

## **North Fork Wetlands Bank** **Haymarket, Virginia**

Created from a 125-acre cattle pasture, the North Fork Wetlands Bank is an ecologically diverse system providing 7 acres of open water, 76 acres of wetlands, and 42 acres of upland buffers. Conceived and developed by WSSI, this mitigation site is only the second private wetlands bank approved in northern Virginia (the first being the Julie J. Metz Wetlands Bank). The North Fork Wetlands Bank demonstrates the innovative approach to wetlands mitigation that typifies WSSI's projects. A dam 1,600 feet long and 25 feet tall, designed for the Probable Maximum Flood event with two feet of freeboard in an 800+ acre watershed, impounds the North Fork of Broad Run, forming a seven acre pond and providing the hydrology for much of the created wetland area on the site. Two previously existing farm ponds were incorporated into the wetlands bank design and connected to the larger impoundment. Three sets of tiered wetlands were designed to capture water from surface runoff, including runoff from preserved forested wetlands. Still higher vernal pools were created by the importation of a nearly impermeable layer of clay, which lines these pools and allows wetland hydrology to be supported entirely by precipitation.

Constructed in 1999 and 2000, the North Fork Wetlands Bank features a diverse mixture of forested, shrub-scrub and emergent wetlands with several sub-communities selected by elevation, source of hydrology, and species composition. Upland buffers, submerged and floating aquatic vegetation, and the open water of the ponds complement these wetlands, creating a heterogeneous complex of habitats that support numerous wetland-dependent plant and animal species. In only two years, WSSI



staff, Fairfax Audubon Society members, and other birdwatchers from northern Virginia have documented 170 bird species, as well as high densities of turtles and amphibians, at this site.

The North Fork Wetlands Bank provides mitigation for wetland impacts from more than 40 projects. In July 2000, the North Fork Wetlands Bank was donated to the National Capital Area Council of the Boy Scouts of America to be incorporated into the Scouts' 380-acre Camp Snyder. As the stewards of the wetlands bank, the Boy Scouts will use the site for educational and recreational purposes while helping to maintain and enhance the ecological and educational benefits of the site. WSSI has created a 1.5 mile long nature trail, with interpretive stations and a brochure that provides details on the construction and ecology of these wetlands.

In 2000, the North Fork Wetlands Bank won a NAIOP award for the best environmentally responsible project in northern Virginia. The same year, WSSI was presented an award by the Boy Scouts of America for the contribution that these wetlands will make toward

environmental education, and Vulcan Materials Company won the Capstone Award for its innovative recovery and use of microfines (clay-like particles) to comprise the clay liner for the North Fork wetlands<sup>1</sup>. Since its construction, the North Fork Wetlands Bank has been toured on numerous occasions by representatives of the Chesapeake Bay Foundation, Virginia Institute of Marine Science, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Virginia Department of Environmental Quality, and Boy Scouts of America. Faculty and students of Johns Hopkins University, the University of Maryland and Catholic University have also toured these wetlands.

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<sup>1</sup> *Proposed by WSSI to Vulcan as a solution to their mounting problem of what to do with this by-product of their rock crushing operation in Manassas. WSSI has now completed a concept plan to create wetlands with this material on a site adjacent to the quarry to provide a long term solution for Vulcan – and another wetlands park for the community.*