

Why does Duke Energy “run” the Catawba-Wataweg River and Lakes?

Hydro Relicensing Process and the Comprehensive Relicensing Agreement



CWWMG Citizens' Water Academy – Session 3, January 18, 2022

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Topics

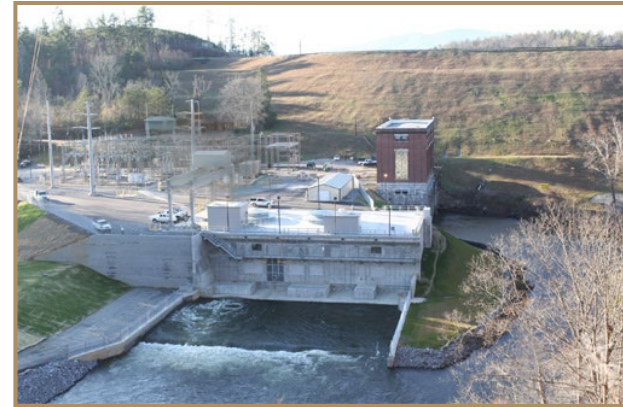


➤ **The Catawba-Wateree Hydro Project (FERC No. 2232)**

- ✓ Answering the Question
- ✓ Hard Working River
- ✓ Original License

➤ **Relicensing Process**

- ✓ Goal
- ✓ People / Interests
- ✓ Issues / Science



Bridgewater Hydro Stations– Lake James

➤ **Comprehensive Relicensing Agreement (CRA)**

- ✓ Benefits
- ✓ Parties

➤ **What if Hydro Relicensing began Today?**

➤ **Q&A**

In the Beginning, There was Water



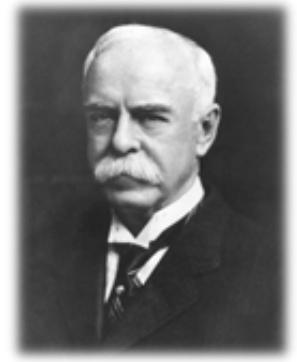
In **1899**, James Buchanan Duke (b. Durham, NC) organizes the American Development Company and begins acquiring land and water rights along the Catawba; *financial vision*

April 30, 1904 -- Catawba Hydro Station, located in York County, SC, begins operation. This is our first generating station and is considered the birth date of Duke Power Company (now Duke Energy Carolinas).



William States Lee, Sr. (left, b. Lancaster, SC) was company's first engineer; *vision for inter-connected grid*

Dr. Walker Gill Wylie (right, b. Chester, SC) was company's first president; *vision for the Catawba hydro stations*



➤ **First river in US comprehensively planned / developed for electricity production (lakes built 1904 – 1963)**

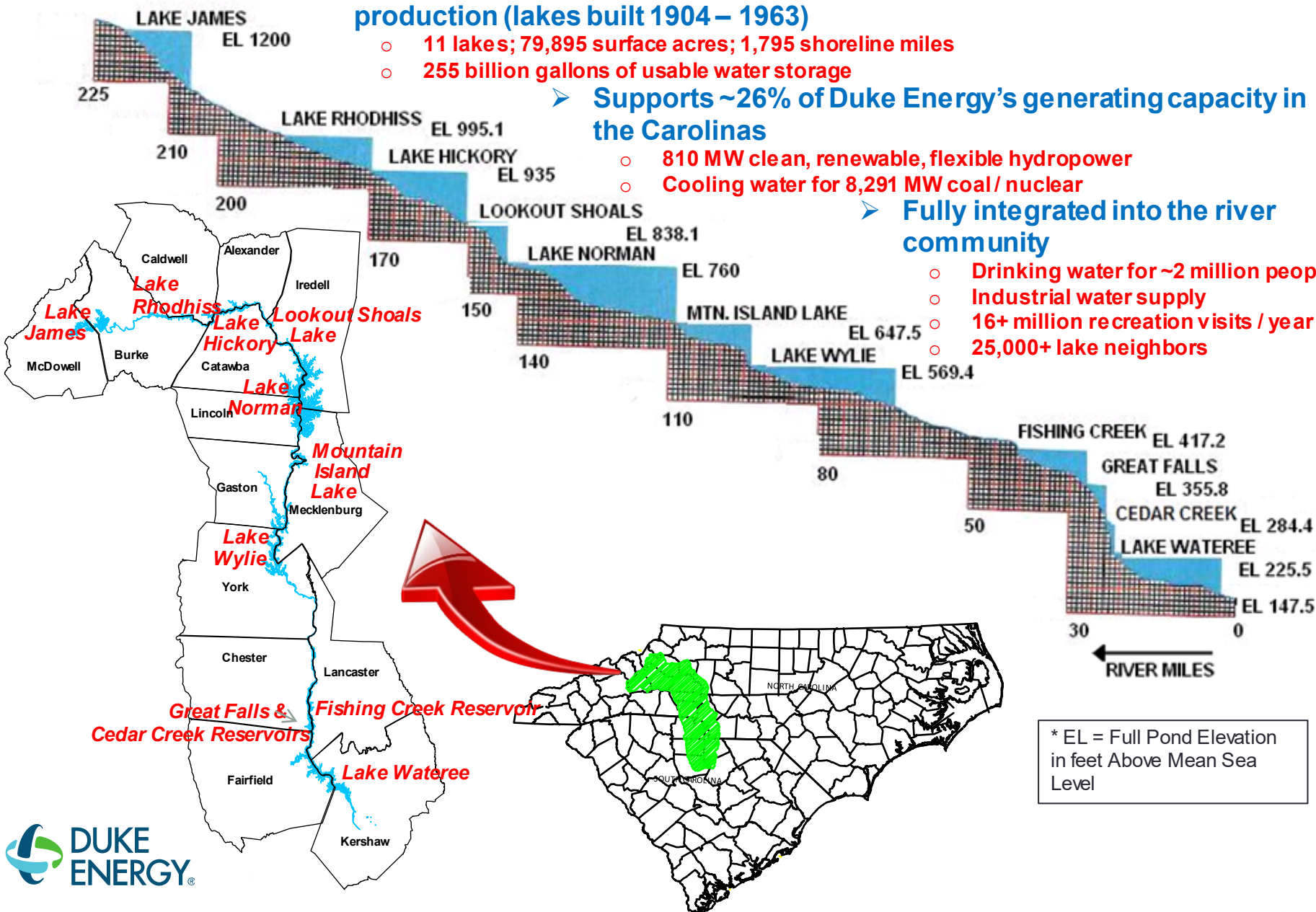
- 11 lakes; 79,895 surface acres; 1,795 shoreline miles
- 255 billion gallons of usable water storage

➤ **Supports ~26% of Duke Energy's generating capacity in the Carolinas**

- 810 MW clean, renewable, flexible hydropower
- Cooling water for 8,291 MW coal / nuclear

➤ **Fully integrated into the river community**

- Drinking water for ~2 million people
- Industrial water supply
- 16+ million recreation visits / year
- 25,000+ lake neighbors



Original FERC License – 1958 - 2008



- **Required**

- Some minimum continuous flows (met by leakage)
- Minimum average daily flows
- Many, high-quality boating access areas
- Some bank fishing areas
- Robust shoreline management and dam safety programs

- **Not Required**

- Lake level limitations
- Flow in bypassed stream reaches
- Recreation flows
- Water quality standards
- Cultural resource management
- Species protection plans
- Fish passage



American shad

➤ **Regulatory / stakeholder relicensing process began 2003**

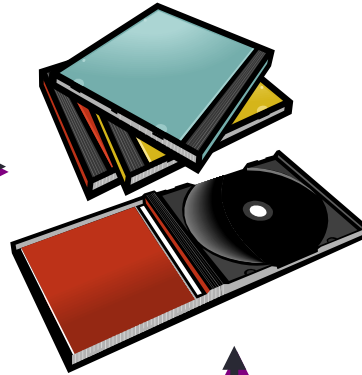
Goal – New License Shaped by Region's Vision for the River

License Application

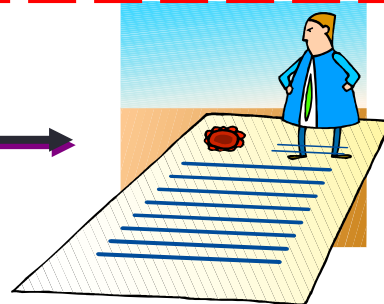
Federal Energy
Regulatory Commission



Regulations

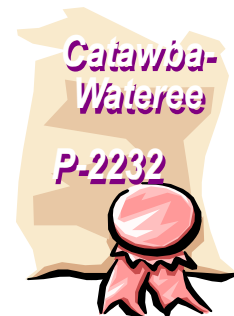


Stakeholders



Comprehensive Relicensing Agreement

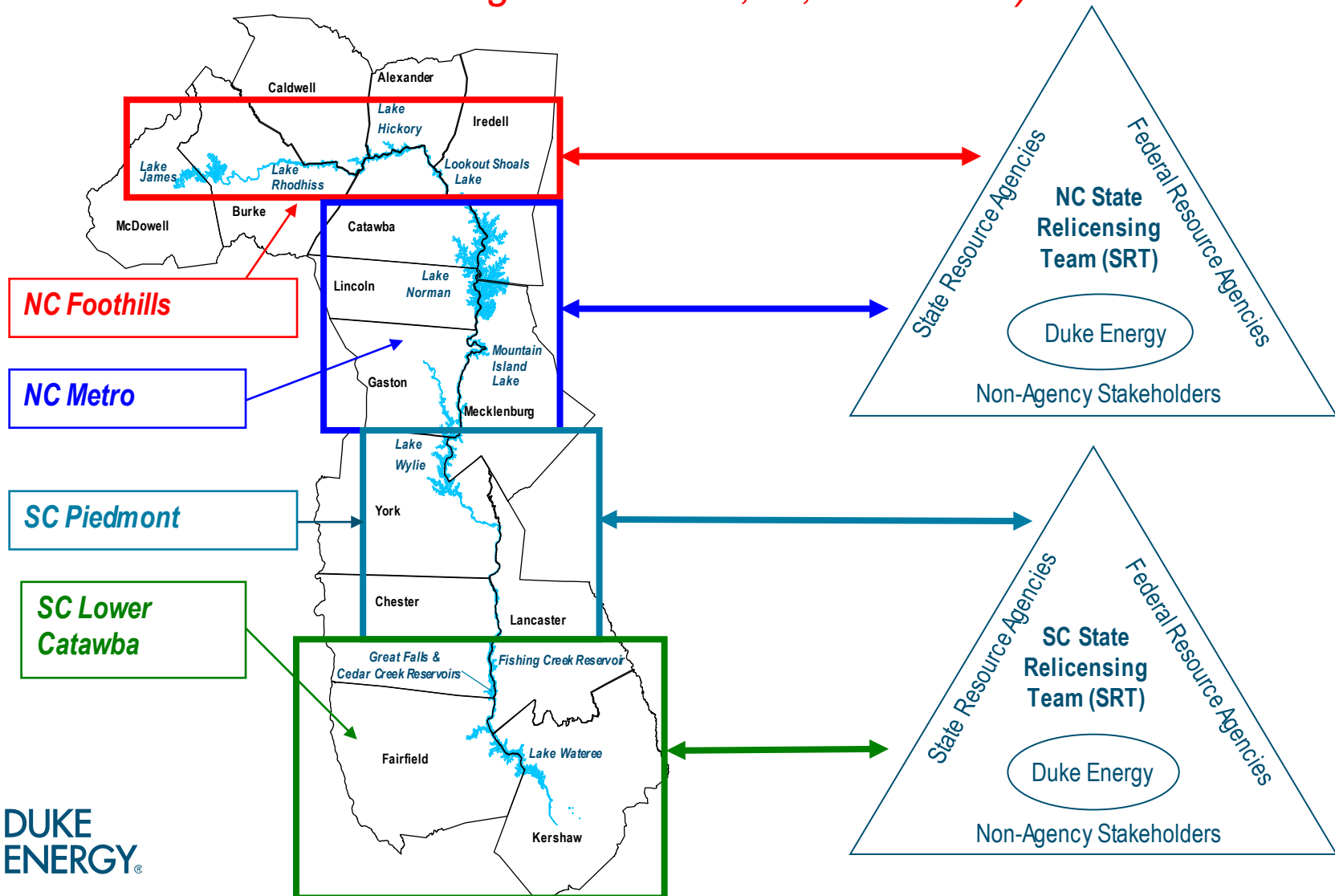
Voluntary enhancement



New License

Relicensing Process – The People

(2,500+ interest statements, 160 members representing 85 organizations, 300+ meetings 2003 - 2006, 15,000+ meals)



Relicensing Process – The Issues



➤ Wildlife

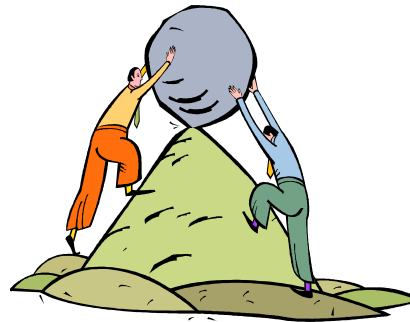
- Rare, Threatened and Endangered Species Habitat Protection
- Aquatic Habitat Improvements
- Fish Passage

➤ People

- Recreation Flows & Facilities
- Cultural Resource Protection
- Land Conservation
- Future Drinking Water & Industrial Needs

➤ Water

- Prescribed Flow Releases
- Lake Levels
- Water Quality Enhancements
- Flood Management
- Drought Management



Careful Balance

➤ Power

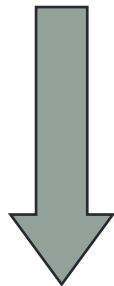
- Continued Hydro Generation with Modern License
- Support Thermal Generation Fleet
- Future Electric Power Needs

Purple = relates to water quantity

Relicensing Process – The Science



568 study requests



31 Studies



1. Study Teams
2. Technical
3. Science is FERC's focus

Most requested studies: water supply and drought management

Relicensing Process – The Science meets The People



70 Parties Signed CRA in Summer 2006

Duke Energy Carolinas, LLC
 Duke Energy Corporation
 Abitibi Bowater
Alexander County, NC
 American Whitewater
 Area II Soil & Water Conservation Districts
Burke County, NC
Caldwell County, NC
 Carolina Canoe Club
Catawba County, NC
Catawba Indian Nation
 Catawba Indian Nation Tribal Historic
 Preservation Office
 Catawba Lands Conservancy
Catawba Regional Council of Governments
 Catawba Valley Heritage Alliance
 Catawba-Wateree Relicensing Coalition
Centralina Council of Governments
 Chester Metropolitan District
City of Belmont, NC
City of Camden, SC
City of Charlotte, NC
City of Gastonia, NC
City of Hickory, NC
City of Morganton, NC
City of Mount Holly, NC
City of Rock Hill, SC

Crescent Resources, LLC
 Foothills Conservancy
Gaston County, NC
 Great Falls Hometown Association
 Harbortowne Marina
 International Paper
Iredell County, NC
Kershaw County, SC
 Kershaw County Conservation District
 Lake James Homeowners
 Lake Wateree Association
 Lake Wylie Marine Commission
 Lancaster County Water & Sewer District
Lincoln County, NC
 Lugoff-Elgin Water Authority
McDowell County, NC
Mecklenburg County, NC
 Mountain Island Lake Association
 Mountain Island Lake Marine Commission
 North Carolina Dept. of Environment and
 Natural Resources (NCDENR) with its
 Divisions of Forest Resources, Parks
 and Recreation, Water Quality, and
 Water Resources
 North Carolina Wildlife Federation
 North Carolina Wildlife Resources
 Commission

R & N Marina
 South Carolina Dept. of Archives and
 History
 South Carolina Dept. of Natural
 Resources
 South Carolina Dept. of Parks,
 Recreation and Tourism
 South Carolina Electric & Gas
 South Carolina Wildlife Federation
 Springs Global US, Inc.
Town of Davidson, NC
Town of Great Falls, SC
Town of Valdese, NC
 Trout Unlimited, Inc.
Union County, NC
 Wateree Homeowners Association –
 Fairfield County
**Western Piedmont Council of
 Governments**
York County, SC
 York County Culture & Heritage
 Commission
 William B. Cash
 Shirley M. Greene
 Frank J. Hawkins
 Timothy D. Mead
 Merlin F. Perry
 Joseph W. Zdenek

Green = 27 Local Governments and Tribes

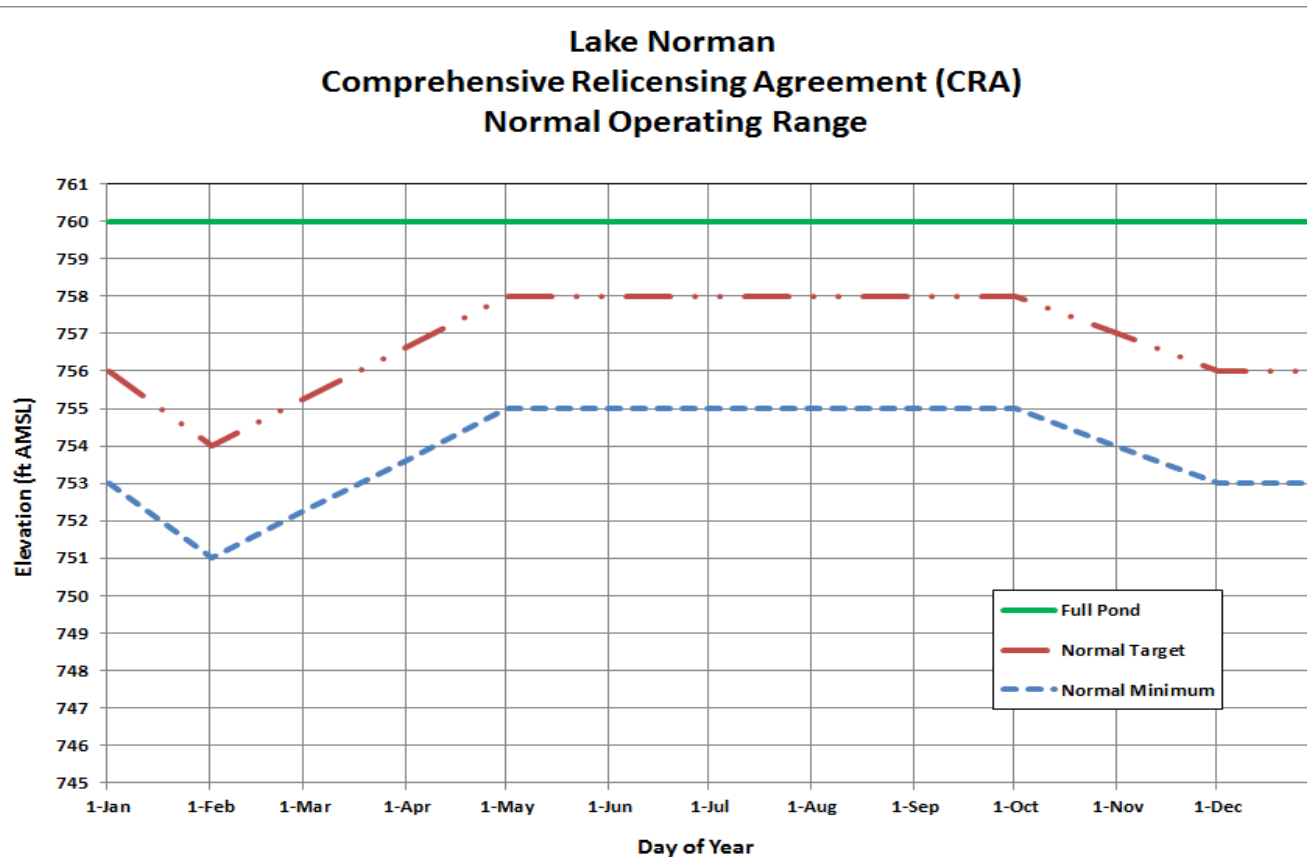
CRA Benefits – Reservoir Levels, Flows & Water Quality



- **New seasonal Normal Operating Ranges** for each reservoir
- **New continuous flow releases** into the Catawba River Bypassed Reach (James), the Great Falls Long Bypassed Reach, and the Great Falls Short Bypassed Reach
- **Higher continuous minimum flow releases** at Bridgewater (James), Oxford (Hickory), and Lookout Shoals, Wylie and Wateree
- **New scheduled recreation flow releases** at Bridgewater (James), Oxford (Hickory), Wylie, Great Falls and Wateree
- **Increased aeration capabilities** at Bridgewater (James), Rhodhiss, Oxford (Hickory), Lookout Shoals, Wylie and Wateree



Example Normal Operating Range for Lake Levels



Get real-time lake levels at:
www.duke-energy.com/lakes/levels.asp
 or toll-free at 1-800-829-5253

Key Observations

- Lake level will be in Normal Operating Range if not in drought (Low Inflow Protocol), major maintenance or emergency (Maintenance & Emergency Protocol)
- With reasonable rainfall, we'll be in this range most of the time (e.g., above 755 ft over 90% of time on Lake Norman)

CRA Benefits – Recreation & Land Conservation

- **\$13.1M in funding and price reductions for purchase/protection of 5,371 acres in NC and SC**
- \$3M and 2,455 acres (donated or under easements) to state agencies for recreation and land conservation
- 2,558 acres for upper Catawba public access, open space, and trails
- Over \$4 million for others (primarily local governments) to develop recreational amenities
- 89 new/enhanced public recreation areas



Black Bear Access Area - James

CRA Benefits – Other



- **The Catawba-Wateree Water Management Group (CWWMG)**
- **Low Inflow Protocol (LIP), including forming the Drought Management Advisory Group (CW-DMAG)**
- **Flood management improvements at Wateree Dam**
- Over \$600,000 for cultural resources protection and enhancement
- Public information enhancements



Other Related Settlement Agreements

- Upper Catawba Public Access, Open Space and Trails Agreement
 - Signed April 2008
 - NC Department of Environment and Natural Resources, Crescent Resources, Duke Energy
- Santee River Basin Accord for Diadromous Fish Protection, Restoration and Enhancement (Accord)
 - Signed May 2008
 - SC Department of Natural Resources, US Fish and Wildlife Service, NC Wildlife Resources Commission, SC Electric & Gas, Duke Energy
- SC Water Quality Certification Settlement Agreement
 - Signed May 2010
 - SC Attorney General, Duke Energy
- Settlement Agreement for the SC v NC Supreme Court Case No 138, Orig.
 - Signed December 2010
 - SC Attorney General, NC Attorney General, Catawba River Water Supply Project, Duke Energy
- Settlement Agreement Resolving the South Carolina Water Quality Certification
 - Signed July 11, 2014
 - South Carolina Department of Health and Environmental Control, American Rivers, South Carolina Coastal Conservation League, Duke Energy

So Was the Effort Worth It?

Jeff's Answer: Absolutely!



Photo by Charles Corte - UPI

"Alone we can do so little, together we can do so much."

Helen Keller

- New License issued November 25, 2015 provides business “*certainty*” for 40 years
- Sustainable water supply
- Exceptional public recreational enhancements
- Environmental impacts addressed
- Community partnerships

If Relicensing Started Today, Would it be Different?

- **The Process**

- Likely Integrated Licensing Process (ILP)
- **Much less** paper
- Otherwise, very similar

- **Negotiations**

- Affirmation of 50-yr license support
- Some next level engineering plans



- **The People**

- Similar organizations
- Different individuals
- **Lost value of face-to-face communications**
- Social media – resource or scourge?

What Sustains a Collaborative Approach?

- Regular, meaningful communications (active listening, constructive speech)
- Focus on interests, not positions
- Statesmanship – Shared resource = shared responsibility
- Disagreeing without being disagreeable



CWWMG 1st Meeting – 12/6/2007

Questions?



Cowans Ford Dam (Lake Norman) under Construction