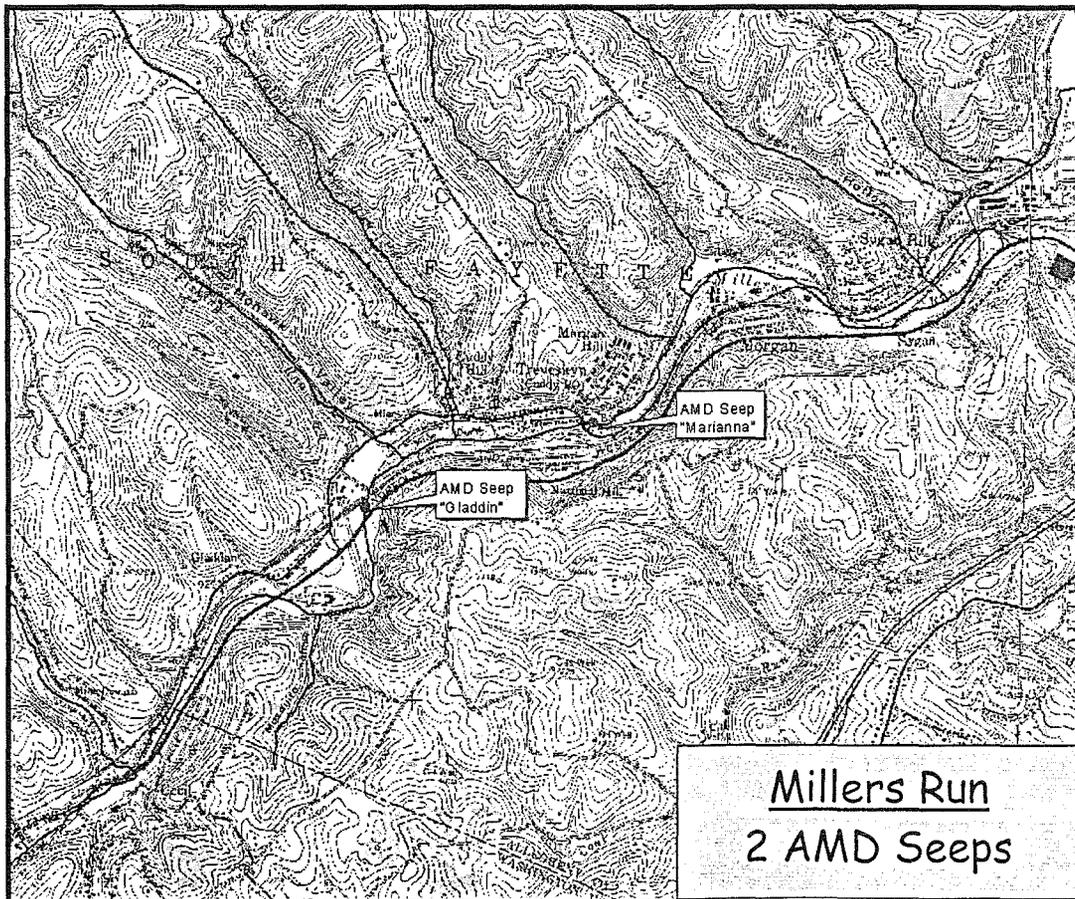
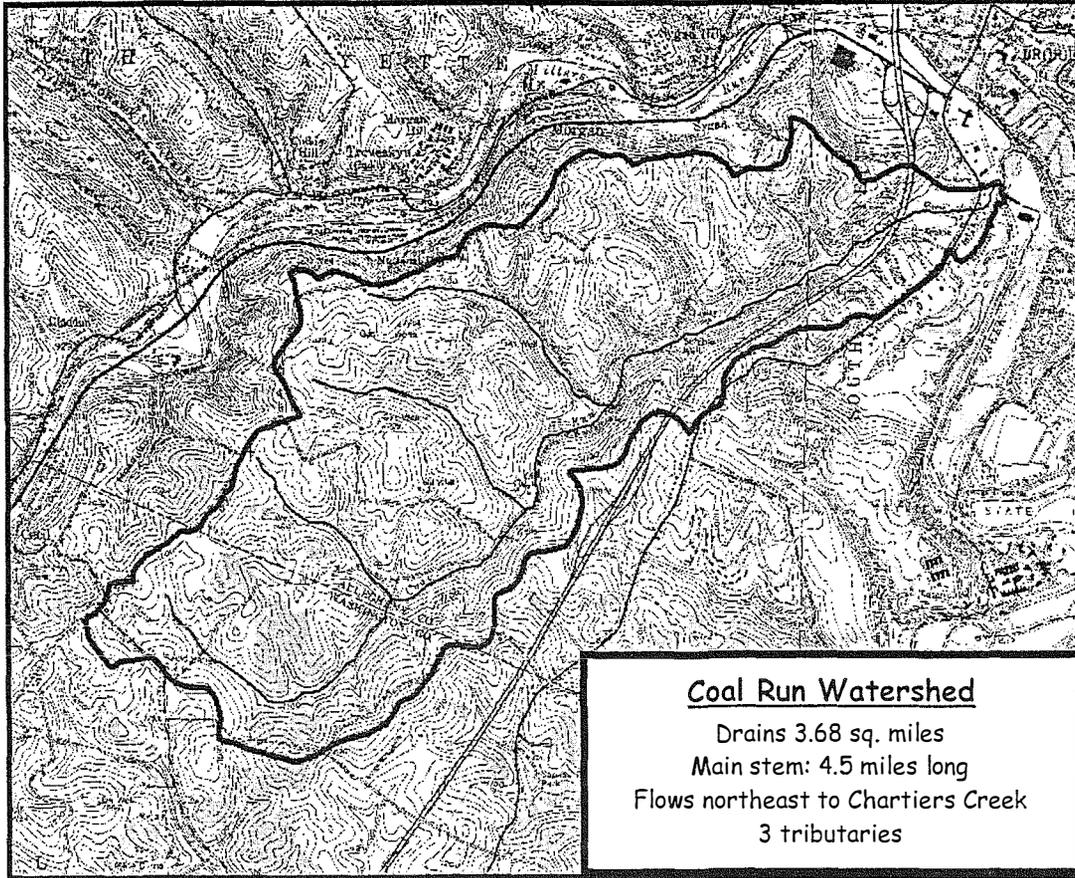


# Protection and Restoration of Coal Run and Millers Run in South Fayette Township



## **EXECUTIVE SUMMARY**

(Source: Growing Greener Grant proposal)

The Coal Run watershed offers a perfect opportunity to demonstrate the procedure for developing a community-driven watershed restoration/protection plan. The watershed is of manageable size for a citizen-based effort – less than eight miles of stream (including tributaries) drain an area of only 3.68 square miles. The Coal Run watershed spans two townships (Cecil and South Fayette) and two counties (Washington and Allegheny, respectively), showcasing the cross-jurisdictional cooperation that is vital to successful watershed management. The PA DEP 303(d) List classifies all of Coal Run as impaired. Its TMDL data notes agriculture and land development and the associated nutrients, siltation, suspended solids, and turbidity as causes of nonpoint source pollution. The Lower Chartiers Creek River Conservation Plan (2001) also identifies a major AMD seep near Coal Run's confluence with Chartiers Creek. The many-faceted nature of Coal Run's impairment sources is one more reason it will provide significant insight into the process of developing a restoration/protection plan.

The goal of the proposed project is three-fold. First, members of the community will be educated on the importance and practice of watershed conservation. Citizens of all ages will be invited to participate, with the end result being a community that is interested in and capable of managing their watershed. Involving the community is important, and involving young people is vital, because instilling environmental awareness at an early age will lead to an environmentally aware society. Therefore, teacher workshops and an associated curriculum guide will be developed for grades 6 to 12. Team members will also visit elementary schools to present age-appropriate watershed conservation information to the students. Second is the development of a watershed restoration/protection plan for the Coal Run watershed. This plan will discuss discovered pollution sources, identify appropriate remediation measures, and provide a sustainable plan to limit further degradation of the watershed. Third will be the development of an audio-visual guide documenting the steps that must be taken to complete an effective community-driven watershed restoration/protection plan. This guide will use the Coal Run Watershed Restoration/Protection Plan Development as a case-study and be geared toward instructing other interested individuals and organizations. The completed presentation will be available for distribution.

The Coal Run Watershed Restoration/Protection Plan Development is a community-gearred, community-driven project that has already gathered an unusual amount of community support. Many area organizations and individuals have pledged time and materials to the project. Therefore, Growing Greener funds received for this project will be used to supply services that are not available from community members.

## PROJECT PARTNERS

**South Fayette Conservation Group** – Formed in June of 2002, your local conservation group is already making a difference; but, then, you already knew that ...  
[www.southfayetteconservation.org](http://www.southfayetteconservation.org)

**Stream Restoration Inc.** – A non-profit organization focused on the restoration of streams impacted by abandoned coal mine drainage  
[www.streamrestorationinc.org](http://www.streamrestorationinc.org)

**Aquascape Wetland and Environmental Services** – An environmental consulting company with extensive experience in wetland construction (used for abandoned mine drainage treatment) and waterway assessments, with a focus on community education  
[www.aquascape-env.com](http://www.aquascape-env.com)

**BioMost** – An environmental firm involved in the design, development, installation, monitoring, and operation and maintenance of systems that passively treat abandoned mine drainage

**Confluence Ecological** – Provides services such as environmental assessments; aquatic and fisheries surveys; threatened and endangered species assessments; watershed analysis/modeling, restoration planning, and remediation

**Environmental Concepts** – Environmental educators who specialize in professional development workshops for educators, curriculum development, habitat design, facility development and operations, and staff training

### **Contributors:**

**Carnegie Museum, Section of Invertebrate Paleontology** – technical assistance, volunteer hours, data collection, nature tours

**Carnegie Museum, Museum on the Move** – educational and resource materials

**Larry Cox** – photographic assistance

**Cub Scout Pack 843** – volunteer field time

**G and C Coal Analysis Lab., Inc.** – reduction in fees

**Bernadette E. Kazmarski** – volunteer time associated with logo design

**Shop and Save, South Fayette** – use of meeting room, free of charge

**South Fayette Township School District** – media and technical expertise and volunteer time for audio-visual presentation, as well as assistance in communicating with the community

**Township of South Fayette, Parks & Recreation** – labor, materials, administrative assistance

**Township of South Fayette, Township Manager's Office** – photocopying and other administrative assistance

**Vintage** – volunteer time and water testing kit/materials

## Project Task Schedule

Project Tasks	Responsible Parties	Dates
Informational Meetings	Aquascape, SRI	7/03 - 6/06
Secondary Data Review, GIS Development	Aquascape	8/03 - 4/06
Water Sampling	Aquascape, volunteers	4/04 - 3/05
Field Survey (Site Selection)	Confluence Ecological	7/04 - 9/04
Benthic Macro Invertebrate Survey	Aquascape	8/04 - 11/04
Fish Survey	Confluence Ecological	8/04 - 11/04
Riparian Assessment	Aquascape	8/03 - 6/04
Data Analysis / Report Preparation	Aquascape, Confluence Ecological	12/04 - 6/06
Remediation Options	BioMost, Aquascape	7/03 - 6/06
Educational Activities	Aquascape, BioMost, SRI	8/03 - 4/06
Audio-Visual Presentation	South Fayette School, Aquascape	8/03 - 6/06
Watershed Curriculum Guide	Environmental Concepts, Aquascape	8/03 - 6/05
Teacher Workshop	Environmental Concepts, Aquascape	7/05 - 4/06
Stream Education Days	Environmental Concepts, Aquascape	7/04 - 6/05
Presentations (K-5)	Aquascape	7/04 - 6/05

**Growing Greener Funds are not awarded until July, 2003  
But there is much you can do on you own...**

### **Learn About Your Watershed**

Internet

Library

South Fayette Conservation Group

### **Identify Pollution Sources**

Run-off

Sewage

Siltation

Erosion

Insecticides

Pesticides

Herbicides

Fertilizers

Illegal Dump Sites

Point Source Discharges

### **Work to Reduce/Remove Pollution**

Create Riparian Buffer Zones

Use Natural Pest Deterrents

Clean Up Illegal Dump Sites

### **Tell Others**

Internet resources for more information on watersheds and AMD – these are "only the tip of the iceberg," a simple search will generate MANY good sites

### **Watersheds**

<http://dnr.metrokc.gov/wlr/PI/WATERSHD.HTM> -- general introduction: King County WA

<http://tycho.cfm.ohio-state.edu/intro.html> -- slightly more in-depth introductory material: Ohio State

<http://www.dep.state.pa.us/dep/deputate/enved/watershed/watershed.htm> -- general information: PA DEP

<http://www.greenworks.tv/watershedstv/> -- newsletter type format, lots of information, definitely worth checking out: Watershed.tv

<http://www.pawatersheds.org/index.asp> -- home site for POWR (Pennsylvania Organization for Watersheds and Rivers)

<http://www.state.nj.us/dep/watershedmgt/basicinfo2.htm> -- lots of information on watersheds including pollution sources and what you can do to improve your watershed: NJ DEP

<http://www.brodheadwatershed.org/bwa/7.htm> -- many links: Brodhead Watershed Association, Henryville PA

<http://creekconnections.allegHENY.edu/watershedinfo.html> -- "Right in your backyard...": Creek Connections, Meadville PA

<http://kywater.org/watch/2000/> -- an example of what is being done elsewhere: KY

### **AMD**

<http://www.ctcnet.net/scrip/home.htm> -- AMD remediation project in Cambria Co.

<http://www.facstaff.bucknell.edu/kirby/HoweBr2.html> -- AMD passive treatment facility near Clarion, PA

[http://www.dep.state.pa.us/dep/deputate/minres/bamr/amd/science\\_of\\_amd.htm](http://www.dep.state.pa.us/dep/deputate/minres/bamr/amd/science_of_amd.htm) -- more technical AMD info. (including the chemical formulas): PA DEP

<http://pa.water.usgs.gov/projects/amd/index.html> -- information on coal mine drainage in PA: USGS

[http://manila\\_wetland.tripod.com/manila\\_amd\\_wetland.htm](http://manila_wetland.tripod.com/manila_amd_wetland.htm) -- brief intro. to a project in WV with many links: Heizer-Manila Watershed Organization

<http://www.dep.state.pa.us/dep/deputate/minres/reclaimpa/reclaimpahome.htm> -- Reclaim PA: PA DEP

<http://www.leo.lehigh.edu/envirosci/watershed/riverexp/mine/> -- many links: LEO EnviroSci Inquiry

<http://www.cleanwater.gov/success/conemaugh.html> -- watershed success stories