

2020

*Fall*  
Virtual Conferences

**MANAGEMENT**

**& DISTRICTS**

**HANDOUTS  
BOOKLET**

**TRWA**   
Texas Rural Water Association

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## Thank You to Our Silver Level Conference Sponsor





# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

## Fall Management Conference

### DAY 1: TUESDAY, OCTOBER 20

9:00 a.m. - 9:10 a.m. .... **Welcome and Presentation of Friend of Rural Water Award to Chairman Lyle Larson**

9:10 a.m. - 9:50 a.m. .... **Legislative Preview — Texas Representative Lyle Larson, Chairman, House Natural Resources Committee:** This session will address the upcoming Texas Legislative Session, including the impacts of new House leadership, COVID-19, redistricting and budget challenges. The Chairman will also address priority water issues, including those that may impact the water utility industry.

10:00 a.m. - 10:50 a.m. .... **Emergency Preparedness and Response — Chris Boyd, Mustang SUD; Bill Brown, Jonah Water SUD; Jason Knobloch, TRWA:** This live panel features general managers of two TRWA member systems who are leaders in the areas of emergency preparedness and mutual aid capability. This session will also discuss TRWA's emergency response efforts and its partnerships that enhance assistance capabilities to rural utilities during a disaster.

11:00 a.m. - 11:30 a.m. .... **Ask the Experts:** Attendees may choose to participate in one of two open forum discussions with TRWA's legal experts or technical experts.

### DAY 2: WEDNESDAY, OCTOBER 21

9:00 a.m. - 9:50 a.m. .... **Investing in a Multigenerational and Diverse Team — Sarah Schlessinger, Texas Water Foundation:** This presentation will discuss strategies for attracting and retaining a diverse and multigenerational team which reflects the population in Texas, and which is needed to ensure the continuity and success of the water utility industry.

10:00 a.m. - 10:50 a.m. .... **Your Utility Doesn't Operate in a Vacuum: The Role of Managers and Directors in Developing Outside Relationships in Achieving Key Objectives — Bruce Alexander, East Medina SUD:** Your utility's projects and operational goals often rely on input from a wide range of stakeholders outside your boardroom, including state and federal lawmakers, county commissioners, elected officials from nearby communities, and regional offices of state agencies such as TxDOT and TCEQ. This session will discuss best practices for cultivating relationships with these officials and working collaboratively with them to benefit your utility.

11:00 a.m. - 11:30 a.m. .... **Ask the Experts:** Attendees may choose to participate in open forum discussions with TRWA's legal and technical experts.

### DAY 3: THURSDAY, OCTOBER 22

9:00 a.m. - 9:50 a.m. .... **Embracing Technology — Marc Santos, Isle Utilities:** The world of utility management and operations is changing. Advancements in the industry have been made to assist you in maintaining and monitoring your water system more efficiently. This session will discuss implementing available technologies that can help with your day-to-day operations.

10:00 a.m. - 10:50 a.m. .... **Workforce Development & Retention Strategies — Nichol Howell, TRWA:** In today's competitive labor market, it's important that utilities retain their highly skilled employees and avoid the high cost of turnover. This session will discuss strategies for attracting, developing and retaining employees, transferring institutional knowledge from an aging workforce, and evaluating pay and benefits.

11:00 a.m. - 11:30 a.m. .... **Ask the Experts:** Attendees may choose to participate in open forum discussions with TRWA's legal and technical experts.

### DAY 4: FRIDAY, OCTOBER 23

9:00 a.m. - 9:50 a.m. .... **Water Loss Audit: How to Maximize the Benefit — John Sutton, Texas Water Development Board:** This session will discuss how getting a handle on a system's water loss through a comprehensive water loss audit will advance the business and financial interest of a utility as well as meet the regulatory requirements. Will also explain the free tools and resources to assist utilities available through the Texas Water Development Board.

10:00 a.m. - 10:50 a.m. .... **Key Functions of Management — Bruce Pearson, TRWA:** This presentation will identify and discuss the most important principals of effective management and how to utilize them to maximize the productivity of your team and the overall success of your utility.

11:00 a.m. - 11:30 a.m. .... **Ask the Experts:** Attendees may choose to participate in open forum discussions with TRWA's legal and technical experts.

TCEQ water/wastewater operator certification renewal credit hours and continuing legal education credit from the State Bar of Texas have been requested for attendance at this conference.

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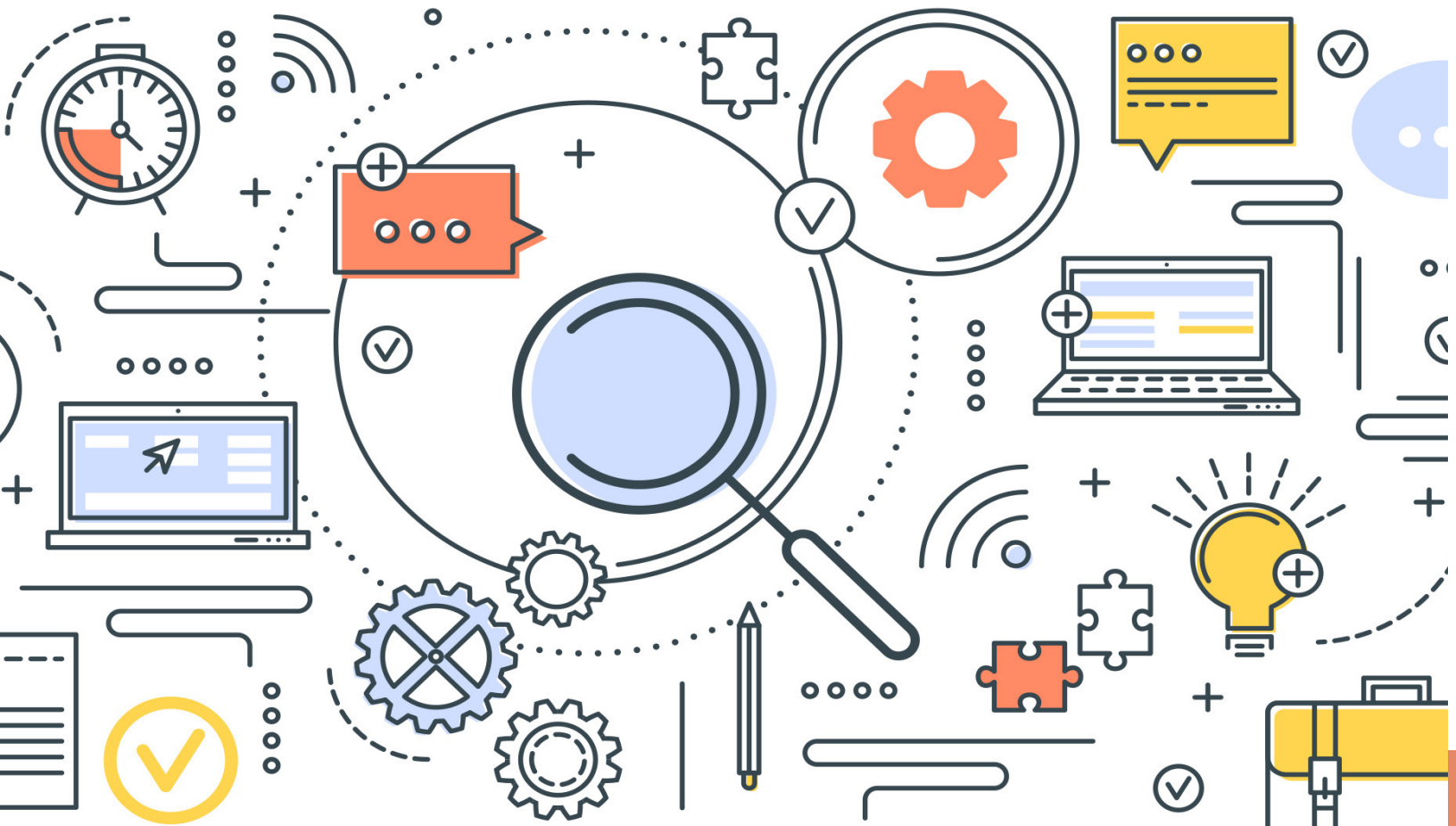
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## **Investing in a multigenerational & diverse team**

OCTOBER 2020

1



MAKING THE BUSINESS CASE FOR:

1. CULTIVATING A DIVERSE WORKFORCE
2. MULTIGENERATIONAL TEAMS
3. INVESTING IN YOUR STAFF

2



3

A black and white photograph of water ripples. A single drop has just hit the water, creating a series of concentric circles that expand outwards. The water surface is dark, and the ripples are light, creating a high-contrast pattern.

We believe everything you love  
about Texas is rooted in water

HERE'S WHY

Water is the lifeblood of Texas' flourishing population, thriving economy, and  
rich array of wild landscapes.

4

## How we propose to uphold our mission

Create champions of sustainable water management in positions of power: build relationships with leaders and equip them with the ideas and tools to manage water well.

Equip advocates to support sustainable water management: provide aligned organizations with the policy ideas, evidence base, and stakeholder insight to succeed.

Create an educated public that understands the importance of their water: produce clear outreach materials that build popular support for sustainable management.

Build the next generation of leaders in Texas water management: train promising midcareer water professionals and connect them with leadership opportunities.

5

# PEOPLE

6



### LEADERSHIP

Equipping leaders both in and out of the water sector to make informed decisions.



### EDUCATION

Inviting all Texans to rethink how they value water.



### POLICY

Providing nonpartisan, nontechnical water issue briefs for decision makers.

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8





MAKING THE BUSINESS CASE FOR:


1. CULTIVATING A DIVERSE WORKFORCE
2. MULTIGENERATIONAL TEAMS
3. INVESTING IN YOUR STAFF

9

BUT FIRST, WHY DOES ANY OF THIS MATTER?




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United States  
Environmental Protection  
Agency

Search EPA.gov

Environmental Topics
Laws & Regulations
About EPA

CONTACT US
SHARE




## Sustainable Water Infrastructure

Sustainable Water Infrastructure Home

Water Infrastructure Challenge

Policy

Infrastructure needs

Local Officials

Building Sustainable Water Infrastructure


Water and Energy Efficiency

Asset Management

Alternative Technologies


# Water Sector Workforce

Ensuring that all Americans have access to clean water is a top priority for EPA. Each day communities and businesses depend on clean and safe water for daily routines that can range from drinking a glass of water to irrigating the crops that support our food supply. Behind each of these daily routines are the hundreds of thousands of skilled workers that comprise America's Water Sector Workforce. These workers provide us with clean drinking water and safe wastewater treatment every day.



EPA is undertaking a number of actions to ensure our Nation's vital water workforce has the right skills and other factors to ensure they can meet the myriad of challenges facing the water sector, both

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1

Water workers fill a variety of jobs and are present in every region

Back to menu ↑
Next section →

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## WATER AND WASTEWATER PERSONNEL CONSIDERED ESSENTIAL WORKERS BY EPA & CISA

📅 March 30, 2020 👤 Wendi Wilkes 💬 0 Comment 📑 Drinking Water Headlines

Last week, EPA Administrator Andrew Wheeler sent a [letter](#) to Governors in all 50 states, territories and Washington, D.C. urging them to ensure that drinking water and wastewater employees are considered essential workers by state authorities when enacting mobility and travel restrictions to reduce the spread of COVID-19. Drinking water and wastewater services are critical during this public health crisis. In the letter, Wheeler requests that, "water and wastewater workers, as well as the manufacturers and suppliers who provide vital services and materials to the water sector, are considered essential workers and businesses by state authorities..." The letter was announced in an EPA [press release](#) which includes additional information.

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HOME | WATER UTILITY MANAGEMENT

### An Essential Service

As we are all feeling the impact of in-person social distancing, and many industries transition to working from home, those in the water sector do not have that luxury.

**Author** — Alanna Maya

Apr 7th, 2020

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### Water workers in the 100 largest metro areas

By total employment and share of employment, 2016

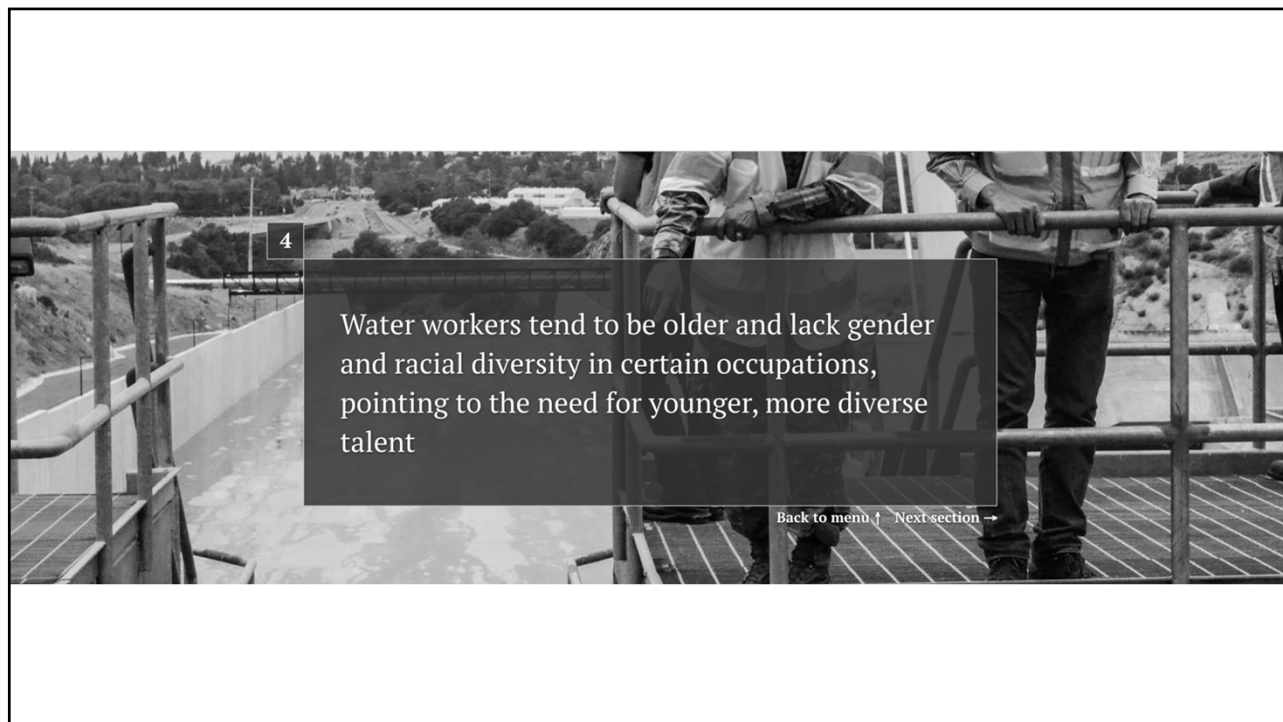


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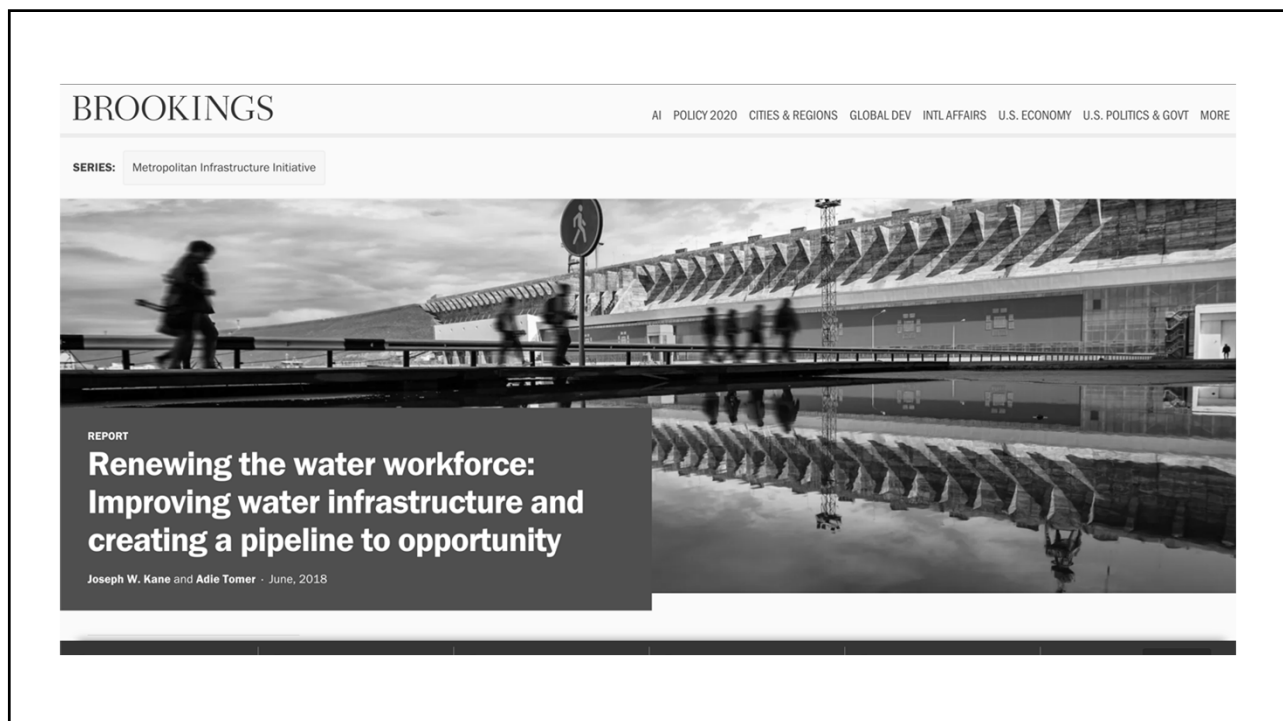
**“Almost one-third of water industry professionals will be at or nearing retirement age in the next few years. When you combine that with the fact that the unemployment rate is already at record or near-record lows and other industries are facing the same challenges and going after the same people we are, we have some serious work to do.”**

Center for Water Studies, Cuyamaca College, May 2019

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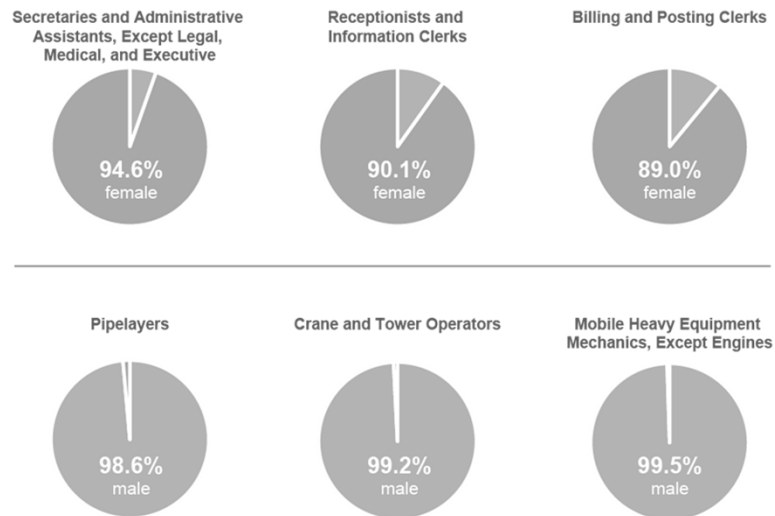


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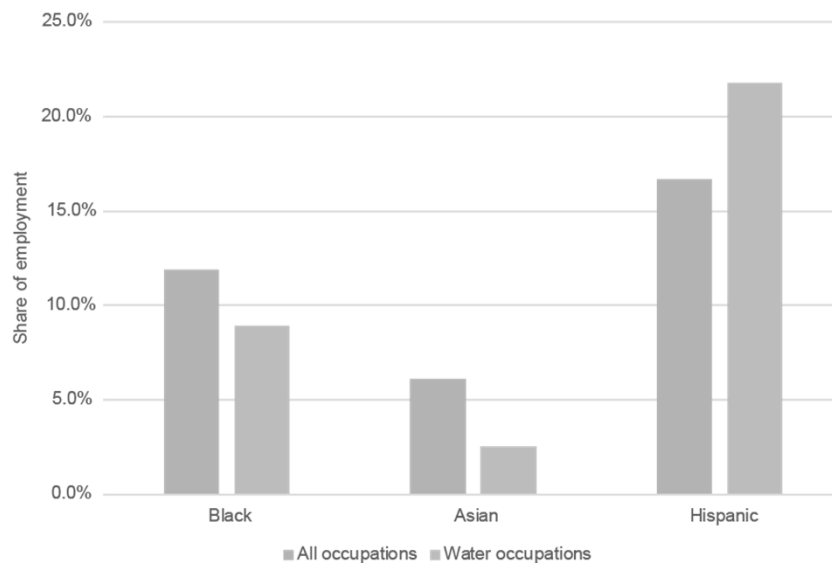
### Selected Occupations with High and Low Shares of Female Workers, 2016



Source: Brookings analysis of BLS Occupational Employment Statistics and CPS

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### Racial Diversity in Water Occupations vs. All Occupations, 2016



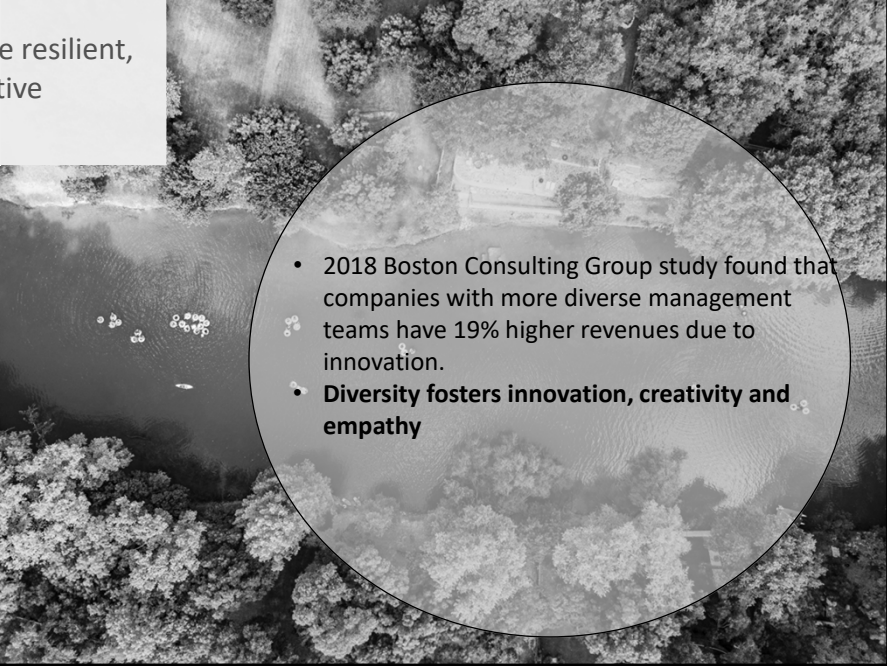
Source: Brookings analysis of BLS Occupational Employment Statistics and CPS

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## 1. CULTIVATING A DIVERSE WORKFORCE

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Diverse workforces are more resilient,  
productive & innovative

- 
- 2018 Boston Consulting Group study found that companies with more diverse management teams have 19% higher revenues due to innovation.
  - **Diversity fosters innovation, creativity and empathy**

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Diversity is not just about gender,  
race and ethnicity

- Religious beliefs
- Political beliefs
- Education
- Socioeconomic background
- Sexual orientation
- Culture
- Disabilities

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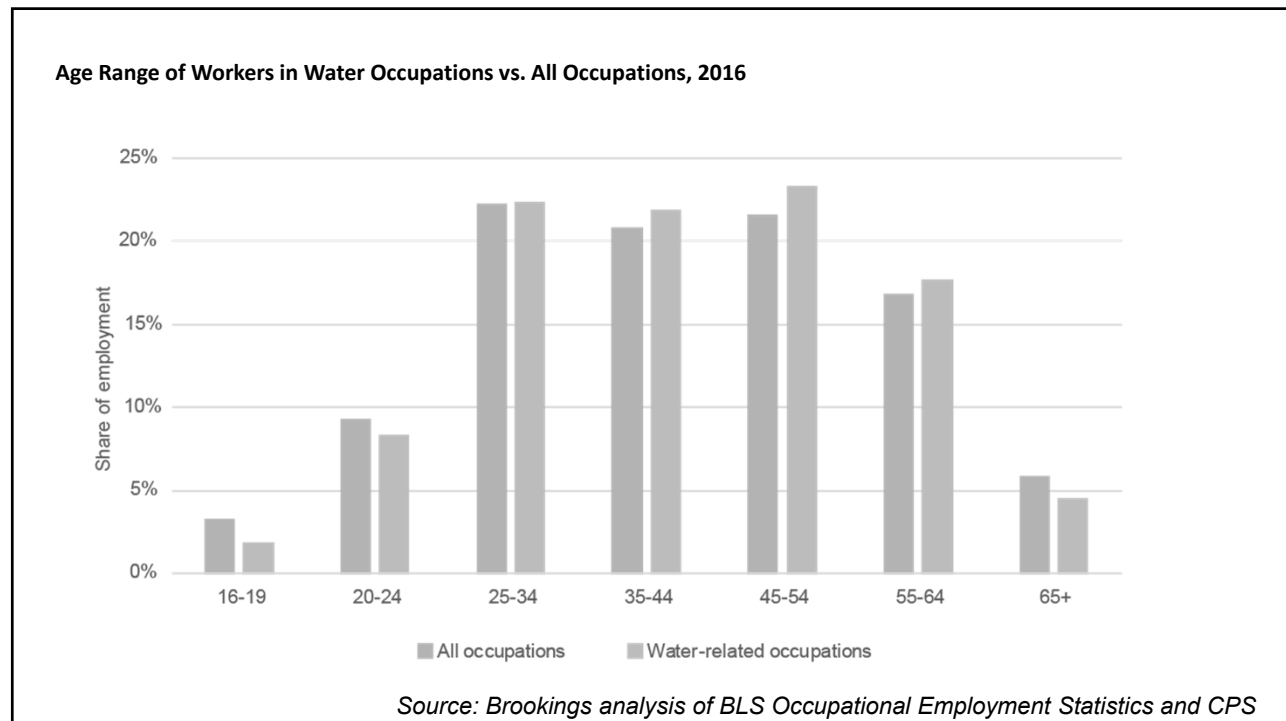
Diversity alone is not enough

- Developing a culture of Inclusion
- 47% of millennials are actively looking for diversity and inclusion when sizing up potential employers.

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## 2. MULTIGENERATIONAL TEAMS

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For the first time, our workforce has 5 generations working together

- Presents challenges, such as in communication styles and work/life expectations
- Also presents opportunity for innovation and knowledge transfer

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By 2025, 75% of the global workforce will be made up of millennials

World Economic Forum

- Will occupy leadership roles for at least the next decade
- Will be making decisions that impact both the future of our water but their staff's lives

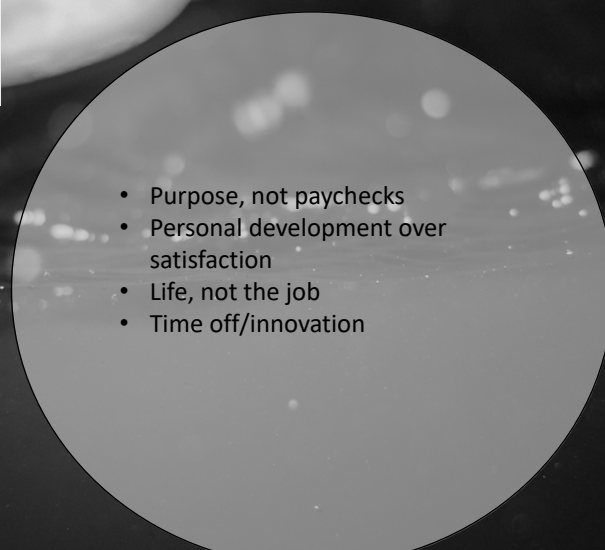
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### 3. INVESTING IN YOUR STAFF

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An inspired employee is more than twice as productive as a satisfied employee and more than three times as productive as a dissatisfied employee.

Harvard Business Review

- 
- Purpose, not paychecks
  - Personal development over satisfaction
  - Life, not the job
  - Time off/innovation

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People are our most valuable asset

- Our workplaces are undergoing transformation with new technologies and increasingly complex requirements
- Increase knowledge transfer

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#### TEXAS WATER LEADERS PROGRAM

An annual leadership program that provides water professionals stepping into positions of leadership with the tools, training and opportunities to expand their potential.



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#### QUICK SUMMARY

- The water industry is complex
- The water industry is essential
- We need innovation & a stable workforce
- Diversity and inclusion are crucial to innovation & recruiting young staff
- Generational work expectations change
- We need knowledge transfer and succession planning

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Your utility's projects and operational goals often rely on input from a wide range of stakeholders outside your boardroom, including state and federal lawmakers, county commissioners, elected officials from nearby communities, and regional offices of state agencies such as TxDOT and TCEQ. This session will discuss best practices for cultivating relationships with these officials and working collaboratively with them to benefit your utility.






# The Role of Managers and Directors in Developing Outside Relationships in Achieving Key Objectives

TRWA 2020 FALL MANAGEMENT CONFERENCE

Bruce A. Alexander, Superintendent  
East Medina County Special Utility District

1



This presentation will include a discussion on relationships with:

- Board of Directors/City Council Members
- County Judge, County Commissioners and County Officials
- Elected Officials in Neighboring Communities
- State and Federal Lawmakers
- State/Regulatory Agencies
- Neighboring Utilities
- Local Community Leaders
- The Press
- The Public

2

### Board of Directors / City Council Members

The relationship between the manager and the governing board of the organization is vital to the success of the organization.

This relationship is built on a clear understanding of the direction of the organization, trust and respect in the actions of the manager, and the authority for the manager to act in the best interest of the organization when it comes to building relationships with outside groups that are needed to help the organization succeed.

3

### County Judge

As the Chief Administrative Official of the County, the County Judge helps to guide the actions of Commissioner's Court on issues that often have a significant impact on the operations of a rural water system through the application, approval and enforcement of;

- County Subdivision Rules and Regulations
- The Use of County Road Right of Ways
- The Issuance of Community Block Grants
- Emergency Management

4



## County Commissioners

The relationship between you and your County Commissioners is key to the daily success of your water system.

Attend Commissioner's Court meetings and offer to speak on issues that may have an impact on your water system.

Know and understand the County Subdivision Rules and Regulations as well as you know and understand your own rules and regulations for service in a subdivision.

While the Water Code provides you the power to use a county road right of way for the placement of your waterlines, a strong positive working relationship with your County Commissioner is required to prevent and/or eliminate any potential conflicts that may arise from the use of the right of ways.

5

## County Officials

There are many officials, both elected and appointed, in the County that require good relationships to succeed. They include relationships with:

- The Sheriff's Department
- The County Health Department
- The County Emergency Management Department
- The Appraisal District
- The County Clerk

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## Elected Officials in Neighboring Communities

- Get to know the Mayors, City Council Members and elected officials in your neighboring communities.
- Share the goals and objectives for the future of your water system as it relates to their future goals and objectives.
- Discuss development plans in and around their ETJ and how you can work together to provide service to high growth areas.
- Work towards solutions to issues of concern before they become a problem that requires outside forces to step in and resolve.

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## State Lawmakers

### Get to know your State Representative and State Senator and their staff!

Attend an event to meet them whenever possible  
Invite them to attend a system event and/or meeting  
Inform them of who you are and who you represent  
Discuss issues of concern and seek support when needed  
Always be professional and respectful to the position they hold

8

## Federal Lawmakers

### Get to know your US Representative and US Senators **and their staff!**

- Attend an event to meet them whenever possible
- Invite them to attend a system event and/or meeting
- Inform them of who you are and who you represent
- Discuss issues of concern and seek support when needed
- Always be professional and respectful to the position they hold

9

## State Agencies

Relationships with State agencies such as the Texas Department of Transportation (TxDot) and the Texas Division of Emergency Management (TDEM) are crucial to the success of many rural water systems.

- Most systems use some portion of State Right of Ways for the installation of water lines parallel to or under the roadway. The use of the right of way requires a permit issued by TxDot. The relationship you have with the local and District offices of TxDot help to obtain timely approval of permits.
- TDEM is called on during disasters to provide assistance as needed. Continued good working relationships with TDEM will help to expedite relief when a disaster strikes that affects your system.

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## Regulatory Agencies

Three of the most important regulatory agencies that have an impact on rural water systems are:

- Texas Commission on Environmental Quality (TCEQ)
- Public Utility Commission of Texas (PUCT)
- U.S. Environmental Protection Agency (USEPA)

It is imperative that good working relationships be established with each of the local and/or regional offices of each of these agencies.

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## Neighboring Utilities

Meet with managers and officials from neighboring utilities to share ideas and problems in building relationships that provide support and assistance as needed.

Be a good neighbor and agree to offer assistance when a neighbor calls for help with materials, manpower or guidance on how to address an issue of concern.

You never know when it may be you seeking assistance.

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## Local Community Leaders

Relationships with local community leaders help you to get the word out and build support for your organization.

Local leaders are able to share with you some of the pulse of the community you serve to help improve customer service related issues and spread a positive message of your organization.

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## The Press

Relationships with the press is often a concern that may or may not be justified based on what type of relationship you have.

The relationship with the press must be built on honest, truthful and factual communications. Take responsibility and corrective action when necessary based on the issue to be reported and be prepared to challenge a member of the press with accurate information when an error or omission is left out of a story.

Provide your local newspapers with positive impact public interest stories to support your system and rural water whenever possible.

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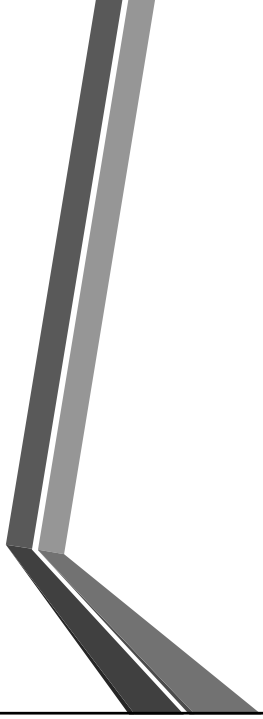
## The Public

- Your relationship with your customers is one of the most important relationships you have.
- How your customers see you as the manager is a reflection of how they view the organization.
- Honest, fair and equitable application of all policies and procedures to everyone regardless of who they are and/or what they represent is required at all times.
- Build and maintain trust with the public.

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So, what's the most important  
thing you can do to develop  
outside relationships to achieve  
key objectives?

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**Know your subject well  
and have the confidence  
needed to succeed.**

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Thank you for attending this session of the  
2020 TRWA Fall Management Conference

Contact information:  
Bruce A. Alexander  
Superintendent  
East Medina County Special Utility District  
[baalexander@emcsud.dst.tx.us](mailto:baalexander@emcsud.dst.tx.us)

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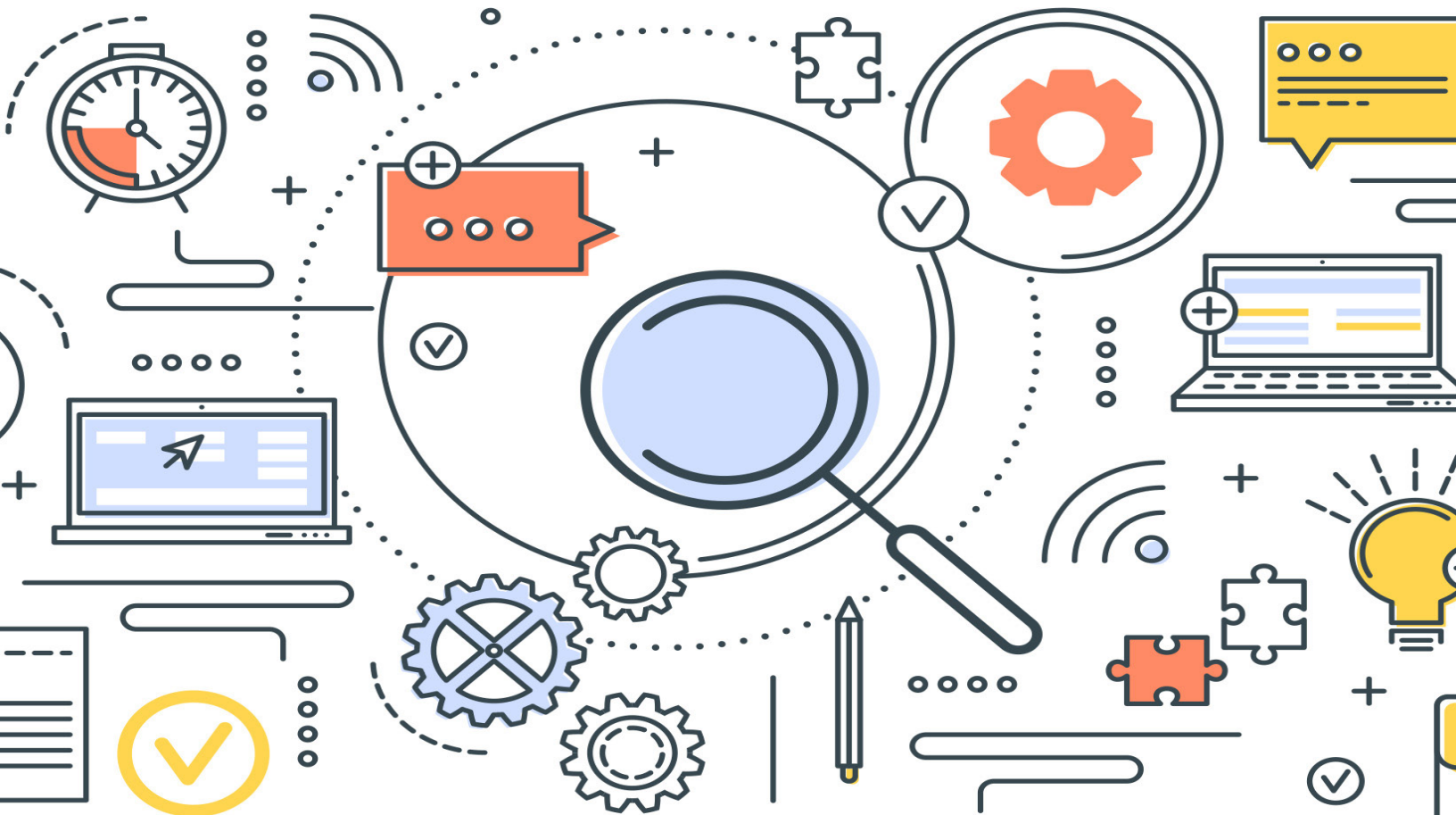
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## Embracing Technology

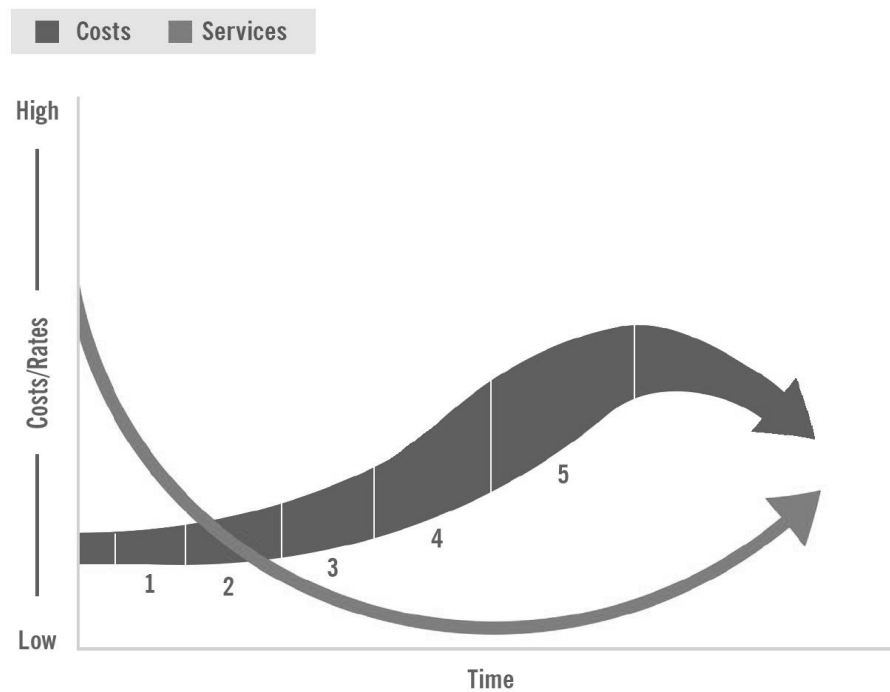
Marc Santos, PE - Isle Utilities



TRWA Fall Management Conference  
October 22, 2020

Bringing technologies to life

# Challenges to Embracing Technology



1. Initial assessment of existing service
2. Market research
3. Procurement/RFI/RFQ
4. Design/build
5. Adopting/training/SOPs

Credit: George Hawkins via Bipartisan Policy Center

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## Presentation Agenda

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Global Tech Ecosystem

2

Tech Areas to Consider

3

NRW Techs

Asset Management Techs

4

Other Resources

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# Global Tech Ecosystem

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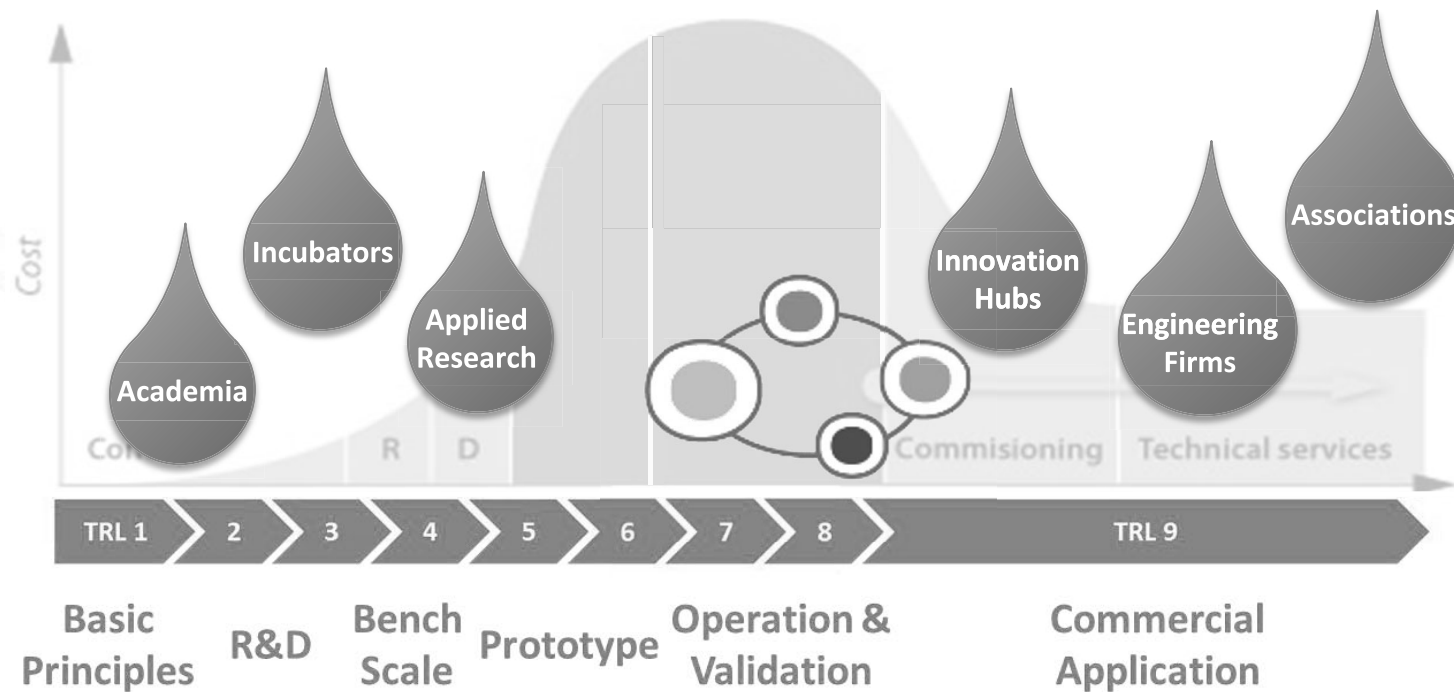
# Technology Due Diligence

## Technology Readiness Level (TRL)

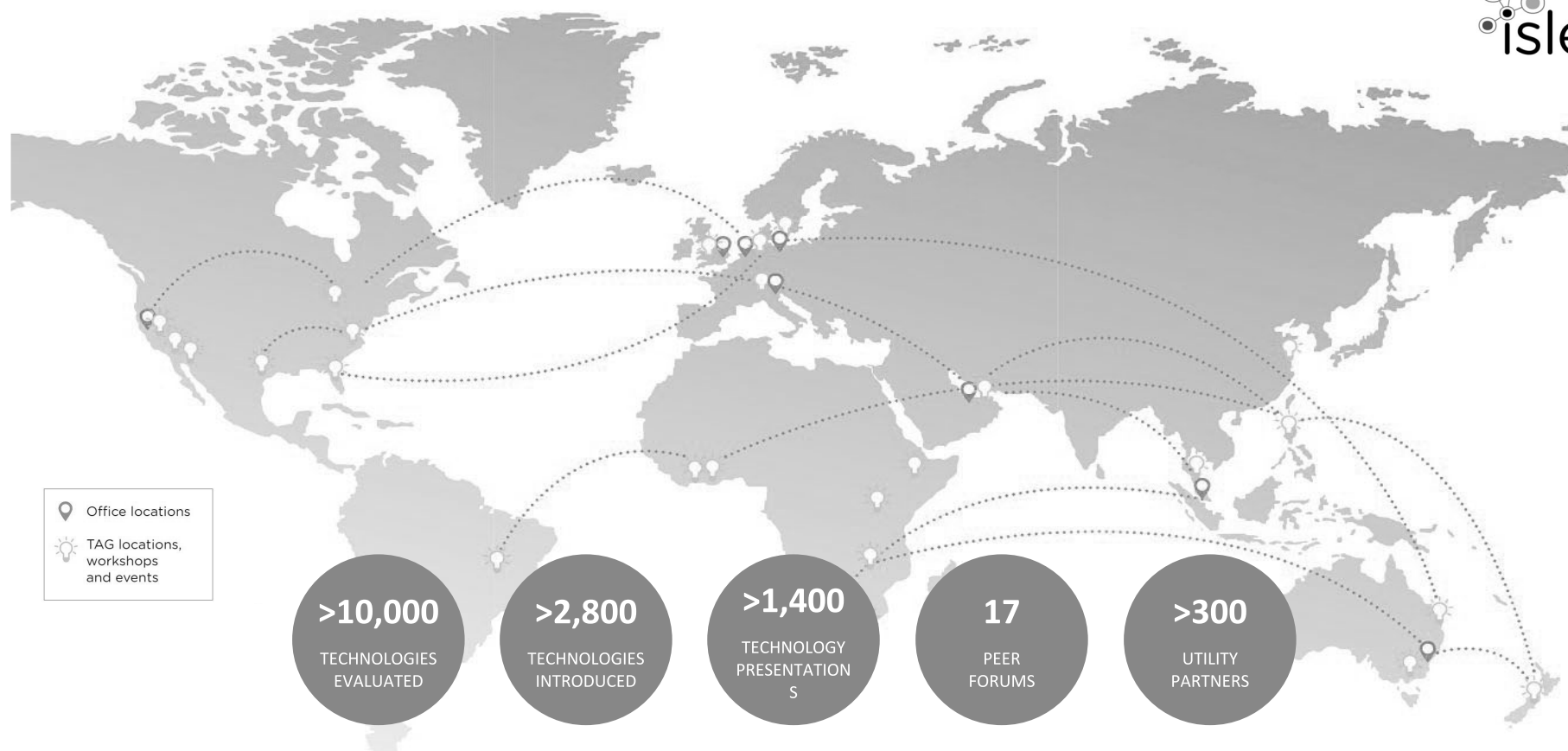
- A method for estimating the maturity of technologies developed at NASA in the 1970s.
- TRLs enable consistent, uniform discussions of technical maturity across different types of technology.



## Innovation Ecosystem



TAG Technologies sit between a 6 and 9 on the Technology Readiness Level (TRL) scale. Isle serves as a go-to-market bridge to overcome barriers between development and commercialization.



Isle is a technical consultancy with 85 employees worldwide. All our services revolve around the strategic identification, evaluation, and implementation of best-fit technologies and practices.



# Tech Areas to Consider



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## Some Areas of Improvement with Tech

### Immediate

- ✓ **Data** - Improved and digital data collection and communications between field and office staff
- ✓ **Optimization** - Treatment process, chemicals/disposables, energy optimization
- ✓ **Water Loss and I&I** - Reduction of water loss or inflow and infiltration
- ✓ **Reporting** - Efficiency in internal and external reporting
- ✓ **Residuals** - Beneficial use or resource recovery of residuals or biosolids
- ✓ **Billing** - Accurate and adequate billing
- ✓ **Health and Safety** - Personal monitoring, LOTO, and hazard identification

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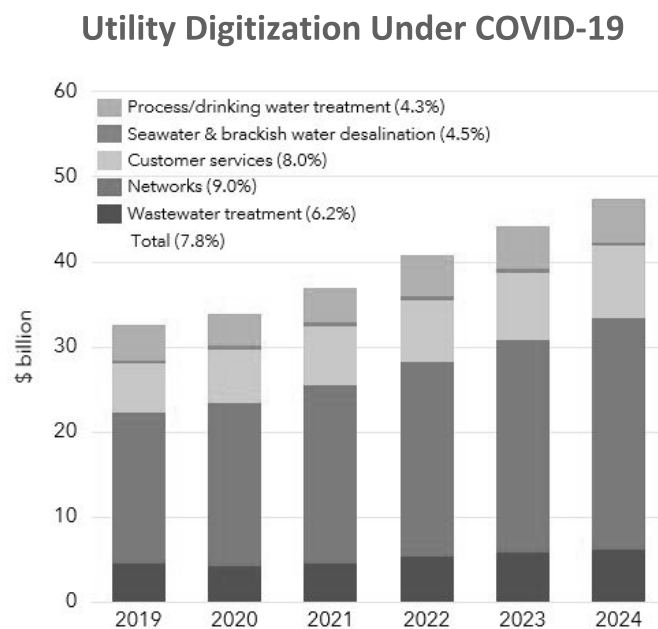
## Some Areas of Improvement with Tech

### Longer Term

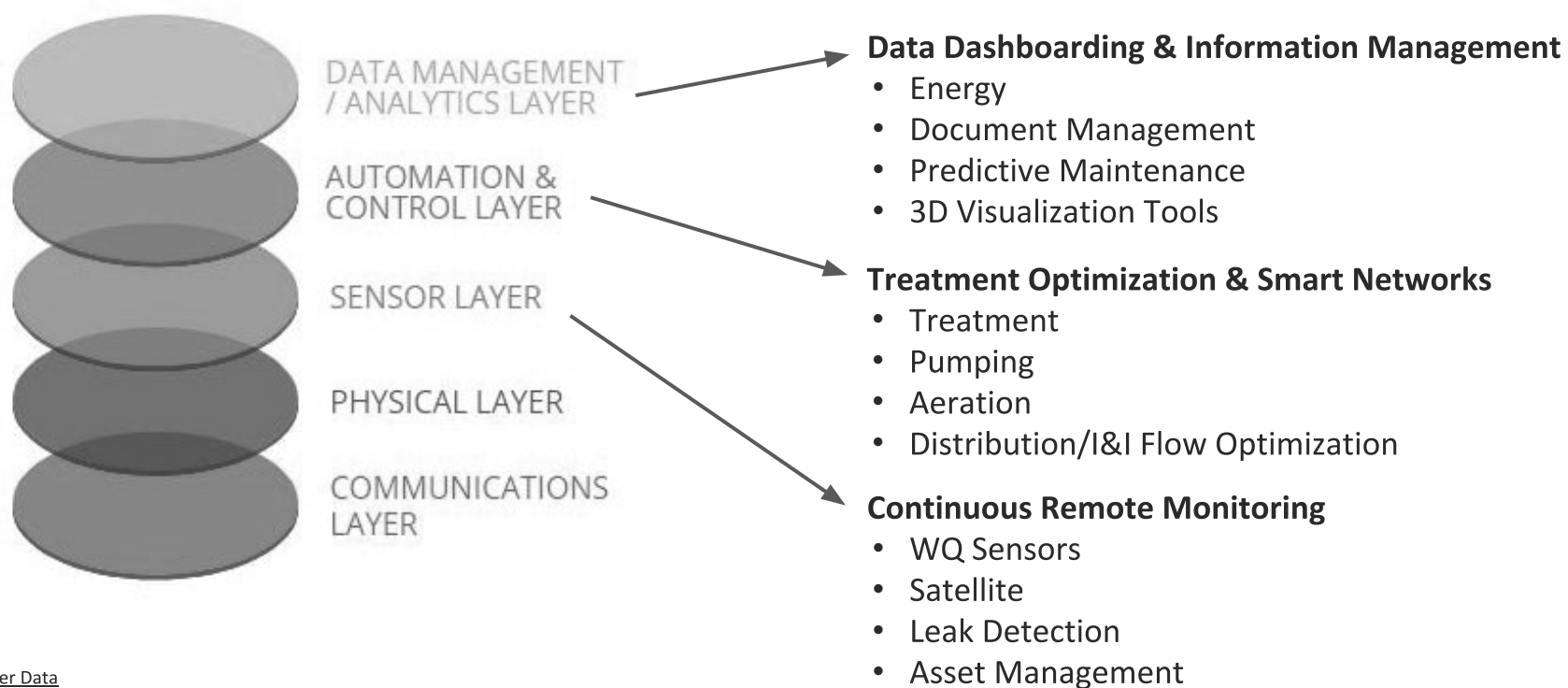
- ✓ **Preventative Maintenance** - Triggering and documenting effective maintenance
- ✓ **Asset Management** - Targeted replacement of linear assets (avoiding emergency fixes)
- ✓ **Communication** - Efficient communication with end users
- ✓ **Emergency** - Emergency preparedness for expected issues
- ✓ **Training** - Succession planning, documentation, and efficient training program

## Global Trends: Digital Transformation

*Automation and remote operations' role in securing service continuity during the COVID-19 pandemic has underlined the need for digital technologies, enabling support staff and on-the-ground operations staff to work remotely and utilities to remain in contact with their customers.*



# Digital Transformation



Source: [GWI Water Data](#)

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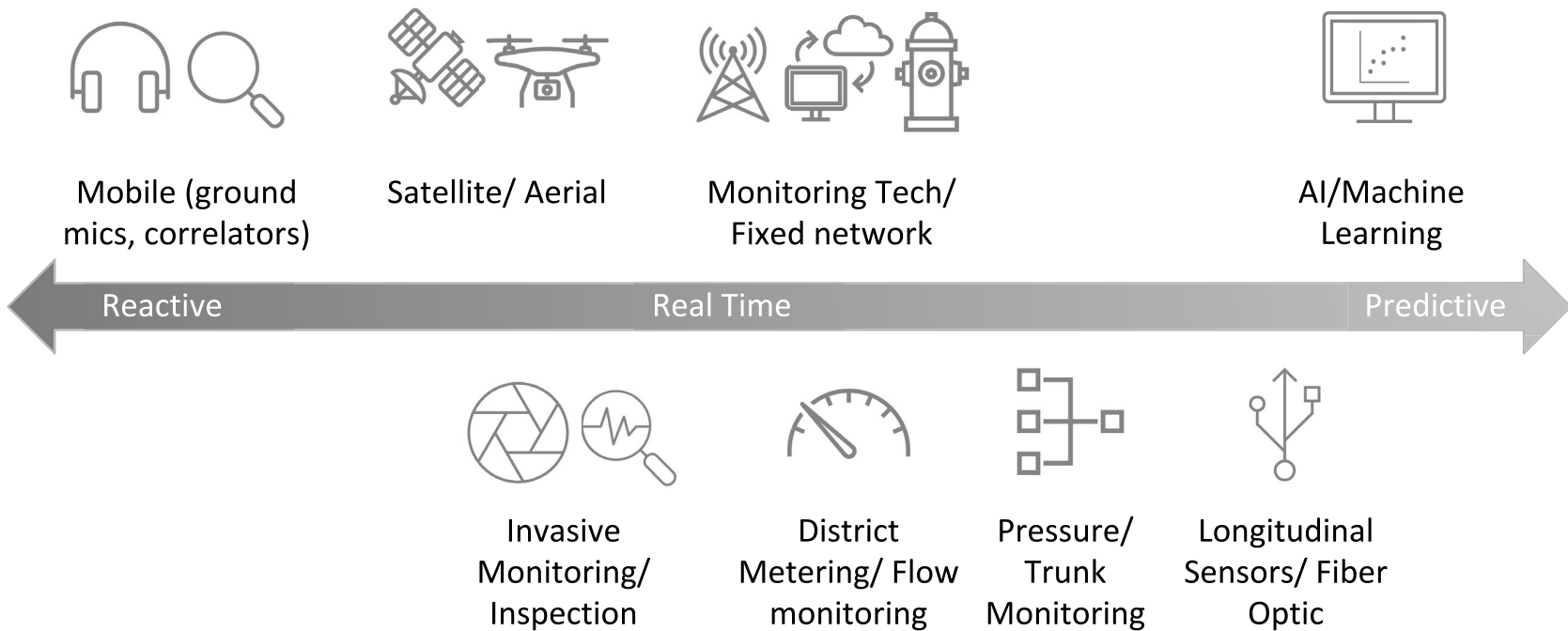
## Some Tech Buzzwords

- Machine Learning/Predictive Maintenance
- Artificial Intelligence
- Fuzzy Logic
- IOT - Internet of Things
- Digital Twin
- SAAS - software as as service
- HAAS - hardware as a service
- DAAS - data as a service

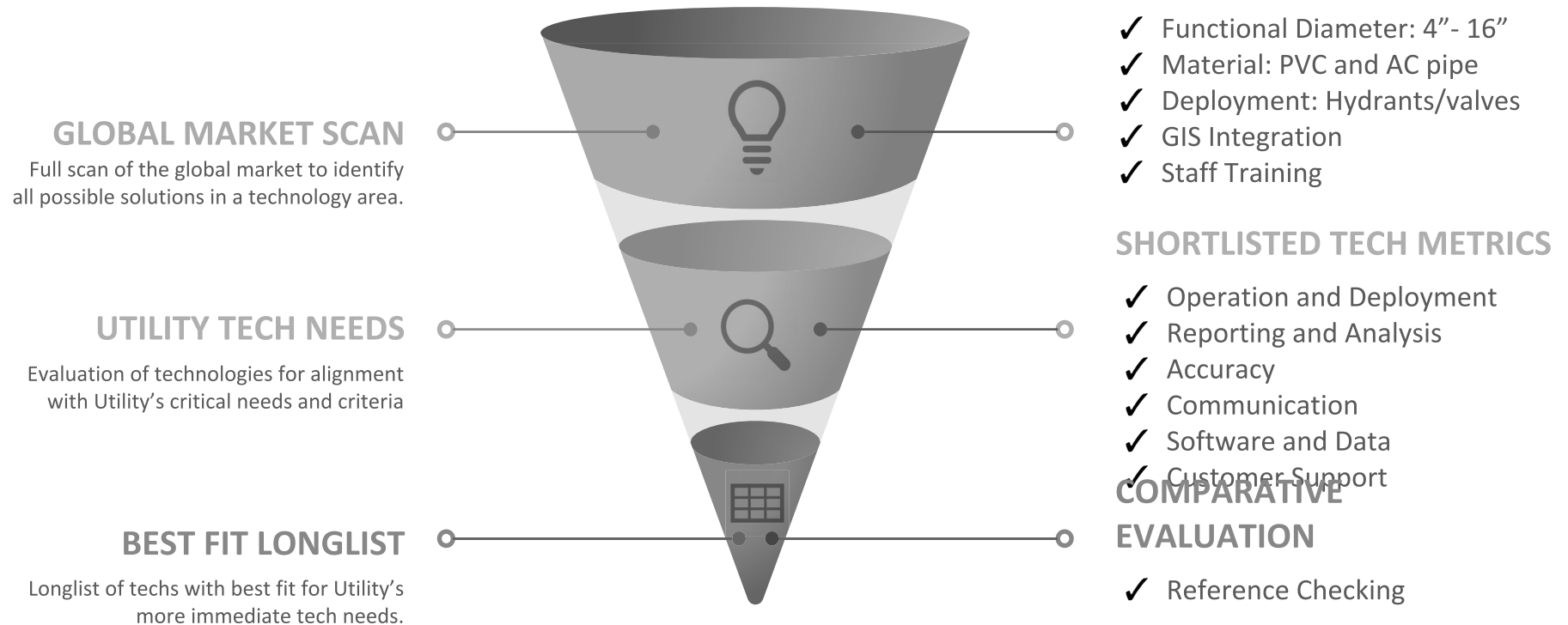


# Non-Revenue Water

## Technology Overview



# Tech Filters





# Water Pigeon

## USA | TRL 9

LEAK  
DETECTION



### What challenge does this technology solve?

- Alternative to existing automated meter reading (AMR) solutions



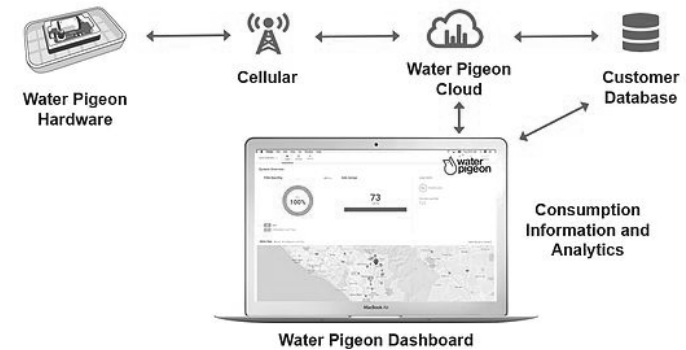
### How does it work?

- Delivers AMI functionality by replacing existing meter box lids with a lid that has an inbuilt camera to capture images of the meter register
- Images are converted to data via optical character recognition (OCR)
- Transmitted over the existing cellular network to the utility
- Provides the utility with accurate meter reads and the ability to identify leaks on the customer side of the meter



### Unique Selling Point / Competitive Advantage?

- Can be implemented at half the cost and one-tenth the time of current AMI/AMR offerings
- Deployed in 5 minutes or less



# Watchtower Robotics

USA | TRL 9

LEAK  
DETECTION



## What challenge does this technology solve?

- Early and accurate detection of leaks in distribution pipes



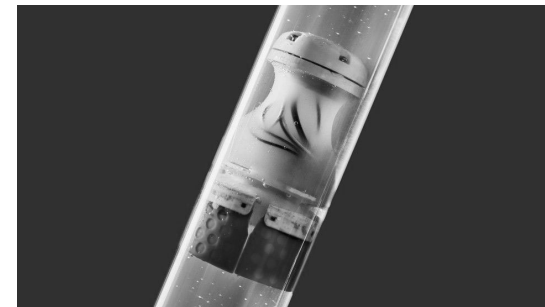
## How does it work?

- Lighthouse is a soft body, untethered robot used for detection of leaks in metal and plastic water pipes
- Can be deployed from T junctions or hydrants to inspect pipes while in service
- Maps the pipe during inspection and records changes in pipe diameter
- Uses pressure measurement at the wall of the pipe to detect leaks



## Unique Selling Point / Competitive Advantage?

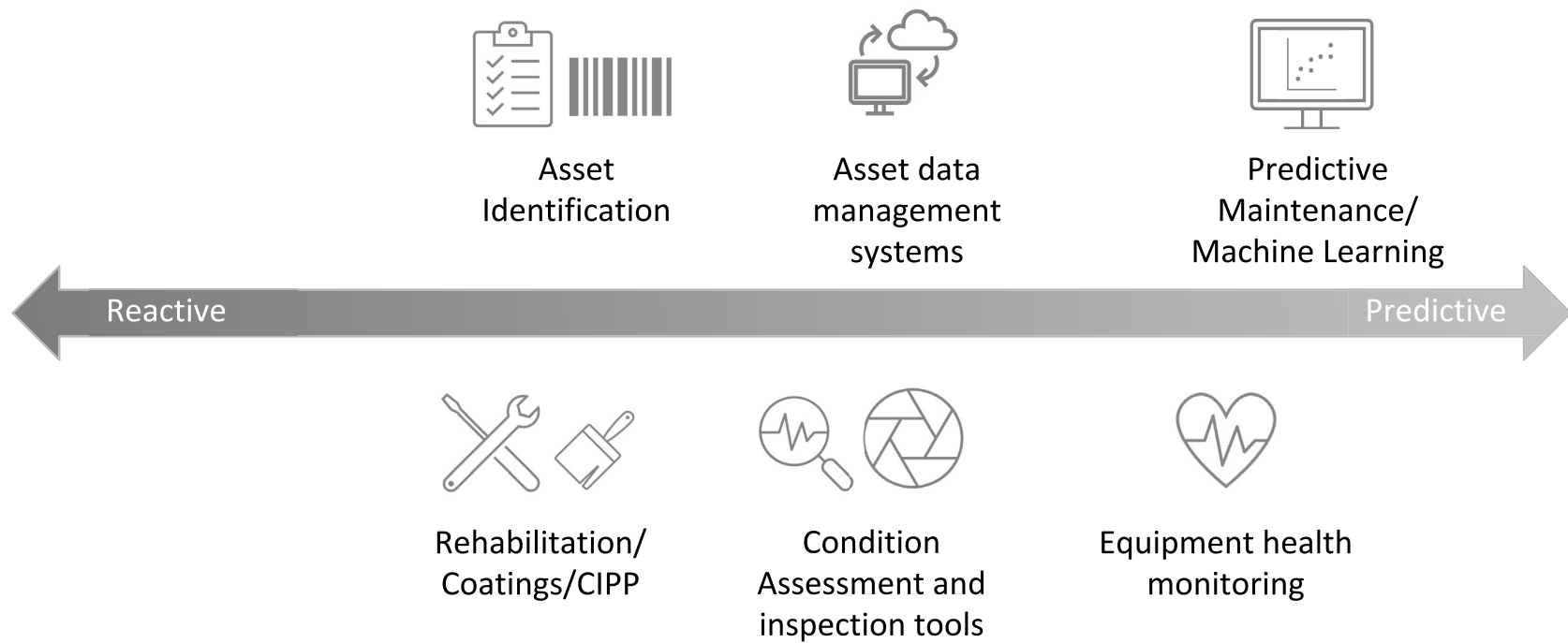
- Lighthouse can detect leaks of 1 GPM with accuracy of 1ft, compared to 100ft accuracy of competing systems





# Asset Management

## Asset Management Techs



# Subsurface Instruments

## USA | TRL 9



### What challenge does this technology solve?

- Locating plastic pipe diameter, depth, and location



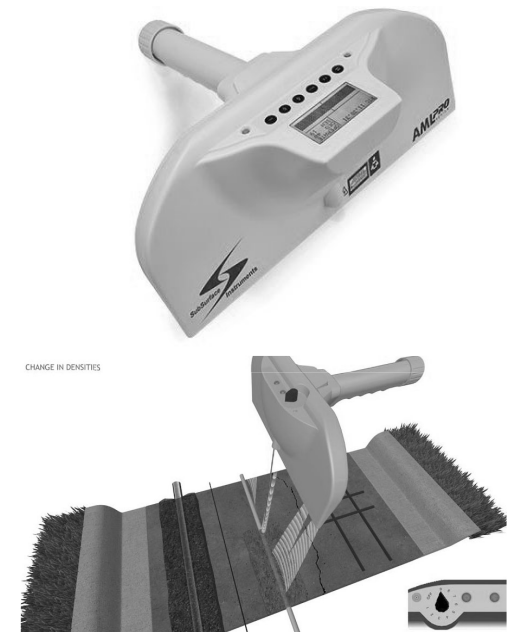
### How does it work?

- Utilizes a combination of continuous, unmodulated ultra high frequency (UHF) and algorithmic data analysis
- Emits an inverted, conical UHF signal that seeks out the edges of objects
- Can detect objects down to 18 ft/6 m
- Can locate non-metallic pipe including (PVC, PE, PEX, PP, ABS, AC, etc.)



### Unique Selling Point / Competitive Advantage?

- Unlike GPR it can work through wet soils, hard clays or solid rock
- It can scan a large area in seconds to minutes



# vGIS

## Canada | TRL 9



### What challenge does this technology solve?

- Gap between GIS data and real-world integration



### How does it work?

- vGIS Utilities transforms traditional “flat” GIS data into augmented reality displays and holograms
- Compatible with smart phones, tablets, or Microsoft Hololens
- Pipes and utility lines appear in the field of view as an extension of the real world
- Displays complex data points, such as ground penetrating radar scans



### Unique Selling Point / Competitive Advantage?

- Creates instant awareness of surroundings, saving time and avoiding costly mistakes
- Prevents excavation-related accidents



# Samsara IoT

## USA | TRL 9

SaaS/HaaS:  
BUSINESS  
PROCESSES



### What challenge does this technology solve?

- Data visibility and analytics for equipment and operating data



### How does it work?

- Collects any existing data from sensors, PLCs, pumps, remote assets, and grab samples
- Creates dashboards with custom visualizations with little training
- Enables condition monitoring, predictive maintenance, optimization of pump efficiency and tank operations



### Unique Selling Point / Competitive Advantage?

- Unlike traditional technologies, the data is stored in cloud and can be integrated with CMMS, water quality planning, and finance teams
- Allows integration of grab samples and field verifications along with online monitoring



# RedEye

Australia | TRL 9



## What challenge does this technology solve?

- Engineering drawing management leading to safety and financial risks



## How does it work?

- RedEyeDMS is the first purpose-built cloud and mobile engineering drawing management solution
- Upload and link relevant documents, photos, and drawings together
- Find the right information with a single click
- Changes in the field can be captured in real time
- An asset owner's Single Source of Truth (SSOT) for engineering data



## Unique Selling Point / Competitive Advantage?

- Allows changes to be recorded, shared, reviewed, and approved in an easy, efficient, auditable manner





# Daupler

## USA | TRL 8

SaaS:  
OPERATIONS



### What challenge does this technology solve?

- Time-intensive and inaccurate incident response and data management



### How does it work?

- Incident Response Management System (IRMS) helps utilities expedite their responses to critical issues
- Improves customer engagement with an incident response tracking tool
- Uses machine learning to analyze customer reported issues to look for potential causes
- Partners and integrates with various CMMS providers



### Unique Selling Point / Competitive Advantage?

- Improves customer satisfaction by reducing response times and engaging citizens with a Response Tracker





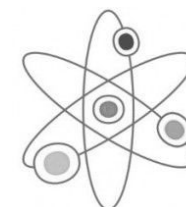
The background image features a lightbulb with a glowing filament, set against a dark grey background. The background is covered with various white sketches and diagrams, including a circular flowchart with 'Plan', 'Do', 'Check', and 'Act' stages, a bar chart, a line graph, a target symbol, a production diagram, and several mathematical formulas such as  $A+B=\frac{2+4+6}{3 \times 6}$  and  $\frac{A+B+C+D}{1+4+9+16}$ . Currency symbols like  $\text{€}$ ,  $\text{\$}$ , and  $\text{¥}$  are also visible. The text 'Additional Resources' is overlaid on the right side of the image in a white, sans-serif font.

# Additional Resources

---

## Water Action Platform

The group involves over **1100+** members **608** organizations across **88** countries as of August 2020.



Asset Management  
Chemical Free Treatment  
Communications  
Customer Service  
Digital and AI  
NRW and Leakage  
SDGs  
Technology and Innovation  
WASH Service Affordability  
Wastewater

<https://www.wateractionplatform.com/>



Thank you!

Marc Santos, P.E.  
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@watermarced



@isleutilities



Isle Utilities

Bringing technologies to life

# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

## Fall Management Conference

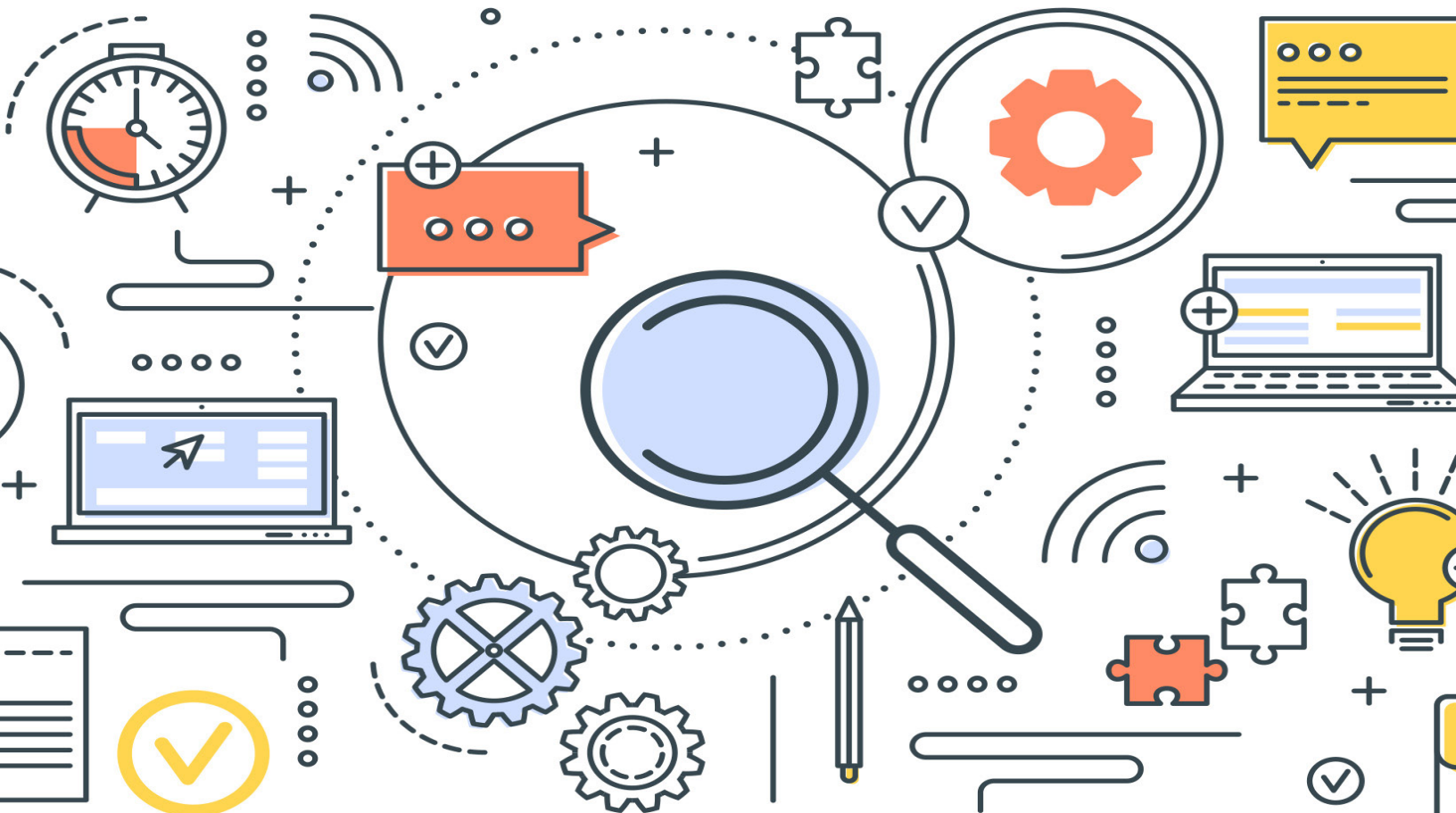
**DAY 3:**

**THURSDAY, OCTOBER 22**

10:00 a.m. - 10:50 a.m.

### **Workforce Development & Retention Strategies — Nichol Howell, TRWA**

In today's competitive labor market, it's important that utilities retain their highly skilled employees and avoid the high cost of turnover. This session will discuss strategies for attracting, developing and retaining employees, transferring institutional knowledge from an aging workforce, and evaluating pay and benefits.



# TRWA 2020 Fall Management Conference

## **Workforce Development & Retention Strategies**

Nichol Howell, TRWA  
Professional Development & Training Director



© Texas Rural Water Association

# Today's Goals

A changing workforce creates a need for us to change our ways of thinking, of doing business, and of managing our workers.

## The Why

Facts around workforce challenges and why it's so important that we have this discussion now.

## The How

Tips and techniques on how to start, or continue, tackling this beast, that I synthesized from various sources.

SLIDE 2



# Workforce Separations

“A tide of retirements is drastically cutting into the pool of skilled, qualified workers in many utilities and resulting in staffing vacancies of up to 50% in some cases.”

~ AWWA, 2019 ~

“From 2016 to 2026, the combination of separations and future growth in the water sector is projected to lead to an average of 9,200 annual openings for water and wastewater operators.”

~ The Bureau of Labor Statistics ~

“In the next 10 years, 37% of water utility workers and 31% of wastewater utility workers will retire.”

~ EPA, 2017 ~

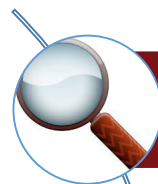
“Many systems will likely experience losses of 30%-50%.”

~ Numerous sources, including NRWA ~

SLIDE 3



# Workforce Challenges



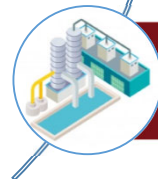
Low public awareness of the industry  
of available jobs



Difficulty finding candidates with  
skills and experience



Changes in our industry due to demographics  
and automation



Many jobs in our industry require more extensive on-  
the-job training

53% of  
water/wastewater  
workers have a high  
school diploma/GED  
or less, and 78% need  
at least one year of  
related work  
experience.

SLIDE 4

# TRWA Salary Survey: Education & Experience

## Education

- **Wastewater Operators**
  - 71% = High School/GED
  - 0% = Bachelors Degree
- **Water Distribution/Field Operators**
  - 69% = High School/GED
  - 4% = Bachelors Degree
- **Lead Operators/Field Managers**
  - 73% = High School/GED
  - 6% = Bachelors Degree
- **Manager/Operators**
  - 59% = High School/GED
  - 10% = Bachelors Degree
- **Plant Managers**
  - 45% = High School/GED
  - 14% = Bachelors Degree

## Experience

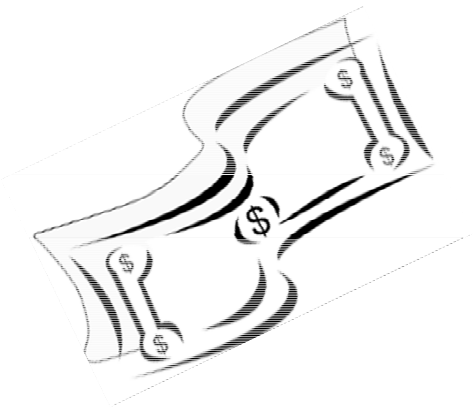
- **Wastewater Operators**
  - 86% = 0-15 years of experience
  - 14% = 15+ years of experience
- **Water Distribution/Field Operators**
  - 90% = 0-15 years of experience
  - 6% = 15+ years of experience
- **Lead Operators/Field Managers**
  - 52% = 0-15 years of experience
  - 46% = 15+ years of experience
- **Manager/Operators**
  - 36% = 0-15 years of experience
  - 44% = 15+ years of experience
- **Plant Managers**
  - 48% = 0-15 years of experience
  - 48% = 15+ years of experience

SLIDE 5

The TRWA 2020 Salary Survey Report is available for purchase for \$100 (complimentary for those who participated). The Rate Survey Report is also \$100, or you can purchase both reports for \$175. The 2018 reports are now 50% off. Visit the TRWA Store to order.

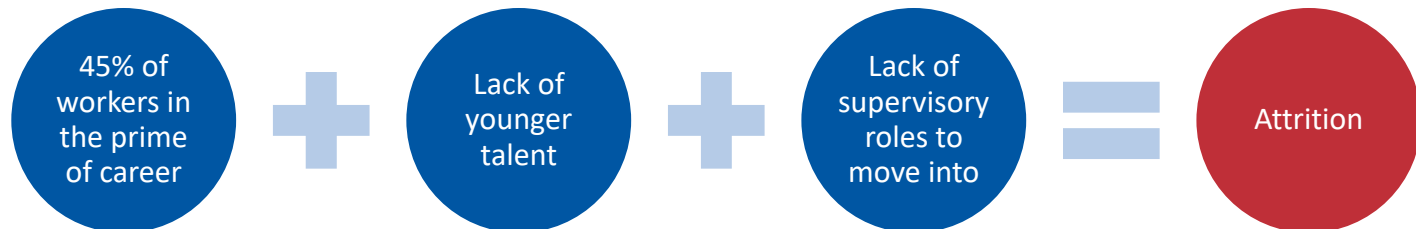


# Retention Challenges



- Wastewater Operators = \$37,605
- Water Distribution/Field Operators = \$39,853
- Lead Operators/Field Managers = \$51,318
- Manager/Operators = \$55,376
- Plant Managers = \$60,195

**\*\* salaries vary based on education, licensure, and experience \*\***



SLIDE 6

# Workforce Planning



SLIDE 7

# Succession Plan

## Step 1

- **Identify Key Areas and Positions** = Identify which positions are critical to the organization's operational activities and strategic objectives; and if left vacant, would make it very difficult to achieve current and future business goals.

## Step 2

- **Identify Capabilities for Key Areas and Positions** = To establish selection criteria, focus employee development efforts, and set performance expectations; you need to determine the relevant knowledge, skills, abilities, competencies, and capabilities required for the key areas and positions identified in Step 1.

## Step 3

- **Identify Interested Employees and Assess Against Capabilities** = Consider key areas and positions that are vulnerable, and the candidates who are ready to advance, or those whose skills and competencies could be developed within the required time frame.

## Step 4

- **Develop a Plan for Employee Development** = Define the learning, training, and development experiences that your organization requires for key areas and positions and link employees' learning plans to the knowledge, skills, and abilities required for current and future roles.

SLIDE 8

# Knowledge Management Plan

Shift to electronic  
O&M manuals

Video special  
procedures

Allow for job-  
shadowing and  
cross-training prior  
to retirements

Provide new  
employees  
orientation and  
job rotations

Maintain files that  
document policy  
decisions

Conduct exit  
interviews with  
knowledge  
transfer questions

SLIDE 9

# EPA Knowledge Retention Tool

Sheet No.	Type of Resource	Description	Information Captured
<a href="#">1</a>	Checklist	Handoff Checklist	Review and acknowledgement that everything has been documented
<a href="#">2</a>	General	System Overview	General system information
<a href="#">3</a>	Administrative	Documents	Important documents for system operation
<a href="#">4</a>	General	People	Important contacts and their information
<a href="#">5</a>	General	Source Water	Source water information
<a href="#">6</a>	Quick Response	Emergencies	Emergency preparedness contacts and documents
<a href="#">7</a>	Quick Response	Security	Security system information
<a href="#">8</a>	System Operation	Filtration and Treatment	Water treatment mechanisms
<a href="#">9</a>	System Operation	Process Monitoring and Sampling	Sampling techniques and frequencies for compliance and process monitoring
<a href="#">10</a>	System Operation	Operational Supplies	Supplies used in standard operation and where they can be obtained
<a href="#">11</a>	System Operation	System Maintenance	Maintenance and flushing activities
<a href="#">12</a>	System Operation	Storage	Water storage information
<a href="#">13</a>	System Operation	Distribution	Distribution infrastructure and information
<a href="#">14</a>	Administrative	Rules and Regulations	Applicable legislation
<a href="#">15</a>	Administrative	Technology	Operational system software usage
<a href="#">16</a>	Administrative	Operator Certification	Operator certification information
<a href="#">17</a>	Other	Neighboring Utilities	Contact and additional information about neighboring utilities
<a href="#">18</a>	Other	Other Information	Miscellaneous water system information

SLIDE 10 [https://www.epa.gov/sites/production/files/2018-03/knowledge\\_retention\\_tool\\_spreadsheet\\_for\\_small\\_water\\_systems.xlsx](https://www.epa.gov/sites/production/files/2018-03/knowledge_retention_tool_spreadsheet_for_small_water_systems.xlsx)

# Recruitment Strategies

- Investigate why identifying and hiring skilled workers remains a struggle and create more proactive, innovative recruiting strategies.
- Expand existing campaigns to raise awareness about both the water and wastewater industry and skilled trades.
- Place ad campaigns on high visibility public spaces to broadcast messaging about job opportunities and training resources.
- Attend career fairs in the community and join professional associations.
- Establish an employee referral program.
- Partner with local high schools.
- Look for talent in places that may not traditionally have attracted as much attention.

SLIDE 11



## Training Strategies

### On-the-Job Training

Expend efforts into growing your leadership talent to create a pipeline among the supervisory and managerial ranks.

Provide current employees with advanced technical training in the areas of automation and digital technology.

Participate in the TRWA apprenticeship program, to help fill positions with candidates lacking industry experience.

SLIDE 12

# Retention Strategies



SLIDE 13

**Coming  
in 2021!**

# TRWA Workforce Development Programs

## Apprenticeship Program

In 2017, NRWA established and certified its National Guideline Standards of Apprenticeship for Water and Wastewater Operation Specialists through the U.S. Department of Labor.

In an effort to assist the Texas public water systems in recruiting and filling positions with trained and competent workers, TRWA will launch a Registered Apprenticeship Program (RAP) in 2021. When you partner with TRWA, you leverage an established framework, where the apprentices work for you, but the overall operation of the apprenticeship program is managed by us, the program sponsor.

This 2-year program is tailored to transfer the wealth of experience and knowledge from industry experts to the next generation of system operation specialists. Individuals accepted into the program will receive both on-the-job training and technical instruction.

SLIDE 14

## Veteran's Employment Program

TRWA will re-establish the Veteran Employment Program (VEP) first implemented in 2014, as a means to help you attract veteran workers. TRWA implemented the program to inspire and mobilize new interest and talent to work in the rural water and wastewater industry. This is an on-the-job training program approved by the Texas Veterans Commission (TVC) and once the veteran is hired by a water or wastewater utility that is approved as a TVC training facility, he or she is eligible for a monthly stipend from the U.S. Veteran's Administration. This stipend is in addition to his or her regular salary.

Companies that hire veterans can provide added incentives by becoming approved for GI Bill, which assists their current and future veteran employees with using the benefits they've earned towards tuition, fee payments, and a tax-free monthly housing allowance.



# Contact Information

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Professional Development & Training Director  
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512-289-9850 (M)



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# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

# Fall Management Conference

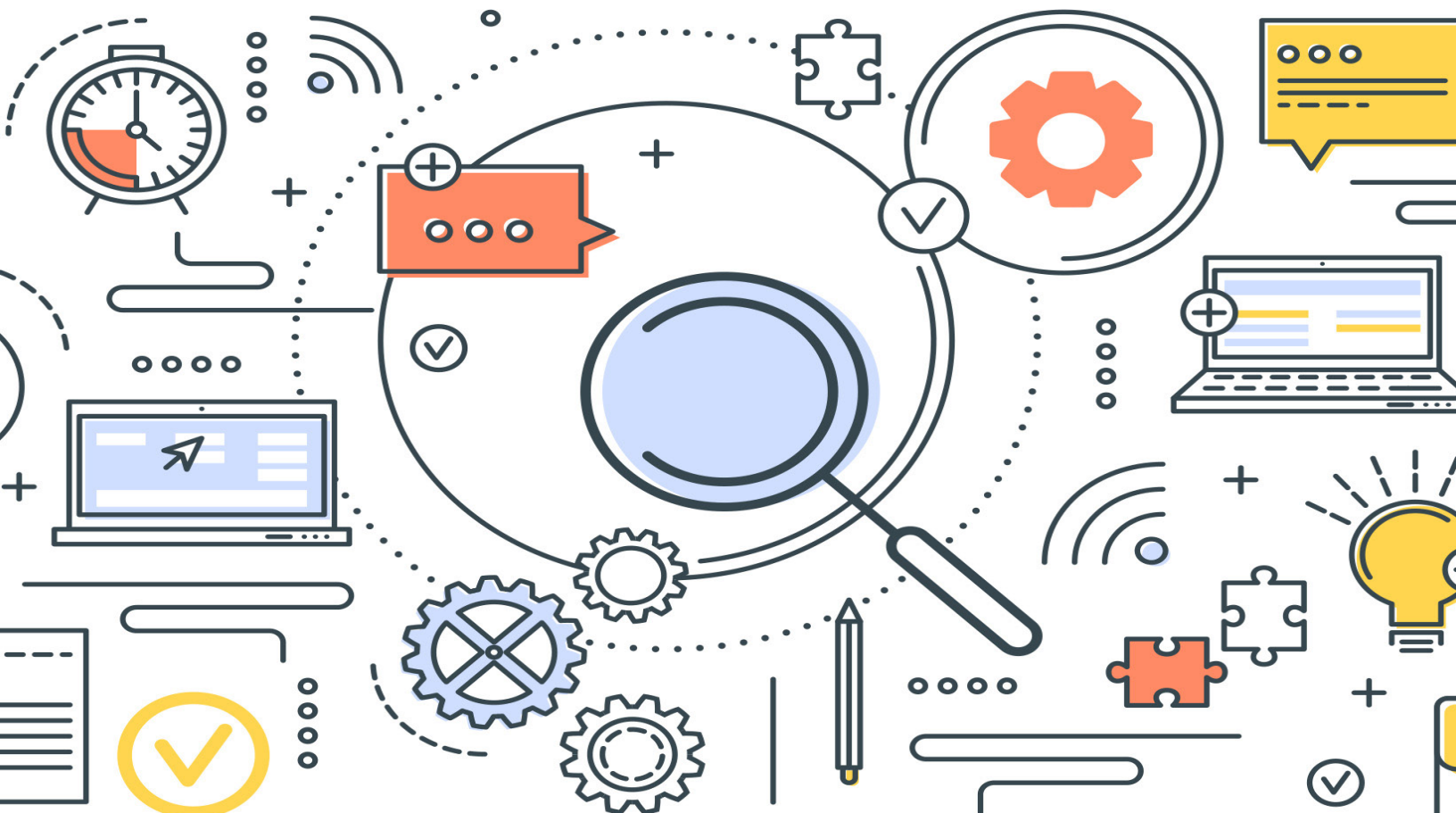
## DAY 4:

## FRIDAY, OCTOBER 23

9:00 a.m. - 9:50 a.m.

## Water Loss Audit: How to Maximize the Benefit – John Sutton, Texas Water Development Board

This session will discuss how getting a handle on a system's water loss through a comprehensive water loss audit will advance the business and financial interest of a utility as well as meet the regulatory requirements. Will also explain the free tools and resources to assist utilities available through the Texas Water Development Board.



# Water Loss Audit– How to Maximize the Benefit

Municipal Water Conservation  
Texas Water Development Board

*Unless specifically noted, this presentation does not  
necessarily reflect official Board positions or decisions.*

1

## Water Loss Audits

What?

Who?

Why?

When?

Where?

How?

2

## WHO? WHEN?

- All retail public water systems by May 1, 2021
- 3,300 or > connections
- Active financial obligation
- Recommend annual



3

## WHY?

- System efficiency
- Extend supply
- Target asset upgrades
- Saves money
- Public Health
- Financial Assistance
- Regional Water Planning



4

## HOW?

### Training Requirement 31 TEXAS ADMINISTRATIVE CODE (TAC) § 358.6(b)(4)

- *Effective January 1, 2019, the water loss audit must be performed by a person who has completed water loss audit training.....agency website and may also provide such training in person or by video.*
- *The person who completes the water loss audit is required to upload the training acknowledgement with their name on it – not someone else's acknowledgement.*



5

## WHERE?

**[www.twdb.texas.gov/conservation/municipal/waterloss/index.asp](http://www.twdb.texas.gov/conservation/municipal/waterloss/index.asp)**

- Accessing the Water Loss Audit online reporting application (LUC)
- Registered user instructions
- Email address and contact information
- Training webinar



6



**Texas Water Development Board** Water Loss, Use and Conservation

Home Logout Agency Policies Contact Webmaster

WLUCA Water Use Survey Water Loss Audit Water Conservation APM Home

Welcome to the Water Loss, Use and Conservation Home Page

Name: Daniel Rice

Search Filter

Year:

☐ PWS Code ☐ PWS Name ☐ Survey Number ☐ WUS System Name

Water Use Survey

Water Loss Audit

Water Conservation Annual Report

Water Conservation Utility Profile

Water Conservation Plan

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**Texas Water Development Board**

7

New Tab x Water Loss Audit x +

www3.twdb.texas.gov/apps/wla/Audit.aspx?ay=2019&un=1010027

Apps TWDB HOME TWDB INTRANET TWDB LUC TCEQ DWWS Workshop Participa... New Tab WLA: Requests Pen...

**Texas Water Development Board** Water Loss Audit

Home Worksheet Audit Report Request Access WLUCA Home

Water Audit Report for 1010027, Year 2019

\* FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.

**A. Water Utility General Information**

1. Water Utility Name: CITY OF WEST UNIVERSITY PLACE

1a. Regional Water Planning Area: H

1b. Address: 3800 UNIVERSITY BLVD  
HOUSTON, TX 77005-2802

2. Contact Information:

\* 2a. Name: Barron Cooper

\* 2b. Telephone Number: (832) 818-0757

\* 2c. Email Address: bcooper@westutx.gov

\* Have you completed Water Loss Auditor Training? ☒ Yes ☐ No

3. Reporting Period:

\* 3a. Start Date: 1/1/2019 (m/d/yyyy)

\* 3b. End Date: 12/31/2019 (m/d/yyyy)

4. Source Water Utilization:

4a. Surface Water: 35.00 %

4b. Ground Water: 65.00 %

8

Water Loss Audit

Water Audit Report for 1010027, Year 2019

4b. Ground Water: 65.00%

5. Population Served:

5a. Retail Population Served: 15,016

5b. Wholesale Population Served: 0

6. Utility's Length of Main Lines: 53.00 miles Assessment Scale: 4

7. Total Retail Metered Connections - Active and Inactive: 6,179 Assessment Scale: 3

8. Number of Wholesale Connections Served: 0

9. Service Connection Density: 116.58 connections per mile

10. Average Yearly System Operating Pressure: 58.00 psi Assessment Scale: 2

11. Volume Units of Measure: gallons

**B. System Input Volume**

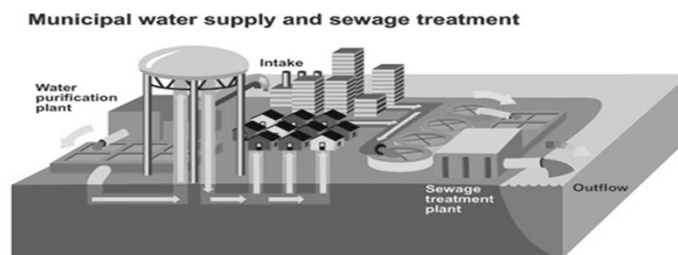
12. Volume of Water Intake: 300,469,000 gallons

13. Produced Water: 300,469,000 Assessment Scale: 4

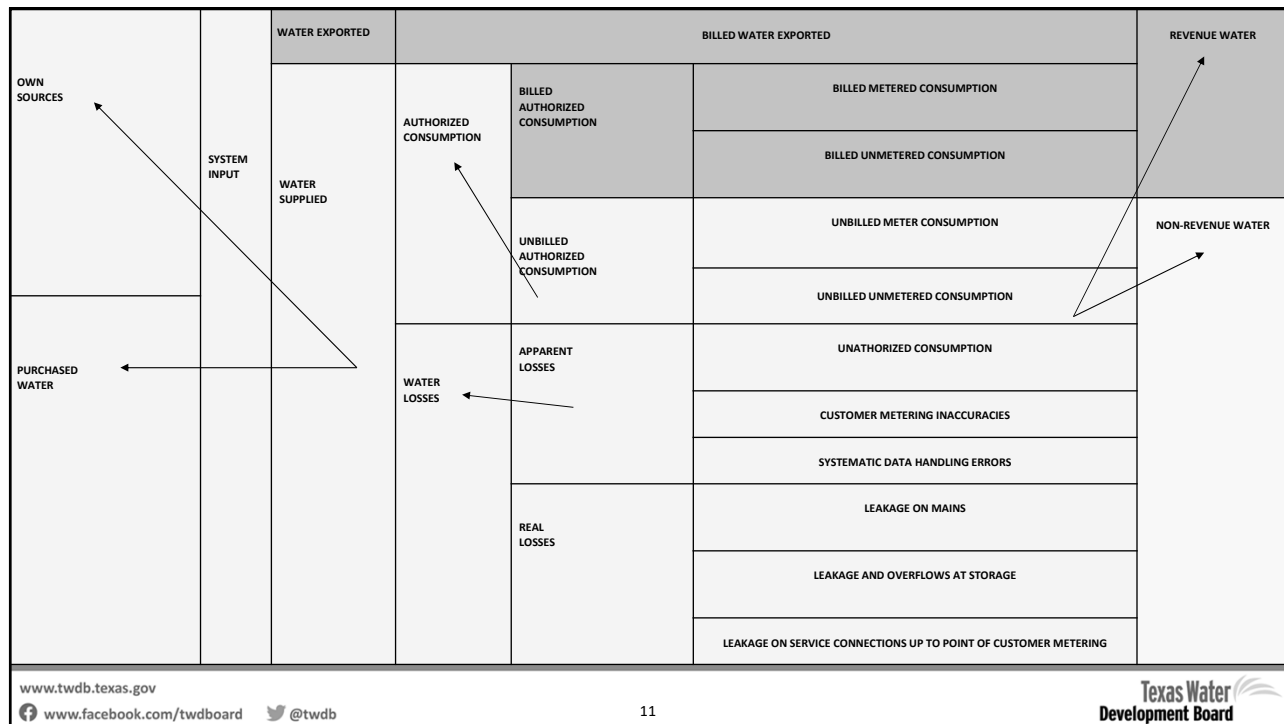
9

## Water Balance

Provides accountability, as all the water placed into a distribution system should, in theory, equal all the water taken out of the distribution system.



10



11

New Tab x Water Loss Audit x +

www3.twdb.texas.gov/apps/wla/Audit.aspx?ay=2019&un=1010027

Apps TWDB HOME TWDB INTRANET TWDB LUC TCEQ DWW Workshop Participa... New Tab WLA: Requests Pen...

Texas Water Development Board

Water Loss Audit

Home Worksheet Audit Report Request Access WLUC Home

Water Audit Report for 1010027, Year 2019 [Save] [Un-Submit Worksheet] [Help for Form Completion] [Assessment Scale] [Change Year] [Cancel]

[?] Open Instructions

\* FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.

**B. System Input Volume**

12. Volume of Water Intake: 300,469,000 gallons

\* 13. Produced Water: 300,469,000 Assessment Scale: 4

13a. Production Meter Accuracy: 96.0 % Assessment Scale: 1

13b. Corrected Input Volume: 312,988,542 gallons

14. Total Treated Purchased Water: 492,123,000 gallons Assessment Scale: 1

14a. Treated Purchased Water Meter Accuracy: 96.0 % Assessment Scale: 3

14b. Corrected Treated Purchased Water Volume: 512,628,125 gallons

15. Total Treated Wholesale Water Sales: 0 gallons Assessment Scale: N/A

15a. Treated Wholesale Water Meter Accuracy: 0.0 % Assessment Scale: N/A

15b. Corrected Treated Wholesale Water Sales Volume: 0 gallons

16. Total System Input Volume: 825,616,667 gallons

**C. Authorized Consumption**

12

## Reviewing Common Errors

- Line 12 should be more or equal to Line 13
  - Line 12 is 1 Million Gallons and Line 13 is 500,000 gallons
    - where did the other 500,000 gallons go?
  - Line 13 is 1 Million Gallons and Line 12 is 500,000 gallons
    - how are you treating more water than you have?
  - Line 12 is 1 Million Gallons and Line 13 is 1 Million Gallons
    - is this an error?



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13

Texas Water  
Development Board

13

## System Input Volume

Total amount of water supplied to the distribution system and should be validated and should include an adjustment for master meter inaccuracy.



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Development Board

14

# Authorized Consumption

Water that is used by customers that are known to the water system.

- Billed Metered
- + Billed Unmetered
- + Unbilled Metered
- + Unbilled Unmetered
- = Authorized Consumption (mg/yr)



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15

New Tab x Water Loss Audit x +

www3.twdb.texas.gov/apps/wla/Audit.aspx?ay=2019&un=1010027

Apps TWDB HOME TWDB INTRANET TWDB LUC TCEQ.DWW Workshop Participa... New Tab WLA: Requests Pen...

**Texas Water Development Board** Water Loss Audit Home Logout Agency Policies Conta

Home Worksheet Audit Report Request Access WLUC Home

Water Audit Report for 1010027, Year 2019 Save Un-Submit Worksheet Help for Form Completion Assessment Scale Change Year Cancel

Open Instructions

\* FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.

16. Total System Input Volume: 825,616,667 gallons

**C. Authorized Consumption**

\* 17. Billed Metered: 792,592,000 gallons Assessment Scale: 4.5

18. Billed Unmetered: 0 gallons Assessment Scale: 5

19. Unbilled Metered: 0 gallons Assessment Scale: 5

20. Unbilled Unmetered: 10,320,208 gallons Assessment Scale: 3

☒ Use 1.25% of System Input Volume

21. Total Authorized Consumption: 802,912,208 gallons

**D. Water Losses**

22. Water Losses: 22,704,458 gallons

**E. Apparent Losses**

\* 23. Average Customer Meter Accuracy: 98.0 % Assessment Scale: 4.5

24. Customer Meter Accuracy Loss: 16,175,347 gallons

16

## Reviewing Common Errors

- Line 17 should always be less than Line 16
  - Line 16 is 1 Million Gallons and Line 17 is 500,000 gallons
    - where did the other 500,000 gallons go?
  - Line 17 is 1 Million Gallons and Line 16 is 500,000 gallons
    - how are you billing out more water than you have?



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17

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17

## Water Losses

Water losses in the distribution system that are not due to authorized consumption and are categorized as either apparent or real losses.

System Input Volume - Authorized Consumption  
= Water Loss



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18

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18

## Apparent Loss

*Commercial or apparent losses are water that is lost that could have been sold. Non-Revenue Water, Water Theft, Slow Meters and Billing Issues*

- Unauthorized Consumption
- + Customer Meter Inaccuracies
- + Systematic Data handling Errors
- = Apparent Loss



## Real Loss

*Physical Losses – water that enters the distribution system but never reaches a user. Leakage on transmission and distribution mains, storage tank overflows, and service line leak to customer meter.*

- Non revenue water

Water Losses

- Apparent Losses
- = Real Loss



Water Loss Audit

Water Audit Report for 1010027, Year 2019

**E. Apparent Losses**

\* 23. Average Customer Meter Accuracy: 98.0 % Assessment Scale: 4.5

24. Customer Meter Accuracy Loss: 16,175,347 gallons

25. Systematic Data Handling Discrepancy: 0 gallons Assessment Scale: 4

26. Unauthorized Consumption: 2,064,042 gallons Assessment Scale: 2

☒ Use 0.25% of System Input Volume

27. Total Apparent Losses: 18,239,389 gallons

**F. Real Losses**

28. Reported Breaks and Leaks: 1,000,000 gallons Assessment Scale: 3.5

29. Unreported Loss: 3,465,070 gallons Assessment Scale: 1

30. Total Real Losses: 4,465,070 gallons

31. Total Water Losses: 22,704,458 gallons

32. Non-Revenue Water: 33,024,667 gallons

21

Water Loss Audit

Water Audit Report for 1010027, Year 2019

**G. Technical Performance Indicator for Apparent Loss**

33. Apparent Losses Normalized: 8.09 gallons lost per connection per day

**H. Technical Performance Indicators for Real Loss**

34. Real Loss Volume: 4,465,070 gallons

35. Unavoidable Annual Real Losses Volume: 25,691,489 gallons

36. Infrastructure Leakage Index: 0.17 I.L.I.

37. Real Losses Normalized - Service Connections: 1.98 gallons lost per connection per day

38. Real Losses Normalized - Main Lines: 0.00 gallons lost per mile per day

**I. Financial Performance Indicators**

39. Total Apparent Losses: 18,239,389 gallons

\* 40. Retail Price of Water: 0.00232 \$ per gallon Assessment Scale: 3

41. Cost of Apparent Losses: \$42,315

22



Water Loss Audit

Water Audit Report for 1010027, Year 2019

38. Real Losses Normalized - Main Lines: 0.00 gallons lost per mile per day

**I. Financial Performance Indicators**

39. Total Apparent Losses: 18,239,389 gallons

\* 40. Retail Price of Water: 0.00232 \$ per gallon Assessment Scale: 3

41. Cost of Apparent Losses: \$42,315

42. Total Real Losses: 4,465,070 gallons

\* 43. Variable Production Cost of Water: 0.000240 \$ per gallon Assessment Scale: 3.5

44. Cost of Real Losses: \$1,072

45. Total Cost Impact of Apparent and Real Losses: \$43,387

46. Total Assessment Score: 67

**J. System Losses and Gallons Per Capita per Day (GPCD)**

47. Total Water Loss - Percentage: 2.75 %

48. GPCD Input: 55

23

Water Loss Audit

Water Audit Report for 1010027, Year 2019

**I. Financial Performance Indicators**

39. Total Apparent Losses: 18,239,389 gallons

\* 40. Retail Price of Water: 0.00232 \$ per gallon Assessment Scale: 3

41. Cost of Apparent Losses: \$42,315

42. Total Real Losses: 4,465,070 gallons

\* 43. Variable Production Cost of Water: 0.000240 \$ per gallon Assessment Scale: 3.5

44. Cost of Real Losses: \$1,072

45. Total Cost Impact of Apparent and Real Losses: \$43,387

46. Total Assessment Score: 67

**J. System Losses and Gallons Per Capita per Day (GPCD)**

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Water Loss Audit

Home Logout Agency Policies Contact Us

Home Worksheet Audit Report Request Access WLUC Home

Water Audit Report for 1010027, Year 2019 [Un-Submit Worksheet] [Help for Form Completion] [Assessment Scale] [Change Year] [Cancel]

Open Instructions

\* FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.

55. Adjusted Total Water Loss Volume:	22,704,458
56. Adjusted Total Cost Impact of Apparent and Real Losses:	\$43,387
57. Adjusted Real Loss Per Connection:	1.98
58. Adjusted Real Loss Per Mile:	0.00
59. Adjusted Infrastructure Leakage Index:	0.17
60. Adjusted Total Water Loss - Percentage:	2.75 %
61. Adjusted GPCD Loss:	4

Comments

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## Performance Indicators

- Line 33 – Apparent Loss, gallons/connection/day
- Line 36 - Infrastructure Leakage Index (ILI): > 3,000 connections
- Line 37 – Real Loss, gallons/connection/day
- Line 41 - Cost of Apparent Loss (Revenue!)
- Line 44 – Cost of Real Loss
- Line 45 – Cost of Water Loss
- Line 46 – Total Assessment Scale
- Line 47 – Total Water Loss, gallons/connection/day
- Line 49 - GPCD (gallons per capita per day)

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## Water Loss Percent

### Not a Performance Indicator!

Field on Audit	2019	2020
Total System Input Volume	2,000,000,000 gallons	2,100,000,000 gallons
Total Authorized Consumption	1,650,000,000 gallons	1,750,000,000 gallons
Total Water Loss	350,000,000 gallons	350,000,000 gallons
Percent of Water Loss	17.5%	16.7%
Real Loss per Connection per Day	56.7 gallons per connection per day	56.7 gallons per connections per day
Apparent Loss per Connection per Day	9.8 gallons per connection per day	9.8 gallons per connection per day

## Assessment Scale Benefits

- Self-reported Assessments complete the WLA to determine how accurate your data is
- Consider your options and **take action**
- Also known as Water Loss Audit validation
- Bridge from WLA to Action to Conservation Plans

Water Loss Audit

Home | Worksheet | Audit Report | Request Access | WLUC Home

Water Audit Report for 1010027, Year 2019 | Un-Submit Worksheet | Help for Form Completion | Assessment Scale | Change Year | Cancel

Open Instructions

\* FIELDS MARKED WITH A RED STAR MUST BE FILLED OUT BEFORE THIS FORM CAN BE SUBMITTED.

4b. Ground Water: 65.00%

Reset Source Water Percentages to Zero

5. Population Served:

5a. Retail Population Served: 15,016

5b. Wholesale Population Served: 0

\* 6. Utility's Length of Main Lines: 53.00 miles | Assessment Scale: 4

\* 7. Total Retail Metered Connections - Active and Inactive: 6,179 | Assessment Scale: 3

8. Number of Wholesale Connections Served: 0

9. Service Connection Density: 116.58 connections per mile

\* 10. Average Yearly System Operating Pressure: 58.00 psi | Assessment Scale: 2

11. Volume Units of Measure: gallons

**B. System Input Volume**

12. Volume of Water Intake: 300,469,000 gallons

\* 13. Produced Water: 300,469,000 | Assessment Scale: 4

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Length of Main Lines Assessment Scale Table Adapted from American Water Works Association Free Water Audit Software®											
Component	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	N/A
SYSTEM DATA	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	N/A
Line 6 Length of main lines, miles	Current condition: Poorly assembled and maintained paper as-built records of existing water main installations makes accurate determination of system pipe length impossible. Length of mains is estimated.	Current condition: Paper records in poor or uncertain condition (no annual tracking of installations & abandonments). Poor procedures to ensure that new water mains installed by developers are accurately documented.	Conditions between 1 and 2	Current condition: Sound written policy and procedures exist for documenting new water main installations, but gaps in management result in a uncertain degree of error in tabulation of mains length.	Conditions between 2 and 3	Current condition: Sound written policy and procedures exist for permitting and commissioning new water mains. Highly accurate paper records with regular field validation; or electronic records and asset management system in good condition. Includes system backup.	Conditions between 3 and 4	Current condition: Sound written policy and procedures exist for permitting and commissioning new water mains. Electronic recordkeeping such as a Geographical Information System (GIS) and asset management system are used to store and manage data.	Conditions between 4 and 5	Current condition: Sound written policy exists for managing water mains extensions and replacements. Geographic Information System (GIS) data and asset management database agree and random field validation proves truth of databases. Records of annual field validation should be available for review.	Not a choice
Improvements in quantifying the length of mains	To improve to 1: Assign personnel to inventory current as-built records and compare with customer billing system records and highway plans in order to verify poorly documented pipelines. Assemble policy documents regarding permitting and documentation of water main installations by the utility and building developers; identify gaps in procedures that result in poor.	To improve to 2: Complete inventory of paper records of water main installations for several years prior to audit year. Review policy and procedures for commissioning and documenting new water main installation.	To improve to 3: Finalize updates/improvements to written policy and procedures for permitting/commissioning new main installations. Confirm inventory of records for five years prior to audit year; correct any errors or omissions.	To improve to 4: Launch random field checks of limited number of locations. Convert to electronic database such as a Geographic Information System (GIS) with backup as justified. Develop written policy and procedures.	To improve to 5: Link Geographic Information System (GIS) and asset management databases, conduct field verification of data. Record field verification information at least annually.	To maintain a 5: Continue with standardization and random field validation to improve the completeness and accuracy of the system.	Not a choice				

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Component	Number of Retail Connections Assessment Scale Table Adapted from American Water Works Association Free Water Audit Software®									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
SYSTEM DATA	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
Line 7 Number of retail connections, active and inactive  Value for Line 7 is populated from the Water Use Survey	Current condition: Vague permitting (of new service connections) policy and poor paper recordkeeping of customer connections/billings result in suspect determination of the number of service connections, which may be 10-15% in error from actual count.	Current condition: General permitting policy exists but paper records, procedural gaps, and weak oversight result in questionable total for number of connections, which may vary 5-10% of actual count.	Conditions between 1 and 2	Current condition: Written account activation policy and procedures exist, but with some gaps in performance and oversight. Computerized information management system is being brought online to replace dated paper recordkeeping system. Reasonably accurate tracking of service connection installations & abandonments; but count can be up to 5% in error from actual total.	Conditions between 2 and 3	Current condition: Written new account activation and overall billing policies and procedures are adequate and reviewed periodically. Computerized information management system is in use with annual installations & abandonments totaled. Very limited field verifications and audits. Error in count of number of service connections is believed to be no more than 3%.	Conditions between 3 and 4	Current condition: Policies and procedures for new account activation and overall billing operations are written, well-structured and reviewed at least biannually. Well-managed computerized information management system exists and routine, periodic field checks and internal system audits are conducted. Counts of connections are no more than 2% in error.	Conditions between 4 and 5	Current condition: Sound written policy and well managed and audited procedures ensure reliable management of service connection population. Computerized information management system, Customer Billing System, and Geographic Information System (GIS) information agree; field validation proves truth of databases. Count of connections recorded as being in error is less than 1% of the entire population.
Improvements in quantifying the number of retail connections, active and inactive	To improve to 1: Draft new policy and procedures for new account activation and overall billing operations. Research and collect paper records of installations & abandonments for several years prior to audit year.	To improve to 2: Refine policy and procedures for new account activation and overall billing operations. Research computerized recordkeeping system (Customer Information System or Customer Billing System) to improve documentation format for service connections.	To improve to 3: Refine procedures to ensure consistency with new account activation and overall billing policy to establish new service connections or decommission existing connections. Improve process to include all totals for at least five years prior to audit year.	To improve to 4: Formalize regular review of new account activation and overall billing operations policies and procedures. Launch random field checks of limited number of locations. Develop reports and auditing mechanisms for computerized information management system.	To improve to 5: Close any procedural loopholes that allow installations to go undocumented. Link computerized information management system with Geographic Information System (GIS) and formalize field inspection and information system auditing processes. Documentation of new or decommissioned service connections encounters several levels of checks and balances.	To maintain a 5: Continue with standardization and random field validation to improve knowledge of system.	Not a choice	Not a choice	Not a choice	Not a choice

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## Total Assessment Score

- Also known as “data validity score” = confidence values are filled in, the program will give you a **Data Validity Score** out of 100
- The score measures the policies used when gathering data for the audit. The score is a number that should be increasing every year.
- Improve the accuracy of the data in order to identify opportunities for water loss reduction.

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Water Loss Control Planning Guide					
Functional Focus Area	Level I (0-25)	Level II (26-50)	Level III (51-70)	Level IV (71-90)	Level IV (91-100)
Audit Data Collection	Launch auditing and loss control team; address production meter deficiencies.	Analyze business process for customer metering/billing functions and water supply operation.	Establish/revise policies and procedures for data collection.	Refine data collection practices and establish as routine business process.	Annual water audit is reliable gauge of year-to-year water efficiency standing.
Short-term loss control	Research information on leak detection programs. Begin flowcharting analysis of customer billing system.	Conduct loss assessment investigations on a sample portion of system: customer meter testing, leak survey, theft.	Establish ongoing mechanisms for customer meter accuracy testing, active leakage control, and infrastructure monitoring.	Refine, enhance, or expand ongoing programs based on economic justification.	Stay abreast of improvements in metering, meter reading, billing, leakage management, and infrastructure rehabilitation.
Long-term loss control	N/A	Begin to assess long-term needs requiring large expenditure: customer meter replacement, water main replacement, new customer billing system, or Automatic Meter Reading.	Begin to assemble economic business case for long-term needs based upon improved data becoming available through the water audit process.	Conduct detailed planning, budgeting, and launch of comprehensive improvements for metering, billing, or infrastructure management.	Continue incremental improvements in short-term and long-term loss control interventions.
Target-setting	N/A	N/A	Establish long-term apparent and real loss reduction goals (+10 year horizon).	Establish mid-range (5 year horizon) apparent and real loss reduction goals.	Evaluate and refine loss control goals on a yearly basis.
Benchmarking	N/A	N/A	Preliminary Comparisons – can begin to rely upon Infrastructure Leakage Index (ILI) for performance comparison for real losses.	Performance Benchmarking – ILI is meaningful in comparing real loss standing.	Identify Best Practices – the ILI is very reliable as a real loss performance indicator for best in class service.

\* Adapted from American Water Works Association©

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## From Audit to Action

### Understanding water losses through improved data collection

- Don't copy the data from your last report!
- Do compare it to your last report to note improvements or new areas of deficiency.
- Create a trend analysis.
- Determine and pilot effective approaches and implementation of performance standards.

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## Taking Actions

- Refining data gathering and information
- Metering assessment, testing, or a metering replacement program
- Detecting and locating leaks
- Repairing or replacing pipe
- Operation and maintenance programs and changes
- Administrative processes or policy changes

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## Questions for Review

- Were the goals of the assessment met? If not, why not?
- Where does the system need more information?
- How often should the system repeat the water loss audit steps?
- Is there another performance indicator the system should consider?
- Look at trends by reviewing last water loss audit – has water loss improved?
- How can the system improve water loss performance?
- Is more training required?

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## Water Loss Resources

LUC Application

[www.twdb.texas.gov/conservation/municipal/waterloss/index.asp](http://www.twdb.texas.gov/conservation/municipal/waterloss/index.asp)

Water Loss Auditor Training

[www.twdb.texas.gov/conservation/municipal/waterloss/auditor\\_training.asp](http://www.twdb.texas.gov/conservation/municipal/waterloss/auditor_training.asp)

Reports & Data

<https://www.twdb.texas.gov/conservation/municipal/waterloss/historical-annual-report.asp>



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## Questions



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Municipal Conservation

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# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

## Fall Management Conference

**DAY 4:**

**FRIDAY, OCTOBER 23**

10:00 a.m. - 10:50 a.m.

### **Key Functions of Management — Bruce Pearson, TRWA**

This presentation will identify and discuss the most important principals of effective management and how to utilize them to maximize the productivity of your team and the overall success of your utility.



# Key Functions of Management



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## Purpose of Presentation

- Identify and Describe the Five Functions
- Challenges of Each Function
- Practical Application of Each Function to Mid and Upper-Level Managers

SLIDE 2



2

## Five Functions

1. Planning
2. Organizing
3. Directing
4. Controlling
5. Staffing

SLIDE 3



3

## Planning

### • **Description**

- Encompasses the definition of the organization's goals
- Establishes an overall strategy for achievement of the goals
- Development of a comprehensive system (plans) to mesh and coordinate activities
- Identifies what should be accomplished in the short and long term
- Provides direction for personnel
- Anticipates potential changes
- Minimizes waste
- Sets Standards
- The most difficult function!!

SLIDE 4



4

## Organizing

- **Description**

- How work will be assigned (divided) and accomplished
- A decision process of who will perform tasks (skill and ability)
- How many employees will be needed
- Evenly distributes work
- Delegates responsibility for producing an expected result
- Involves centralization (assigning tasks with less importance)
- Involves decentralization (assigning tasks of greater importance)

SLIDE 5



5

## Directing

- **Description**

- All day-to-day activities revolve around directing
- Function that initiates the action plan
- Involves assignments and instructions
- Communicates expected outcomes to employees
- Communicates accountability to employees
- Provides understanding of the project, task, or assignment
- Involves guiding, teaching, and supervising
- Utilizes leadership, motivation, and influence

SLIDE 6



6

## Controlling

- **Description**

- Involves monitoring performance
- Sets Standards
- Standards must be reasonable
- Checks and appraises performance (effective method)
- Takes corrective action
- Critical responsibilities need closer attention (cannot afford mistakes)(workplace hazards)(public health)
- Observation, monitoring, and appraising leads to greater employee understanding and performance

SLIDE 7



7

## Staffing

- **Description**

- Recruitment (management vs. entry level)
- Interviewing (panels vs. individuals)(objective)(scoring)(fit?)
- Selecting and training
- Evaluating overall performance (counseling vs. annual evaluations)
- Provides opportunities for advancement
- Provides employee continuing education
- Versed in federal and state rules and regulations surrounding employment

SLIDE 8



8

## Function Challenges

- **Planning**

- A combination of education, skill, and technical ability needed
- Acquiring financial means for the future (projected capital, required resources, and sources of revenue)(annual budgets)
- Anticipating future staffing levels and necessary skills
- Acquiring additional water resources for the future
- Flexibility is important
- Time management (completing tasks)
- Crystal ball effect?

SLIDE 9



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## Function Challenges con't

- **Organizing**

- Communication is the key
- Administrative oversight (capital Improvement)
- Management oversight (day to day and improvement plans)
- Understanding and segregating work assignments evenly
- Objectivity
- Eliminate the daily reorganizing exercise (inefficient work habits)
- Recognize when to decentralize (roles of greater importance)

SLIDE 10



10

## Function Challenges con't

- **Directing**

- Know when to utilize autocratic direction (it has a place)
- Autocratic direction can create negative consequences (employee resentment)
- Autocratic direction effects (poor work quality, slower completion times, or frequent mistakes)
- Know when to utilize consultative direction (empowerment of employees for cooperation, consultation, and solutions)
- Requires a good understanding of what motivates employees
- Keeping employees engaged

SLIDE 11



11

## Function Challenges con't

- **Controlling**

- Know how to monitor performance (predicting outcomes as expected)
- Know when to change course to realize expected outcomes (quickly and timely)
- Objectively check and appraise employee performance
- Know when to provide further training (competency vs. centralization)

SLIDE 12



12



## Function Challenges con't

- **Staffing**

- Targeted recruitment (the economy?)
- The interview process (do they fit?)
- Empowerment
- Objective promotions (tenure versus performance)
- Eliminating complacency (production, safety)
- Training and education (budget allocations)
- Employee realization toward advancement and promotion
- Instill a sense of career for employees

SLIDE 13



13

## Upper Level Management: Practical Application

- **Planning**

- The future (rapid growth)
- Board or Council involvement
- Strategic plans (Master and CIP)
- Financial sustainability (annual, operational, equipment, and CIP)
- Sources of revenue (rates, impact fees, debt, grants)
- Human Resources (managerial and time management)
- Consultants
- Contracts
- TCEQ regulations (minimum capacities and water quality)

SLIDE 14



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## Upper Level Management: Practical Application con't

- **Organizing**

- The decision process (moving forward)
- General direction (subordinates and consultants)
- Autocratic and Consultative direction are implemented
- Decentralization is implemented
- Timeframes are essential
- Communication is key
- Monitoring is key

SLIDE 15



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## Upper Level Management: Practical Application con't

- **Directing**

- Transition to Action
- Project Understanding (subordinates)
- Leadership, Motivation, and Influence are Key
- Decentralization is on-going
- Monitoring progress is important (decentralization)

SLIDE 16



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## Upper Level Management: Practical Application con't

### • **Controlling**

- Decentralization is key (micro-managing?)
- Adhering to time management
- Expected outcomes
- Flexibility to make changes as needed
- Financial adherence (annual budgets, operational, equipment, and CIP)

SLIDE 17



17

## Upper Level Management: Practical Application con't

### • **Staffing**

- Promoting objectively
- Understanding subordinates' strengths and improvement areas
- Educating and teaching subordinates
- Effective communication with subordinates
- Additional staff?

SLIDE 18



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## Mid-Level Management: Practical Application

- **Planning**

- Capital Improvement (project administration)
- Mid-range projects
- Short-range (daily) projects
- Initial budget management (operational and capital)
- Centralization and Decentralization (personnel)
- Future staffing needs and levels (education and skill development, additional personnel)

SLIDE 19



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## Mid-Level Management: Practical Application con't

- **Organizing**

- Communicating with subordinates
- Consultative direction
- Centralization and Decentralization

SLIDE 20



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## Mid-Level Management: Practical Application con't

- **Directing**

- General direction and specific direction
- Establishing performance standards
- Offering support and assistance
- Systematic work assignments
- Encourage questions for clear understanding
- Following up with subordinates

SLIDE 21



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## Mid-Level Management: Practical Application con't

- **Controlling**

- Monitoring daily and weekly progress of projects
- Implementation and Management of budgets (action step)
- Correcting any deviation to expected project outcomes
- Reporting to higher level managers (projects and budgets)
- Flexibility (deviations and changes)

SLIDE 22



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## Mid-Level Management: Practical Application con't

- **Staffing**

- Future plans
- New hires
- Education
- Development of skills
- Team approach with employees
- Empowerment of employees
- Communication is vital

SLIDE 23



23

## Management Styles

- **Categories**

- Transactional – defining goals and setting rewards
- Transformational – helps employees achieve goals (careers)

- **Styles**

Autocratic – manager makes every decision with little or no input

Bureaucratic – governed by set policies and procedures

Democratic – works with employees to establish goals

- **What is Best?**

SLIDE 24



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## Decision Making

- **Rational-Comprehensive Model**

- Reasonable direction toward the organization's goals
- Maximize outputs for a given input or minimize inputs for a given output
- It holds efficiency as the highest value
- It identifies alternatives and calculates the cost of each
- It selects the best alternative that has the greatest likely benefit for the least recognizable cost
- Time is a challenge
- The most efficient and appropriate means to reach the desired outcome

SLIDE 25



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## Summary

- **Important Factors for Successful Managers**

- The People Business!!
- Education, knowledge, and skill (managers)
- Financial management
- Established procedures (policy implementation)
- Employee empowerment
- Employee opportunities (not stuck in place)
- Education, knowledge, and skill (advancement)
- Employee advancement

SLIDE 26



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## References

- **Water and Wastewater Utility Management, March 2016**
  - Texas Rural Water Association
- **Public Administration, *Clashing Values in the Administration of Public Policy, Second Edition, 2006***
  - Michael C. LeMay

SLIDE 27





This virtual event is two conferences in one — register for your conference of choice, but gain access to sessions from the other so you can build the educational program that suits your needs!

## Districts Conference

### DAY 1: TUESDAY, OCTOBER 20

9:00 a.m. - 9:10 a.m. .... **Welcome and Presentation of Friend of Rural Water Award to Chairman Lyle Larson**

9:10 a.m. - 9:50 a.m. .... **Legislative Preview — Texas Representative Lyle Larson, Chairman, House Natural Resources Committee:** This session will address the upcoming Texas Legislative Session, including the impacts of new House leadership, COVID-19, redistricting and budget challenges. The Chairman will also address priority water issues, including those that may impact the water utility industry.

10:00 a.m. - 10:50 a.m. ... **Emergency Preparedness and Response — Chris Boyd, Mustang SUD; Bill Brown, Jonah Water SUD; Jason Knobloch, TRWA:** This live panel features general managers of two TRWA member systems who are leaders in the areas of emergency preparedness and mutual aid capability. This session will also discuss TRWA's emergency response efforts and its partnerships that enhance assistance capabilities to rural utilities during a disaster.

11:00 a.m. - 11:30 a.m. .... **Ask the Experts:** Attendees may choose to participate in one of two open forum discussions with either TRWA's legal experts or technical experts.

### DAY 2: WEDNESDAY, OCTOBER 21

9:00 a.m. - 9:50 a.m. .... **Ensuring Financial Stability for Your District — Dave Yanke, NewGen Strategies & Solutions:** This presentation will describe the process a district should follow to ensure financial stability, including establishing a budget that reflects total operating and capital costs the district will incur on an annual basis. Will also discuss how to allocate costs to different customer classes based on the demands they place on the district, how to design rates that are equitable and ensure final stability, and how to explain rate increases to customers to obtain buy-in.

10:00 a.m. - 10:50 a.m. ... **Records Retention for Water Districts — Bonnie Zuber and Rebecca Hanna, State Library Archives:** This session will discuss district records retention requirements and best practices for retaining and disposing of paper and electronic records. The discussion will include requirements for the most common types of records for districts, including customer billing information, regulatory complaints, personnel, and financial.

11:00 a.m. - 11:30 a.m. .... **Ask the Experts:** Attendees may choose to participate in open forum discussions with TRWA's legal and technical experts.

### DAY 3: THURSDAY, OCTOBER 22

9:00 a.m. - 9:50 a.m. .... **Effective Enforcement of District Service Policies — John Carlton, The Carlton Law Firm:** This session will discuss the creation of an effective program to enforce district rules and service policies to ensure operational stability for your district. This includes establishing fines and penalties, disconnection of service, collection of delinquent accounts and how to address illegal connections and meter tampering.

10:00 a.m. - 10:50 a.m. ... **Traps for the Unwary: Conflicts of Interest, Dual Officeholding, and Nepotism — Amber McKeon-Mueller, Texas Municipal League:** This session will provide guidance and legal requirements for public officials, such as district board members, on ethical dilemmas including conflicts of interest, nepotism and dual office holding.

11:00 a.m. - 11:30 a.m. .... **Ask the Experts:** Attendees may choose to participate in open forum discussions with TRWA's legal and technical experts.

### DAY 4: FRIDAY, OCTOBER 23

9:00 a.m. - 9:50 a.m. .... **Required Policies and Regulatory Filings for Water Districts — Trent Hightower, TRWA:** Districts are required to file a variety of documents and reports with the Texas Commission on Environmental Quality, Public Utility Commission, Comptroller and other state agencies. This session will outline these requirements and the numerous required and recommended policies that districts should have in place such as personnel, public comment and board policies.

10:00 a.m. - 10:50 a.m. ... **Community Outreach Projects — Rachel Webb, South Rains SUD and Paula Weber, Ables Springs SUD:** Strong community buy-in and participation are the backbone of a successful water or wastewater utility. When your customers are engaged and feel part of a larger community, they're more likely to run for leadership roles, participate in meetings, and support your lobbying efforts. This session will highlight some successful community engagement projects by other water utilities and provide attendees with the information they need to launch similar events in their own communities.

11:00 a.m. - 11:30 a.m. .... **Ask the Experts:** Attendees may choose to participate in open forum discussions with TRWA's legal and technical experts.

# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

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# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

## Districts Conference

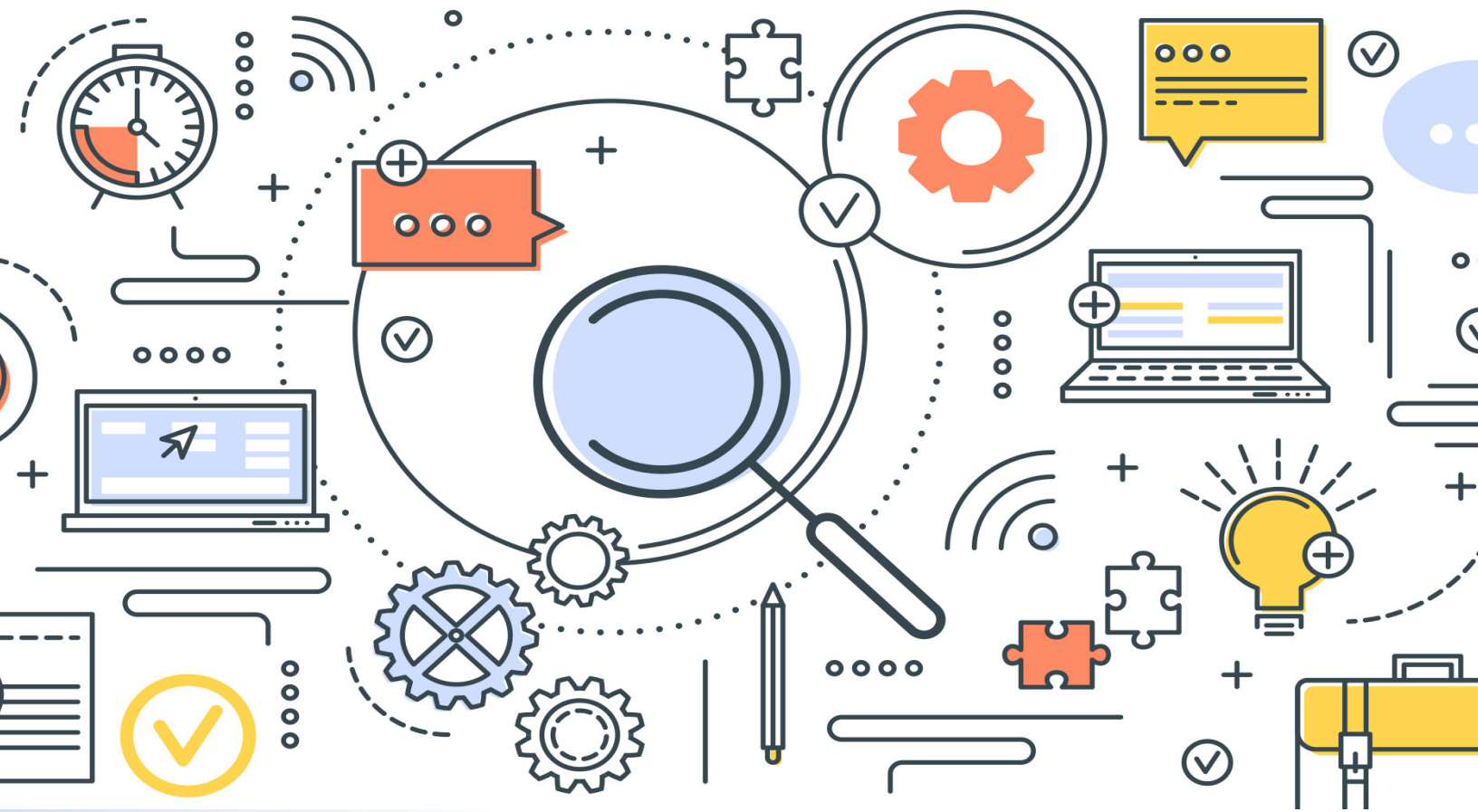
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This describe the process a district should follow to ensure financial stability, including establishing a budget that reflects total operating and capital costs the district will incur on an annual basis. Will also discuss how to allocate costs to different customer classes based on the demands they place on the district, how to design rates that are equitable and ensure final stability, and how to explain rate increases to customers to obtain buy-in.





Week of October 19, 2020

Texas Rural Water Association (TRWA)  
Fall Management and Districts Conference – Virtual  
**Ensuring Financial Stability for Your District**

Presented by: David S. Yanke, Managing Director – Environmental Practice



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## AGENDA

- What does Stability Mean?
- Financial Stability...
- Key Components of a Financial Plan
- How to Develop a Financial Plan
- Other Issues a Financial Plan Should Address
  - Funding
  - Policies
  - Rate Design
  - Billing/Accounting System
  - Operational Metrics
  - Reports and Monitoring Frequency
- Closing Comments
- Discussion



NEWGEN STRATEGIES AND SOLUTIONS, LLC

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## INTRODUCTION

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**Dave Yanke, NewGen Strategies & Solutions, LLC**

Basis for my comments...

- Conducting water/wastewater financial analyses since 1989
- First presented at TRWA Annual Conference in 1994 – “How to calculate your cost of service”

3

## DEFINITION OF STABILITY

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Stability – the strength to stand or endure, firmness.

– *Merriam Webster*

(i.e. For a water district that means you need to recover all your costs through user fees, connection fees, etc.)

4

## TO ENSURE FINANCIAL STABILITY YOU NEED A FINANCIAL PLAN

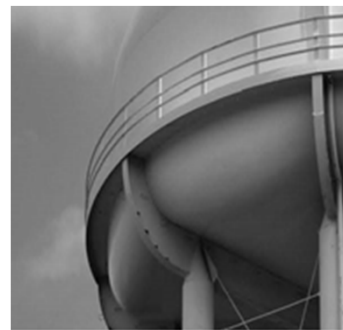


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## WHY IS A FINANCIAL PLAN NEEDED?

You as a water district are responsible for:

1. Ensuring a safe, clean and reliable water supply
  - Do you have enough water?
2. Maintaining and upgrading infrastructure
  - Pumps
  - Storage
  - Water lines
  - Water treatment plant
  - Wastewater treatment plant
  - Wells



6

## WHY IS A FINANCIAL PLAN NEEDED? (CONT.)

3. Urban/rural issues
4. CCN issues
5. Regulations
6. Developing/growing your staff
7. Other?



The financial integrity of your utility is critical to achieving these responsibilities.

## A GOOD FINANCIAL PLAN WILL:

- Forecast population growth
- Forecast water demand
- Incorporate a capital plan  
*(\*Coordination with district's engineer is critical!)*
- Project O&M costs





## A GOOD FINANCIAL PLAN WILL: (CONT.)

- Evaluate / optimize capital financing  
(debt service - cash - grant)
- Calculate the cost of service
- Design rates
  - Minimum bill
  - Volumetric rate structure (e.g. inclining block)
  - Capital recovery fee
  - Wholesale rates (if applicable)
  - Other



## A GOOD FINANCIAL PLAN WILL: (CONT.)

*Note: Time horizon may vary for different components of the financial plan:*

- Rates – 5 years
- Capital improvement plan – 10 years
- Water supply – 20+ years





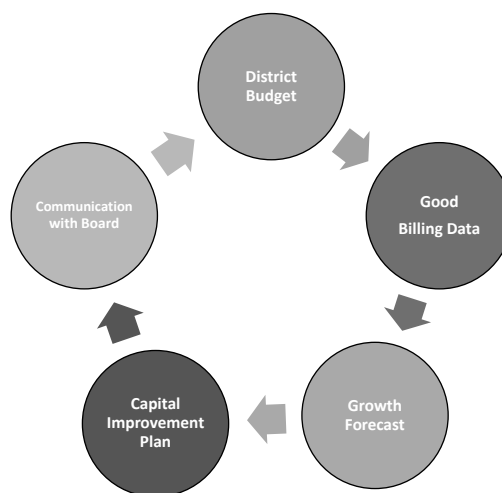
## A GOOD FINANCIAL PLAN WILL: (CONT.)

“A financial plan will help you clarify where you are headed and how to get there.”



11

## KEY COMPONENTS OF A FINANCIAL PLAN



12

## HOW TO DEVELOP A FINANCIAL PLAN

### Establish Your Project Team

- Staff, Engineer, Financial Consultant, Legal, Financial Advisor

### Establish a Project Timeline, Tasks and Deliverables

### Complete Key Tasks

- Request for Information (RFI)
- Review billing data
- Develop CIP
- Forecast revenue requirement (typically 5 years)
- Design rates
- Present draft report and recommendations to board
- Optional: Establish financial policies – days cash on hand, debt service coverage, reserve policy, etc.

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## OTHER ISSUES A FINANCIAL PLAN SHOULD ADDRESS

- Funding
- Policies
- Rate Design
- Billing/Accounting System
- Operational Metrics
- Reports and Monitoring



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## FUNDING

- Evaluate Financing Options
  - Financing Sources
    - TWDB
    - Commercial Banks
    - CoBank
    - Internally Generated Cash
    - Contributed Capital
    - Other
  - Match Asset Life to Financing Term (when practical)



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## POLICIES

- Debt Service Coverage
  - May be Dictated by Covenants
- Reserves
  - Operating
    - Typically 90 to 120 Days O&M
    - Dependent on the Nature of Costs and Revenues
  - Capital
    - Alignment with Capital Improvement Plan as well as Renewals and Replacements
  - Debt
    - May be Dictated by Covenants



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## POLICIES (CONT.)

- Renewals and Replacements
  - Keep System from Aging or Manage Aging
  - Preventative Maintenance to Reduce Emergency Maintenance and Compliance Issues
  - Asset Replacement Analysis
    - What Would You Pay to Avoid Intangible Risks?
    - Consider Failure Consequences
- Meter Replacement Policies
  - Scheduled Testing and Replacement
- Line Extension Policies
  - Contributed Capital Requirements
- Fees for Miscellaneous Services
  - e.g., Tap Fees, Account Set-Up, Turn-On, etc.

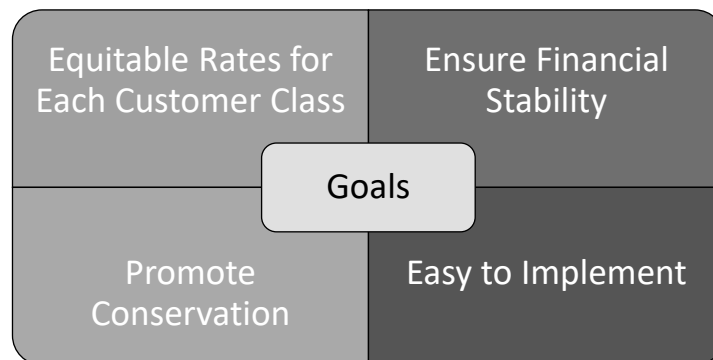
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## WATER RATE DESIGN OPTIONS

### General Rate Setting Goals



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## WATER RATE DESIGN OPTIONS (CONT.)

- Fixed Charge
  - Recovers billing and collection costs
  - Recovers metering costs
  - Recovers fixed/costs debt service (??)
- Volumetric Charge
  - “Consumption” charge
  - Recovers cost due to amount of, and pattern of, customers’ water demand



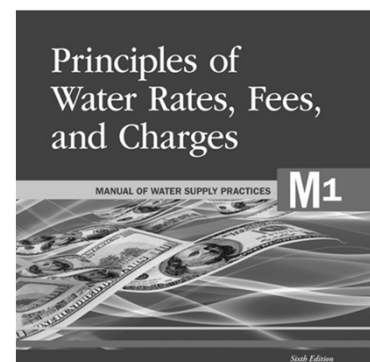
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## BIG VERSUS SMALL CUSTOMER PRICING – WHAT DOES IT MEAN FOR TRWA MEMBERS?

- Conduct cost of service analysis
  - Use internal staff or a consultant
  - Adhere to AWWA – M1 manual principles
- Make conscious, reasonable, and defensible rate designs
- Quantify amount of the “subsidy”
- Do not operate in a vacuum!



**American Water Works  
Association**  
The Authoritative Resource on Safe Water®

AWWA  
Development  
Education and Training  
Policy and Planning  
Section

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## BILLING/ ACCOUNTING SYSTEMS

- Should Be Able to Support Budgeting and Rate Design
- Compile Consumption Data by Usage
  - e.g., 0 – 500 gallons, 501 – 1,000 gallons, etc.
- Flexibility to Change Consumption Included in Rate Blocks (if applicable)



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## OPERATIONAL METRICS

- Operational Data
  - Average Day Demand, Max Day Demand, Lost and Unaccounted for
  - Needs to Be Able to Support Cost of Service Allocations and Rate Design
- Any Waivers to Minimum Capacity Requirements
  - Codified in 290.45 of Texas Administrative Code (e.g., 0.6 gpm/connection)

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## REPORTS AND MONITORING FREQUENCY

- Annually
  - Budgets/CAFRs
  - Internal Review of Rates
  - Monitor Operational Metrics
  - Capital Funding Decisions
- 1 – 3 Years
  - Capital Improvement Plans
- 3 – 5 Years
  - Comprehensive Rate Study
    - More frequent if material changes in operations or finances (e.g., new wholesale customers or significant CIP)
  - Updated Master Plan
- First time is always the hardest



## CLOSING COMMENTS

- A financial planning process will force the staff and board to “step back” and think about where their district is headed. (This is a good thing!)

Bottom line: A financial plan will help **minimize** surprises, but it won't **eliminate** them!

## DISCUSSION

---



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Managing Director — Environmental Practice  
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# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

## Districts Conference

**DAY 2:**

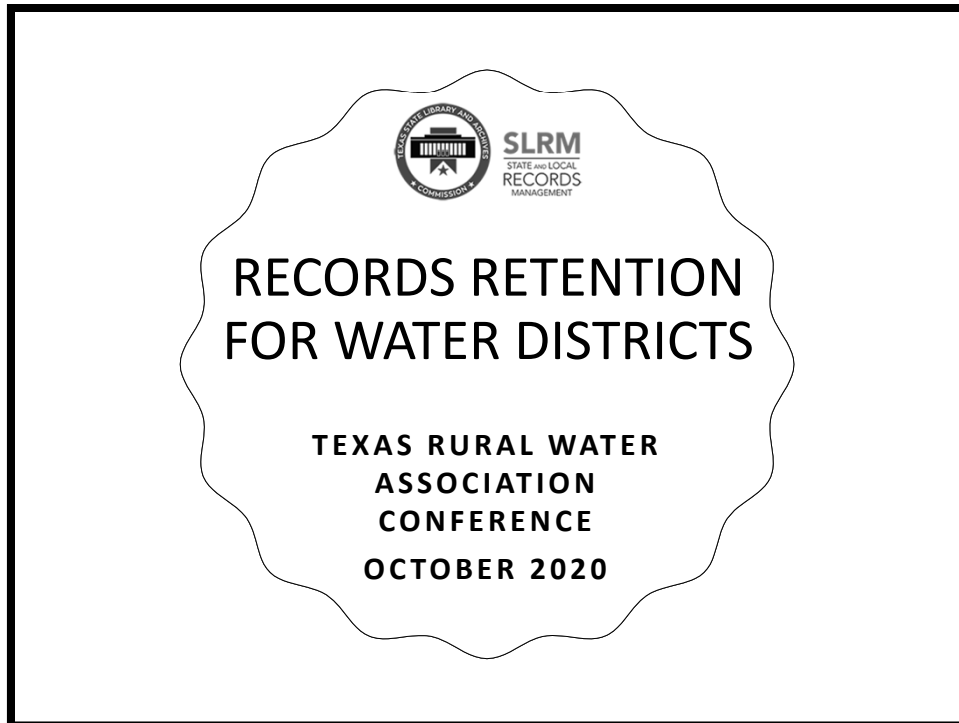
**WEDNESDAY, OCTOBER 21**

10:00 a.m. - 10:50 a.m.

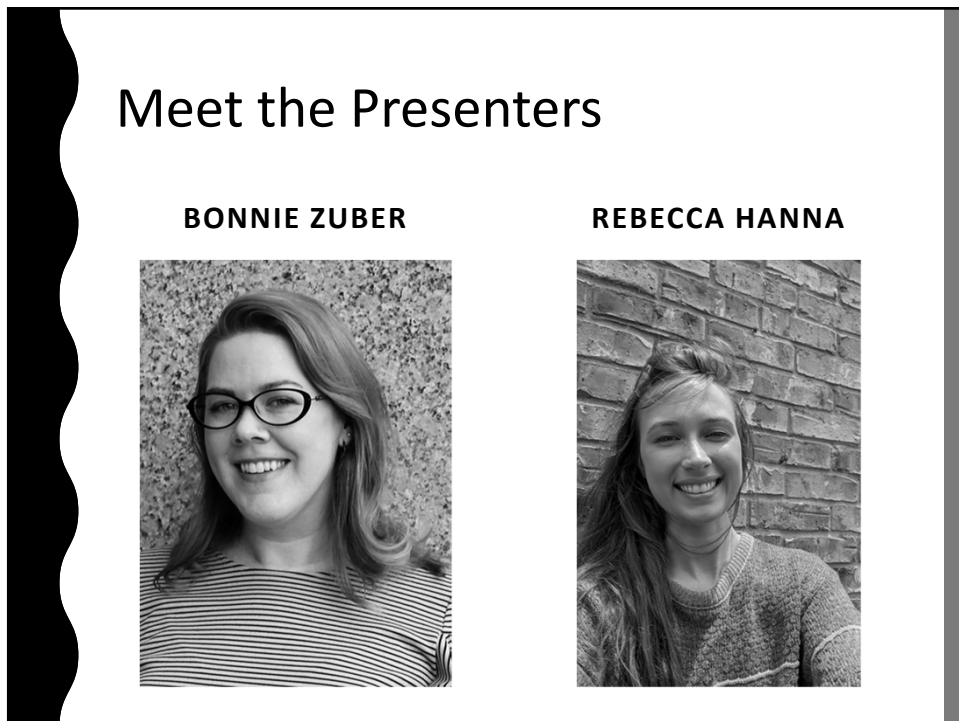
**Records Retention for Water Districts — Bonnie Zuber and Rebecca Hanna, State Library Archives**

This session will discuss district records retention requirements and best practices for retaining and disposing of paper and electronic records. The discussion will include requirements for the most common types of records for districts, including customer billing information, regulatory complaints, personnel, and financial.

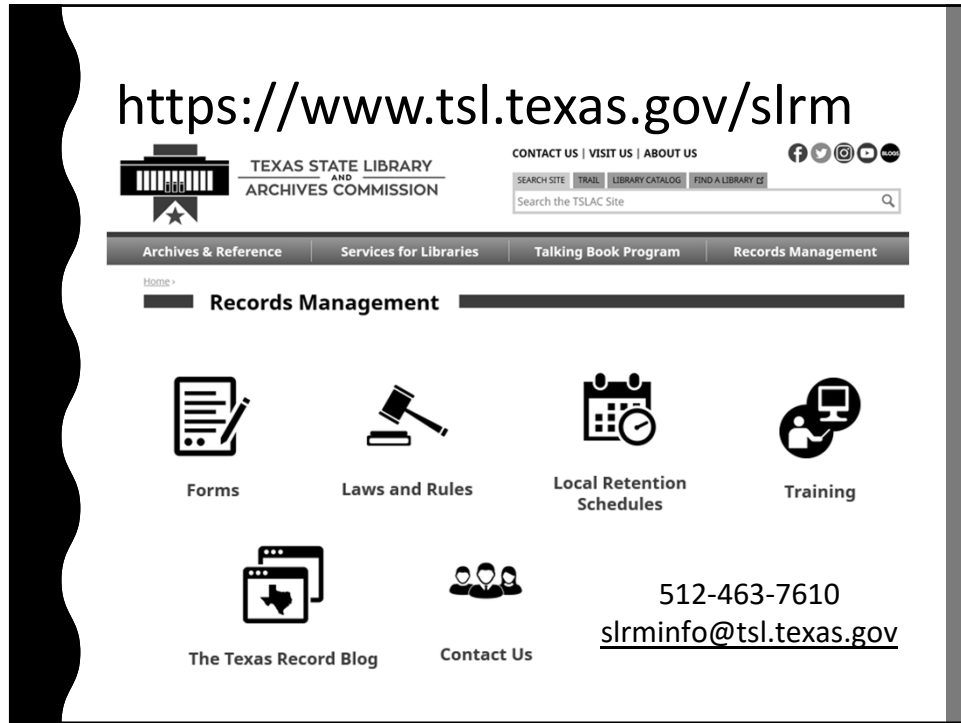




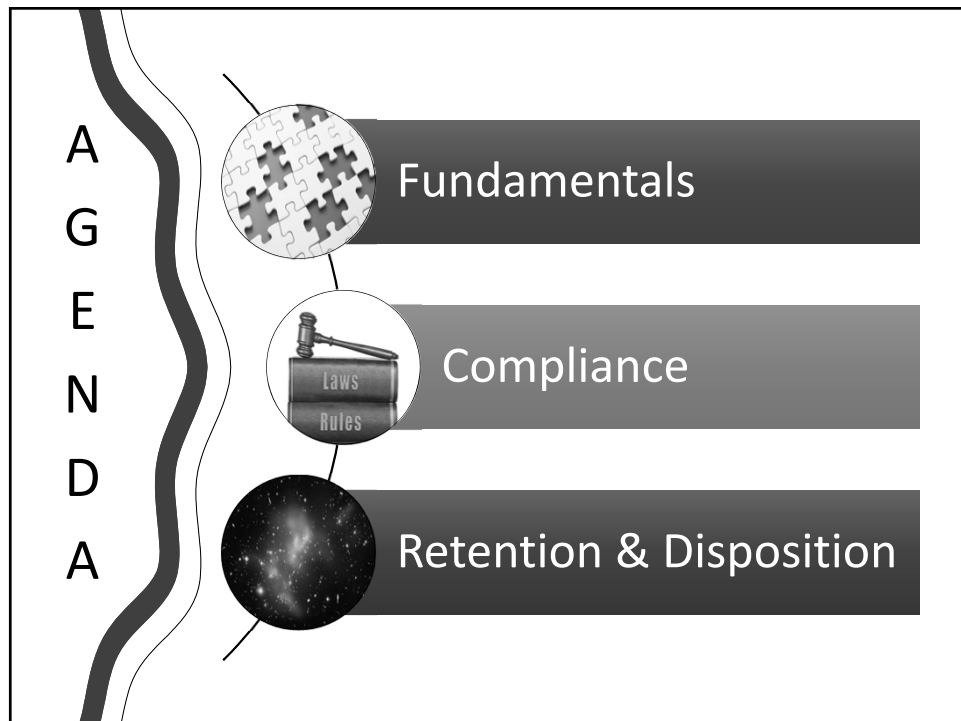
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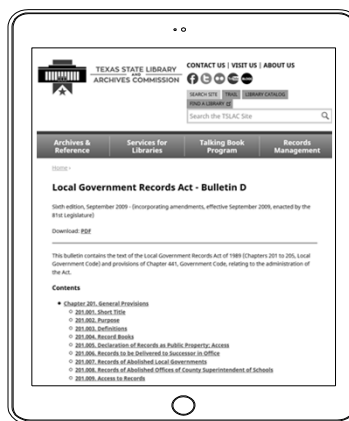
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## Laws Published as Bulletin D

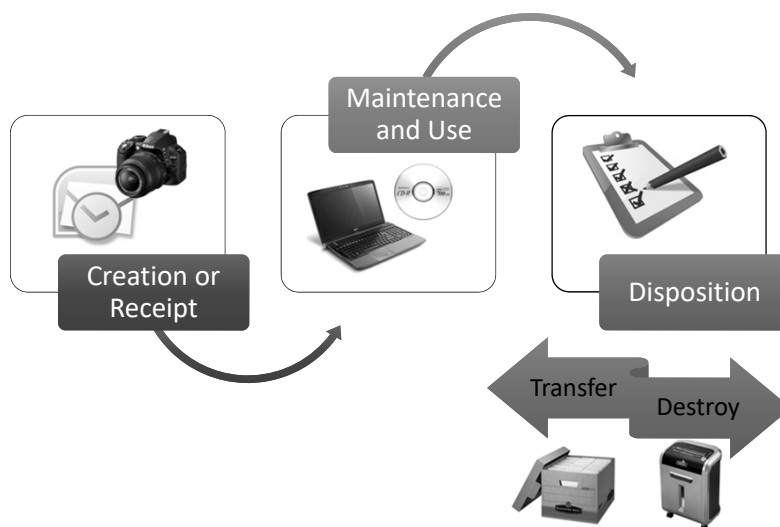
- Definitions
- Local authority
- Role of the Records Management Officer
- Compliance requirements



<https://www.tsl.texas.gov/slrn/pubs/bulletind>

5

## The Records Life-Cycle



6

## Benefits of Records Management

- Legal requirement and protection
- Workflow efficiency
- Timely disposition
- Cost reduction
- Protection of essential records



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## Some Consequences of *Not* Managing Records

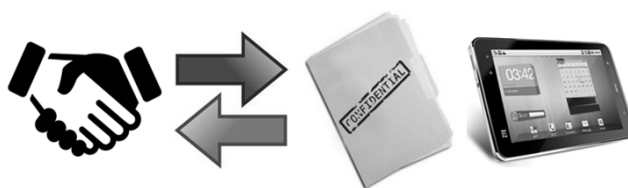
- Legal risk
- Longer retrieval times
- Higher costs
- Ongoing obligation to protect records
- Potential criminal penalties
- Negative perception



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## A Local Government Record:

- Documents the transaction of public business
- Is created or received by a local government
- Is a record whether it is open or closed
- May exist in any medium



LGC §201.003

9

## Non-Records



Convenience Copies



Blank Forms and Stocks of Publications



Library or Museum Materials



Alternative Dispute Resolution Working Files

LGC §201.003

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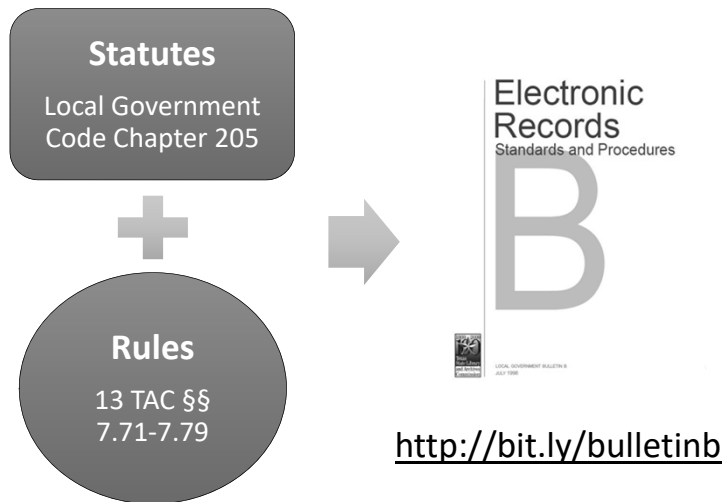
## An Electronic Record:

- Any information that is recorded in a form for computer processing; **machine-readable**.
- Meets the definition of a local government record.
- **Two types:**
  - Born digital – original record was always electronic
  - Digitized – original record was analog and then made electronic.



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## Legal Obligations for E-Records



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## BULLETIN F:

“...preserve valuable historic records by establishing **minimum and enhanced storage standards** for pre-1951 court records and permanent records held by local governments.”

- Records in storage
- Paper records

<https://www.tsl.texas.gov/slr/pubs/bulletinf>



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## COMPLIANCE

Review the 3 Elements of Compliance:

- Designating a Records Management Officer (RMO)
- Filing a records management policy
- Declaration of Compliance

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## Designation of RMO

- File RMO contact information with TSLAC
  - Form SLR 504
- Signed by the RMO designated in policy.
- Update within **30 days** of personnel change.
- Option to be subscribed to *The Texas Record* blog for news and updates.



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## Policy Templates

- Must designate position of RMO.
- Requires documentation of governing body approval – meeting minutes.
- Template: Policy Model #4



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## Declaration of Compliance

- **Form SLR 508** – Adopt the retention schedules that apply to the records maintained by your office
- Signed by RMO designated in policy and mail hard copy to TSLAC for filing.

I declare that this local government will comply with the retention schedule:

☒ Schedule GR (Records Common to All Governments)

I declare compliance with the following additional retention schedules issued by the commission:  
(check all that apply):

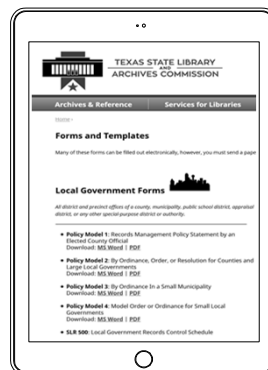
- |  |   |
|--|---|
| <input type="checkbox"/> Schedule CC (Records of County Clerks)                    | <input type="checkbox"/> Schedule PS (Records of Public Safety Agencies)    |
| <input type="checkbox"/> Schedule DC (Records of District Clerks)                  | <input type="checkbox"/> Schedule PW (Records of Public Works and Services) |
| <input type="checkbox"/> Schedule EL (Records of Elections and Voter Registration) | <input type="checkbox"/> Schedule SD (Records of Public School Districts)   |
| <input type="checkbox"/> Schedule HR (Records of Public Health Agencies)           | <input type="checkbox"/> Schedule TX (Records of Property Taxation)         |
| <input type="checkbox"/> Schedule JC (Records of Public Junior Colleges)           | <input type="checkbox"/> Schedule UT (Records of Utility Services)          |
| <input type="checkbox"/> Schedule LC (Records of Justice and Municipal Courts)     |   |

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## Download Forms and Templates

<https://www.tsl.texas.gov/slr/form/forms>

- SLR 504 – Designation of RMO
- SLR 508 – Declaration of Compliance
- Policy models
- Sample inventory worksheet and disposition log



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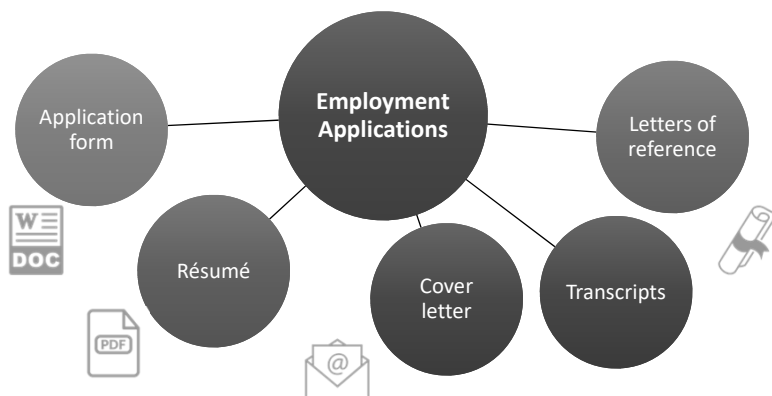
# RETENTION

*How to use a retention schedule to find the retention periods of your records.*

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## A Record Series Is:

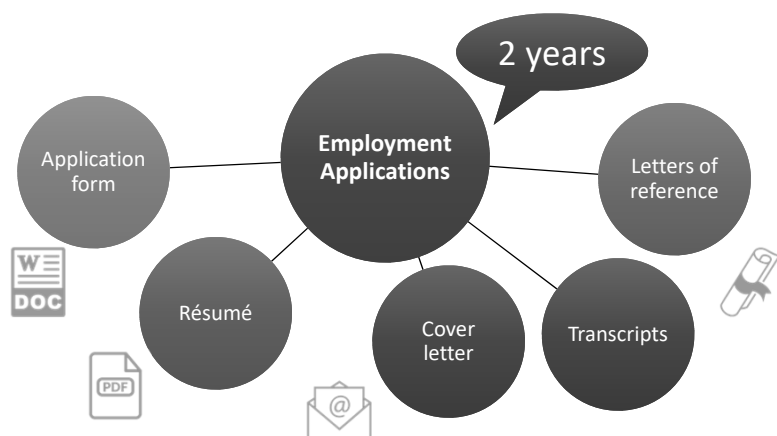
- A grouping of records that all serve the same function and are all kept the same length of time.



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## A Retention Period Is:

- The minimum length of time you must keep a record.



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## Common Retention Codes:

[just a number]	Add this number to the creation/receipt date of the record
AV	As long as administratively valuable
CE	Calendar Year End: December 31st
FE	Fiscal Year End: August 31st ? September 30th? <a href="http://bit.ly/FYEcalc">http://bit.ly/FYEcalc</a>
LA	Life of the Asset
PM	Permanent
US	Until superseded

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## A Retention Schedule:

- Lists all **records series** with mandatory minimum **retention periods**.
- Schedules are format-neutral.
- **Benefits:**
  - Comply with records laws and provide some legal protection.
  - Convey retention rules to agency staff.
  - Identify, secure, and protect vital records.



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## Elements of a Retention Schedule

Record Number	Record Title	Record Description	Retention Period	Remarks
UT5025-09	Sanitary Surveys	Surveys, studies, reports, summaries, or communications examining the overall sanitary condition of water and wastewater systems.	10 years	By regulation - 30 TAC 290.46(f)(3)(E)(iii).
Unique # assigned by TSLAC	General identifier for records in this group	The scope of records that would be classified here	Minimum amount of time the records must be kept.	Citations or other notes affecting the retention

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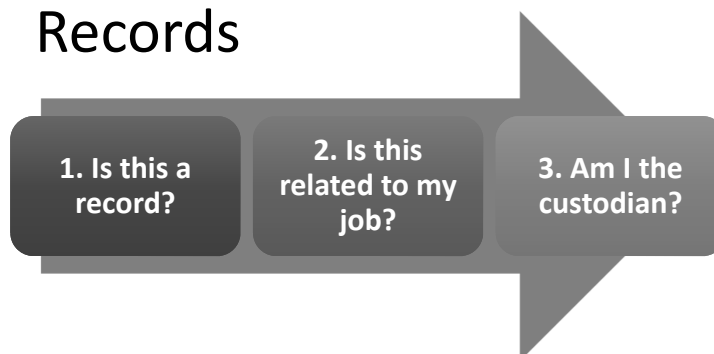
## Retention Schedules for Water Districts

- Local Schedule GR (General)
  - Part 1: Administrative Records
  - Part 2: Financial Records
  - Part 3: Personnel and Payroll Records
  - Part 4: Support Services Records
  - Part 5: Information Technology Records
- Local Schedule PW (Public Works)
  - Part 5: Soil and Water Conservation Records
- Local Schedule UT (Utility Services)
  - Part 2 – Water and Wastewater Services

<https://www.tsl.texas.gov/slr/localretention>

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## 3-Step Drill for Managing Email Records



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## Transitory Information

- Temporary usefulness - Not essential to documenting business, fulfilling statutory obligations, and not regularly filed within your office's recordkeeping system
- Examples:
  - Outlook meeting reminder
  - Telephone message
  - "Where are you?" text



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## Managing Email *Can* Become an Easier Task

### Take Small Steps

- Don't aim to clean out your inbox all in one day.

### Devote 5-10 minutes a day

- If possible, designate specific times to check and manage emails.

### Make it habitual!

- "Clean as you go". Be consistent and stick with it.

Printable, super-simple 3-step drill flow-chart available at  
<http://bit.ly/3-stepEmail>

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## Text Message Records

- Government officials texting during open meetings.
- Public Information Requests filed with the city.
- OAG: text messages about city business **are** subject to the Public Info Act.



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## New Legislation: S.B. 944 – Amendment to Public Information Act

- “Temporary Custodian” – past or present officer or employee creating or receiving public government records on a personal device.
- Must:
  - Forward or transfer records to the governmental body; or
  - Preserve the public information in its original form on the privately-owned device.

<https://www.texasattorneygeneral.gov/open-government>



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## Managing Text Messages

- Don't create government records in this format. Use email, phone, or talk in person.
- If necessary, use separate devices/accounts for work and personal use.
- If messages are government records, decide how to capture them:
  - Screenshot, save image
  - Forward to email



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## Social Media Records

- Does your local government currently utilize a social media account?
  - Have you checked to make sure no 'ghost' accounts exist?



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## Managing Social Media Records

Social Media is public information.

Usage of social media results in records retention and public access obligations.

Developing a Social Media Strategy will help satisfy those obligations.

Webinar: Managing Social Media Records:  
<https://www.tsl.texas.gov/slrn/webinars/socialmedia>

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## DISPOSITION

*“A comprehensive term that includes destruction as well as other actions, such as the transfer of permanent records.”*

*– National Archives and Records Administration (NARA)*

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## When to Do Disposition



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## Before Destroying Records

- Has the record met the retention period?
- Are there any copies?
- Did I receive internal approval?
- Do I have a disposition log?
- Is there a destruction hold?



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## Types of Destruction Holds

- Litigation
- Public Information Request
- Audit
- Claim
- Negotiation



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## Destruction Methods

Confidential  
Records



Burning



Shredding



Pulping

Open Records



Recycle



Landfill

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## Destruction of Electronic Records

- Reformat (enlist IT)
- Overwrite three times
- Degauss (neutralize magnetic field)
- Physically destroy
  - Shred
  - Pulverize
  - Drill holes



<https://www.tsl.texas.gov/slrmpubs/bulletinb>

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## We Can Do Even More

- TSLAC Storage Services
  - <https://www.tsl.texas.gov/slrmpubs/storage>
- TSLAC Imaging and Microfilm Services
  - <https://www.tsl.texas.gov/slrmpubs/imaging-micro>

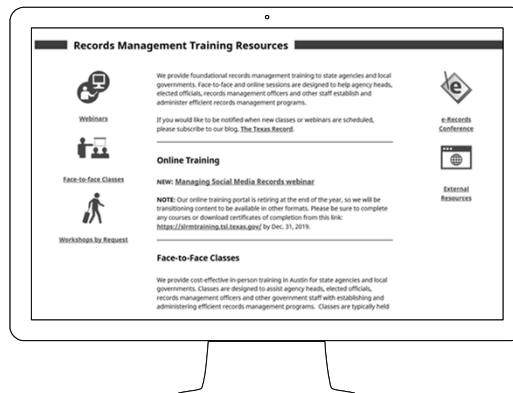


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## More Training

<https://www.tsl.texas.gov/slrn/training>

- Webinars and online courses
- Conferences
- Regional workshops



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## The Texas Record Blog

<https://www.tsl.texas.gov/slrn/blog/>

Subscribe for:

- Announcements
- Upcoming training
- New services
- Featured questions



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## QUESTIONS?

Find the analyst assigned to your county:

<https://www.tsl.texas.gov/slr/contact>

**Call:**

(512) 463-7610

**Email:**

[slrminfo@tsl.texas.gov](mailto:slrminfo@tsl.texas.gov)



# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

## Districts Conference

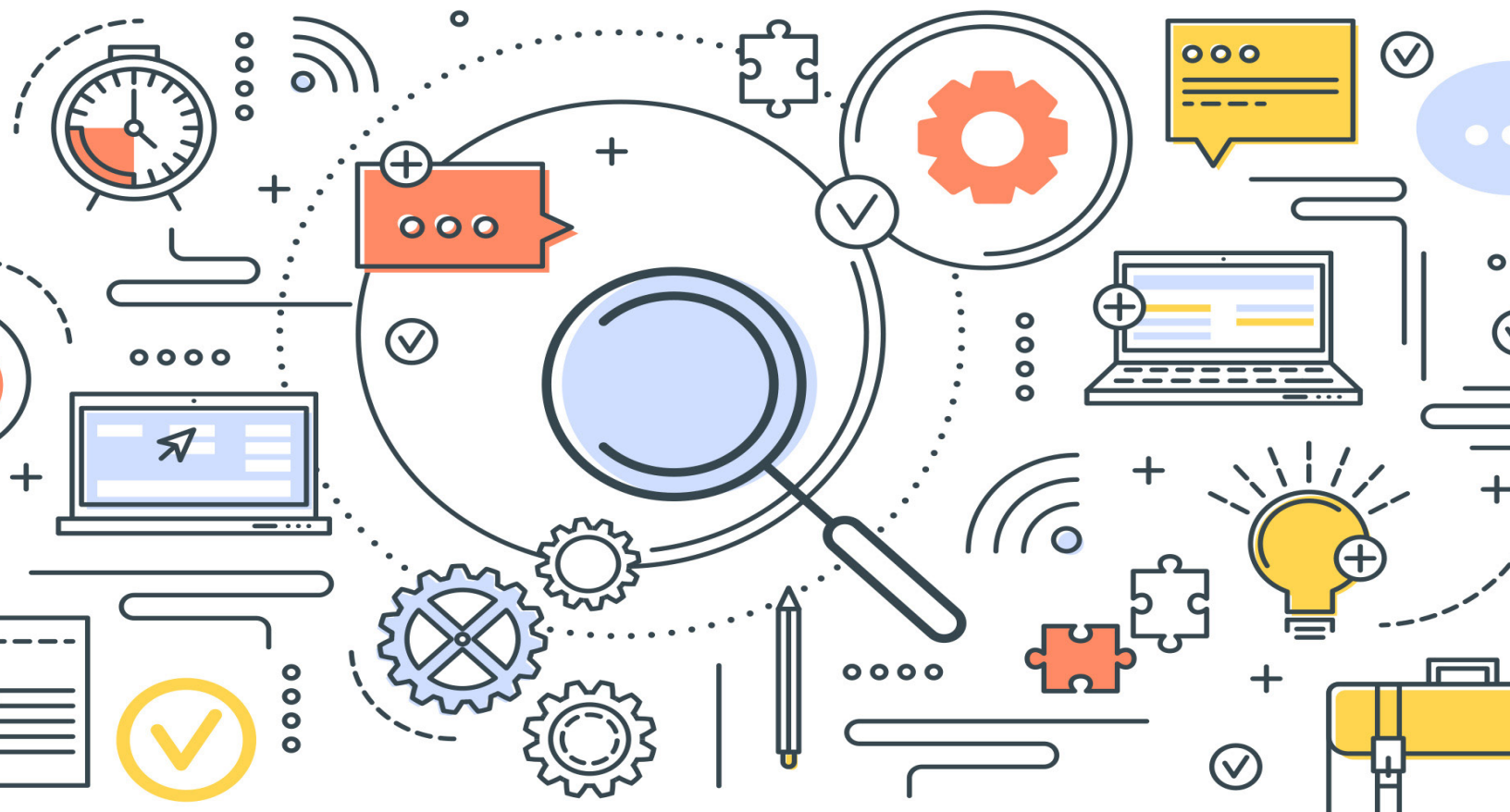
**DAY 3:**

**THURSDAY, OCTOBER 22**

9:00 a.m. - 9:50 a.m.

**Effective Enforcement of District Service Policies — John Carlton, The Carlton Law Firm**

This session will discuss the creation of an effective program to enforce district rules and service policies to ensure operational stability for your district. This includes establishing fines and penalties, disconnection of service, collection of delinquent accounts and how to address illegal connections and meter tampering.





# Effective Enforcement of District Service Policies

TRWA Districts Conference  
October 2020



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# Effective Enforcement of District Service Policies

- Laws Governing Districts
- Providing Service
- Service Policies
  - Disconnection of Service
- Protecting Your System
  - Meter Tampering/Theft of Service
  - Plumbing Restrictions
- Service Agreements
- Enforcement and Fines
- Resources



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# LAWS GOVERNING DISTRICT WATER SYSTEM OPERATIONS



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## Constitution Article XVI, Section 59

- The conservation and development of all of the natural resources of this State... including
    - the control, storing, preservation and distribution of its storm and flood waters, the waters of its rivers and streams, for irrigation, power and all other useful purposes,
    - the reclamation and irrigation of its arid, semiarid and other lands needing irrigation,
    - the reclamation and drainage of its overflowed lands, and other lands needing drainage,
    - the conservation and development of its forests, water and hydro-electric power,
    - the navigation of its inland and coastal waters, and
    - the preservation and conservation of all such natural resources of the State
- are each and all hereby declared public rights and duties; and the Legislature shall pass all such laws as may be appropriate thereto.



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# The Statutes

- Health & Safety Code Chapter 34I, Subchapter C
  - Sanitary Standards of Drinking Water
- Water Code Chapter 13
  - State Regulation of Water Utilities
- Penal Code Chapter 28
  - Criminal Penalties for Damaging Utility Property, etc.
- Water Code Chapter 49
  - General Statute
- Water Code Chapter 65
  - Special Utility Districts
- Water Code Chapters 51-67
  - Other types of special districts related to water



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# PROVIDING SERVICE



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## Providing Service

- All retail public utilities must comply with PUCT rules
  - Texas Water Code Chapter 13
  - 16 TAC Chapter 24
- Failure to do so may result in enforcement and fines
- Districts are retail public utilities (So are WSCs)



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## Water Code, Chapter 13

- **STANDARDS OF SERVICE**
- Every retail public utility that possesses or is required to possess a CCN and every district ... that furnishes retail water or sewer utility service, shall furnish the service, instrumentalities, and facilities as are safe, adequate, efficient, and reasonable.
  - 13.139(a)



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## Service Area

- Districts NOT required to have CCN
  - May consider obtaining CCN to proactively secure/defend service area
- A CCN obligates the District to serve an area
  - 16 TAC Chapter 24
- A CCN also protects the District's service area from encroachment
  - Recommend Federal Debt to strengthen this protection



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## Water Code, Chapter 13

- Any retail public utility that possesses or is required to possess a CCN shall serve every consumer within its certified area and shall render continuous and adequate service within the area or areas.
  - 13.250(a)



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## Water Code, Chapter 13

- **PUCT Authority to Compel Service**
- **PUCT may** issue emergency orders, with or without a hearing:
  - to **compel a retail public utility** that has obtained or is required to obtain a certificate of public convenience and necessity **to provide continuous and adequate water service, sewer service, or both**, if the discontinuance of the service is imminent or has occurred because of the retail public utility's actions or failure to act; ...
  - 13.041(d)



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## Water Code, Chapter 13

- **TCEQ Authority to Compel Service**
- **TCEQ may** issue emergency orders, with or without a hearing:
  - to **compel a retail public utility** that has obtained a certificate of public convenience and necessity **to provide water or sewer service, or both, that complies with all statutory and regulatory requirements** of the commission if necessary to ensure safe drinking water or environmental protection; ...
  - 13.041(h)



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## Water Code Chapter 13

- **COLONIAS**
- Sec. 13.2501. CONDITIONS REQUIRING REFUSAL OF SERVICE. The holder of a certificate of public convenience and necessity **shall refuse** to serve a customer within its certified area if the holder of the certificate is prohibited from providing the service under Section 212.012 or 232.0047, Local Government Code.



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## Water Code Chapter 13

- **SUBDIVISION DEVELOPMENTS**
- SERVICE EXTENSIONS BY [WSC or SUD] . A [WSC or SUD] is **not required to extend retail water or sewer utility service** within the certificated area of the [WSC or SUD] to a service applicant in a subdivision if the [WSC or SUD] documents that: ...
  - 13.2502.



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## Water Code Chapter 13

### • **SUBDIVISION DEVELOPMENTS (cont)**

- the developer of the subdivision has failed to comply with the subdivision service extension policy of the [WSC or SUD] as set forth in the tariff of the [WSC] or the policies of the [SUD]; AND
- the service applicant purchased the property **after the [WSC or SUD] gave notice as provided by this section** of the rules of [WSC or SUD] applicable to service to subdivisions from the corporation or special utility district.



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## Water Code Chapter 13

### • **SUBDIVISION DEVELOPMENTS (cont)**

- As an alternative to publication of notice, a [WSC or SUD] may demonstrate by any reasonable means that a developer has been notified for purposes of this section, including:
  - an agreement executed by the developer;
  - correspondence with the developer that sets forth the subdivision service extension policy; or
  - any other documentation that reasonably establishes that the developer should be aware of the subdivision service extension policy.



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## Water Code Chapter 13

### • **SUBDIVISION DEVELOPMENTS (cont)**

- "Developer" means a person who subdivides land or requests more than two water or sewer service connections on a single contiguous tract of land.
- "Service applicant" means a person, other than a developer, who applies for retail water or sewer utility service.



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If you only remember one thing from this presentation ---

**ADOPT AND IMPLEMENT  
DISTRICT SERVICE POLICIES**



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## TRWA Sample District Service Policies

- Available at TRWA.org
  - <https://www.trwa.org/store/ViewProduct.aspx?id=2854266>
  - Fee publication – but worth every penny
  - Complies with law and PUCT guidance
    - BUT have your legal counsel review
- READ THEM
- KEEP THEM CURRENT
- ENFORCE COMPLIANCE



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## TRWA Sample District Service Policies

- District Service Rules
- Developer, Subdivision And Nonstandard Service Requirements
- Rate And Service Fee Order
- Drought Contingency And Emergency Water Demand Management Plan



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# TRWA Sample District Service Policies

## DISTRICT SERVICE RULES

- Activation of Nonstandard Service.
- Activation of Standard Service.
- Applicant's Recourse.
- Application Procedures and Requirements.
- Back Billing.
- Bill Adjustment Due to Meter Error.
- Billing Cycle Changes.
- Changes in Service Classification
- Charge Distribution and Payment Application
- Connection of Sewer Service
- Connection of Water Service
- Customer's Responsibility
- Deferred Payment Agreement
- Denial of Service



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# TRWA Sample District Service Policies

## DISTRICT SERVICE RULES

- Disputed Bills
- Due Dates, Delinquent Bills, and Service Disconnection Date
- Excluded Flow and Waste
- Inoperative Meters
- Insufficient Grounds for Refusal of Service
- Line Extension Reimbursement
- Meter Tampering and Damage To Property
- Ownership of Equipment
- Prohibited Plumbing Practices
- Prohibition of Multiple Connections to a Single Tap
- Rules for Disconnection of Service
- Service Entitlement
- Service Facility Relocation
- Standards for Sewer Service Lines
- Standards for Water Service Lines



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## District Service Policies

- **BE CONSISTENT**
- Standard Service is service the **complies with EVERY** aspect of your service policy.
  - Standard Service Agreement form should reflect this (discussed later) for future disputes
- Non-standard Service is either larger scale development or **DOES NOT COMPLY with EVERY** aspect of your service policy.
  - Non-standard service agreements used to document this for future disputes



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## DISCONNECTION OF SERVICE



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## Water Code, Chapter 13

- Whether it has a CCN or not, a utility may not discontinue, reduce, or impair service to a certified service area or part of a certified service area except for:
  - (1) **nonpayment of charges** for services provided by the certificate holder or a person who possesses facilities used to provide utility service;
  - (2) (related to billing agreements with other utilities)...
  - (3) **nonuse**; or
  - (4) **other similar reasons in the usual course of business.**
- Water Code, Section 13.250



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## Water Code, Chapter 13

- Any discontinuance, reduction, or impairment of service, must comply with the conditions, restrictions, and limitations that the PUCT prescribes.



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## Disconnection of Service

- PUCT Rules
  - 16 TAC Chapter 22, Subchapter F
  - Do not apply to SUDs (or WSCs)
- TRWA advises systems to voluntarily comply with PUCT Rules and think of them as an example of the PUCT's accepted best practices when it comes to customer service.



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## Disconnection of Service

- TRWA Resource:
  - <https://www.trwa.org/page/Legal-ServiceRequestandDisconnections>
  - FAQs on Service Requests and Disconnections
  - See TRWA Disconnection Notice Form in Sample Service Policies



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## Disconnection of Service Best Practices

- PUCT Rules
- Utility service may be disconnected **after proper notice** for any of the following reasons:
  - failure to pay a delinquent account for utility service or failure to comply with the terms of a deferred payment agreement.
    - Payment by check which has been rejected for insufficient funds, closed account, or for which a stop payment order has been issued is not deemed to be payment to the utility.
    - Payment at a utility's office or authorized payment agency is considered payment to the utility.
    - The utility is not obligated to accept payment of the bill when an employee is at the customer's location to disconnect service;
  - violation of the utility's rules pertaining to the use of service in a manner which interferes with the service of others;



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## Disconnection of Service Best Practices

- Utility service may be disconnected **after proper notice** for any of the following reasons:
  - operation of non-standard equipment, if a reasonable attempt has been made to notify the customer and the customer is provided with a reasonable opportunity to remedy the situation;
  - failure to comply with deposit or guarantee arrangements where required by §24.159 of this title (relating to Service Applicant and Customer Deposit);
  - failure to pay charges for sewer service provided by another retail public utility in accordance with subsection (e) of this section; and
  - failure to pay solid waste disposal fees collected under contract with a county or other public agency.



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## Disconnection Notice Best Practices

- Proper notice is a separate written statement mailed or hand delivered to a customer before service is disconnected.
- English and Spanish if necessary to adequately inform the customer



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## Disconnection Notice Best Practices

### Notice Contents (16 TAC 22.167(a)(1))

- the words “termination notice” or similar language that stands out from other information on the notice;
- the action required to avoid disconnection
- the date by which the required action must be completed (at least ten days from the date the notice)
- the intended date of disconnection;
- the office hours, telephone number, and address of the utility’s local office;
- the total past due charges;
- all reconnect fees that will be required to restore service



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## Disconnection of Service Best Practices

- Utility service may be disconnected **without prior notice** for the following reasons:
  - where a known and dangerous condition related to the type of service provided exists.
    - where reasonable, given the nature of the reason for disconnection, a written notice of the disconnection, explaining the reason service was disconnected, shall be posted at the entrance to the property, the place of common entry or upon the front door of each affected residential unit as soon as possible after service has been disconnected;
  - where service is connected without authority by a person who has not made application for service;



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## Disconnection of Service Best Practices

- Utility service may be disconnected **without prior notice** for the following reasons:
  - where service has been reconnected without authority following termination of service for nonpayment under subsection (a) of this section;
  - or in instances of tampering with the utility's meter or equipment, bypassing the same, or other instances of diversion as defined in §24.169 of this title (relating to Meters).



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## Disconnection of Service

- Customers may appeal disconnection to PUCT
  - Informal Process First (letters and emails)
  - Then Formal Process (pleading, evidence and judge)
- Service Agreements and District Records are critical to responding to a complaint



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## PROTECTING YOUR SYSTEM



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## Operation of System

- All public water systems (PWS) must comply with TCEQ rules
  - Texas Health & Safety Code Chapter 341
  - 30 TAC Chapter 290
- Failure to do so may result in enforcement and fines



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## Texas Health & Safety Code

- Public drinking water must be free from deleterious matter and must comply with the standards established by the TCEQ or EPA
- **In a public place or an establishment catering to the public, a common drinking cup may not be used.**
- 341.031



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## Texas Health & Safety Code

- Public drinking water supply systems shall:
  - supply safe drinking water in adequate quantities;
  - be financially stable; and
  - be **technically sound**.
- Each public drinking water supply system shall provide an adequate and safe drinking water supply.
- 341.0315



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## Protecting Your System

- Meter Tampering, etc.
- Plumbing Restrictions
- Cross Connections
- Customer Service Inspections



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# METER TAMPERING AND THEFT OF SERVICE



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## Meter Tampering

- A person commits an offense if, without the effective consent of the owner:
  - (1) he intentionally or knowingly damages or destroys the tangible property of the owner;
  - (2) he intentionally or knowingly tampers with the tangible property of the owner and causes pecuniary loss or substantial inconvenience to the owner or a third person;
  - or
  - (3) he intentionally or knowingly makes markings, including inscriptions, slogans, drawings, or paintings, on the tangible property of the owner.
- Penal Code Sec. 28.03(a)



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## Meter Tampering/Theft

- An offense under this section is: ...
  - a Class A misdemeanor if: ...
    - the actor causes in whole or in part **impairment or interruption of any public water supply, or causes to be diverted** in whole, in part, or in any manner, including installation or removal of any device for any such purpose, **any public water supply**, regardless of the amount of the pecuniary loss;
- Penal Code 28.03(b)



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## Meter Tampering/Theft

- Criminal Complaint
  - CALL YOUR LOCAL LAW ENFORCEMENT OFFICE
- Class A Misdemeanor
  - a fine not to exceed \$4,000;
  - confinement in jail for a term not to exceed one year; or
  - both such fine and confinement.
- Enforceable by Law Enforcement/District Attorney in
  - County Court, or
  - District Court



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## Meter Tampering/Theft

- Presumed that a person who is receiving the economic benefit of ... public water ... supply, has knowingly tampered with the tangible property of the owner if the ... supply has been:
  - **diverted** from passing through a metering device; or
  - **prevented** from being correctly registered by a metering device; or
  - **activated** by any device installed to obtain ... public water, ... supply **without a metering device**.
- Sec. 28.03 (c)



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## PLUMBING RESTRICTIONS



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## Plumbing Restrictions

- Ensure that neither cross-connections nor other unacceptable plumbing practices are permitted
- Prohibit use of pipes and pipe fittings that contain more than 0.25% lead or solders and flux that contain more than 0.2% lead
  - may be waived for lead joints that are necessary for repairs to cast iron pipe.
- 290.46



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## Cross-Connection Law

- The distribution system of a PWS may not be physically connected to any other water supply unless the other water is of a safe and sanitary quality and the commission approves the connection.
- A PWS may not be connected to a sprinkling, condensing, cooling, plumbing, or other system unless the connection is designed to ensure against a backflow or siphonage
- 341.0315 and 30 TAC 290.46(k)



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# Cross-Connection Control

- Cross-connection control (CCC) programs
  - identify locations where the risk of cross connection is high
  - ensure that the proper measures are taken to minimize that risk
    - high-grade backflow prevention assemblies and have them tested by a certified tester annually:
      - Mortuaries, minor surgery centers, hospitals, chemical plants, etc.



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# Cross-Connection Control

- Customer service inspection (CSI)
  - Required for:
    - All new construction.
    - Existing customers that have had substantial plumbing modifications.
    - Existing customers whenever there is a reason to suspect that a hazard or a source of contamination may be present.
- Notify customers that a CSI is required
  - May have licensed staff who perform the CSIs and then bill the customer
  - May require the customer to hire a licensed person to conduct the CSI



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# Customer Service Inspection

- Limited to the identification and prevention of cross-connections, potential contaminant hazards, and illegal lead materials.
  - Before providing service to new construction
  - On any existing service where there is reason to believe that cross-connections or other potential contaminant hazards exist, or
  - After any material improvement, correction, or addition to private water distribution facilities.



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Bring it all together in your

## SERVICE AGREEMENTS



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## Service Agreement

- TCEQ Rules Sec. 290.47(b) Appendix B.  
Sample Retail Service Agreement.
  - <https://texreg.sos.state.tx.us/fids/201502634-2.html>
- TRWA Sample District Service Application and Agreement Form
  - From TRWA Sample District Service Policies:
    - Section I: Sample Application Packet



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## Service Agreement

- Agreement with EVERY customer
- Compliance with District Service Policies
- Conditions for Disconnection
- Prohibited Activities
  - Plumbing Fixtures
  - Cross Connections
- Access to District facilities
  - Customer Service Inspections
- Notice of Potential Rationing



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# Service Agreement

- **BE CONSISTENT**
- Standard Service is service the **complies with EVERY** aspect of your service policies.
  - Standard Service Agreement form should reflect this for future disputes
- Non-standard Service is either larger scale development or **DOES NOT COMPLY with EVERY** aspect of your service policies.
  - Non-standard service agreements used to document this for future disputes



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# ENFORCEMENT AND FINES



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## Water Code Chapter 65

- **A district may adopt and enforce reasonable rules to:**
  - secure and maintain safe, sanitary, and adequate plumbing installations, connections, and appurtenances as subsidiary parts of its sanitary sewer system;
  - preserve the purity and the sanitary condition of all water controlled by the district;
  - prevent waste or the unauthorized use of water controlled by the district;

- 65.205



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## Water Code Chapter 65

- **A district may adopt and enforce reasonable rules to:**
  - regulate privileges on any land or easement owned or controlled by the district;
  - provide and regulate a safe and adequate freshwater distribution system; and
  - ensure adequate safeguards in the performance of the district's fire-fighting activities.

- 65.205



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## Water Code Chapter 65

- After the **required publication**, rules adopted by the district under Section 65.205 of this code shall be **recognized by the courts as if they were penal ordinances of a city.**
  - Sec 65.206
- Penalty for violation of a rule is **not effective and enforceable until five days after the last publication of the notice.** Five days after the last publication, the published rule takes effect and ignorance of the rule is not a defense to a prosecution for the enforcement of the penalty.
- 65.208



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## Water Code Chapter 65

- **Publish a substantive statement of each rule and the penalty** for its violation once a week for two consecutive weeks in one or more newspapers with general circulation in the area in which the district is located.
- Substantive statement shall be condensed as far as possible to intelligently explain the purpose to be accomplished or the act forbidden by each rule.
- 65.207



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## Water Code Chapter 65

- Notice must advise that breach of a rule will subject the violator to a penalty and that the full text of each rule is on file in the principal office of the district at which it may be read by any interested person.
- Any number of rules may be included in one notice.
- 65.207



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## Water Code Chapter 49

- May set **reasonable civil penalties** for the breach of any rule of the district that shall not [more than \$20,000, exclusive of interest].
- A penalty under this section is in addition to any other penalty provided by the law of this state and **may be enforced by complaints filed in the appropriate court of jurisdiction in the county in which the district's principal office or meeting place is located.**
- If the district prevails ... it **may ... recover reasonable fees for attorneys, expert witnesses, and other costs** incurred by the district before the court. The amount of the attorney's fees shall be fixed by the court.
- 49.004.



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## City Penal Ordinance

- MAY provide guidance on reasonableness of penalty.
- A fine or penalty for the violation of a municipal rule, ordinance, or police regulation may not exceed \$500 except that:
  - **a fine or penalty** for the violation of a rule, ordinance, or police regulation that governs fire safety, zoning, or **public health and sanitation**, other than the dumping of refuse, **may not exceed \$2,000**; and
  - Local Government Code, 54.001



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## Texas Courts

- Justice of the Peace Courts
  - Exclusive jurisdiction over civil matters where the amount in controversy \$200 or less
  - Jurisdiction by statute over matters up to \$20,000, exclusive of interest
- County Court (Constitutional)
  - One per County
  - Jurisdiction by statute over civil matters exceeding \$200 and up to \$20,000, exclusive of interest
  - Exclusive original jurisdiction of misdemeanors ... and cases in which the highest fine that may be imposed is \$500 or less.
  - Jurisdiction over appeals from Justice of the Peace Court for judgements exceeding \$250, exclusive of costs
- County Courts at Law
  - Jurisdiction by statute and particular to each court
  - Established in more populous counties to handle case loads
- District Court
  - Jurisdiction over any action not exclusive to another court



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# REGULATORY RESOURCES



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## Organizations/Agencies for Assistance

- Texas Commission on Environmental Quality  
(Utility Operations)
  - Enforcement Process
- Public Utility Commission of Texas  
(Utility Rates and Service Obligations)
  - Complaint Process



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## Helpful Websites

- TX Rural Water Association
  - [www.trwa.org](http://www.trwa.org)
- TCEQ
  - [www.tceq.texas.gov](http://www.tceq.texas.gov)
- PUCT
  - [www.puc.texas.gov](http://www.puc.texas.gov)
- Texas Attorney General
  - [www.oag.state.tx.us](http://www.oag.state.tx.us)
- Texas Comptroller of Public Accounts
  - [www.window.state.tx.us](http://www.window.state.tx.us)
- Texas Secretary of State
  - [www.sos.state.tx.us](http://www.sos.state.tx.us)



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## TRWA Sample District Service Policies

- Available at TRWA.org
  - <https://www.trwa.org/store/ViewProduct.aspx?id=2854266>
  - Fee publication – but worth every penny
  - Complies with law and PUCT guidance
    - BUT have your legal counsel review
- READ THEM
- KEEP THEM CURRENT
- ENFORCE COMPLIANCE



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# Questions?

## Effective Enforcement of District Service Policies



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# Thank you!

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# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

## Districts Conference

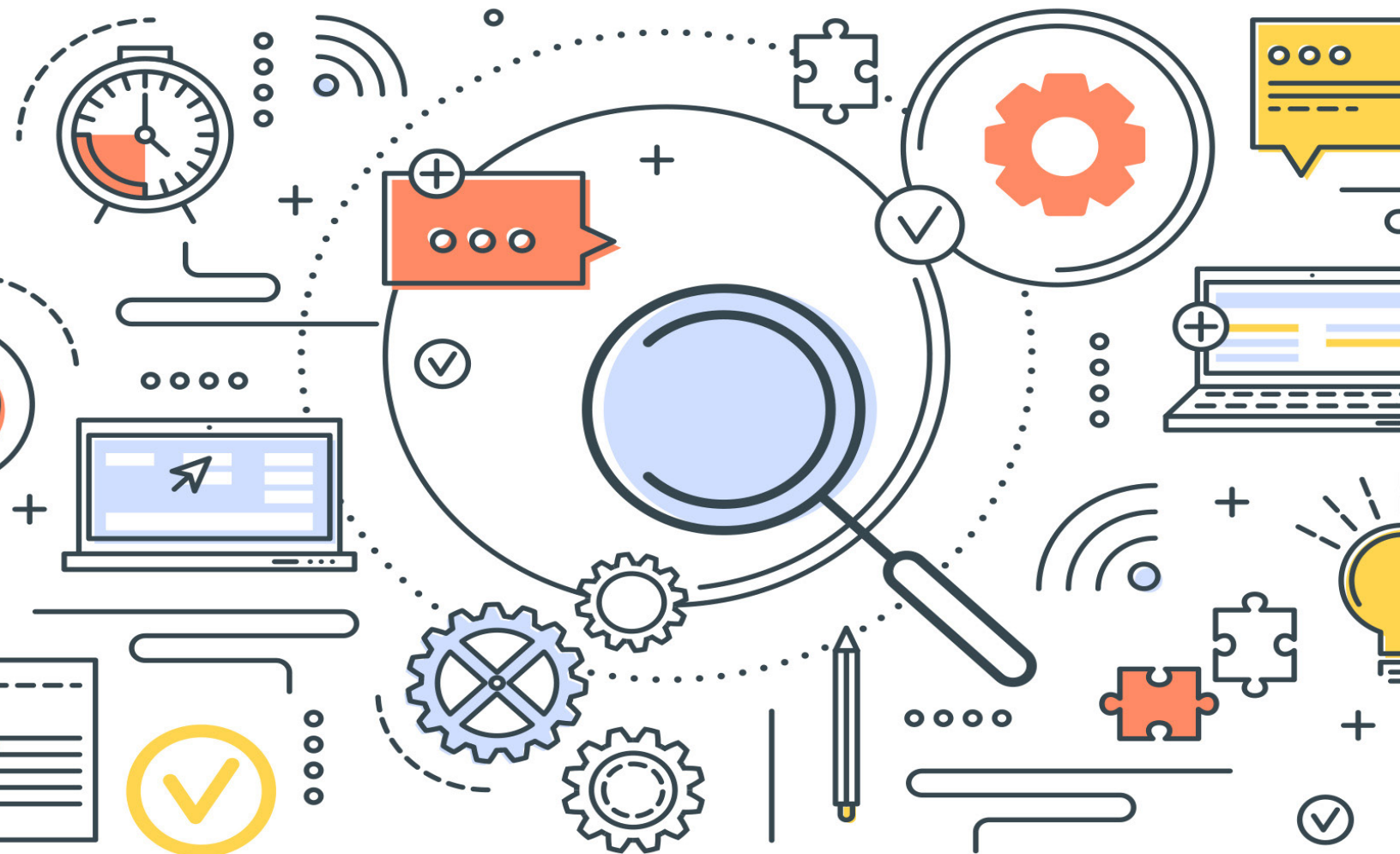
**DAY 3:**

**THURSDAY, OCTOBER 22**

10:00 a.m. - 10:50 a.m.

**Traps for the Unwary: Conflicts of Interest, Dual Officeholding, and Nepotism — Amber McKeon-Mueller, Texas Municipal League**

This session will provide guidance and legal requirements for public officials, such as district board members, on ethical dilemmas including conflicts of interest, nepotism and dual office holding.



# Traps For the Unwary

## Information that a Public Officer Needs to Know

Amber McKeon-Mueller  
Assistant General Counsel  
Texas Municipal League



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## Topic Overview

### We'll definitely cover:

- **Nepotism** – Government Code Chapter 573
- **Dual Office Holding/Incompatibility**

### If there's enough time:

- **Conflict of Interest**
  - Local Government Code Chapter 171
  - Local Government Code Chapter 176



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# Nepotism

## Government Code Chapter 573



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## What is Nepotism?

Gov. Code § 573.041

Prohibits a *public official* from:

- Appointing,
- Confirming the appointment of, OR
- Voting on the appointment of

a *close relative* of certain public officials to a *paid public position* or *employment*



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## Nepotism: Government Code Chapter 573

### Which Public Officials Does Nepotism Apply To?

- Public official who has **final hiring authority** or member of the governing body that has **final hiring authority**.
- **Final Hiring Authority** means the individual or entity that has control over hiring decisions.

Gov. Code § 573.001(3)



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## Nepotism: Government Code Chapter 573

### Who is Considered a Close Relative?

**Close relative** is a relative who is either in the:

#### 1st, 2<sup>nd</sup> or 3<sup>rd</sup> degree of Consanguinity (blood)

- **1<sup>st</sup> degree:** mother, father, son, daughter
- **2<sup>nd</sup> degree:** brothers, sisters, grandparents, grandchildren
- **3<sup>rd</sup> degree:** aunts, uncles, nieces, nephews

*Adopted children and half brothers/sisters are considered full blooded under consanguinity.*

*Step brothers/sisters are not.*

#### 1<sup>st</sup> or 2<sup>nd</sup> degree of Affinity (marriage)

- **1<sup>st</sup> degree:** wife, husband, stepchildren, son-in-law, daughter-in-law
- **2<sup>nd</sup> degree:** brother-in-law, sister-in-law, spouse's grandparents, spouse's grandchildren



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## Nepotism: Government Code Chapter 573

### What Happens if a Public Official has a Nepotism Conflict?

Neither the public official nor the other members of the governing body can hire the close relative, unless a specific statutory exception applies.

Gov. Code § 573.041



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## Nepotism: Government Code Chapter 573

### Prior Continuous Employment Exception

Employee may continue employment if the employee has been continuously employed for a **sufficient uninterrupted time period immediately prior** to the appointment or election of the close relative.

- *30 days* if the public official is appointed
- *Six months* if the public official is elected in an election other than the general county and state election
- *One year* if the public official is elected in the general county and state election

Gov. Code § 573.062



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**Nepotism: Government Code Chapter 573****Consequences for Violating The Nepotism Law**

- Public official commits official misconduct
- Fine not less than \$100 nor more than \$1000
- Public official can be removed from office if convicted and the conviction is final
- Employment contract is void

Gov. Code §§ 573.081 – 573.084



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**Dual Office Holding  
&  
Incompatibility**

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## Dual Office Holding

### Dual Office Holding

Texas Constitution Art. XVI, Section 40

- ▶ “No person shall hold or exercise at the same time, more than once civil office of emolument...”
- ▶ What is “civil office of emolument”?
  - A paid public office



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## Dual Office Holding

### Distinction Between “Public Office” and “Public Employment”

Public Office is determined by:

1. The officeholder’s authority to exercise governmental power for the benefit of the public, AND
2. Officeholder’s independence from the control of other governmental bodies or officials

*Aldine Independent School District v. Standley*, 280 S.W.2d 578 (Tex. 1955)



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## Dual Office Holding

### Definition of Emolument

Pay or some other benefit, compensation or thing of value received in exchange for the person's service as an officer.

Reimbursement for actual governmental related expenses is not considered emolument.

Tex. Att'y Gen. LO-93-33 (1993)



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## Dual Office Holding

### Incompatibility

- ▶ Prohibition against a person holding certain public offices at the same time because of a practical conflicts of interest that might arise.
- ▶ Three types of Incompatibility
  - Self Appointment
  - Self Employment
  - Conflicting Loyalties



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## Incompatibility

### Incompatibility: Self Appointment

Prevents a governing body from appointing one of its own members to a public office.

*Ehlinger v. Clark*, 8 S.W.2d 666 (Tex. 1928)

### Incompatibility: Self Employment

A member of a governing body may not simultaneously serve as an employee of his/her entity.

Tex. Att'y Gen. LO-97-34



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## Incompatibility

### Incompatibility: Conflicting Loyalties

Prevents a person from holding two public offices when the interest of the two entities may conflict and when voting on behalf of one public entity would possibly compromise the interest of the other public entity.

*Thomas v. Abernathy County Line Indep. Sch. Dist.*, 290 S.W. 152 (Tex. Comm'n App. 1927, judgment adopted)



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## **Dual Office Holding / Incompatibility**

### **Consequences for Violating the Dual Office Holding or Incompatibility**

There are no criminal penalties for holding two conflicting public offices or for other types of prohibited dual office holding. Such a violation would have to be challenged through a civil action in a district court.



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## **Conflict of Interest Part 1**

### **Local Government Code Chapter 171**



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## Conflict of Interest: Local Gov. Code Chapter 171

### What is Conflict of Interest in Local Government Code Chapter 171?

Prohibits *local public officials* from:

- Discussing,
- Deciding, OR
- Voting on

Issues that the local public official has a *Substantial Interest in a Business Entity or Real Property*.



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## Conflict of Interest: Local Gov. Code Chapter 171

### Who is Considered a Local Public Official?

Local Gov. Code § 171.001(1)

**Local Public Officials** include:

- Elected Officials, and
- Appointed Officials,

Whether paid or unpaid, who exercise responsibilities that are more than advisory in nature.



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## Conflict of Interest: Local Gov. Code Chapter 171

### Two Types of Conflict of Interest

1. Substantial Interest in a Business Entity: Conflict due to a local public official's substantial financial interest in a *business entity* that has an issue before the governmental unit.
2. Substantial Interest in Real Property: Conflict due to a local public official's substantial financial interest in *real property* that would be affected by the governmental unit's action.



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## Conflict of Interest: Local Gov. Code Chapter 171

### What does a Local Public Official do if He/She has a Conflict of Interest?

Local Gov. Code § 171.004(a) & (b)

1. File an Affidavit stating the nature and extent of the official's interest with the governmental body's record keeper;
2. Abstain from discussion or other proceedings regarding the item; and
3. Abstain from voting on the item.



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## Conflict of Interest: Local Gov. Code Chapter 171

### Consequences for Violating Conflict of Interest Law

Local Gov. Code § 171.003

1. **Civil:** Action taken is voidable
2. **Criminal:** Four situations in which a public official may be prosecuted for action or inaction that is a *Class A misdemeanor punishable by a fine not to exceed \$4,000 and/or up to one year in jail*:
  - a. Failure to file an affidavit
  - b. Participating in discussion regarding an item when there is a conflict
  - c. Serving as surety for a business entity that has work, business, or a contract with the governmental body
  - d. Serving as surety on any official bond required for an official of a governmental body
3. **Possible Removal from office**



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## Conflict of Interest Part 2

### Local Government Code Chapter 176



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### Conflict of Interest: Local Gov. Code Chapter 176

## What is Conflict of Interest in Local Government Code Chapter 176?

Requires a vendor or a local government officer of a local governmental entity to disclose certain business relationships.



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### Conflict of Interest: Local Gov. Code Chapter 176

## Who are the “Conflict Disclosure Statements” and “Conflict of Interest Questionnaires” Filed With?

Local Gov. Code §§ 176.003(b) & 176.006(a-1)

- The statements and questionnaires must be filed with the record administrator of the local governmental entity.
- **Record Administrator** is the director, county clerk, city secretary, superintendent, or other person responsible for maintaining the records of the local governmental entity, or another person who is designated by the local governmental entity to maintain the statements and questionnaires. Local Gov. Code § 176.001(5)
- If the local governmental entity maintains a website, then the statements and questionnaires must be posted on the website. Local Gov. Code § 176.009



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## Conflict of Interest: Local Gov. Code Chapter 176

### When is Chapter 176 Triggered?

Local Gov. Code §§ 176.003, 176.006

#### Two-Part Test

##### Part 1

- The Vendor enters into a contract with a Local Governmental Entity;
- OR
- The Local Governmental Entity considers entering into a contract with the Vendor.

##### Part 2

1. A **LGO** (or LGO's close family member\*) has an **employment or business relationship** with a vendor resulting in taxable income that is more than **\$2,500** in the preceding twelve months before becoming aware that person was/is vendor.
2. A **LGO** (or LGO's close family member\*) accepts from a vendor in the preceding twelve months one or more **gifts** (including transportation, lodging, and entertainment) that have an aggregate value of **more than \$100**.
3. A **LGO** has a **family relationship\*** with a vendor.

[\*A person within the third degree by blood or second degree by marriage.]



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## Conflict of Interest: Local Gov. Code Chapter 176

### When is the "Conflict Disclosure Statements" Required to be Filed?

Local Gov. Code § 176.003(b)

No later than 5:00 p.m. on the seventh business day after the date in which the officer becomes aware of facts that require a filing of the statement.



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## Conflict of Interest: Local Gov. Code Chapter 176

### Consequences of Not Filing “Conflict Disclosure Statement”?

Local Gov. Code § 176.013

- ▶ An officer commits an offense if:
  - ▶ Is requires to file a statement; AND
  - ▶ Knowingly fails to file the statement when the officer becomes aware of the facts that requires the filing of the statement.
- ▶ **Exception to prosecution** if officer files a statement or questionnaire not later than the seventh day after the date the person receives notice from the local governmental entity of the alleged violation.
- ▶ Local governmental entity may reprimand, suspend, or terminate the employment of an employee who knowingly fails to comply.



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## Conflict of Interest: Local Gov. Code Chapter 176

### Possible Offenses for Knowingly Failing to file the Statement or the Questionnaire

Local Gov. Code § 176.013(c)

1. Class C misdemeanor if the contract amount is less than \$1 million or if there is no contract amount for the contract;
2. Class B misdemeanor if the contract amount is at least \$1 million but less than \$5 million; or
3. Class A misdemeanor if the contract amount is less than \$5 million.



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### For More Information

- **Nepotism**
  - Texas Nepotism Laws Made Easy:  
<https://www.tml.org/DocumentCenter/View/267/Texas-Nepotism-Laws-Made-Easy-PDF>
- **Dual Office Holding / Incompatibility**
  - Dual Office Holding/Incompatibility Laws Made Easy:  
<https://www.tml.org/DocumentCenter/View/268/Dual-Office-Holding-and-Incompatibility-Made-Easy-2018-PDF>
- **Conflict of Interest – Local Government Code Chapter 171 & 176**
  - Conflict of Interest/Disclosure Laws Applicable to City Officials, Employees, and Vendors:  
<https://www.tml.org/DocumentCenter/View/264/Chapter-171-Conflicts-of-Interest-Requirements-PDF>  
<https://www.tml.org/DocumentCenter/View/265/Chapter-176-Conflicts-Disclosure-Requirements-PDF>



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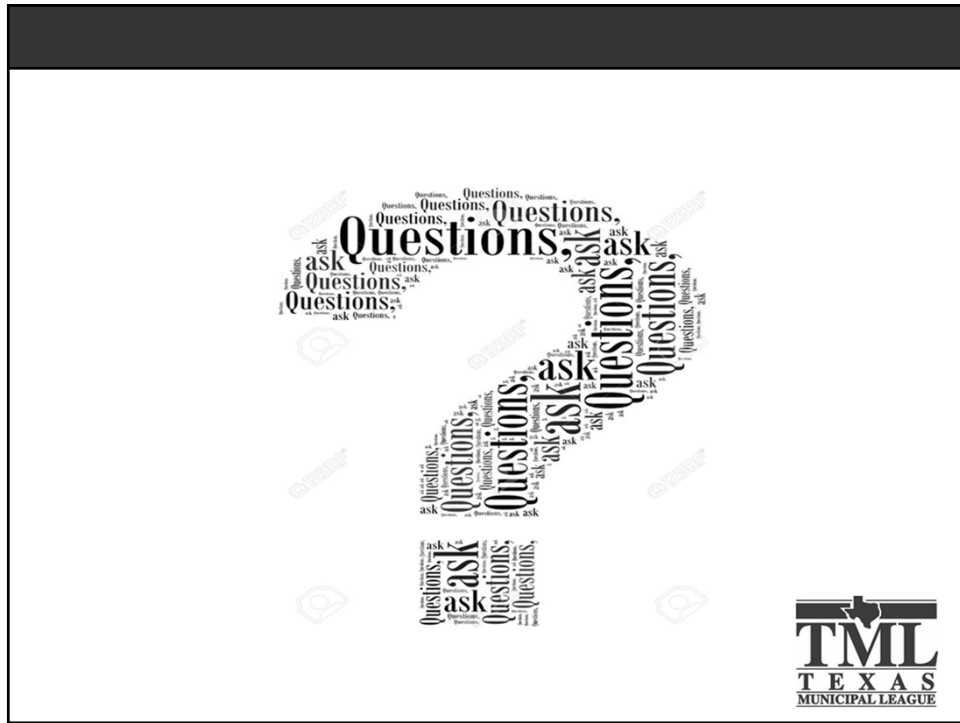
### Contact Information

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1821 Rutherford Lane, Suite 400  
Austin, Texas 78754  
512-231-7400  
[www.tml.org](http://www.tml.org)



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# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

## Districts Conference

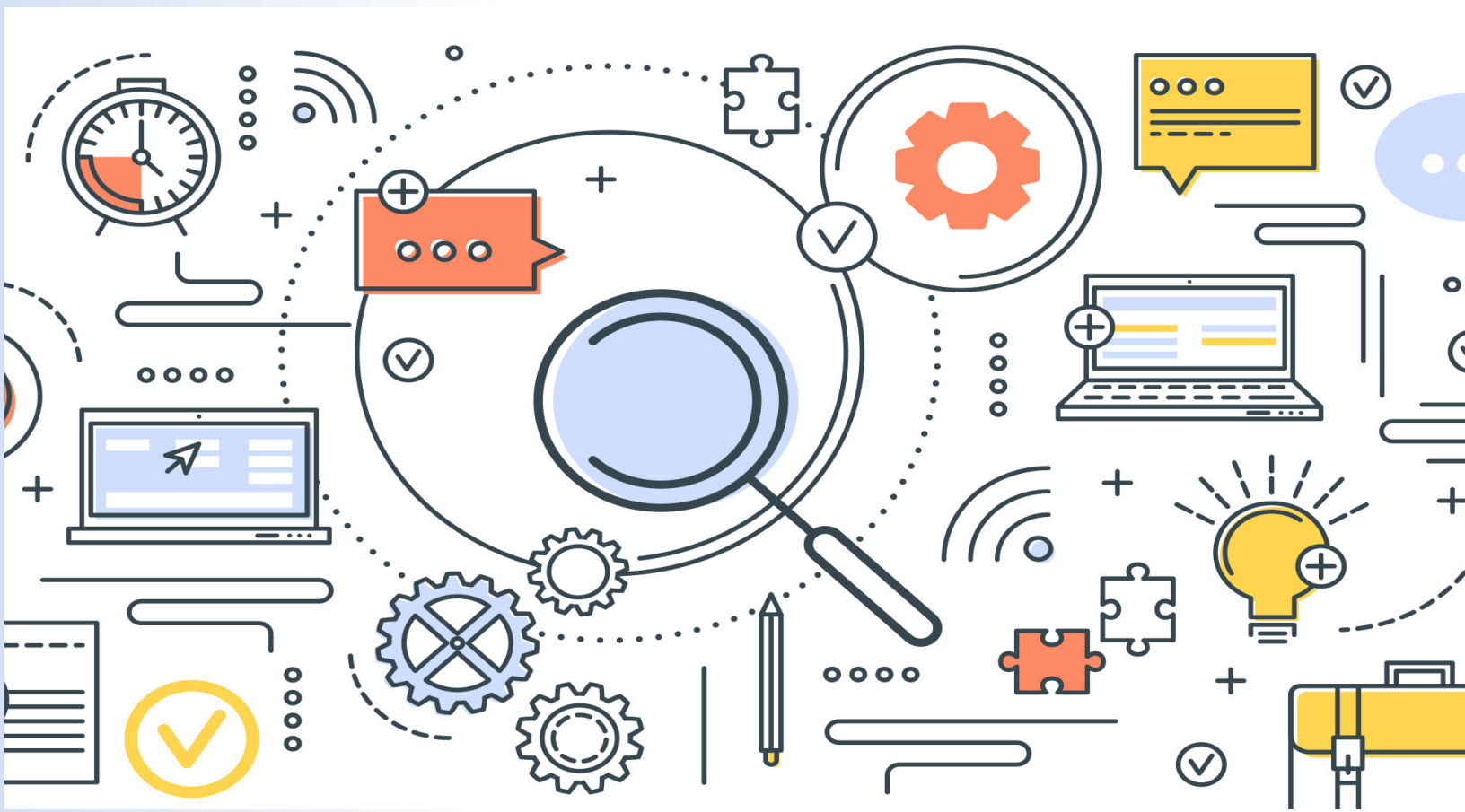
DAY 4:

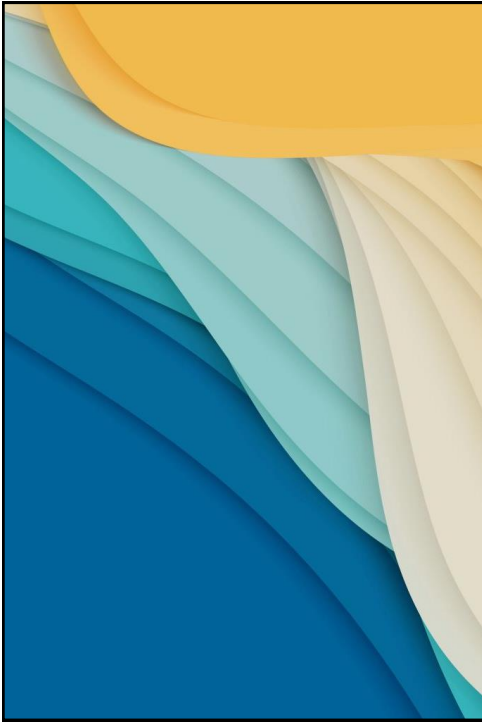
FRIDAY, OCTOBER 23

9:00 a.m. - 9:50 a.m.

### Required Policies and Regulatory Filings for Water Districts — Trent Hightower, TRWA

Districts are required to file a variety of documents and reports with the Texas Commission on Environmental Quality, Public Utility Commission, Comptroller and other state agencies. This session will outline these requirements and the numerous required and recommended policies that districts should have in place such as personnel, public comment and board policies.






# POLICIES AND REGULATORY FILINGS FOR WATER DISTRICTS


TRENT HIGHTOWER  
ASSISTANT GENERAL COUNSEL  
TEXAS RURAL WATER ASSOCIATION  
TRENT.HIGHTOWER@TRWA.ORG

1

## POLICIES VS. FILINGS



POLICIES ARE ADOPTED,  
MAINTAINED, AND USED  
INTERNALLY



FILINGS ARE LEGAL DOCUMENTS  
THAT MUST BE FILED WITH A  
STATE REGULATORY AGENCY  
(TCEQ, PUC, COMPTROLLER)

2

## WHAT IS A “POLICY?”



A deliberate system of principles to guide decisions and achieve rational outcomes.



A statement of intent, implemented as a procedure or protocol.



Adopted by governing bodies.



Not a law, but the law might require you to adopt a policy.

3

## WHY DO WE NEED POLICIES?

- Provide a roadmap for day to day operations.
- Ensure compliance with laws and regulations.
- Guide decision-making.
- Streamline internal processes.



4



# WATER DISTRICT POLICIES

Detailed explanations and model policies  
at [www.trwa.org/page/legalforms](http://www.trwa.org/page/legalforms)

Required	Recommended	Covered by Statute
Code of Ethics	District Service Policy	Conflict of Interest Policy (Ch. 171 Loc. Gov. Code)
Travel Expenditure Policy	Personnel Policy	Whistleblower Policy (Ch. 554 Gov. Code)
Investment Policy	Board Policy	
Professional Services Policy	Extension Policy (Usually in DSP)	
Management Policy	Public Comment Policy	
Records Management Policy		

# REQUIRED POLICIES

## CODE OF ETHICS FOR DIRECTORS, OFFICERS, & EMPLOYEES

REQUIRED

- Required by Water Code § 49.199
- TRWA encourages public input in the adoption process
- Should reflect Water Code § 49.052 (disqualification of directors) and Local Government Code Chapter 171 (conflicts of interest, notification/abstention in voting)
- Can reflect Government Code Chapter 573 (nepotism), and acceptance of gifts
- Review periodically to ensure it is current and being followed in practice

7

## TRAVEL EXPENDITURE POLICY

REQUIRED



Required by Water Code § 49.199



Should cover travel expenditures for all personnel



Should describe eligible expenses



Pre-approval and documentation requirements



Texas Comptroller's Travel Allowance Guide:  
[fmx.cpa.state.tx.us/fmx/travel/texttravel/index.php](http://fmx.cpa.state.tx.us/fmx/travel/texttravel/index.php)

8

# INVESTMENT POLICY

---

Required by Water Code § 49.199

---

Must conform with Public Funds Investment Act (PFIA), Chapter 2256 Government Code

---

Describes how funds are invested, investment strategies and authorized investments.

---

Designates an investment officer (must take PFIA training)

---

REQUIRED

9

## PROFESSIONAL SERVICES POLICY

REQUIRED

Required by Water Code § 49.199

Attorneys, Engineers, Auditors, Financial Advisors, or other Professional Consultants

Usually references and incorporates Chapter 2254, Government Code (Professional Services Procurement Act)

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## MANAGEMENT POLICY

- Required by Water Code § 49.199
- Maintenance of accounting records
- Preparation of an annual audit
- Creation of an audit committee
- Long-term strategic plan



REQUIRED

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## RECORDS MANAGEMENT POLICY

REQUIRED

- Required for all local governments by Loc. Gov. Code § 203.021
- Texas State Library & Archives Commission
  - Schedule GR (all local governments)  
<http://www.tsl.state.tx.us/slr/recordspubs/gr.html>
  - Schedule UT (utility-specific)  
<http://www.tsl.state.tx.us/slr/recordspubs/ut.html>
- Also required to submit a Declaration of Compliance (can be found at Schedule GR link)

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SCHEDULE GR –  
RECORDS COMMON  
TO ALL LOCAL  
GOVERNMENTS

## RECORDS MANAGEMENT POLICY

### Table of Contents

<http://www.tsl.state.tx.us/slrn/recordspubs/gr.html>

- [Introduction](#)
- [Part 1: Administrative Records](#)
  - [Section 1-1: Records of Governing Bodies](#)
  - [Section 1-2: General Records](#)
- [Part 2: Financial Records](#)
  - [Section 2-1: Fiscal Administration and Reporting Records](#)
  - [Section 2-2: Accounting Records](#)
- [Part 3: Personnel and Payroll Records](#)
  - [Section 3-1: Personnel Records](#)
  - [Section 3-2: Payroll Records](#)
- [Part 4: Support Services Records](#)
  - [Section 4-1: Purchasing Records](#)
  - [Section 4-2: Facility, Vehicle, and Equipment Management Records](#)
  - [Section 4-3: Communication Records](#)
  - [Section 4-4: Workplace Safety Records](#)
- [Part 5: Information Technology Records](#)
  - [Section 5-1: Records of Automated Applications](#)
  - [Section 5-2: Computer Operations and Technical Support Records](#)

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SCHEDULE UT –  
UTILITY-SPECIFIC  
RECORDS

## RECORDS MANAGEMENT POLICY

### Table of Contents

<http://www.tsl.state.tx.us/slrn/recordspubs/ut.html>

- [Introduction](#)
- [Part 1: General Records](#)
- [Part 2: Water and Wastewater Records](#)
- [Part 3: Solid Waste and Hazardous Waste Management Records](#)
- [Part 4: Electric Utility Records](#)
- [Part 5: Gas Utility Records](#)

TCEQ/PUC Communications	Complaints	Confidentiality Requests
Customer Billing Records	Customer Account Histories	Equipment History Records
Meter Reading Records	Rate Schedules	Service Application & Deposit Records
Microbiological Analysis Records	Chemical Analysis Records	Lead & Copper Compliance Records

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# RECOMMENDED POLICIES

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## DISTRICT SERVICE POLICY

Rules and  
Regulations

Service  
Extension  
Policy

Rates and Fees

Drought  
Contingency  
Plan

- Update Regularly
- When in doubt, check here!
- TRWA Sample Policy available for purchase online

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## PERSONNEL POLICY

“Can I fire an employee if...?”

“What do we do if an employee complains that another employee did...?”

“Do we really need to do performance evaluations?”

“What do I do if an employee keeps going over on their sick/vacation time?”

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## THE RULES OF THE GAME SHOULD BE WRITTEN DOWN

- Employees should have a clear understanding of conduct that will subject them to discipline, and what that discipline will be.
- Discrimination/Harassment policies, when followed, protect you the employer.
- Procedures for the accrual and use of leave should be clear.

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## THE RULES OF THE GAME SHOULD BE WRITTEN DOWN

- Should clearly lay out your workweek and pay schedule.
- Employees need a clear job description; also protects the employer when expectations aren't met.
- Clear hiring practices maintain fairness to internal and external applicants; again, this protects you the employer.

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## **BOARD POLICY**

### **HOW DO BOARD MEETINGS WORK?**



Functions and Roles of  
Officers



Solves the Common  
“Agenda Conundrum”



Committee  
Responsibilities

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## PUBLIC COMMENT POLICY

Public Comment is  
Mandatory as of  
September 1, 2019 (H.B.  
2840)

But the law allows you  
to adopt “reasonable  
rules” regarding the  
public’s right to  
address the board.

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## WHY ADOPT A PUBLIC COMMENT POLICY?



Define your procedures



Establish time limits



Establish a location for speakers



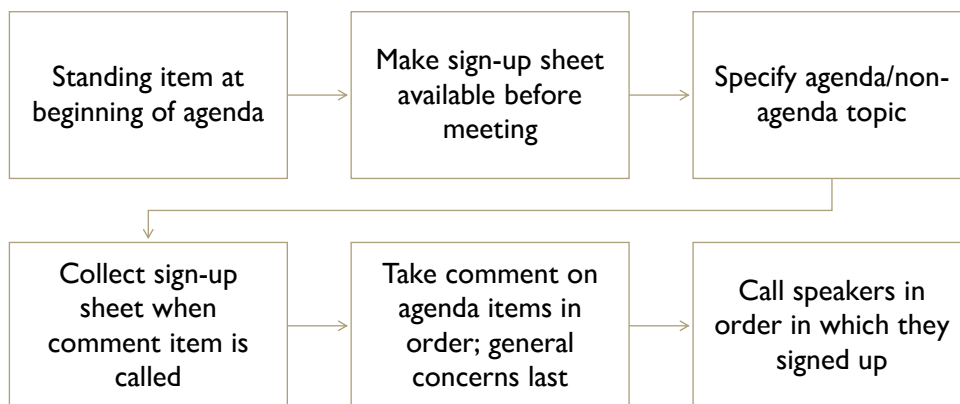
Implement rules of decorum



Distinguish between comment on agenda items and issues of general concern

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# TRWA PUBLIC COMMENT PROCEDURE



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## TIME LIMITS

- Agenda Items: maximum limit per person, for each item
- General Concern Items: maximum limit per person, for each meeting
- Designate a timekeeper
- Prohibit pooling of time
- Translators require 2x the time (statutory)
- Board comments do not count against time



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# REQUIRED FILINGS

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- Directors & Candidates
- Audits & Financials
- Drought & Conservation
- Miscellaneous

Full list at: [www.trwa.org/page/Legal-PoliciesFormsResources](http://www.trwa.org/page/Legal-PoliciesFormsResources) >> Resources

## CATEGORIES OF FILINGS

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# REQUIRED FILINGS

## DIRECTORS & CANDIDATES

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- **Appointment of Campaign Treasurer by Candidate – Form CTA** – All candidates for a public office in Texas must file this with the proper filing authority (e.g. district record keeper) when they become a candidate, even if they do not intend to accept campaign contributions or make campaign expenditures.
- For districts in multiple counties, a candidate instead must file this with the Texas Ethics Commission.
- Texas Election Code §252.005(1)(B)
- [https://www.ethics.state.tx.us/data/resources/guides/local\\_duty\\_guide.pdf](https://www.ethics.state.tx.us/data/resources/guides/local_duty_guide.pdf)

## CANDIDATES

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## NEW DIRECTORS

- **Statement of Officer (Anti-bribery Statement) - Form 2201** – filed with Secretary of State (SOS) before newly elected or appointed officers or directors take office; must be filed before the Oath of Office. (Texas Water Code 49.055(a))
- **Oath of Office - Form 2204** – file duplicate original with Secretary of State within 10 days after its execution; oath cannot be administered until Statement of Officer (anti-bribery) has been executed and filed with SOS; incumbents also must file this every time they are re-elected and their new term starts (Texas Water Code 49.055(d))



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## NEW DIRECTORS



- **Director Bond** – Before each director can begin to perform the duties of office, must execute a bond for \$10,000 payable to the district and conditioned on the faithful performance of that director's duties; all bonds must be approved by the board and paid for by the district. File and maintain at the district office. (Texas Water Code 49.055(c))
- **District Registration Form (TCEQ-0179 Form)** – Within 30 days after a new director is elected or appointed, must file their name, mailing address and date term expires with the Texas Commission on Environmental Quality. TCEQ requires all blanks on the form, if applicable, to be filled out every time one changes. (Texas Water Code 49.054(f))

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## DIRECTOR TRAINING

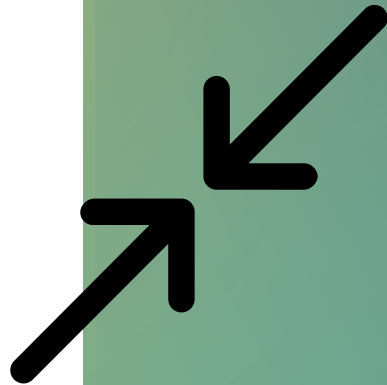
- **Open Government Training** – All new directors must complete 1-hour Open Meetings Act and 1-hour Public Information Act Training. Keep certificate on file in office.
  - The Attorney General offers online versions of each of these, and TRWA often presents compliant training at our conferences.
- **Cybersecurity Training** – All directors must complete a certified program on cybersecurity each year. Keep certificate on file in office.
  - Texas Department of Information Resources maintains a list of approved providers. TRWA offers an online version of this course.

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## CURRENT DIRECTORS

### Local Government Officer Conflicts Disclosure Statement (Form CIS)

- District officers and directors file this with district's record keeper before 5 p.m. on seventh business day after becoming aware of facts surrounding district contracts that would trigger filing of this statement.
- Also must post this disclosure on district website, if maintain one. (Texas Local Government Code 176.003)
- <https://www.ethics.state.tx.us/data/forms/conflict/CIS.pdf>

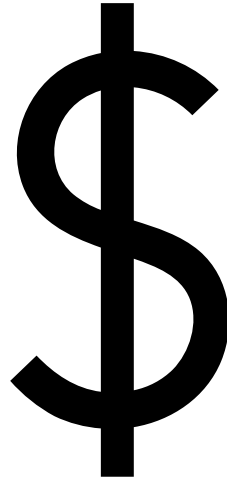


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# CURRENT DIRECTORS

## Campaign Finance Reports

- Must be filed semi-annually if:
  - You're a candidate for office AND
  - You have more than \$500 in political expenditures or accept more than \$500 in contributions during reporting period.
- Requirements vary depending on number of counties served – check Texas Ethics Commission for specific guidelines.



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## REQUIRED FILINGS AUDITS & FINANCIALS

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## AUDITS & FINANCIALS

Each year, each water district must complete one of the following financial status reports with TCEQ:

- **Annual Audit**
- **Annual Financial Report**
- **Financial Dormancy Affidavit**

### TCEQ RG-378

[https://www.tceq.texas.gov/assets/public/comm\\_exec/pubs/rg/rg-378.pdf](https://www.tceq.texas.gov/assets/public/comm_exec/pubs/rg/rg-378.pdf)

Consult a professional auditor to determine applicability.

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## ANNUAL AUDIT VS. FINANCIAL REPORT

### Audit

- Prepared by Independent Auditor
- Required if:
  - Gross receipts above \$250,000 or
  - Total cash + temporary investments above \$250,000
- File within 135 days of close of fiscal year

### Report

- Prepared by filer
- Form TCEQ-0722
- File within 45 days of close of fiscal year

Note: Must notify TCEQ within 30 days of any change in fiscal year (Water Code 49.158)

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# REQUIRED FILINGS

## DROUGHT & CONSERVATION

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## DROUGHT CONTINGENCY PLAN

- Systems serving 3,300+ connections: File with TCEQ every five years
- Revisions must be submitted within 90 days of adoption
- Must provide a copy to your regional water planning group(s)
- Systems serving under 3,300 – must adopt and file internally for inspection
- All systems must file a Drought Status Form with TCEQ when implementing mandatory stages of DCP



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# WATER CONSERVATION PLAN

- File with TCEQ every five years if:
  - 3,300+ Connections
  - \$500,000+ in TWDB Loans
  - Hold an existing water rights permit for 1,000 acre-feet/year of surface water
- File revisions within 90 days of adoption; must include implementation report with five- and ten-year targets for water savings
- Must also file a Water Conservation Annual Report by May 1 of each year showing progress in implementing the plan

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## Water Loss Audit

- Computes water loss during previous year
- File every five years if <3,300 connections and no TWDB funding
- File by May 1 each year if >3,300 connections or TWDB funding

## Water Use Survey

- Gathers data for long-term water supply planning
- Required of ALL water systems
- Due on first business day in March
- Systems are ineligible for TWDB funding if they do not file

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# REQUIRED FILINGS

## MISCELLANEOUS FILINGS

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## EASEMENTS

- USDA General/Specific Easements
- Sanitary Control Easements
- Must be filed in county deed records of the county in which the property is located
- Not valid against subsequent purchasers if not filed!



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## **SUBDIVISION SERVICE EXTENSION POLICY**

- Water Code § 13.2502
- Publish in local newspaper every two years (or every year to be safe)
- Allows utility to deny service to applicants if developer did not comply with the service extension policy



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## **RECORDS RETENTION POLICY**

- File with Texas State Library & Archives Commission
- File within 30 days of adoption
- Must also file Form SLR 504 – Designation of Local Government Records Management Officer



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## EMINENT DOMAIN

- The right of a government or its agent to take private property for public use.
- Right granted by the legislature.
- Annual, mandatory report to the Comptroller due February 1; may file beginning November 1.
- Civil penalty of \$1,000 after 30 days; additional \$1,000 after 30 more days
- TRWA Filing Service: [www.trwa.org/page/sb1812](http://www.trwa.org/page/sb1812)



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## CONSUMER CONFIDENCE REPORT



- Provides customers with information about the quality of their drinking water.
- For systems required to file a water loss audit, must also report water loss in next CCR or on next water bill following the audit.
- Send to all customers by July 1; must certify to TCEQ that it was distributed and that information contained therein is correct.

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**QUESTIONS?**

# FALL VIRTUAL CONFERENCES

October 20-23, 2020 | 9:00 - 11:30 AM Daily

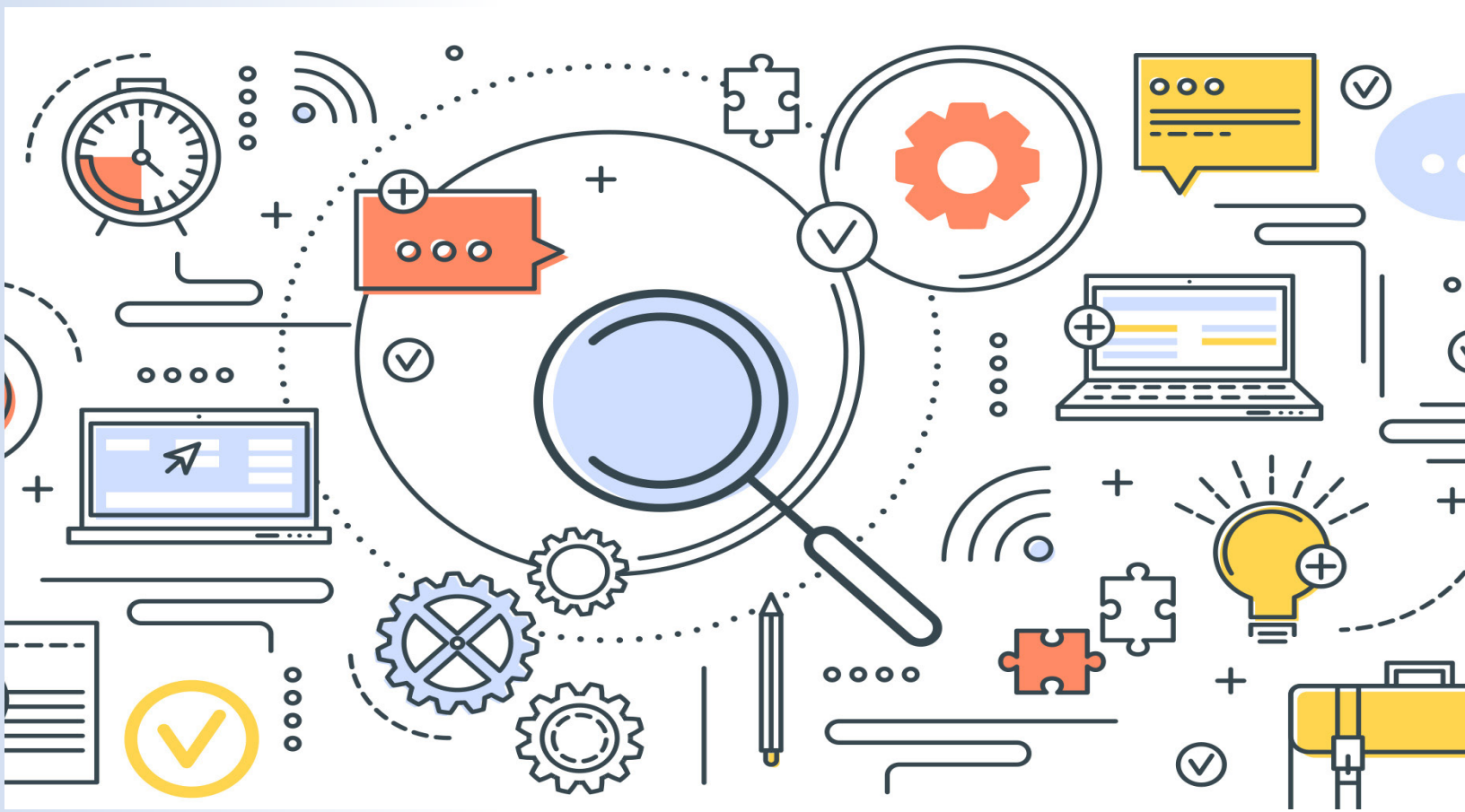
## Districts Conference

**DAY 4:**  
**FRIDAY, OCTOBER 23**

10:00 a.m. - 10:50 a.m.

**Community Outreach Projects — Rachel Webb, South Rains SUD and Paula Weber, Ables Springs SUD**

Strong community buy-in and participation are the backbone of a successful water or wastewater utility. When your customers are engaged and feel part of a larger community, they're more likely to run for leadership roles, participate in meetings, and support your lobbying efforts. This session will highlight some successful community engagement projects by other water utilities and provide attendees with the information they need to launch similar events in their own communities.




# COMMUNITY OUTREACH PROJECT

BY RACHEL WEBB



## SALVAGE YOUR SCRAP





## "SALVAGE YOUR SCRAP"

South Rains Special Utility District is proud to sponsor the "Salvage Your Scrap" campaign. This is a fundraising campaign for the Texas Rural Water Foundation in support of their mission to serve all Texas rural water and wastewater utilities.

The Salvage Your Scrap campaign will allow the Foundation to:

- Support rural students and operators' education through the Student and Operator/Manager Scholarship Programs
- Train and place veterans into new careers in the water and wastewater industry through the Veteran Employment Program
- Continue to expand programming to further empower rural water and wastewater utilities throughout the state.

We will be taking donations of scrapmetal at our office and donating the proceeds to the TRWF. Please use this opportunity to clean up and get rid of any unused or unwanted scrapmetal. If you have any questions feel free to give Rachel Webb a call (903)473-2122 or email [srwsc@verizon.net](mailto:srwsc@verizon.net).

When: September 25<sup>th</sup> – September 30<sup>th</sup>

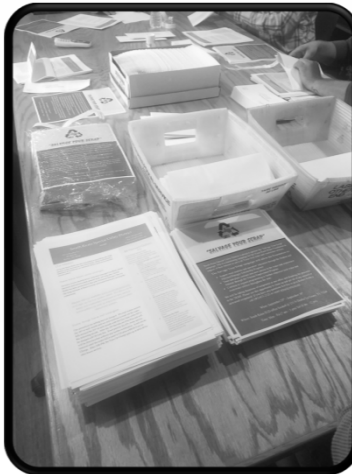
Where: South Rains SUD office located @ 121 N Dunbar Ln Emory, TX 75440

Time: Mon - Fri (7 am – 3 pm) Sat (8 am – 12 pm)

## HOW I GOT THE WORD OUT

- PUBLISHED A FLYER & POSTED AT AREA BUSINESSES
- SENT FLYER OUT WITH OUR ANNUAL NEWSLETTER TO ALL OF OUR CUSTOMERS
- PUBLISHED ON OUR DISTRICT'S WEBSITE
- NOTICE WAS POSTED IN LOCAL NEWSPAPER
- CHAMBER OF COMMERCE SENT OUT A NOTICE WITH THEIR WEEKLY EMAILS

EVERYONE GOT INVOLVED WITH HELPING!





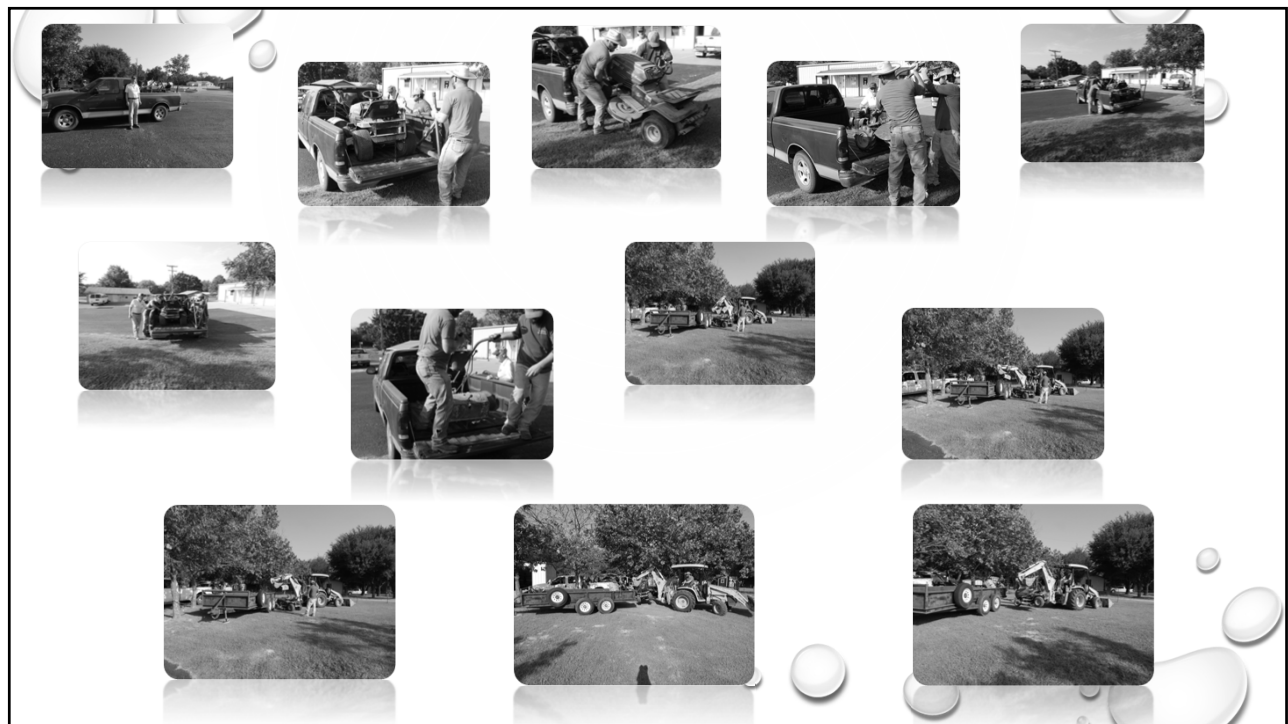


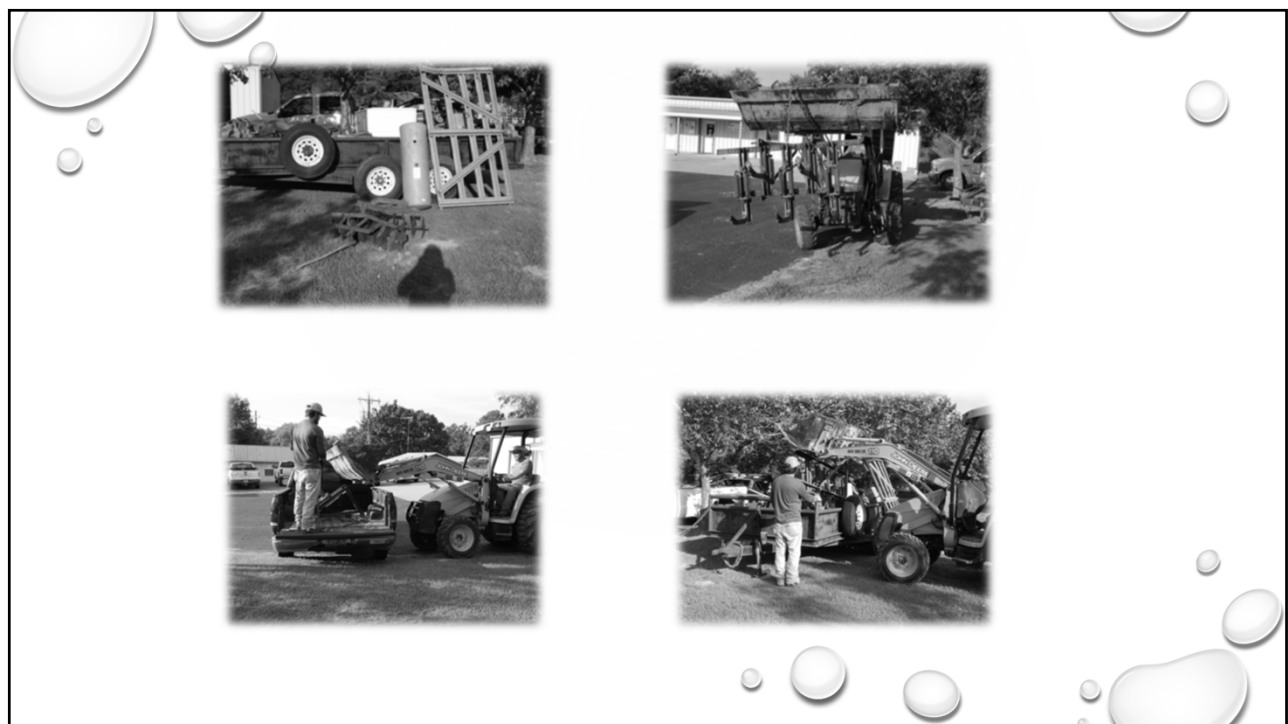


We gave each person that donated a South Rains goody bag!



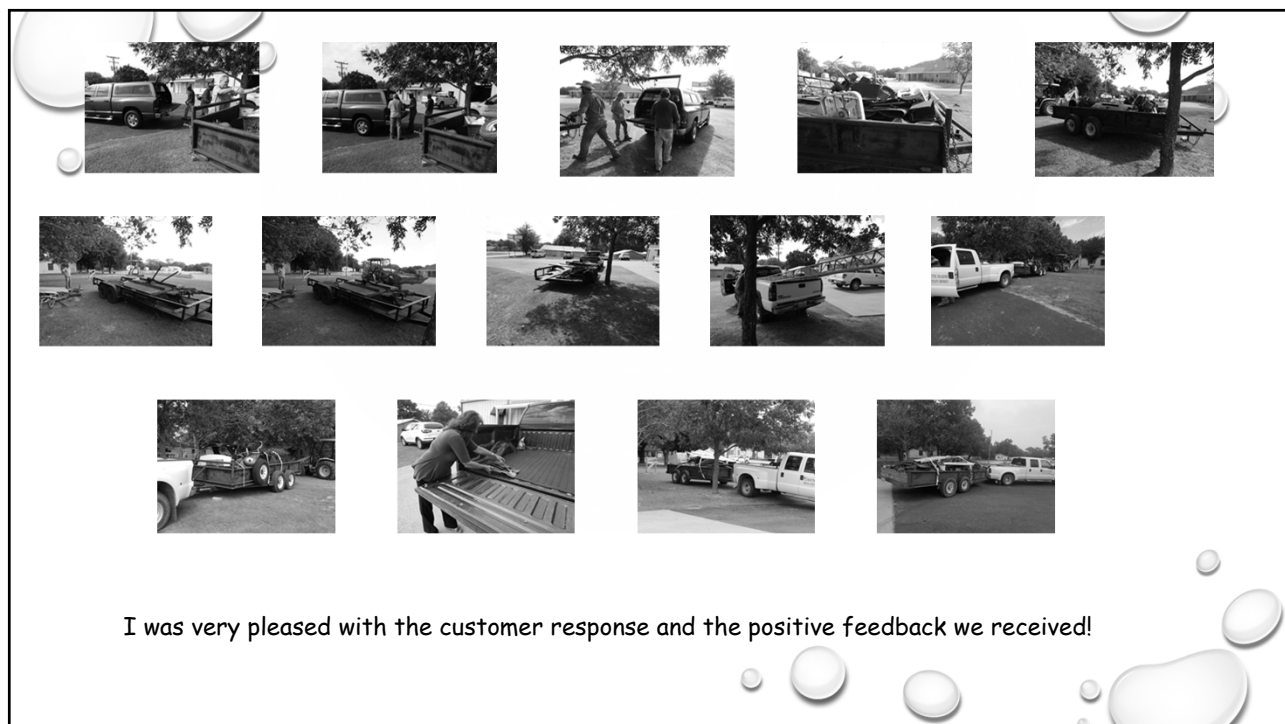


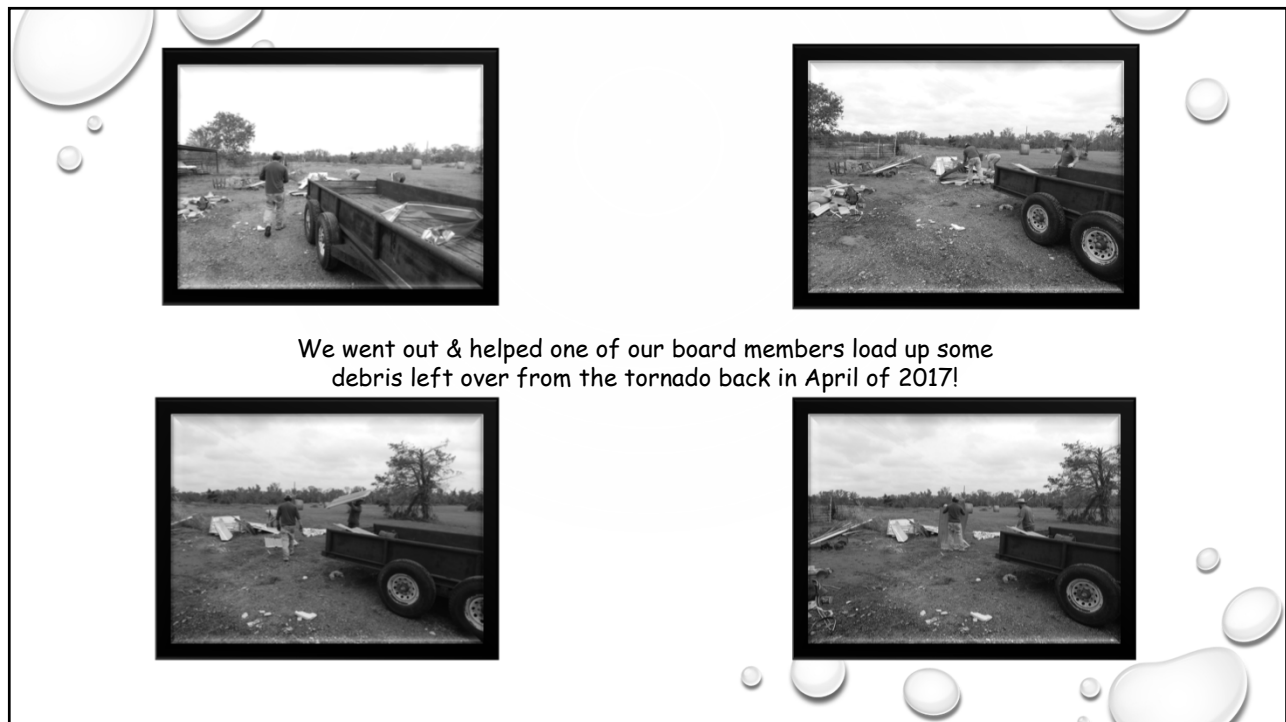












OUR FIRST YEAR WE TOOK A TOTAL OF 6  
LOADS TO THE SCRAP YARD IN GREENVILLE

[illegible]

Greenview Metal Recycling  
2007 Travis Street  
Greenview, IL 60032  
Phone: 847-485-1514

---

Michael Joe Lee Anglin  
110 W 168th  
Arla IL 75405

---

Date: 2/29/2017 03/06/2017 0:00:00:00  
TIN:                      Date: 1/6/2020  
Net Wt.: 3440      Scales      0.043  
                                           8134  
TOTAL WEIGHMENT:      8134

Notes: 1) observe the action across the  
compartment and the goods being sent  
and/or receiving. 2) observe the  
loading and unloading of goods from  
the compartment. 3) observe the  
delivery of the goods. 4) the action  
is observed in each compartment. 5) the  
loading and unloading of goods from  
the goods is observed and recorded. 6) the  
goods are not visible, or absent from  
a compartment should be changed.

[illegible]

Greenville Metal Recyclers  
3007 Spruce Street  
Greenville SC 29615  
Phone: 803-455-1214

Michael Joe Lee engine  
100 cu 1980  
w/16 tie 1980

Est: 27848 0-15/0/2017 7:00:20:40

TO	From: 13020	Salvage
Est No: 1280	From: 0.00	\$0.00
CHASSIS MOTOR	From: 40	Salvage
Est No: 60	From: 0.00	\$0.00
ENGINE/TRANSMISSION/LEAD ACID BATTERY	From: 67	Salvage
Est No: 47	From: 0.00	\$0.00
STEEL TAILOR	From: 100000	Salvage
Est No: 240	From: 0.00	\$0.00
TOTAL 2017:000000		\$0.00

[illegible][illegible]

We raised \$1,281.35 in 2017  
\$1,077.50 in 2018  
\$573.00 in 2019  
For a total of \$2931.85 to donate to  
Texas Rural Water Foundation





## Recognition from local paper, Rains County Leader.

**SOUTH RAINS SUD**

### Salvage Your Scrap

South Rains SUD (Special Utility District) was proud to sponsor the "Salvage Your Scrap" campaign. It is a fundraising campaign for the Texas Rural Water Foundation (TRWF). People were able to bring their unwanted and unused scrap metal to donate. With the help of their mission to serve all Texas rural water and wastewater utilities, The Salvage Your Scrap campaign will allow the Foundation to:

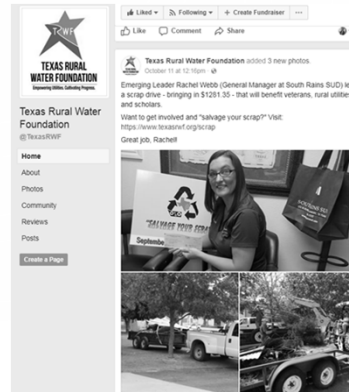
- Support rural students and operators' education through the Student and Operator/Manager Scholarship Programs
- Train and place veterans into careers in the water and wastewater industry through the Veterans Employment Program
- Continue to expand programming to further empower rural water and wastewater utilities throughout the state.

South Rains SUD held this fundraising campaign at their office from September 25-30. People were able to bring their unwanted and unused scrap metal to donate. With the help from their loyal customers, South Rains was able to take six loads to the scrapyard and donate the proceeds of \$1,281.55 to the TRWF. South Rains General Manager Rachel Webb said, "I am very pleased with the turnout and contributions made by our great customers. We have received a lot of positive feedback and plan to make this an annual event."



SOUTH RAINS GENERAL MANAGER RACHEL WEBB

## Recognition from Texas Rural Water Foundation.



"We have made this an annual event!"

# Thank you!

## Contact Information


Rachel Webb  
General Manager  
South Rains SUD  
[southernssud@outlook.com](mailto:southernssud@outlook.com)



# **COMMUNITY OUTREACH**

**BUILDING COMMUNITY RELATIONSHIPS  
THROUGH YOUR WATER SYSTEM**

Paula Weber, General Manager  
Ables Springs Special Utility District  
[pweber@myh2odistrict.com](mailto:pweber@myh2odistrict.com)



## SPECIAL OR ANNUAL EVENT

CELEBRATE MILESTONES  
WITH A SPECIAL EVENT.



ENGAGE YOUR COMMUNITY YEAR AFTER YEAR WITH AN  
ANNUAL EVENT.



# GETTING STARTED

- ASSEMBLE A TEAM OF VOLUNTEERS
- PICK A THEME
- DECIDE ON A LOCATION, DATE & TIME
- ESTABLISH A BUDGET
- ASSIGN COMMITTEES & VOLUNTEERS
- SCHEDULE FUTURE TEAM MEETINGS TO KEEP EVERYONE ON TASK.

## CONSIDER:

- ASKING OTHERS IN THE COMMUNITY TO VOLUNTEER.
- TIME OF YEAR AND WEATHER CONDITIONS.
- ACTIVITIES THAT ARE INEXPENSIVE AND EASILY EXECUTED.
- OTHER EVENTS THAT COULD BE IN NEIGHBORING COMMUNITIES/TOWNS.

## ADVERTISING & PROMOTION

- NEWSPAPER ADS – LOCAL NEWSPAPERS USUALLY HAVE LOW COST OR NO COST ADVERTISING SECTIONS.
- SIGNAGE – BURMA SHAVE SIGNS OR POLITICAL SIGNS PLACED IN THE SURROUNDING AREA OF THE EVENT.
- POSTERS & FLYERS – LOOK FOR LOW COST PRINTING OPTIONS. PLACE THESE AROUND TOWN AT DIFFERENT LOCATIONS WHERE YOUR CUSTOMERS SHOP.
- SOCIAL MEDIA – USE PLATFORMS LIKE FACEBOOK, TWITTER, INSTAGRAM, ETC.





## FACILITIES & DECORATIONS

- FACILITY – ENOUGH SPACE FOR TABLES, CHAIRS AND ACTIVITIES.
- DECORATIONS – BRIGHT & FESTIVE. PURCHASE FROM LOW COST SITES LIKE ORIENTAL TRADING FOR TABLE COVERS, TABLE SETTINGS, ETC.



## ENTERTAINMENT, DOOR PRIZES, & CONTEST PRIZES

- HIRE A DJ OR OTHER MUSIC
- PURCHASE DOOR PRIZES
- PRIZES FOR KIDS CONTEST
- GIVEAWAYS - PROMOTIONAL CANVAS TOTE BAGS, HATS, TAKE CARE OF TEXAS MATERIALS, ETC.

## CONSIDER:

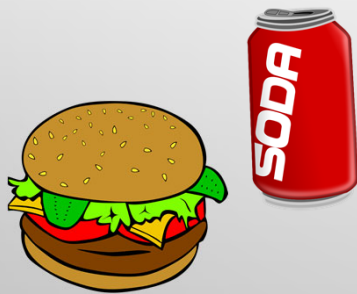
- LOCAL BUSINESSES, ARTISANS.
- PHOTOGRAPHER
- LOCAL FIRE DEPARTMENT, EMS, & BLOOD DRIVE ORGANIZATION
- HISTORIAN, ORGANIZATIONS, COUNTY/STATE OFFICIALS, LOCAL NEWSPAPER





## FOOD & BEVERAGES

- HAMBURGERS/HOT DOGS, INDIVIDUAL BAGS OF CHIPS, CONDIMENTS
- DECORATED CAKE THAT SERVES 100 OR MORE PEOPLE, COOKIES, ETC.
- PLENTY OF BOTTLED WATER, TEA, COFFEE, SODA
- PAPER GOODS



## CLEAN UP

- ASSIGN A CLEAN UP CREW
- TRASH DISPOSAL
- STORAGE BINS FOR DECORATIONS AND OTHER SUPPLIES
- RETURN ANY RENTAL ITEMS



# TIPS FOR A SUCCESSFUL EVENT

- START PLANNING 4-6 MONTHS AHEAD
- SECURE A SITE FOR THE EVENT IMMEDIATELY!
- MEET WITH VOLUNTEERS AT LEAST ONCE A MONTH AND MORE FREQUENTLY DURING THE LAST 4 WEEKS PRIOR TO EVENT. HAVE A CHECKLIST!
- MAKE RESERVATIONS FOR RENTAL ITEMS 30 DAYS IN ADVANCE.
- ORDER GIVEAWAYS, PURCHASE DOOR PRIZES 30 DAYS IN ADVANCE.
- OBTAIN SUPPLIES NEEDED FOR FOOD, GAMES, CONTESTS.
- ADVERTISE 10-14 DAYS OF THE EVENT. IF YOU ARE USING ROAD SIGNS, GET PERMISSION FROM TXDOT.
- SEND INVITATIONS TO SPECIAL GROUPS AND ORGANIZATIONS 30 DAYS IN ADVANCE.
- SECURE VENDORS AT 3 MONTHS. PLACES LIKE CARTER BLOOD MAY REQUIRE 1 YEAR IN ADVANCE.
- ASK VENDORS TO BRING PROMOTIONAL ITEMS AND CONTRIBUTE TO YOUR DOOR PRIZES.
- USE THE EVENT FOR A FOOD OR CLOTHING DRIVE FOR DISTRIBUTION TO LOCAL CHARITIES.
- INCLUDE ITEMS THAT PROMOTE THE WATER INDUSTRY. **TAKE CARE OF TEXAS** PROMOTIONAL MATERIALS ARE FREE!



**Thank you for attending our 2020  
Fall Management and Districts  
Virtual Conferences!**



**We hope to see you at our  
upcoming conferences!**

**Rural Water Con 2021**

**March 25-26 | Renaissance Hotel, Austin**

**Office Professionals 2021**

**June 3-4 | Marriott Plaza, San Antonio**

**Training and Technical Conference 2021**

**July 15-16 | San Luis, Galveston**

**Fall Management & Districts 2021**

**October 6-7 | Embassy Suites, San Antonio**

**Fall Management 2021**

**November 3-4 | Courtyard by Marriott, Dallas/  
Allen**