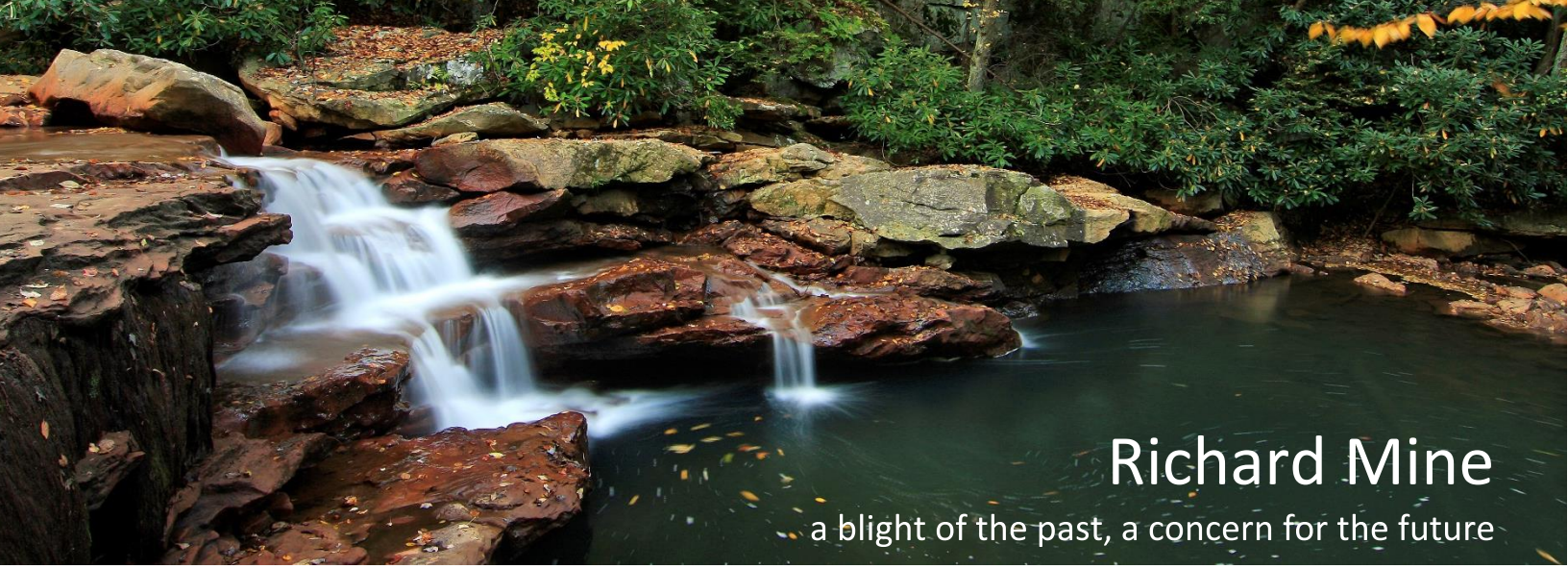


Richard Mine

a blight of the past, a concern for the future

Background

The Richard Mine, the Goliath of Deckers Creek, is the largest contributor of acid mine drainage in the watershed.

This abandoned underground coal mine spans across 3 square miles, loading Deckers with acid mine drainage (AMD) as it flows through downtown Morgantown and discharges into the Monongahela River at Morgantown's waterfront. The Richard Mine serves as an ecological barrier and a hazard to public health for area residents.

Chemistry of the Richard

Over 292,000 lbs. of acidity and dissolved metals are discharged from the Richard Mine into Deckers Creek each year.

iron	aluminium	manganese
26	13	25
Fe	**Al**	**Mn**
143,000 lbs/yr	59,000 lbs/yr	3,200 lbs/yr

Like most coal beds in Appalachia, Richard has a wealth of pyrite, or "fool's gold," a mineral composed of iron sulfide. After coal seams are mined, disturbed pyrite left exposed to oxygen and water causes the sulfide to oxidize into highly corrosive sulfuric acid. Sulfuric acid drastically lowers the pH of the water, dissolving metal ore and killing aquatic life and local vegetation.

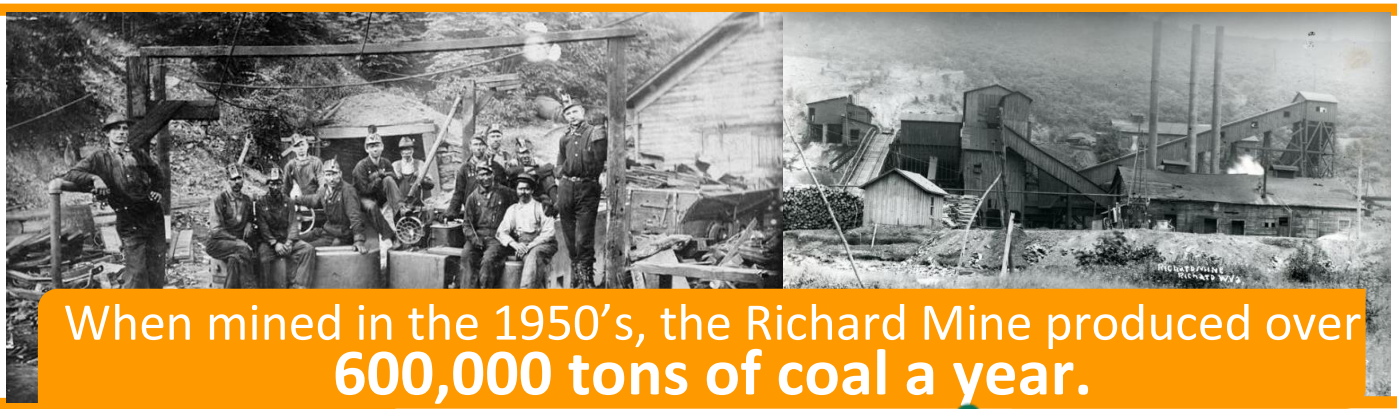
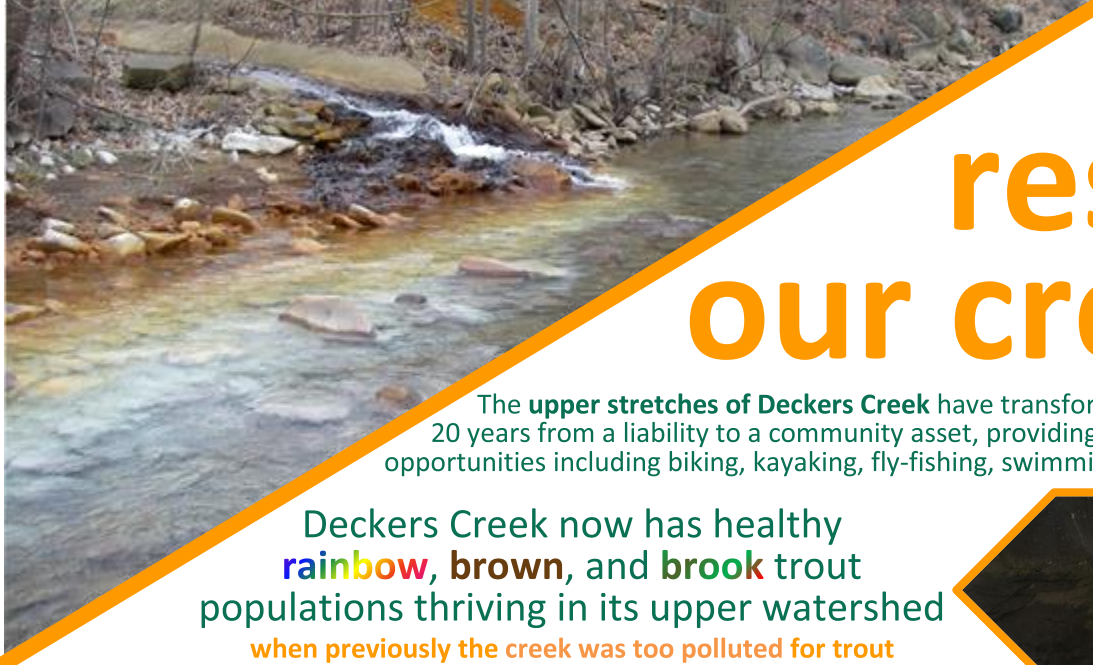


photo credit: Coal Miners at Entrance to the Richard Mine (From original owned by Wade Mayfield, Dellslow, WV, 1912)

When mined in the 1950's, the Richard Mine produced over **600,000 tons of coal a year.**

Bethlehem Steel, the company responsible, cannot be held liable under the Surface Mining Act because the mine operated prior the enaction of regulations in 1977.

Thus, the mine will continue to discharge 8,000 lbs of AMD per day unless treated.



We can restore our creek

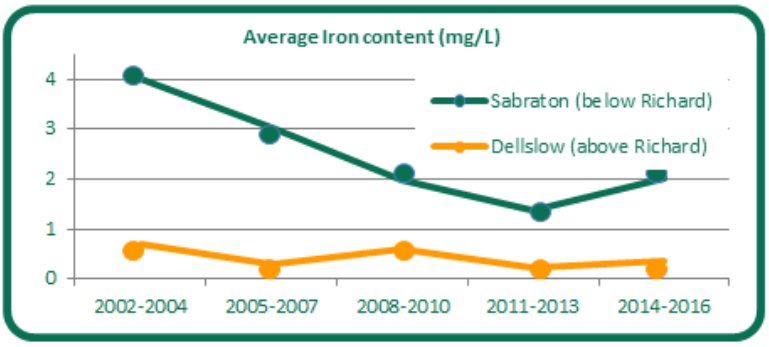
The **upper stretches of Deckers Creek** have transformed over the past 20 years from a liability to a community asset, providing recreational opportunities including biking, kayaking, fly-fishing, swimming, and hiking.

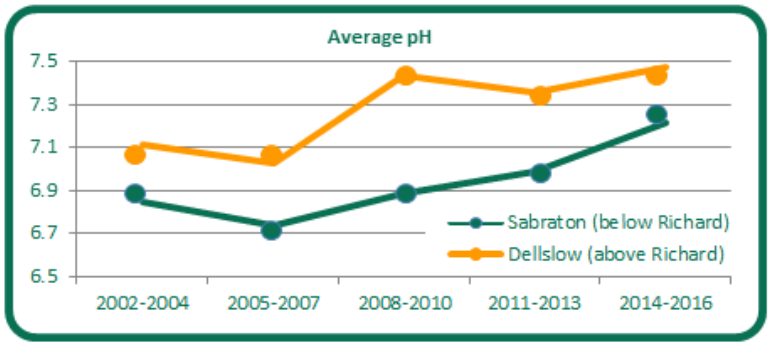
Deckers Creek now has healthy **rainbow**, **brown**, and **brook** trout populations thriving in its upper watershed

when previously the creek was too polluted for trout

Thanks to AMD treatment conducted by FODC, the NRCS, the WVDEP, and OSMRE, the water quality of the creek above Richard has noticeably increased

evidenced by stream-monitoring efforts started in 2002





Restoring lower Deckers Creek by treating Richard will similarly provide a multitude of ecological and economic benefits

A study conducted by Downstream Strategies found that a restored Deckers Creek would **generate $14 million in economic benefits**, including tourism opportunities, increased property values, and decreased expenses associated with threats to public health.

- Riparian property owners could conservatively expect an immediate 13% increase in property values.

To see a treated Richard Mine, **we need the city, the county, the state, and the community behind us.**

Local Sponsor	A body will have to be willing to have the site in their name, as the NRCS and FODC are ineligible.
Operations and Maintenance Support	Due to the sheer quantity of the metals coming out of the mine, treating the Richard Mine will involve ongoing O&M, needing extra funds and personnel lined up into the future
In-kind or monetary support for construction	The cost of remediation may cost more than the funds the NRCS has in hand. Any funds dedicated to construction will prolong the life and efficiency of the system.

The NRCS has awarded $3,375,000 to treat the Richard Mine.

However, this is only the first step.