Locust Lake State Park
Recreational Reservoir
Dam, Discharge, and Holding Ponds

Locust Creek feeds Locust Lake just beyond this meander
Newkirk Tunnel – Oxic Limestone Drain treatment system
Newkirk Tunnel – Flushing the limestone drain to remove the iron oxide which deposits on the limestone. The iron collects in the small pool. Vegetation gives the iron additional surface area to cling to as it deposits. The “limestone” used at this location was dolomite and has decreased the effectiveness of this passive treatment method.
Newkirk Tunnel – Treated water (left branch) joins untreated water (right branch) to continue downstream to the Wabash Creek. The acidity of the untreated water has completely dissolved the base of the metal drain (right)
Newkirk Tunnel – Wayne Lehman shows the clay-like nature of the iron oxide mud that coats the bottom of most streams in the anthracite region.
Silvercreek Treatment System – water from the crop fall is diverted to a series of retention ponds which allow iron to settle and pass the water over beds of limestone to increase pH.
Silvercreek Treatment System – The first two pools are deep and the last two pools are shallow wetland settings. This treatment system spans 8 acres and cost $800,000 to install.

Bill Reichert shows the iron oxide precipitate which collects between the level spreaders of the first pool.
Confluence of the West Branch of the Schuylkill River (top left) and the Pine Knot Discharge (top right). Iron precipitate is orange/red. Aluminum precipitate is white
Pine Knot Discharge (left) and West Branch of the Schuylkill River (right). During times of the year when there is little rainfall, the West Branch goes dry, but the Pine Knot Discharge never stops flowing.
Wadesville Stripping Pit – This coal mine taps the Mammoth Coal Vein. The ledge overlooking the pit is 400ft above the base of the pit and the coal vein is another 200ft below that.