

KNOW YOUR WATER

FOR STATE & LOCAL GOVERNMENT



PROBLEMS

- ◆ Need to implement even more conservation to stretch supplies
- ◆ No common way to measure water use and source water requirements
- ◆ No validation method to check reliability of water use data
- ◆ No accurate way to track water use improvements
- ◆ No way to identify economic optimum improvement measures



SOLUTION

AWWA's M36 Methodology and FREE Water Audit Software for Utilities

- ◆ Nationally Recognized Methodology used in many states
- ◆ The industry standard tool for water system accounting
- ◆ Water Balance model where all water is accounted for
- ◆ Contains a data validation component
- ◆ Provides guidance on when and how to engage in water loss control
- ◆ Identifies economic optimum improvement measures



BENEFITS

- ◆ Easy process to collect Reliable and Accurate Water Use Data
- ◆ Data validation process to assess credibility of data
- ◆ True Supply-side (water system) conservation
- ◆ Saves water by reducing losses which will help stretch supply
- ◆ Provides tools to measure improvements
- ◆ Saves money by targeting the Economic Optimum loss and intervention
- ◆ Improved Bond Ratings for Utilities that complete AWWA Water Audit



Water Efficiency & Water Loss Control Program

Program that Works! Pilot Program / 12 Utilities



2016 Pilot Program—3 Utilities

Granger Hunter Improvement District
Kearns Improvement District
Orem City



2018 Pilot Program—9 Utilities

Jordan Valley Water Conservancy District
Lehi City Water Department
Murray City
Nibbley City
Provo City Water Resources Department
Riverton City
Taylorsville Bennion Improvement District
WaterPro / Draper Irrigation
Weber Basin Water Conservancy District

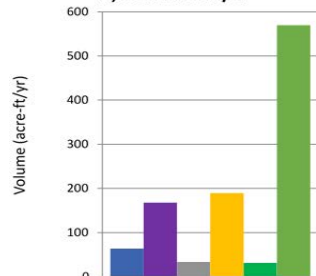


12 Unique Outcomes—2 Examples



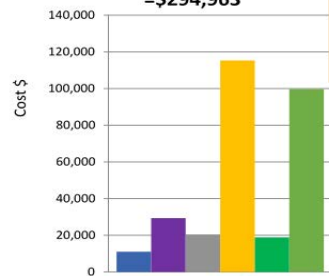
Volume

Total Volume of NRW =
1,055 Acre-ft/Yr



Value

Total Cost of NRW
=\$294,963



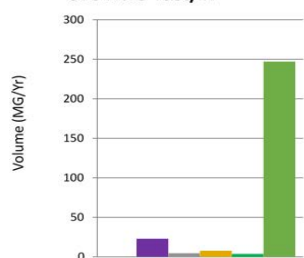
Taylorsville-
Bennion I.D.



67,000
POPULATION
15,871
CONNECTIONS

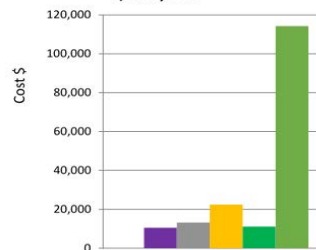
Volume

Total Volume of NRW =
878 Acre-feet/Yr



Value

Total Cost of NRW
=\$171,540



Lehi City



47,400
POPULATION
13,015
CONNECTIONS

■ Unbilled Metered
■ Unbilled Unmetered
■ Unauthorized Consumption

■ Customer Metering Inaccuracies
■ System Data Handling Errors
■ Real Losses

Four Part Program to Deliver Accurate and Validated Data

Initial Costs: \$1.5M over two years

On-going Annual Cost: \$300,000



4 Integrated Recommendations

ENSURE RELIABLE DATA

Provide Technical Assistance Program for Utilities



Initial Cost: \$850,000 to \$900,000

Objective: Train each utility on how to properly conduct an audit; provide tailored action items and economic justification for water loss control. Provide level 1 Validation

CONFIRM DATA IS VALID

Develop Level 1 Water Audit Validation Certification Program



Initial Cost: \$400,000 to \$450,000

Objective: Develop certificate program. Train and certify individuals to conduct third-party, independent validation of audit data

SUPPORT A STANDARD INPUT TOOL

Develop Data Input Module that Integrates with current Water Use Data Input



Initial Cost: \$75,000 to \$100,000

Objective: Integrate the State's water use data needs with the AWWA Free Water Audit Software

CREATE CONSISTENT PROCEDURES

Develop Rules for Data and Water Audit Submittal



Initial Cost: \$30,000 to \$50,000

Objective: Develop a coordinated and consistent set of rules for utilities and State Agencies to follow for input, storage, extraction and analytics processes

Be SMART!
Cut WAter Loss!



American Water Works Association
IntermountainSection