



South Carolina Department of Health and Environmental Control

Water Program & Utility Challenges

(our joint role in public health protection)

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Drinking Water Regulations

- Regulated Drinking Water Contaminants
 - 53 Organic Chemicals
 - 16 Inorganic Chemicals
 - 5 Radionuclides
 - 11 Disinfection Byproducts
 - 3 Disinfectants
 - 7 Microorganisms



Drinking water challenges (for private/publicly-owned systems)

- Lead and Copper Rule (LCR)
<https://www.epa.gov/dwreginfo/lead-and-copper-rule>
 - Many small systems do not provide corrosion control treatment; some provide no treatment
 - Any treatment requires a certified operator
 - Some systems that purchase their water have exceeded the action level (AL) while the producer has not
 - Out of 695 systems subject to LCR, 28 (4%) exceeded the lead AL from 2011 – 2015 (these were small/medium sized systems)



Drinking water challenges (for private/publicly-owned systems)

- Disinfection Byproducts Rule (DBPR)
<https://www.epa.gov/dwreginfo/stage-1-and-stage-2-disinfectants-and-disinfection-byproducts-rules>
 - 2012 Changes to DBPR has made compliance much more difficult (Meet MCL at each site)
 - Systems that purchase water (bulk customers) have few options if MCL is exceeded
- Emerging Contaminants
 - Several on EPA radar for future regulation (or EPA issued “health advisory”)
- Systems need to be able to react quickly when MCL is exceeded



Drinking water compliance (for private/publicly-owned systems)

- Compliance with MCLs generally good in SC
- Usually > 95% based on annual analysis; however, 5 PSC regulated drinking water systems have had enforcement orders issued due to water quality or operation and maintenance violations in past five years
- Most Common MCL violations
 - Groundwater - Naturally occurring radionuclides
 - Surface Water - Disinfection byproducts
- Small systems usually rely on groundwater
- Small systems have fewer resources to commit to routine maintenance
 - Small systems have more operation and maintenance violations



Drinking water systems (privately owned, PSC regulated)

- 24 companies regulated by the PSC
- Represents about 150 systems
- Serve about 65,000 people
- Some PSC regulated systems purchase water from others (e.g., bulk customer of public systems)



Wastewater system challenges

- Sewer overflows – ongoing need to rehabilitate collection systems to reduce wet-weather overflows
- Increasing need to cut nutrient loads (e.g., phosphorus)
- Challenges with working out the financial arrangements for connection to regional sewer systems



Wastewater system compliance (for private/publicly-owned systems)

Between 2010 and 2015:

- 32 of the 43 PSC regulated wastewater systems with discharge permits received a Notice of Violation or Enforcement Referral
- 132 Notices of Violation and/or Enforcement Referrals were issued

COMPLIANCE

Wastewater systems (privately owned, also)

- 14 companies regulated by the PSC have treatment plants and discharge permits – with 43 separate systems
- Other PSC regulated owners are bulk customers of public systems



Challenges for all systems (both water and wastewater)

- Ongoing and increasing operation and maintenance (O&M) costs
- Aged infrastructure
 - Significant amount of infrastructure is operated past its useful life expectancy due to high replacement cost
- Sustainable finances and future cost forecasting/savings are important



Additional Steps by DHEC

- As medium to small systems often have the greatest challenges, we have created an Office of Rural Water to focus on solutions for these systems and communities
- Held workshops across the state for water systems on Lead and Copper rule compliance
- Created a workgroup with water systems to review and comment on upcoming EPA proposed changes to the Lead and Copper Rule
- Have dedicated compliance assistance staff to work with utilities, partner with SC Rural Water Association

Summary

- Increasing regulatory requirements and aging infrastructure pose a public health and environmental challenge for South Carolina
- Utilities are faced with having to respond to problems in a timely fashion to protect public health
 - Adding treatment to drinking water systems
 - Responding to sewer overflows and plant failures
 - Having adequate operation and maintenance resources
- The PSC and DHEC both have a critical role in assisting SC utilities to meet these public health challenges