

February 16, 2016

Department of Environmental Quality



Water Use Permitting, Management & Distribution: Implications and Limitations

Freshwater in the North Carolina Coastal Plain:
Understanding and Preparing for 21st Century Challenges



Linwood Peele
Division of Water Resources
Department of Environmental Quality

February 16, 2016
Department of Environmental Quality



Water Use Permitting, Management & Distribution: Implications and Limitations

- Water Rights 101 – Basic Understanding
- Water Use Permitting
- Water Use Management & Distribution
- Water Supply Permitting Process
- Challenges

Department of Environmental Quality



3

Water Rights 101: Basic Understanding

Water Rights in NC

- “Riparian Rights” State (Common Law)
 - Riparian property owners have right to “reasonable use” of water
 - “Reasonable use” means that each riparian owner can take, use and discharge water if;
 - Does not adversely affect quantity or quality
 - Maintain in-stream flow at “reasonable” level
 - Impairment often a water quality issue
 - No regulatory protection from other riparian users
 - Courts would have to determine “reasonable use”

Department of Environmental Quality



4

Water Use Permitting

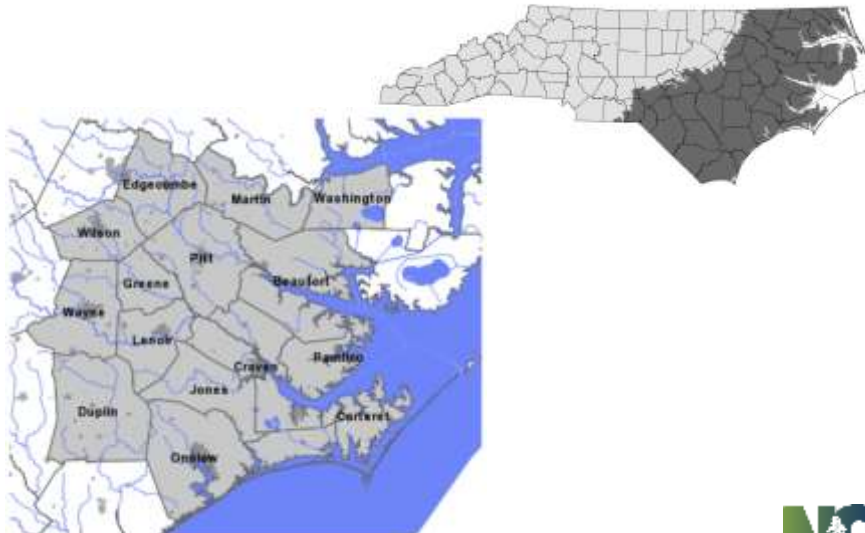
- No State-wide Water Use Permitting Program
- Only State-wide Water Use Registration Program
 - 1 Capacity Use Area in NC – CCPCUA
 - Covers 15 eastern Counties in NC
 - Intended to prevent “de-watering” & salt water encroachment in aquifer
 - Registration required for withdrawals > 10,000 gpd.
 - Permit required for withdrawals > 100,000 gpd
 - 206 active permits at this time
 - Phased reduction of withdrawals also mandated
 - Beginning August 2013 20-50% reductions for certain areas seeing water level decline or salt water intrusion
 - 2018 begins phase 3 reductions of 30-75% from initial base rate

Department of Environmental Quality



5

Central Coastal Plain CUA



Department of Environmental Quality



6

Water Use Management & Distribution

Water Withdrawal Registration Requirements:

- Agricultural users > 1,000,000 gallons any single day
- Non-agricultural users > 100,000 gallons any single day
- G.S. 143-215.22H was established in 1991
- Registrations are required at least every five years
- Registered water users have until April 1st to report water usage for the previous year
- Completing the Agricultural Water Use Survey does not fulfill this reporting requirement

Department of Environmental Quality



7

Water Withdrawal Registration

Department of Environmental Quality



8

Water Use Management & Distribution

- Water Users
 - Agricultural
 - Domestic
 - Energy
 - Industrial
 - Mining
 - **Public Water Supply Systems**
 - Recreational (Golf, Skiing, Water parks, etc.)
- Future Water Users
- Aquatic Wildlife, Habitat and Associated Floodplain



Department of Environmental Quality



9

Water Use Management & Distribution (cont'd)

- Potential Options in the Coastal Plain
 - Maximize use of existing water system
 - Interconnection / Regional System (w/o IBT)
 - **Groundwater sources** (Located outside/inside the capacity use area)
 - Water Storage/Quarry
 - **Expanded or additional surface water intake**
 - Allocation or reallocation of existing water storage in a reservoir
 - Side stream reservoir
 - Mainstem reservoir

Department of Environmental Quality



10

Potential Approvals & Permits Required

- Clean Water Act, section 404 (Federal Permit)
 - EPA/US Army Corps of Engineers
 - Mitigation
- Clean Water Act, section 401 (State Certification)
 - DWR, Water Quality Permitting Section
 - Wetlands & stream losses, mitigation, downstream flow, etc.
- Approval to construct treatment plant/use for public water supply (Federal/State Permit)
 - DWR, Public Water Supply Section

Department of Environmental Quality



11

Potential Approvals & Permits Required (cont'd)

- Water Supply Water Quality Reclassification (State)
 - DWR, Water Planning Section
 - Critical area delineated
 - Water supply watershed protection measures
 - Rulemaking process, 2 years or more
 - Could be started early
- Local Government(s)
 - Required to adopt ordinances for water supply watershed protection, and to mitigate impacts

Department of Environmental Quality



12

Potential Approvals & Permits Required (cont'd)

- NC Dam Safety permit (State Permit)
 - DEMLR, Land Quality Section
 - Often last, since review of actual engineering design
 - Also includes requirements for volume and water quality of downstream release
- Interbasin Transfer Certificate (State Certification)
 - DWR, Water Planning Section
 - Surface waters
 - Range from 3 to 5 year process
 - As applicable

Department of Environmental Quality



13

Challenges to Water Use Permitting

Riparian Rights State

- No comprehensive plan for water quantity management in NC
- No federal oversight of / nor federal requirements for water quantity management
- Pros
 - Less government regulation & permitting
 - Equal right to the water for all “reasonable use”
- Cons
 - No plan to ensure availability of water for future water supply, agriculture, industry, continued economic growth, & ecological health on NC’s water bodies
 - Courts would have to make the determination of reasonable use

Department of Environmental Quality



14

Challenges to Water Use Permitting

- Lack of planning
- Not having scoping meetings with key state and federal agencies before the permitting process began
- Lack of “proper” documentation of need
- Bias in choosing an alternative and site selection
 - Tunnel vision
 - Not the LEDPA
- Threatened & Endangered Species
- Wetlands and streams impacts requiring mitigation
- Environmental Justice

Department of Environmental Quality



15

Challenges to Water Use Permitting

- Fish Passage for Migratory Species
- Interbasin Transfer Certificate
- Water Supply Water Quality Reclassification
 - Concerns from other local governments
- Applicant decisions on study
 - Consultant experience and level of staffing
 - Simultaneous or sequential work?
- Availability of funding
- Need to coordinate with other water systems

Department of Environmental Quality



16

Challenges to NC Water Supply Future

- Water use must be reported (especially large users)
- Need better irrigation data
- Ecological flows needs to be considered
- Monitoring of ground and surface water sources must continue
- Continue to develop & utilize surface water sources
 - Some interbasin transfer issues may arise

- **We must...**

Department of Environmental Quality



17

Manage our limited water supply for sustainability...



Department of Environmental Quality



18

QUESTIONS



Department of Environmental Quality



19

Contact Information



Linwood Peele
Water Supply Planning Branch
Division of Water Resources
919-707-9024
Linwood.peele@ncdenr.gov

Department of Environmental Quality

20