

# DECKERS CREEK Currents

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working together  
for the health  
of the creek

KICKING OFF THE 2003 SEASON, A SHORT HISTORY OF THE DEEP MINES, THINGS LIVING IN THE 'SHED, TEAMING UP TO RESTORE THE CREEK, DECKERS CREEK ALMANAC, CONNECTIONS BETWEEN FODC AND WEST VIRGINIA UNIVERSITY, GETTING READY TO CELEBRATE: CARPFEST 2003



## SOMETHING OFFERED, SOMETHING GAINED

Partnerships between FODC and WVU

by Evan Hansen

FODC HAS ALWAYS ENJOYED its loose association with West Virginia University students and faculty. Recently, though, FODC and WVU have worked to solidify that association, to the benefit of both. Students now have access to new learning opportunities. FODC gets new volunteers and student workers.

### Service learning for young environmental professionals

Last fall, the WVU Office of Service Learning provided funding to FODC to hire student workers Zach Liller and Jon Ree and Martin Christ as project manager and to purchase stream monitoring equipment as we initiated our Clean Creek Program. Through this program, we now monitor water chemistry at ten sites across the watershed each quarter, and we monitor fish communities each fall and insect communities each spring. Based on these data, we publish "State of the Creek" reports to help us track changes over time and pinpoint the best locations to target remediation funds. The first of these annual reports will be released in fall 2003.

A key part of this project is its integration with two classes at WVU's College of Agriculture and Forestry: Fisheries Management and Limnology. These classes, taught by FODC board member Todd Petty, now include field trips to Deckers Creek so students can participate in the stream monitoring work. Also as part of the collaboration, FODC executive director Martin Christ and co-president Evan Hansen both gave guest lectures to bring real-world context to the classroom.

Students in these two courses have gained invaluable experience working with the Friends of Deckers Creek. They develop a knowledge of the technical aspects of managing a watershed like Deckers Creek. But more importantly, they gain a deeper appreciation of the community's commitment to improve the condition of Deckers Creek and the overall quality of life for residents of the greater Morgantown area.

### Deckers Creek watershed as a laboratory

In the Landscape Architecture department, students in Professor Charlie Yuill's Regional Design/Ecological Planning course are using the Deckers Creek watershed as the study area for their final projects.

Students in this course learn about issues such as land rehabilitation, open space planning, and ecotourism. Individual projects look into one of these issues in detail.

For example, student Deb Wise is focusing on stream corridor restoration. Wise is identifying sections of the creek that were channelized and straightened as part of government flood control efforts decades ago. Once straightened, these

sections lost their ability to properly move sediment downstream. Sediment built up over time, smothering habitats for aquatic insects and fish.

Wise's project considers whether any of these areas of Deckers Creek would be suitable for stream corridor restoration and open space preservation. The goal of the project, if implemented, would be to restore more natural stream processes to these areas, with benefits to the creek as a whole.

Other students are looking at changes in wildlife populations over time, human population trends, and development issues. Projects like these help FODC and others see the creek and its past and future in new ways, and may one day result in real benefit to the creek. When completed in May, class projects will be posted on the Web—check [www.DeckersCreek.org](http://www.DeckersCreek.org) for links after May 15.

This class provides FODC with another opportunity as well: sharing our knowledge about the creek. Professor Yuill included three FODC reports in the class reader, including *Acid Mine Drainage in Deckers Creek: What We Know So Far*, *National Water Monitoring Day: Results for the Deckers Creek Watershed and Nearby Streams*, and *Remediation of Deckers Creek: A Status Report*.

### Help organizing trash clean-ups

Our WVU partnerships are not all academic. Students in Dr. Kelly Bricker's Recreation, Parks and Tourism Leadership class are learning how to take on and manage leadership projects with local community organizations. Students working with FODC include Susan Nemeth, Wes McCauley, and Brooke O'Neil.

FODC organizes several trash clean-ups each year; this spring, we handed over responsibility for organizing the clean-ups to these students.

So far, FODC has benefited greatly from these volunteers. More than twenty people turned out for our first Adopt-a-Highway and Adopt-a-Trail clean-up of the season on March 23, about twice as many people as usual. Because of the great turnout, we were able to

complete our entire three-mile section along Route 7, as well as our entire adopted section of the Deckers Creek Rail-trail.

Deckers Creek watershed is small enough to be accessible to the university, and at the same time complex enough to interest students in many disciplines. We expect to see more collaborations like these in the future.

## CARPFEST

We will have more to celebrate than ever before at Carpfest 2003! But we need your help.

### Volunteer to:

- » sign up vendors
- » book bands
- » reserve and oversee tents and tables
- » organize volunteers at the Fest

Meetings will take place from time to time through the Fest on September 27.

Volunteers get a t-shirt and a year's membership! Contact us at 304.292.3970 or [info@DeckersCreek.org](mailto:info@DeckersCreek.org) if you can help out.



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# KICKING OFF THE 2003 SEASON

by Martin Christ

**GREETINGS AND WELCOME BACK to Deckers Creek Currents.** As we add new features and switch to electronic transfer of our material to the printer, our newsletter is getting classier, and we are bringing back its original name. Like the **Update**, we will be sending it out three times a year.

With this newsletter, we hope once again to get our central message out: The Deckers Creek watershed is a wonderful chunk of the planet, because of both the beautiful natural setting and the fine human communities found here. We can and will fix the pollution problems to make it even better!

As our 2003 activities get rolling, there are more people working for the creek than ever before. This issue of the newsletter emphasizes that element of cooperation in ensuring the health of our watershed. Ron Hamric tells the story of the Morgan Mines, a part of the coal-mining heritage of the watershed that, with the commitment of Anker Energy, is not acidifying Deckers Creek. Emily Grafton considers some of the communities—ecological ones—that we share the watershed with. The announcement concerning the formation of the Deckers Creek Restoration Team talks about what FODC and state and federal agencies are doing to fix the pollution. Finally, co-president Evan Hansen appreciates all the ways West Virginia University students and faculty are working with us.

We have a new way to get our message out. The **Deckers Creek Watershed Poster** is now available—see the sidebar to the right. Production of the poster was made possible by a grant from the West Virginia Stream Partners program. In addition, speakers are available to talk about Deckers Creek, its resources and its challenges to your community group. Finally, our Web site, [www.DeckersCreek.org](http://www.DeckersCreek.org), always has the latest on upcoming events like trash clean-ups or meetings in various parts of the watershed.

Right now, FODC needs you to support our message. We have started a year-long membership drive with the goals of doubling the number of individual and family members, increasing the number of business members, raising money for new projects, and getting more people involved in clean-ups and other watershed improvement projects. If you support the message but are not currently a member, we could use your help right now! Individual membership is just \$10. Please see the membership form on page 3.

As we deepen our roots in the community and increase our numbers, there will be new projects we can start. We'd like to prepare curricular materials for several levels in the schools. We'd like to collect oral histories. We'd like to study the physical shape of the streams, and consider whether any changes can be made to improve the habitat in the stream without increasing any danger of flooding.

If you have energy for these projects or ideas for others, please get in touch! Meanwhile, enjoy this issue of **Deckers Creek Currents**.

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FODC's much-anticipated **Poster of the Deckers Creek Watershed** has just been released! The 2'x3' full-color relief map details our creek in its context in the larger Monongahela River watershed. It illustrates forests, farms, settlements, mines, and wetlands, and, of course, water.

The poster will soon be seen around town, and is offered as a benefit of joining FODC. It was created with support from the West Virginia Stream Partners program and Canaan Valley Institute.

## NEW & RENEWING MEMBERS

**Charlie & Betty Baer, Tim Ball, Jason Beatty, Ella Belling, Dennis & Beth Bidwell, Joan & Miguel Breiding, Bill Bryan, John Gever & Jill Kriesky, Emily Grafton, Ron Hamric, Charles Harner, Dan Hobbs, Steven Hodges, Beth Krause, Garth Lindley, John & Kitty Lozier, Iretta & Jim Luzier, Craig & Corbin Mains & Chain-Wen Wang, Sarah McClurg, Clare & Whitey McDaniel, Arden Miller, Brooke O'Neil, Laura Paugh, Haynes Ralsten, Robert Robinson, Tom & Judy Rodd, Kelly Rose, John Schmitt, Vicky Shears, Stephanie Shepard, Beth Sites, Evan Smith, Kristin Stanjeski, Judith Stitzel, Susan Studlar, Mandy Summer, Therese Vanzo & Eric Hopkins, Dave Watson, Rich Weedfall, Donna Weems**

## A SHORT HISTORY OF THE DEEP MINES

And the Kanes Creek mine drainage treatment plant

by Ron Hamric

*Ron, who joined Friends of Deckers Creek's board last fall, has lived and worked in this area for about twenty years. He called on a retired surveyor who spent most of his career working the mines of Preston County to learn some of the earlier history of the deep mines.*

**AS FODC AND OTHERS WORK** to clean up acid mine drainage in Deckers Creek, it is interesting to recount the history of some of the mines and of some of the ways mine drainage is treated.

Large-scale coal mining started in the Deckers Creek watershed at about the turn of the twentieth century. Elkins Coal and Coke put together a huge coal property between Morgantown and Kingwood in 1901, and began running underground mines shortly afterwards. Some of the larger mines were Mine 26 in Masontown, Mine 22 in Burk, Mine 23 in Richard, and Mine 25 in Bretz. About the same time period, Morgan Coal Company put a mine in on Kanes Creek just upstream of Reedsville. That mine was operated until 1927.

This area remained inactive until the mid-1960's, when Reliable Coal reopened and expanded the old Morgan Mines. A new coal preparation plant was constructed on the site in 1975. Some of the coal that was mined during that time was loaded onto the B & O Railroad, which ran where the rail-trail is today.

An acid mine drainage (AMD) treatment plant was built there during the same time period.

Because of the acidic nature of the Upper Freeport coal seam that runs through the area, most of the abandoned deep mines along Deckers Creek produce acid drainage. Water seeps into the abandoned mine workings until the mine pool rises above the level of the creek. To prevent the drainage from entering the creek, pumps were installed in the mine pools on both the north and south sides of Kanes Creek, which keep the water levels lower than the creek level. Because the mine water has high levels of acidity and iron, it must be run through a treatment plant to neutralize acidity and remove dissolved iron. The Kanes Creek treatment plant uses lime as the neutralizing agent.

Anker acquired the Kanes Creek property in 1978 and a deep mine produced coal there until 1994.

Today the mine portals and coal cleaning plant are gone and the area has been reclaimed. All that remains is the AMD treatment plant and several treatment ponds.

During low stream flow periods of the year, the flow from the treatment plant can make up a significant portion of the Kanes Creek flow and can add large quantities of alkalinity to the water. Kanes Creek has a pH of 4 to 4.5 upstream of the Morgan Mine treatment plant, but may have a pH as high as 6.9 when the treatment plant is running.

The mines at Kanes Creek are only a small percentage of the deep mines that drain today

into Deckers Creek. Most of the others were mined and abandoned long before the passage of the federal Clean Water Act and Surface Mining Control and Reclamation Act. Unlike the Morgan Mines, water from most of these deep mines flows into Deckers Creek or its tributaries untreated.

The Morgan Mine treatment plant and a cooperative relationship between its owner, Anker Energy, and FODC are important resources for protecting and improving water quality in Deckers Creek.



photo Martin Christ / photo Anker file

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# DECKERS CREEK IS VERY MUCH ALIVE!

by Emily Grafton

**HAVE YOU TAKEN THE OPPORTUNITY** to observe all the variety of plants and animals living along Deckers Creek? The renowned field biologist E.O. Wilson once said, "Every scrap of biological diversity is priceless, to be learned and cherished, and never to be surrendered without a struggle." This statement, often quoted in reference to the protection of pristine ecosystems, is equally relevant to our own backyard.



Friends of Deckers Creek can visit your church, school, business, or other group and give a presentation about the water quality and the life in Deckers Creek. **Acid Mine Drainage: What We Know So Far** covers not only recent trends in water quality, but also the efforts of all the different groups trying to work together to fix it. Contact Martin Christ at 304.292.3970 or [mchrist@labs.net](mailto:mchrist@labs.net) if you would like to schedule a presentation.

Deckers Creek meanders in and out of a biologically diverse riparian corridor. Pockets of deciduous forest stand beside long stretches of wetlands. Swamp milkweed, alder, St. John's wort and spirea choke the slow moving waters of wetlands. Old fields sprawling across hillsides above the creek provide habitat for numerous wildlife species. Though much of the area has been repeatedly disturbed, the patchwork of successional habitats reveals a rich spawning ground for wildlife.

Additionally, the plant communities along Deckers Creek and the rail-trail do not lack for beauty. All you have to do is walk and look. Look deeply, and even deeper still, and the intricate web of the biological and physical components of the ecosystem will be revealed to you. However, much like the universe itself, it will be revealed primarily through observing one star, one solar system at a time.

I love the splashing sounds and mesh of colors from the play of light on rocks, water, and plants in this ever-changing mountain stream. I love the summertime butterflies that drift by my head or puddle in the mud holes along the rail-trail. As I amble by rows of poplar, redbud, spicebush, and milkweed, I see food for caterpillars that become swallowtails, fritillaries, and monarch butterflies. These same plants provide food for hundreds of other insect species that in turn serve as food for birds, mammals, and other animals.

You could start with any one critter in a given habitat and draw a matrix connecting it to most every other

entity within the area. Take a dragonfly, for instance. Adult dragonflies eat most anything they can catch. However, the dragonfly nymph that lives under water eats aquatic insects, fish, and tadpoles. The nymph eats animals that grazed on diatoms that fed on the leaves of the tulip poplar, oaks, and other species growing near the stream. Nutrients leached into the stream from forest soils fed the diatoms and fungi.

The above scenario does not begin to do justice to the complex relationships among all living things that build plant and animal communities. The important thing is that every fungus, bug, plant, bacteria, large mammal, and tiny salamander has a job to do in creating the dynamic, messy world of life we enjoy as we hike or bike the rail-trail.

Above all, I especially love to observe birds along Deckers Creek. From the rail-trail, you may see and hear more than 100 species from spring through late summer. Some highlights include prairie warblers, field sparrows, and yellow-breasted chat in the fields near Masontown. Wooded sections near Masontown support Louisiana waterthrush, common yellowthroat, yellow warblers, redstarts, and Carolina wrens.

Northeast of Reedsville, you may hear black-throated green warblers, solitary vireos, scarlet tanagers, blue-gray gnatcatchers, hooded warblers, Acadian flycatchers, black and white warblers, and more in the mature woodlands above the trail. In open wetlands, look and listen for white-eyed vireos, alder flycatchers, barn and tree swallows, brown thrashers, great blue herons, and a host of other species.

*Emily invites Currents readers to join her on point counts of birds along the creek in June. Contact her at [egrifton@labyrinth.net](mailto:egrifton@labyrinth.net) or at 304.292.0229 for info.*

Download our **Deckers Creek Birding Checklist** from [www.DeckersCreek.org/DCChecklist.02.pdf](http://www.DeckersCreek.org/DCChecklist.02.pdf)

## STEERING THE CREEK RIGHT

Stakeholders form the Deckers Creek Restoration Team by Martin Christ

**THE INDIVIDUALS**, agencies, businesses, governing bodies, and others who are cooperating to clean up Deckers Creek have come together. The group is unabashedly modeled—maybe even photocopied—after "River of Promise," which includes all the people and groups that are cooperating to clean up the Cheat River. We considered calling the group "Creek of Promise," but in the end we ust decided to call it what it is: the Deckers Creek Restoration Team.

Who is in it? First of all, you are. Your work with and support for FODC make our organization able to get out into the watershed, monitor streams, and talk to residents, so that we can share information with the agencies who have more power to move dirt or limestone. Your support for FODC also gives FODC power to get grants to move some materials on our own (your membership dollars help here too, of course).

The next crucial players are the West Virginia Department of Environmental Protection and the U.S. Natural Resources Conservation Service. These two agencies have struck a very important agreement, as we have reported before: They will cooperate to spend almost \$10 million on acid mine drainage (AMD) remediation in the Deckers Creek watershed.

Other groups are involved as well. The National Mine Land Reclamation Center will help with design of

remediation facilities. There may be coordination with the Morgantown Utility Board (MUB) for issues in Morgantown. Landowners, especially those who own the abandoned mines, will be crucial partners.

What are the first steps? At the last meeting, we decided the first order of business was a comparison of the different possible methods for treating the Richard mine (see inset). This one mine causes the largest jump in metals concentrations in the entire creek. It is responsible for the "very poor" water quality designation for the last five miles of the creek.

### TREATING THE RICHARD MINE DRAIN

#### Build a treatment system

Advantage: predictability. The system could be built to add a specific amount of alkalinity to the water.

Disadvantage: costs. These include not only the construction cost, but also the ongoing costs of buying alkaline material and of disposing of sludge produced by neutralizing the AMD.

#### Pipe the acid mine drainage away

to MUB's treatment plant or directly to the Monongahela River.

Advantage: simple and effective.

Disadvantage: cost, and the possibility that pipes might be clogged as metals precipitate out of solution.

#### Put alkalinity inside the mine

Advantage: cheap.

Disadvantage: effectiveness uncertain.

The team will be discussing the treatment alternatives at a meeting in May. Regardless of which method is chosen, a good on-the-ground inspection of areas where water might be getting into the mine might be very productive: If we can seal some of the water out of the mine, there is that much less water to treat.

Overall, the Deckers Creek Restoration Team will be the group that processes information about how to get the most improvement in Deckers Creek out of every dollar that comes in. These are important considerations for Deckers Creek, and important considerations for West Virginia as a whole.

An open meeting will be held in late summer; check our Web site for the date if you'd like to be involved.

## MANY THANKS

Friends of Deckers Creek would like to thank our supporters:

### CLEAN CREEK PROGRAM

Anker Energy  
Partners for Women's Healthcare  
WesBanco

### OTHER SUPPORTING BUSINESSES

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### GROUPS AND FOUNDATIONS

Canaan Valley Institute  
River Network  
West Virginia Rivers Coalition  
West Virginia Stream Partners  
WVU Office of Service Learning / W.K. Kellogg Foundation

## deckers creek almanac

### MAY

Many migrating bird species can be seen in May. In the upper watershed, along with common species such as **red-winged blackbirds** and **American robins**, a search can turn up uncommon species such as **least sandpiper**, **rusty blackbird**, and **American pipit**.

During high water, the elusive **class VI-level kayaker** frequents the lowest mile of the gorge, displaying small, brightly-colored boats atop pickup trucks and shiny black neck-to-toe wetsuits. The kayaker prefers this stretch for its accessibility, its steep gradient, and its kayaking challenges.

### JUNE

Birds breed in the Masontown and Reedsville area. Along the rail-trail, look for the **Eastern bluebird**, **Eastern meadowlark**, **willow flycatcher**, **swamp sparrow**, **common yellowthroat**, and **Baltimore oriole**.

Winter snowmelt has flowed away, leaving the creek at a healthy level with clear water. In late June, try to spot **sunfish** and **largemouth bass** under the Route 7 Dellslow bridge. Watch out for traffic!

### JULY

**Carp** migrate from the Monongahela River up Deckers Creek to spawn. They nest close to the banks of the creek in its lowest mile, and are most visible splashing around in the shallows. Look especially in the sandy sediments under the rail-trail bridge where Deckers meets the Mon. Also, watch for large carp in the pools near the bottom of Kingwood Street.

Butterfly activity picks up. In addition to such common species as **tiger swallowtail**, **clouded sulphur**, and **great spangled fritillary**, the fortunate butterfly watcher might find a **Baltimore checkerspot** or a **viceroxy**. Try the rail-trail in sunny weather.

Our thanks to local naturalists Gary Felton and Adam Polinski.



Three hours' work with Friends of Deckers Creek earns you a year's membership! Join us at a clean-up (check our calendar), or help out with the CarpFest (see sidebar, page 1). We can always use help with stream monitoring, too. Call us at 304.292.3970 to find out other ways you can help.