Challenges Facing Kentucky’s Water Systems: Addressing Rural Water Utility Needs
Kentucky Water Systems

Kentucky’s Water Infrastructure

• 432 Public Water Systems

• 213 Water Treatment Plants
  – Average age 38 years

• Approx. 64,000 Miles of Water Mains
  – Average age 40 years
  – 20% over 50 years

• 40,207 Estimated Lead Service Lines
Consolidation of Kentucky Water Systems

- 80% decline in number of water systems over the past 49 years.
Challenges Facing Kentucky’s Rural Water Systems

• Aging Infrastructure
• Regulatory Compliance
• Funding and Financial Constraints
• Lack of Technical Expertise and Workforce
Challenges Facing Kentucky’s Rural Water Systems

Aging Infrastructure

– Deterioration of Infrastructure
– Impacts on Water Quality
– Reliability and Service Interruptions
– Financial Constraints / Economic Impact
– Regulatory Compliance
– Deterrent to Economic Growth

USEPA’s Drinking Water Infrastructure Needs Survey and Assessment, published April 2023, estimated Kentucky’s 20-year infrastructure investment need at $7,842,900,000.

Challenges Facing Kentucky’s Rural Water Systems

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**Rural Water Utility Needs**
- Infrastructure Investment
- Technological Upgrades
- Asset Management and Planning
- Regional Cooperation and Consolidation

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Challenges Facing Kentucky’s Rural Water Systems

Regulatory Compliance

– Complexity of Regulations
– Emerging Contaminants/New Regulations
  USEPA Lead and Copper Rule Revisions (LCRR)
  Microbial and Disinfection By-Product Rules
  Cybersecurity Resiliency
  Per and Polyfluoroalkyl Substances (PFAS)
– Inadequate Treatment Methods and Technologies
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Rural Water Utility Needs
- Technical Assistance
- Workforce Development
- Infrastructure Investment
- Technological Upgrades
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Challenges Facing Kentucky’s Rural Water Systems

Funding and Financial Constraints

– Utility Financial Sustainability
  Inadequate Rate Structures / Inability to Raise Rates
  Small Customer Base
  Insufficient Borrowing Capacity
  Utility Revenue Subsidizing Municipal Functions
  Financial Viability Not Conducive for Consolidation

– Qualifying for Funding Opportunities

– Non-capital Funding Opportunities
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Rural Water Utility Needs

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- Non-capital Utility Investment
  
Water Management Assistance Fund

2022 KY General Assembly – HB 758
Challenges Facing Kentucky’s Rural Water Systems

Technical Expertise and Workforce

– Limited Availability of Qualified Personnel
– Lack of Succession Planning
– Lack of Effective Recruitment Strategies for the Water Industry
Challenges Facing Kentucky’s Rural Water Systems

Technical Expertise and Workforce

- 55% of utilities reported an increase in job vacancies over the last 2 years.

- 56% of utilities do not have enough certified water operators and 65% do not have enough certified wastewater operators.

- 72% of utilities indicated that operators left the job for better pay in another field or were recruited by other utilities.

- 30% of operators and 40% of utility managers plan to retire within the next 6 years.

- 45% of utilities do not have a succession plan if the current manager leaves or retires.

- 20% of the survey respondents were less than 35 years old, 2% were less than 25 years old.
Challenges Facing Kentucky’s Rural Water Systems

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Rural Water Utility Needs

– Technical Assistance
– Workforce Development
  - Financial Investment in Workforce Development
  - Water and Wastewater Apprenticeship Program
  - Succession Planning and Leadership Development
– Regional Cooperation and Consolidation
Kentucky’s Rural Water Utility Needs

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- Technological Upgrades
- Technical Assistance
- Asset Management and Planning
- Regional Cooperation and Consolidation
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  - Financial Investment in Workforce Development
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- Non-capital Utility Investment
  Water Management Assistance Fund
  A $10 million assistance fund was created to support the capital and non-capital expenses of governmental water and wastewater utilities
  2022 KY General Assembly – HB 758
Questions?

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