

# Lake Norman Perspective

## Catawba-Wateree Comprehensive Relicensing Agreement (CRA)

### Background

Cowans Ford Dam created the largest manmade body of fresh water in North Carolina when Duke Energy dammed the Catawba River in 1963. The total length of the facility is 7,387 feet, including more than a mile of earthen dam. The concrete portion of the dam is 1,279 feet long and 130 feet high. Lake Norman is an "inland sea" with 538 miles of shoreline and a surface area of more than 32,475 acres. Named after former Duke Energy president Norman Cocks, Lake Norman is nearly as large as the other ten lakes on the Catawba combined.

Full pond elevation at Lake Norman is 760 feet above mean sea level. The water of Lake Norman is used in two ways to provide electricity to the Piedmont Carolinas. It is used to power the generators at Cowans Ford Hydroelectric Station and also to cool the steam that drives the turbines at Marshall Steam Station and McGuire Nuclear Station. The lake provides a dependable supply of water to Lincoln County, Mooresville and Charlotte-Mecklenburg, North Carolina and provides 40 percent of the total usable water storage in the eleven-lake system. Lake Norman (along with Lake James) serves as a vital "shock absorber" to the lake system to lessen the impacts of drought and high water events on the other reservoirs.

Duke Energy partnered with the state in the establishment of the Lake Norman State Park. In

addition, Duke Energy has built two bank fishing areas and eight public boating access areas along the shoreline. One site is leased to Mecklenburg County, one site to Iredell County and one site to Lincoln County. The boating facilities at the Duke Energy-owned access areas are managed in cooperation with the North Carolina Wildlife Resources Commission.

### Interests addressed in the CRA

**1. Lake Level Ranges** – Lake level ranges (located in the adjacent chart) have been established to protect fish habitat, public water system, industrial and power generation water intakes,

Lake Norman Elevations (in feet on the 1st of the month)				
Month(s)	Existing Guide Curve	Minimum	Target	Maximum
Jan	96	93	96	100
Feb	94	91	94	100
Mar	92	92.26	95.26	100
Apr	94	93.65	96.65	100
May	96	95	98	100
Jun – Sep	98	95	98	100
Oct	97.67	95	98	100
Nov	97.33	93.98	96	100
Dec	97	93	96	100
Dec 31	96	93	96	100

recreation access and aesthetics. Ranges are bounded by normal minimum and normal maximum elevations with a normal target elevation

in between. For Lake Norman the normal target lake level is seasonal and ranges from 94 feet to 98 feet.

**2. Drought Management** – As part of the relicensing process, a Low Inflow Protocol has been established to "trigger" water use restrictions by large water intake owners. These water use restrictions apply to hydroelectric generation, public water system withdrawals and flows for recreation and aquatic life.

**3. Public Information Systems for Lake and River Information** – Information including reservoir level ranges, water release times, generation

schedules and maps to public access areas will be provided as a result of relicensing. River paddlers and anglers will have access to information on releases from dams to paddle and fish. Information posted on signs will be provided in English and/or international symbols with signage in Spanish also available immediately downstream of the dams.

**4. Habitat, Water Quality and Land Conservation Enhancements** – Duke Energy will contribute \$1 million to the Habitat Enhancement Fund in each state to support, protect and enhance fish and wildlife habitat and contribute \$4 to \$5.5 million to North Carolina state agencies dependent on the license term for additional land conservation.

### Stakeholders signing the Comprehensive Relicensing Agreement (CRA)

In addition to state resource agencies, Duke Energy and national special interest groups – many representatives of local entities and public citizens around Lake Norman have signed the CRA. These include:

- Catawba County
- Catawba Lands Conservancy
- Catawba-Wateree Relicensing Coalition
- Charlotte-Mecklenburg Utilities
- Centralina Council of Governments
- Iredell County
- Lincoln County
- Mecklenburg County
- North Carolina Wildlife Federation
- Town of Davidson
- Western Piedmont Council of Governments

**5. New and Expanded Public Recreation**

**Facilities/Access** – Recreational enhancements planned for Lake Norman include:

a. *Hunsucker Park* – Lease property to the Town of Catawba for picnic facilities, approximately 0.5 miles of trail, a trailered boat access, and paved or gravel parking spaces.

b. *Lake Norman State Park Management Zone* – Offer the NCDENR a lease for a 300-foot-wide lakebed zone along the shoreline adjoining Lake Norman State Park.

c. *Mountain Creek Park* – Provide a \$1,900/acre discount toward the acquisition of up to 600 acres of property by Catawba County for public recreation and compatible permanent conservation at the mouth of Mountain Creek. Facility development may include a canoe/kayak launch, trails, bank fishing, campgrounds, swimming, restrooms and other water-based recreation facilities to be developed and managed by Catawba County.

d. *Beatty's Ford Access Area* – Provide picnic facilities, a fishing pier, swimming area, restrooms, and shade trees and offered for lease to Lincoln County.

e. *Hagers Creek Access Area* – Market the site to commercial operators for development of a multi-use recreation area including, but not limited to, trails, fishing, picnic areas, boat access, RV camping with bathhouse and dump station, marine pump-out, restrooms and additional paved parking.

f. *Lake Norman Trails Planning Assistance* – Provide technical assistance to facilitate any needed bicycle route crossings.

g. *Stumpy Creek Access Area* – Provide a fishing pier, picnic area, walking trail, restrooms

and additional paved parking and offered for lease to Iredell County.

h. *Little Creek Access Area* – Provide restrooms, a fishing pier, paved parking spaces and a picnic shelter.

i. *Lake Davidson Park* – Provide funding up to \$130,000 to the Town to develop a canoe/kayak launch and fishing pier at Lake Davidson Park.

j. *Island Point Access Area* – Market this site of approximately 140 acres to commercial businesses for development of a multi-use recreation area including, but not limited to trails, bank and/or pier fishing, picnic facilities, swimming, RV camping with bathhouse and dump station, boating access facilities, restrooms and marine pump-out.

k. *Cowans Ford Dam Portage and Overlook* – Provide a portage, reservoir overlook with park benches and approximately ten-space gravel parking area.

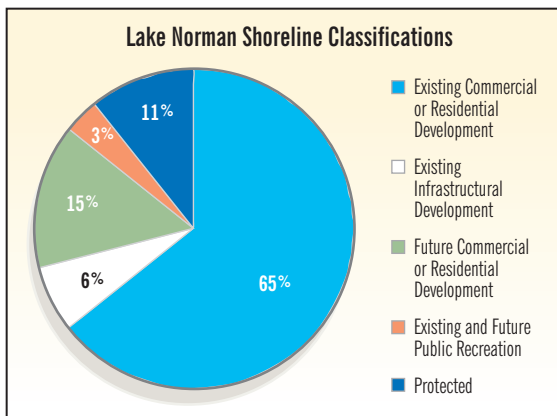
**6. Shoreline Management** – Duke Energy operates a comprehensive shoreline management program on all 11 lakes along the Catawba

and additional paved parking and offered for lease to Iredell County. The updated SMP and SMG have been implemented in September 2006. The SMG provide rules on what facilities are allowed and how they can be built/constructed/maintained. Overall, the update to the SMP has resulted in more refined shoreline mapping and additional restrictions on construction activity within the project boundary of the reservoir. The SMP is a series of maps with shoreline classifications denoting locations where piers, marinas, excavations and shoreline stabilization within the project boundary either already exist or can take place. Each shoreline classification has a separate set of restrictions and allowed activities.

**7. Public Drinking Water Supply and Water Conservation Programs** – Water is vital to life and drives our region's economy and way of life. However, Catawba-Wateree relicensing process studies indicate demands for water will more than double over the next 50 years. A group of approximately 20 water supply experts,

including Duke Energy, have outlined water management objectives, identified tangible projects to protect our water supply and proposed a voluntary water conservation fund to finance these projects. The money will come from contributions paid by Duke Energy and other members of the Catawba-Wateree Basin Water Management Group.

Contributors to the voluntary fund will determine the timing and priority of projects.



River. Duke Energy's program depends on the Shoreline Management Plan (SMP) and Shoreline Management Guidelines (SMG) to bal-



**CONTACT**

For more information and updates and other relicensing news, contact Duke Energy at [www.duke-energy.com](http://www.duke-energy.com).