

Northwest River (Stephens)

The Northwest River (Stephens) tract is a non-tidal wetland and preservation project of the Virginia Aquatic Resources Trust Fund (VARTF) and is located in Chesapeake, VA. The property is an important contributor to a northern spur corridor connecting the Northwest River and the Great Dismal Swamp National Wildlife Refuge, historically referred to as the “Green Sea.” This area once contained vast expanses of oak-dominated, mixed hardwood wetlands, as well as Canebrake wetlands, but has been significantly impacted over the previous centuries by deforestation and draining. The Stephens site has added approximately 372 acres of mineral flatwood wetlands to this corridor. Other wetland sites that were restored and preserved in this area by VARTF include Benefits, Hall, and Su tracts, together comprising a complex that supports water quality and wildlife. A large portion of the Stephens site drains to the Dismal Swamp Canal, a tributary to the Elizabeth and Chowan Rivers. Thus, this project and the associated wetland mitigation is evenly split between the Lower James River and Chowan River basins.



Stephens preservation area. Photo: Kate Rooney, 2015

Project funding and implementation for this site came from VARTF, a cooperative agreement between The Nature Conservancy, US Army Corps of Engineers, and VA Department of Environmental Quality. Approval and acquisition of this site occurred in 2002. At that time, the property contained 230 acres of high-quality mature forested wetlands, which were placed into preservation, and it also contained 142 acres of open prior-converted agricultural land. The entire agricultural area was targeted for restoration into a non-tidal forested wetland community. In 2003, the site was planted with over 56,000 native tree and shrub seedlings. In 2004, interior field ditches were plugged and a perimeter berm system was constructed to restore wetland hydrology.

The development of the site was monitored for 10 years with the final monitoring event occurring in 2013. Amongst the planted trees, volunteer red maple, sweet gum, and loblolly colonized the restoration area beginning in 2003 and created a dense thicket of saplings. Today, the planted bald cypress, sycamore, willow, and hydrophytic oak species have reached heights of 20-30+ feet and have replaced the early-successional volunteer species in canopy dominance, thereby indicating a successful maturation of the wetland vegetative community. The Stephens site provides excellent wildlife habitat for numerous species, and serves to improve water quality in the James River and Chowan River watersheds.



Photo: Kate Rooney, 2015



Comparison: 2005 photograph of restoration area



2013 photograph of restoration area (Photo: Jason Barney)