

Water Conservation in Arlington

Dustan Compton
Arlington Water Utilities



City of Arlington

- **Population:** 369,230 – ~428,000 Buildout
- **Land Area:** 99.5 square miles
- **Visitors to Arlington:** 6.8 million visitors
- **Number of Water Treatment Plants:** 2
 - **Total treatment system capacity:** 174.11 MGD
- **Miles of Distribution Pipe:** 1,531
- **Annual Gallons Billed Consumption:**
~18.5 billion

U.S. Drought Monitor

Texas

November 4, 2014

(Released Thursday November 6, 2014)

Valid 7 a.m. EST

Statistics type: Traditional (D0-D4, D1-D4, etc.) Categorical (D0, D1, etc.)

Drought Condition (Percent Area):

Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	2014-11-04	26.33	73.67	48.48	28.39	10.81	3.62
Last Week	2014-10-28	24.84	75.16	49.20	27.86	11.90	3.62
3 Months Ago	2014-08-05	17.20	82.80	56.88	35.52	13.67	2.85
Start of Calendar Year	2013-12-31	28.48	71.52	43.84	21.15	5.82	0.79
Start of Water Year	2014-09-30	28.92	71.08	48.95	29.54	11.26	2.69
One Year Ago	2013-11-05	20.07	79.93	50.49	23.61	5.43	0.49

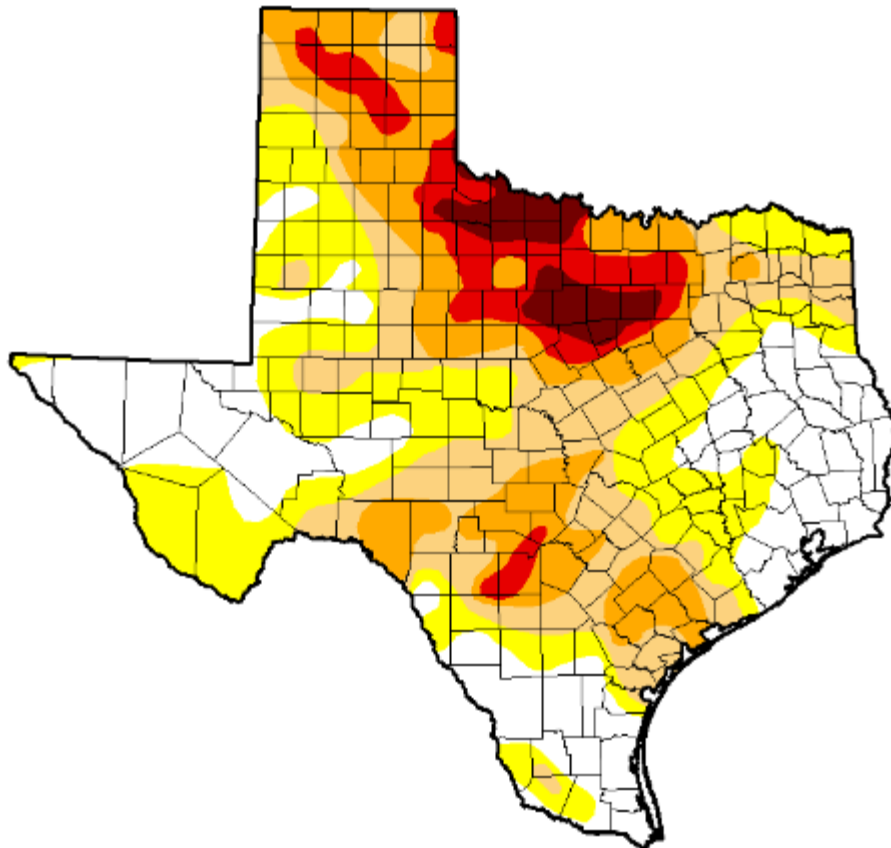
Population Affected by Drought: **12,703,423**

[View More Statistics](#)

Intensity:

D0 - Abnormally Dry
 D1 - Moderate Drought
 D2 - Severe Drought

D3 - Extreme Drought
 D4 - Exceptional Drought



Drought Conditions

Stage 1 Drought Watering Restrictions in Effect

Residential Stage 1 Drought Watering Restrictions Schedule

Addresses ending with Even Number
(0, 2, 4, 6, or 8)

Wednesday | Saturdays

Addresses ending with Odd Number
(1, 3, 5, 7, or 9)

Thursdays | Sundays

Commercial Stage 1 Drought Watering Restrictions Schedule

Apartments, Businesses, Medians
and Common areas, Parks, etc.

Tuesdays | Fridays

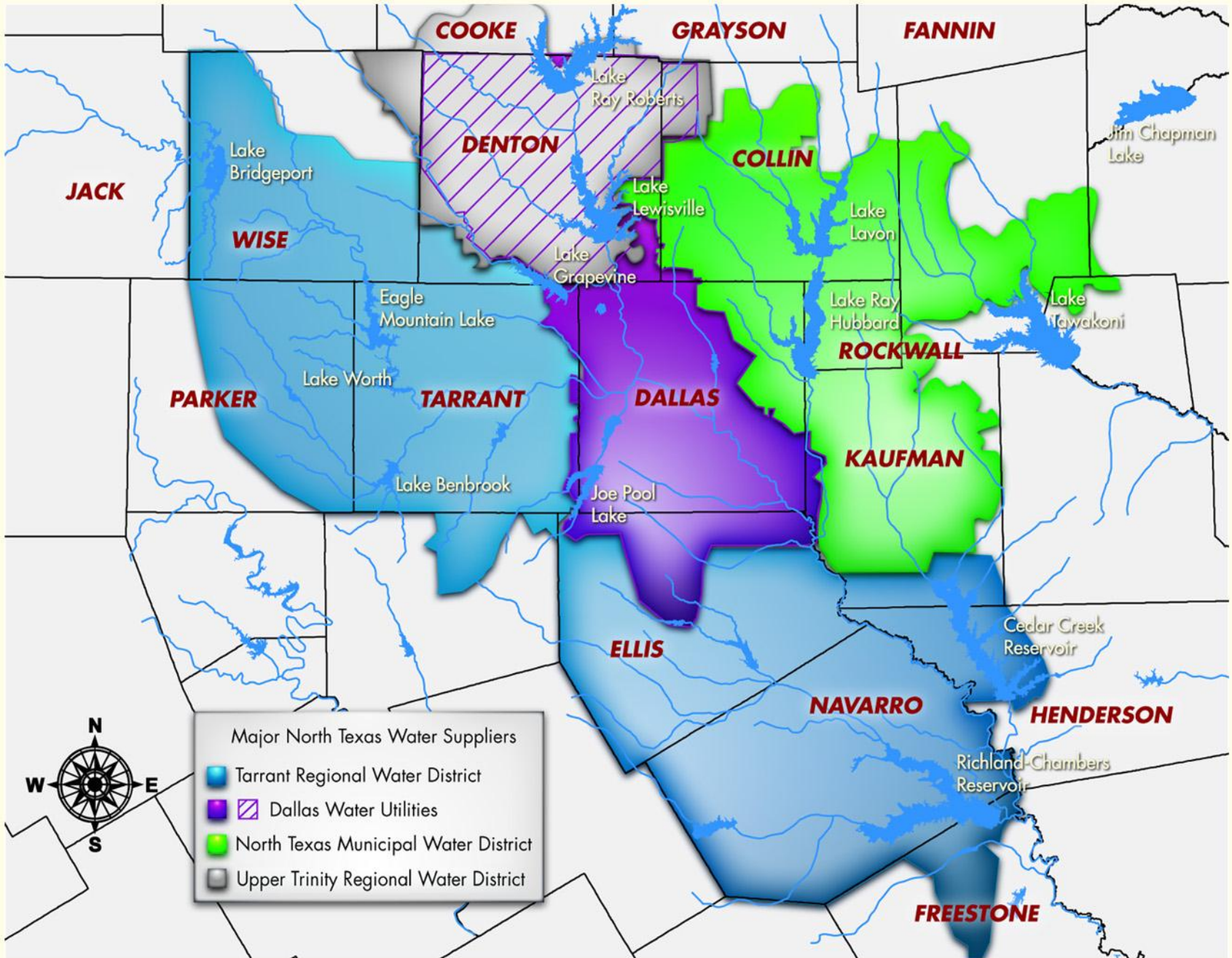
trwd Lake Levels

Bridgeport	812.21	-23.79
Eagle Mountain	638.70	-10.40
Richland-Chambers	304.98	-10.02
Cedar Creek	316.36	-5.64
Arlington	539.73	-10.27
Benbrook	685.44	-8.56
Lake Worth	590.56	-3.44



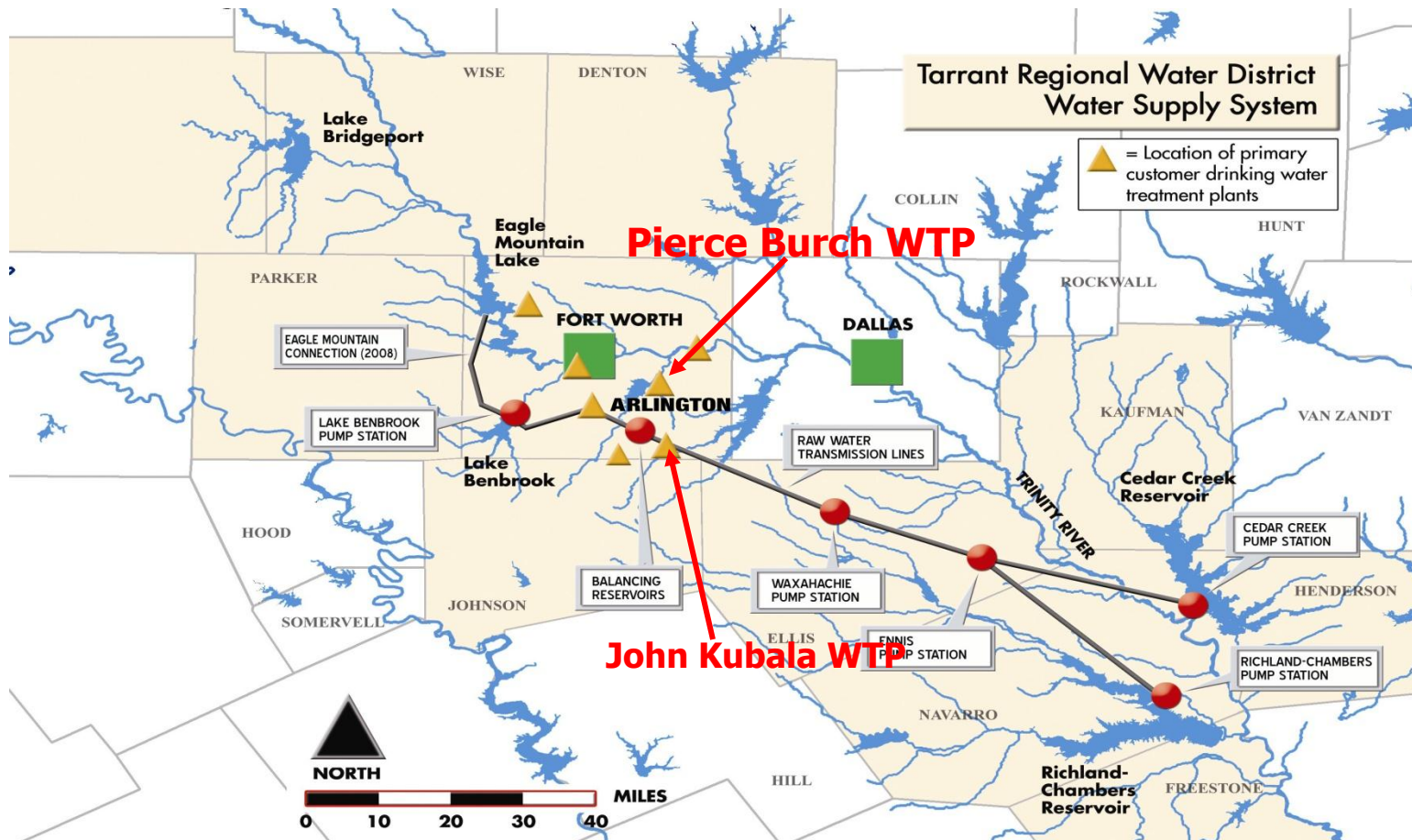
Reservoirs Level: 63%
(as of 11/11/14)

When the combined capacity of Tarrant Regional Water District's system reservoirs reach 60%, Stage 2 of the Drought Plan will be implemented.



Water Sources

□ Tarrant Regional Water District (TRWD)



Lake Arlington

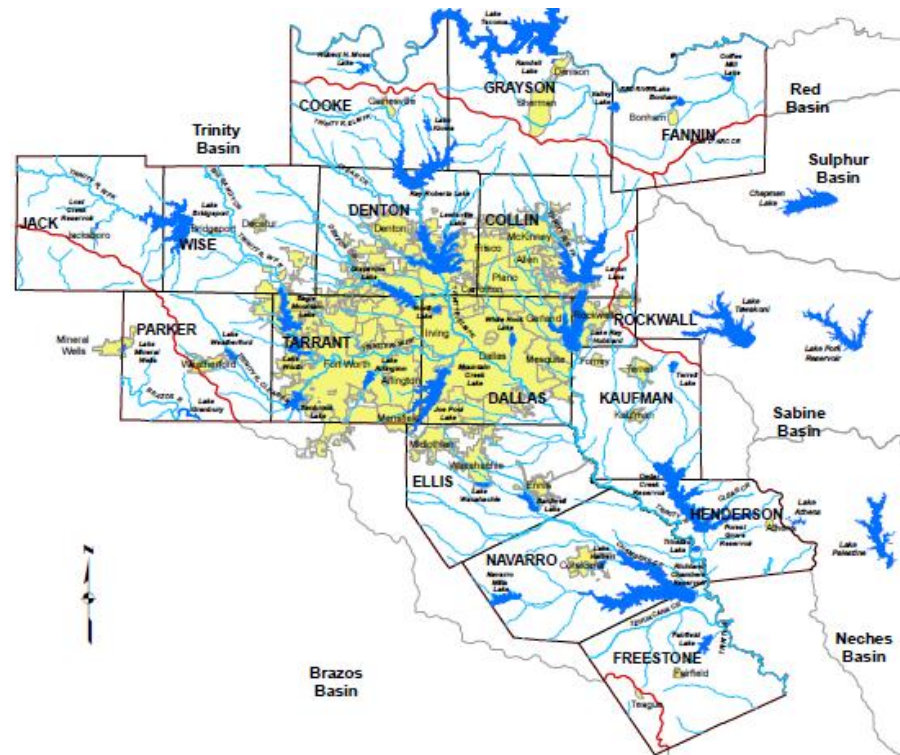
Holds about 16 billion gallons

Richland Chambers holds	370 billion gallons
Cedar Creek holds	210 billion gallons
Eagle Mountain holds	59 billion gallons
Benbrook holds	27 billion gallons

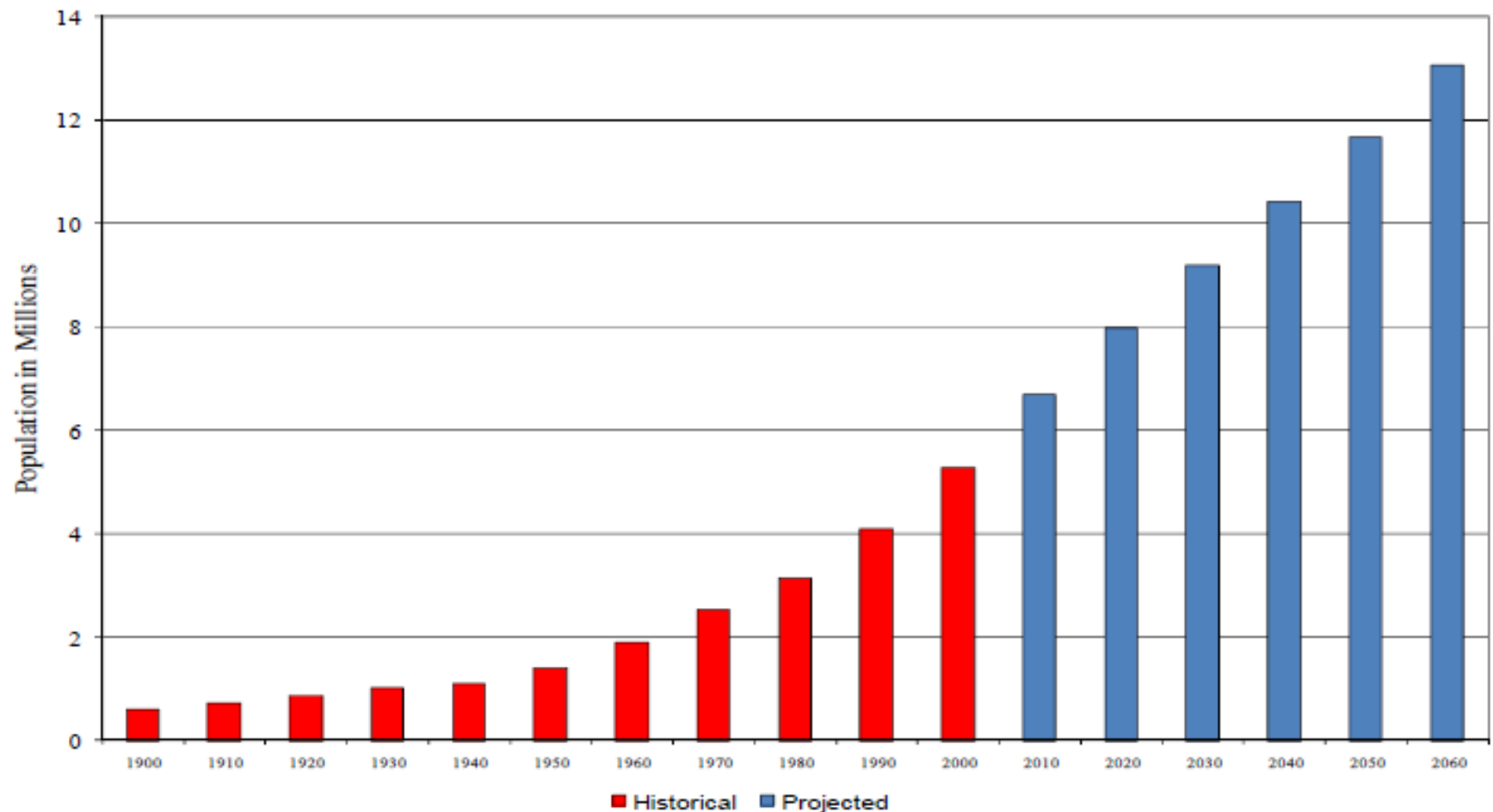


State Water Planning

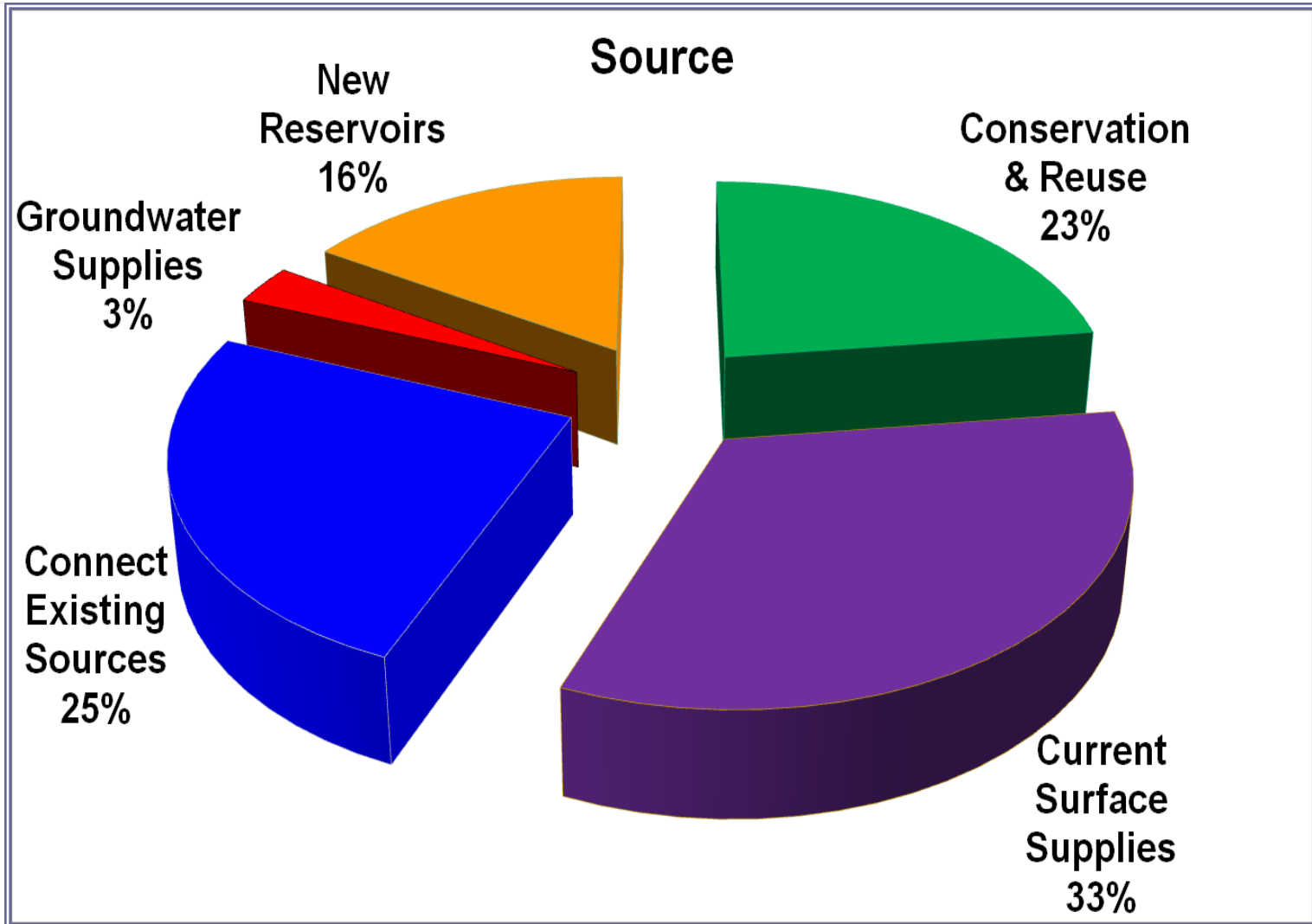
- Texas Water Development Board has created 16 regional water planning groups in Texas
- Plan for the future water needs of region
- Region C



Historical and Projected Population in Region C Water Planning Group

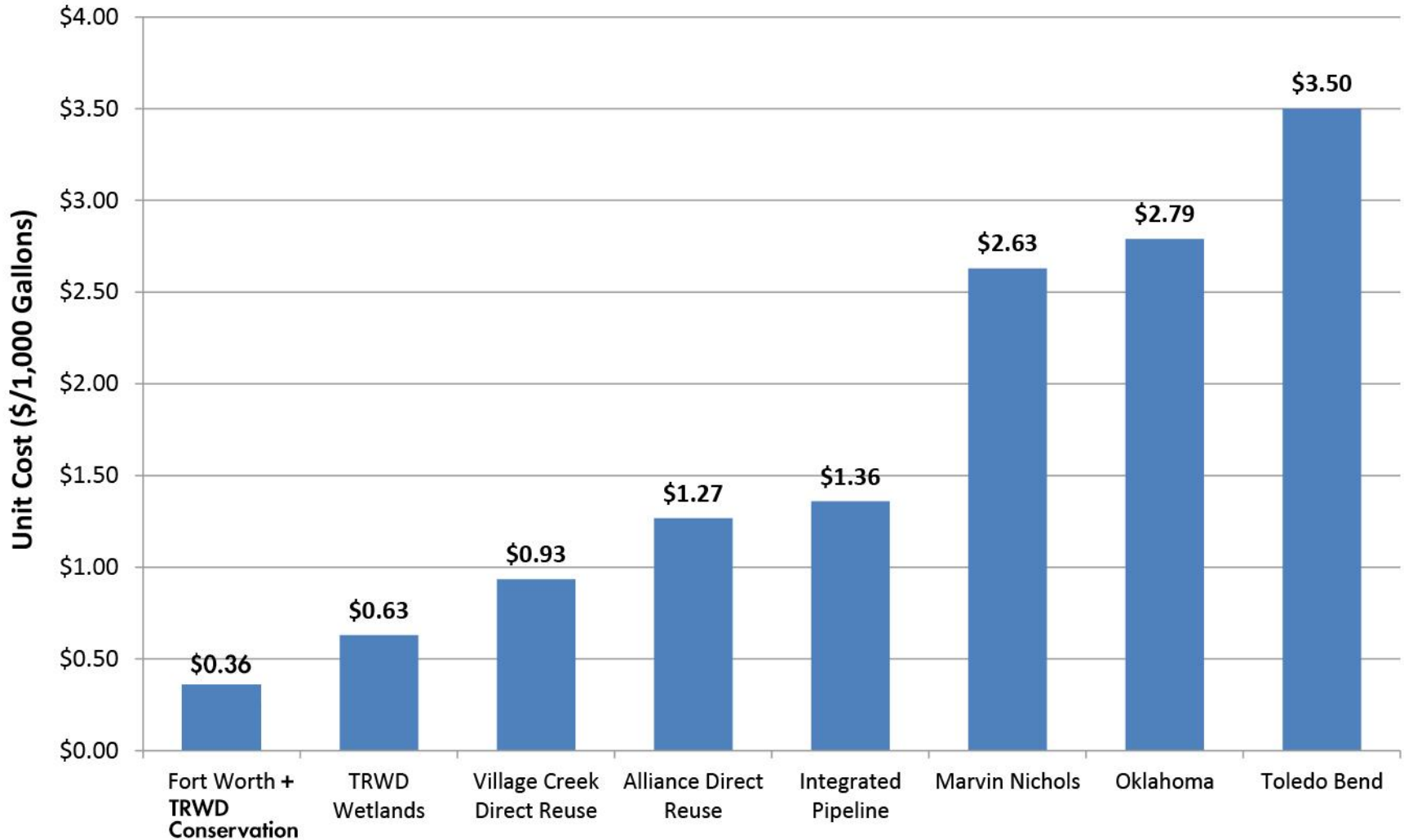


Water Supply 2060



Cost of Future Supply Alternatives

Save water.
Nothing can
replace it.

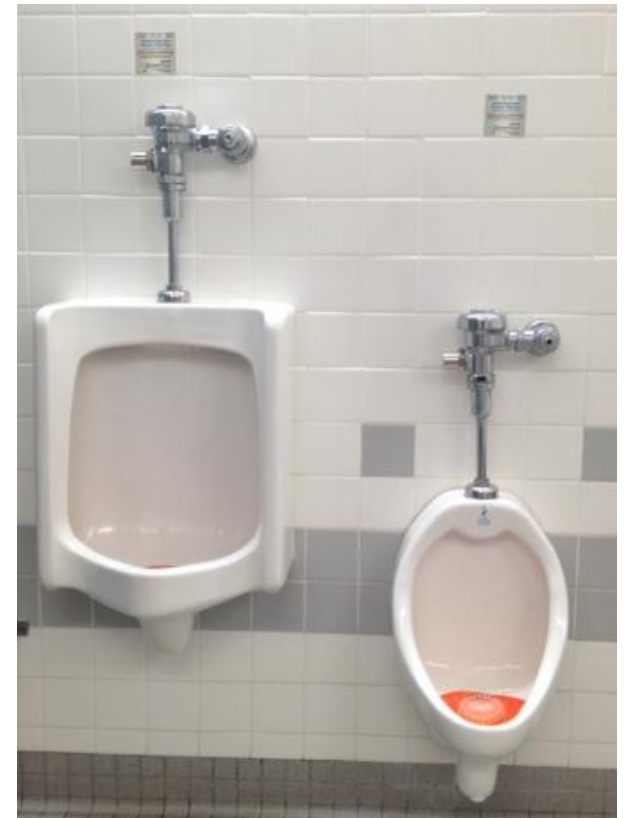


City of Arlington

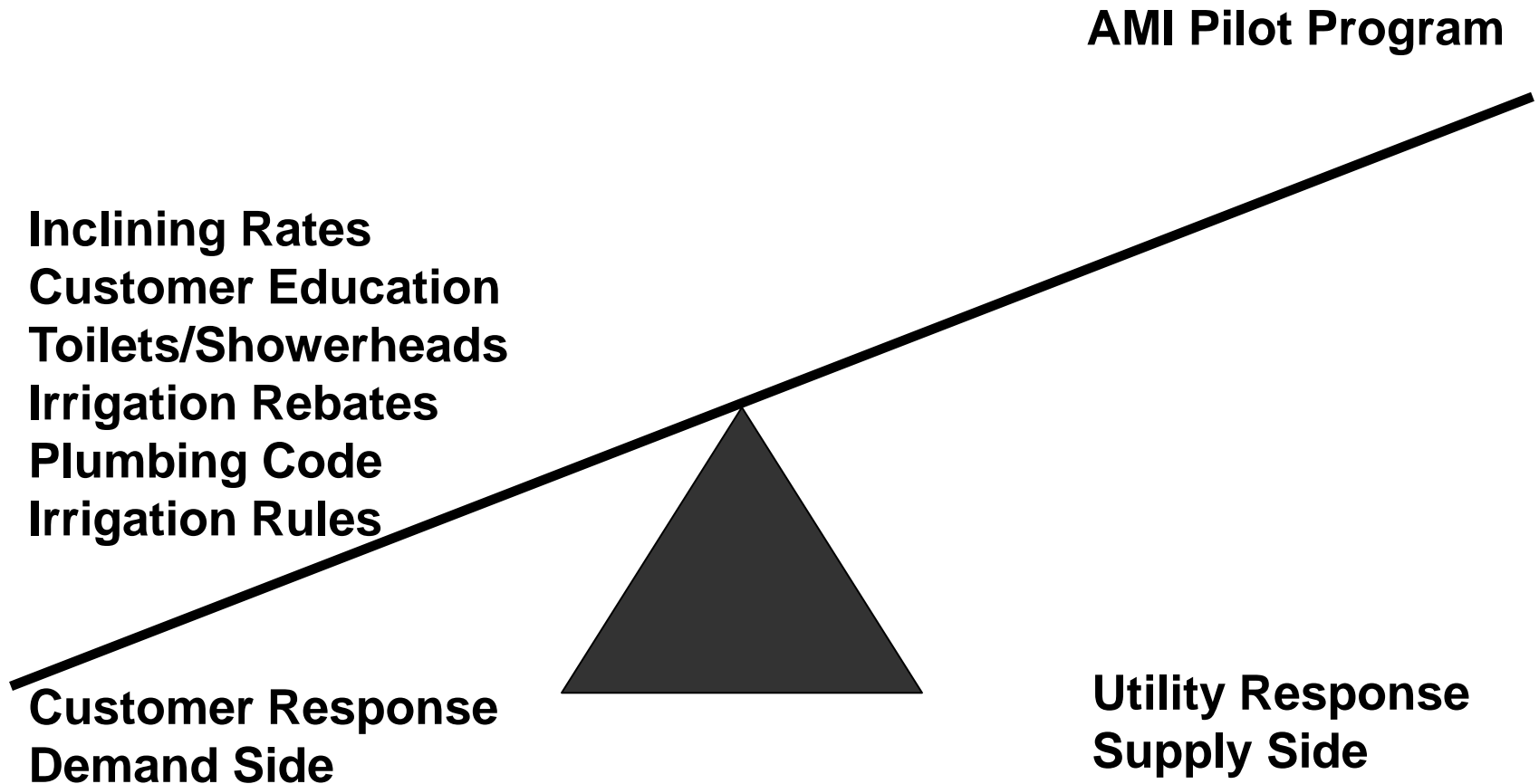
Water Conservation Strategies

- Water Conservation Plan
 - Required to be updated every 5 years
- Purpose
 - Identify water conservation goals and practices that will protect long-term water supplies
- Plan Requirements
 - Provide accurate and universal metering
 - Control water loss
 - Public education and information program
 - Adopt a conservation oriented water rate structure

AISD Urinal Valve Project



Previous Approach to Conservation

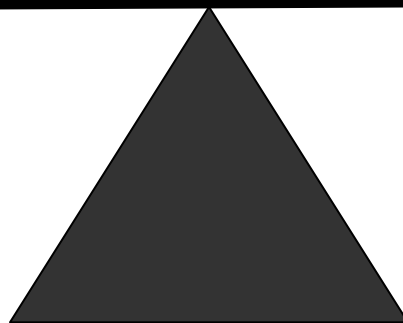


Balanced Approach to Conservation

Inclining Rates
Customer Education
Toilets/Showerheads
Irrigation Rebates
Plumbing Code
Irrigation Rules

Impacts Rates
Restricts Use
Mandates Regulation

Customer Response
Demand Side



Full System AMI
Leak Detection
Valve Operations
Main Replacement
Large Meter Program
Treatment Optimization

Lowers Cost
Lowers GPCD
Benefit to Customers

Utility Response
Supply Side

Leak Detection

- Reduce non-revenue water loss
- Reduce time locating leak
- Reduce amount of time digging as well as the number of dry holes
- Locate non-surfacing leaks
 - Creeks
 - Storm drains

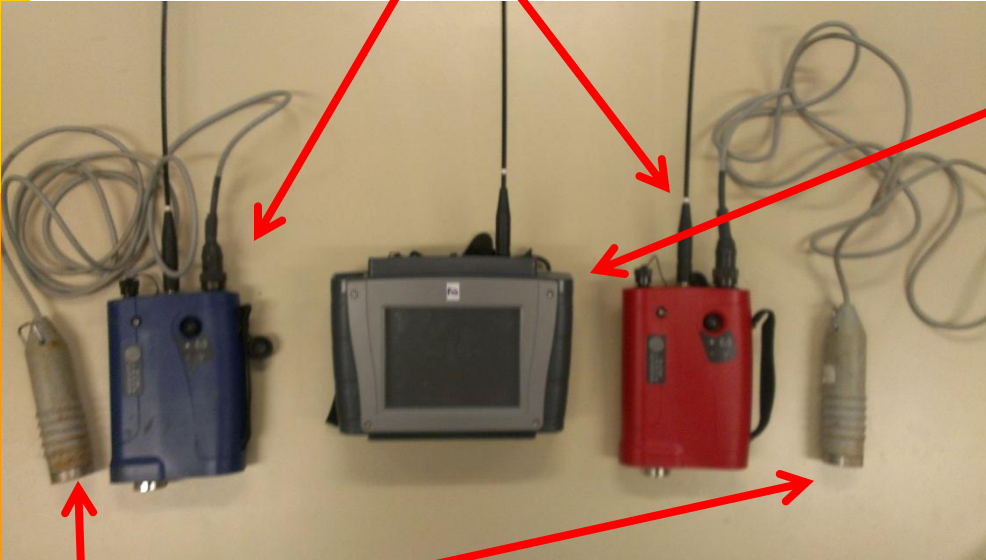
Remote Leak Detection



Tri-Corr Touch Correlator

Outstations

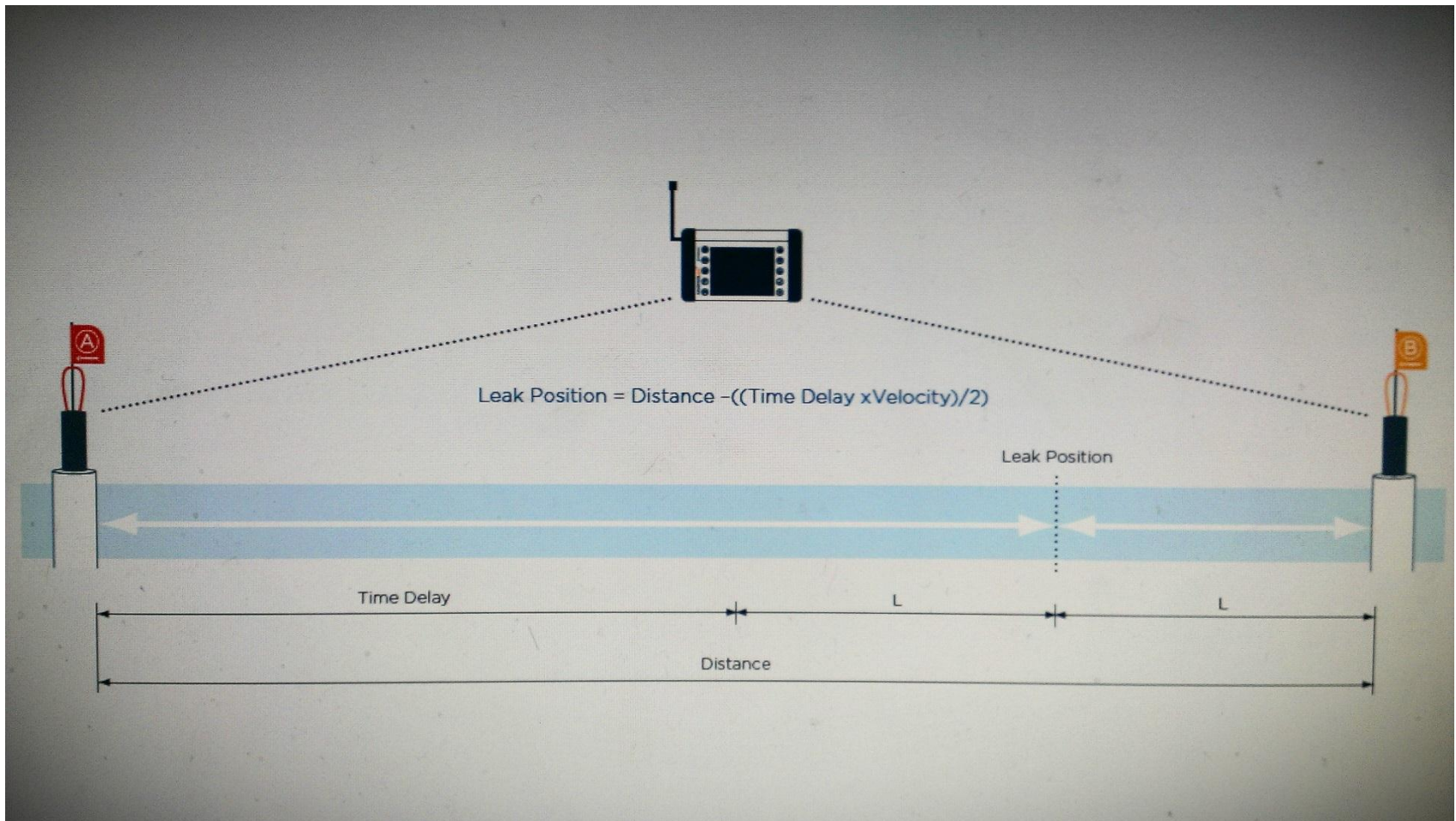
Base unit



Sensors



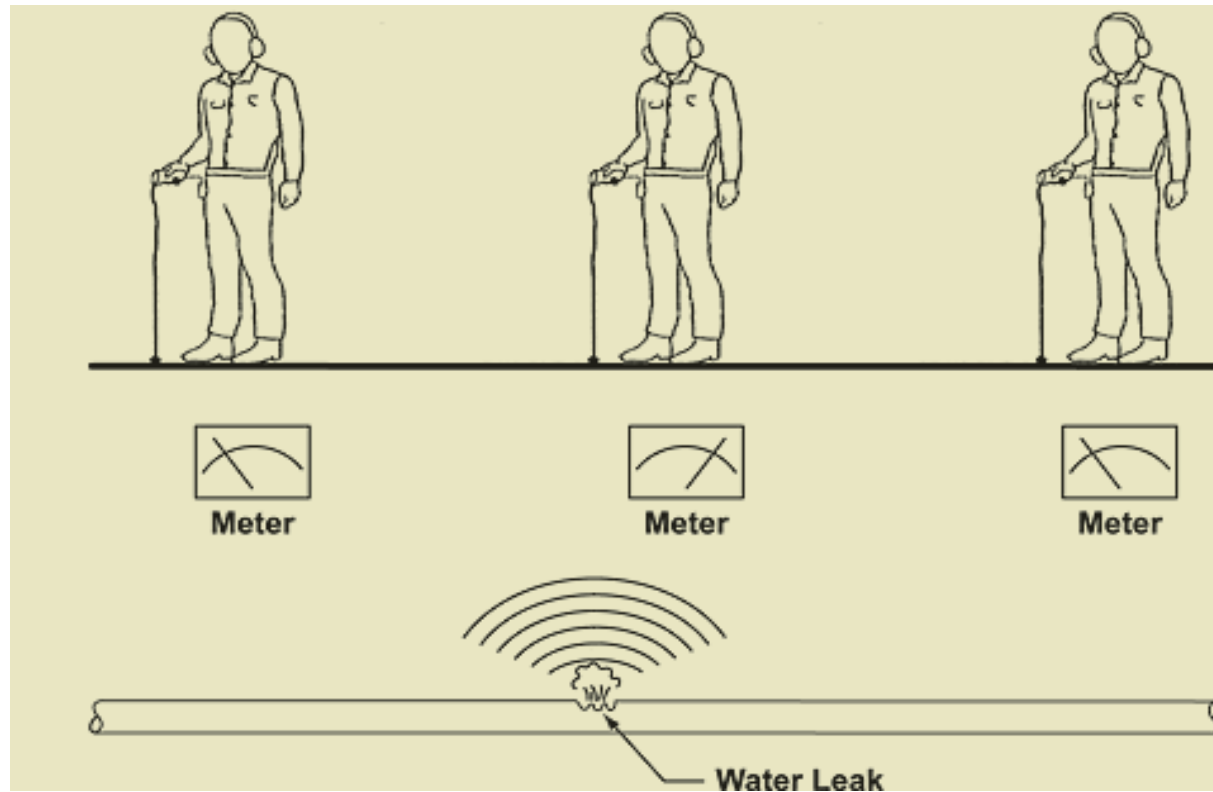
Correlation Leak Detection



Ground Mic



Pin-point Leak detection



Questions?



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