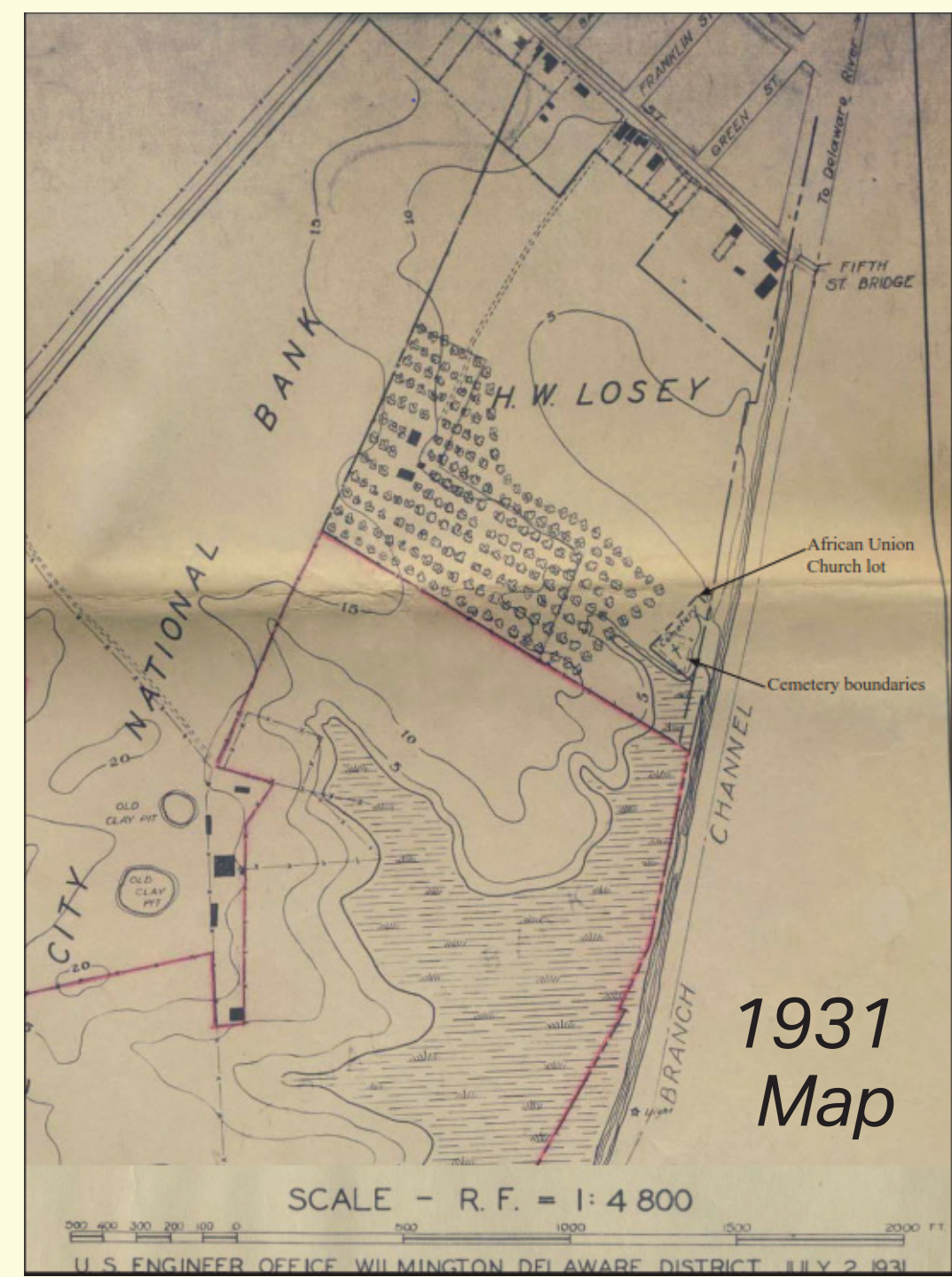


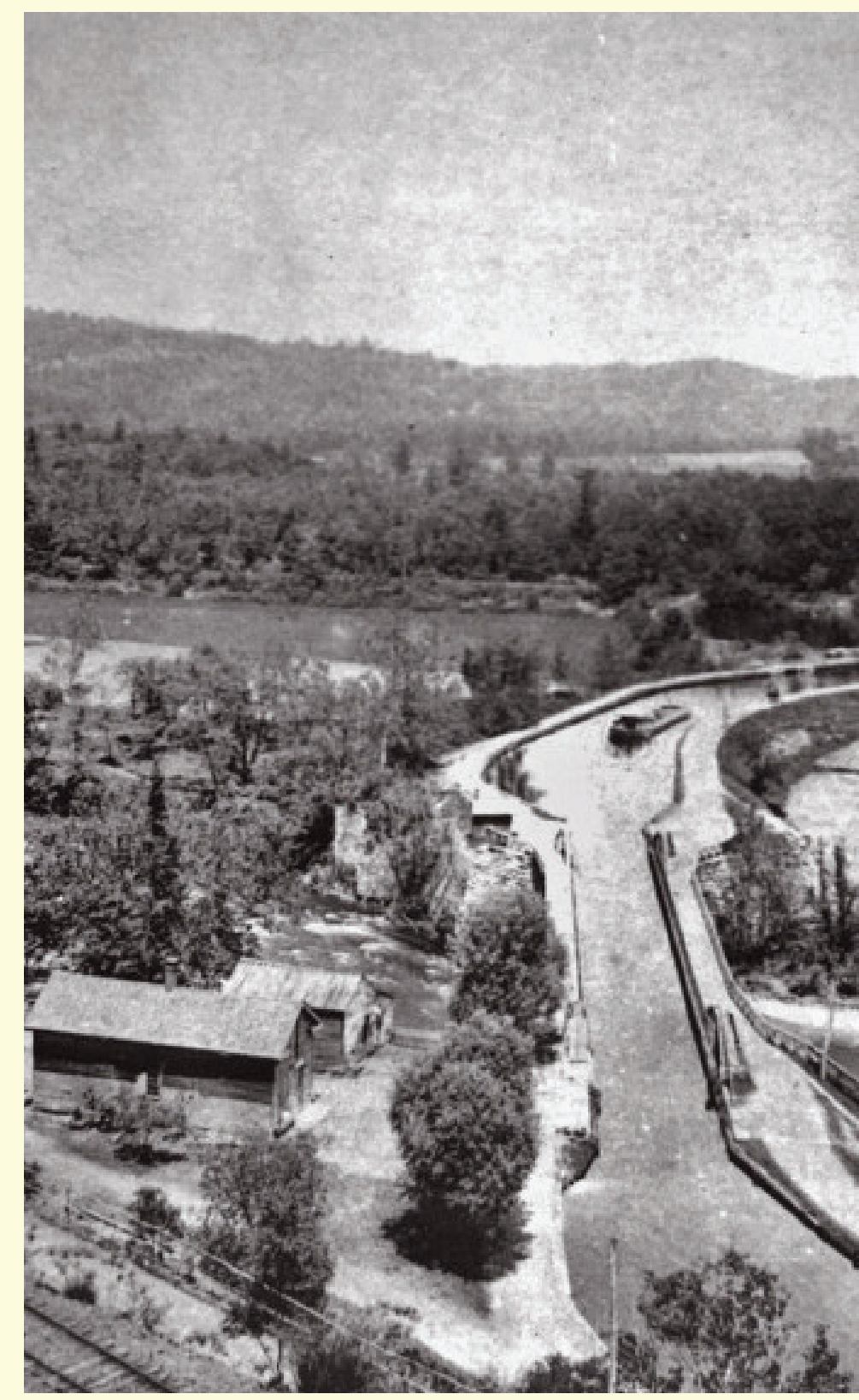
Combining Cultural/Recreational Benefits with Ecosystem Restoration The Delaware Branch Canal Trail Project

Ray Hinkle (AECOM, Clifton, NJ) | Kevin Donnelly (NCCD, Newark, NJ)

Canal History

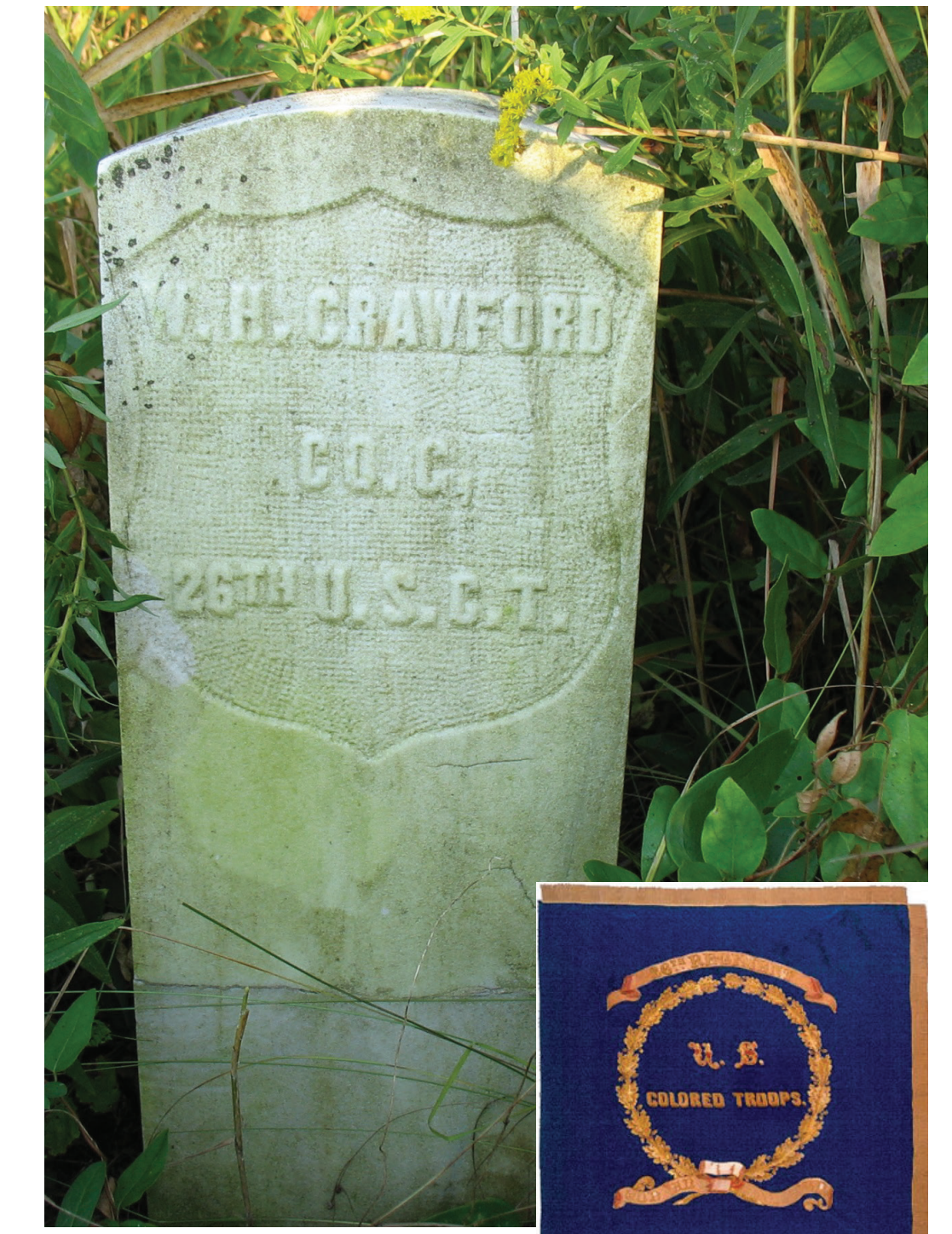


Delaware City, DE was the eastern terminus of the original Chesapeake & Delaware Canal, opened in 1829 with a length of 14 miles with four locks to regulate water levels within the canal. Tow paths bordered the canal, along which mules pulled barges of coal, lumber and other goods. In the area of Delaware City, peach orchards and other agricultural crops were grown for shipment to ports from New York to Baltimore. In 1835, the African Union Church purchased a half acre of land near the canal's "North Side Dike" in Delaware City, a portion of which was ultimately designated as a cemetery. Among the marked graves burials are the remains of five members of infantry units from Companies A, C, & D of the U.S. Colored Troops.



African Union Cemetery

Maintenance of the African Union Cemetery was curtailed by the tidal flooding of the area along the North, and former peach orchard areas and freshwater wetlands were transformed into brackish tidal wetlands. This condition persisted for decades, resulting in the cemetery being overgrown by trees and shrubs and inundated by tidal waters. A mobile home park was also developed along the canal adjoining the tidal wetlands and cemetery.



26th USCT Flag

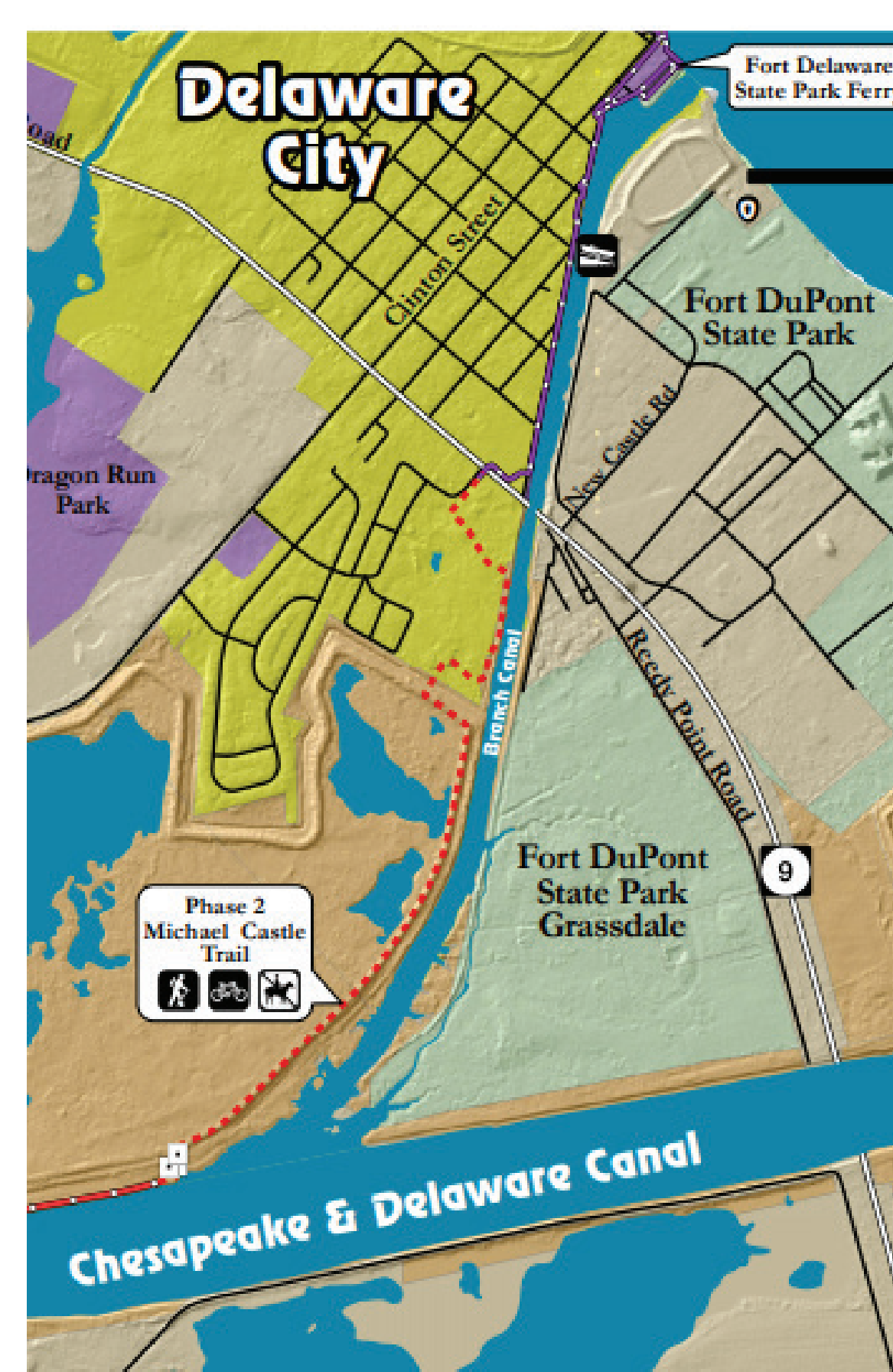
2008

Pre-Restoration

Eroded Canal Berm



In the mid-1920s, work began to move the eastern entrance of the canal several miles south to Reedy Point, DE. The locks were also removed to convert to a sea-level operation. This lowered the water level in the canal and exposed the dikes to erosion resulting in periodic breaches that have allowed tidal flooding to occur in adjacent areas.



Trail Construction and Wetland Restoration

In 2012 construction of 12 miles of paved surface trail with three trailheads located at Biddle's Point, St. Georges and South Lums Pond was initiated on Federal lands adjacent to the C&D Canal with a terminus approximately 1/2 mile south of Delaware City. Extension of the trail linking from that point to the promenade in Delaware City (designated as the Branch Canal Trail) was completed in 2016, funded by grants and contributions to Delaware City and New Castle Conservation District from DNREC's Community Environmental Project Fund, Outdoor Recreation, Parks and Trails Grant Program, state bond bill appropriations and settlement and penalty funds resulting from environmental violations, and from funds provided by the Delaware-Maryland USDA Rural Development Agency. The construction of the Branch Canal Trail was managed by New Castle Conservation District. Trail design was completed by AECOM of Newark, Del., with construction by Eastern States Construction of Wilmington, Del.

The 2,300 foot span of the Branch Canal Trail is along the original North Side Dike that had failed and allowed tidal flooding of low lying areas that were supporting a wetland community dominated by a range of brackish marsh wetland species, including Phragmites australis. Historical mapping and aerial photography indicate that this area was previously a freshwater wetland system. Also within this area is the historic African Union Cemetery, the burial place of 5 members of the US Colored Troops who served on the side of the Union in the Civil War. The berm constructed for the Branch Canal Trail was designed to reestablish the hydrology and salinity levels that would support development of a freshwater wetland community and a diversity of trees and shrubs were planted around the perimeter of the inundated area. With the protection of the berm, the African Union Cemetery was also restored through the efforts of the Friends of the African Union Cemetery and is a cultural resource that is now accessible from the trail.



Restored Freshwater Wetland - 2018



Wetland plantings by The Dawson Corporation, PO Box 400 Clarksburg, NJ 08510



Tidal backflow protection outlet



Wood Duck Nesting Boxes for Wildlife Enhancement



Stabilized Canal Shoreline



Restored African Union Cemetery - 2018