



Nantahala Area Hydro Relicensing

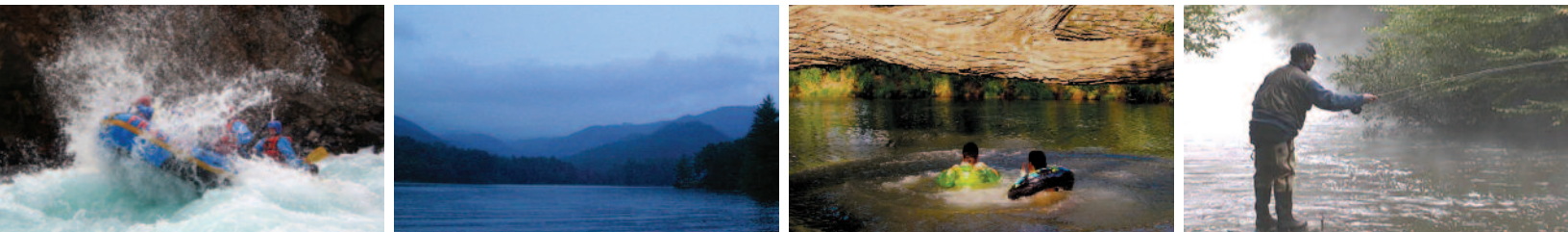
Public Recreation and Environmental Enhancements
for Southwestern North Carolina



Nantahala Area

Duke Energy's Nantahala Area has served electric customers in the far western North Carolina counties of Cherokee, Clay, Graham, Jackson, Macon, and Swain since 1988, when it purchased Nantahala Power & Light from Alcoa. This 1729-square mile rural service area is in the rugged and scenic end of the Appalachian Mountains, parts of which receive the nation's highest annual rainfall this side of the Pacific Northwest. The abundance of water led to the construction of the Nantahala Area Hydro Projects, 14 reservoirs serving 11 hydroelectric generating plants altogether having a maximum capacity of about 100 megawatts. Completed between the 1920s and the mid-1950s, the plants have long produced part of the region's electricity and now help serve 73,000 electric customers.

The reservoirs for the Nantahala Hydro Projects create most of the region's lakes, and water released when generating power creates predictable whitewater recreation opportunities. In recent decades, these have combined to significantly increase the value of water-based recreation to the regional tourism economy. The reservoirs have attracted both permanent and vacation homeowners fueling service industries and the tax base. With predictable flows, the Nantahala River now annually attracts more than 250,000 rafters and kayakers who can traverse eight miles of Class II-III rapids ensuring enjoyment for paddlers of many skill levels. Dependable flows from Duke's peak and off-peak generation releases make the Tuckasegee River, with its smallmouth bass and some of the highest concentrations of rainbow, brown and brook trout outside Montana and Idaho, an annual attraction to 60,000 fisherman, drift boaters, and paddlers interested in a more restful recreational experience of simply "getting away from it all."



Hydro Relicensing

A 1964 court case put the Nantahala Area Hydro Projects and hundreds of others under the jurisdiction of the Federal Energy Regulatory Commission (FERC). The FERC defines conditions under which plants must operate and issues licenses to project owners. The original 25-year licenses for the Nantahala Area Projects were issued between 1980 and 1981. In November 1999, as part its efforts to relicense the projects, Duke kicked off a public involvement process that included the formation of the Nantahala Cooperative Stakeholder Team and the Tuckasegee Cooperative Stakeholder Team, each charged with developing recommendations to the FERC on how the hydro projects should operate in the future. Contributing more than 9,000 person-hours, team members incorporated public interests by reviewing hundreds of factors and then producing two legally binding settlement agreements defining carefully crafted balances among environmental needs, public recreation and aesthetics, and continued hydro generation. Signed in 2003, the agreements include present-day environmental knowledge and laws along with considerable enhancements to reflect the increasing economic importance of water-based recreation. Further, they recognize the increasing value of hydro generation as a renewable energy source. In addition to the enhancements detailed in the following pages and on the maps, the agreements provide almost \$900,000 in funding for Nantahala Area resource enhancement initiatives related to local governments, recreation, fisheries, riparian habitat, and soil and water conservation. While a few enhancements have been completed or are underway, most will be initiated after Duke receives its New Licenses from the FERC and all appeal periods have expired.

Stakeholder Agreement Enhancements

Note: Most of these enhancements are awaiting the removal of the very small 82-year old Dillsboro Dam on the Tuckasegee River as ordered in July 2007 by the Federal Energy Regulatory Commission as the best course of action in the public interest. The removal is the key balancing factor in both settlement agreements because it will create nearly 10 more miles of free-flowing river, reconnect habitat for long-separated endangered species, and provide enhanced water-based recreation opportunities. Also important, its removal will eliminate a requirement to release water into old stream beds below several of the other dams which would lead to loss of renewable hydro generation far in excess of the Dillsboro Dam's production. In December 2009, the FERC reinforced its original order and further ordered that 11 Duke-owned acres needed to remove the dam and powerhouse be put into the Project Boundary and thereby under its jurisdiction. Although removal had been delayed by court challenges, initial demolition began in early 2010.

Nantahala River Enhancements

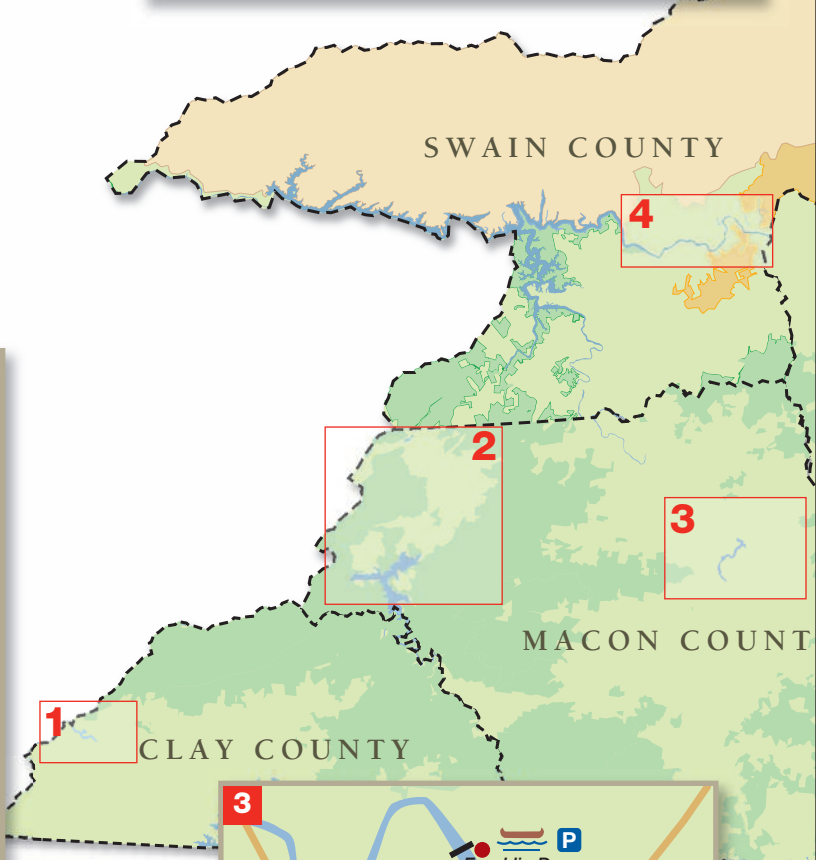
- Add five kayak/canoe access areas with parking along the river and a handicap accessible fishing access area.
- Make land near Nantahala Powerhouse available to the U.S. Forest Service to improve public access for whitewater recreation.
- On eight days during the recreation season, release flows from Nantahala Dam into the old streambed to provide high-skill boating opportunities.
- Increase continuous minimum flows from the Nantahala Project to enhance stream habitat in the highly popular stretch of delayed harvest trout water in the Nantahala River Bypassed Reach.
- Add continuous minimum flows from Whiteoak Dam to enhance aquatic habitat in Whiteoak Creek and downstream into the Nantahala River Bypassed Reach.

Tuckasegee River Enhancements

- Add nine river access areas including a portage around Cullowhee Dam.
- Provide 150 acres of land upstream of Wolf Creek Dam to the U.S. Forest Service to enhance public recreation and restore native brook trout.
- During certain months, schedule generation releases to provide flows to increase paddling opportunities and enhance use and access for one of the most popular catch-and-release stretches in the Southeast.
- On seven days each year, release water from Lake Glenville into the old streambed to provide high-skill boating opportunities. Create a parking area, trail and downstream take-out area to improve access.



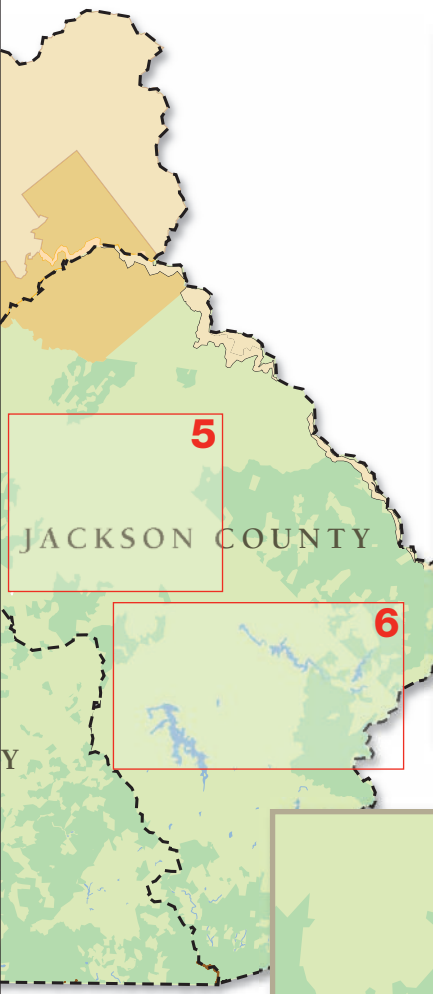
Relicensing Enhancements* in the Nantahala and Tuckasegee Regions






Legend

Access Area	Canoe/Kayak Portage	Dock	Lighting	Primitive Campsite
Boat Ramp, New or Enhanced	Dam	Fishing Area	Parking	Swimming Area
Canoe/Kayak Access Area	Dam Removal	Handicap Accessible	Picnic Area	Toilet Facilities

* The maps show planned enhancements, not all existing recreation amenities.



-  Trail
-  Trash Collection
-  Wildlife Viewing Area or Platform

Enhancements at Reservoirs

East Fork Project

- **Tanasee Creek Lake (40 acres)** — Add a tote-and-float boating access area with parking. Add a day-use area with parking and picnic sites as well as trails to U.S. Forest Service fishing and camping sites. Add a wildlife viewing platform.
- **Wolf Creek Lake (183 acres)** — Provide funding to the U.S. Forest Service to support primitive campsites. Add a wildlife viewing area and enhance the boating access area with added lighting, a dock, pump-and-haul-type toilet facilities, and trash collection. Provide continuous minimum flow into the Wolf Creek Bypassed Reach and add a fishing access trail to this Reach.
- **Bear Creek Lake (476 acres)** — Provide funding to the U.S. Forest Service for primitive campsites. Enhance Bear Creek Access Area by paving the entry road and parking area and adding lighting, a wildlife viewing platform, pump-and-haul-type toilet facilities, trash collection, barrier-free dock, bank fishing, and an upgraded boat access.
- **Cedar Cliff Lake (121 acres)** — Add lighting and a wildlife viewing platform to the Cedar Cliff Access Area.

West Fork Project

- **Lake Glenville (1,462 acres)** — At Pine Creek Access Area, add pump-and-haul-type toilet facilities, barrier-free dock, trash collection and lighting. At Powerhouse Access Area, add pump-and-haul-type toilet facilities, barrier-free dock, trash collection, lighting, and a public bank-fishing area. Add a public swimming area with a fishing access trail and parking. Add a wildlife viewing platform. Modify the generation schedule to keep the lake level higher during summer months and improve downstream whitewater recreation. Modify generation to keep the Lake stable during fish spawning.
- **Tuckasegee Lake (8 acres)** — Add parking, a boat take-out and fishing trail upstream from Tuckasegee Lake along the West Fork Tuckasegee River.

Nantahala Project

- **Nantahala Lake (1,605 acres)** — Provide funding to the U.S. Forest Service to support of primitive campsites. Add a wildlife viewing platform and, at the Big Choga and Rocky Branch Access Areas, pave the parking lots, add lighting, fishing access, trash collection, and pump-and-haul-type toilet facilities. Modify the generation schedule to keep the Lake higher during summer months, enhance downstream whitewater recreation, and attempt to stabilize the lake level during fish spawning season.

Bryson Project

- **Lake Ela (38 acres)** — Provide a canoe portage and a handicap accessible fishing access area in the tailrace. Add wood duck boxes around the Lake.

Franklin Project

- **Lake Emory (174 acres)** — Add a canoe portage around the dam with parking and a downstream access area. Add a boat put-in, parking, and handicap accessible fishing on the Lake. Add wood duck boxes and protect the existing stand of Virginia spiraea around the Lake.

Mission Project

- **Mission Lake (47 acres)** — Add a canoe portage around the dam with parking and a downstream access area. Add wood duck boxes around the Lake and a greenway hiking trail along a portion of the abandoned Peavine Railroad adjacent to the Lake.



Settlement Agreement Parties

Tuckasegee Cooperative Stakeholder Team

- American Whitewater Affiliation
- Bear Creek and Cedar Cliff Lake Residents
- Carolina Canoe Club
- Dillsboro River Company
- Duke Energy Carolinas, LLC
- Eastern Band of Cherokee Indians
- North Carolina Council of Trout Unlimited, Inc.
- North Carolina Department of Environment and Natural Resources and its Division of Water Resources, Division of Parks & Recreation, and Division of Water Quality
- North Carolina Wildlife Federation
- North Carolina Wildlife Resources Commission
- Signal Ridge Marina
- Swain County Economic Development Commission
- Town of Dillsboro
- Town of Sylva
- Tuckasegee Gorge Association
- United States Fish & Wildlife Service
- United States Forest Service

Nantahala Cooperative Stakeholder Team

- American Whitewater Affiliation
- Big Choga Homeowners Association
- Carolina Canoe Club
- Duke Energy Carolinas, LLC
- Eastern Band of Cherokee Indians
- Mountain Shadows Homeowners Association
- Nantahala Community
- Nantahala Gorge Association
- Nantahala Highlands Estates Property Owners Association
- Nantahala Outdoor Center
- Nantahala Racing Club
- Natural Resources Conservation Service
- North Carolina Council of Trout Unlimited, Inc.
- North Carolina Department of Environment and Natural Resources and its Division of Water Resources, Division of Parks & Recreation, and Division of Water Quality
- North Carolina Wildlife Federation
- North Carolina Wildlife Resources Commission
- Southwestern North Carolina Resource Conservation & Development Council
- Swain County Economic Development Commission
- Swain County Soil & Water Conservation District
- United States Fish & Wildlife Service
- United States Forest Service



Contact

For more information, updates and other relicensing news, see www.duke-energy.com/lakes/nantahala/hydroelectric-relicensing.asp or you can contact us by e-mail at nanta.area.relic@duke-energy.com.

