Creating Energy-Wise Water Conservation Policies

North Central Texas Council of Governments

June 18, 2024

North Central Texas
Council of Governments

Welcome & Housekeeping

- Please keep all microphones on mute until the Q&A portion of the event
- We will have an open Q&A at the end of each presentation
- The workshop slides and audio recording will be posted on the Conserve North Texas website under News/Events -> Event Archive at the link below. Follow-up emails to come. http://conservenorthtexas.org/event-archive

North Central Texas Council of Governments

Workshop Sponsor

NCTCOG receives funding through SECO to work on energy management and efficiency projects within the region. As part of this work, we have provided workshops, webinars, and technical assistance on a variety of energy management, energy efficiency, water efficiency, and renewable energy topics.

www.nctcog.org/envir/natural-resources/energy-efficiency

https://www.conservenorthtexas.org/

North Central Texas Council of Governments

Who We Are

How do we support energy management efforts for entities across the state?

North Central Texas Council of Governments

- Regional planning agency serving North Texas local governments.
- Regional Energy Manager project identifies energy management needs, increases awareness to the local government energy reporting requirements, and provides resources to assist local governments in energy conservation efforts.

SECO State Energy Conservation Office

- SECO partners with local governments, public K-12 schools, public institutions of higher education and state agencies, across Texas to reduce utility costs and maximize energy efficiencies.

Today's Speakers

1. Matt Jensen

    - Aquafficiency Program Manager, Cascade Energy

2. Steve Cavanaugh, P.E.

    - Chief Innovation Officer, Cavanaugh and Associates, P.A.

North Central Texas Council of Governments

Speaker Introduction

Matt Jensen, Cascade Energy

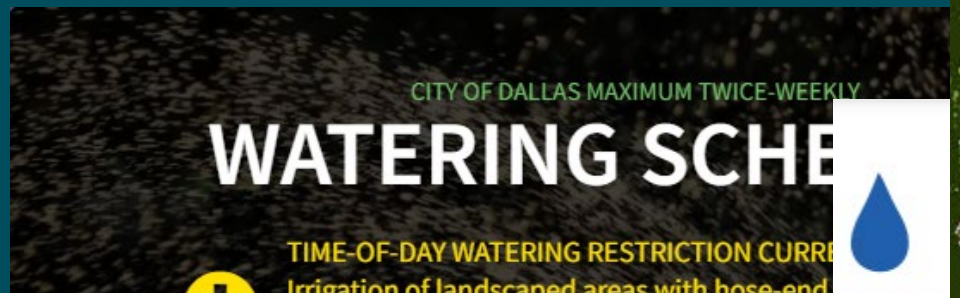
aquafficiency®

Municipal Water and Energy Savings

NCTCOG Webinar June 18, 2024

Matt Jensen
Aquafficiency Program Manager
Cascade Energy

What can cities do to help their residents conserve water?



What can cities do to help themselves conserve water and energy?

- As much as 40% of operating costs for drinking water systems can be for energy.
- EPA estimates that 2% of energy use in the US is for drinking water and wastewater systems.
- For a typical US city, their single largest power bill is for their wastewater treatment plant.

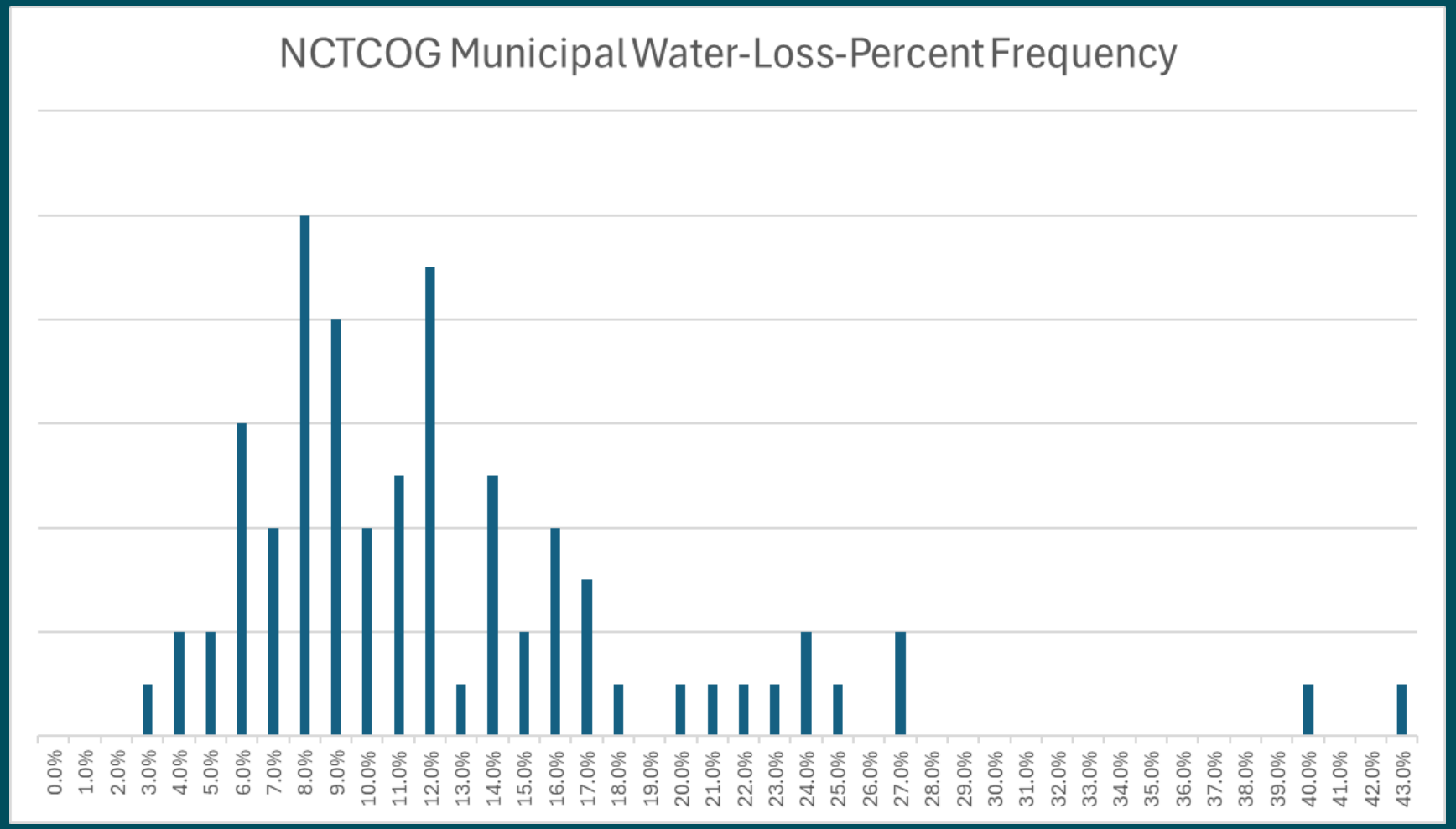
Image courtesy of Dr. Rob Sowby; Hansen, Allen & Luce

Unaccounted for Water

Unaccounted for water is water produced by the water system, but not delivered to consumers. Reasons for losses include:

- Fire department uses, testing hydrants or fighting fires
- Routine line flushing
- Bulk water sales, including construction
- Unmetered municipal uses (i.e., parks and city landscaping irrigation)
- **Leaks**

Unaccounted for Water



Best – 2.5%
Worst – 43.5%
NCTCOG – 11.6%

Statewide – 15.4%

Water Loss is Energy Loss!

Texas Water Development Board (TWDB) can help!!

Impact of Pressure on Water Leaks

High-Pressure Leak

Low-Pressure Leak

Tim Waldron, “Success Techniques in Applying Water Loss Strategies for Financial Benefits,” Workshop on Water and Energy/Water Loss (International Water Association, 2014)

Logan City Water System

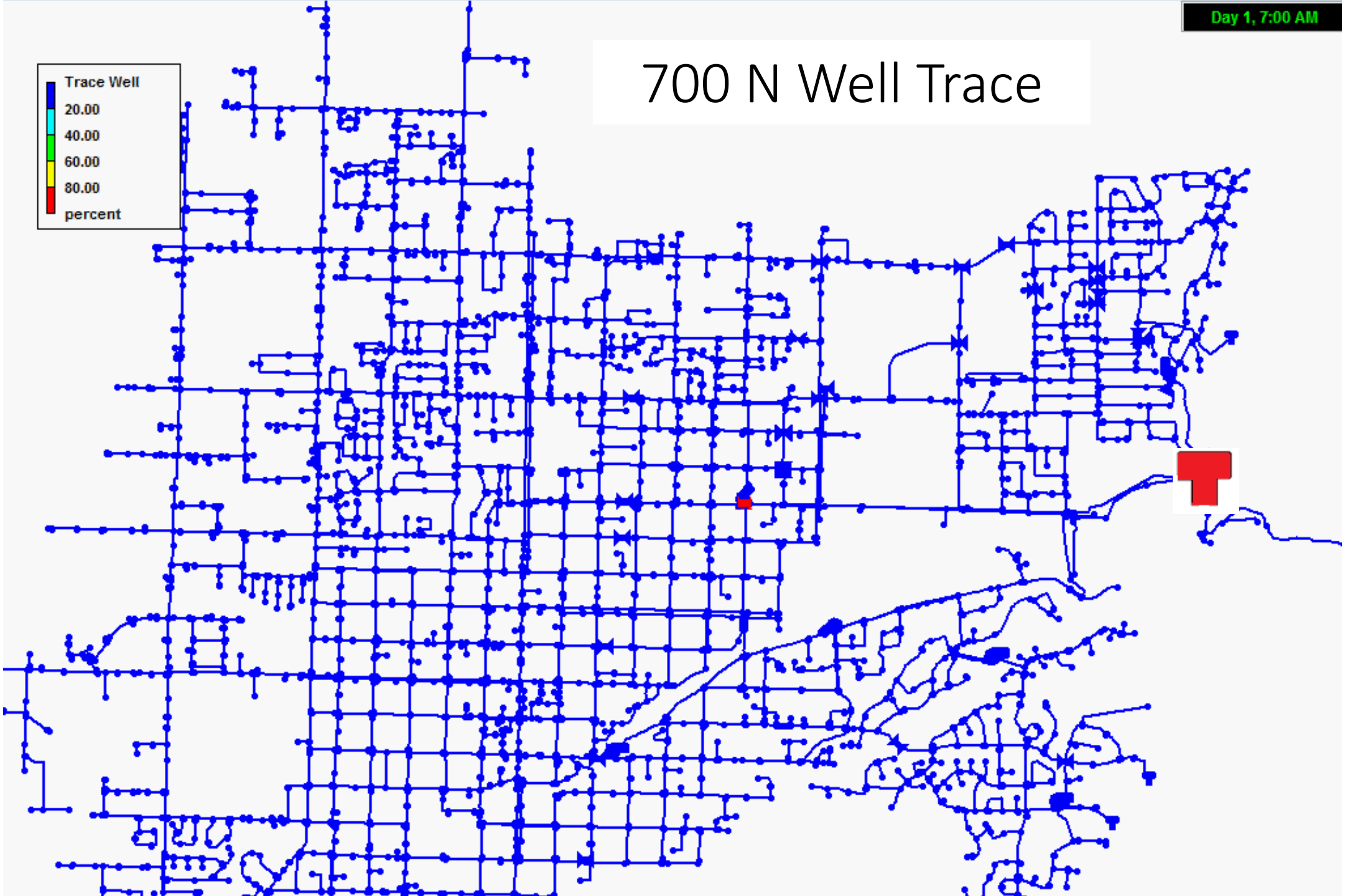
- Population of 49,000
- Utah State University
- 10,182 metered connections
- 190 miles of mainline
- 1 spring and 4 deep wells

LOGAN
CITY UNITED IN SERVICE

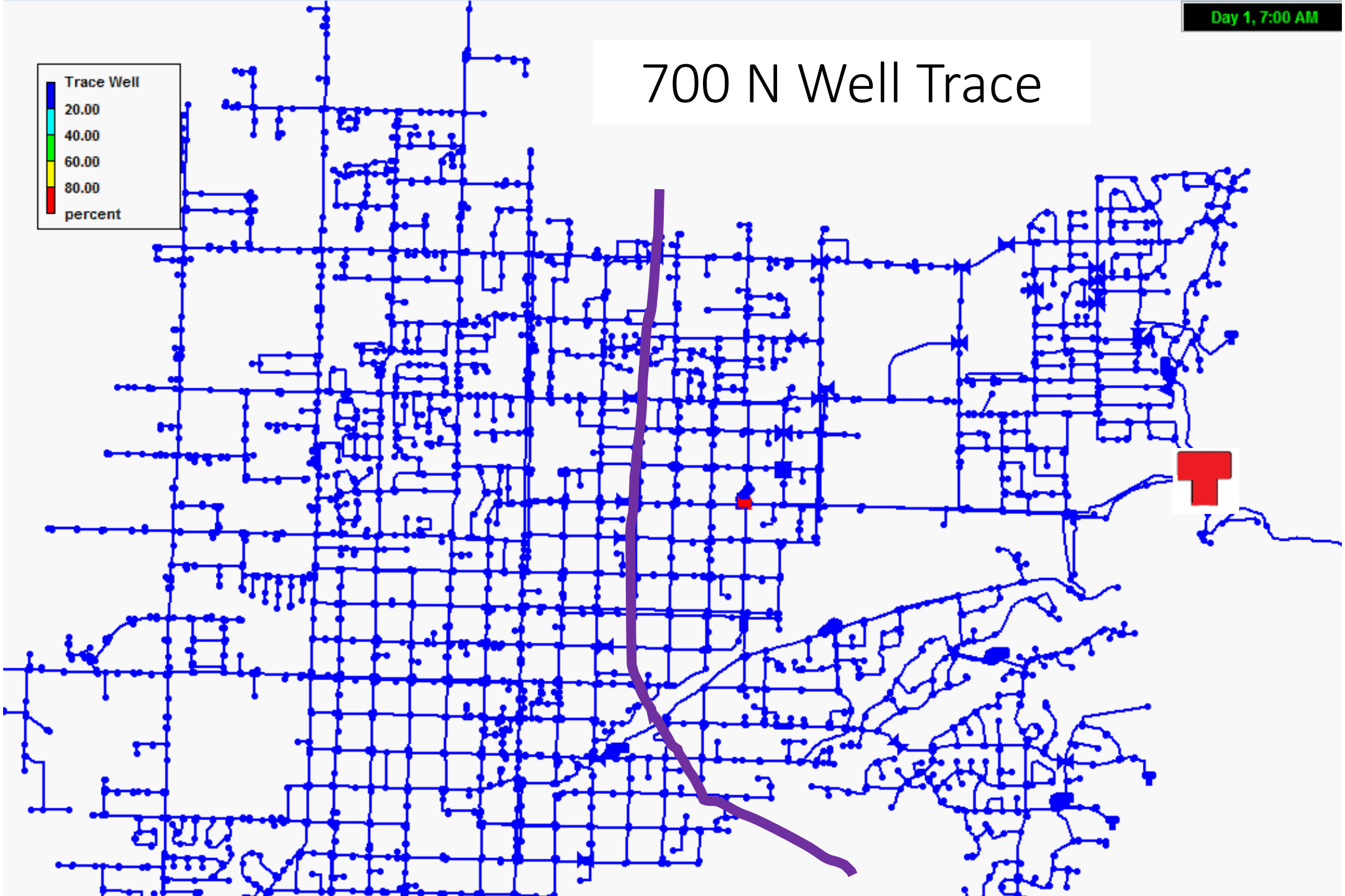
Problems Facing Logan City

- Deteriorating infrastructure
- Many mainline breaks: over 300 per year
- High pressures: over 220 psi regularly
- Water shortage in summer
- High pumping costs
- Reactionary, rather than proactive, operations

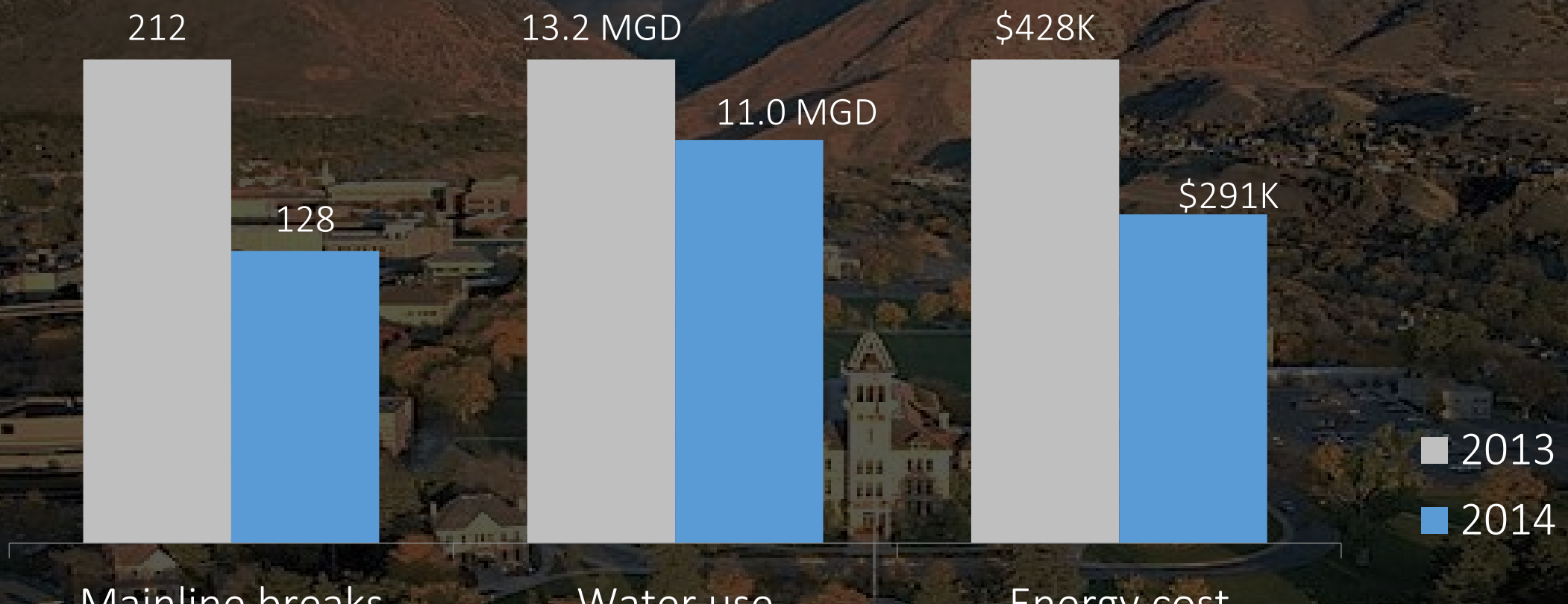
700 N Well Trace



700 N Well Trace



Project Results



↓ 40%

↓ 17%

↓ 32%

Additional Benefits

- **Less water wasted = <u>LESS $$ wasted</u>**
- **Citizen complaints dropped – better service and pressures**
- **Preventive maintenance occurring**
- **Crews attitudes improved**
- **Safer working environment – lower pressures**
- **Eliminated the need for a $3 million transmission project**
- **Postponed construction of new water source**

Source Selection

How many water sources do you have?

How much energy does it take to produce one MG from each of them?

How are you currently prioritizing your water sourcing?

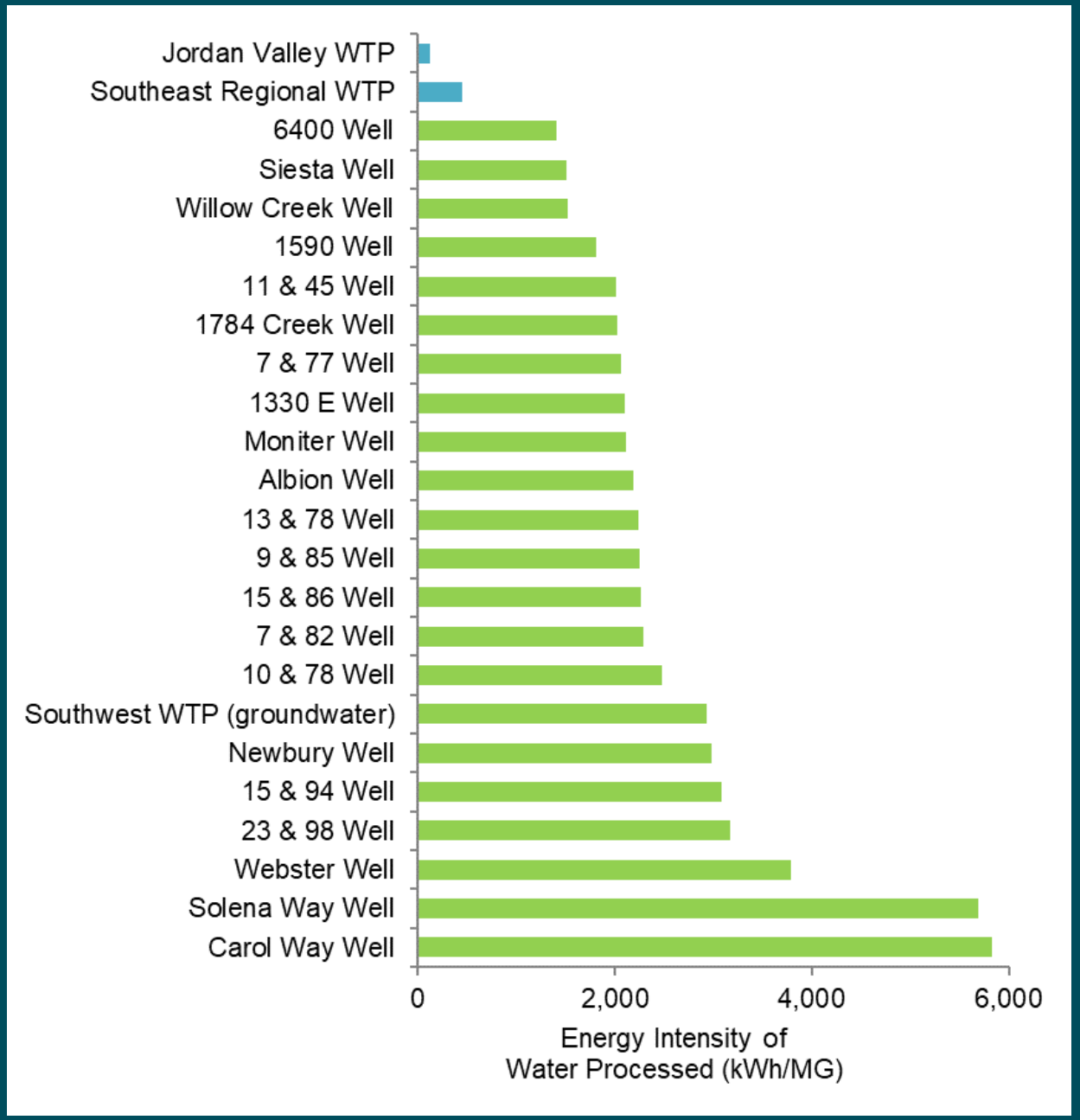
Why?

Jordan Valley Water Conservancy District

Until the team examined the data, they had assumed that the newest or most conveniently located wells were the most efficient.

Guideline: When conditions permit, use the lowest-cost water source first.

Largely responsible for 19% energy reduction over 2 years!



Sowby et al., "Jordan Valley Water Redefines Sustainable Water Supply Through Energy Management," Journal AWWA, Oct. 2017

SAWS Example

Water Sources	Energy Intensity (kWh/MG)	Overall $/MG (energy and purchase cost)
Edwards	1,791	$ 143
ASR Plant	2,887	$ 231
Regional Carrizo	3,113	$ 1,811
Timberwood (Trinity)	3,638	$ 291
Oliver Ranch (Trinity/Massah)	4,177	$ 2,285
TX Water Supply (Trinity)	4,893	$ 3,814
Vista Ridge	7,492	$ 6,245
Desalination	9,323	$ 746
Canyon Regional Water Authority (CRWA)	N/A	$ 4,982
Western Canyon/GBRA	N/A	$ 2,783

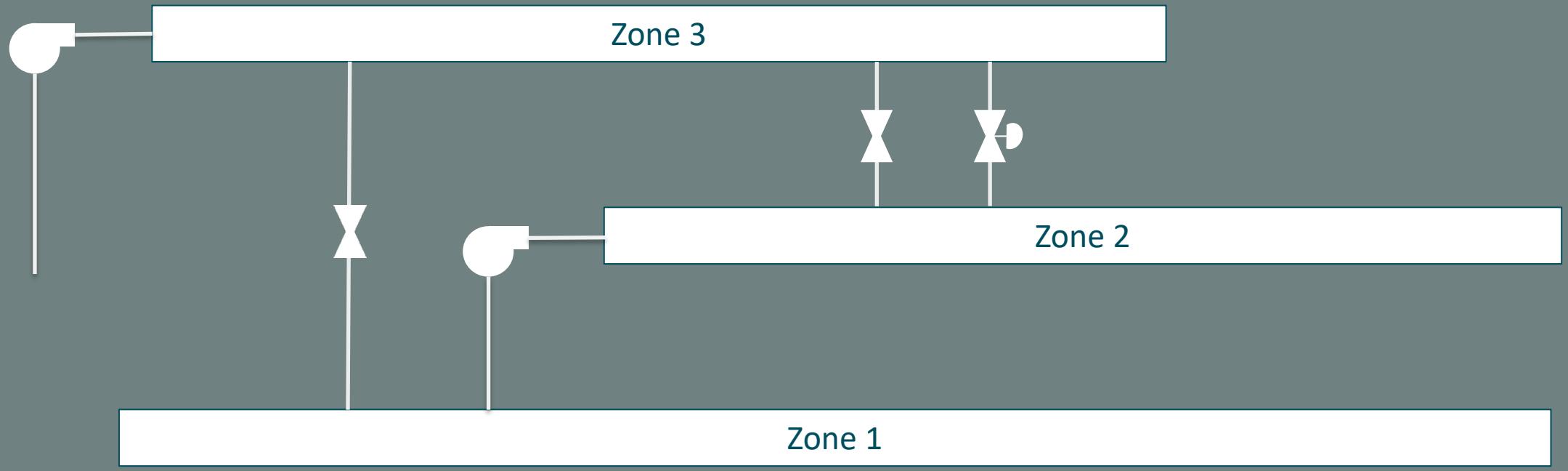
Energy Strategy Master Plan SAWS 2023

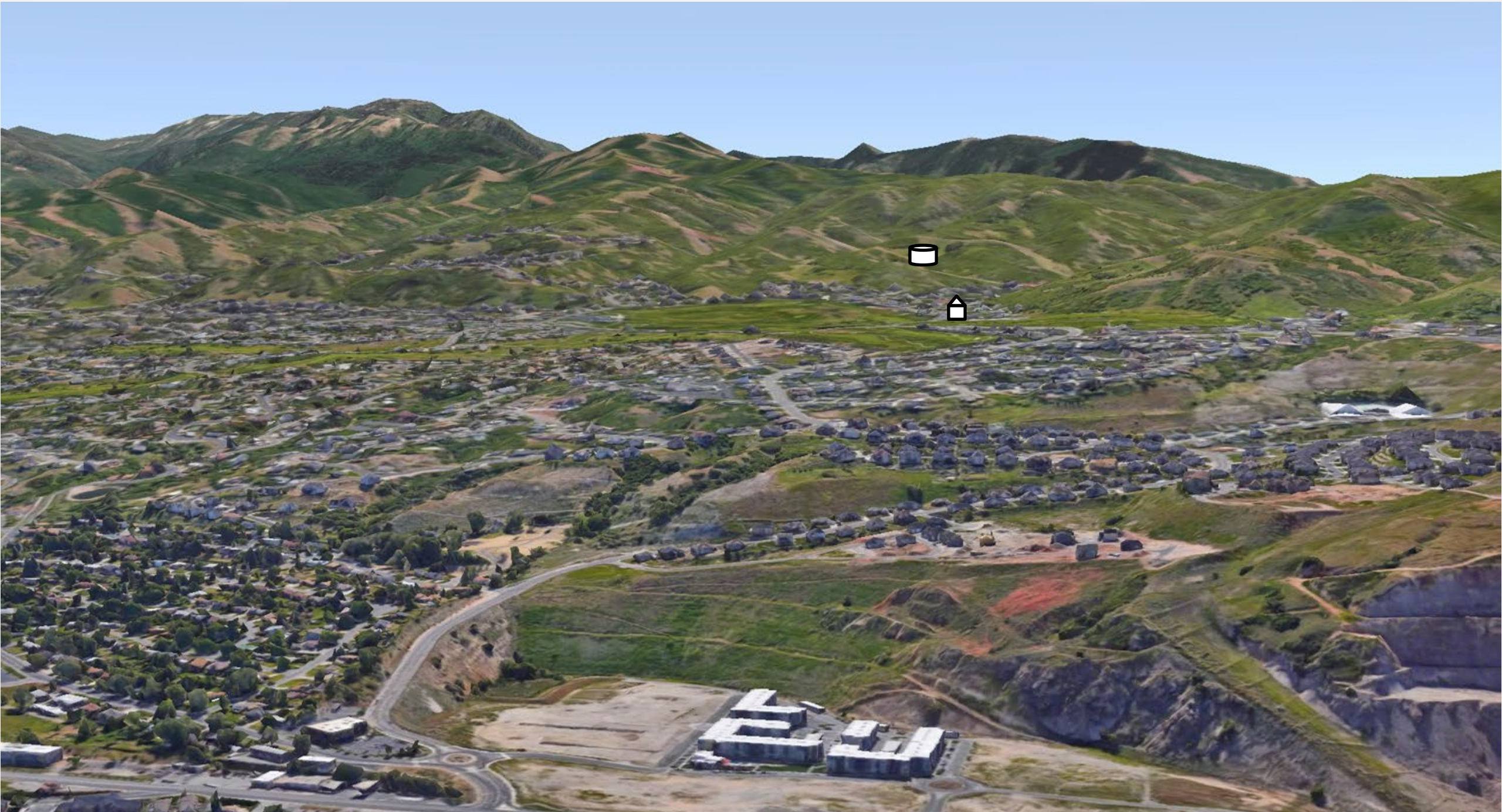
A Few Examples From the Field

- Losing head in Yakima, Washington
- Looping in North Salt Lake, Utah

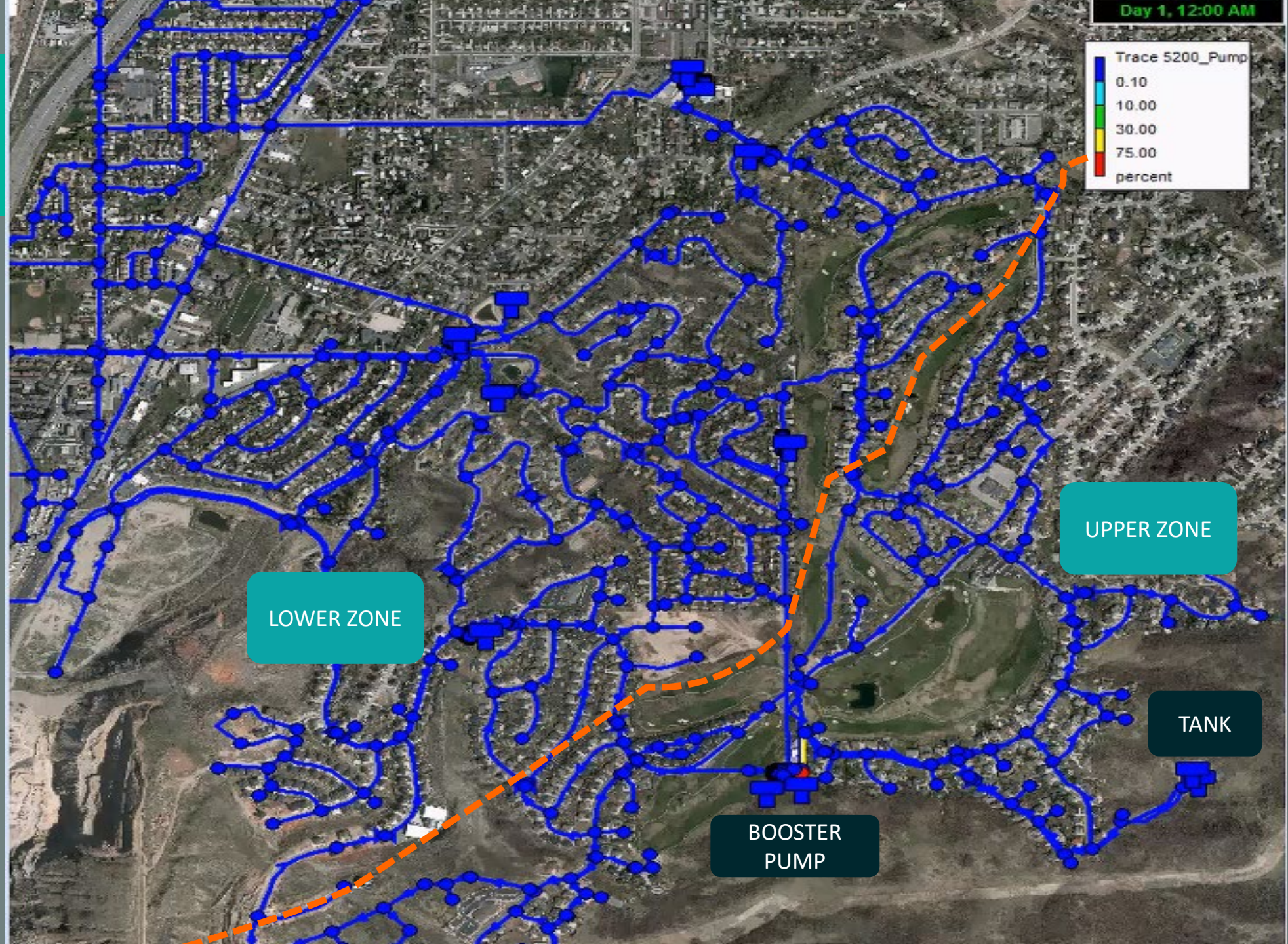
Nob Hill Water Associates, WA

Coupled with leak reduction, saved 9.6%



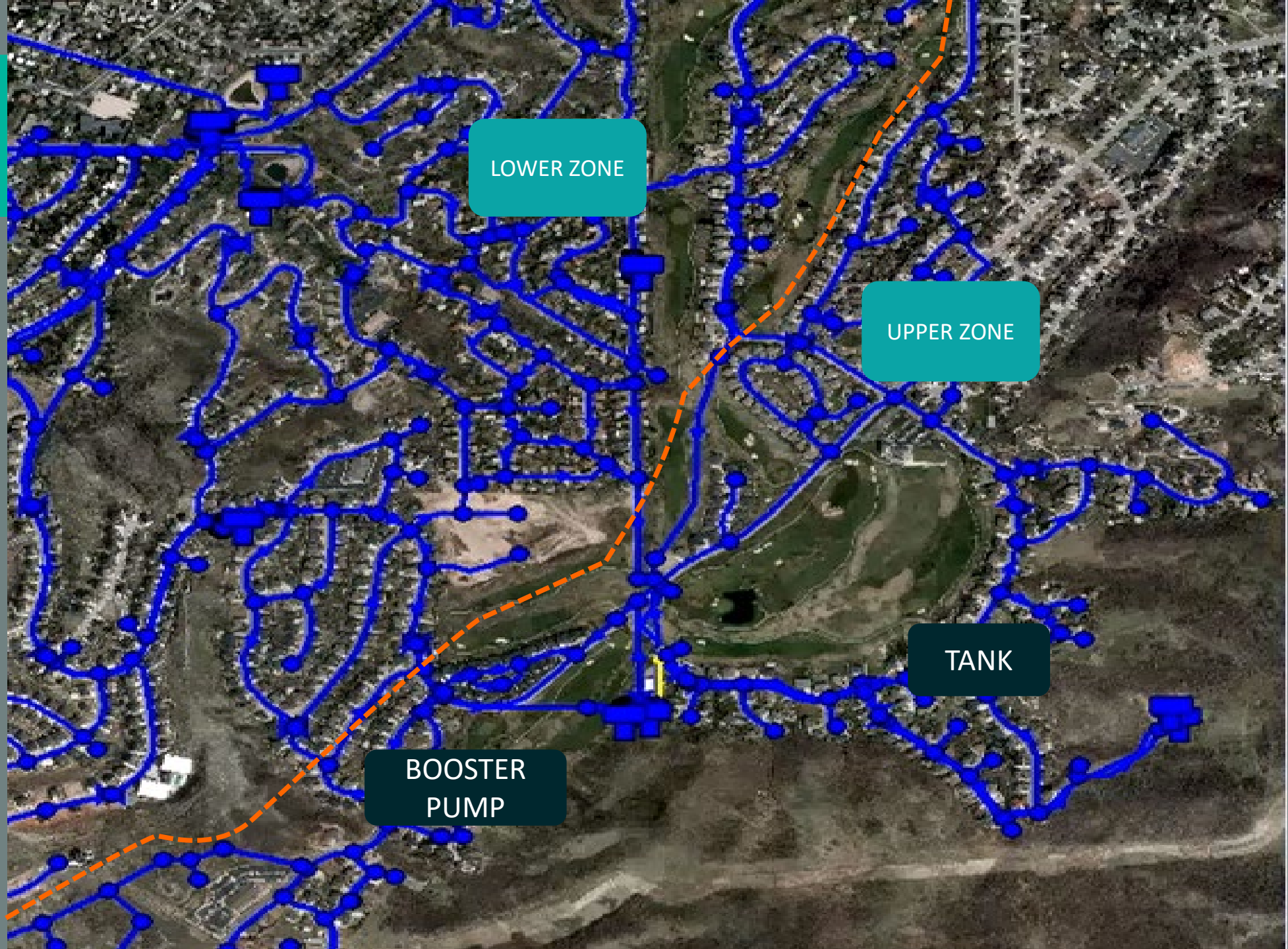


NSL: Problem


Day 1, 12:00 AM
Trace 5200_Pump
0.10
10.00
30.00
75.00
percent
LOWER ZONE
UPPER ZONE
TANK
BOOSTER PUMP

NSL: Solution

"Two guys and a truck for one afternoon."



aquafficiency®

Questions?

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Speaker Introduction

Steve Cavanaugh, P.E., Cavanaugh and Associates, P.A

North Central Texas Council of Governments

IWA WATER LOSS SPECIALIST GROUP
the international water association

Leakage Emissions Initiative
www.leigroup.org
Improving our air by preserving our water

Bringing New Energy to Energy Reduction: The Leakage Emissions Initiative and the New Funding Sources through the Leakage-Carbon Nexus

June 18, 2024

Steve Cavanaugh, P.E.
steve.cavanaugh@cavanaughsolutions.com

North Central Texas Council of Governments

Relevant Roles:
Chair, AWWA Water Loss Outreach Subcommittee
Member, North American Water Loss Conference Committee
Chair, Leakage Emissions Initiative, IWA Water Loss Specialists Group
President/CEO, Cavanaugh

CAVANAUGH
Stewardship Through Innovation

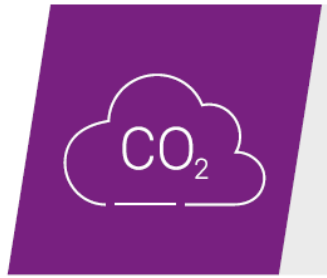
About 126 billion cubic meters of water is lost every year

Equal to 100%

of the fresh water withdrawals in Germany, France, Spain, Italy, and the U.K. combined

$187.2 bil.

in lost revenue, based on average rates at rated U.S. municipal water utilities



11.9 bil. kg CO2

is generated annually in treating non-revenue water globally

>30%

of water withdrawals in two-thirds of countries

Source: S&P Global Ratings.

Sustainability Insights Research: Lost Water: Challenges And Opportunities

In this research, S&P Global Ratings looks at water infrastructure challenges through the lens of non-revenue water (NRW), meaning water that a utility sources and treats but for which it receives no financial compensation. NRW, or lost water, deters investment in water infrastructure assets. Reducing it can have many benefits, including increasing universal access to safe water, mitigating water stress, reducing the impacts of freshwater withdrawals on ecosystems, and mitigating global greenhouse gas emissions. Investment decisions made today could significantly affect future NRW rates. Yet, in many cases--particularly emerging markets--access to private-sector funding is limited and regulatory incentives are insufficient.

Download

Leakage Emissions Initiative

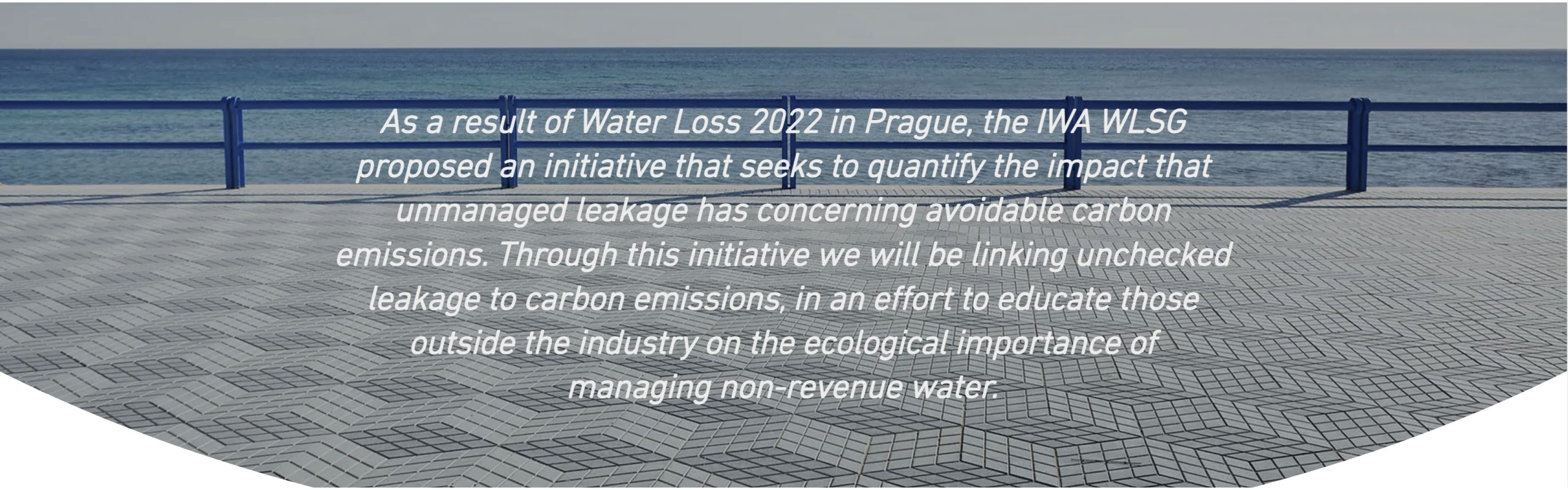
Following Water Loss 2022 in Prague, The IWA WLSG proposed an initiative that seeks to quantify the impact unchecked leakage has concerning avoidable carbon emissions.

The goal was to update the water balance to include an accounting on the carbon emissions for each balance component with a specific initial focus on Leakage.

Leakage Emissions Initiative

Improving our air by preserving our water

IWA WATER LOSS SPECIALIST GROUP
the international water association



As a result of Water Loss 2022 in Prague, the IWA WLSG proposed an initiative that seeks to quantify the impact that unmanaged leakage has concerning avoidable carbon emissions. Through this initiative we will be linking unchecked leakage to carbon emissions, in an effort to educate those outside the industry on the ecological importance of managing non-revenue water.

Leakage Emissions Initiative: Establishing a Standard Carbon Balance for Drinking Water Utilities

Version 4.3 April 21, 2023

Keywords: Carbon Emissions, Carbon Intensity, Energy Intensity, Real Loss, Physical Loss, Leakage, Standard Water Balance, Standard Carbon Balance

Introduction

Importance of Reducing Carbon Emissions and how it relates to Real Loss

Interest in carbon reduction to combat climate change has been growing rapidly since the mid 2000's. In 2015, the Paris Accords were established to influence a societal change to a carbon neutral future. The Paris Accords specifically seek to limit the mean rise in global temperatures to below 2 degrees Celsius above pre-industrial levels, among other stated measures intended to benefit humanity in combatting climate change. These Accords are responsible for numerous policies and legislation enacted by the European Union and 193 other signatory member states to align financial incentives with a greener future. The financial incentives aim to inspire breakthroughs in technology for production of greener energy and/or direct reduction of carbon emitting practices. Reduction of carbon-emitting practices that accompany the production of useful items and services is as critical to carbon neutrality as production of greener and more sustainable energy.

Real Loss (leakage) is generally defined by the International Water Association (IWA) as leakage resulting from failed distribution system infrastructure. Unmanaged leakage is a problem that is already being addressed by various global entities. However, the carbon impact of that leakage has not been definitively established. Every unit of water distributed by a utility, results in the production of a certain amount of greenhouse gas emissions (carbon cost) due to the energy expended in the extraction, treatment, pumping and distribution of that unit of water. These emissions are known as Scope 2 emissions, which are indirect emissions an entity is responsible for as a result of purchasing carbon intensive electricity used in an entity's operations[1]. Every unit of water lost to leakage results in carbon emissions that would otherwise be avoided if such leakage were reduced. In general, it is not economically viable for a utility to eliminate 100% of its leakage. However, utilities can, and should, strive to achieve the technical minimum that is possible. Excessive leakage provides no benefit for the utility or its customers and therefore, carbon emitted in the process is unnecessary. It can also be reasoned that for those utilities with renewable energy sources, excessive leakage represents a waste that could be otherwise used to further offset carbon-emitting energy sources.

The intent of the Leakage Emissions Initiative (LEI) is to incentivize utilities to aggressively identify and reduce leakage, generating carbon credits which can then be sold to organizations seeking to achieve carbon neutrality. This begins with utilities adopting the Standard IWA/AWWA Water Balance (Standard Water Balance) and the newly added Carbon Balance methodology. A new revenue stream from

[1] "Scope 1 and Scope 2 Inventory Guidance." EPA, Environmental Protection Agency, 9 Sept. 2022, https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance#:~:text=Scope%202%20emissions%20are%20indirect,of%20the%20organization's%20energy%20use.

Acknowledgements

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*Representative members of American Water Works Association Real Loss Subcommittee

JUNE 9, 2023 Climate Change Society Water Supply

IWA Water Loss Specialist Group White Paper: Leakage Emissions Initiative

The Water Loss Specialist Group (WLSG) is a group of the International Water Association that promotes best practice in the management of water loss and non-revenue water across the world.

How “Dirty” is the Energy Source?

Grams CO_2/kWh

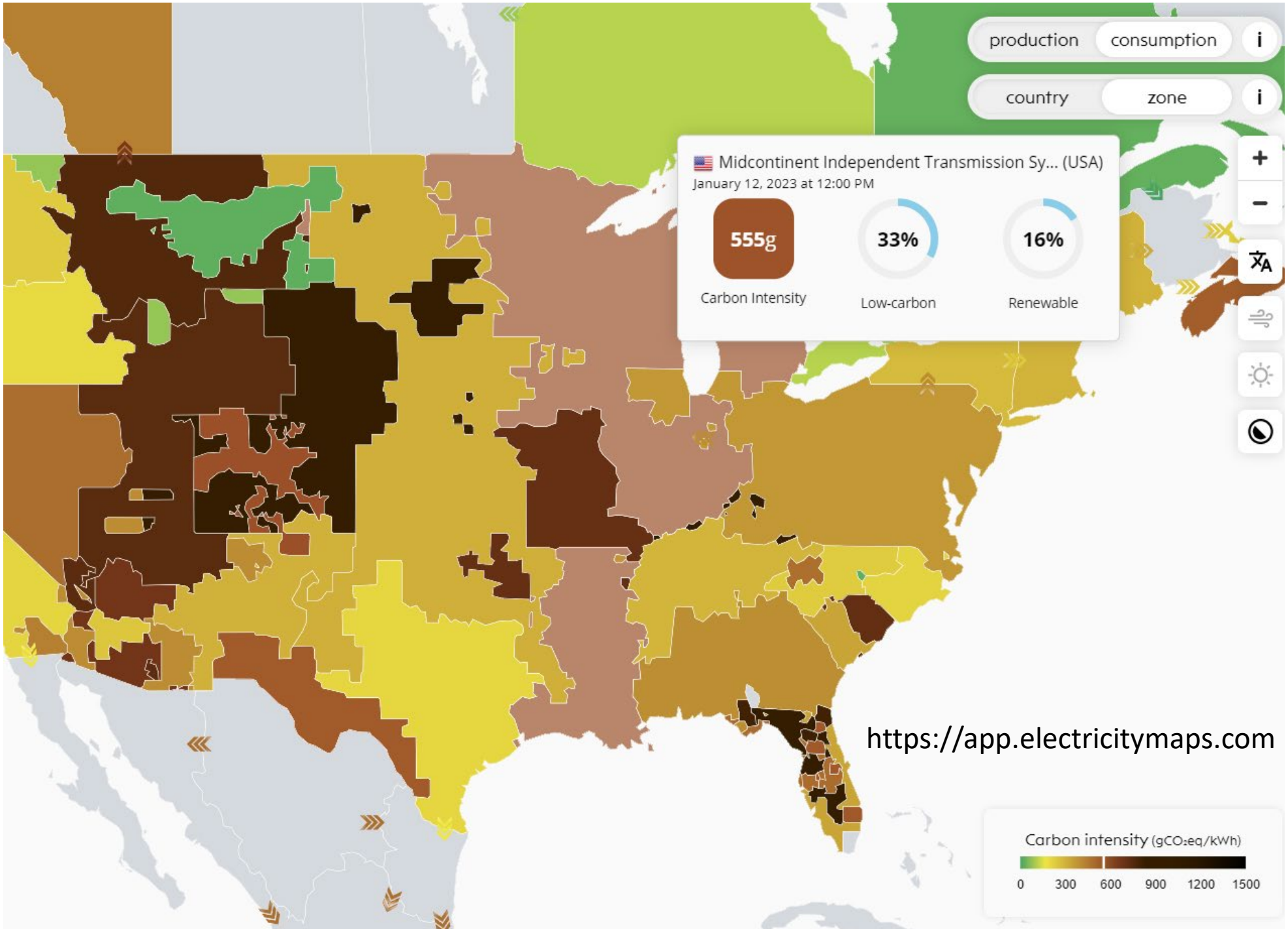
How much <u>Energy</u> does the Utility use to deliver its <u>annual water production</u>?

*kWh/M³ (*kWh/Mgal)

Generates Utility Specific Carbon Intensity

Grams CO_2/M³

*(*Grams CO_2 /Mgal)


production
consumption
country
zone
Midcontinent Independent Transmission Sy... (USA)
January 12, 2023 at 12:00 PM
555g
Carbon Intensity
33%
Low-carbon
16%
Renewable
https://app.electricitymaps.com
Carbon intensity (gCO2eq/kWh)
0
300
600
900
1200
1500

AWWA Free Water Audit Software

Water Balance

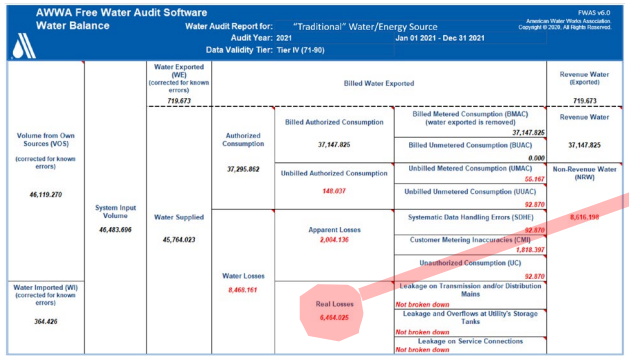
FWAS v6.0

Water Audit Report for: "Traditional" Water/Energy Source

Audit Year: 2021 Jan 01 2021 - Dec 31 2021

Data Validity Tier: Tier IV (71-90)

Volume from Own Sources (VOS) (corrected for known errors) 46,119.270	System Input Volume 46,483.696	Water Exported (WE) (corrected for known errors) 719.673	Billed Water Exported			Revenue Water (Exported) 719.673
		Water Supplied 45,764.023	Authorized Consumption 37,295.862	Billed Authorized Consumption 37,147.825	Billed Metered Consumption (BMAC) (water exported is removed) 37,147.825	Revenue Water 37,147.825
					Billed Unmetered Consumption (BUAC) 0.000	
				Unbilled Authorized Consumption 148.037	Unbilled Metered Consumption (UMAC) 55.167	Non-Revenue Water (NRW) 8,616.198
					Unbilled Unmetered Consumption (UUAC) 92.870	
			Water Losses 8,468.161	Apparent Losses 2,004.136	Systematic Data Handling Errors (SDHE) 92.870	
					Customer Metering Inaccuracies (CMI) 1,818.397	
					Unauthorized Consumption (UC) 92.870	
Water Imported (WI) (corrected for known errors) 364.426				Real Losses 6,464.025	Leakage on Transmission and/or Distribution Mains Not broken down	
					Leakage and Overflows at Utility's Storage Tanks Not broken down	
					Leakage on Service Connections Not broken down	

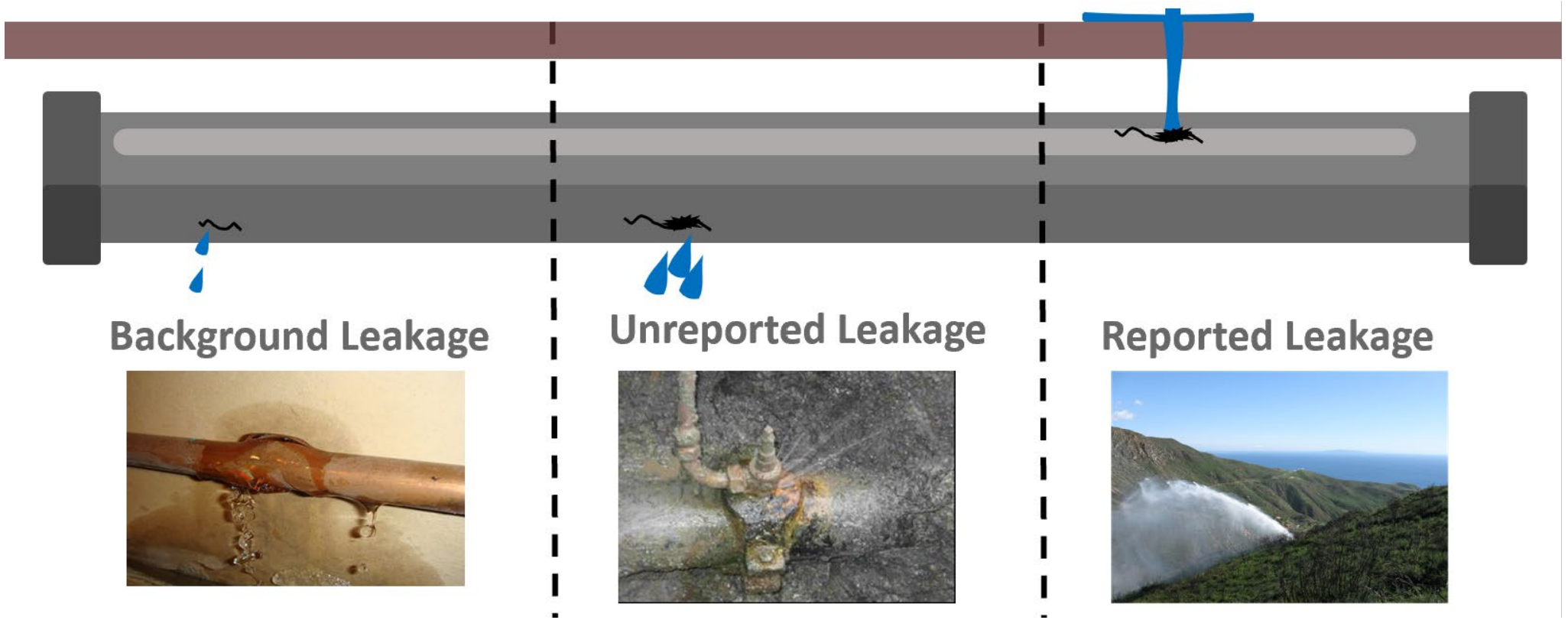


Water Balance ***Real Loss*** 6,464 Mgal

Reported Leakage Through Repairs 500 Mgal

Background Leakage - 2,219 Mgal

Estimate of ***Unreported Real Loss*** 3,745 Mgal (Recoverable)



2,219 3,745 500

AWWA Free Water Audit Software
Water Balance

= Metric Tons of CO2/Yr.

Water Audit Report for: "Traditional" Water/Energy Source

Audit Year: 2021 Jan 01 2021 - Dec 31 2021

Data Validity Tier: Tier IV (71-90)

FWAS v6.0

Volume from Own Sources (VOS)
(corrected for known errors)
46,119.270
47,552

Water Imported (WI)
(corrected for known errors)
364.426
368

System Input Volume
46,483.696
48,933

Water Exported (WE)
(corrected for known errors)
719.673
726

Water Supplied
45,764.023
46,188

Authorized Consumption
37,295.862
37,641

Water Losses
8,468.161
8,547

Billed Water Exported
719.673
726

Billed Authorized Consumption
37,147.825
37,492

Unbilled Authorized Consumption
148.037
149

Apparent Losses
2,004.136
2,023

Real Losses
6,464.025
6,525

Billed Metered Consumption (BMAC)
(water exported is removed)
37,492 *37,147.825*

Billed Unmetered Consumption (BUAC)
0 *0.000*

Unbilled Metered Consumption (UMAC)
56 *55.167*

Unbilled Unmetered Consumption (UUAC)
94 *92.870*

Systematic Data Handling Errors (SDHE)
94 *92.870*

Customer Metering Inaccuracies (CMI)
1,835 *1,818.397*

Unauthorized Consumption (UC)
94 *92.870*

Leakage on Transmission and/or Distribution Mains
Not broken down

Leakage and Overflows at Utility's Storage Tanks
Not broken down

Leakage on Service Connections
Not broken down

Revenue Water (Exported)
719.673 726

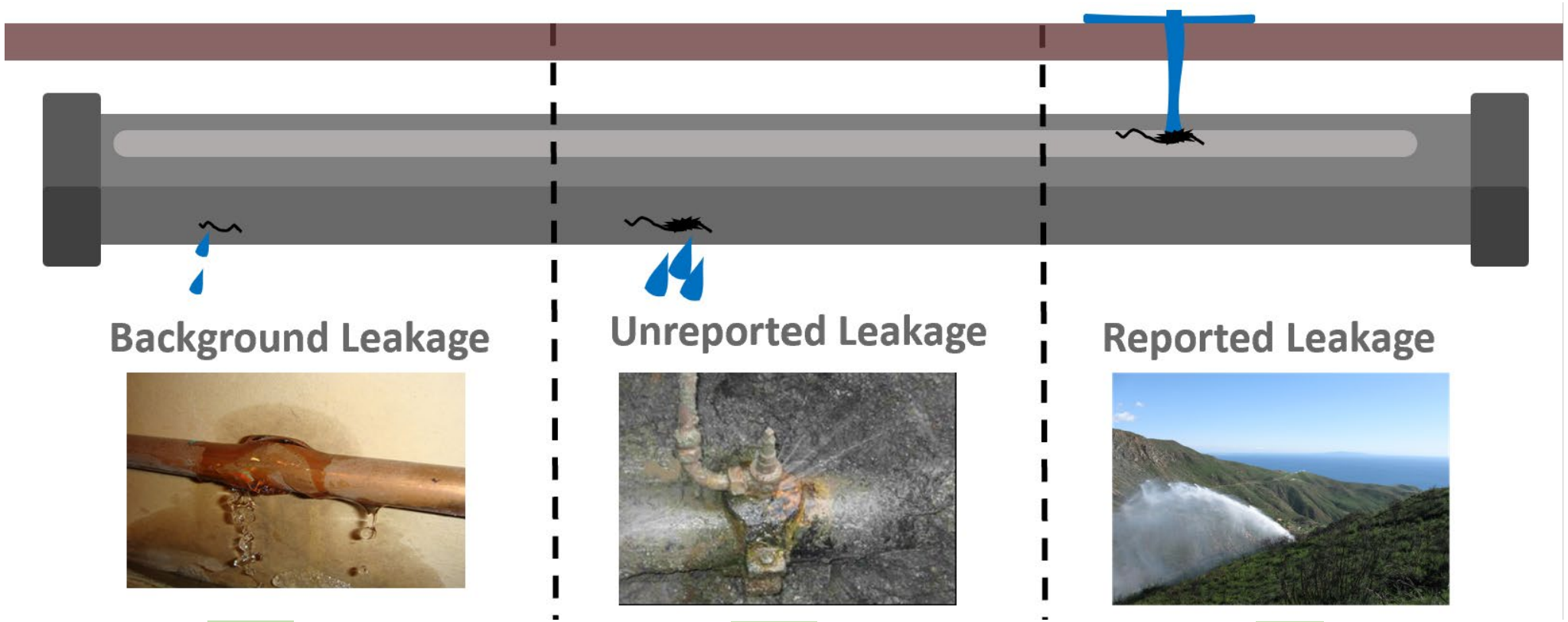
Revenue Water
37,147.825
37,492

Non-Revenue Water (NRW)
8,616.198
8,696

Water Balance Real Loss	6,464 Mgal
Reported Leakage Through Repairs	500 Mgal
Background Leakage	2,219 Mgal

Estimate of Unreported Real Loss 3,745 Mgal (Recoverable)

= Metric Tons of CO2/Yr.



Background Leakage	Unreported Leakage	Reported Leakage
2,240	3,780	505
2,219	3,745	500

AWWA Committee Report

	Imperial Units Example		SI Units Example		Calculation Notes
Calculator: Utility Carbon Intensity					
Volume of Water Supplied	10,000	MG/yr	37,854	ML/yr	From Standard Water Balance
Reference Carbon Intensity	540	g/kWh	540	g/kWh	From Utility's energy source(s)
Utility Energy Usage	23,000,000	kWh/yr	23,000,000	kWh/yr	From Utility Energy Bill(s)
Utility Energy Intensity	2,300	kWh/MG	608	kWh/ML	*Utility Energy Usage* divided by *Volume of Water Supplied*
Utility Carbon Intensity	1,242,000	g/MG	328,102	g/ML	Multiply *Reference Carbon Intensity* by *Utility Energy Intensity*

Example Utility Carbon Intensity Calculation

	Imperial Units Example		SI Units Example		Calculation Notes
Calculator: Carbon Reduction					
Utility Carbon Intensity	1,242,000	g/MG	328,102	g/ML	From *Utility Carbon Intensity* calculator
Target Leakage Reduction	1,450	MG/yr	5,489	ML/yr	Manual input, based on analysis of leakage reduction potential
Carbon Reduction	1,800,900,000	g/yr	1,800,900,000	g/yr	Multiply *Target Leakage Reduction* by *Utility Carbon Intensity*
Carbon Reduction	1,801	mt/yr	1,801	mt/yr	Conversion to Metric Tons per year (divide grams/1,000,000)

Example Carbon Reduction Calculation

Carbon Leakage Credits (CLCs), Maybe?

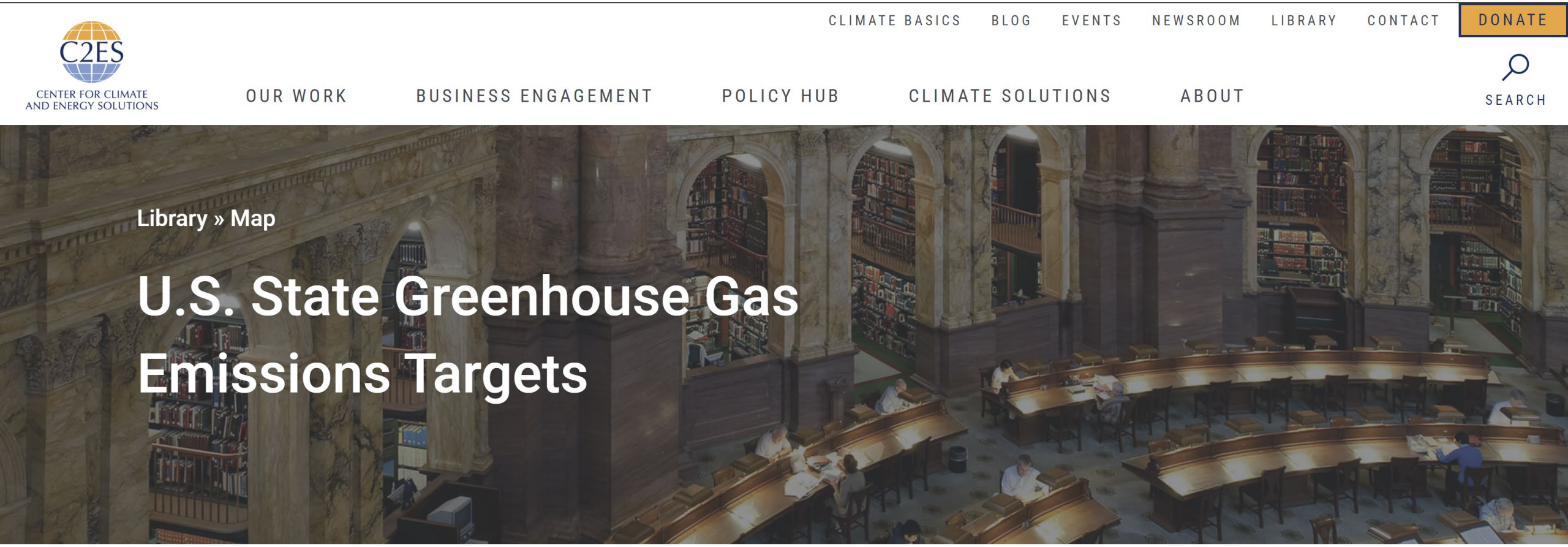
The Leakage Emissions Initiative may lead to a system where a utility can generate Carbon Leakage Credits when they reduce their Leakage Emissions by reducing their Real Loss.

CLCs may represent a measurable decrease in emissions and wasted water

CLCs may then be sold to corporations who have sustainability goals related to a reduction in GHG emissions and water conservation

The revenue generated from CLCs can bolster funding for:
Fixing leaks, Pressure Management, Asset Rehabilitation

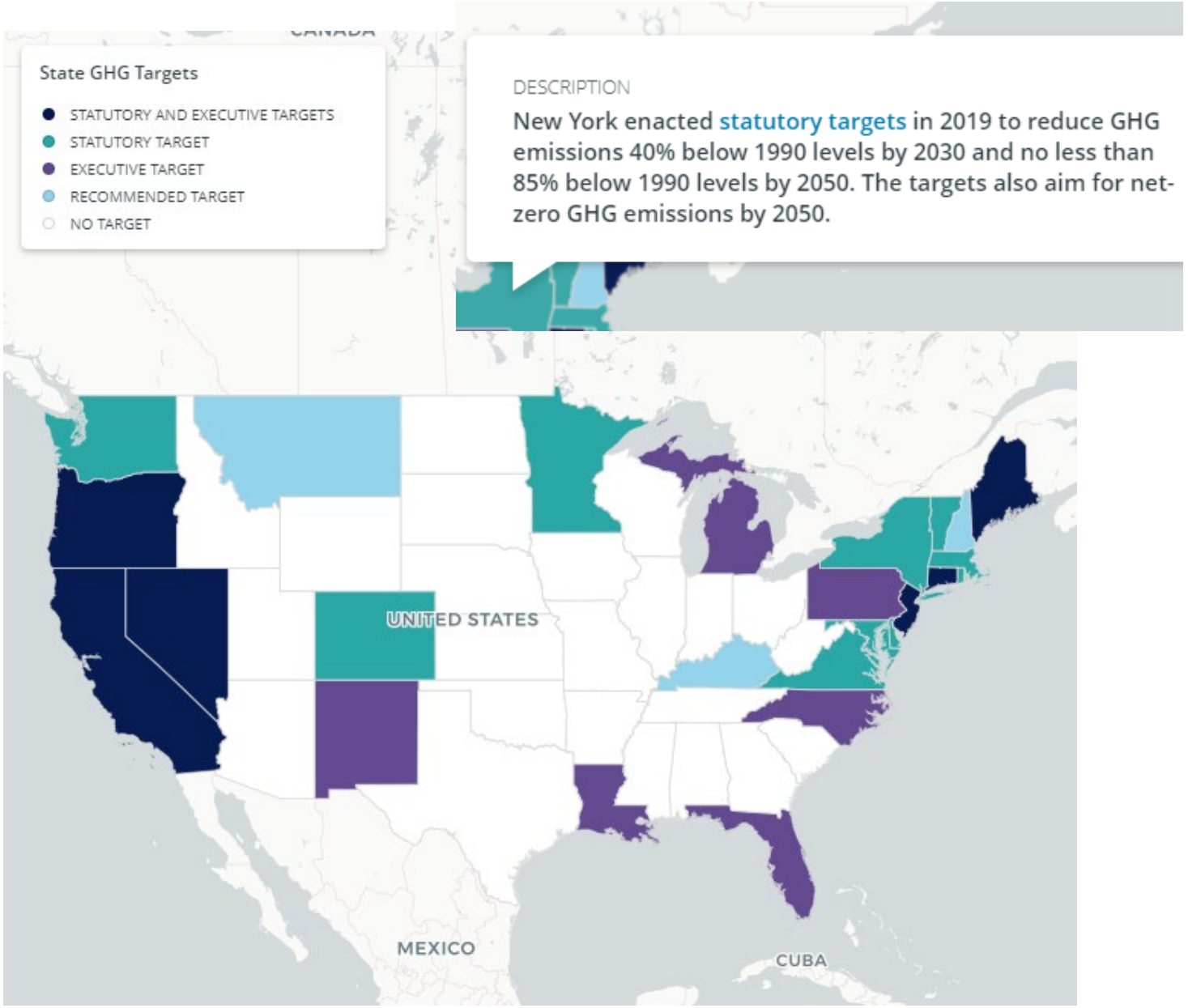
National and State Goal Compliance, Maybe? (Nationally Determined Contributions – NDCs)



https://www.c2es.org

US GHG Reduction Goals

- US Federal Government goals
  - Reducing U.S. greenhouse gas emissions 50-52% below 2005 levels in 2030
  - Reaching 100% carbon pollution-free electricity by 2035
  - Achieving a net-zero emissions economy by 2050
  - Delivering 40% of the benefits from federal investments in climate and clean energy to disadvantaged communities
- Leakage Reduction can help the state and federal government get closer to net zero emissions



https://www.c2es.org/document/greenhouse-gas-emissions-targets/

Carbon Insetting

- Carbon insetting - Directly reducing emissions associated within an organization’s supply chain
- US State and Federal Governments have their own emissions reductions goals they need to achieve (previous slide).
- By funding Non-Revenue Water projects, they can directly reduce a significant amount of carbon from domestic water supply chains.
- Every ton of carbon avoided by LEI based programs can help US State and Federal Governments inset against their total emissions

Leakage Emissions Horizon

- Methodology Endorsed by Verification Body – example: Gold Standard
- Case Studies from recent and ongoing Leakage Reduction Projects
- Education to Global Financial Institutions

Considerations and Discussion

- Time horizon to “count” avoided CO2 – 10, 15 years?
- What about new leakage after a reduction project
- Addressing “Leakage Lagging Mindset/Misconception” (LLM)

  “Utilities should have already reduced their leakage”

IWA WATER LOSS SPECIALIST GROUP
the international water association

Leakage Emissions Initiative
www.leigroup.org
Improving our air by preserving our water

Bringing New Energy to Energy Reduction: The Leakage Emissions Initiative and the New Funding Sources through the Leakage-Carbon Nexus

June 18, 2024

Steve Cavanaugh, P.E.
steve.cavanaugh@cavanaughsolutions.com

North Central Texas Council of Governments

Relevant Roles:
Chair, AWWA Water Loss Outreach Subcommittee
Member, North American Water Loss Conference Committee
Chair, Leakage Emissions Initiative, IWA Water Loss Specialists Group
President/CEO, Cavanaugh

CAVANAUGH
Stewardship Through Innovation

Q&A Discussion

North Central Texas Council of Governments

Upcoming Meetings and Events

- **Regional Integration of Sustainability Efforts (RISE) Coalition**
- **Next meeting:** July 31, 2024
- **Location:** Microsoft Teams
- Visit the committee page to stay updated on meetings.

- Learn more about the RISE Coalition on their program page.

North Central Texas Council of Governments

Upcoming Workshops and Webinars

- **Webinar:** Operational Maintenance Protocols & Policies
- **Date:** July 25, 2024; 9:30 – 11:30 a.m.
- **Register here**

- **Webinar:** ENERGY STAR Portfolio Manager (hosted with AACOG and WCTCOG)
- **Date:** June 20, 2024; 10:00- 11:30 a.m.
- **Register here**

More information to come via newsletters and updates to the Conserve North Texas website **conservenorthtexas.org**

North Central Texas Council of Governments

Upcoming Workshops and Webinars

- **EPA Webinar: Renewable Energy Integration at Water and Wastewater Utilities**
- **Date:** June 27, 2024; 1:00 – 2:00 p.m. CDT
- Register here

North Central Texas Council of Governments

Energy Conservation in Transportation

U.S. Transportation accounts for:

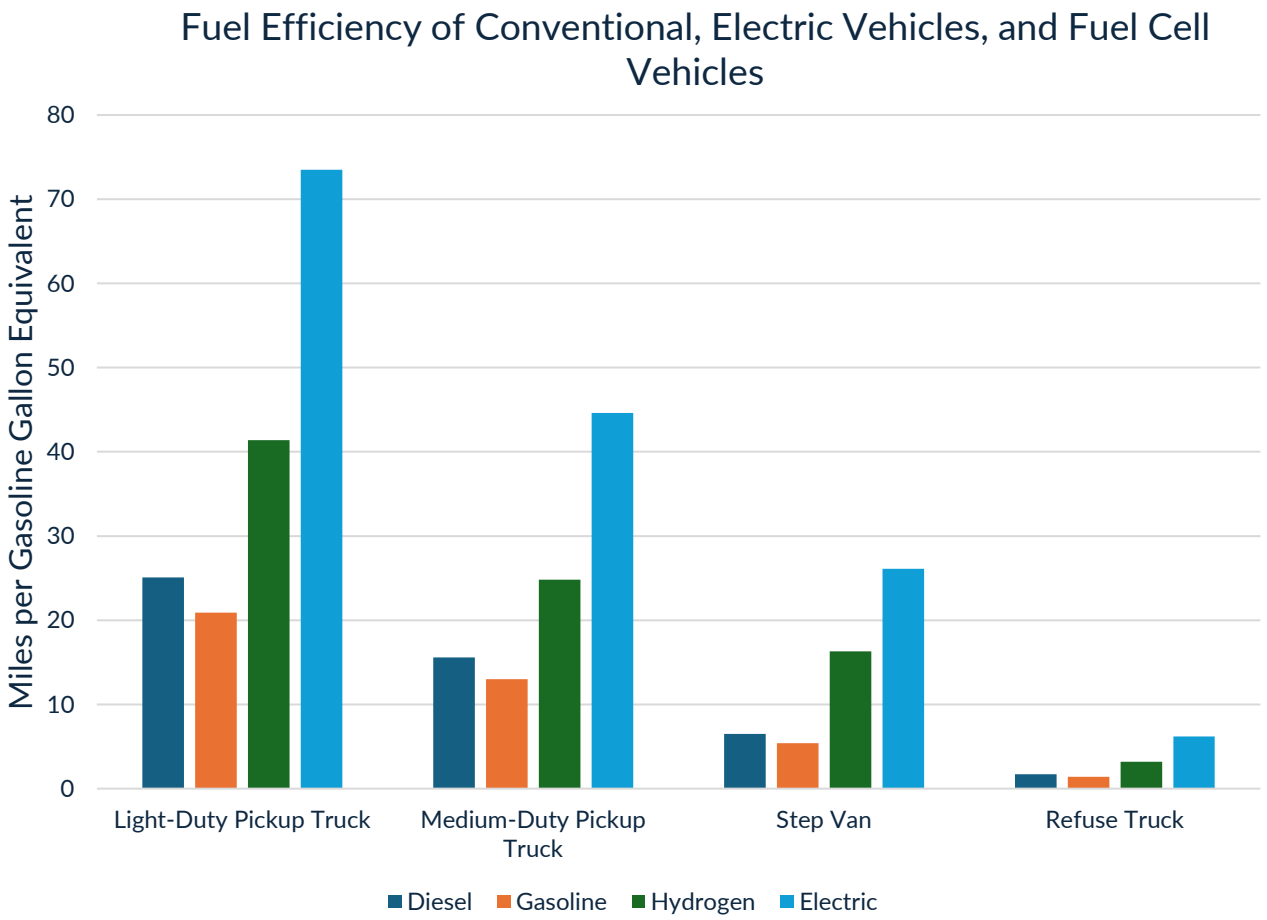
30% of total energy needs

70% of petroleum consumption

>15% of average U.S. household expenditures*

*Data points sourced from Energy Efficient Mobility Systems | Department of Energy

Electric Vehicle Fuel and Energy Efficiency



*Values sourced from AFLEET

NCTCOG is submitting an application on behalf of the region for Environmental Protection Agency's Clean Heavy Duty Vehicles Grant Program

$932M available for replacement of Class 6 & 7 vehicles with zero emission models

Fill out this survey if interested in receiving funds from NCTCOG from this program or cleancities@nctcog.org

Stay Informed on Upcoming Events

Upcoming NCTCOG Events

Environment & Development: https://nctcog.org/envir/events

DFW Clean Cities: www.dfwcleancities.org/events

NCTCOG's Free E-Mail Lists and Committee Updates

General: https://www.nctcog.org/stay-informed?ext=

Environment & Development: https://www.nctcog.org/envir/mail

Transportation: https://publicinput.com/hub/Subscriptions/2768

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NCTCOG Resources

Conserve North Texas (www.conservenorthtexas.org)

- Water-specific resources can be found in the Water for North Texas resource library (https://www.conservenorthtexas.org/water-north-texas-online-library)

Go Solar Texas (www.gosolartexas.org)

Energy Management, Efficiency, and Renewable Energy

(www.nctcog.org/envir/natural-resources/energy-efficiency)

North Central Texas Council of Governments

NCTCOG Resources

PACE (Property Assessed Clean Energy) Adoption in North Texas **StoryMap**

- Showcases PACE adoptions and PACE-financed projects in the NCTCOG region, and the steps to get started accessing PACE resources.

- https://storymaps.arcgis.com/stories/94afd48f8f05491bb55991aec608b3d7

North Central Texas Council of Governments

SECO Resources

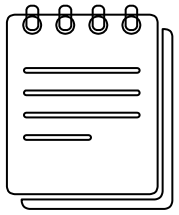
No-cost resources offered by SECO to aid entities in achieving their energy management or efficiency goals

LoanSTAR

- 2.5% (1.5% for ARRA funds)
- Simple payback of 15 years or less
- **Applications are now open**

WattWatchers of Texas

- Behavioral program for schools and families
- TEKS aligned STEM material



Technical Assistance

- Preliminary Energy Assessment (PEAs)
- Analysis of current systems, O&M programs
- Energy Management Policy development
- Funding options
- Prioritized project planning

Local Government Energy Reporting

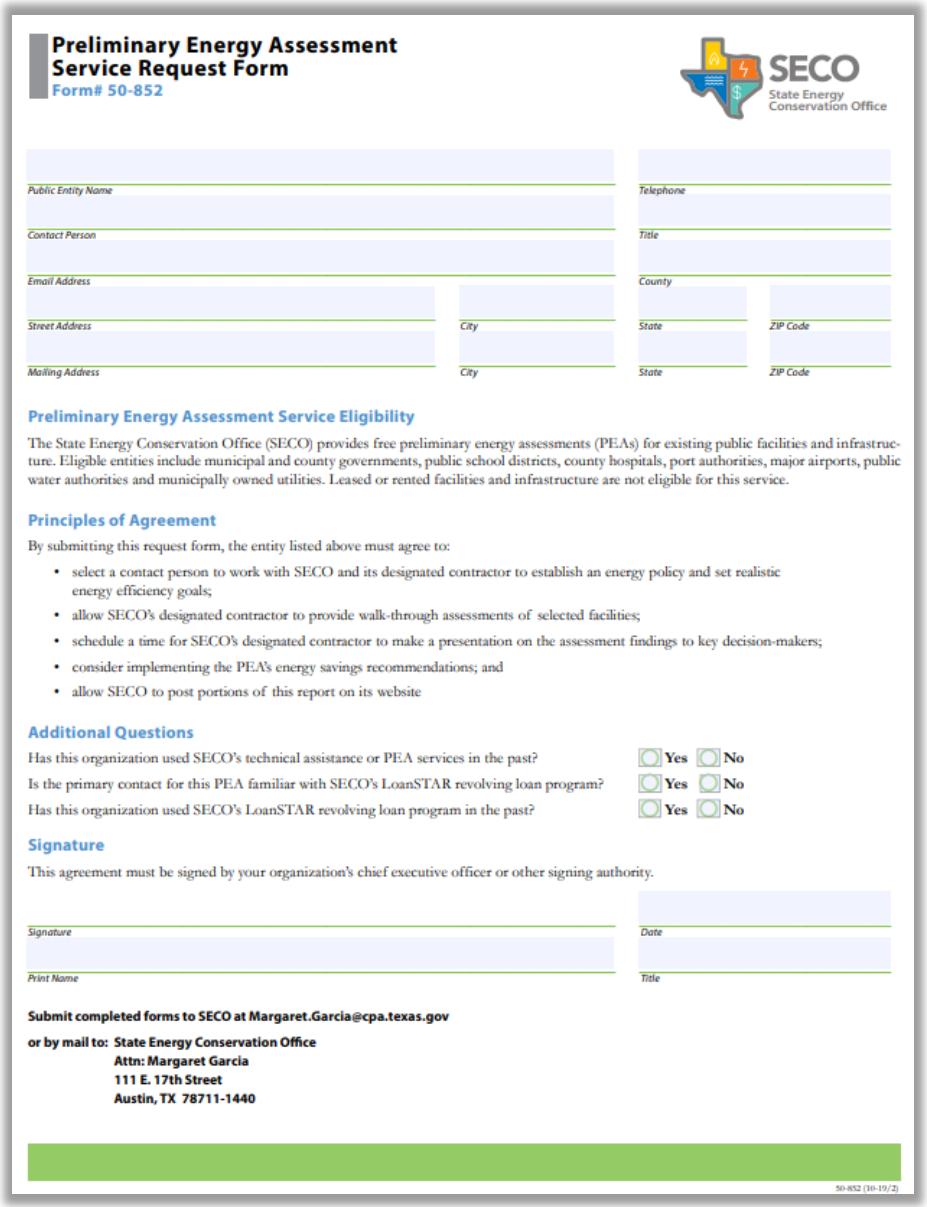
- Technical assistance for State-mandated energy efficiency and reporting

North Central Texas Council of Governments

Preliminary Energy Assessments (PEAs)

Preliminary Energy Assessments (PEAs) are provided by the State Energy Conservation Office (SECO) and offer cost effective resource efficiency measures entities can implement to decrease energy consumption at **no cost to you!**

- Help guide the development of an energy management policy
- Provides facility benchmarking using ENERGY STAR Portfolio Manager
- Recommended maintenance procedures
- Develop efficiency level guidelines for equipment purchases



Preliminary Energy Assessment Service Request Form
Form# 50-852

SECO State Energy Conservation Office

Public Entity Name | Telephone
Contact Person | Title
Email Address | County
Street Address | City | State | ZIP Code
Mailing Address | City | State | ZIP Code

Preliminary Energy Assessment Service Eligibility

The State Energy Conservation Office (SECO) provides free preliminary energy assessments (PEAs) for existing public facilities and infrastructure. Eligible entities include municipal and county governments, public school districts, county hospitals, port authorities, major airports, public water authorities and municipally owned utilities. Leased or rented facilities and infrastructure are not eligible for this service.

Principles of Agreement

By submitting this request form, the entity listed above must agree to:

- select a contact person to work with SECO and its designated contractor to establish an energy policy and set realistic energy efficiency goals;
- allow SECO's designated contractor to provide walk-through assessments of selected facilities;
- schedule a time for SECO's designated contractor to make a presentation on the assessment findings to key decision-makers;
- consider implementing the PEA's energy savings recommendations; and
- allow SECO to post portions of this report on its website

Additional Questions

Has this organization used SECO's technical assistance or PEA services in the past? ◯ Yes ◯ No
Is the primary contact for this PEA familiar with SECO's LoanSTAR revolving loan program? ◯ Yes ◯ No
Has this organization used SECO's LoanSTAR revolving loan program in the past? ◯ Yes ◯ No

Signature

This agreement must be signed by your organization's chief executive officer or other signing authority.

Signature | Date
Print Name | Title

Submit completed forms to SECO at Margaret.Garcia@cpa.texas.gov

or by mail to: State Energy Conservation Office
Attn: Margaret Garcia
111 E. 17th Street
Austin, TX 78711-1440

50-852 (10-19/2)

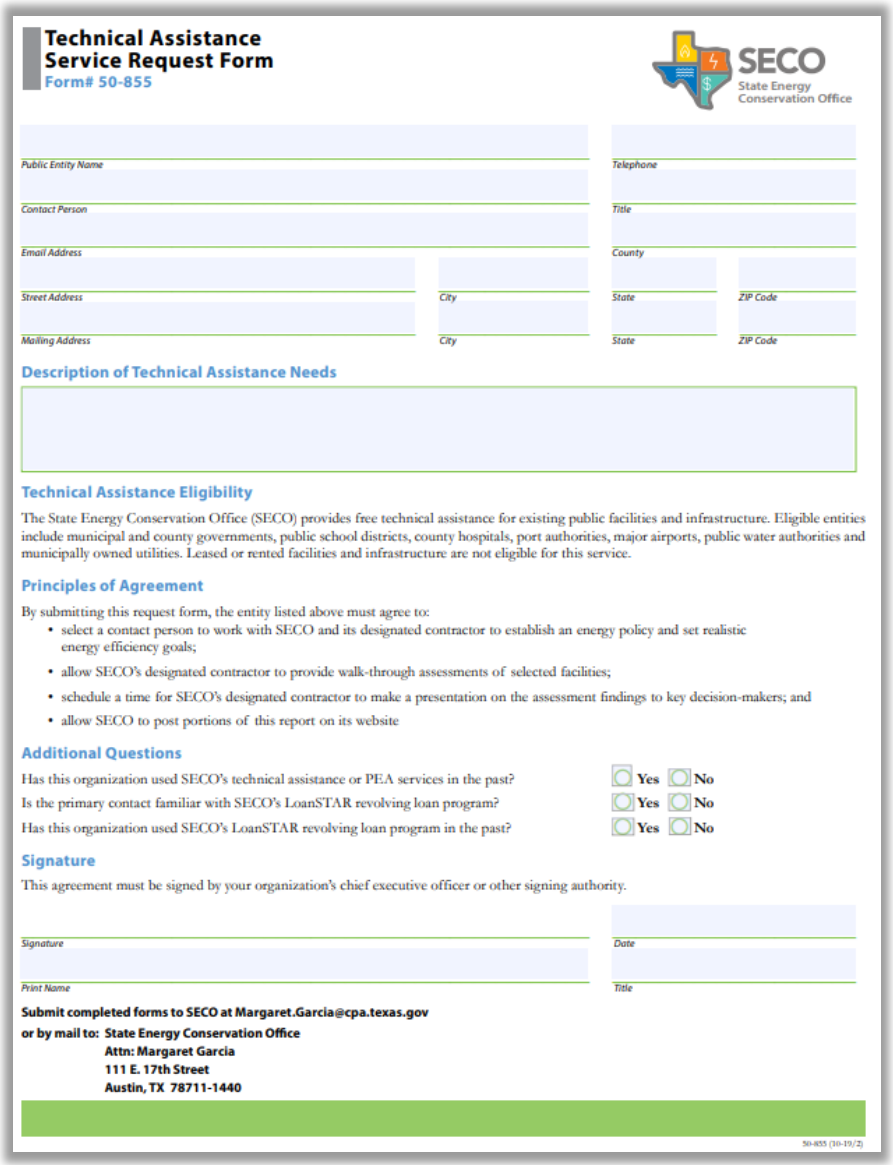
North Central Texas Council of Governments

SECO No-Cost Technical Assistance

SECO contracts with engineering firms to provide customized, on-site, energy-related services ranging from basic consultation to feasibility studies.

Eligible entities may request assistance with either **energy** or **water**-related technical matters.

After a scope review, SECO assigns an engineer to contact the entity officials to determine the level of service necessary to provide assistance.



Technical Assistance Service Request Form
Form# 50-855

SECO State Energy Conservation Office

Public Entity Name | Telephone
Contact Person | Title
Email Address | County
Street Address | City | State | ZIP Code
Mailing Address | City | State | ZIP Code

Description of Technical Assistance Needs

Technical Assistance Eligibility

The State Energy Conservation Office (SECO) provides free technical assistance for existing public facilities and infrastructure. Eligible entities include municipal and county governments, public school districts, county hospitals, port authorities, major airports, public water authorities and municipally owned utilities. Leased or rented facilities and infrastructure are not eligible for this service.

Principles of Agreement

By submitting this request form, the entity listed above must agree to:

- select a contact person to work with SECO and its designated contractor to establish an energy policy and set realistic energy efficiency goals;
- allow SECO's designated contractor to provide walk-through assessments of selected facilities;
- schedule a time for SECO's designated contractor to make a presentation on the assessment findings to key decision-makers; and
- allow SECO to post portions of this report on its website

Additional Questions

Has this organization used SECO's technical assistance or PEA services in the past? ◯ Yes ◯ No
Is the primary contact familiar with SECO's LoanSTAR revolving loan program? ◯ Yes ◯ No
Has this organization used SECO's LoanSTAR revolving loan program in the past? ◯ Yes ◯ No

Signature

This agreement must be signed by your organization's chief executive officer or other signing authority.

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or by mail to: State Energy Conservation Office
Attn: Margaret Garcia
111 E. 17th Street
Austin, TX 78711-1440

50-855 (10-19/2)

North Central Texas Council of Governments

For more information, visit SECO's Technical Assistance webpage.

Texas LoanSTAR Revolving Loan

Finances Projects that Reduce Energy/Water/Utility Costs

- Simple Payback Period of **15 Years or Less**
- 2.5% Loan Interest Rate; 1.5% if you choose ARRA Funds with more reporting requirements

Open Enrollment Through **August 30, 2024**

- Maximum $6 Million Loan Per Application
- Maximum 1 Loan per Applicant

https://www.youtube.com/watch?v=4lFuj_5ZeGI

For more information visit the Notice of Loan Fund Availability

Closing Reminders

- **Please complete the Workshop Evaluation: https://www.surveymonkey.com/r/3HP8Q32**
- **Please complete the in-kind match form: https://www.surveymonkey.com/r/G8SP92W**

North Central Texas Council of Governments

SECO and SPEER Contacts

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The South-central Partnership for Energy Efficiency as a Resource (SPEER)
cities@eepartnership.org

Adam Mueller
Program Specialist
State Energy Conservation Office (SECO)
Adam.mueller@cpa.Texas.gov

North Central Texas Council of Governments

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cbuckley@nctcog.org

Energy Team
Energy@nctcog.org

North Central Texas Council of Governments

Quick Links

https://www.conservenorthtexas.org/

www.nctcog.org/envir/natural-resources/energy-efficiency

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