

Loyalhanna Watershed Association



*Latrobe Foundation Property Project
Final Report Presentation*

Latrobe Foundation Property Project

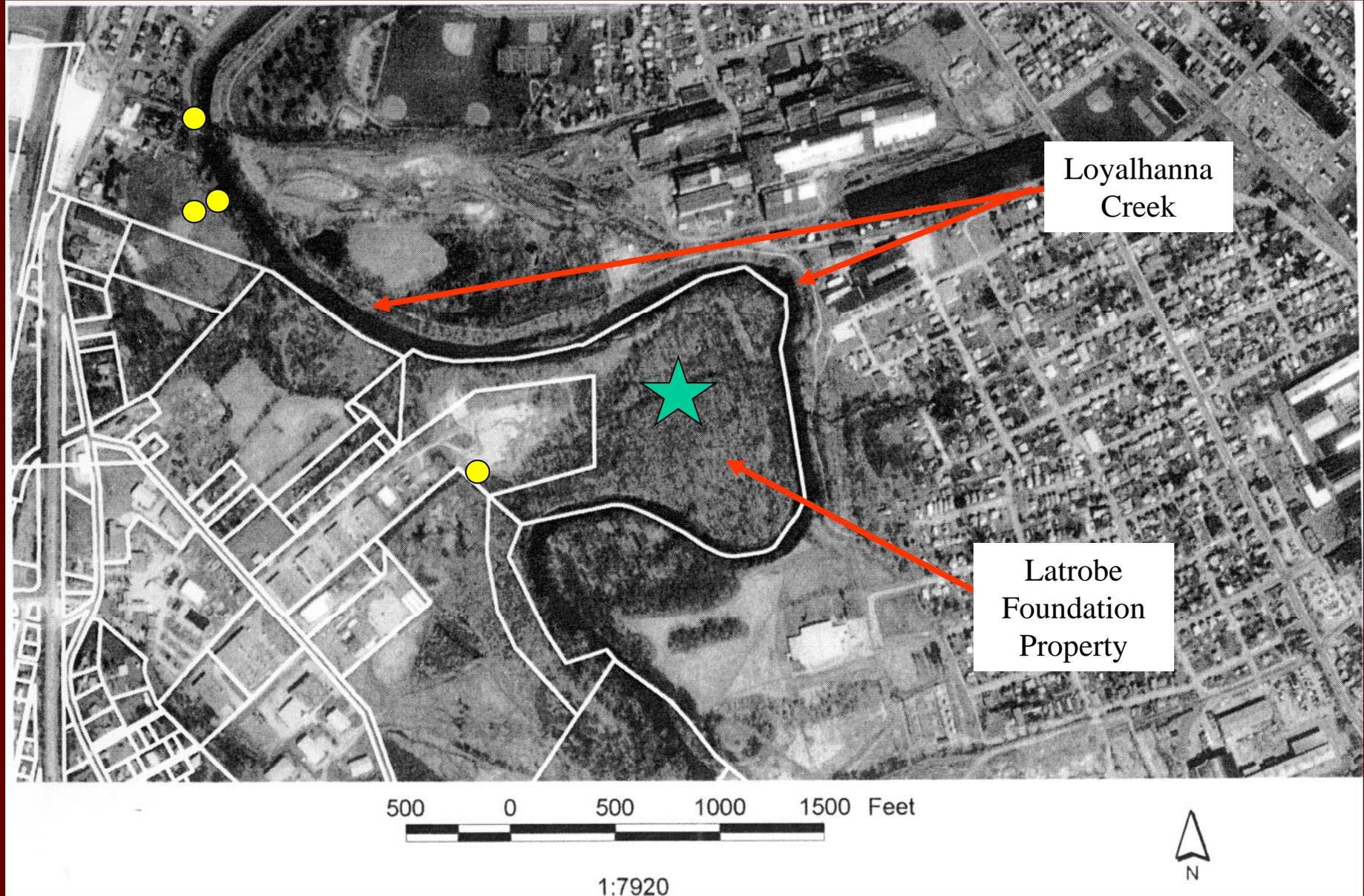
WHAT IS IT? A project funded by Growing Greener and the Office of Surface Mining.

GOAL? To drill a pilot borehole into the flooded abandoned mine workings below Latrobe. Artesian flowing conditions should be encountered. The pilot borehole could eventually become the single discharge point for discharges downstream in Latrobe.

Project Timeline

- Phase I: Summer-Fall 2004
 - Drilling, pond construction, monitoring
- Phase II: Summer-Fall 2005
 - Investigation of discharges, monitoring
- Phase III: Summer-Fall 2006, '07
 - Construction of full treatment system, sealing discharges.

Project Site in Downtown Latrobe



Part I

- R&L Development was selected to construct the settling pond on site.
- There was concern with tree removal. Burning was not permitted within the township and R&L created windrows rather than violate township ordinances.
- Excavation moved quickly with large trucks working to remove soil.
- Access into the site was greatly improved by R&L and the entire area was mulched and seeded.
- The pond was completed as of Labor Day Weekend.



Site Prior to Any Work

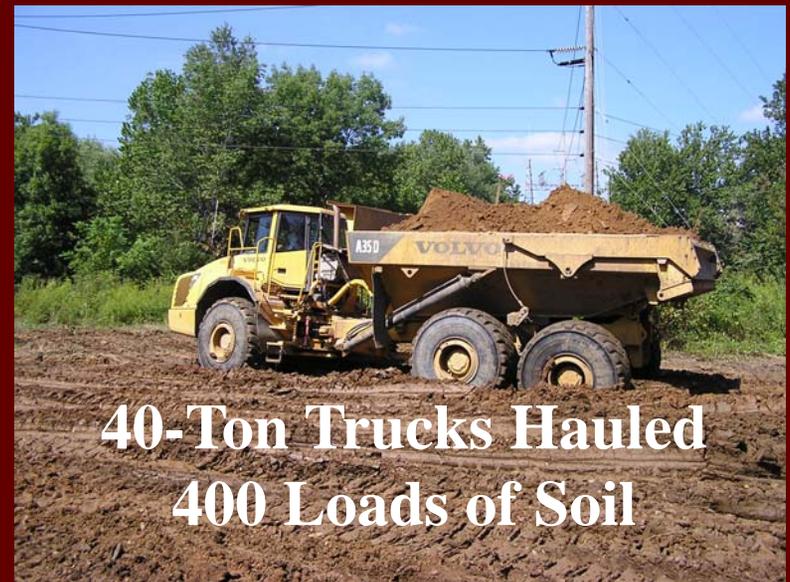


Clearing and Grubbing
The Project Site

Part I – The construction of the settling pond by R&L Development of New Alexandria



Road Constructed Into the
Site for Heavy Trucks



40-Ton Trucks Hauled
400 Loads of Soil



June 2004



Sept. 2004

Part I – Before and After



Final Product September 4th, 2004

Part II

- Eichelberger Drilling was selected to drill the pilot borehole at the project site. Sub-contractor, Stoy Excavating would put finishing touches upon the project.
- There was a lag between the pond construction and drilling. It was during this lag that Hurricane Ivan blew through the area. Damage was minimal and impacted only the access road and the pond outlet channels.



Emergency spillway after flood damage.

Part II Continued

- Artesian flow was not encountered during the drilling of the first hole.
- A second hole was drilled and artesian flow was encountered.

Initial Chemistry

pH = 6.3

Total Iron = 44

Flow = approx. 350 gpm



Part II – Hole #1 being drilled by Eichelberger Drilling on October 6th. The drill rig moved 175 feet down without encountering a mine void or artesian flow.

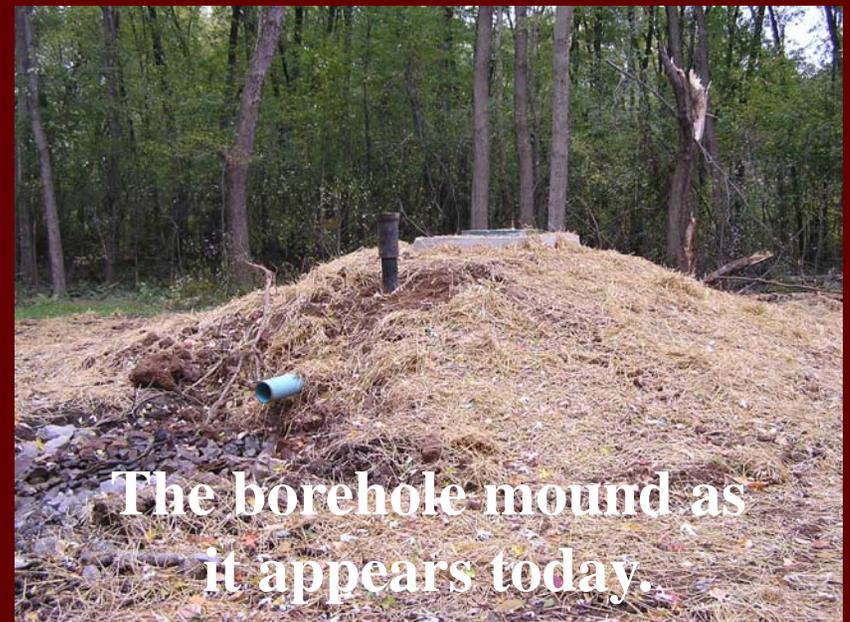
We Hit Water!



October 7th at 12:15pm, the drill rig encountered water at approximately 139feet.



The pilot borehole was capped and encased in a concrete vault. That vault will protect from vandalism and weather. It also enables easy access for sampling.



The borehole mound as it appears today.

Pond Outlet Structure

The pond is 6
feet deep and
measures
150 ft x 250 ft.



The pond shown after collecting water from the drilling process. The purpose of the pond was to gather water and allow iron oxide the opportunity to settle prior to water entering the Loyalhanna Creek.

What Next?

- Monitor borehole water quality.
- Investigate discharges to be remediated.
- Design seals or partial seals of discharges.
- Design treatment system to be constructed on site. It will eventually treat up to 450gpm of flow.
- Carry out land ownership transfer from the Latrobe Foundation.



Carole Wright, LWA Project Manager and Jim Pillsbury of the Westmoreland Conservation District confirm an “iron smell” in the water.



Carole Wright, Project Manager, shown with a happy group of contractors after hitting water. Eichelberger Drilling, LRobert Kimball and Stoy Excavating employees all shown.



A meeting of the minds on the site prior to construction. Shown are some partners including Eric Robertson PACD, Dan Siebert NRCS, Ron Horansky DEP, Jim Pillsbury WCD and Dave Minnear L Robert Kimball and Associates.