

CATAWBA
WATEREE
WATER MANAGEMENT GROUP

Introduction to Catawba-Waterree Water Management Group

Jimmy Bagley, Chair

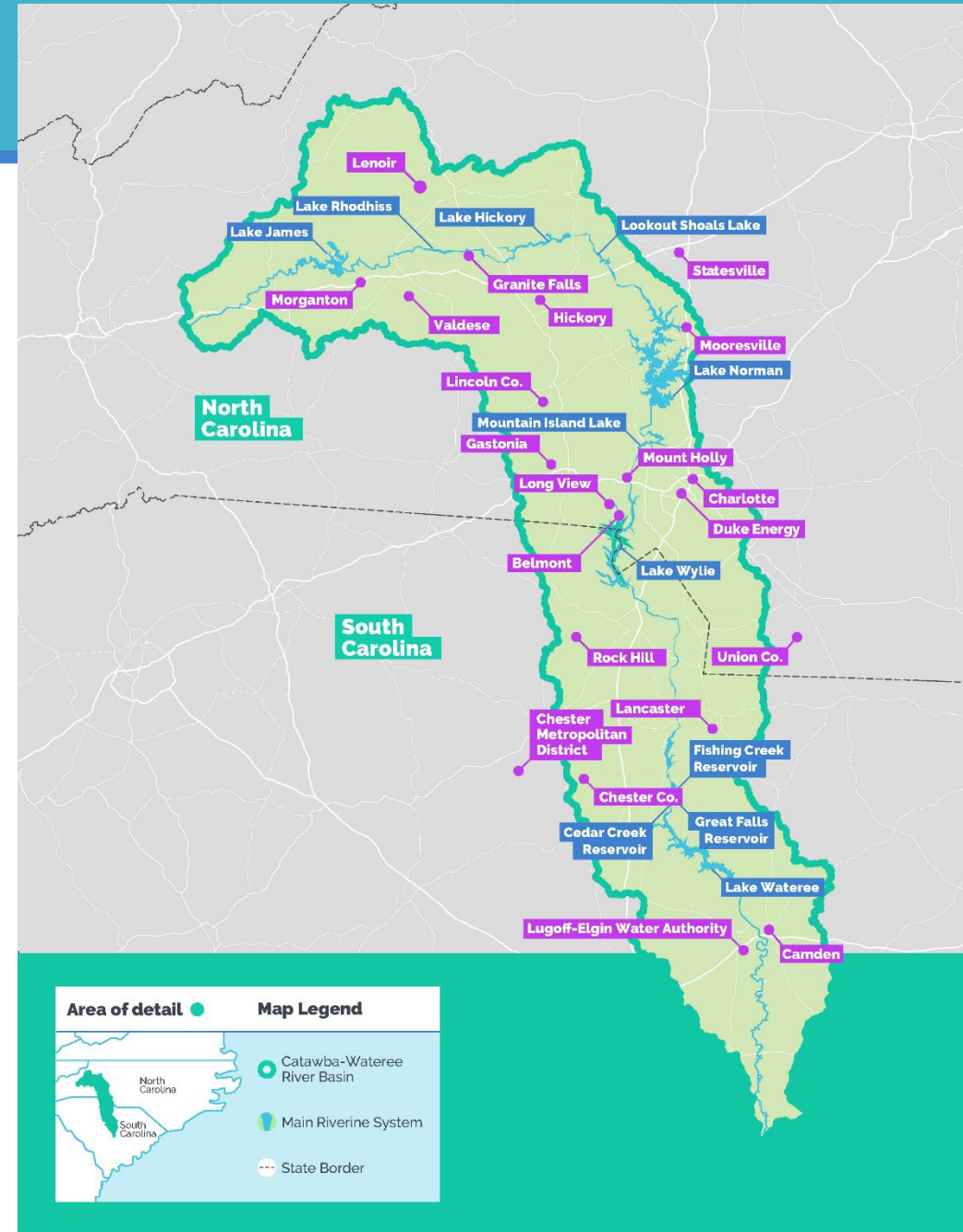


Catawba-Wateree Water Management Group is a non-profit corporation working to extend and enhance the capacity of the Catawba and Wateree Rivers to meet human needs while maintaining the ecological health of the waterway

www.catawbawatereewmg.org

Our Basin, Our Team

- Approximately 2 million people
- 4,750 Square miles
- 300 River miles
- 11 Interconnected reservoirs
- 13 Hydropower stations
- Nuclear & coal power stations
- 18 Public water suppliers



Who Can Be CWWMG Members?

- Licensee of the Catawba Project (Duke Energy)
- Any water utility operating within the Catawba-Waterree River Basin
- Any water utility using water from the Catawba-Waterree River Basin to serve customers in other river basins
- Any member of the Catawba-Waterree Drought Management Advisory Group including commercial entities that own a water intake or water treatment facility or a water distribution system partially or totally within the Catawba-Waterree River Basin

2021 Membership

Our Members

Catawba River Water Treatment Plant (Union County, NC; Lancaster County Water & Sewer District, SC)

Chester Metropolitan District, SC

City of Belmont, NC

City of Camden, SC

City of Charlotte, NC

City of Gastonia, NC, Two Rivers Utilities

City of Hickory, NC

City of Lenoir, NC

City of Morganton, NC

City of Mount Holly, NC

City of Rock Hill, SC

City of Statesville, NC

Duke Energy Carolinas, LLC

Lincoln County, NC

Lugoff-Elgin Water Authority, SC

Town of Granite Falls, NC

Town of Mooresville, NC

Town of Valdese, NC

Organization

- 501(c)(3) Corporation
 - Officers elected annually
 - 2022 Officers
 - Jimmy Bagley, City of Rock Hill, SC
 - Jeff Lineberger, Duke Energy
 - Ron Hargrove, Charlotte Water
 - Ray Peterson, City of Camden, SC
 - Allison Kraft, City of Mooresville, NC
 - Bylaws prescribe organization, governance, and operation
 - Self assessments on regular intervals
- Chair
Vice-Chair
Secretary/Treasurer
S.C. Director at-Large
N.C. Director at-Large

A Bit of History

- Incorporated in December 2007 after nearly two years of planning
- Outgrowth of Duke Energy FERC Relicensing Stakeholder Process from 2003 through 2006
- Creation of CWWMG resolved conflict between Duke Energy and water utilities over water withdrawal fees
- Incentives to be successful provided for in bylaws
- Bylaws updated in 2020 expanding coverage area

Our Work

We are committed to work based on:

- **Sound science**
- **Affordable engineering**
- **Existing technology**
- **Maintaining quality of life and economic viability for the region**

We deliver on this Mission through an Annual Strategic Focus



Leverage strategies of the WSMP to effectively protect, preserve and increase awareness of our water supply, and encourage practices that support extending our supply into the next century.



Identify and execute a series of research and technical projects that directly serve CWWMG members and address regional issues requiring leadership and vision.



Promote CWWMG's brand, visibility and reputation by providing the highest quality research, data and support, and communicating often with a wide range of community partners.

Water Resources Planning

- It's a ***process*** – not an event!
- Undertaken voluntarily – no regulatory mandate
- Voluntary implementation
- Multiple phases/components
 - Safe Yield Research Project – Establish credibility of modeling & assumptions
 - Water Quantity – Extend safe yield capacity beyond year 2100
 - Water Quality – Understand future of source as drinking water supply
 - Source Water Protection – Identify and participate in protection of priority watersheds
 - Economics – Document value of the water supply, role in the economy
 - Communication and implementation
- Update at regular intervals
 - Water Supply Master Plan Update (Integrated Water Resources Plan) currently underway

Proactive Planning for Water Supply Shortages

- Raw Water Intake Contingency Planning
 - Vulnerabilities, partnerships, alternatives, options
- Lakefront Smart Irrigation Study
 - Potential water savings through technology
- Benchmark Conservation Practices
 - Build toolbox of options for effective conservation
- Low-inflow Protocol Response Evaluation
 - Document effectiveness of drought response

Reducing Water Loss

- Regional Water Audit Workshop (Complete)
 - Introduce principles and practices of water audit
 - Discuss regional implementation
- Regional Water Audit/Revenue Loss Project (On-going)
 - Assist water systems with planning & implementing water audit
 - Develop consistency and confidence in understanding regional water loss
 - Identify and implement cost-effective water loss reduction measures

Understand Issues That Impact Water Supply

- Future water supply quality impacts on drinking water
 - Identify trends and concerns of changes to raw water quality relevant to producing safe drinking water
- Extending safe yield (Water Supply Master Plan)
 - Plan how to extend capacity of supply beyond 2100
- Lake Rhodhiss Tailrace Nutrient Study
 - Examine nutrient levels from Lake Rhodhiss

Establish Communications Network

- Basin Wide Advisory Committee Established
 - Diverse interests and input on CWWMG projects and priorities
 - Communication linkage to other constituencies
- Strategic Communication Plan
 - Framework and tactics for members and CWWMG to use for consistent messaging
 - Social Media presence
- Annual Summit
 - Regional, themed conference focused on current water resources issues
 - Target audience includes policy/decision makers & influencers
- Citizens Water Academy
 - Provide more in-depth background for policy/decision makers and influencers about water resources operations and issues
- Branding materials, website, videos
 - Provide tools for members, recognition for CWWMG

Partner with Other Water Organizations

- Leverages member dues and experience
- Expands boundaries of CWWMG influence and results
- Supported creation of Yadkin-Pee Dee Water Management Group
- Coordinate with other Basin Planning Organizations
- Understand and collaborate on common issues and goals

Funding Partners & Projects

- **USGS** – Ground water level monitoring network
- **NCDEQ, SCDNR, Duke Energy Foundation** – Basin-wide hydrologic modeling
- **Water Research Foundation** – Improving safe yield; prioritizing land conservation
- **US Forestry Endowment** – prioritizing land conservation
- **Duke Energy Carolina** – Smart irrigation project, water audit workshop
- **South Fork Catawba Water Quality Alliance** – transferred funds upon dissolution
- **Carolina Land and Lakes Resource Conservation and Development Council** – Lake Rhodhiss nutrient study
- **SC Rural Water Association** – training workshops

Consulting / Research Partners



- Kearns & West
 - McKim & Creed
 - HDR Engineering
 - Black & Veatch
 - Cavanaugh & Associates
 - Lee Institute
 - Jacobs Engineering
 - Maddaus Water Management*
 - Jon Knight, PhD*
 - UNC-Charlotte*
 - Clemson University*
 - Corona Environmental Consulting*
 - Tamco-BV*
 - Jordan, Jones, and Goulding
 - RTI International
 - United States Geological Survey (USGS)
 - North Carolina State University (NCSU)
 - Centralina Council of Governments
 - Western Piedmont Council of Governments
 - Catawba Consulting, PLLC
 - Satelytics*
 - Tedderfarm Consulting*
- *Subconsultant

Business / General Services Partners

- Robinson Bradshaw and Hinson
- C. DeWitt Foard and Company
- BigNoise, Inc.
- Hartford Insurance Company
- Hanover Insurance Company
- Truliant Federal Credit Union
- Wells Fargo Bank

Broader Perspectives

- Advisory Committee
 - Individual feedback
 - External perspectives
 - Support CWWMG's mission
 - Strictly advisory in nature
- 5-Year Self-Assessment

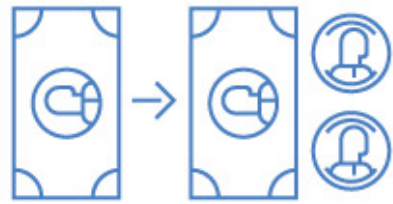
Advisory Committee Members

Academic/Research
Recreation
Local Government
Economic Development
Regulatory/State Government
Residential Landowner
Environment
Industrial or Business Interest
Agricultural or Forestry

Jeff Allen, PHD
Tim Gestwicki
Jason Wager, AICP, CEP
Jeff Burgess
Don Rayno
Shirley Greene
Vicki Taylor
Don Mallett
Mitch Peele/Keith Larick

Show Me the Money!

- Funded by member dues and grants
- Total annual dues \$700,000
- Dues apportioned based on water withdrawals



Over the recent past, for every \$1.00 provided in dues from each member, approximately \$1.50 was provided in return by leveraging research and funding support from others.



Administration costs are only fourteen percent of total organizational expenditures.



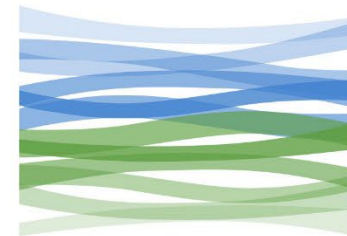
Eighty-six percent of organizational expenditures go directly to projects that benefit the entire Basin.

Keys to Success

- Compelling reason to convene and continue
- Corporate entity allows contracting, grants receipt
- Consistent funding plan
- Relevant and meaningful projects
- Mutual benefits
- Trust
- Shared leadership

Looking Ahead – Issues on the Horizon

- Succession planning for organization leadership
- Potential new members based on 2020 bylaws revision
- Evaluate financial needs, opportunities
- Priority initiatives
 - More engagement in source water protection planning and actions
 - Next phase(s) of Integrated Water Resources Planning process
 - Updates to Master Planning
 - Implementation of projects
 - Education and communication



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Questions?