

## Drinking Water Rules: Executive Summary

Texas Municipal Utility Association  
**Solutions for Texas Utilities**  
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Public Drinking Water Section

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## Outline

- Federal drinking water rules:
  - Ground Water Rule (GWR)
  - Stage 2 Disinfectants and Disinfection Byproducts Rule (DBP2)
  - Long Term Stage 2 Enhanced Surface Water Treatment Rule (LT2)
- State drinking water rules:
  - Rainwater Harvesting (HB 4 §11 and SB 3 §2.28)
  - Fire Flow Rules (HB1391)
  - Emergency Operations (SB 361)



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## Outline

- What you need to know:
  - Does the rule apply to your community?
  - If so, what are the major program impacts?
  - If so, what are the major cost impacts?
  - Do I need to take action now? If not when?



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## Federal rules:

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## GWR Applicability

- The Ground Water Rule applies to any public water system that uses ground water, both:
  - Systems that own wells, and
  - Systems that purchase and re-distribute well water
- Purpose: *Protect against viruses in ground water*



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## GWR Program Impacts

- The GWR is tied to the existing Total Coliform Rule (TCR)
- The GWR has increasing levels of required activity
  - 1. Triggered well monitoring
  - 2. Corrective action if well samples are 'bad'
    - May include additional monitoring and reporting
  - 3. Significant deficiencies



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## GWR Program Impacts

### ■ 1. Triggered well sampling

- If you get a total coliform positive in distribution (normal TCR sampling), Then you must collect samples at each raw ground water source within 24 hours
- NOTE! Suppliers must sample, too!
  - If you sell ground water to a downstream system, and they get a coliform positive, you must sample every well within 24 hours



## GWR Program Impacts

### ■ 2. Corrective Action

- If E. Coli/Fecal coliform are found in a well, public notice and corrective action is required:
  - Continuous 99.99% (4-log) removal of viruses – with monthly reporting
  - Stop using well?
  - Other solutions?



## GWR Program Impacts

### ■ 3. Significant deficiency

- When the TCEQ visits you to perform a Comprehensive Compliance Investigation, the Investigator may identify a "Significant Deficiency."
- If so, public notice and a corrective action plan would be required



## GWR Costs

- Coliform sampling costs – minor
  - \$20 to \$40 per sample
- Communication costs
  - Public notice – moderate
- Corrective action costs
  - Potentially major



## GWR: Action Items

- Action required now: If you operate wells, it is recommended that you determine whether they may have fecal coliform / E. Coli now.
- Additional information:
  - John Schildwachter: 512-239-2355 (Supv.)
  - Matt Court: 512-239-4691
  - Joaquin Montes: 512-239-6061



## Federal rules:

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## DBP2: Applicability

- The DBP Rules apply to community and nontransient, noncommunity public water system that disinfect:
  - Regular retail distribution systems
  - Wholesalers
  - Purchased, redistributed water
    - "Consecutive Systems"

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## DBP2 Program Impacts

- Compliance will be calculated differently
  - Based on the average of all samples at each specific site
    - "Locational Running Annual Average"
  - Instead of an average of all sites
- Operational Evaluation Level reports
  - If disinfection byproducts are high, but not over the limit, distribution evaluation is required

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## DBP2: Costs

- Disinfection byproduct sampling costs may go up or down
  - Number of sites changes based on population, old rule based number of sites on number of entry points to distribution
- Additional staff time to review/set sample sites with TCEQ
- Systems with problems: Potential significant cost to reduce water age, change disinfectant

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## DBP2: Action Items

- Read and respond to TCEQ correspondence
- If your system has historically had difficulties with DBPs at specific locations in the distribution system, determine why, correct that, before 2012.
- Additional information:
  - Alicia Diehl: 512-239-1626 (Supv.)
  - Jessica Huybregts: 512-239-4709

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## Federal rules:

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## LT2 Applicability

- Systems that treat surface water
  - Or ground water under the direct influence of surface water (GUI)

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## LT2: Program Impacts

- Raw water sampling for Cryptosporidium and/or E. Coli
  - For all surface water treatment plants
- Possible additional treatment requirements
  - Very few Texas systems will have this requirement

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## LT2 Costs

- Sampling Costs - Moderate
  - Cryptosporidium sampling
  - E. Coli sampling
- Treatment changes
  - Major cost
  - To very few systems

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## LT2 Action Items

- Read and respond to TCEQ correspondence
- If your water source is 'bad,' start considering treatment options now, to increase your planning time frame
- Additional information:
  - Reyna Holmes: 512-239-6183
  - Marlo Wanielista Berg: 512-239-6967

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## State rules:

- Rainwater Harvesting (HB 4 §11 and SB 3 §2.28)
- Fire Flow Rules (HB1391)
- Emergency Operations (SB 361)

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## Rainwater Harvesting Applicability

- All retail water utilities
  - With structures that have a rainwater harvesting system
- Impact is to the utility's Backflow Prevention Program

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## Rainwater Harvesting Program Impacts

- Structures connected to a public water supply system that have a rain water harvesting system:
  - The rain water harvesting system may be used only for nonpotable indoor purposes, or outdoor purposes
  - The structures must have appropriate cross-connection safeguards

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## Rainwater Harvesting Costs

- Costs would be related to backflow prevention plan or procedures and educating the public.

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## Rainwater Harvesting Action Items

- Inform staff working on backflow prevention regarding new rule.

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## Fire Flow Applicability

- A municipality with a population of one million or more, with a public utility within its corporate limits
  - That has fire hydrants

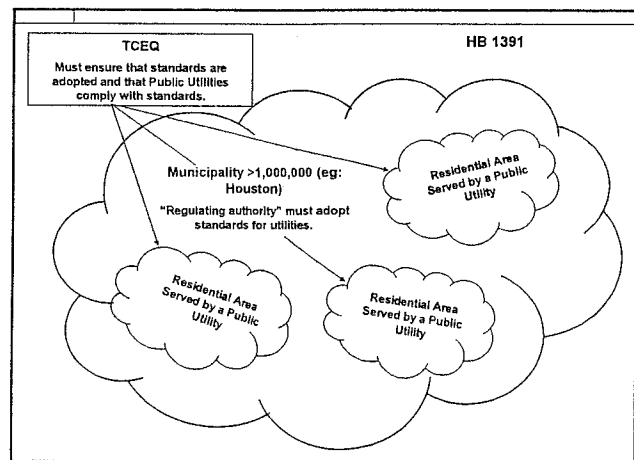
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## Fire Flow Program Impacts

- The municipality must
  - Maintain sufficient water pressure to fire hydrants in residential areas inside the municipality with a population of one million or more.
  - Adopt a Public Safety Standard at least as stringent as the TCEQ version

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## Fire Flow Program Impacts

- The ability to deliver water to any fire hydrant ... so that the flow at the fire hydrant is at least 250 gpm for a minimum period of two hours while maintaining a minimum pressure of 20 psi throughout the distribution system during emergencies

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## Fire Flow Costs

- Does your municipality of 1,000,000 or more have difficulty maintaining pressure?
- If so, costs will be incurred to modify pressure maintenance facilities.

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## Fire Flow Action Items

- Additional information:
  - Reyna Holmes: 512-239-6183 (Supv.)
  - Cindy Haynie: 512-239-3465

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## State rules:

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## Emergency Operations Applicability

- "Affected Utility"
  - A brand new class of regulated entity
    - ... a retail public utility, exempt utility, or provider or conveyor of potable or raw water that provides water to at least two customers and is located in a county with a population of 3.3 million or more or adjacent county with a population of 400,000 or more
- 1200 entities in Harris County....
  - For now!

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## Emergency Operations: Program Impacts

- Affected utilities must submit an Emergency Preparedness Plan (EPP) and get it approved by the TCEQ

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## Emergency Operations: Program Impacts

- 8 options for Emergency Preparedness
  - Automatically starting generators
  - Sharing auxiliary generator capacity
  - Leasing and contracting agreements
  - Quick-connect portable generators
  - On-site electrical generation or distributed generation facilities
  - Hardening the electric transmission and distribution system
  - For existing facilities, direct engine or right angle drives; or
  - Any other alternative accepted by the commission

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## Emergency Operations Program Impacts

- Provide "adequate" amounts of fuel to maintain emergency operations
- The requirements of the rule can be used as an alternative to any elevated storage requirement, provided that the affected utility meets all pressure and flow requirements in subchapter D

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## Emergency Operations Costs

- Cost of preparing the plan:
  - Low to high depending on size of affected utility and rate of person preparing it
- Cost of generators, if that option is selected and not present
  - Moderately high

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## Emergency Operations Action Items

- If you are in Harris County, learn the rule, act quickly to seek more info and comply.
  - *Otherwise, be alert to future rule making.*
- Additional information:
  - Reyna Holmes: 512-239-6183 (Supv.)
  - Any member of the Technical Review and Oversight Team: 512-239-4691
  - Emergency Preparedness Plan web site:
    - [www.tceq.state.tx.us/goto/epp](http://www.tceq.state.tx.us/goto/epp)

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