

Status Report

on

Treatment of Richard Mine AMD Problem

January 26, 2007

- ◆ The NRCS is providing technical assistance to the sponsors for a project to correct a problem with Acid Mine Drainage (AMD) at the Richard Mine, near Morgantown. This project is in the Deckers Creek Watershed and was originally identified in the Supplemental Watershed Plan No. 1 and Environmental Assessment of September 2000.
- ◆ The AMD discharge flows from a mine seal that was installed by the DEP/AML with a typical range of 100 to 600 gallons per minute. This discharges into an open channel that flows directly into Deckers Creek. This AMD impairs the water quality in Deckers Creek by adding acidity and heavy metals. The stream from the discharge to the Mon River (about 5-miles) is virtually dead of aquatic life.
- ◆ The overall goal of this project is to improve the water quality in Deckers Creek to restore the fish habitat in the lower 5-miles of the stream. There would be many benefits to the natural environment for Monongalia County and the City of Morgantown, including the aesthetic improvements of removing the ugly orange staining caused by the AMD precipitate.
- ◆ The project will be done in **five phases**: 1) Analysis of Problems and Compilation of Alternatives, 2) Develop Scope of Work, 3) Site Investigation, 4) Preliminary Design, & 5) Final Design. With the WVCA providing contracting services, GAI Consultants was hired for the first phase of the work, which is nearing completion. By February 2007, GAI should be completed with a *Treatment Alternatives Report*, which will provide their recommendations for the best ways to deal with the Richard Mine AMD.
- ◆ Currently, the best recommendations for dealing with the AMD are to 1) Convey the discharge to the Mon River (a large body of water) via piping, and 2) Active treatment of the discharge, which would require a treatment system, perpetual chemical use, and disposing of 5,000 cubic yards of sludge per year. The best long-term solution appears to be conveying the discharge to the Mon River where it will be diluted by the large volume of water with no adverse effects to the water quality of the Mon River.
- ◆ The City of Morgantown has pledged to provide \$100,000 per year to assist with the operations and maintenance of a treatment system for the AMD. The Morgantown Utility Board (MUB) would most likely be in charge of operating the treatment plant or maintaining the discharge pipe.
- ◆ The MUB has expressed interest in the conveyance of the AMD to the Mon River because the required piping could be combined with storm sewer improvements to also help solve combined sewer overflow (CSO) problems that have to be corrected to meet EPA mandates.
- ◆ **Flow Monitoring.** *GAI Consultants* has recommended 12-months of flow monitoring to obtain better data on the daily flow variations of the discharge from the mine. Their proposal for this work is \$29,450, which includes the required equipment, monthly site visits, and reporting. This data would be helpful for any of the possible treatment alternatives pursued.
- ◆ **Primary Project Partners:** WVCA, NRCS, Monongahela Conservation District, Friends of Deckers Creek, WVDNR, WVDEP/AML, City of Morgantown, Monongalia County, & MUB.
- ◆ In February or March 2007, we are planning to have a meeting with the project partners to discuss the treatment alternatives proposed by *GAI Consultants*. If the City/MUB become the primary sponsor (providing O&M), they should have the most say in the selected alternative. The NRCS will still be integrally involved since they administer the construction funding and process.
- ◆ The picture at page 2 shows the impact of the AMD discharge into Deckers Creek. The orange staining is from iron and the white staining is from aluminum. The acidity is not visible.



Picture of the Richard Mine Acid Mine Drainage (AMD) entering Deckers Creek about 5-miles upstream of the Monongahela River. Deckers Creek is a scenic stream that could become a great place for fly fishing and other recreational pursuits, if the AMD sources are removed from the creek. From this pictured location Deckers Creek meanders through Morgantown, past Marilla Park, and through neighborhoods. The creek is visible and accessible to the population of the Morgantown area. The Deckers Creek Rail Trail parallels the creek all the way from Reedsville, West Virginia down to the Monongahela River in the Wharf District. This picture was taken on June 6, 2005 by TJ Burr, Civil Engineer, USDA NRCS.