

A Walk Down Main Street

Joseph Schueck

Retired

Formerly with DEP BAMR

Bragging does not bring
happiness---

But no man who catches a
large fish walks home
through an alley!

Mining and Reclamation Advisory Board

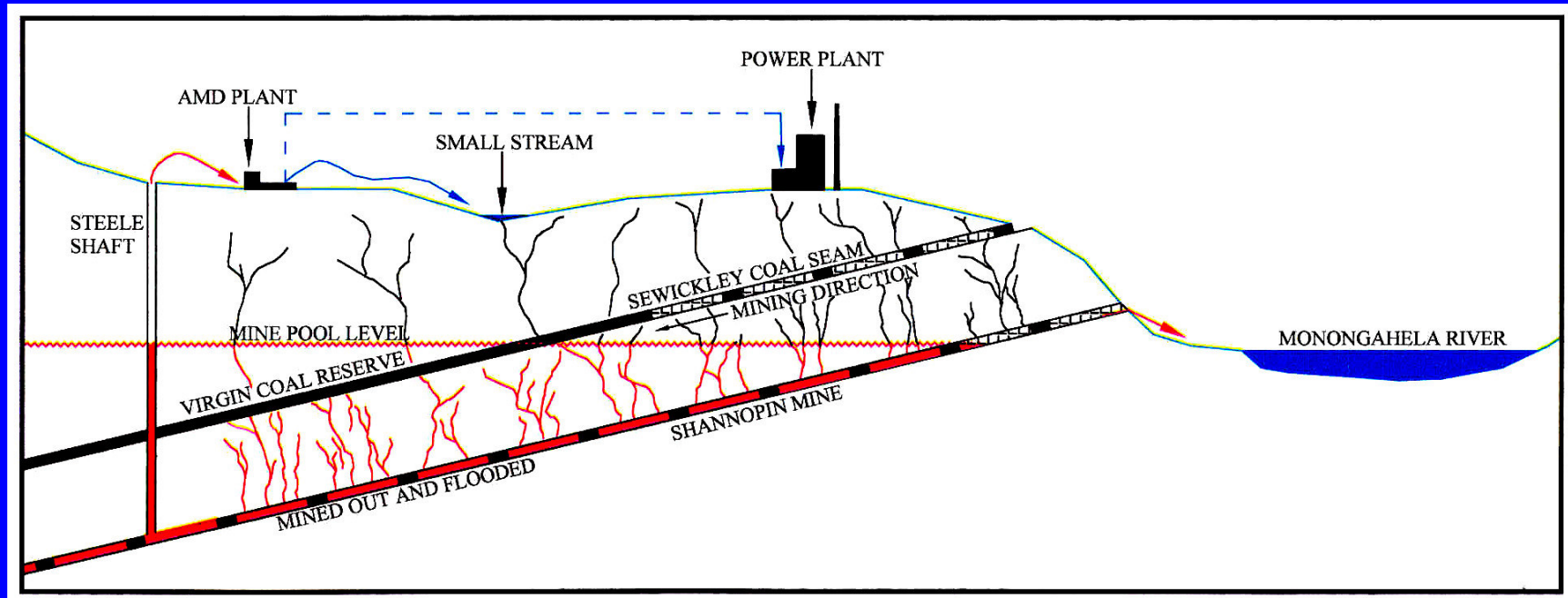
Orphan Mine Drainage Task Force

- Formed at the request of former DEP Sec. David Hess following the bankruptcy of Bethlehem Steel and LTV.
- Mission was to make recommendations regarding orphan mine pools.

MRAB Resolutions

- Mine pool water is a valuable resource
- The DEP should take whatever actions necessary to recycle and reuse mine pool water whenever possible.

DANA'S SOLUTION

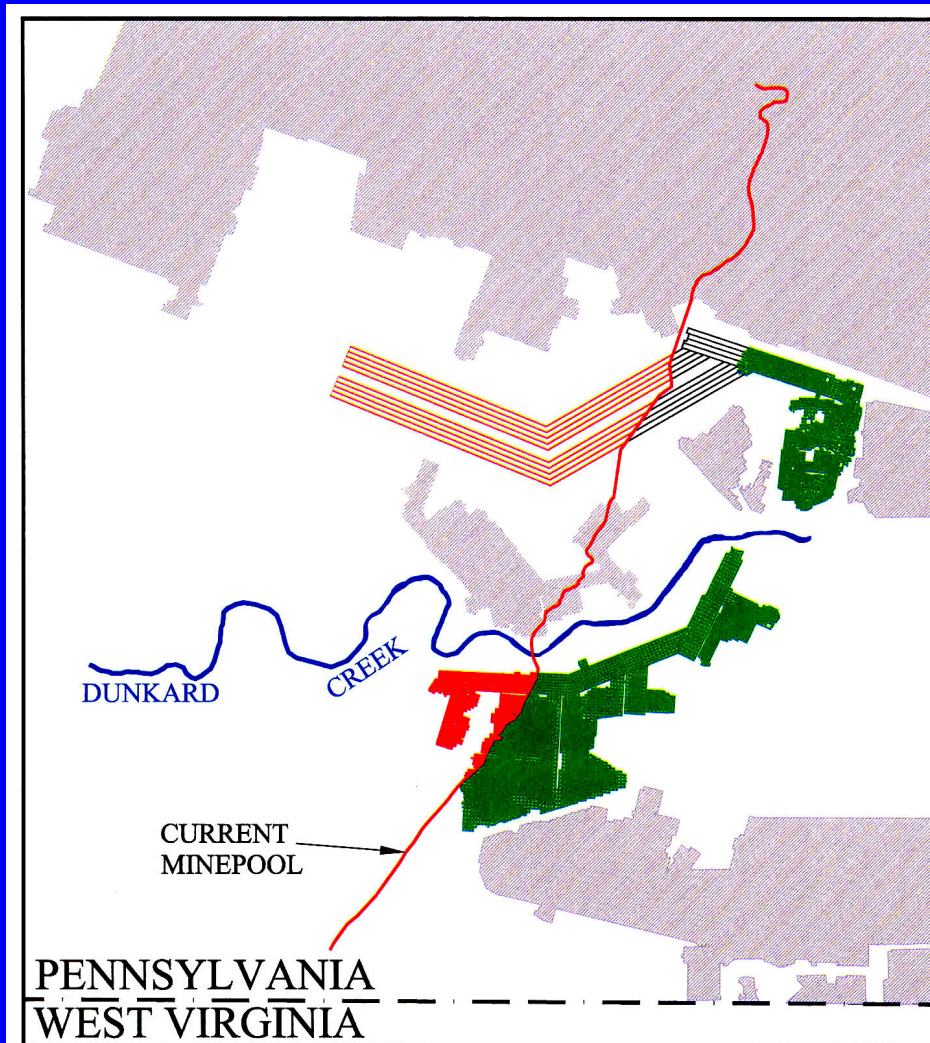


- AMD treatment plant and pumping station

Shannopin

- Abandoned underground Pittsburgh mine flooding with breakout predicted for late 2004 or early 2005.
- Dana Mining's overlying Sewickley reserves flooded.
- Dana could fund treatment but needed help with treatment plant

CURRENT SHANNOPIN MINE POOL IMPACT AREA IN SEWICKLEY COAL SEAM



The Solution

- DEP, DCED and PennVEST provided funding for the treatment of the plant.
- Dana will dewater Shannopin mine and treat the water.
- Treated water will be pumped 7 miles to WVa where it will be used for cooling water for the GenPower Power Plant.

Excellon Nuclear Power Plant

- Located on the Schuylkill River.
- During low flow periods pumped water 40 miles from the Delaware
- Experimental- Pumped and treated a mine pool on the Schuylkill many miles upstream during low flow periods to allow withdrawal from the river instead of long distance pumping

Barnes and Tucker

- Present treatment plant located on Black Lick Creek.
- Inefficient treatment system
- Discharge will be re-relocated to the West Branch of the Susquehanna River
- SRBC needs to find additional water to make up for agricultural consumption
- Funding appropriated to construct and operate the plant.

Antrim Mine Drainage Treatment Plant

- Operated by Babb Creek Watershed Org.
- Discharge high up on the hill
- Planning to install micro turbine to generate electricity to run plant
- Will be able to sell excess electricity to the grid

OSM PA(AMD-04) Grants

Innovative Mine Drainage
Treatment or Enhanced
Metals Recovery

Use of Mine Drainage Treatment Sludge as a Corrosion Inhibitor

- Grantee: Concurrent Technologies Corporation
- Principal Investigator: R.J. Lee Group, Inc.
- Grant Advisor: Dan Sammarco

Feasibility for Use of Fe/Ca Acid Mine Drainage Residual in the Powdered Metals Industry

- Grantee: North Central Pa. Regional Planning & Development Commission
- Principal Investigator: St. Mary's Pressed Metals
- Grant Advisor: Dan Sammarco

Nutrient and Metals Removal Using Iron Oxide Solids From Acidic Mine Drainage Treatment

- Grantee: St. Vincent College
- Principal Investigator: Daryle Fish and Jon M. Dietz
- Grant Advisor: Carol Varano

Manganese Resource Recovery

- Grantee: Stream Restoration, Inc.
- Principal Investigator: Margaret Dunn
- Grant Advisor: Carol Varano

Innovative Ex-Situ Activated Iron Solids Treatment & Enhanced Iron Oxide Recovery From Various Types of High Flow Acidic Mine Drainage

- Grantee: WPCAMR
- Principal Investigator: Jon Dietz
- Grant Advisor: Rich Beam

In-Situ Treatment of Abandoned Mine Drainage Utilizing Indigenous Bacteria in a Reduced Environment

- Grantee: WPCAMR
- Principal Investigator: Winner Energy and Environmental Services and Bioremedial
- Grant Advisor: Pam Milavec

Optimizing the Design and Operation of Self-Flushing Limestone Systems for Mine Drainage Treatment

- Grantee: WPCAMR
- Principal Researcher: Kim Weaver of Hedin Environmental
- Grant Advisor: Dan Helfrich

OSM PA(AMR-05) Grant

Economic or Industrial
Development Using Mine Pool
Water

Use of Green Mountain Tunnel Discharge for the Humboldt Industrial Park

- Grantee: CANDO
- Designer Project Manager: GTS Technologies

Unsolicited Proposals

Treatment of Mine Drainage Utilizing Liquid to Liquid Extraction

- Grantee: Winner Energy and Environmental Services
- Principal Investigator: Battelle
- Project Advisor: Rich Beam

It is not a fish until it is on
the bank

Many good projects are out
there, they just need funding

"Nothing makes a fish bigger
than almost being caught"

Some ideas are destined to
remain ideas.

There he stands, draped in more equipment than a telephone lineman, trying to outwit an organism with a brain no bigger than a breadcrumb, and getting licked in the process