OFFICE OF SURFACE MINING
PITTSBURGH FIELD DIVISION
NEWSLETTER

May 2004

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MARYLAND ARBOR DAY TREE PLANTING

Students from the Westmar Middle School, representatives from the Maryland Department of Fisheries, students from Garrett Community College, members of the Georges Creek Watershed Association, and Amy McKenzie an OSM Vista volunteer and Pete Hartman a Reclamation Specialist with OSM planted over 1000 hardwood Saw Toothed Oak and Locust on April 30, 2004, in celebration of Arbor Day. Students working in teams with the adults were able to learn about proper tree planting techniques and the value of trees in reclaiming mine sites. The tree-planting program was such a success that a similar program was agreed upon for next year. The Arbor Day celebration was an OSM Field Office activity as part of Earth Day and the OSM Reforestation Initiative that OSM is promoting.

Representatives from OSM, Allen Klotz from Maryland Fisheries Program, Mellissa Williams, OSM Vista Volunteer with the GCWA and Garrett Community college students at tree-planting program on Arbor Day 2004 in Allegany County, Maryland

Following the tree-planting program, the students were shown various types of AMD treatment systems the State of Maryland Bureau of Mines and The Georges Creek Watershed Association have implemented in the same area.

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STATUS OF PENNSYLVANIA PROGRAM AMENDMENTS

Act 54:

In July 1998, PADEP submitted a program amendment to implement Act 54, amending BMSLCA of 1966 to repair or compensate for damages from subsidence to certain structures and for the replacement of certain water supplies adversely affected by underground mining. OSM published a proposed rule in August 1998, for public comments. OSM held public hearings and issued another proposed rule to reopen the public comment period. In December 2001, OSM published a final rule disapproving and codifying 47 required amendments at 30 CFR 938.16.

In September 2003, PADEP submitted a formal amendment and OSM published a proposed rule.

OSM also published a proposed rule to set aside six sections of BMSLCA, which was necessary for PADEP to change their regulations. OSM held hearings in October and received public comments.

Status: OSM is still in the review process, and expects to complete the review process and publish two final rules within the next two months.

Act 173/43:

In December 1998, PADEP, on its own initiative, submitted statutory and regulatory changes to implement changes as a result of Act 173 and as amended by Act 43. These changes addressed water loss from surface mining, licensing, incentives for remining, and bonding.

OSM published a proposed rule in March 1999, and received comments. OSM, in 1999 and 2000, sent two issue letters to PADEP with a total of 103 issues. This was a very complex amendment, relying on decisions made on other rules pertaining to bonding and water.

Status: PFD's Harrisburg Office has been reviewing this amendment and will be re-opening it for comment in the next month. OSM expects to publish the final rule within the next two months, pending the complexity of the public comments.

Other Required Amendments:

PFD's Harrisburg Office will be meeting with PADEP to discuss the remaining 732 letters and required amendments in the next month.

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OSM Assists Ohio Department of Transportation with Investigation of Old Mines in the Area of the U.S. 33 Nelsonville By-Pass

On May 6, 2004, Bill Ehler, of OSM's Federal Reclamation Program Division in Pittsburgh, assisted the Ohio Department of Transportation (ODOT) with investigating abandoned underground mines located in the path of the proposed U.S. 33 Nelsonville By-Pass. Rick Ruegsegger, a geotechnical engineer who is the Special Projects Coordinator for the ODOT Office of Geotechnical Engineering, had asked OSM to provide the services of its borehole camera.

OSM transports the borehole camera in a four-wheel-drive van to the borehole site and lowers it into the borehole on a cable by remote control. The van is equipped with a computer read-out and a TV monitor. By using the camera, the investigator can determine the condition of the overburden by noting the types of strata, the presence of cracks or voids, and water bearing zones. The same is true for the mine void itself, except the camera can also determine the depth of water in the void, whether or not it is flowing, the amount of caving in the voids, and the size and direction of connecting tunnels. All of this information is extremely important in determining the stability of an area and what can be done to increase stability if necessary.

Bill Ehler (right) prepares to lower the borehole camera into a cased borehole near Nelsonville

Bill Ehler operates remote control unit and observes monitor

This cooperation between OSM and ODOT is not a new phenomenon. Rick Ruegsegger, who was also

an engineer with the Ohio Division of Mines and Reclamation prior to joining ODOT, has been coordinating with OSM on mining issues for a number of years. This interagency cooperation began as a result of the collapse of the eastbound driving lane of Interstate 70 near Cambridge in 1995. Fortunately, only one motorist received minor injuries from her encounter with the subsided pavement. In support of this ODOT roadway emergency, OSM brought in its borehole camera at that time and determined that there was a large amount of flowing water in the mine.

As a result of the 1995 Interstate 70 subsidence, ODOT has taken a proactive approach to mining problems, conducting numerous investigations and several stabilization projects. In 1997, ODOT hosted a workshop attended by OSM, DMRM, ODNR Division of Geological Survey, and highway professionals from eight other states. In 1998, ODOT published a manual entitled "Abandoned Underground Mine Inventory and Risk Assessment," (AUMIRA). The ODOT networking associated with development of the AUMIRA manual has evolved into the Interstate Technical Group on Abandoned Underground Mines (ITGAUM). ITGAUM is currently comprised of transportation officials from 18 states, the Federal Railroad Commission, the Federal Highway Administration, Natural Resources Canada (Canadian Federal Government), and the Provincial Government of Ontario, Canada. ITGAUM has also become the Transportation Research Board Subcommittee on Abandoned Underground Mines.

From 1995 to the present, OSM has assisted ODOT with investigations, project inspections, and evaluations of a number of state roadway locations. This cooperative relationship between ODOT and OSM serves as a fine example of two very different agencies working together for the mutual objective of protecting the public's health and safety from abandoned underground mines.

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WATERSHED NEWS

The Pine Creek/Babb Creek watershed is in Tioga County, one of Pennsylvania's northern tier counties, known for heavily forested mountains, exceptional trout waters, beautiful scenery and numerous outdoor recreation opportunities, including biking, hiking, camping, hunting, fishing, and fall foliage tours. The Babb Creek portion of the watershed has been heavily impacted by contamination from coal mining activities beginning before the Civil War and continuing through WWII.

The last active mine in the watershed (Antrim) ceased operation in 1990 with an agreement to treat a serious underground mine discharge the operation affected and to establish an operational trust fund, including a tipping fee for a landfill in the watershed. This trust fund continues to provide significant financial resources to the Babb Creek Watershed Association (BCWA) for environmental restoration projects. Treatment of this discharge made an immediate improvement in the waters of Pine Creek at its confluence with Babb Creek, and led to the BCWA's decision to engage in an extensive program to address all the serious acid mine drainage problems in the Babb Creek watershed. Through the vision and dedication of one man, Robert W. McCullough, the BWCA partnership has grown to include 14 government agencies, six businesses, two foundations, six non-profit organizations, ten contractors, and hundreds of individuals.

Beginning in 1990, the BCWA and its partners began restoration of the Babb Creek watershed by installing several limestone diversion wells. The immediate success of these wells in raising the pH of Babb Creek, and improving the downstream water quality, led BCWA to undertake more ambitious projects. The Pennsylvania Department of Environmental Protection (PADEP) has dedicated significant technical and financial resources to assist the BCWA. With this support, the BCWA began planning, design, and construction of several vertical flow ponds to treat mine drainage. They also addressed abandoned surface mines that were shown to be contributing to the degradation of Babb Creek

In 1999, the PADEP removed five miles of Pine Creek below its confluence with Babb Creek from the state's list of impaired waters, crediting the work in Babb Creek for the action. In 2002, OSM recognized the Signor Brothers Enterprises with an Excellence in Surface Mining Reclamation Award, for a remining permit adjacent to Babb Creek in which a half mile of coal refuse deposited under an abandoned railroad grade was removed. The land was replanted and significant stream bank improvements were made. In 2001, Pennsylvania awarded the BCWA 2.2 million dollars in *Growing Greener* funds in the largest single award made up to that date. These funds were used to construct passive treatment systems for six underground mine discharges. Those systems were completed in early 2004, bringing to substantial completion one of the most comprehensive and successful coal mine drainage watershed restoration programs in Pennsylvania. Many miles of streams have been significantly improved, with the restoration of aquatic habitat and trout fisheries where there have been none for decades.

OSM, through its Watershed Cooperative Agreement Program and the Appalachian Clean Streams Program, is proud to be a partner in this effort, having contributed over $500,000 in direct financial assistance to the BCWA for mine drainage treatment projects.

However, the work of the BCW A is not over. Maintenance, renovations, and improvements to these complex mine drainage treatment systems will require years of dedicated volunteer service from the members of the BCWA, and continuing technical and financial support from the partners.

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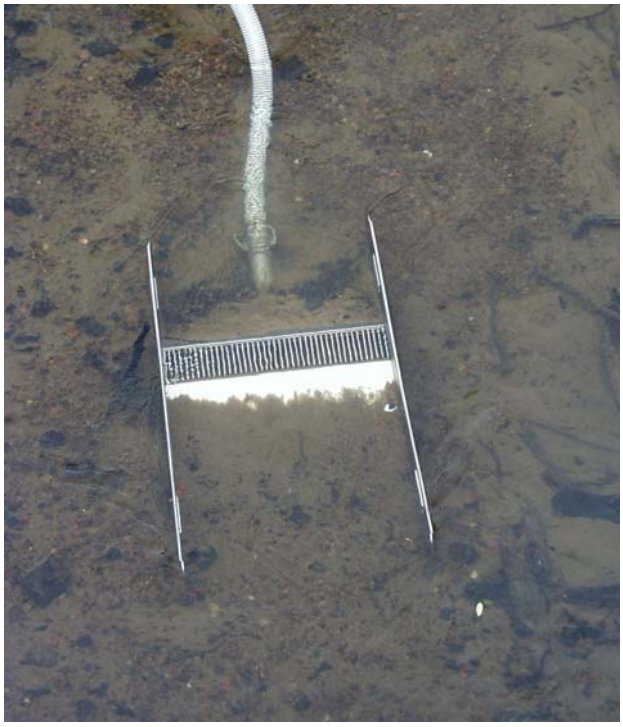
D MRM ORGANIZES SEDIMENT REMOVAL DEMONSTRATION IN MEIGS COUNTY

On May 24, 2004, Streamside Systems, LLC, performed a sediment removal demonstration in the East Branch of Thomas Fork of Leading Creek adjacent to the Meigs County Soil and Water office. Barbara Flowers of DMRM organized this event. Streamside Systems is a company that specializes in stream restoration and monitoring. They have patented several devices used for monitoring streambed loads, and for collecting and removing sediments from streams. The systems are designed to remove selected particle sizes, depending on what is needed. For the demonstration, sand-sized particles were targeted for removal, leaving coarser substrates in the streambed. This is more desirable than conventional dredging with heavy equipment because it is less intrusive, and the substrate sizes preferred by macro-invertebrate organisms are left in the stream.

Two basic types of systems are used. The stationary systems involve the placement of collectors in the streambed. The collectors use gravity and stream flows to passively collect sediment as it moves with the bed load. As the collectors, fill they are pumped out to a disposal site. These collectors can be temporary or permanent, are made of either pre-cast concrete or stainless steel, and come in a variety of sizes. The mobile units, called Sand Wands, are pumps mounted on a pontoon platform that can be moved through the stream. An operator controls the suction device for the pumps.

Sand Wand Demonstration



Stationary Gravity Collector

These systems appear very promising for Ohio's stream restoration efforts, as sedimentation is the number one non-point pollution problem in Ohio. The

Leading Creek Improvement Committee will be reviewing potential sites where this technology might be implemented, and a pilot project may be funded.

Special thanks to Barb Flowers for bring this technology to our attention and in organizing the demonstration. For further information contact Barb at 740-286-6411.

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INDIANA BAT & COAL MINING:
A TECHNICAL INTERACTIVE FORUM

On December 15, 1998, the Office of Surface Mining (OSM) signed a Memorandum of Understanding with Bat Conservation International Inc. (BCI), to establish a framework for cooperative efforts between the two organizations to maintain and increase the conservation of bats and their habitats. Under this agreement, OSM committed to promote the education of OSM staff, State and Federal agencies, and Indian Tribes as to (1) the beneficial aspects of conserving bats, (2) tested methods to safeguard bat habitat and public health, and (3) ways to mitigate for loss of bat roosts and habitat.

To date, OSM has cosponsored two technical interactive forums related to bat conservation and mining. On November 14-16, 2000, the OSM and BCI cosponsored a technical interactive forum on Bat Conservation and Mining. On March 4-6, 2002, OSM co-sponsored a forum on Bat Gate Design with the U.S. DOI Fish and Wildlife Service and BCI. The objective was to develop a manual on how to best protect important caves and underground mines used by bats through the use of gates and other bat friendly closure devices for distribution by the Fish and Wildlife Service, BCI, and others (available on OSM Bat Conservation & Mining Web site http://www.mcrcc.osmre.gov/bats/).

Since that time, OSM has become aware of increasing efforts by the U.S. Fish and Wildlife Service to protect the Federally endangered Indiana Bat (*Mysotis sodalis)* and the need to work more closely with State Mining Regulatory Authorities during the permitting, mining, and reclamation activities of surface coal mines that potentially impact Indiana Bat habitat.

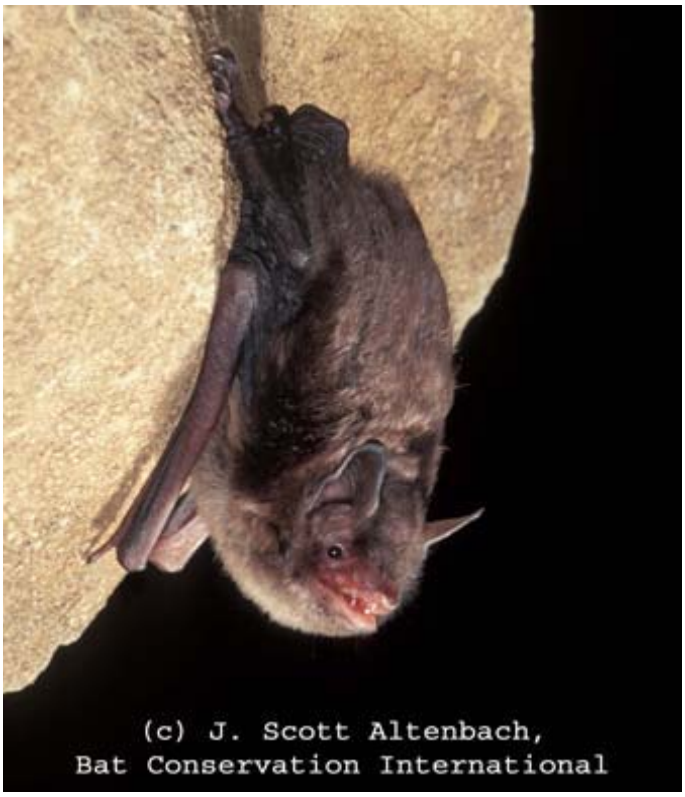
In July of 2003, OSM organized a steering committee to plan for and conduct a technical interactive forum to address the changing needs associated with protecting the Indiana Bat and its habitat in association with surface coal mining. OSM will host this forum November 16-18, 2004, at the Holiday Inn in Louisville, Kentucky. The purpose of this forum is to provide:

(1) An organized format for discussion of issues concerning permitting, biological surveys, monitoring, and protection of the Indiana bat during coal mining and reclamation;

(2) Easily understood, state-of-the-art summary talks by knowledgeable speakers;

(3) A published proceedings both in hard copy and electronically; and

(4) Access to the discussions for all interested parties at the forum.



To obtain information on the forum, you can call our office at 614-416-2238, Kimery Vories (Forum Chairperson) at 614-463-6463 x. 103, or visit the website at: http://www.mcrcc.osmre.gov/bats/.

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