



Locust Lake State Park is in a clean watershed due to topography. The dam was constructed to create a reservoir for recreation.





Locust Creek supplies Locust Lake with water. The meanders in this creek clearly show the depositional features of point bars and the erosional features of cut banks.





### Mary D Borehole Abandoned Mine Drainage Remediation Project

The Mary D Borehole Project was constructed to treat the abandoned mine drainage (AMD) that flows from old underground mine workings near the village of Mary D to the main branch of the Schuylkill River. The treatment system consists of intake piping from the mine borehole, a settling pond that slows the flow of the water so metallic-rich particles can be settled out and an aerobic wetland to further distribute the flow. These treatment cells are followed by a limestone vertical flow pond that contains an under-drain network of pipes that directs the flow of water up through the limestone



BEFORE



AFTER

bed before being discharged back into the Schuylkill River. A final wetland basin serves as a flushing pond to capture metallic-rich particles that settle out within the limestone bed and which are washed out of the bed utilizing the under-drain pipe system and valves.

Funding for this project has been provided by the Pennsylvania Department of Environmental Protection's Section 319(b) Nonpoint Source Management Grant and the U.S. Environmental Protection Agency. The information presented here does not necessarily reflect the opinion or position of EPA. This project also has been funded in part by Exelon Corp. through the Schuylkill River Restoration Fund and the Delaware River Basin Commission. Project partners are shown below.



The Schuylkill Conservation District and the Schuylkill Headwaters Association work toward a cleaner watershed through passive remediation projects such as this wetlands at Mary-D. Abandoned Mine Drainage (AMD) enters the system with low pH and high iron levels. The water is passed over limestone to increase the pH. There are a series of pools in which the iron can oxidize and precipitate out of the AMD







Matt Uroskie of Lehigh Anthracite gave us a tour of the crushing and sorting facility. Anthracite from this mine is used for filtration, welding, stainless steel creation, the carbon in tennis rackets, and many other products





The storage facility has piles of different sizes of anthracite ready to be sold







Climbing on the haul trucks . . .





Overlooking the excavation pit, the terraces were visible as were the holes in the bottom rock from deep mining and the surface mining traces from the 1930s.







Visiting the final stop in the mine tour – historic entrance to the number 8 mine.







A tour of the Number 9 mine – the longest operating Anthracite deep mine in the world







The 309 Discharge is a site of active remediation where the water is being treated to increase the pH and remove iron prior to discharge into the Little Schuylkill River. Following the active treatment, the water flows through a wetland area where iron precipitates prior to entering the Little Schuylkill River.