



UP THE CREEK

THE MONDAY CREEK NEWSLETTER

Monday Creek Restoration Project

Volume 9 • Number 2 • Winter 2003-2004

A Publication of Rural Action

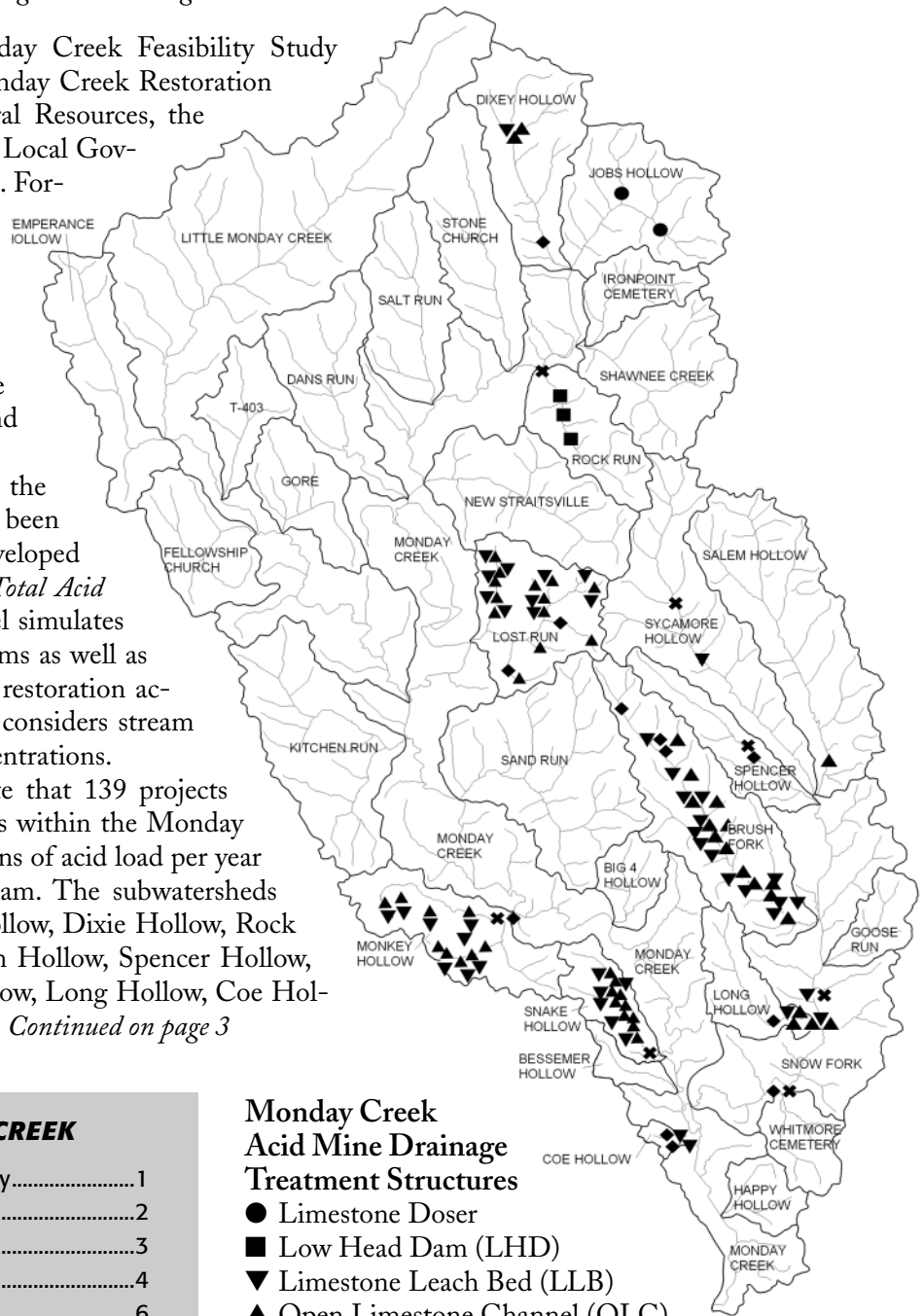
Monday Creek Feasibility Study Update

by Mark D. Kessinger, U.S. Army Corps of Engineers Huntington District

Work is progressing well on the Monday Creek Feasibility Study through the combined efforts of the Monday Creek Restoration Project, the Ohio Department of Natural Resources, the Ohio EPA, Ohio University's Institute of Local Government and Rural Development, the U.S. Forest Service, the U.S. Fish and Wildlife Service, the Department of Energy's National Energy Technology Laboratory, West Virginia University and the U.S. Army Corps of Engineers. Each agency contributes unique skills, expertise and knowledge needed for a complex and challenging project such as this one.

The most cost-effective treatments for the highly acidic water in Monday Creek have been determined using a computer model developed by West Virginia University called the *Total Acid Mine Drainage Loading Model*. The model simulates the effects of acid mine drainage on streams as well as improvements to water chemistry due to restoration activities. In addition to acidity, the model considers stream pH, iron, manganese and aluminum concentrations.

Results from the model study indicate that 139 projects are required throughout 14 subwatersheds within the Monday Creek Watershed to remove over 3,000 tons of acid load per year and restore nearly 25 river miles of stream. The subwatersheds being considered for projects are Jobs Hollow, Dixie Hollow, Rock Run, Lost Run, Sycamore Hollow, Salem Hollow, Spencer Hollow, Brush Fork, Monkey Hollow, Snake Hollow, Long Hollow, Coe Hollow, Whitmore Cemetery and Snow Fork. *Continued on page 3*



Monday Creek Acid Mine Drainage Treatment Structures

- Limestone Doser
- Low Head Dam (LHD)
- ▼ Limestone Leach Bed (LLB)
- ▲ Open Limestone Channel (OLC)
- ◆ Slag Leach Bed (SLB)
- × Wetlands (WL)
- Subwatershed boundaries
- Streams

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Partners

Adelmann Lumber
American Electric Power
Athens, Hocking, and Perry Soil & Water
Conservation Districts
Athens, Hocking, and Perry County
Commissioners
Hocking College: National Environmental
Training Cooperative
Buckingham Coal Company
Monday Creek Residents
USDA Natural Resource Conservation Service
ODNR Mineral Resources Management
ODNR Division of Soil & Water Conservation
ODNR Division of Wildlife
Ohio Environmental Protection Agency
Ohio University - Geography & Geology Dept.
Ohio University - The Institute of Local
Government Administration and Rural
Development (ILGARD)
Rural Action, Inc.
US Army Corps of Engineers
US EPA
US Forest Service
US Geological Survey
US Office of Surface Mining

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This publication was financed through a grant from the Ohio Environmental Protection Agency and the United States Environmental Protection Agency, under the provisions of Section 319(h) of the Clean Water Act. It is published biannually by Rural Action, our sponsoring agency (www.ruralaction.org). Printed on 100% post consumer recycled paper with soy inks.



From the Coordinator's Desk



A monthly US Army Corps of Engineers Feasibility Study meeting.

by Mike Steinmaus, Monday Creek Watershed Coordinator

More than ever, stewardship of our natural and cultural resources, along with places set aside for recreation and education, requires shared responsibility. This responsibility is evident in the remarkable number of public and private partnerships that occur throughout the Monday Creek Watershed and southeast Ohio. Examples include the U.S. Forest Service grant funding (Rural Community Assistance Program) to the Village of New Straitsville for improvements to the History Center and a trail and signage to Robinson's Cave. Likewise, a Cooperative Agreement has been signed by the U.S. Forest Service and Rural Action (with additional resources from the Ohio Department of Natural Resources) for treatment practices to reduce acid mine drainage from Big Four Hollow into Monday Creek.

In November, I participated in a three-day conference entitled "Partners in Stewardship." More than 1,500 individuals from seven federal agencies and a wide variety of non-governmental organizations joined together to share experiences and explore ways to work with one another.

This newsletter focuses on our deep commitment to partnerships. Through the joint efforts of government agencies, educational institutions, local businesses and concerned citizens, the Monday Creek Restoration Project has been able to make significant progress in improving conditions in Monday Creek. Through shared responsibility and a cooperative spirit, the Monday Creek partnership is leaving a positive mark on southeastern Ohio.

Mike

*FEASIBILITY STUDY**Continued from page 1*

Environmental restoration projects planned for these areas include filling subsidences, plugging stream captures, creating wetlands, constructing low head dams, installing a lime kiln doser and constructing limestone leach beds, slag leach beds and open limestone channels. After these projects are constructed the concentrations of acid, iron manganese and aluminum will gradually decrease until they fall within acceptable limits set by the Ohio EPA for a warm water habitat. Once the warm water habitat is achieved, macro-invertebrate communities that fish feed on will reestablish, the fish diversity in Monday Creek will increase, and fish will migrate into the upper reaches of Monday Creek from the Hocking River.

The draft feasibility report, which will outline the recommended plan for Monday Creek, is scheduled to be available for public review this spring. Once it is published, public meetings will be held locally to explain the recommended plan for restoring the Monday Creek Watershed and to gain public input on the plan. Following the public's review, the Corps' Huntington District will incorporate the public's comments and submit the feasibility report to Corps Headquarters in Washington, DC. Following Headquarters' approval, the report will then be forwarded to Congress for authorization and funding. If approved, construction will most likely begin in 2006.

If you have any questions about the Feasibility Study, please contact:

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Partnerships are Important to the Wayne National Forest



by Pamela Stachler,
Hydrogeologist
with the Forest Service

Left: A familiar signboard in the highways and byways of the Monday Creek watershed. Photo by Matt Woods.

National forest lands are the largest single source of freshwater in the United States. Water sources that begin on National Forest lands bring life to agricultural lands and clean water to communities, and have a conservatively estimated economic value of at least \$3.7 billion per year. Protecting these watersheds is one of the primary reasons the Forest Service was established, and maintaining or restoring watershed health remains vitally important. The patchwork of federal and non-federal lands within many watersheds makes partnerships even more crucial to ensuring clean water and healthy forests (National Forest Foundation, 2002).

It should be no surprise that the public expresses interest in Forest Service management of the National Forests, and chooses to get involved in that management. After all, National Forest System lands are public lands, and the Forest Service manages them for the benefit of the people.

The Wayne National Forest, located in southeastern Ohio, occupies about 240,000 acres. Historically, coal mining practices have created significant impacts on this region's watersheds, in particular the Monday Creek watershed. Water from streams and runoff that enter large mine complexes emerges with very high heavy metal content and low pH levels, greatly reducing the stream's ability to sustain

nearly all forms of aquatic life.

The Wayne National Forest has, for the past 6 years, worked in partnership with other federal and state agencies, colleges, local government officials, and local citizens groups like the MCRP to improve water quality and ecosystem health in the Monday Creek watershed. The Forest Service has even recognized the Monday Creek Restoration Group by awarding to them the Forest Service's National Rural Community Assistance Spirit Award in 1998-99.

Partners have committed over \$2.5 million to restoration projects in the Wayne National Forest. The Forest Service has committed approximately \$1.5 million. Direct contributions from partners are only one benefit to the Wayne National Forest. Other benefits include data collection and expertise sharing, project conceptualization, negotiation, design, implementation and monitoring.

Problems in the Monday Creek watershed are simply too big for the Wayne National Forest to tackle alone. Many of these problems do not stop at boundary lines on maps because of the matrix of mixed ownership. Partnerships allow us to work across boundaries and make a "difference on the ground." Partnerships are just plain smart management. Any investment made in establishing and maintaining partnerships returns many-fold.

Working in the Watershed

by Mike Steinmaus



Joshua Long joined Monday Creek Restoration Project in July of 2003 as a Summer Intern through a Cooperative Agreement with the Office of Surface Mining (OSM). Josh worked diligently to promote our watershed efforts at events such as the Athens County Fair and the New Straitsville Celtic Festival. He also organized a “Here is Monday Creek” presentation, and developed and distributed a survey of area residents’ opinions toward our restoration efforts. He compiled a Water Quality Report comparing stream segment data over the past five years, and Josh even organized a “Fun Day” at Tecumseh Lake for area youth. At the end of his internship, he took a position with the Ohio Department of Natural Resources.



In November of 2003, Raina Ooten joined the Monday Creek team. Some of her assistance to the MCRP has included implementing water quality projects, promoting watershed restoration through education and outreach, and seeking funding to continue our restoration efforts. As a VISTA volunteer, Raina has been busy learning about the watershed and meeting its residents and our Partners. She graduated from the University of Rio Grande with a B.S. in Environmental Science and also worked as an OSM Summer Intern at Raccoon Creek. We’re pleased to have Raina with us!



When thinking back on recent watershed workers, the MCRP staff has wondered something: **Where in the world is Matt Woods?** Matt was our VISTA volunteer from August 2002 through July 2003 and has been working on highway construction projects in Pennsylvania, West Virginia, Kentucky and Ohio during the months following his VISTA term. He recently wrote, “I really miss it, working at Monday Creek and Rural Action, it was a good job and something that I might not have fully appreciated at the time.” Wherever Matt is now, we wish him well.

Photos: Top, by Robyn Ness: Josh Long (center) at the Ohio Watershed Leaders Conference. Center, by Robyn Ness: Raina Ooten, AmeriCorps VISTA volunteer, at a meeting of the Ohio Watershed Academy. Below, by Rebecca Black: Matt Woods, former VISTA volunteer, filters water samples.

Our Watershed on the Net: www.mondaycreek.org

by Raina Ooten

Don’t know exactly what the MCRP does? The Monday Creek Restoration Project has an excellent website where there’s something for everyone. The next time you search the web please take a look at mondaycreek.org where you can learn about the Project’s goals and approach.

Are you curious about reclamation efforts in the watershed? The site has descriptions, progress reports and photos of reclamation projects past and

present. Those of you who love to read can examine the lists of related publications and resources. If you’re a history buff, be sure to check out sections on both places of historic and cultural interest and the history of our region. Trivia fans will like the watershed glossary, where you can find information on many watershed terms.

Do you want to help out but don’t know where to start? Visit mondaycreek.org to become a member of the MCRP and learn about upcoming events and volunteer opportunities.

If you have worked with us before, you can look at the stories and photos from the watershed—you just might be in there!

This is only a portion of what the MCRP website has to offer. With the help of people like our webmaster, Mary Lautzenheiser of Guysville, we’re updating the website content. So what are you waiting for? Check it out and get involved!

Surf to www.mondaycreek.org and see how you too can make a difference in your community.

Monday Creek Project: Nelsonville-York Elementary Watershed Day

by Diane Wiktorowski,
Interim ELP Coordinator, Rural Action

The Environmental Learning Program (ELP) has recently partnered with the Monday Creek Restoration Project to teach students in the Monday Creek watershed about their watershed.

In spring of 2003, ELP held two day-long programs with the entire 4th and 6th grade classes at Nelsonville-York Elementary School. Approximately 200 students participated in the program, in which they rotated through different stations that focused on different aspects of the watershed. These included a fishing station, in which students used a fishing rod with a magnet on the end to “catch” a fish out of a bucket. The fish they caught were all species found in the watershed, which they then identified and learned the tolerance of for polluted waters. Finally, they placed a mark on a map as to what streams they would find the animal in. Students then hypothesized about why they were finding fish in certain areas and what the cause might be for the absence of fish in other areas. Human influence on the watershed, both positive and negative, was discussed. Students took part in a discussion of how to clean up their watershed.

Another station devoted to human influence on water quality used the Enviroscope. The Enviroscope simulates a town with a river going through it. Students became factory owners, farmers, loggers, homeowners, ranchers and golf course enthusiasts. They discharge pollution simulated by different-colored powder sprinkled accordingly. They watched as it rained and all their pollution drained into the river. Students discussed where the pollution came from (point and non-point sources) and debated on who was to blame for



Mike Steinmaus, watershed coordinator, helps young watershed residents identify creek inhabitants. MCRP file photo.

the condition of the river. Students also considered the negative affects of finger pointing and, instead, brainstormed solutions to the problems, and came up with ways to lessen their impact on the river while maintaining their livelihood.

A third station focused on Acid Mine Drainage (AMD). After taking pH readings on various “mystery” substances to determine whether their substance was acidic, basic or neutral, students tried to guess what their substance could be by using a pH chart. A model showed the formation of AMD was used both to explain what is happening in their watershed and as an aid to come up with possible ways to clean up AMD.

At a fourth station, students learned about trees and their importance in the watershed. There they were able to actively participate in reducing

waste in their watershed by creating envelopes out of old magazines. Students also brainstormed ways to reuse other household items that would normally end up in the garbage or get tossed in the creek.

At the end of the day, students answered questions about what they had learned and participated in a skit about ways they can help protect their watershed. Many of the activities students took part in prepared them for the science portion of the Ohio Academic Standards for 4th and 6th grade and reinforced key concepts that appeared on the proficiency tests in March. The program complemented classroom lessons that are geared toward teaching students the science standards, and aided in increased test scores.

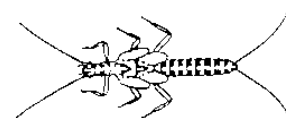




Photo by
Matt Woods:
Frozen Lake
Tecumseh

Partnering

by Dan Imhoff, Environmental Specialist with Ohio EPA

When we look up 'partner' in Webster's dictionary we find: "*Partner: one that shares, one associated with another especially in an action.*" Effective organizations seek partnerships to harness the knowledge, expertise and abilities of an entire group of disparate people. This enhances the organization's ability to:

- ◆ Rapidly move to decisively seize opportunities before they disappear,
- ◆ Respond more quickly to change,
- ◆ Adapt with greater flexibility,
- ◆ Gain access to a new skills or program areas,
- ◆ Quickly shore up internal weaknesses,
- ◆ Gain a new skill or area of competence and
- ◆ Succeed despite your organization's lack of otherwise key resources.

So what about partnering with the Monday Creek Restoration Project? We come together for a common action. One action that some of the MCRP's partners share is work designed to restore the Monday Creek watershed to its natural condition.

The goal of Ohio EPA is to restore and maintain the biological, chemical, and physical integrity of our state's aquatic resources. A simple way to look at this is to restore the streams to a fishable and swim-able condition; a person should be able to go to a stream in the Monday Creek 'shed and be able to find fish and they should be safe to eat. Also, the streams should be safe for swimming or wading in.

So how does the Ohio Environmental Protection Agency pursue this goal? The answer is through partnering, or finding others who share at least part of this goal and who can take actions that will lead to the meeting of this goal. The agency is fortunate to have several, groups, colleges, agencies, and individuals that share some of its goals or want to work toward a common goal.

It takes a very diverse set of skills, abilities and interests to restore a watershed: earth moving, chemical analysis, driving trucks, modeling stream flows, analyzing biological communities, social work, grant writing, bookkeeping...the list goes on from here to New Orleans, as does the water from Monday Creek. No one agency or group has all of them, but each one cares.

In addition, only partnering can bring constructive criticism of our activities, and feedback is a very important part of any project. Each partner brings a different perspective, set of values and knowledge. By sharing our thoughts and skills and listening to others we have a stronger and more effective project.

The bottom line is that we need a strong, diverse and effective partnership in order to restore Monday Creek.

Voinovich Center offers MCRP great value

by Scott Miller, Senior Project Manager with ILGARD

When the Voinovich Center for Leadership and Public Affairs at Ohio University was created in 1998, it was unclear what it would be able to offer local environmental organizations, such as the many watershed groups that have sprung up around the state over the past five years.

Five years and numerous projects later, proof of the Center's value to the Monday Creek Restoration Project is beginning to emerge. The Center's mission is to provide research, technical assistance and training to local and state government agencies, businesses, non-profits and communities and also to create project-based learning experiences for university students and is celebrating it's fifth year of existence. But the Center has an even longer track record of service to the region. With former Governor and current US Senator George V. Voinovich lending his name to the Center, it provided an opportunity to integrate a number of environmental programs and services that Ohio University faculty and staff had been providing for years. These include

(1) the Institute for Local Government Administration and Rural Development (ILGARD), which had provided planning, organizational development, computerized mapping, data management and facilitation services to nonprofits and agencies for years,

(2) the Masters of Science in Environmental Studies (MSES) program,

which provides interdisciplinary degrees to approximately 20 graduate students per year, and

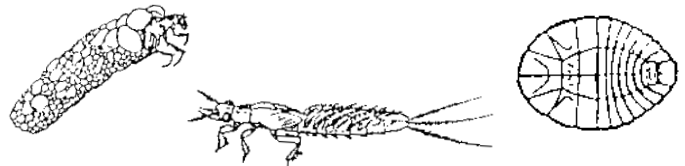
(3) a series of faculty innovation groups including the Appalachian Watershed Research Group (AWRG), a team of faculty across the university who collaborate and provide applied research on watershed restoration and conservation.

In 2000, the Center partnered with the MCRP to develop and write a watershed management plan. As with so many projects of Monday Creek, this was the first of its kind in Ohio to be based upon a risk assessment approach newly refined by USEPA. Over the years, the Center has developed an interactive data entry and management system, fully integrated with GIS software, which can be viewed over the internet.

Center staff members and students have also participated in numerous projects, including the Army Corps Feasibility study currently nearing completion and all four Ohio EPA 319 grants obtained by the partnership to date. Center staff members have worked for years with MCRP Coordinator Mike Steinmaus and his VISTAs to improve methods for engaging the public and building local support for the MCRP. The Center also helps the MCRP by passing along lessons learned from other watershed projects, agencies and

nonprofits. In 2001 and 2002, the Center entered into an agreement with the Midwest Biodiversity Institute (MBI) and the Center for Applied Bioassessment and Biocriteria (CABB) respectively to jointly design and implement research projects on fish and bugs that inhabit the streams of southeastern Ohio. Building the infrastructure to provide these services to the MCRP and its sister organizations has been a huge task, but it fully fits with the organization's mission and goals. The Voinovich Center looks forward to working with the Monday Creek Restoration Project for many years to come as it works with partner organizations to restore and protect our valuable water resources.

Note: GIS Maps may be viewed at gis.ilgard.ohiou.edu (no www required)



PARTNERSHIP 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, Volunteer Opportunities and, best of all, helping make the watershed beautiful again.

MEMBERSHIP

MCRP'S coordinator provides support to the Monday Creek project as well as many other community endeavors, through community organizing, networking, and development efforts.

- | | | |
|---|--|---|
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Please specify: Donation to MCRP Membership Both

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Send your contribution or membership dues to:

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PO Box 129
New Straitsville, OH 43766**

Questions? call 740-394-2047

Looking Back

The one-lane bridge over Snow Fork, a tributary of Monday Creek, just after its collapse (note the two cars). Historic photo contributed by George Addis.



2004 Watershed Events

Friends of Monday Creek meetings at MCRP office, New Straitsville. March 18: potluck starts at 6:30pm, featured speaker will discuss hiking trails in watershed. Spring/summer dates: May 20 and July 15

Annual Roadside Clean Up: April 17 near Murray City, please call MCRP for details

Tree Planting: tentative date is April 24, please call for details

Streamside Clean Up: will take place in May, please call for details

Watershed Tours: Ohio Environmental Council's "Real Ohio" tour featuring the Monday Creek watershed will be on July 17, 2004. Please call for details.

Phone MCRP at 740-394-2047.

Memories of the Creek

by Raina Ooten and Rodney Galentin

I recently had the opportunity to speak with a watershed resident whose family has lived here for many generations. He looked back at the history of the area and shared some memories of experiences in the Monday Creek watershed with us.

Rodney Galentin, a citizen of Buchtel, showed us a striking photograph taken soon after a bridge collapsed when he was a young boy. In the early 1940s, an iron bridge on State Route 216 near Buchtel collapsed into Snow Fork, a Monday Creek tributary. The

bridge had only one lane and, reportedly, a car bumped the side of the bridge when trying to let another car through. One car was still on it when the old bridge plummeted into the water but, luckily, no one was seriously hurt. Rodney also remembers another fallen bridge near Carbon Hill around that time that may have been caused the same way.

Rodney recalls witnessing a rare and unusual occurrence in nature: he saw the creek run backwards.

This happened in the 1960's in a section of Monday Creek between the towns of Monday and Longstreth. He was in an area that he and his friends used to walk down to and go fishing. During a period of very heavy rains in the watershed Rodney saw a sudden cloudburst that sent huge amounts of water flooding into Monday Creek. The water poured down so furiously that the tributaries were forced to run backwards for a time.

I want to thank Rodney for sharing his memories and thoughts with me. His stories were captivating, and I truly enjoyed talking to him. We are always looking for stories about the watershed and would love to hear from you. If you would like to share something with us, please call 394-2047.

Monday Creek Restoration Project

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