



# Bear Creek Mitigation Complex - Lenoir County, NC



Between Goldsboro and Kinston, Bear Creek flows south under US-70 as a major tributary to the Neuse River. Long the subject of state and national concern, today the Neuse River is an improving watershed. A critical and tangible component of its improvement is Restoration Systems' Bear Creek Mitigation Bank, and the recently constructed Sleepy Creek Mitigation Site.

The Bear Creek-Sleepy Creek Core Restoration Area is an amazing achievement in restoration science and heavy earthen construction. In Fall 2001, Restoration Systems backfilled over three miles of large drainage canals which had robbed the site of its ability to perform the natural services of the bottom land swamp it once was, before being drained for farming early in the 20th century. To fill the canals, earthen levees, constructed to control floods and protect crops, were hauled as backfill to allow floodwaters to regain the site and process pollutants. Lower, more natural levees were also constructed through the restored floodplain to retain water. The new levees were specifically engineered to emulate the form and function of natural features on properties owned by the company on the Neuse River itself. Once the earthmoving was completed, forestry scientists managed the planting of nearly 50,000 young trees in the rising water.

Today the Core Restoration Area is once again a thriving natural young swamp performing important functions, previously lost, like nitrogen removal, ground water recharge and habitat for water loving plants, trees, and animals -- which have returned in droves. An additional 80 acres of cropland were restored at the Sleepy Creek mitigation site in the winter of 2005. All of the restored wetland hydrology is monitored regularly by 33 electronic monitoring gauges placed throughout the property, giving Restoration Systems a real time understanding of the land and the change it undergoes.

In addition to the 180 acre Core Restoration Area, The Bear Creek Mitigation Complex includes nearly 800 acres of critical wetland "preservation." Over the course of six years, Restoration Systems has purchased and permanently protected some of the oldest and largest swamp forest tracts along the Neuse River from logging or any other form of development. This includes Greens' Thoroughfare Island, which at 222 acres represents the largest island in the Neuse River. These deep, dark, mature cypress swamps have hardly changed from the earliest days of North Carolina, when New Bern was settled a short distance downstream of the Neuse in 1710. Ancient Cypress towering over 100 feet and five feet at the base are found throughout the properties.

Nearly 500 acres are under permanent protection at the Bear Creek site with the North Carolina Coastal Land Trust (NCCLT), one of North Carolina's most respected land conservation organizations. NCCLT has included Greens' Thoroughfare Island as a key component of its larger Turkey Quarter Preserve.

## Typical Planting (December 10-24, 2001) Phase One -- Bear Creek Core Restoration Area

American Elm 1,730  
American Sycamore 200  
Atlantic White Cedar 500  
Bald Cypress 7,000  
Cherry Bark Oak 4,330  
Green Ash 1,000  
Iron Wood 140

Laurel Oak 4,840  
Over Cup Oak 5,340  
Possum Haw 140  
River Birch 540  
Swamp Chestnut Oak 4,130  
Swamp Cotton Wood 880  
Swamp Tupelo 4,280

Tulip Poplar 1,830  
Water Hickory 2,030  
Water Oak 2,920  
Water Tupelo 500  
Willow Oak 4,600

**TOTAL 44,930**