



Tanoma South - AMD Abatement Project

Project Background:

Project Name: Tanoma South

Project Number: AMD 32(2447)101.1

Problem Area: 2447

Municipality: Rayne Township

County: Indiana

Topographic Map: Clymer

Latitude/Longitude: 40° 41' 49" N, 79° 2' 57" W

Receiving Stream: Crooked Creek

Project Goals:

The major goal of this project was to abate the Iron build-up caused by an abandoned mine drainage which fed 1600 gallons of polluted water into Crooked Creek each minute. The Department of Environmental Protection's Bureau of Abandoned Mines, along with the Southern Allegheny Conservancy and eventually the Evergreen Conservancy sought to remedy the damage caused by AMD in order to improve aquatic life throughout 3.5 miles of Crooked Creek near Tanoma, PA.



Project Information:

Mining from the Lower Kittanning Coal seam from the late-1800s through the mid-1900s brought prosperous conditions to Indiana County. Unfortunately, coal mining plays a heavy role in polluting the surrounding environment. Mine drainage from the Clearfield Bituminous Coal Company's abandoned deep mine near Tanoma has been polluting the Crooked Creek Watershed since the site was last mined in 1956. Water which was highly polluted with Iron was released into Crooked Creek via a borehole at an average rate of 1600 gallons per minute. This high flow deposited an average of 126 pounds of Iron into the creek each day.

Project Design Information:

The project began by drilling a new borehole into the abandoned mine to relocate the discharge from the creek to a treatment pond where the Iron would be allowed to settle out. The previous borehole was plugged, to prevent it from polluting into Crooked Creek any longer. The water would then go from the sediment basin into an aerobic wetland with a detention time of 24 hours. The water then goes to another aerobic wetland with a detention time of six hours before finally being released into Crooked Creek, all but devoid of any Iron or other pollutants. The system was completed in late 2000 at a final cost of \$416,865.



Project Description:

Polluted water flows from the abandoned deep mine, through a newly drilled borehole, and into a sediment basin. Here, Iron is allowed to precipitate out into the pond. The water then flows through a series of aerobic wetlands to allow for further treatment before it is released into Crooked Creek.

**Property Owner Information:**

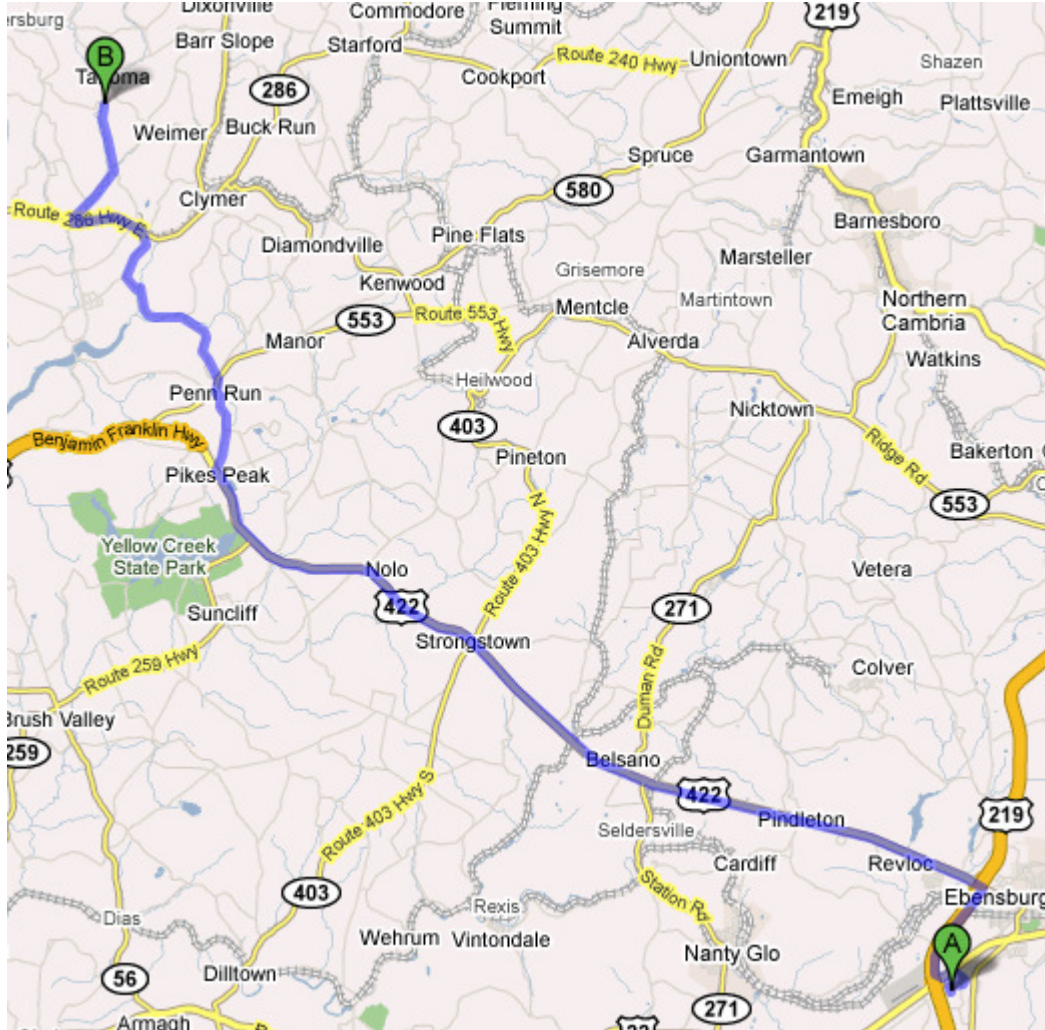
The site lies on property owned by Richard Custer and Robert Kythusa. The DEP purchased \$38,000 worth of land to build the 10 acre site.

Conclusions and Recommendations:

Since the system has been completed in 2000, clean water has again been flowing into Crooked Creek. Iron levels have dropped significantly, to levels lower than those mandated by the state for a clean stream. Aquatic life has also been returning to the area and the 3.5 mile stretch of the creek that has been affected by the remediation is now fishable. Operations of the site were taken over by the Evergreen Conservancy in October of 2006. Additional information on this site can be found at the Evergreen Conservancy's website, www.evergreenconservancy.org.

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Directions to Site:

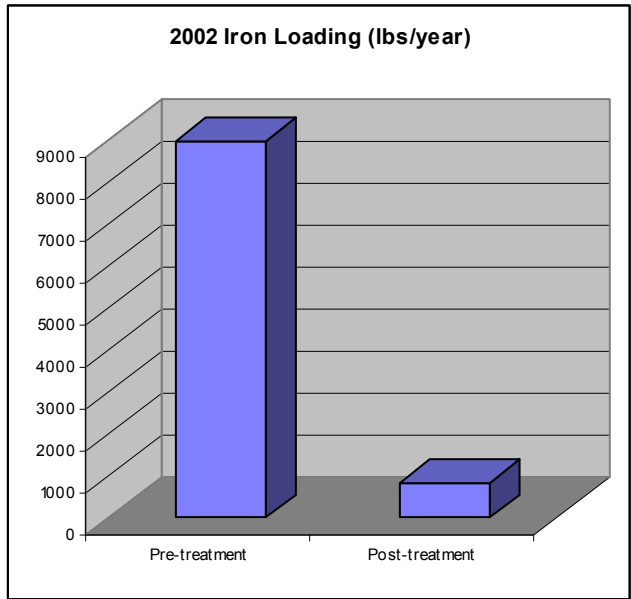
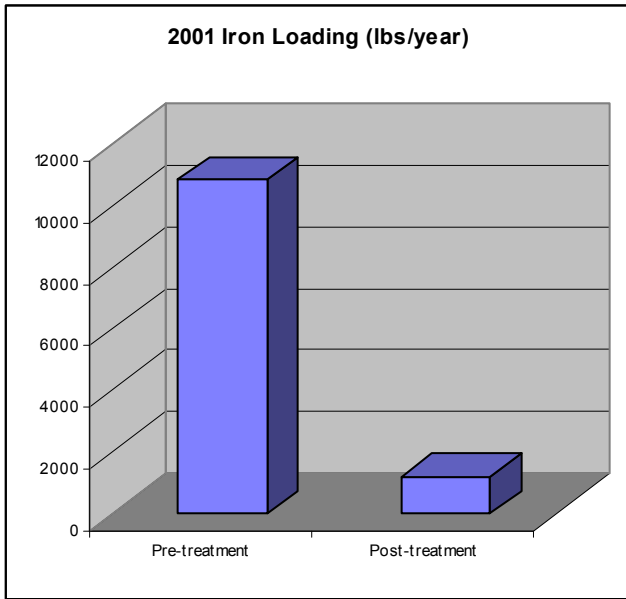
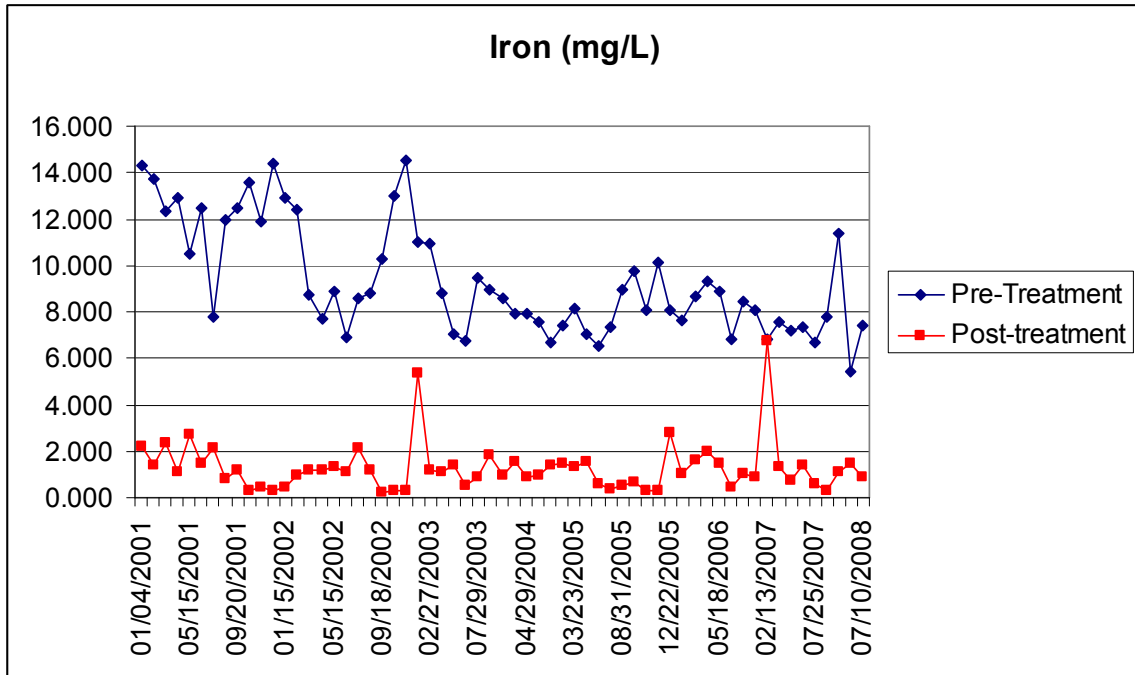


Start – 286 Industrial Park Road, Ebsburg

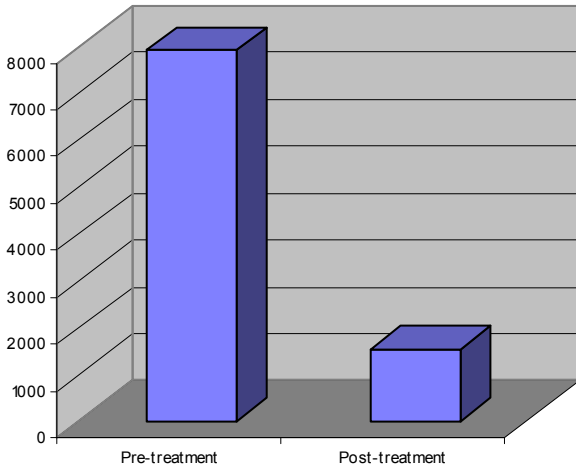
- Turn **left** at Mini Mall Road 0.3 mi
- Turn **left** at US-22 0.1 mi
- Take the **ramp** onto US-219 N 1.8 mi
- Take the US-219 Business **exit** towards US-422 0.4 mi
- Turn **left** at US-422 16.5 mi
- Turn **right** at N Harmony Rd 1.5 mi
- Turn **right** at PA-553 0.3 mi
- Turn **left** at Grace Church Rd 187 ft
- Turn **right** to stay on Grace Church Rd 3.0 mi
- Turn **right** at Airport Rd 1.0 mi
- Slight **left** at Clymer Rd/PA-286 1.3 mi
- Turn **right** at Tanoma Rd 2.4 mi

Turn left at Rayne Church Rd, site is on the right after the bridge over Crooked Creek.

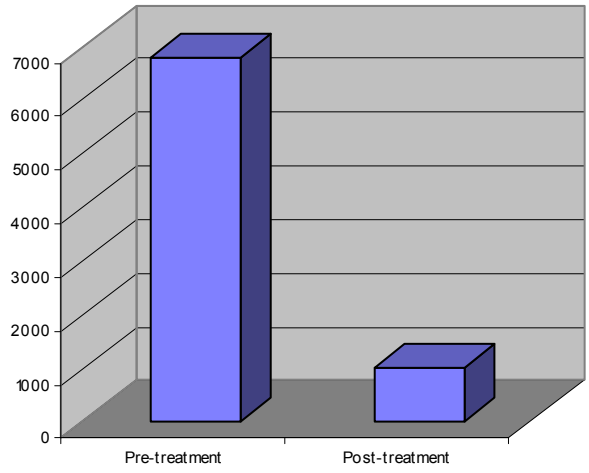
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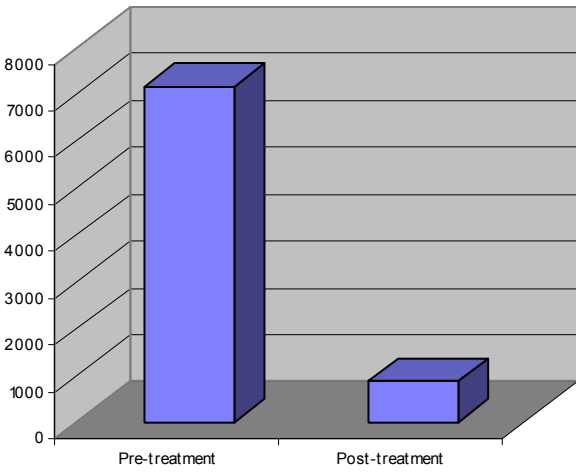
2003 Iron Loading (lbs/year)



2004 Iron Loading (lbs/year)



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2006 Iron Loading (lbs/year)

