The Northwest River (Stephens) tract is a non-tidal wetland. This site is located within the Shenandoah River Basin near Middletown in Frederick County, Virginia. The property includes the longest cave in Frederick County, Ogden’s Cave, which has long been recognized as biologically significant and is designated as a Significant Cave under the provisions of the Virginia Cave Protection Act (1979).

The cave has many interesting formations, numerous drip pools and a free flowing stream. Several state and globally rare invertebrates live in the cave and there are four distinct invertebrate communities present. At least two bat species (big brown bat, eastern pipistrelle) hibernate in the cave.

The Department of Conservation and Recreation (DCR), Natural Heritage Program, initially approached The Nature Conservancy concerning the protection of this property. DCR’s primary interest included the protection of the Natural Heritage elements at the existing cave (Ogden’s Cave) located at the site. The purchase of this property and the stream enhancement activities have not only protected this unique feature, but also helped to protect the cave’s watershed from impacts from future development, as well as improving water quality along Buffalo Marsh Run.

The purpose of this project was to conduct stream enhancement activities along approximately 1,700 linear feet of Buffalo Marsh Run, a spring-fed, perennial tributary to Cedar Creek. Activities included the exclusion of livestock, the enhancement of the riparian buffer, and the stabilization of the stream banks through live stake plantings.

By excluding the livestock, The Nature Conservancy has significantly enhanced the stream system. By removing the cattle and planting live stakes, the stream banks have re-stabilized, reducing sedimentation in the channel and increasing overall habitat. The buffer enhancement has also diversified the terrestrial habitat and increased pollutant uptake. These actions are the primary measures necessary to restore stream function and improve water quality at this site. The buffer area, 200 feet either side of the creek, was planted in April 2007 with a diverse mixture of native hardwoods. The banks were stabilized through the planting of live stakes for the entire length of the channel.

This project was funded in its entirety by the Trust Fund. The enhancement activities will serve as stream mitigation for permitted stream impacts within the Shenandoah River Basin for which the Trust Fund was used as compensatory mitigation.