

Susquehanna River Basin Commission Information Sheet

BEAR RUN ABANDONED MINE DRAINAGE REMEDIATION – WATERSHED RENAISSANCE PROJECT –

The Watershed

The Bear Run Watershed drains an area of about 19.3 square miles to the West Branch Susquehanna River (West Branch) in Indiana, Jefferson and Clearfield Counties. Bear Run, which has its headwaters near Hillman, Indiana County, flows 4.5 miles southeast to its confluence with South Branch of Bear Run at the mining ghost town of Sidney. Bear Run then flows 3.25 miles east to its confluence with the West Branch at McGee's Mills, Clearfield County.

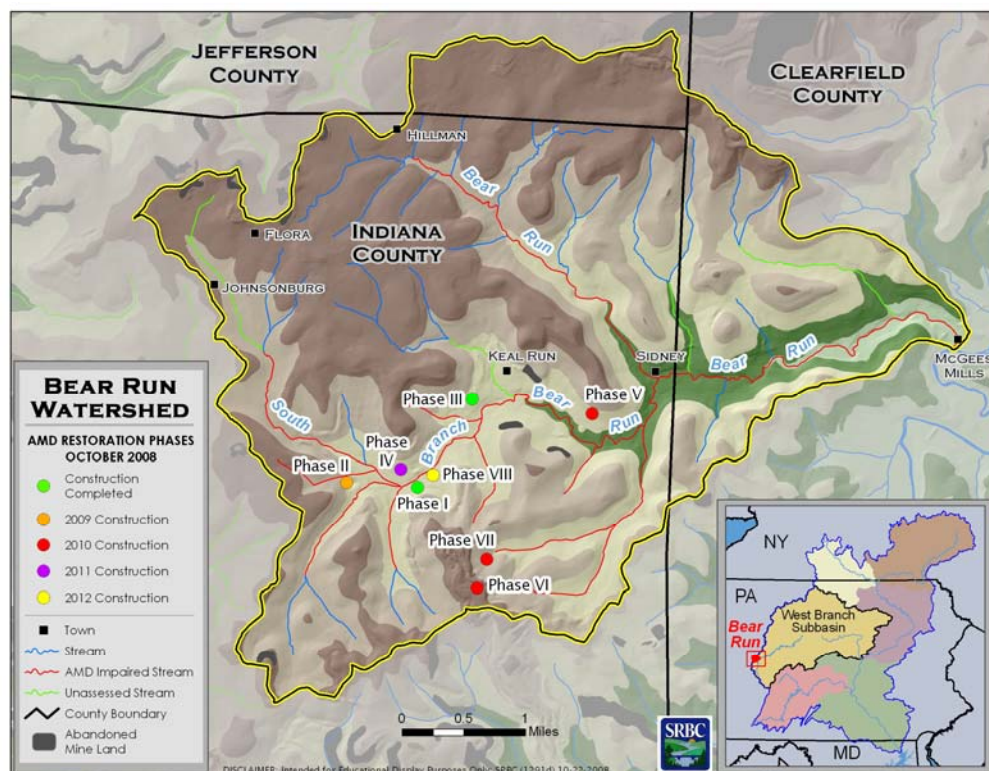


AMD Impacts

In 2005, the Susquehanna River Basin Commission (SRBC) prepared a draft total maximum daily load study for the Bear Run Watershed.

As a result of coal mining dating back to the 1880s, 43.9 miles of Bear Run are listed as impaired by abandoned mine drainage (AMD) on Pennsylvania's Integrated List of Impaired Waters.

The AMD-impaired flows from Bear Run comprise one of the largest AMD impacts to the headwaters section of the West Branch. It contributes about 327 tons/year acidity, 34 tons/year iron (Fe), 29 tons/year manganese (Mn) and 20 tons/year aluminum (Al).



In 2006, the Indiana County Conservation District (ICCD) completed the Bear Run Restoration Plan, which documented that eight of the 27 AMD discharge sites in the watershed are contributing 72 percent of the AMD loading into Bear Run.

(over)

Remediation Funding and Benefits



Photo: Bear Run native brook trout

By the end of 2008, two of the eight construction Phases as identified by ICCD for this restoration effort were completed. With funding from the Pennsylvania Department of Environmental Protection (PADEP) County Environmental Initiative and the Federal Office of Surface Mining (OSM), Evergreen Conservancy constructed a passive wetland treatment system on the largest iron loading discharge in the watershed (Phase I). In addition, the ICCD completed a passive AMD treatment system on one of the largest acidity loading discharges in the watershed (Phase III). Both projects have been a success and have led to significant water quality improvements, including the improvements shown below.



Phase I Project Pre- (left) and Post-changes (right) at Site Bear 1.1 Downstream of the Lochvale Road Bridge

Also in 2008, SRBC and the ICCD obtained the first PADEP Watershed Renaissance Grant awarded in the state. The grant will fund the construction of the remaining six Phases. Phase II, which includes treatment of a large flow/alkaline/high iron discharge, approximately 1000 feet of streambank restoration and approximately 20 acres of Abandoned Mine Land reclamation is slated for construction in summer/fall 2009. Swedish-Bucket Lime Dosers will be installed on the Phase V-VII discharges in 2010. This will be the second large-scale use of Swedish-Bucket Lime Dosers in the state. The first effort was by PADEP on Dents Run in the Bennett Branch Sinnemahoning Creek Watershed.

The ultimate goal of the Bear Run remediation efforts is to restore the entire Bear Run Watershed into a high quality, cold water and native brook trout fishery. Anticipated completion date for this entire effort is 2012.

This effort supports the goals/objectives of the PA WILDS initiative and the West Branch Task Force, as well as complements other West Branch headwaters restoration efforts such as the Barnes and Watkins coal refuse pile removal and the Barnes and Tucker discharge remediation project. Finally, the improved water quality will enhance recreation on the West Branch Water Trail and at Curwensville Lake in Clearfield County.

For more information on the Bear Run remediation efforts, contact Thomas Clark, AMD Project Coordinator, SRBC, Phone: (814) 521-0093, E-mail: tclark@srbc.net.