

## 4. Black Rock Sanctuary Interpretive Trail - Chester County, Pennsylvania

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Chester County's Black Rock Sanctuary project initially began in the 1800's with the advent of the industrial revolution and the discovery of coal as a fuel source. With these events, the Commonwealth chartered the Schuylkill Navigation Company in 1815 to build a slack-water canal system between the coalfields of Schuylkill County and Philadelphia. The system consisted of dams and locks to create a deep shipping channel that allowed the coal to get downstream around the dam areas while compensating for the river's water elevation changes.

By 1900, waste from upstream coal operations was contributing over 3,000,000 tons of silt to the river annually. By 1930 so much silt had built up behind the dams and in the river that navigation ceased, flooding increased, recreation use came to an end, and the river's value as a water supply was being threatened. In 1945, after passing a series of laws to mitigate the build-up of silt in the state's waterways, the Commonwealth undertook the Schuylkill River Project to dredge the river and remove the silt to strategically located basins. The basins were constructed by relocating indigenous soil and rock to create long clay-filled berms about twenty feet high just off the river's edge. In the case of the Black Rock, the 8,000 feet long berm created an 80-acre basin. After construction was completed, the river was dredged and the slurry was pumped into the basins to dry. Later, sand, gravel and coal were removed for mineral recycling, leaving the site desolate and pockmarked. Over the intervening years, regenerating and invasive species provided a young but substantial forest.

In 1990, the Pennsylvania Bureau of Mines declared the Black Rock, Linfield, and Sanatoga basins surplus and sold the land to Chester County for wildlife conservation and recreation uses. The County's vision for the basins was to develop a truly different environmental park by taking advantage of their location along the Atlantic Coast Flyway to create and interpret breeding and nesting habitat for rare and endangered migrating waterfowl species.

The County then sought and received funding from private, county, state and federal sources. All together, five grants from different agencies were obtained from the Chester County Board of Commissioners, DCNR, DEP, the William Penn Foundation, and the United States Fish and Wildlife Service (USFWS). The County also received funding assistance from the Land and Water Conservation Fund, the U.S. Department of the Interior, DCNR's Bureau of Recreation and Conservation, and the Keystone Recreation, Park and Conservation Fund.



**Black Rock Sanctuary Interpretive Trail – Station 8**

The goals for Chester County’s Black Rock Sanctuary were to (1) form a comprehensive network of high quality wetlands by enhancing existing and creating new wetlands to support the breeding and nesting of migratory waterfowl; (2) create a highly interactive interpretive trail designed to explore and explain the complex biological interconnections and interactions of the man-nature natural landscape; and (3) use and reuse materials found within the site to create the trail and many of the interactive exhibits and activities.

The wetland construction portion of the project was completed in November 2002. In all, over 27 acres of new wetlands were created bringing the total wetland acreage to over 46 acres on the site. The wetland construction techniques included: grading to return portions of the area to pre-basin grades; creating mounds and pools to provide “temporary islands” for nesting sites; excavating to create vernal pool areas for amphibian breeding; enhancing deep water areas for fish as a source of food for birds and animals; and removing invasive plant species.

The 121-acre Black Rock Desilting Basin project site in Phoenixville, Pennsylvania, is part wildlife sanctuary for migratory waterfowl, part educational facility, and lastly a recreational facility. The education component is a thematically charged Americans with Disabilities Act (ADA) compliant interpretive trail that will lead visitors through the basic needs of wildlife survival such as habitat, food, and water. Visitors will learn how plants and animals such as amphibians and birds rely on these building blocks of life in their own unique way for their survival. The Interpretive Trail provides a series of interpretive displays, including: vernal pools to demonstrate the delicate balance in maintaining a healthy amphibian population; adaptations of waterfowl species; an interactive display to demonstrate watersheds; and a biofilter to demonstrate the difficulties of dealing with surface water runoff and chemical pollution

Interpretive stops along the trail include stations that take advantage of the site’s unique natural features. The *Welcome Station* introduces visitors to the site and tells them of the industrial history of the Schuylkill River. *Habitat World* informs visitors of the basic needs of animals, shares how habitats are formed, and

invites visitors to do the “Habitat Hop.” *Geo World* explains the various types of rocks found on the property and invites people to become a “rock detective.” *Amphibian World* explains what an amphibian is and illustrates the difference in vernal ponds throughout the year. *Plant World* talks about how plants are producers and providers, and shows the different types of plants that grow in the area. *Bird World* talks about bird adaptations and allows visitors to view birds from an over-sized bird nest. *Meadow World* talks about the warm-season grass meadows, how the County manages them, and shows how this former industrial site is being returned to nature.



**Black Rock Sanctuary Interpretive Trail – Station 1.**