glimpses of the stories and information I have gathered:

"Some of those old farmers, they had doggone coal stuck out someplace in the side of the hill... Everybody had coal back in them days." – Ed Fletcher

In the earliest days of coal mining in the Cheat watershed, people mined coal from their own backyards to fuel their furnaces and stoves. These small mines, sometimes referred to as “dogholes”, existed long before commercial coal companies entered the area.

"There was a lot of coal around here. It's all mines." – Jake Casteel

Casteel, a retired miner from Howesville, puts the watershed’s more recent history into context by summing up a fact of the area: in many parts of the Cheat watershed, you can’t put your foot down without standing over top of an old mine. This illuminates the watershed’s history over the last 100 years, and its consanguine relationship with coal.

"I swore I'd never work in the mines, but I did... The company owned the company houses, the company store, and the coal mines." – Fred Taylor

The scope of coal’s historic grip on the watershed is mind boggling. As Fred Taylor of Newburg points out, few other alternatives were available for residents of the watershed. Few lives, if any, were independent of the coal mining industry. Many lives were effectively controlled by the coal companies, as people lived in company houses, shopped in company stores, mined company coal, and even played for company baseball teams.

“Load 16 ton, and what do you get? Another day older and deeper in debt. There was never a truer song ever wrote.” — Miles Clark

The companies often commanded the continued service of the miners by keeping them in constant debt, as Manown native Miles Clark further sums up: “I can remember as a little kid how much we was in the hole. When dad would get his check, he wouldn’t have anything coming, because he’d have to deal it down at the store.”

-“If you didn’t put the coal in the car, you didn’t get paid. So, that’s the main thing you worried about.” – Fred Taylor

The conditions established by the coal companies left most miners and their families in a state of economic hardship, which left little room for locals to raise environmental concerns. Many of the operators of small, locally-owned mines were concerned with making a living wage to provide for their families; large, out-of-state companies were concerned with reaping massive profits.

The mountain was coming down. They had to get the equipment out of there before it fell all the way in...I said, “Well, I’ll go. That’s time and a half!”...You should’ve heard that mountain. It sounded like thunder. — Ralph Teter

The hard life of coal miners did not stop at poverty, as told by Ralph Teter of Albright. His recollection of running back into a collapsing mine is indicative of the danger faced by miners. All of the miners I spoke with knew several people who had been killed in the mines, and 3 had lost family members. Especially in the earlier days of mining, before unions reached the majority of the watershed in the 1960’s, mine injuries and deaths were commonplace. Miners also faced unfair payment...
practices in the pre-union mines. “Back when we were working for Chapel, it might be 10 or 12 hours, but we’d get paid for 8 hours,” adds Mr. Teter.

When we were on strike, we’d go up there to shut Preston County down...We tore up tipples and done a lot of damage to keep them from working...They sent me and another guy over to ask them to come out. We was walking across to the tipple, and he had somebody with a .30-30 rifle, and he shot the clipboard right out of my hand...—Arthur Justus

Unionization was a long, slow process, especially in Preston County. Arthur Justus worked for Canyon coal mine, a union mine in Monongalia County near Cheat Lake. He recalls the resistance they faced, especially when attempting to bring the union into Preston. Although the union struggles in the Cheat watershed never became as violent as those in the southern part of West Virginia, sentiments still ran high, especially amongst striking union miners who took exception to the Preston County mines flooding the market. United Mine Workers finally reached Preston County in 1965, when Chapel Mines became union.

“I know a lot of these streams have been like this for years. I remember some of them, by God, was orange back when I was a kid.” – Ed Fletcher

Economic conditions and corporate objectives, combined with a lack of scientific knowledge and government regulations, led to the degradation of streams from the time coal mining started. Ed Fletcher, a resident of Kingwood, remembers stream discoloration as long ago as the 1920’s. According to Arthur Justus, who still resides in the old Canyon coal community near Cheat Lake, “It hasn’t been too many years ago that a man could start a mine and get sulfur water out of the mines, and just run it right out in the creek... run it out into the lakes, rivers.” The miners have often reminisced about the health of specific streams, such as Fred Taylor’s recollection of Bull Run: “There used to be fish in that! All that water that goes in there goes down to Cheat River; there was fish in all that water.” Today, any mention of fish in Bull Run suggests unfamiliarity with the stream, which now runs orange and has a pH under 4. On a more positive note, the miners have also offered more encouraging information, such as Mr. Fletcher’s memories of Little Sandy: “I fished the Little Sandy. It’d be some good fishing until they got all these mine rivers running into it, I tell you that.” More recently, the Little Sandy has once again become a fishery, a promising sign that stream destruction can be mended with time and restoration work.

“I’d like to see all the streams in West Virginia be like it was 300 years ago.” – Arthur Justus

Mr. Justus’ sentiment is a common theme amongst every retired miner I’ve spoken with. Several are personally involved in watershed organizations. In the words of Fred Taylor, “I was one of the culprits, because I worked in the mines ever since WWII.” Although his personal indictment is noble, it is important to remember that many of the local miners and mine operators were not acting out of greed, but rather out of economic necessity. Many of these men were anglers and naturalists in their own right, and went into the mines solely to support themselves and their families.

It has been a fantastic opportunity to speak with those who created the history of the work we are doing today. This is just a taste of the stories I have been told, and I look forward to working with more interviews. If you have any old photographs or stories that you would like to contribute to our project, feel free to call the FOC office, or email me at dswan132@ignatius.wju.edu.

*Special thanks to Miles Clark, Ed Fletcher, Fred Taylor, Ralph Teter, Allen Henline, Arthur Justus, Jake Casteel, Bill Thorne, and Virginia and Friday Zetty

**Editor’s note:** Danny will be creating a visual display of this work for the Buckwheat Pride Display for this year’s Buckwheat Festival.
Updates on Monitoring, 
Mapping, and All Things AMD 
by Keith Pitzer

The more we monitor, the more we know. Doug Ferris has led monitoring and mapping efforts at FOC since he joined us in early 2006. To date, FOC staff has walked most of Pringle, Lick, Heather, Morgan, and Greens Runs, and Muddy Creek. “Walking a stream” consists of pH checking and GPS marking any sources of water entering the stream. From this, sources are assessed for future monitoring that consists of field data, chemical sampling and calculating flow. The sample points are entered into a GIS map of the watershed and the water quality data is linked to these locations.

The result of this effort has accumulated over 560 specific sample points of which 375 are AMD sources. With multiple sampling dates for many sites, the database is starting to provide the information needed to prioritize sites for treatment. This is particularly so in the Targeted Watershed Grant work area where matching grant funding needs to be approved within the next year for sites identified as the most significant acid sources.

As we monitor across the watershed, some sites clearly stand out with such high flow rates and heavy acid loads that current passive treatment options just won’t adequately treat them. For these, some form of active treatment or in situ (inside the mine) would be more likely options. Up to now, our funding sources have not provided the continued funding possibilities needed for operation and maintenance of active treatment or the innovative injection of alkaline materials into a mine.

I say up to now, because the Abandoned Mine Land Program Re-Authorization late last year will significantly increase the amount of funding coming to the state for reclamation of pre-law mine sites. Up to 30% of that money can be spent on water quality projects. Careful analysis of source loads and strategic planning could yield miles of restored fisheries in some watersheds. So far, AML management has been quiet about its planning. It is the position of Friends of the Cheat that this program should be stakeholder driven, not top down from one agency.

Meanwhile, treatment projects continue to be designed and constructed. On Morgan Run, construction nears completion on a design that incorporates a vertical flow steel slag leach bed that raises pH of fresh water before mixing with a mine discharge. This should quickly raise pH to precipitate iron out of the water in a settling basin before entering the stream. The results of this design for steel slag use is important in defining future uses of slag. Steel slag, while having excellent alkalinity, tends to harden over time, which results in less contact with the water and hence, less treatment. The vertical flow design of this bed should maintain the permeability of the slag. This design is the result of ongoing research with the Water Research Institute at WVU.

Sobern Run is a beautiful little stream that enters the Big Sandy at Rockville. Friends of the Cheat has three passive projects located in the headwaters of Sobern Run that have reduced the pollution load of the stream so that it hovers on the brink of being restored, but it’s not quite there yet.

On May 8th, 2007 twenty seven tons of high calcium carbonate limestone sand was dumped into the creek bed just downstream of the passive treatment projects. With each rainfall some of the limestone sand is washed into the creek and further downstream. One pound of the limestone sand will neutralize nearly a pound of acid so over time as more and more of the sand is washed into the creek a great deal of the acidity will be removed. This first application of sand was funded through the DEP, but FOC has a NiSource grant to continue further applications.
Eagles, Snails, and Dragonflies
by Keith Pitzer

The recent removal of the Bald Eagle from the Endangered Species list has been cause for much discussion, both about the future of this symbol of the United States, but also about the Endangered Species Act itself.

Once reduced to a few pairs of breeding adults as a result of pesticide poisoning and illegal killing by humans, the species is now found in 48 states and numbers in the thousands. The demise of the Bald Eagle was first addressed by a specific act passed in 1969, but the Endangered Species Act of 1972 was more far reaching in providing relief for species by addressing habitat size and conditions.

When considering the day to day news and events that shape our thinking about issues such as the Endangered Species Act, the Clean Water Act, Clean Air Act, and other far reaching efforts to safeguard our environment, it is too easy to be shortsighted. We have developed such immediate information transfers that we too often expect immediate reaction to everything. When working with natural systems, this is often unrealistic. The changes brought about by the Endangered Species Act in relation to the Bald Eagle’s recovery took decades….but it did work. This majestic symbol of freedom is now a symbol of species recovery as well.

The two articles following report on two other species, the Cheat Three Tooth Land Snail and a rare dragonfly called the Midland Clubtail. These species are of particular interest to the ecology of the Cheat watershed. Neither species is majestic or well known, but they are indicative of environmental conditions. Their presence in an area tells us something about that area and its biological community. We might do well to pause and think about these communities and their relationships with the human community.

Midland Clubtail dragonfly

Rare Dragonfly Found on the Cheat River
by Susan Olcott, WV DNR Wildlife Diversity Program

The Midland Clubtail (Gomphus fraternus), a dragonfly not confirmed in WV since 1974, has been found on the Cheat River in Monongalia County north of Raven Rocks. Susan Olcott, a biologist with the WV DNR’s Wildlife Diversity Program, collected the species while working on a state-wide survey for dragonflies and damselflies. This species has only been confirmed from 4 other WV sites in Pocahontas, Jackson and Greenbrier Counties and is tracked by the DNR’s Natural Heritage Program. Although fairly common further west, the Midland Clubtail is considered rare in many eastern states, and is on several states’ endangered species lists.

The Midland Clubtail, like most river-dwelling dragonflies, is susceptible to several forms of pollution including industrial, siltation and agricultural and is vulnerable to heavy recreational use of waterways. Although the adult will only live a month or so, the larval nymph is aquatic and is thought to take a year to develop in much of its range. The specimen collected and several others were exhibiting breeding behavior, an indication that this may be a breeding population. Confirming this dragonfly’s presence on the Cheat highlights the improvement in water quality the river has achieved over the last 20 years.
Adieu FOC Adieu
by Jessica Zamias, OSM Americorps/VISTA

I joined Friends of the Cheat in the summer of ’06 as an Office of Surface Mining (OSM) intern and afterwards served as an OSM AmeriCorps/ VISTA. These past fifteen months with FOC have been spent monitoring AMD, doing environmental outreach, writing grants, leading development of the Outdoor Classroom, and organizing various events.

My environmental studies degree was put to use through the field monitoring of mine discharges, and using the data in mapping the water quality in the watershed. I explored whole streams and found mine sites that had no water quality history on record.

This data gathering is the first essential work in developing treatment projects. It feels good to know the work I did here will continue to manifest itself in future projects.

I also discovered the enjoyment of teaching what I have learned to others, as I led numerous environmental outreach activities that involved educating children in local schools and youth organizations. The educational program at FOC is important because it will hopefully inspire environmental interests in the next generation. It also helps the community understand what FOC is and why the organization exists. It creates a chance for the community to become aware of the pollution in their watershed and how it affects them. It takes into account that orange streams are common, but they don’t have to be placidly endured.

I had the chance to contribute to many other activities as well. One accomplishment was co-organizing the 5K foot race as a part of Cheatfest, which benefited the Preston Rail Trail Committee (PRTC). I feel that the race went very well. There were about 90 runners and it raised over $1,000 for the PRTC, with the help of volunteers who contributed to the success of the race. I hope that in future years the race will be able to be held at the CSX corridor along the Cheat Narrows.

In another vein, the long term plans for the Cheatfest site include an outdoor classroom pavilion for environmental education activities. Over the past year, I formed a committee that includes FOC board members, academics and members of the community, which has explored the concept in depth and has progressed into planning stages for the pavilion. I am excited about the addition to the festival site, and regret that I won’t be here next year, when it will be constructed.

All n’ all, I had a great year, full of laughing, working, and discovering the Cheat Watershed. Even though I generally spent my time in the most unattractive parts of the watershed, the Cheat will forever captivate and amaze me. The people that I met and worked with on various projects have inspired me more than I can say. A part of the beauty of the Cheat River is the people that she brings together and the people that are willing to fight for her.

Jessica wearing hip waders while at a seep on Fickey Run. During monitoring, she endured very hot days and very cold days, as well as downpours and snow, all with her indefatigable good humor.
Report from Beyond the Grid
by Jim Snyder
(Jim is taking a leave from the FOC board, but remains actively involved with FOC activities)

Well- I ducked out on the “real” world with my old friend Eric Lindberg a few weeks ago. We ran 100 miles of the Shavers Fork and Cheat River as an overnight trip. We had a splendid camp somewhere up on the Shavers Fork. Got the tents up just seconds before a storm cut loose. After a fifty mile day- it was hard to not pass out from the sound of the rain on the tent. The storm abated after a while so we cooked up some dinner and enjoyed a real pleasant campfire. The ice cold beers were a nice touch. If you could see our camp from the Space Station- there wouldn’t be any man-made lights for quite a ways around. Just the way we like it. We saw two eagles twenty five miles apart that day. In the heavy fog of the next morning a bear lumbered through our camp, causing me to fumble with my camera while I debated warning Eric- who had just wandered off in the trees. If I yelled- it might spoil the shot. I missed the shot anyway and the bear ran off.

We camped right at the spot where I saved a dog one winter’s day. It was really blowing snow and 25 degrees one cloudy afternoon when I was passing through there on a solo overnight trip, when I heard this angry barking, like some dog was letting me know he was ready to kill me. When I got close, I could see he had his foot caught in a beaver trap. He was pretty mad about it - but also worn out. I could see that the snow on his back was melting, which meant his fur was getting wet. He would be unable to maintain his body temperature since he couldn’t run.

When I got up on the shore to help- he was ready to kill me if he had to. I sat down about 30 feet away and looked away until he stopped barking. Then I scooted closer by a few feet until he went nuts again. I waited for him to quiet- then snuck up. It took a half hour to get to where he would let me touch the trap. I saw that if I unwired it from the tree and he ran off with it on his paw- that would be bad. His paw was squished out as wide as my hand. The trap has these two pads you are supposed to step on to open it. There was no way this dog would let me stand up next to him- so I put a hand on each pad with my face about 20 inches from his and I was thinkin... “OK-

here’s the deal ~ if you snap at my face - the trap slams shut- OK?” In any case- he figured out I was helping and let me open the trap- then he curled up tucking his mangled paw away and looked me over suspiciously. I was grumpy about the trapper- so I threw his trap about 25 feet out in the river where he could see it- but the water would be over his boots....Yet another story about how I survived the folly of my youth a few years ago...

The next day Eric saw an otter in the river and I saw a hawk flying with a big frog squirming in his talons. We saw quite a few herons and even a Green Heron. The Cheat valley is LOADED with stuff like that. Fish jumping in every pool. The Cheat is a river done proper. Just because modern man has been able to insult the river in its last few miles doesn’t make it less noble.

The fact that some modern folk group together to recoup the insult is cool- and it embellishes the coolness of the river.

Well- I’m hoping to run my son Nate down the entire 140 miles of the Shavers Fork and Cheat this summer before he heads off to Carnegie Mellon for his freshman year of college. If we survive that- I’ll let ya know how it went.

Until then- don’t look for me- I’m off the grid.

Seventh OSM/VISTA joins FOC
by Sally Wilts

Drake Asberry will be joining Friends of the Cheat in August and will overlap with Jessica Zamias for a week so that she can help to train him for his year with us. He has finished his junior year at WVU in landscape architecture, and will take this year out of college to gain experience with us to build his resume.

Drake came to WVU from near Roanoke, Virginia and prefers rural landscapes to urban. His training will be a great help to us as we plan and build the outdoor classroom.

Drake will serve as part of the Appalachian Coal Country Watershed Team (ACCWT). Through innovative partnerships between the Office of Surface Mining, AmeriCorps*VISTA, and coal country watershed groups, there are 55 VISTAS in eight Appalachian states (AL, KY, MD, OH, PA, TN, VA and WV).
Festival Site Update
by Sally Wilts

The Cheat Festival site continues to inspire ideas. Prior to the festival this spring, Jim Snyder replaced the roof on the changing rooms and added roofs on the speaker stands that flank the stage. Karen Koehnlein added shelves and lighting to the hospitality café.

At the festival, the American Chestnut Society gave us two seedling Chestnut trees that have been bred with resistance to Chestnut Blight. Jim Snyder has carefully nurtured these trees, which were planted in the cleared area near the river in wire mesh cages to protect them from deer.

The outdoor classroom committee has met several times and picked a basic design for the pavilion. We plan to have site preparation work done in August. Our fundraising efforts for the pavilion have netted $17,000 from a combination of grants and donations. We are still looking for donations of money or help with the construction of the classroom.

We have also begun work on eliminating invasive plants from the festival site and surrounding properties. NiSource has given us a $4,000 grant for control of Japanese Knotweed. In May, a class from Preston High School gained valuable experience by using GPS to map the perimeter of the largest patch of Japanese Knotweed, which has taken over most of the wetland. The wetland is owned by Dave and Lena Cerbone, FOC board members, and they have given us permission to apply herbicide to control and eventually eliminate the Knotweed.

So far, summer intern Martin Tingley and Sally have placed orange paint on trees near Japanese Knotweed patches on the festival grounds and adjoining outfitters’ land. Dow AgroSciences has donated an herbicide that is safe to use near water. In August, Mountaineer ChalleNGe Academy cadets will work with adult volunteers to cut down and treat each stem of the invasive plants with herbicide, a process that will be repeated for several years.

Martin, Keith, Nathan Snyder and Sally spent a day in June cutting down Autumn Olive, Russian Olive and Poison Ivy and painting the stumps with herbicide. Martin also plans to use his plant identification knowledge to do a survey of all the tree species at the festival site. Eventually, we’d like to have identifying tags to further the site’s potential for environmental education.

We are recruiting volunteers to join an invasive plants team. Contact Sally Wilts if you are interested in participating. Eventually we will seek grant funding to extend our efforts along the river, especially along the Cheat Narrows to Rowlesburg. With what we learn about control methods at the festival site, we hope to build partnerships with riparian land-owners and continue the mapping and control program upstream.

Protecting the Cheat 3-tooth Snail in the Cheat Canyon
by Duane Nichols, CLEAR

The U.S. District Court for Northern West Virginia approved a Settlement Agreement on February 5, 2007 for protection of the Cheat Three-tooth Snail in the Cheat Canyon. This snail has the scientific name *Triodopsis platysayoides*. “Three-tooth” is a misnomer, as this snail has a single unique denticle (bump) of shell material in its shell opening. It is also characterized as a “flat-spired” snail.

Six areas have been set aside to protect known snail habitat in Area 3 of the Cheat Canyon where Allegheny Wood Products (AWP) intends to harvest timber this fall. Four snail experts have prepared a draft “delineation report” to be used for specification of additional land as potential snail habitat. This draft report is in review and is to be finalized within the next few weeks.

The delineation of potential habitat in Area 3, on the north side of the Canyon, and subsequently on the south side of the Canyon will take place this fall and continue through 2009. Special arrangements have been made to limit the impact of road building through the Canyon. The Settlement Agreement has also incorporated protection for the Indiana bat in the logging areas. Ultimately the Allegheny Trail is to be reopened.

The three organizations that have been cooperating to pursue and execute the settlement are the Cheat Lake Environment and Recreation Association (CLEAR), the Friends of the Blackwater, and the WV Chapter of the Sierra Club. The coordinator for this group is Duane Nichols of CLEAR, who can be contacted at duane330@aol.com. Contributions are being solicited to help defray the costs of implementing the Settlement.

These organizations have been represented by Joshua Barrett of the law firm DiTrapano Barrett & DiPiero, Charleston, WV. He has been assisted by Erin Tobin and Eric Glitzenstein of the law firm Meyer Glitzenstein & Crystal, Washington, DC.
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! Consider making a planned gift to Friends of the Cheat in your estate planning. Making us a beneficiary of a retirement plan, insurance policy or as a bequest can provide you or someone you designate with favorable financial or tax benefits. Become a member by completing the form below or by visiting our website at www.cheat.org.

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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 newsletter *Into the Canyon*

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<th>Basic Membership</th>
<th>Supporting Contributors</th>
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<tr>
<td>___ Individual/family $20</td>
<td>___ Stream Steward $100-$249 includes ball cap</td>
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<td>___ Non-profit Organization $50</td>
<td>with FOC logo and choice of video</td>
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<td>___ Business $100</td>
<td>___ Watershed Watch $250 or more includes Tshirt &amp; choice of video</td>
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**Contribution for Preston Rail-Trail Committee**

(make check out to Friends of the Cheat)

**T-shirt** - $15 Short sleeve ($10 with $50 or more donation) $20 Long sleeve

Size ___ Kids Large ___ Adult Small ___ Medium ___ Large ___ XLarge ___ XXLarge

Choose ___ Cheat Map Shirt or ___ Cheatfest shirt  Choose ___ Men's style ___ Women's style

**Cap** – Low Profile Twill Cap with FOC logo. Khaki, dark green, grey, tan $15.00 

**Total amount enclosed**: $__________ Payable to: Friends of the Cheat

119 S. Price Street, Suite 206

Kingwood, WV 26537-1478

Name ____________________________________________

Address _______________________________________

City, State, Zip __________________________________

Email _______________________________________

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*Into the Canyon - 15 - Friends of the Cheat*
Members: The date on your address label shows when your membership expires. Renew to continue your support.

WV Conservation Agency Environmental Specialist Brad Durst, measuring soil loss from ATV related erosion on Friends of the Cheat property at Rockville on the Big Sandy. Boundary surveying is complete, and our fundraising effort has netted $8100.00 so far. Our goal is $10,000 for repairing damage and creating a parking area at the site.