

CATAWBA
WATEREE
WATER MANAGEMENT GROUP

Catawba-Waterree Water Management Group 10 Years Later

Barry Gullet, PE

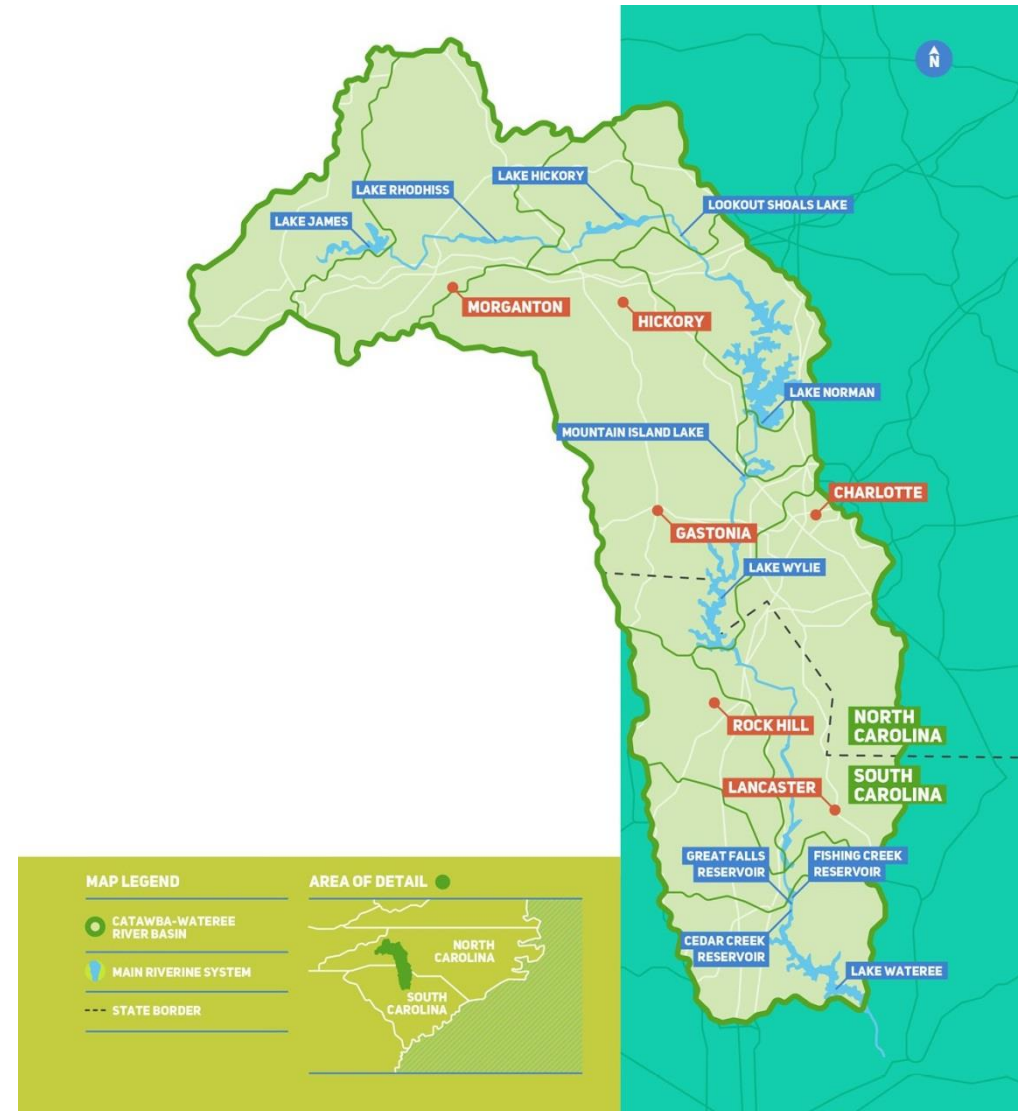


Catawba-Wateree Water Management Group is a non-profit corporation working to extend and enhance the capacity of the Catawba and Wateree Rivers to meet human needs while maintaining the ecological health of the waterway

www.catawbawatereewmg.org

Our Basin, Our Team

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



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 Long View, NC

Town of Mooresville, NC

Town of Valdese, NC

A Bit of History

- Incorporated as a 501(c)(3) in December 2007
- Outgrowth of Duke Energy FERC Relicensing Stakeholder Process from 2003 through 2006
- Creation of CWWMG resolved conflict between Duke Energy and water utilities
- Incentives to be successful provided for in bylaws

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.

Reducing Threats to Safe and Sufficient Water Supply – Water Supply Master 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
 - Economics – Document value of the water supply, role in the economy
- Update at regular intervals

Proactive Planning and Response to 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

Study Issues That Impact Water Supply

- Sediment Monitoring Project (Long –term)
 - Determine impact of sedimentation on usable storage
- 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
 - Communication linkage to other constituencies
- Strategic Communication Plan
 - Framework and tactics for members and CWWMG to use for messaging
- Annual Summit
 - First event focused on nexus between water and economic development
 - Target audience is policy/decision makers & influencers
- 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 efforts and results
- Support creation of Yadkin-Pee Dee Water Management Group
- Convene meetings 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
 - 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

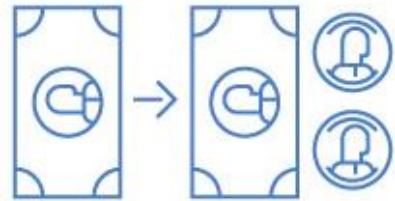
- Advisory Committee
 - Individual feedback
 - External perspectives
 - Support CWWMG's mission
 - Strictly advisory in nature
- 5-Year Self-Assessment

CWWMG Advisory Committee



Show Me the Money!

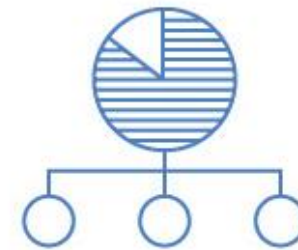
- Funded by member dues and grants
- Total annual dues \$550,000



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.



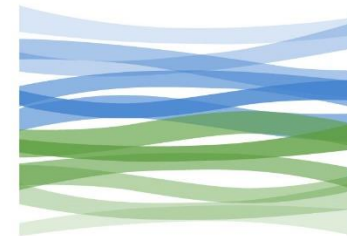
Eighty-six percent of organizational expenditures go directly to projects that benefit the entire Basin.

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 the organization
- Consideration of including additional member organizations
- Evaluate financial needs, opportunities
- New initiatives
 - Citizen's Leadership Academy
 - Next phase(s) of Water Supply Master Planning process
 - Updates to Master Planning
 - Implementation of on-going projects



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Questions?