Wake County Government Facilities Design & Construction

Beech Bluff Park Natural Resource Management Plan

Wake County, North Carolina

A colonial-era road through the forest.

A new nature park helps enhance climate resilience and well-being for a growing municipality.

SERVICES

Ecological Restoration
Conservation
Climate Change

To meet the needs of its growing population, Wake County, North Carolina is expanding its park system. One of its new, planned sites is Beech Bluffs Park, a nature and educational park located in the County's southeastern corner, right along the fall line between the Piedmont and Coastal Plain physiographic provinces. A portion of the 295 acres acquired for the park is agricultural, but the majority of the site consists of undeveloped forests, wetlands, streams, floodplains, and rock outcrops, all of which support a diverse ecosystem.

As the ecological consultant on a planning and design team led by Surface 678, Biohabitats created a natural resource management plan to protect and restore the site's valuable natural assets; obtained Clean Water Act 404/401 and riparian buffer permits for the park design; and helped the project achieve accreditation from SITES, a comprehensive system for creating sustainable and resilient land development projects.

Climate change predictions and site resiliency were considered when choosing the target native plant communities for the restoration design component of the management plan. Biohabitats used the site's pre-settlement natural history, which included frequent periodic fire events, to guide the strategy for converting agricultural fields to native warm season grass, forb prairies, longleaf pine savannas, and shortleaf pine savannas. The management plan includes guidance on invasive species eradication, native species planting and establishment, prairie and savanna maintenance with fire and/or mowing, and invasive species control. Biohabitats also delineated wetlands, streams and buffers and performed site surveys for invasive species and rare, threatened and endangered species, which informed the SITES accreditation process.