



# UP THE CREEK

## THE MONDAY CREEK NEWSLETTER

Monday Creek Restoration Project Volume 12 • Number 2 • Winter 2006-2007

### Perspectives on watershed funding

by Matt Miller, AmeriCorps\*VISTA, Monday Creek

Inside this latest edition of *Up the Creek*, you will find articles on our current grant-funded reclamation projects, our Annual Watershed Tour, the basic science behind AMD, a message from coordinator Mike Steinmaus, and insights into local history by Maxville resident Ramona Hicks. This is what the Monday Creek Restoration Project newsletter is all about – getting you in touch with the different perspectives and issues of our watershed.

The following article offers a perspective of the funding situation that many environmentally-focused organizations and agencies are in these days. The reality is that money for programs like MCRP is drying up, and very soon. We would like you to seriously consider giving your support to MCRP so that we can continue to

do the work we do, and to continue informing you through our newsletter. We realize that the whole business of funding watershed work is confusing, but we know that as concerned citizens you see the need and are willing to help.

Your Monday Creek news: in print from 1995 to 2006.



### The future of newsletters

by Mike Steinmaus

Our newsletters have grown from a four page (printed on 8 1/2 by 11 sheets, front and back) publication in 1995 to a current 8-page, two-color document. The first issue had one article, followed by a Management Plan outline. Our last issue had eight articles, ranging from Lost Run construction news to our *Looking Back* reminiscences of past days in the watershed.

Since 1998, we have been able to expand the scope and size of the newsletter. This came about because we were able to finance the printing and mailing through grants from the Ohio Environmental Protection Agency and the U.S. Environmental Protection Agency under the provisions of Section 319 (h) of the Clean Water Act. These funds were a part of the education and outreach provided in the grant.

However, because of budget tightening at the federal and state levels, our next grant will only fund that portion of the newsletter directly related to the project being funded. This means that

only one article, or one-eighth of the newsletter printing cost will be covered.

We have several possibilities in continuing a newsletter.

1. We can limit the newsletter to 2 to 4 pages and print the copies in house.
2. We can write a newsletter and send the majority of the copies as attachments to emails.
3. We can incorporate the newsletter into the Rural Action newsletter.
4. We can (with your funding) continue to print and mail newsletters of the quality now produced. (Currently it costs about \$700 to print 900 copies and another \$200 for bulk mailing.)

So, we need your input. What do you suggest? Keep in mind that our newsletter funding is dwindling. We need your memberships and donations to maintain a newsletter in the future. In most copies of this newsletter, we have enclosed an envelope for you to use in sending us your suggestions, memberships and donations.

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### Partners

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Hocking College: National Environmental Training Cooperative  
Buckingham Coal Company  
Monday Creek Residents  
USDA Natural Resource Conservation Service  
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US Forest Service  
US Geological Survey  
US Office of Surface Mining

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**The Monday Creek Restoration Project** is a collaborative venture dedicated to reclaiming the Monday Creek watershed. For more information contact:

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### From the Coordinator's Desk

by Mike Steinmaus,  
Monday Creek  
Watershed Coordinator



With the Holiday Season fast approaching, this is a good time to express our appreciation to all of the wonderful people who make the Monday Creek Restoration Project a showcase among watersheds throughout Ohio and the nation. I'm certain to omit individuals who have made contributions that I may not even be aware of.

So, let me start with Rebecca and Matt, my co-workers in the Monday Creek office – without them only a minor portion of our story would be told.

Then there are the Partnering organizations – Gary, Pam, Ted, and Mary at the U.S. Forest Service; Mitch, Doug, Mary Ann and Harry with the ODNR, Division of Mineral Resources Management; Max at the Office of Surface Mining; Dan and Dale with the Ohio EPA; Greg and David with the ODNR, Division of Soil and Water Conservation; Scott, Jen and Matt at ILGARD; Mary Ann with the Athens County NRCS; Ben and Cathy with the Perry and Athens Soil and Water Conservation Districts; and the Athens, Hocking and Perry County Commissioners.

Thank you to John and Cheryl at the Little Cities of Black Diamonds, who understand through history and heritage what we can now reclaim. Thank you to Connie and the gang at the New Straitsville History Group, who treat us as family. And thank you to Jack, at the Shawnee History Museum, for sharing the coal country legacy with all of us.

A special thanks to Jane, Linda, Candi, Mary and the team at Rural Action – they do so many tasks that help keep our doors open.

And to our members, for your belief that together we can restore Monday Creek and reclaim our land resources, a heartfelt thank you.

*Mike*

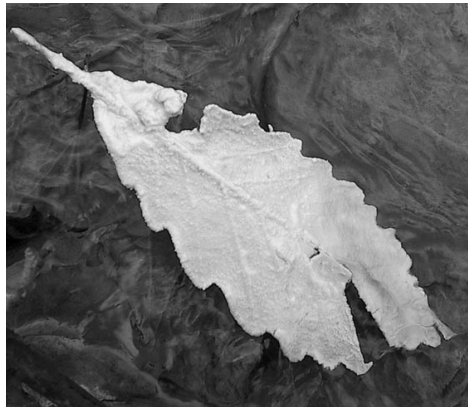


## Office of Surface Mining funding for watershed projects

by Max Luehrs, Natural Resource Specialist  
Office of Surface Mining

Since OSM's Appalachian Clean Streams Initiative received funding in 1997, OSM has contributed approximately three million dollars to watershed projects in Ohio through the State's AML grant program, and through the Watershed Cooperative Agreement Program.

This money was leveraged against other funding sources, such as Ohio EPA 319 grants, US Forest Service funding, and Army Corps of Engineers funding, for total project costs of over 14 million dollars. OSM was able to assist in five watersheds significantly impacted by acid mine drainage (AMD) that also have active watershed groups, and four other watersheds with more isolated AMD problems. Several



*Unnatural contrast: A leaf completely coated with aluminum, on a background of iron-coated leaves; all the result of Acid Mine Drainage.*

watersheds are showing significant improvements, but there is much work left to be done.

In Monday Creek, OSM funding was involved in 12 AMD projects with

total costs of approximately 2.4 million dollars. OSM also funded projects that involve health and safety issues within the watershed. For example, OSM has funded over 12 millions dollars worth of health and safety projects in Perry County alone.

While these projects may not directly impact water quality, they do have a positive impact on the environment and the communities where they are located.

Unfortunately, the authority to collect the severance tax that funds these projects is going to expire on September 30, 2007, unless it is reauthorized by Congress. If it is allowed to expire, the loss of these funds will certainly have an adverse effect on the funding levels for watershed groups. The administration supports reauthorization, and even wants to increase funding levels for the eastern states that have the majority of both AMD and health and safety problems.

## Ohio Department of Natural Resources funding for AMD reclamation

by Mitch Farley, Project Field Officer,  
Ohio Department of Natural Resources

The Ohio Department of Natural Resources – Division of Mineral Resources Management has been reclaiming abandoned coal mined lands since the late 1970's. Early reclamation efforts were conducted under Ohio's "Land Reborn" program. This work increased dramatically when the Federal Surface Mining Act authorized collection of coal excise tax money in the Ohio and other coal producing States.

Since the mid 1990's, the Division has been cooperating with the Monday Creek Restoration Project to diminish the effects of acid mine drainage (AMD) pollution from abandoned coal mines. Acid mine drainage pollution has caused 83 stream miles to be nearly devoid of aquatic life and

recreational and economic development opportunities. With Monday Creek's assistance, the Division has been able to attract matching monies from other agencies. Approximately 4.5 million dollars have been spent in reclaiming and treating over 10 of the worst AMD sites in Monday Creek. A recent study shows that many sections of Monday Creek are improving and being repopulated by fish.

The Federal excise tax that funds reclamation will end in September 2007. Federal disbursements from the Abandoned Mine Lands trust fund have decreased over 15% in the last three years, even though the fund has a balance of over 1.8 billion dollars. Many concerned citizens have been urging Congress to fully fund and reauthorize the program so that the efforts to clean up AMD impacted watersheds

can continue. State reclamation funds, used to match other Federal dollars, are in a state of serious decline as coal mining diminishes in Ohio. The Department of Natural Resources and the Ohio Legislature are studying ways to maintain or increase the amount of State dollars available for reclamation.

Improvements in water quality are being realized on the main stem of Monday Creek as a result of reclamation of old mine sites and the treatment of mine drainage discharges in Snake Hollow, Big Four Hollow, Goose Run, Salem Hollow, Sycamore Hollow, Rock Run, New Straitsville, Doanville, Jobs Hollow, Lost Run and many other locations in the watershed. If these sorts of improvements are important to you, contact the Monday Creek Restoration Project to see how you can help.

# AMD— not just sulfur in the water

by Matt Miller, AmeriCorps\*VISTA,  
Monday Creek Restoration Project

The responsibilities of a watershed group are usually defined by the problems that a particular watershed faces. In the case of Monday Creek Watershed, the issue that is most pressing is Acid Mine Drainage, and that is why MCRP focuses so much of its energy on reclaiming coal mine sites and preventing coal mine pollutants from entering streams.

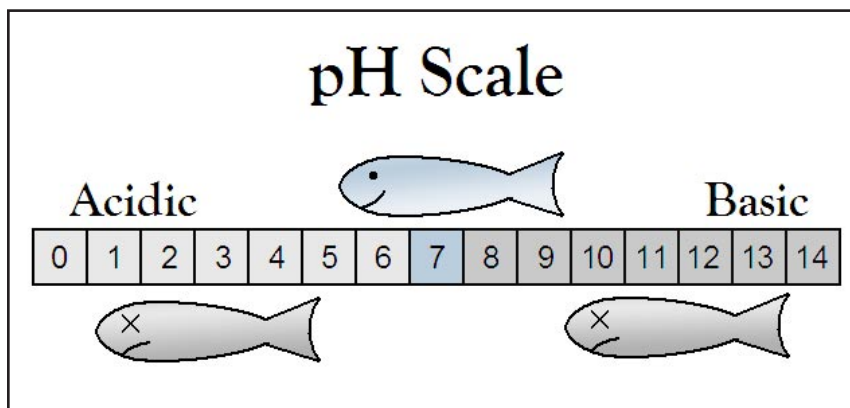
The term AMD is thrown around a lot in MCRP newsletters, but not always adequately explained. Acid Mine Drainage is not a problem that is unique to Monday Creek. It is to be found worldwide at many coal and metal mine sites. In the US, AMD pollution occurs in copper mines in the Rockies, gold mines in Alaska, and in coalmines throughout Appalachia.

AMD pollution has two main components: sulfuric acid, and dissolved metals. The source of the acid is metal sulfides, such as iron sulfide (fool's gold), which occur naturally as impurities in coal, or are themselves mined as metal ores. When exposed to oxygen and water, metal sulfides break down and form sulfuric acid, which is the same kind of acid found in car batteries, although not as concentrated and thus weaker. Still, the sulfuric acid in AMD is strong enough to dissolve metals fairly rapidly. Streams that are polluted with AMD have been known to eat away the metal pillars of bridges!

The strength of any acid can be measured with the pH system, which is on a scale of 0-14. On the scale, 0 is extremely acidic, 14 is extremely basic, like lye, and 7 is neutral. Pure water has a pH of 7; however, AMD can be as low as 2.5.

When coal and metal ores are undisturbed in the layers of bedrock, as they have been for millions of years, they are generally not exposed to the right conditions to create AMD. When people come along and begin mining them, we allow water and air to get inside the seams of coal or ore, as well as piles of gob and mine tailings. As sulfuric acid forms in these conditions, it begins to attack and dissolve the metallic minerals it comes into contact with.

It is for this reason that AMD discharges from coal mine sites in our watershed contain high concentrations of dissolved iron and aluminum. When these metals are in a dissolved state, we do not see them. However, metals dissolved in AMD



*Water quality specialist Rebecca Black maintains an AMD treatment pond, which is causing thousands of pounds of iron (left) and aluminum (right) to fall out of solution as it improves the water's pH.*

will only stay in solution as long as the conditions are right. When the pH of acidic water goes up, becomes more neutral that is, the metals begin to fall out of solution and become solid once more. This explains the colored sediments that we see in streams that are affected with AMD. Yellow and orange sediments indicate iron oxide; white sediments indicate the presence of aluminum. Iron and aluminum dissolve and come out of solution at different pH levels, which explains why we often see areas of streams that are only white, or only orange.

Both the acid and metals in AMD are very

*Continued on page 6*

# Annual Watershed Tour Report



*Mike shows how the new limestone leach bed will remove acid and metals from the water before it reaches the main creek.*



*Rebecca shows off the new doser, which is located at the entrance of the Essex Mine off State Route 216.*

*by Matt Miller, AmeriCorps\*VISTA, MCRP*

On Saturday, October 14th, the MCRP led 14 people on a tour of the Monday Creek Watershed. Both the tour participants and MCRP staff, who organized and facilitated the tour, enjoyed the wonderful fall weather and the chance to go hiking in the woods on a sunny afternoon. The free tour, which was open to the public, drew individuals from the Logan, Nelsonville, New Lexington, and Columbus areas, including one man who lives in San Diego, California!

The tour began at the MCRP office in New Straitsville. The group toured several sites nearby where MCRP and its partners have been working on projects to improve water quality. At the first site, the group hiked into the Lost Run reclamation area off of State Route 595, two miles south of New Straitsville. This short hike followed an old strip mine area inside the Lost Run subwatershed. The flat bench – the area below the highwall of the strip mine – runs parallel to the hillside, and served as a hiking trail for the tour. This gave the group a clear idea of the physical changes to the landscape created by coal mining, and showed them one source of the AMD pollution. The bench led the group out to one of several limestone leach beds that were constructed in the fall of this year, which had just begun to fill with, and treat, the AMD-polluted runoff from the strip pits above.

The tour also visited the new lime doser at the Essex Mine, which has now been in operation and treating Snow Fork water for eight months. Said Christa Myers, “I am a visual person and I think the stop that made the most impact on me was the Essex Mine vent where you can see the aluminum precipitated out in the stream coming from the mine. The metal is right there - you can see it and touch it.”

The last stop was a large subsidence hole near New Straitsville, big enough to swallow up a bulldozer. The Wayne National Forest has been working here on closing mine features, including subsidences and old entrances, throughout 2006. The people on the tour were amazed to hear that preventing water from getting in the mines around New Straitsville could reduce AMD discharges as far away as the Essex Mine.

*Continued on page 6*

### AMD

*Continued from page 4*

harmful to aquatic ecosystems, and are directly accountable for the lack of fish in most of the Monday Creek Watershed. In fact, the combination of low pH and high concentration of dissolved metals is far worse than either of the two problems separately.

The metals present in AMD-afflicted water have many impacts on stream ecosystems. The most visible impact is that the metals dropping out of solution coat the bottoms of the streams with the orange and white metal sludge. This unnatural sedimentation of stream bottoms renders clean gravel uninhabitable to macroinvertebrates – aquatic bugs – and unsuitable for fish to spawn in. The dissolved metals also can have severe consequences for organisms by negatively affecting their metabolism and reproduction. Additionally, as the metals drop out, they cloud water with abrasive silt that can be hard on fishes' gills – fish breathe water after all.

Animals that live in water – especially those with gills, like fish and insect larvae – tend not to tolerate acidic conditions in their environment. The lower the pH level, the more toxic it is to them. Most fish and macroinvertebrates will die off below a pH of 5, and in our watershed, streams including the Snow Fork tributary regularly go below 4.

These are the main reasons that MCRP is concerned with preventing Acid Mine Drainage in Monday Creek. It is no coincidence that our watershed has both lifeless streams and large discharges of AMD from coal mine sites and gob piles. AMD is directly responsible for the damaged state of our creeks, and by addressing the problems at the sources of the AMD, MCRP is helping to bring aquatic life back into the watershed.

*In the next issue of Up The Creek, look for an article on the science of AMD treatment*

### ANNUAL WATERSHED TOUR, Continued from page 4



*Mike, Matt, and the tour group pose for a group photo beside the newly installed Lost Run project sign.*

For many of the tour participants, even those with local roots, this was their first exposure to the water quality issues that effect the coal mining regions of Southeast Ohio. Christa Myers, who lives in the Logan area, expressed the thoughts that many people on the tour seemed to share. “The Monday Creek Restoration Project tour was an eye-opening experience for me. I have lived near this area for most of my life, but did not realize how impactful mining has been to the landscape.”

Thank you to all those who took part in our 2006 Tour! We at MCRP look forward to another year of exciting reclamation work, and hope that more of you will be able to join our next Annual Tour of the Monday Creek Watershed.

## Lost Run Construction Update

*by Matt Miller, AmeriCorps\*VISTA, MCRP*

The Lost Run Subwatershed project is now halfway complete. This large-scale AMD abatement and treatment project is targeting the Lost Run area, which drains only 3 square miles of the 116 square mile Monday Creek Watershed, yet constitutes 9 percent of the total AMD problem. Construction began in early July 2006, and is now on hold until next summer, when weather conditions and the movements of endangered animals will again permit on-site work.

This first half of the project has seen the construction of a number of design features that are now beginning to treat the acid water created by the numerous old strip mines on the western edge of the subwatershed. Four limestone leach beds are now in place and operational, as well as approximately 4,000 linear feet of limestone channels. The project site is just off of S.R. 595, south of New Straitsville, and there is now a vehicle barrier and project sign to mark it as a reclamation area. The construction and earthmoving work on the treatment systems was done by Tuscon Inc. of New Philadelphia, with project oversight from ODNR.

The second half of the project is undergoing design at present, and bidding this work will take place in early 2007. The entire Lost Run Project is slated for completion by the end of 2007.

## WE NEED YOUR SUPPORT!

### OUR MISSION:

*The Monday Creek Restoration Project is a Partnership committed to improving the watershed health for the benefit of the community.*



### BENEFITS:

Newsletter, Watershed Tours, Float Trips, Potlucks, Volunteer Opportunities and, best of all, helping make **your watershed** beautiful again.

### YOUR MEMBERSHIP HELPS US

Monday Creek Restoration Project depends on your financial support to continue our educational programs, outreach and community organizing, and the development of new projects and community assets.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> \$20 Basic Grassroots | <input type="checkbox"/> \$100 Supporting | <input type="checkbox"/> \$60 Nonprofit |
| <input type="checkbox"/> \$40 Individual       | <input type="checkbox"/> \$500 Sponsor    | <input type="checkbox"/> \$100 Business |
| <input type="checkbox"/> \$60 Household        | <input type="checkbox"/> \$1000 Sustainer |   |

### Yes, I want to become a member of MCRP!

Please specify:     Donation to MCRP     Membership     Both

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**Send your contribution or membership dues to:**

**MCRP  
PO Box 129  
New Straitsville, OH 43766**

**Questions? call 740-394-2047**

### 2006/2007 Events

MCRP is holding a **Holiday Open House** at its office in New Straitsville from **December 20 to December 22**. Stop by for refreshments, to visit with the MCRP staff, and to learn about the watershed work that has been done in 2006. Need directions? Please call.

**Friends of Monday Creek Meetings** are scheduled for fourth Tuesdays of alternate months. The next Friends meeting will be held on **January 23rd, beginning at 6:30pm**. **Location TBA**.

**ATTENTION PARTNERS: Partners Meetings** have yet to be moved from current days (second Thursdays of alternate months). You will be contacted to provide input on this.

Visit [www.mondaycreek.org](http://www.mondaycreek.org)  
Call MCRP at 740-394-2047  
Email Matt Miller: [vista@mondaycreek.org](mailto:vista@mondaycreek.org)

### LOOKING BACK: REMEMBERING MAXVILLE

*Continued from page 8*

It seemed everyone knew everyone and everyone worked together in our community. We had lots of dinners at the school. We put on plays and everyone took part.

We had a school that taught children from grades one through eight. There were four grades in each room. David Howdyshell and Miss Alexander were two of the teachers I remember. Each schoolroom had a pot-bellied stove for heat in the winter. The toilets were outside in back of the school. We got our drinking water from a well in the front yard of the school. For lunch, some of the kids walked home and others brought a sack lunch.

Many children from throughout the township rode a school bus to school. The older kids were bussed to New Straitsville for high school.

Loren Howdyshell was our bus driver. When the roads were icy and snowy, he would go down to the school bus garage and put chains on the bus.

All of the kids gathered in Maxville to play ball, take walks and have hayrides. In winter, there was lots of snow then and we all went sleigh riding or ice-skating on the creek. It was always fun to go to the old store and listen to the old timers in our town.

We had an old house where the community voted and where the church ladies would serve lunch on Election Day.

Whoever ran for office in the township and won would always give us kids candy bars. We had a time of fellowship and fun on that night.

# Monday Creek Restoration Project

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Happy Holidays  
to you from your friends,  
the staff at Monday Creek!

*Mike Rebecca Matt*

## Looking Back: Remembering Maxville

*by Ramona Hicks*

I have fond memories of growing up in Maxville, Ohio. At that time, the community had three stores, a telephone office and Dr. Sherman's office. Most of the community farmed or worked in coal mining or logging.

*Continued on page 7*

*Right: July 1930. Edson Huston and Mac Butt (right foreground) sitting on the porch of one of the stores in Maxville. Mac Butt made pick handles for the men who worked in the mines. He made me a small ball bat.*

