



Carbonton Dam Removal Lee, Moore & Chatham Counties, NC



The largest dam removal project ever in North Carolina, and the second largest in 2005 in the United States, took place in December 2005 on the Deep River in the central piedmont region. The former site of the dam spans Lee, Moore and Chatham Counties (the exact center of the state).

After five years in the planning and permitting stages, the Carbonton Dam, located 45 miles from Greensboro, Raleigh and Fayetteville, was removed to restore ten miles of the Deep River to a natural, free-flowing state last enjoyed by Native Americans. A new public river park has just been completed at its former location and is now open for public use and enjoyment.

The Carbonton Dam was the source of tremendous environmental damage. Over ten miles of the Deep River have been flooded for generations by the structure and its predecessor dams. As a result of Restoration Systems' work, the long stagnant lake behind the dam was drained and the river is restoring itself nicely, revealing rapids not seen since Woodrow Wilson was president.

The project is one of the largest rare and threatened species restoration projects of its kind in the U.S., with unprecedented benefits to rare mussels, and the federally listed Cape Fear Shiner. Water quality, historically damaged by the dam, will also gradually improve over a large area with increased flow and rising oxygen levels.

The dam stood 17' high and 270' feet long, and spanned the storied Deep River. The current facility at Carbonton was built in 1921 as the first electrical power plant in the Sandhills. Earlier structures date back to the Evans Lock and Dam in the mid 19th century when attempts were made to move coal on barges down the river, hence the origin of the name Carbonton. The original power plant was a cornerstone of the Sandhills Power Company and ultimately became CP&L, now Progress Energy. Restoration Systems left the historic structure intact for future conversion to a public use facility, which is set to be completed by the Deep River Parks Association and funded by RS.

This innovative project is the culmination of a five year effort by Restoration Systems to develop the project as "compensatory mitigation" to off-set environmental damage in the Cape Fear river basin. It was conducted in close coordination with multiple state and federal regulatory agencies. Restoration Systems performed the project to fulfill a "Full-Delivery" mitigation contract with the North Carolina Ecosystem Enhancement Program, an innovative state program charged with improving the state wetlands and watercourses using funds from the Department of Transportation and Development. Restoration Systems will monitor the site for ecological and water quality improvements for five years at 53 testing locations.

In 2007, Restoration Systems discovered the return of several groups of the federally endangered Cape Fear Shiner, thought to be headed for extinction, distributed throughout a reach of the now free-flowing Deep River that was formerly impounded behind the dam. The former dam and more than ten miles of backwater served as a barrier, which isolated populations of the shiner known to occur below the dam and at locations well above the upstream limit of the former impoundment (more than ten miles upstream). Now it is reasonable to expect two-way genetic exchange among the several groups that presumably were isolated from each other for so many years.