Sustainability and Oklahoma’s Small Water and Wastewater Systems

Brandon Bowman – ORWA Programs Manager
Oklahoma Rural Water Association
ORWA - Who We Are

Provides Resources, Training & Technical Assistance

Target Water & Wastewater Systems

Rural & Small Community System Specialists

Statewide Coverage
Rural Oklahoma Depends on Small Water and Wastewater Systems

• Protect Public Health and the Environment
  • Provides tested/treated drinking water of high quality.
  • Provides environmentally sound treatment of wastewater.
  ...both at an affordable cost.

• Promote Economic Growth
  • Housing, industry, agriculture, communities can flourish.
  • Economic growth depends on a robust water and wastewater infrastructure.
Sustainability is Critical

- Rural water and wastewater systems must be sustainable to survive.
- Sustainability depends on many factors:
  - Technical Capacity
  - Managerial Capacity
  - Financial Capacity
- Must devote sufficient time, energy, and resources to all three to achieve sustainability.
The Goal – Sustainability in Multiple Environments
Issues Impacting Sustainability: Grow Houses

• Exponential growth in medical marijuana grow houses in the past few years.

• Significant, complicated impact on the rural water systems providing water service.

• ORWA assisting with updating bylaws / user agreements to ensure fair and equitable water service to all users.
Issues Impacting Sustainability: Cybersecurity

- Not if, but when.
- Every water system is vulnerable: ransomware, compromised customer billing, disruption of water supply, or contamination.
- Threats from criminals, nation-states, inside attackers, hacktivists.
- ORWA recommends taking 5 immediate steps to reduce your risk.

Source: NRWA and Mission Critical Global Alliance
Issues Impacting Sustainability: Aging Infrastructure

Rural systems’ aging infrastructure has problems meeting modern day demands.

• Built decades ago.
• Increasing regulations, costs
• Increasing number and complexity of threats

Asset Management is key to managing, maintaining and funding replacements for key infrastructure.

• ORWA is helping systems set up an AM plan.
Issue Impacting Sustainability: Aging Workforce

- 44% of the water and wastewater workforce is 45+.
- Up to 50% could retire in the next 10 years.
- Small systems have problems recruiting and paying for quality candidates.

Source: Brookings Institution – Renewing the Water Workforce
Issues Impacting Sustainability:
Aging Workforce

ORWA Apprenticeship Program

• Two Occupations: Water Systems Operations Specialist & Wastewater Systems Operations Specialist
  • Each program consists of the minimum requirements below:
    • 2 year term
    • 4000 hrs. On-the-Job Learning
    • 288 hrs. Related Technical Instruction
  • At least 18 yrs. old to enter program
Issue Impacting Sustainability: Small System Size

• 2020 brought unprecedented challenges:
  • Reduced revenues
  • Personnel shortages
  • Shutoff moratoriums
  • Customer job loss
  • Reduced economic activity

• Less ability to absorb financial shock or increase rates.

• Staff focused on day-to-day operations, or may wear multiple hats.

• Cooperation is key
  • Regionalization / Consolidation / Mutual Aid. ORWA can help you craft a solution that works for you.

"Utilities helping utilities is more than a phrase – it is the Oklahoma way."
Oklahoma Strategic Alliance

- A strategic partnership to utilize the strengths of each partner to help water and wastewater systems.
- No silos and breaking the box – information / resources / actions move easily between partners and actions are coordinated.
- Increased value and benefit to systems.
Water Loss Auditing and Control

- 28 water loss audits were completed at rural Oklahoma water systems, identifying 1,547.65 billion gallons per year of water loss valued at $4,170,210.
- Leak detection was completed at 6 rural Oklahoma water systems, identifying 47 leaks. These leaks were costing the systems 167 million gallons per year, valued at $268,565.

Rate Analysis

- 17 rate studies completed, with a 0.20 average increase in operating ratio and a cost savings and increased revenue total of $623,661 for the participating systems.

TOTAL SAVINGS OF $653,257

Conclusion

• Sustainability is key to small water and wastewater system survival, but it is so much more than source water adequacy.

• Contact us – bring the power of the Oklahoma Strategic Alliance to help you with sustainability.

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