

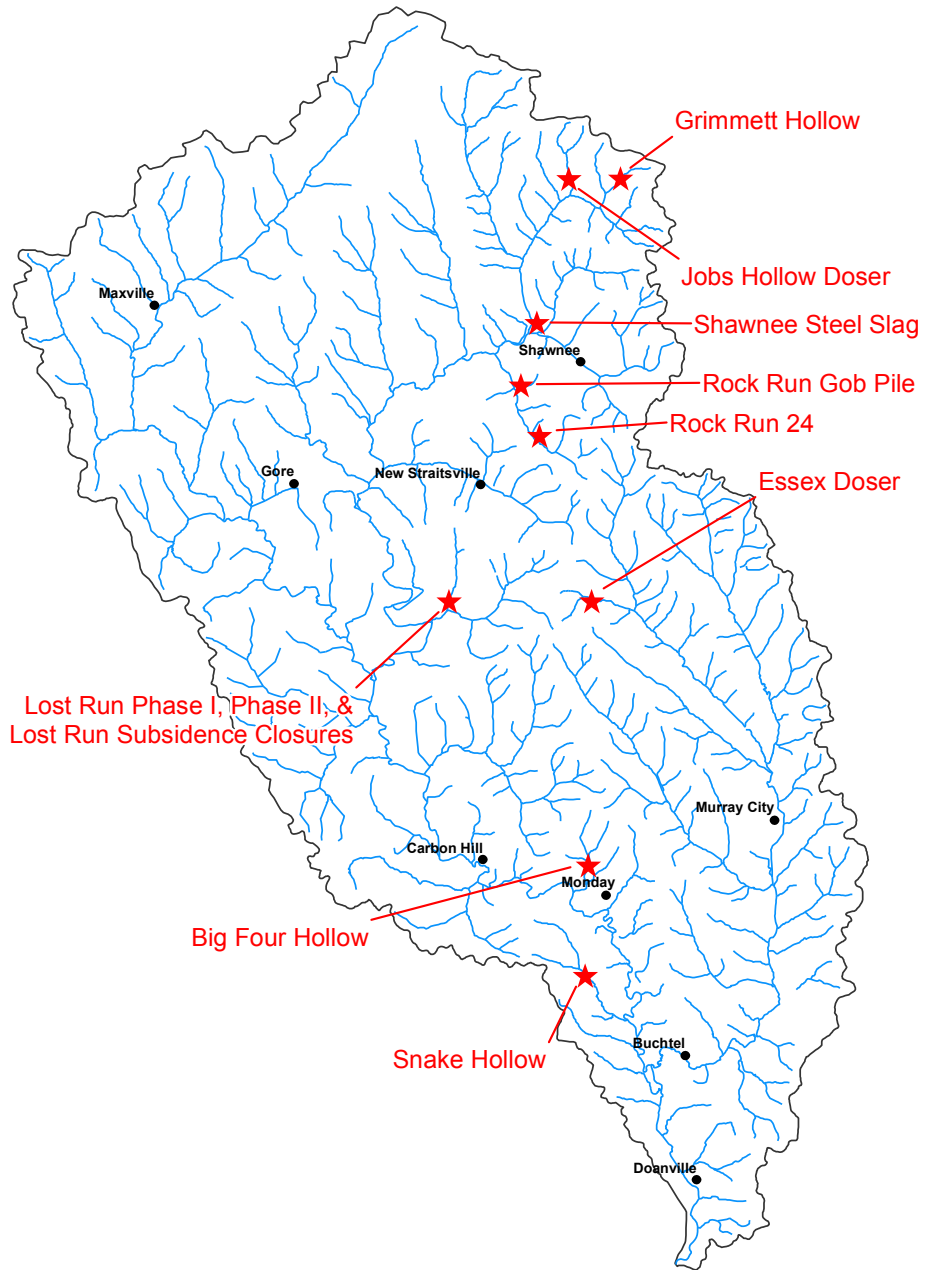
Monday Creek, located in the Appalachian Region of southeastern Ohio, is a 27-mile long tributary of the Hocking River, the latter which flows directly into the Ohio River. The Monday Creek Watershed drains a 116 square-mile area, with streams winding through portions of Athens, Hocking, and Perry Counties.

Our project is a collaborative partnership of officials and residents of the Monday Creek watershed, along with more than 20 other organizations and state and federal agencies. Our shared goal is to restore the watershed for the benefit of local communities. Large portions of Monday Creek and its tributaries are dead due to acid mine drainage (AMD) left behind from a century of coal mining.

Since 1994, our partnership has worked together to identify water quality problems, conduct field research and site characterization, and prioritize and plan on-going restoration activities. The MCRP has completed the reclamation of the Rock Run gob pile in southern Perry County through an EPA Section 319 grant and is beginning another project in the headwaters of Jobs Hollow through 319.

In 1997-1998, we identified issues to be addressed for the long-term improvement of the watershed, and to the benefit of local communities. These issues, along with goals, objectives, action strategies, and progress indicators are discussed in detail in the Monday Creek Comprehensive Management Plan.

To learn more about the Monday Creek Restoration Project, visit our website at [www.mondaycreek.org](http://www.mondaycreek.org) or call 740-394-2047



333,935,000 gallons per year eliminated from entering into the deep mines as the result of conducting six stream capture closure projects in Monday creek

### Reductions

**Total acid load reduction = 2,861 lbs/day**

**Total metal load reduction = 381 lbs/day**

*Data derived using the Mean Annual Load Method (Stoertz, 2004).*

*(excludes Rock Run Gob Pile Project)*

### Costs

**Design \$304,056**  
(excluding Snake Hollow)

**Construction \$3,658,851**

**Total costs through 2008 = \$3,962,906**

### Monday Creek Stream Capture Projects

Project status: Six subsidence closures projects were completed from 1995-2007

Project Name	Year project complete	Acres Captured	Agencies funding	Estimated gallons/yr of water diverted from entering the deep mine
Majestic Mine	1999	100	ODNR-DMRM	36,860,000
Salem Hollow	2000	60	ODNR-DMRM	22,116,000
Murray City	2004	5	ODNR-DMRM	1,843,000
Goose Run	1995	506	ODNR-DMRM	186,512,000
Snow Fork	1999	140	ODNR-DMRM	51,604,000
Lost Run	2007	100	USFS	35,000,000

Six stream captures located in the Monday Creek Watershed were closed and completed from 1995 to 2007. A total of 911 acres surface drainage area drained year round into the deep mines and as a result of closing these subsidence holes, 333,935,000 gallons per year were diverted from entering into the deep mine thus abating the generating of acid mine drainage.

Projects Completed Jan. 1 2008 – Dec. 31, 2008

<b>Shawnee Steel Slag</b>	<b>\$219,791</b>
<b>Lost Run Phase II</b>	<b>\$553,889</b>
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Total	<b>\$773,680</b>

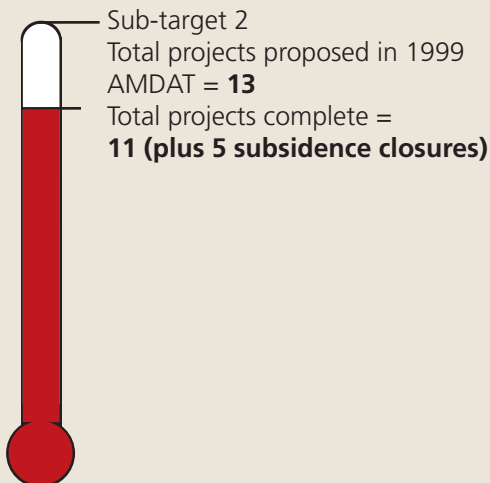
Load Reductions

	<b>Lost Run Phase II</b>	<b>Shawnee Steel Slag</b>
Acid Load	143 lbs/day	NA
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Metal Load	0 lbs/day	NA

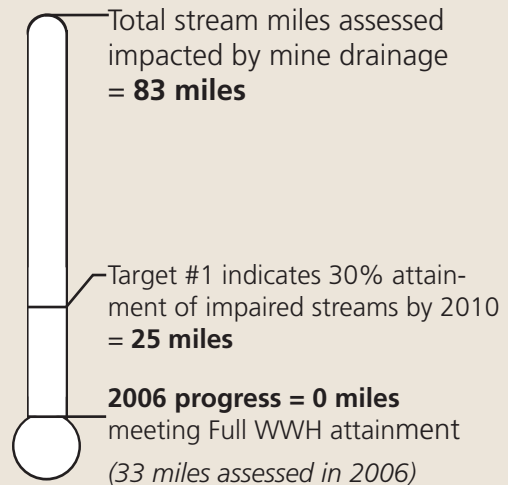
Cumulative BMP's installed

<b>Treatment Installed</b>		
<b>Lost Run Phase II</b>	Limestone J-trench	140 linear feet
	Steel slag leach bed	14,250 square feet
	Steel slag berm	197 linear feet
	Open limestone channel	1,300 linear feet
	Limestone leach bed	7,650 square feet
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<b>Shawnee Steel Slag</b>	Steel slag bed	22,800 square feet
	Open limestone channel	190 linear feet
	Sand filter	1 pre-treatment

Completion

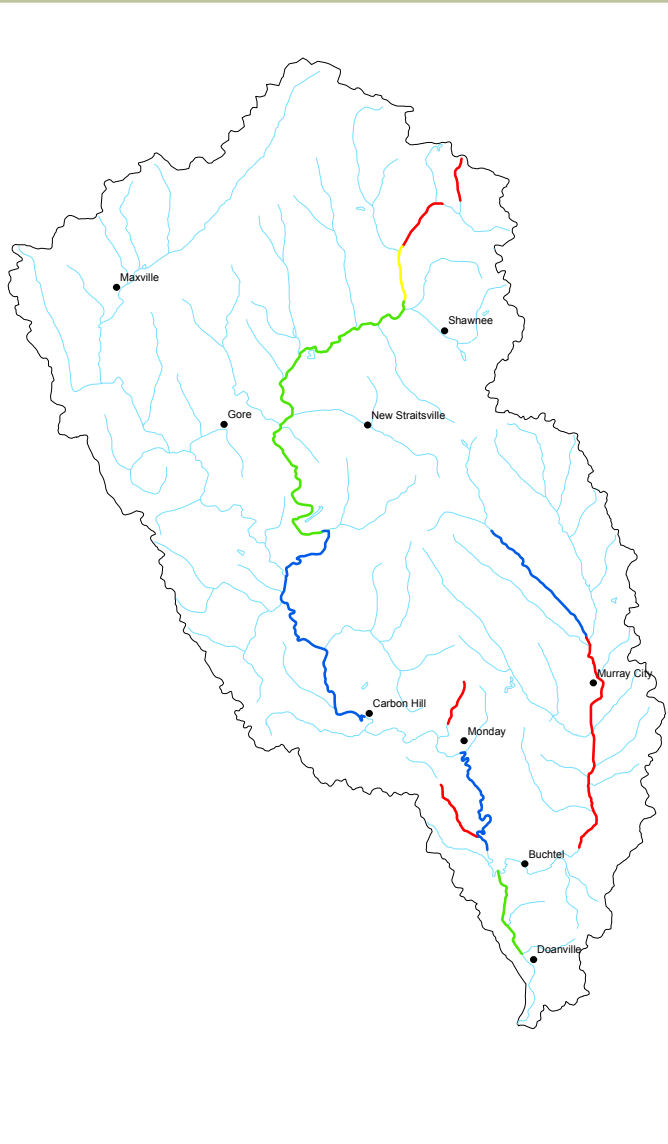


Attainment Miles

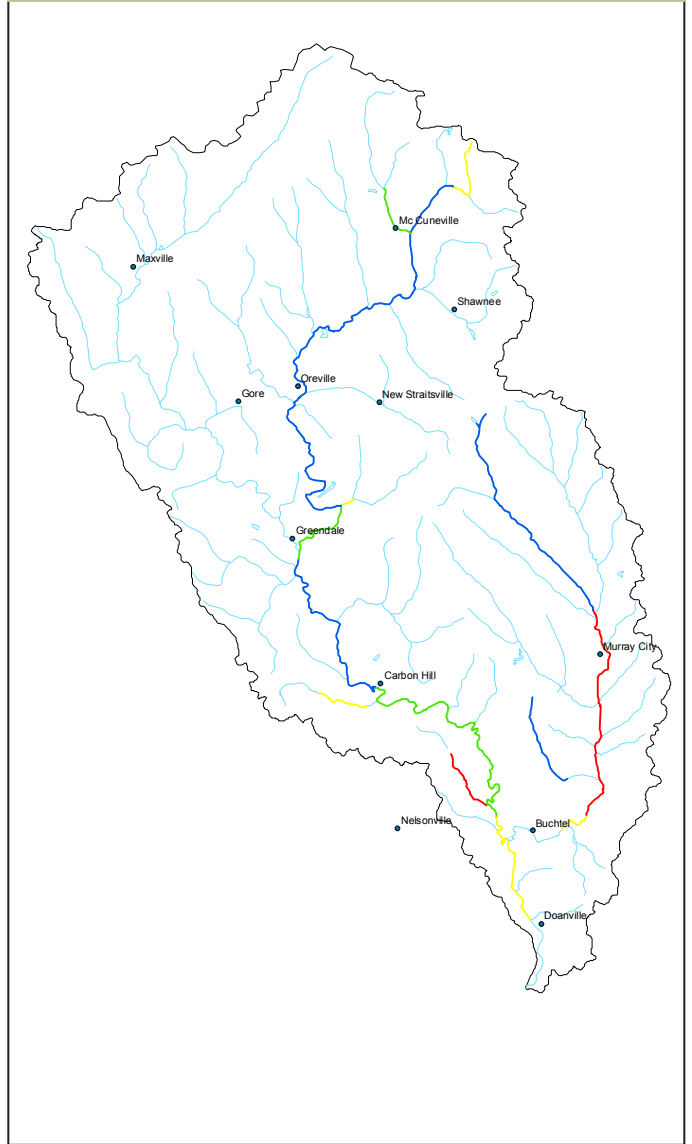


Chemical Water Quality

Monday Creek baseline pH



Monday Creek 2008 pH

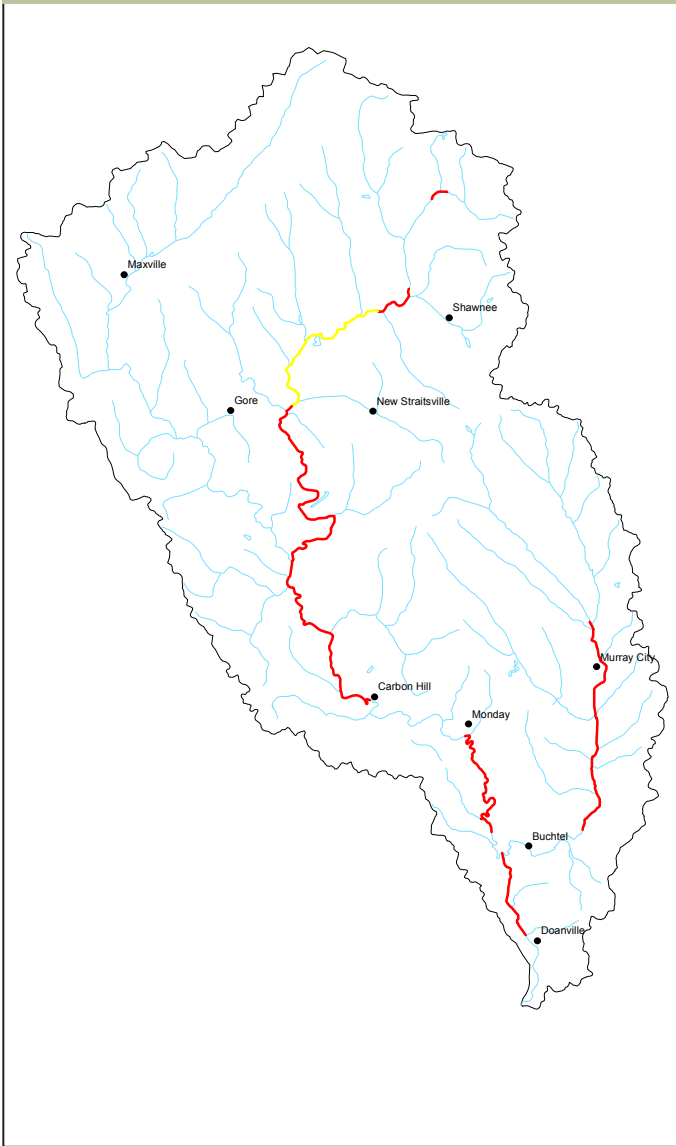


Lab pH	
	< 4
	4 - 5.4
	5.5 - 6.4
	> 6.4

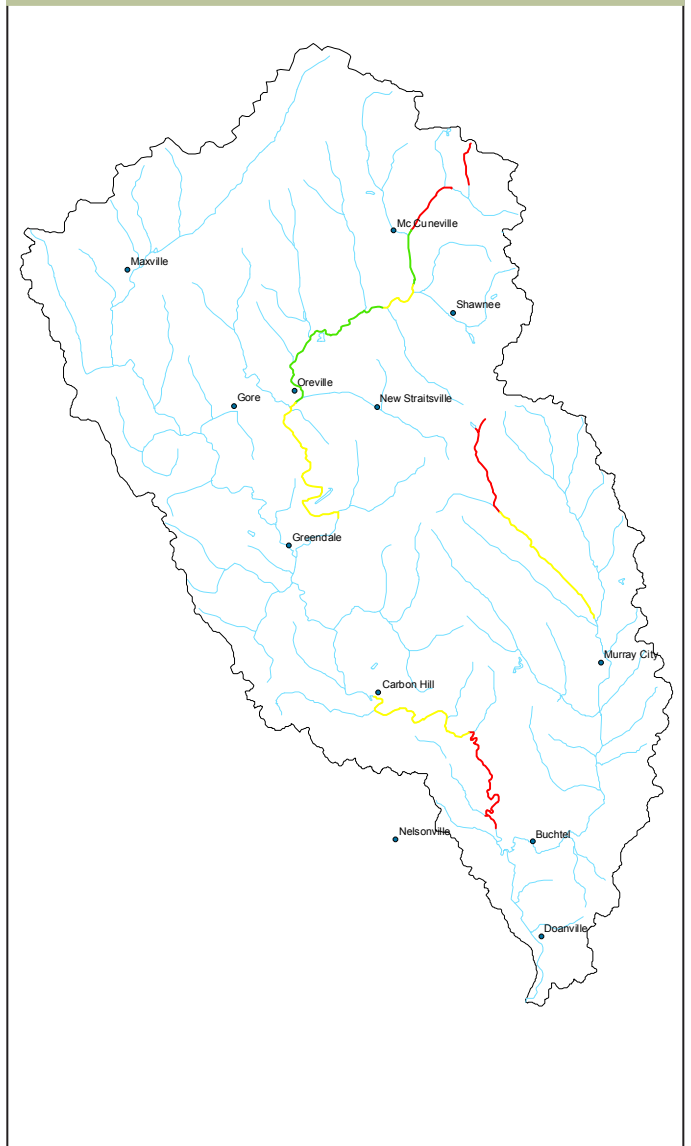
In Monday Creek pH values have improved throughout the watershed from baseline conditions (2001) to 2008. However during 2008, there was a decrease in pH values from previous years seen in the lower part of Monday Creek from site MC00240 (RM 7.2) up to MC00500 (RM 16.2). Only 6.6 miles of stream along the mainstem are meeting the water quality standard for pH (>6.5) from Jobs Hollow down to Lost Run. The three miles of the headwaters of Snow Fork, Essex Mine to Murray City continues to meet water quality standard for pH (>6.5).

Biological Water Quality

Monday Creek baseline MAIS



Monday Creek 2008 MAIS



Macroinvertebrate Aggregated Index for Streams

- ~ 0 - 7
- ~ 8 - 11
- ~ 12 - 15
- ~ > 15

MAIS samples were collected throughout Monday Creek at established annual monitoring stations from 2001 through 2008. Six stations along mainstem of Monday Creek have sufficient data to conduct a regression analysis (n>5). From this analysis there is evidence of long-term biological improvement. Of the six stations, five showed significant improvement (P = 0.04, 0.02, 0.01, 0.05 and 0.04). One site showed no improvement (JH00500). The three sites with the greatest improvement occurred at MC00300 (mainstem Carbon Hill, Bucks Inn), MC00510 (mainstem upstream of Lost Run), and MC00580 (Oreville).