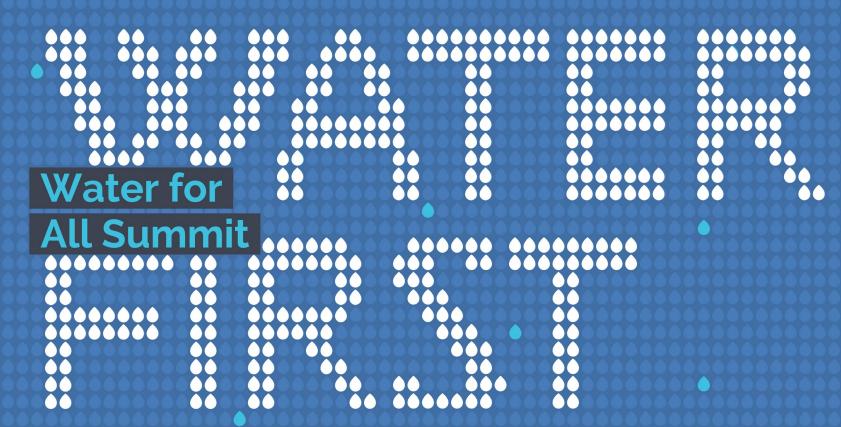
7th Annual Water for All Summit





Year-In-Review

Jimmy Bagley, CWWMG Chair

About CWWMG

Mission

CWWMG's Mission is to identify, fund, and manage projects that will help preserve, extend, and enhance the capabilities of the Catawba-Wateree River Basin to provide water resources for human needs while maintaining the ecological integrity of the waterway.

Membership

- Catawba River Water Supply Project
 - Lancaster
 County Water &
 Sewer District
 (SC)
 - Union County(NC)
- ChesterMetropolitanDistrict (SC)
- City of Hickory (NC)
- City of Belmont (NC)
- City of Camden (SC)

- Charlotte Water (NC)
- City of Gastonia, Two Rivers Utilities (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)

Our Board



Chair
Jimmy Bagley, PE
City of Rock Hill, SC



Vice Chair
Jeff Lineberger, PE
Duke Energy
Carolinas, LLC



Secretary/Treasurer
Ron Hargrove
City of Charlotte, NC



NC At-Large Director
Allison Kraft, PE
Town of Mooresville, NC



SC At-Large Director
Brad Bucy, PE
Lancaster County Water
& Sewer District, SC

Advisory Board



Academic/Research Cal Sawyer



Recreation **Tim Gestwicki**



Local Government Luke Lowry



Economic Development Robert Long



Regulatory/State Government Open



Residential Landowner of Project or River Frontage **Shirley Greene**



Environment Vicki Taylor



Industrial or **Business Interest Wesley Wightman**



Agricultural or Forestry Mitch Peele / Keith Larick



Our Vision

We envision a future with a sustainable water source achieved through proactive planning, cutting edge research, and water shortage preparedness.







Integrated Water Resources Plan





Integrated Water Resources Plan



Five Year Schedule

Year 01

Year **02**

Year 03

Year 04

Year 05

(September-December 2021)

Basis of Planning

2022

Model Updates & Stakeholder Communications 2023

Model Updates and Detailed Evaluations 2024

Final Evaluations and Recommendations 2025

IWRP Production and Roll-out

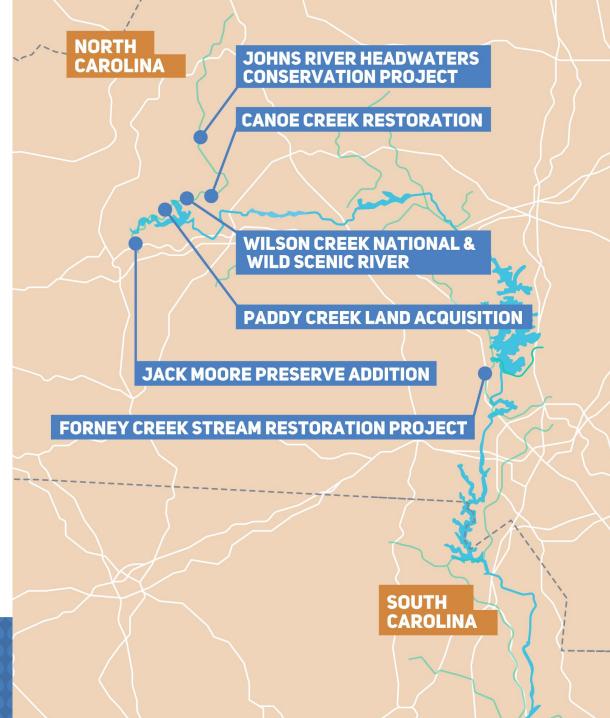
Source Water Protection Investments

In 2023

- Johns River Headwaters Conservation Project | Foothills Conservancy
- Jack Moore Preserve Addition (Hoyle Creek) | Catawba Lands Conservancy

Past Grants

- ◆ Forney Creek Stream Restoration Project | Catawba Lands Conservancy
- ◆ Paddy Creek Land Acquisition | Foothills Conservancy
- Canoe Creek Restoration | Foothills Conservancy of North Carolina
- Wilson Creek National and Wild Scenic River | Foothills Conservancy



Organizations Eligible to Join CWWMG

- Water utilities operating anywhere in the Catawba-Wateree River Basin
 - Includes the South Fork and other tributaries
 - Includes private utility companies
- Water utilities using water from the Catawba-Wateree River Basin to serve customers in other river basins
- Members of the Catawba-Wateree Drought Management Advisory Group including commercial entities that...
 - Own a water intake within the Catawba-Wateree River Basin OR
 - Own a water treatment plant or distribution system within the Catawba-Wateree River Basin

2024 Citizens' Water Academy













Citizens Water Academy 2024 Graduates

Samantha Austin
Charlotte Water

Jon Behrendt City of Charlotte

Hayden Boyd Resident

Nancy Conrad Resident

Kaity D'Angelo Catawba Riverkeeper

> Rob DiTroia Resident

Linda DiTroia Resident Jena Goodman
Gaston County Government

Alex Hall Brown & Caldwell

Terri Martin Charlotte Water

Megan Hinkle
Union County Water

Margot Leydic-Boyd Resident

> Robin McInnis Resident

Julie McLelland
Charlotte Water

Greg Nance Catawba Riverkeeper

Ethan Pardue
Duke Energy

Melissa Patton
Carolina Land and Lakes RC&D

Heather Pressley
Charlotte Water

Lynette Ramsey
Carolina Land and Lakes

Stephen Scott
Charlotte Water

David St. Laurent
Charlotte Water

Laurie Sickles Charlotte Water

Colin Stifler
Charlotte Water

Gail Thomas Resident

Bob Van Dolah Lake Norman Marine Commission

Frances Van Dolah Resident

State of the Basin

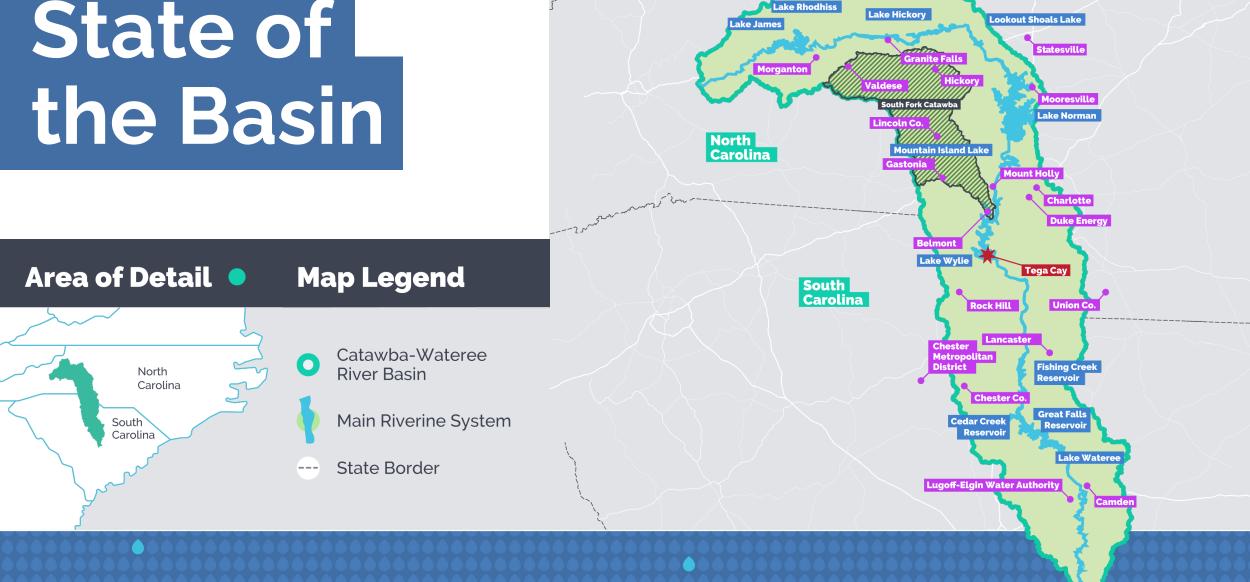
Jeff Lineberger, CWWMG Vice-Chair

State of



Lenoir

State of

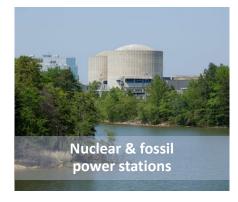


Hardest Working River in America?

Approximately 2 million people get water from the mainstem river/lake system.















The Lakes and Partnerships Enable Much Greater Human Demands Rain Avg. = 46 in/yr Natural surface Surface and evaporation 204 mgd groundwater inflow (all eleven lakes combined) 3,752 mgd 255 BG Usable Storage Natural inflow and natural evaporation are annual averages from hydrology data **Public Water Supply** set used in CHEOPS™ model **111.6 mgd Industrial** -.05 mgd Power 60 mgd

Agricultural/Irrigation

38.6 mgd

Wateree Hydro Station

outflows 3,338 mgd

Water net withdrawal amounts

are for 2022 and total 210 mgd

^{*} mgd = million gallons per day; BG = Billion Gallons.

How We're Putting Water First - Some Examples

Integrated Water Resources Plan

RTI, Univ. Penn. Water Center and HDR
Stakeholder Advisory Team
NCDEQ & SCDHEC
SCDNR

Many Public Recreation Improvements

York County Parks
Tega Cay Parks

Coordinated efforts against invasive species

Lake Norman Marine
Commission
NC State
Funding Partners

Members driving water loss management initiatives

Chester Metropolitan District
Cavanaugh & Associates

Source water protection partnerships

Catawba Lands Conservancy
Catawba Riverkeeper
Foothills Conservancy
Katawba Valley Land Trust

Regional wastewater treatment facility at Lake Wylie

> Charlotte Water Mount Holly Belmont

Updated Shoreline Management Requirements

Shoreline Management Work Group

Inflatable Gates at Wateree Dam

Duke Energy

Investing in Public Recreation – Allison Creek Park – Lake Wylie

Features

- Boat ramps
- Courtesy docks
- RV Park
- Canoeing
- Playground
- Picnicking
- Walking trail
- Fishing pier
- Restrooms
- Bath house
- Lighted parking

Partners

- Duke Energy
- York County



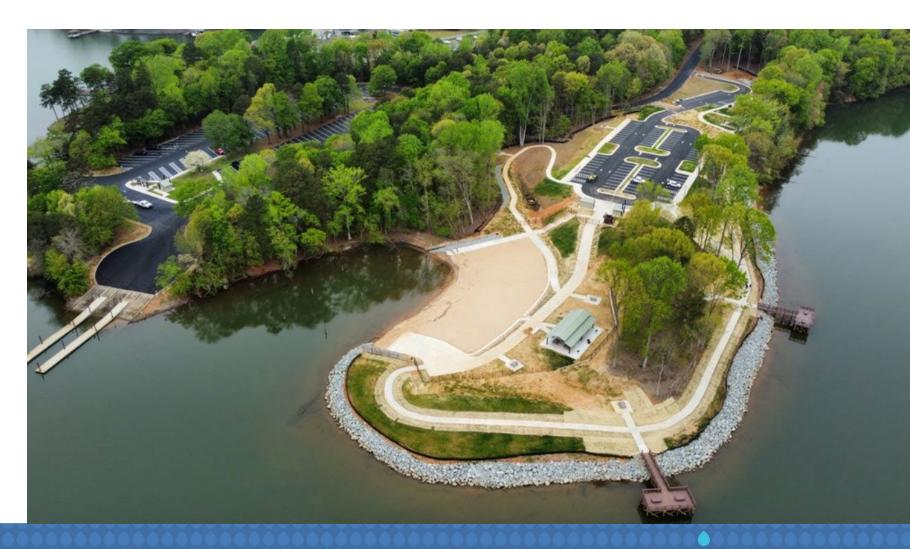
Investing in Public Recreation - South Point Park - Lake Wylie

Features

- Boat ramps
- Courtesy docks
- Walking trail
- Swim beach
- Picnicking
- Fishing piers
- Restrooms
- Lighted parking
- Kayak launch (coming)

Partners

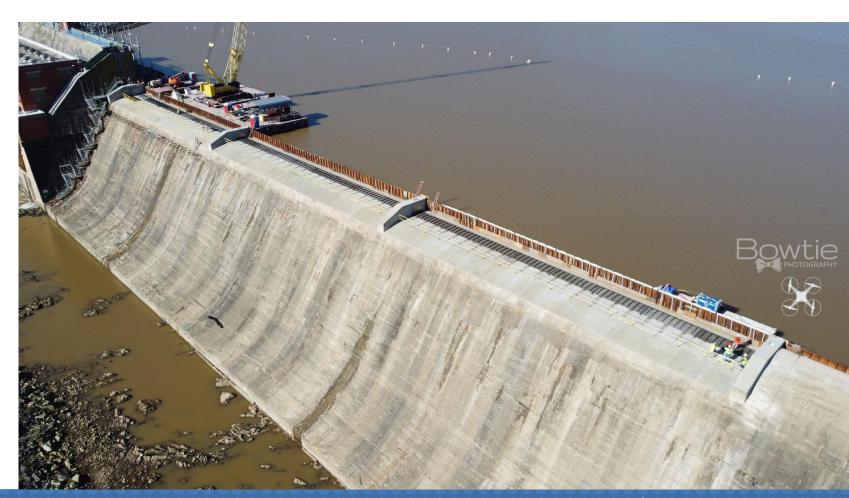
- Duke Energy
- Gaston County
- NC Wildlife Resources Commission



Investing in Water Management - Inflatable Gates at Wateree Dam

Features

- Total spillway = 1,450 ft long, 72.4 ft high
- Inflatable gates
 - Low pressure bladders, hinged steel gates
 - o 3 sections
 - o Each 150 ft long, 4.5 ft high
 - 14,300 cfs flow with lake at full pond
- Target completion is May 1 (two years ahead of schedule)
- Will help manage moderate high-water events



Change is Coming - Is Water First or an After Thought? It's Up to Us



Original Catawba Dam - 1904



Flood of 1916



Wylie Dam Today