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SC DEPARTMENT of ENVIRONMENTAL SERVICES

SOUTH CAROLINA DEPT. OF COMMERCE

SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

SOUTH CAROLINA DEPARTMENT OF PARKS, RECREATION & TOURISM

SOUTH CAROLINA DEPARTMENT OF AGRICULTURE SCDA 1879

SOUTH CAROLINA OFFICE OF RESILIENCE

The Charge for WaterSC
Executive Order No. 2024-22

- Balance the State's ***economic, environmental, and social needs***;
- Ensure the ***reliability, resiliency, sustainability, and sufficiency*** of the State's water resources ***for all existing and future uses***, while simultaneously ***protecting the environment***; and
- Support and facilitate additional ***collaboration*** with ongoing efforts and existing initiatives.

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WaterSC Guiding Principles

- "Water is a *shared resource* with *shared responsibility*"
- A *collaborative approach* to develop and implement a *science-based actionable plan*
- A plan that *balances economic, environmental and community needs*
- A plan that secures *reliable and resilient* water resources for the *future*

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The WaterSC Working Group: Stakeholder Engagement Plan

- Have a statewide resource-focused approach
- Remain committed to the process
- Serve as a voice and connection for stakeholder sectors and categories
- Provide transparency
- Be collaborative and solution-focused

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The Charge for WaterSC

Executive Order No. 2024-22

- Stakeholder Engagement Plan
  October 31, 2024
- Quarterly updates to the Surface Water Study Committee
- Advise on updated State Water Plan
  December 31, 2025

The WaterSC Working Group: Decision Making Process

- Make decisions by consensus
  - All Members can "*live with*" a decision.
  - Built through interest-based negotiation to satisfy basic interests of all the Members.
- If consensus is unlikely after good-faith negotiation, Chair will allow for majority vote
  - The opposing viewpoint will be documented
  - Who and/or what industries approved/opposed will also be documented

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Topic: Continued Support of Water Planning

Recommendation #1: The State of South Carolina should continue this working group beyond the State Water Plan updating process, and should continue to support ongoing state water planning.

Recommendation #2: SCDES should request and encourage the Legislature to continue funding for state water planning activities, including planning, administration, data collection and research and grants for implementation of water projects.

Recommendation #3: SCDES should also pursue additional funding sources or opportunities from both public and private sectors.

Topics: Interstate/Multi-state Water Management Strategies & Needs for Education and Outreach

Recommendation #4: The State of South Carolina should increase coordination with Georgia and North Carolina on inter-state water management strategies and shared water resources.

Recommendation #5: Develop and implement an intentional Education and Outreach Communication Plan on efficiency of water usage throughout the State.

Action Items

- *Invite SCDES Office of General Council to coordinate with others and share updates on the current state of water reuse in SC and possible strategies to inform further discussions at an upcoming WaterSC Working Session.*
- *Recommend SCDES convene a sub-group of legal and technical experts to discuss differing opinions of the agency's authority/lack of authority to make decisions related to reasonable use. Small group will report back on progress and findings at an upcoming WaterSC Working Session.*
- *Invite SCDNR State Climatologies, Dr. Hope Mizzell, to attend the September WaterSC Working Session to inform the work group's discussion on possible improvements and coordination between the SC Drought Management Act and the SC Surface Water Withdrawal Act.*

Today's Agenda

- Leading the Charge for WaterSC
- Beneficial Water Reuse
- Reviewing & Considering Concepts as Recommendations
- State Water Plan: Draft Chapter Review & Process
- Next Steps

- Lunch is provided for members of WaterSC

Recommendation: Strengthen the Drought Response Program

- Recognizing the importance of preparing for drought
- Understand improvements and actions that could be taken under the existing statutory and regulatory authority
- Consider potential regulatory recommended changes, if needed
- Review Drought Response Committee structure and membership for adequate representation
- Recommend actions to make drought response more effective
  - Including triggers, indicators and actions
- Provide support to assist in updating and implementing the required/local water system Drought Response Plans to be more effective

Recommendation: Surface Water

- Understand actions that could be taken under the existing statutory and regulatory authority
- Periodic Review assessing waste, needs of other users,

- The state of SC

- The State of SC has the obligation to ensure waters of the State are being used responsibly and the health of these waters is adequately maintained for SC citizens.
- To the extent DES has the authority to apply judgement, it should utilize this authority and where it does not, DES should seek legislative authority to fulfill this responsibility, including a periodic review of water permits and registrations.

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ENVIRONMENTAL
SERVICES

Water Reuse Legal Overview

October 8, 2025

Bennett W. Smith, Esq.

SCDES's Existing Statutory Authority (1)

Statute	Authority	Code Section
Pollution Control Act	To permit wastewater discharges	§ 48-1-100
	To permit construction of disposal systems for industrial waste and sewage	§ 48-1-100
	To adopt water quality standards	§ 48-1-40
	To adopt effluent control regulations, standards, and limitations.	§ 48-1-50(23)
	See also: statutory definitions of "sewage," "industrial waste," and "pollution"	§ 48-1-10

SCDES's Existing Statutory Authority (2)

Statute	Authority	Code Section
SCDES's enabling act	Creation of SCDES and transfer of relevant authorities previously granted to SCDHEC	§ 48-6-10, § 48-6-20
	To adopt regulations providing for classification of waters	§ 48-6-60
State Safe Drinking Water Act	To permit construction and operation of public water systems, inclusive of distribution systems	§ 44-55-40(A)
	To adopt regulations for well construction and operation, including underground injection wells	§ 44-55-40(O), § 44-55-20(16)

State Safe Drinking Water Act (SDWA)

- Overarching requirements relevant to concept of "potable reuse":
  - The SDWA requires provision of safe and potable water by public water systems, and prohibits unprotected cross-connections between public water systems and "any other water system". S.C. Code Ann. § 44-55-40(D).
    - See also: definitions of "contamination" and "cross-connection", S.C. Code Ann. §§ 44-55-20(5)&(6).
  - Purpose of SDWA well regulations is "to ensure that underground sources of drinking water are not contaminated by improper well construction and operation". S.C. Code Ann. § 44-55-40(O).

Key Points on Statutory Authority

- SCDES has clear authority to regulate wastewater discharges and to permit construction of wastewater disposal systems; to adopt regulations addressing effluent quality and water quality standards; and to regulate public water systems that supply water for public consumption.
- The SC General Assembly has not passed an act specifically addressing appropriate types of water reuse (including potable reuse). It also has not enacted legislation charging SCDES with developing permitting procedures and standards for water reuse projects as a separate category of activity, rather than generally applicable standards for other activities such as wastewater discharges.

Current Regulations – Irrigation, etc.

- Generally, treated wastewater can be discharged to the environment in accordance with S.C. Code Ann. Regs. 61-9, Water Pollution Control Permits. This has allowed for permitting of some projects where treated wastewater is reused for an environmental purpose, such as wetland protection.

- Use of highly treated, reclaimed wastewater currently can be permitted for irrigation of golf courses and some public spaces. See R. 61-9.505.45(i)(2)(x) and 61-9.505.45(i)(6).

Current Regulations – Underground Injection

- Aquifer storage and recovery (ASR) wells can be permitted pursuant to the State Primary Drinking Water Regulations, S.C. Code Ann. Regs. 61-58, and Underground Injection Control (UIC) Regulations, S.C. Code Ann. Regs. 61-87.
  - ASR wells are defined as using "potable water". S.C. Code Ann. Regs. 61-58, General, B(7).
  - Aquifer replenishment wells are also contemplated by the UIC regulations. S.C. Code Ann. Regs. 61-87.11.E(1)(b).
- The UIC regulations prohibit "movement of fluids containing wastes or contaminants into underground sources of drinking water … if the presence of the waste or contaminant: A. May cause of violation of any drinking water standard under R61-58.5; or, B. May otherwise adversely affect the health of persons." S.C. Code Ann. Regs. 61-87.5.

Discussion Points

- What types of water reuse does WaterSC wish to see promoted?
- What degree of treatment of wastewater and standards are needed for particular types of reuse?
- Can permitting of reuse projects be accomplished efficiently within the existing regulatory framework?

WATER REUSE

Tricia H. Kilgore, P.E.
Beaufort-Jasper Water & Sewer Authority
WateReuse South Carolina

WaterSC
Columbia, SC
October 2025

ENGAGE.
EDUCATE.
ADVOCATE.

WATEREUSE SOUTH CAROLINA

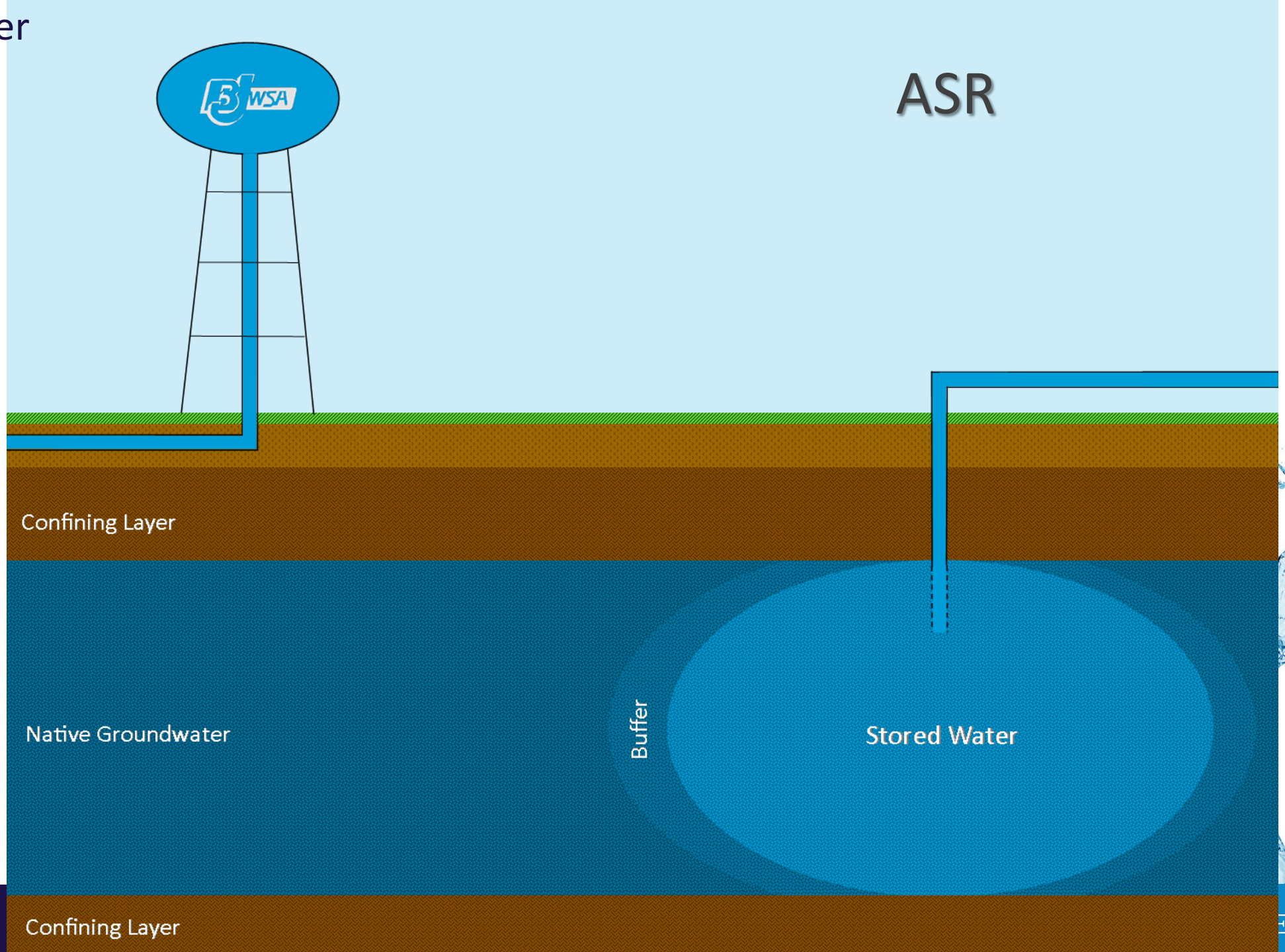
What is Reuse?

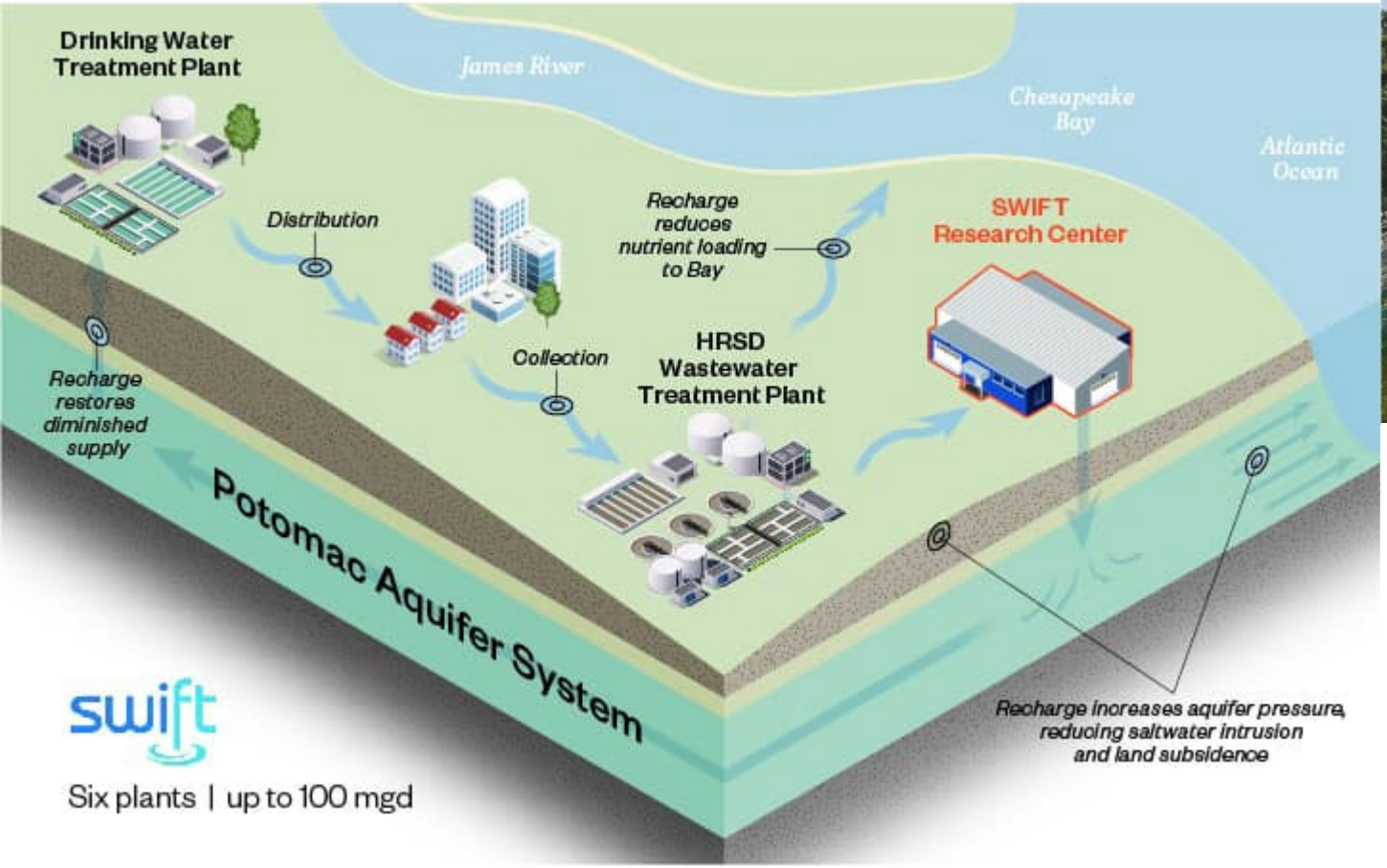
the right water for the right purpose

Types of Reuse

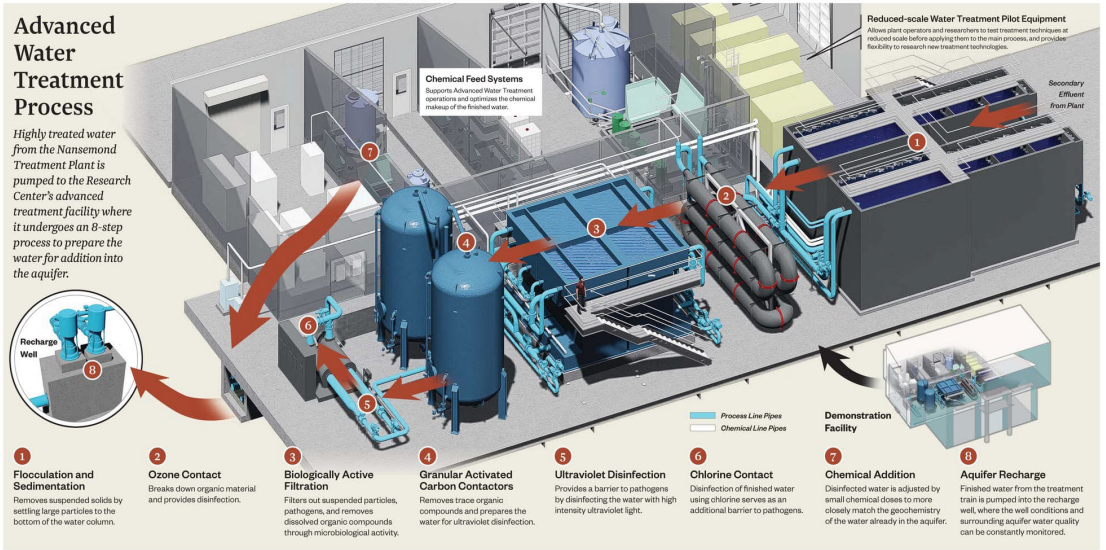
- Non-potable
  - Agricultural, Industrial, Power
- Potable
  - Direct, indirect
- Aquifer Recharge

FOR YOUR SAFETY
GOLFERS ONLY
BEYOND
THIS POINT


ASR
Confining Layer
Native Groundwater
Buffer
Stored Water
Confining Layer


Drinking Water Treatment Plant
James River
Chesapeake Bay
Atlantic Ocean
Distribution
Recharge reduces nutrient loading to Bay
SWIFT Research Center
Collection
HRSD Wastewater Treatment Plant
Recharge restores diminished supply
Potomac Aquifer System
Recharge increases aquifer pressure, reducing saltwater intrusion and land subsidence
swift
Six plants | up to 100 mgd

swift


Advanced Water Treatment Process
Highly treated water from the Nansemond Treatment Plant is pumped to the Research Center's advanced treatment facility where it undergoes an 8-step process to prepare the water for addition into the aquifer.
Reduced-scale Water Treatment Pilot Equipment
Allows plant operators and researchers to test treatment techniques at reduced scale before applying them to the main process, and provides flexibility to research new treatment technologies.
Chemical Feed Systems
Supports Advanced Water Treatment operations and optimizes the chemical makeup of the finished water.
Secondary Effluent from Plant
Recharge Well
Process Line Pipes
Chemical Line Pipes
Demonstration Facility
1 Flocculation and Sedimentation
Removes suspended solids by settling large particles to the bottom of the water column.
2 Ozone Contact
Breaks down organic material and provides disinfection.
3 Biologically Active Filtration
Filters out suspended particles, pathogens, and removes dissolved organic compounds through microbiological activity.
4 Granular Activated Carbon Contactors
Removes trace organic compounds and prepares the water for ultraviolet disinfection.
5 Ultraviolet Disinfection
Provides a barrier to pathogens by disinfecting the water with high intensity ultraviolet light.
6 Chlorine Contact
Disinfection of finished water using chlorine serves as an additional barrier to pathogens.
7 Chemical Addition
Disinfected water is adjusted by small chemical doses to more closely match the geochemistry of the water already in the aquifer.
8 Aquifer Recharge
Finished water from the treatment train is pumped into the recharge well, where the well conditions and surrounding aquifer water quality can be constantly monitored.

JDA
Joint Development Authority

PROPERTY OWNERSHIP MAP

STANTON SPRINGS & STANTON SPRINGS NORTH

JASPER, MORGAN, NEWTON & WALTON COUNTY, GEORGIA

JULY 2022

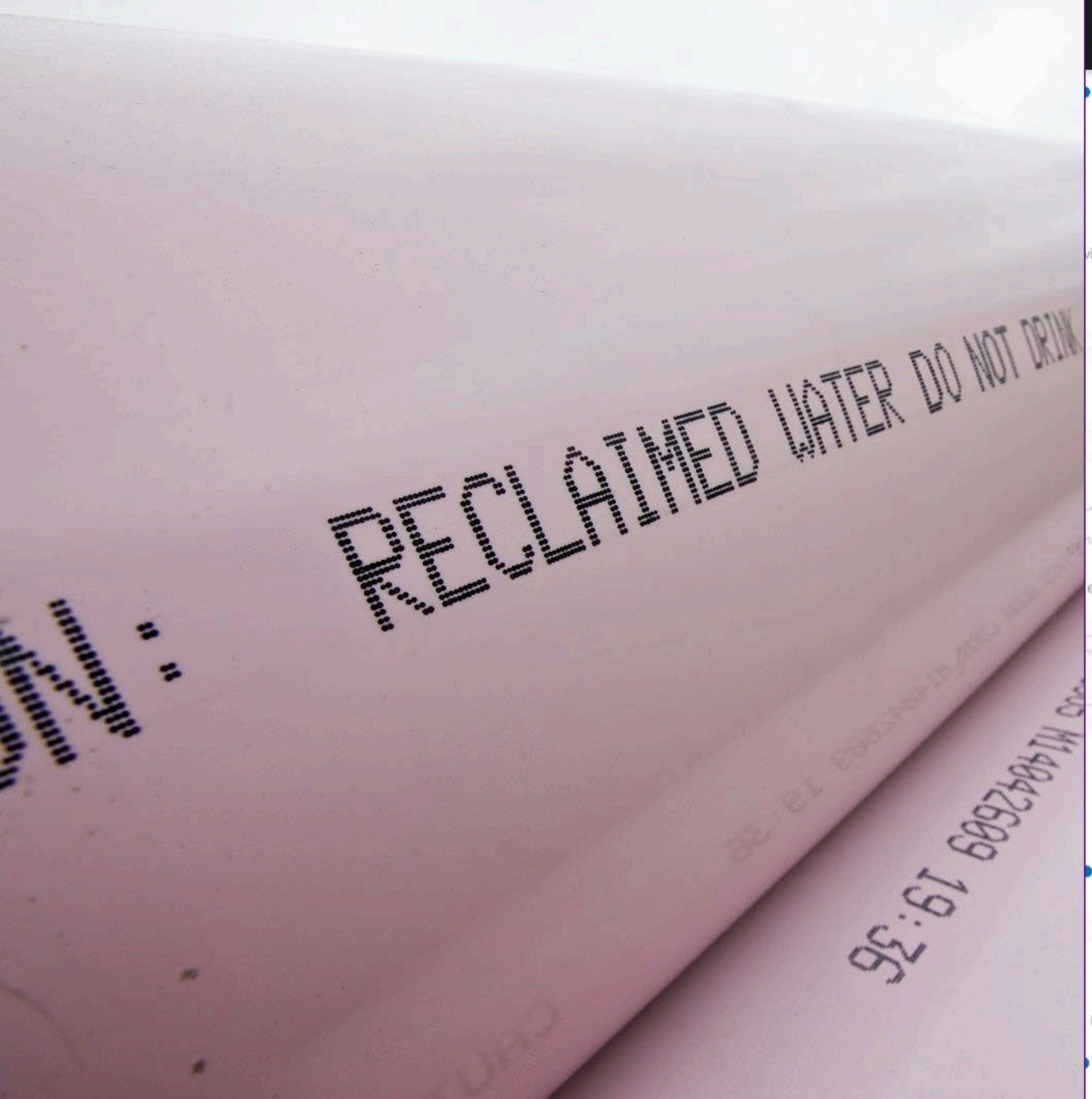
2127 USHER STREET NORTHWEST
COVINGTON, GA 30014 • 844.500.0248
WWW.THOMASANDHUTTON.COM

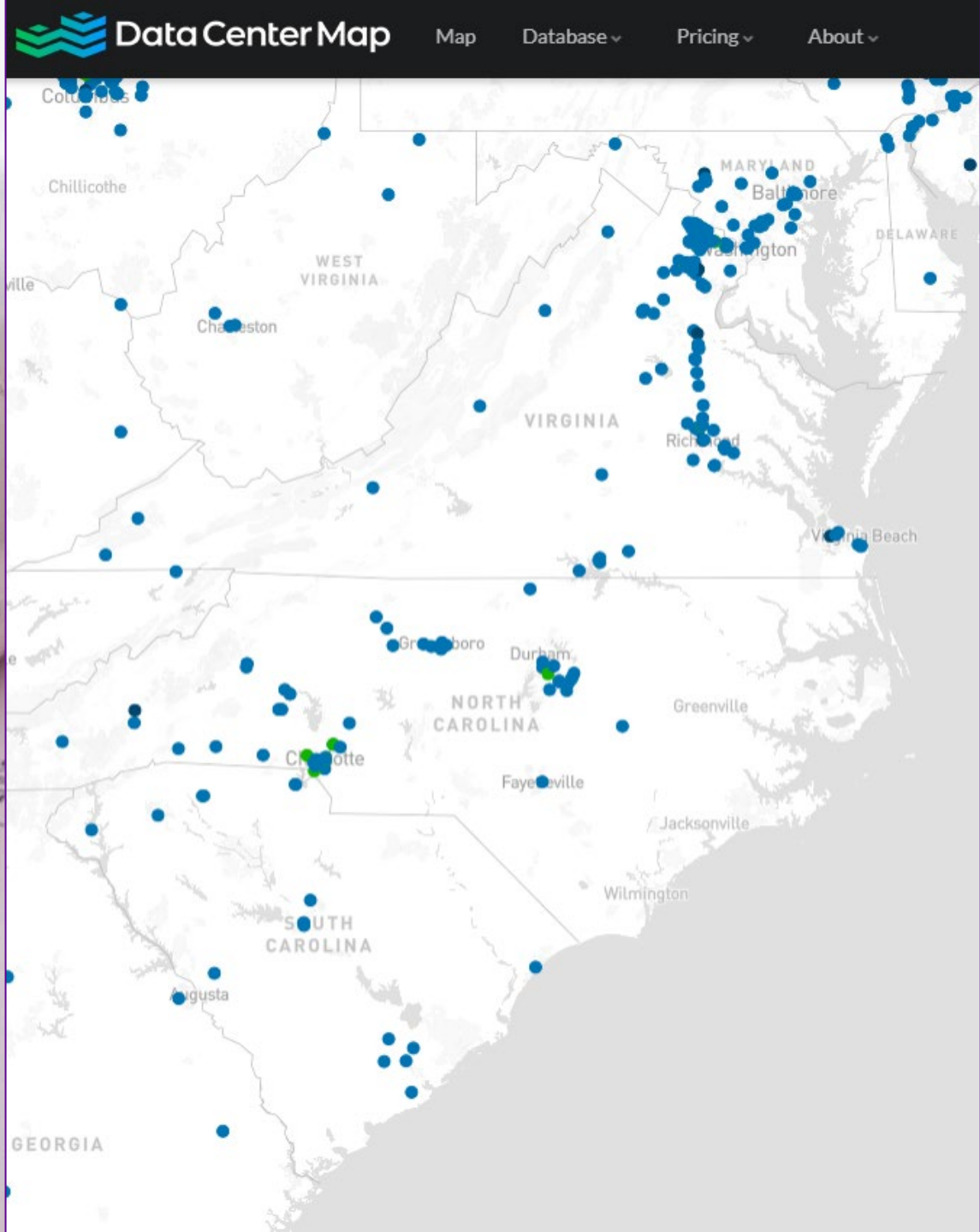
Turkey Point, Homestead, FL

Stanton Energy Facility, Orlando, FL

Plant McIntosh
Effingham, GA
Units 10-11

Palo Verde Generating Station, AZ


RECLAIMED WATER DO NOT DRINK


Data Center Map
Map
Database
Pricing
About
MARYLAND
DELAWARE
WEST VIRGINIA
VIRGINIA
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
Chillicothe
Durham
Greenville
Jacksonville
Wilmington
Augusta

Treated water in South Carolina?

- 👍 Discharge to certain rivers
- 👍 Grow grass
- ✋ Inject or store effluent underground
- ✋ Direct potable reuse
- 🤷‍♀️ Discharge to environment upstream of water treatment plant
- 🤷‍♀️ Non-grass crops
- 🤷‍♀️ Cooling water for data centers and power plants

Challenges for Reuse in South Carolina

- Definition of waste
  - Treated wastewater is a resource
- Regulatory gaps and lack of clarity around reuse
  - Non-potable Reuse
  - Indirect Potable Reuse
- Prohibitions
  - How to enable DPR for the future

Advancing Reuse in South Carolina

Update Existing Statutes and Regulation?

- State Safe Drinking Water Act
- State Primary Drinking Water Regulations
- Underground Injection Control Regulations
- Pollution Control Act
- Pollution Control Regulations

New Legislation

Water Recycling Act

Reuse Regulations

Questions?

www.watereuse.org

tricia.kilgore@bjwsa.org

WateReuse SOUTH CAROLINA

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RBC recommendations to improve drought response and mitigation

- Conducting 5-year updates to drought management plans and supporting smaller public water systems with technical and financial assistance for plan updates.
- Consideration of drought surcharges to disincentivize high water use during drought.
- Coordinated drought response messaging and consistency in response actions between water utilities.
- Encouraging more frequent and widespread drought condition reporting .
- Enhanced drought and climate monitoring via development of a statewide automated environmental monitoring network.
- Discouraging decreasing block rate structures that incentivize high water use.

Possible Drought Management Recommendations

- **WaterSC will review and make recommendations to update the Drought Response Act along with any resources to implement the Act with a deadline of the beginning of the 2027 legislative session.**
- The Legislature should adequately fund Water Planning
- **The Drought Management Plans for Water Utilities should be reviewed and updated on a five-year frequency.**
  - Funding to assist smaller utilities in updating their DMPs, training on their triggers/actions/ordinances?
  - Unified water resource statute that takes into account surface water, ground water and drought?
- **State Agencies should request for the Legislature to provide funding for an automated, coordinated network of environmental monitoring systems state-wide.**

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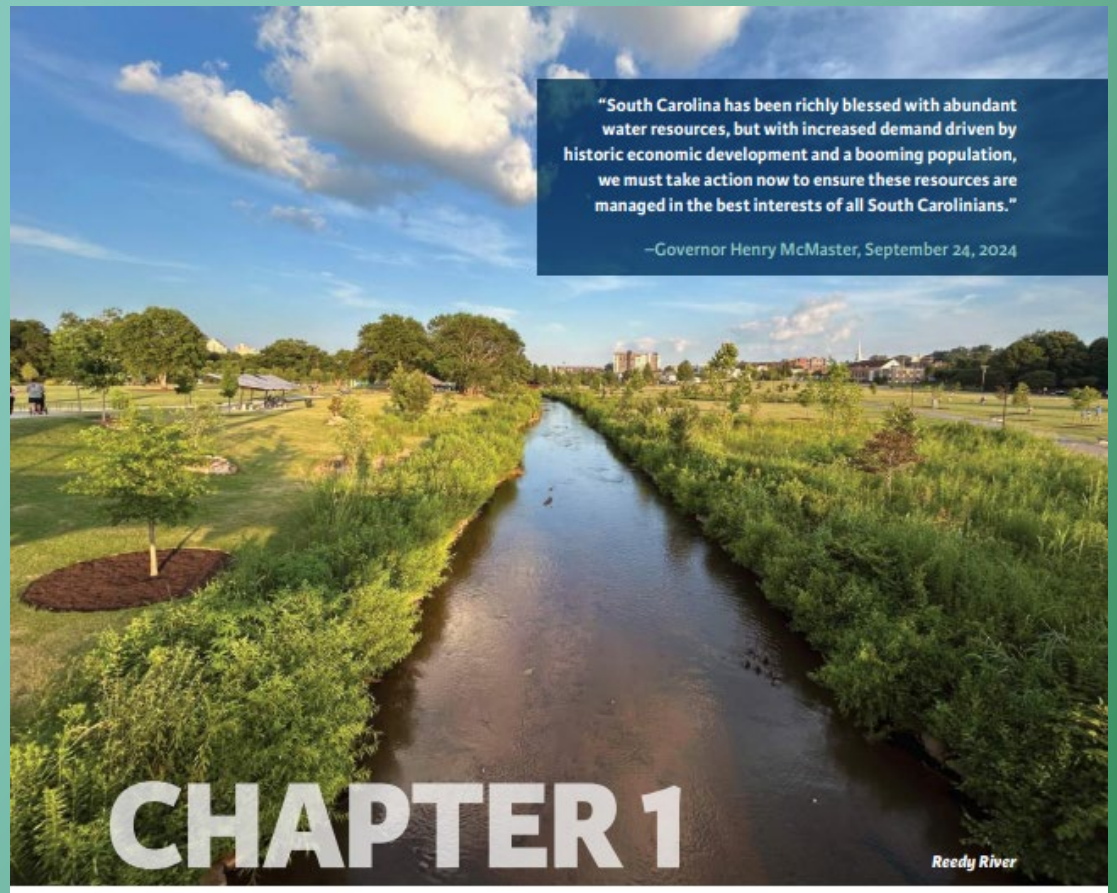

Introduction

1.1 BACKGROUND AND OBJECTIVES

The South Carolina Water Resources Planning and Coordination Act requires the South Carolina Department of Environmental Services (SCDES) to develop a comprehensive water resources policy for the state. Prior to the creation of SCDES in 2024, the water planning activities for the state were the responsibility of the South Carolina Department of Natural Resources (SCDNR). SCDNR developed the first state water plan—the *South Carolina Water Plan*—in 1998. In 2004, the plan was updated following what is recognized as one of the worst multi-year droughts on record, which ended in 2002.

Motivations for This 2025 Plan: In a state that has historically been considered to have abundant water, the plan update emerged from these key motivations to support a healthy and prosperous state through a changing future:

- **Support Responsible Population Growth:** South Carolina is one of the fastest growing states in the country, and water demand is increasing.

State Water Plan

- First Impressions
- Comments & Input
- Process & Timeline

Working Group Scheduled Events

Legislative Study Committee

- October 8 Girl Scout Center
- November 13 Phillips Market
- November 20 Listening Session
- December 11 Phillips Market

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Action Items

- Invite SCDES Office of General Council to coordinate with others and share updates on the current state of water reuse in SC and possible strategies to inform further discussions at an upcoming WaterSC Working Session.
- Recommend SCDES convene a sub-group of legal and technical experts to discuss differing opinions of the agency's authority/lack of authority to make decisions related to reasonable use. Small group will report back on progress and findings at an upcoming WaterSC Working Session.
- Invite SCDNR State Climatologist, Dr. Hope Mizzell, to attend the September WaterSC Working Session to inform the work group's discussion on possible improvements and coordination between the SC Drought Management Act and the SC Surface Water Withdrawal Act.