

# This presentation premiered at WaterSmart Innovations

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# How The Drought in the West Was Won

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# Drought of Record

- Previous record was in the 1950s
- Has caused pronounced economic impacts
- Reservoirs at dangerously low levels
- "180 Day List"

# What Does Texas Drought Looks Like?



# Texas Water Development Board (TWDB)

To provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas.



# Texas Water Development Board

- Collects data and conducts studies concerning the freshwater needs of the state
- Supports regions in developing regional water plans incorporated into a statewide water plan
- Provides loans to local governments for water supply projects

# TWDB Funds

- Clean Water State Revolving Funds
- Drinking Water State Revolving Funds
- Economically Distressed Areas Program
- Rural Water Assistance Fund

# Tons of Funds (cont.)



- Water Infrastructure Fund
- Water Research Grant Program
- Regional Water Planning Grants
- Texas Water Development Fund



# Financial Assistance

- TWDB has committed over **\$14.2 billion** to date for water/wastewater projects
- During SFY 2013, the TWDB committed over **\$378.4 million** for projects in Texas

# Water Resource Planning & Information

- Develop State Water Plan every five years
- Based on 16 regional water plans
- Address needs of all water user groups in the state - municipal, irrigation, manufacturing, livestock, and steam electric power

# Innovative Water Technology

- Desalination
- Water Reuse
- Aquifer Storage and Recovery
- Rainwater Harvesting

# Innovative Water Technology (cont.)

- Brackish/Seawater Desalination
  - Total municipal desalination capacity of 120 MGD
  - Largest plant in El Paso has a design capacity of 27.5 MGD
  - Voters approved 1-MGD seawater desalination plant on South Padre Island
  - Brownsville plans to build a 2.5 MGD seawater desalination plant

# Innovative Water Technology (cont.)

## Water Reuse Projects

- **Wichita Falls**: Indirect potable reuse using 7.5 MGD blended 50/50 with lake water
- **Brownwood**: Direct potable reuse using 1.5 MGD treated with UltraFiltration, Chlorination, Reverse Osmosis, and Ultraviolet Light
- **Big Spring**: Direct Potable Reuse using 2.5 MGD of filtered secondary effluent

# Innovative Water Technology (cont.)

- Aquifer Storage and Recovery
  - Assessment of aquifer storage and recovery in Texas
- Rainwater Harvesting
  - Study testing the effect of roof material on quality of harvested rainwater (2011)
  - Subdivision-scale rainwater harvesting systems as a water-supply strategy (2011)

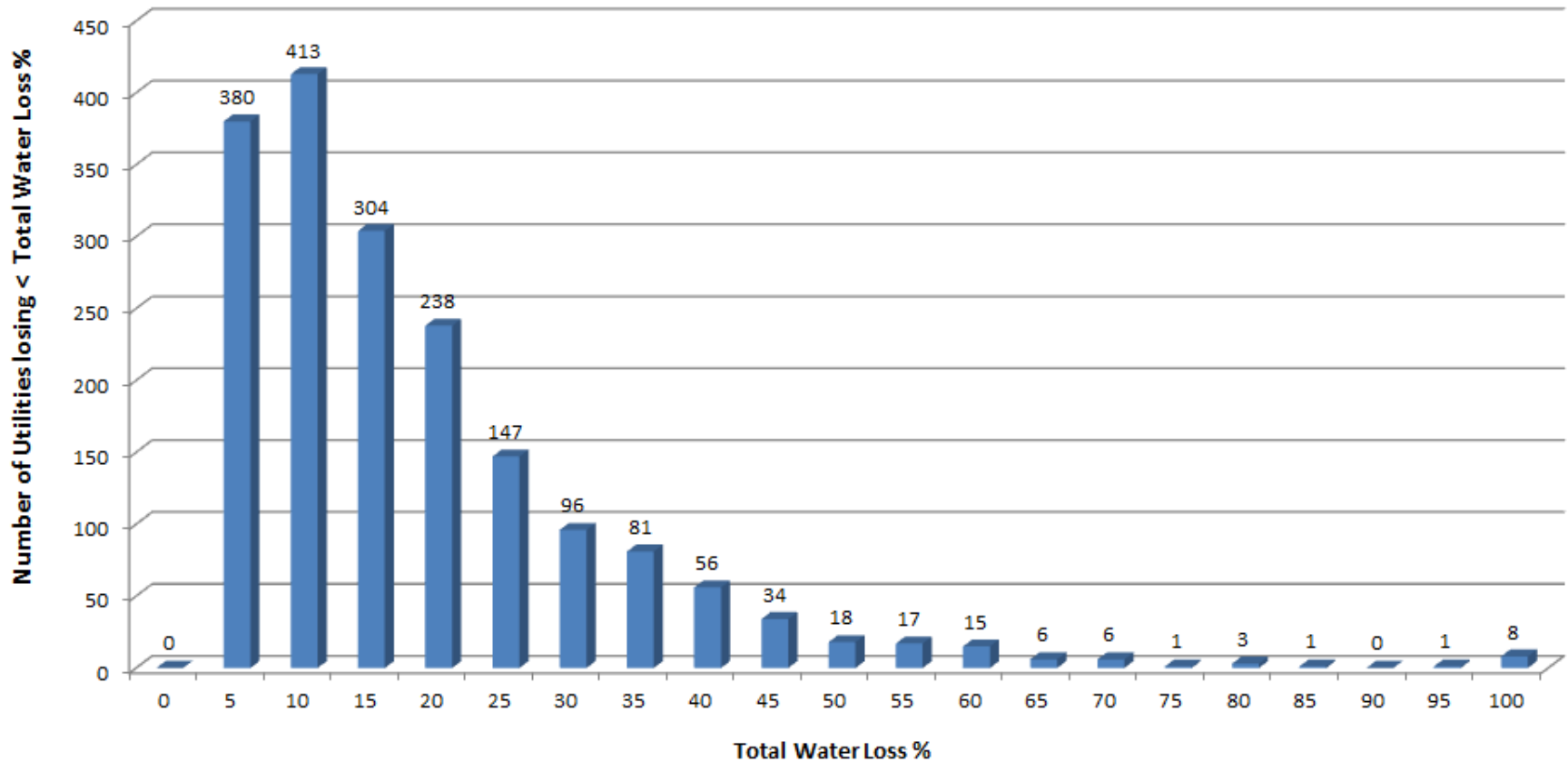
# Conservation

- Water Conservation Plans
- Education
- Equipment Loans
- Water Loss Audits



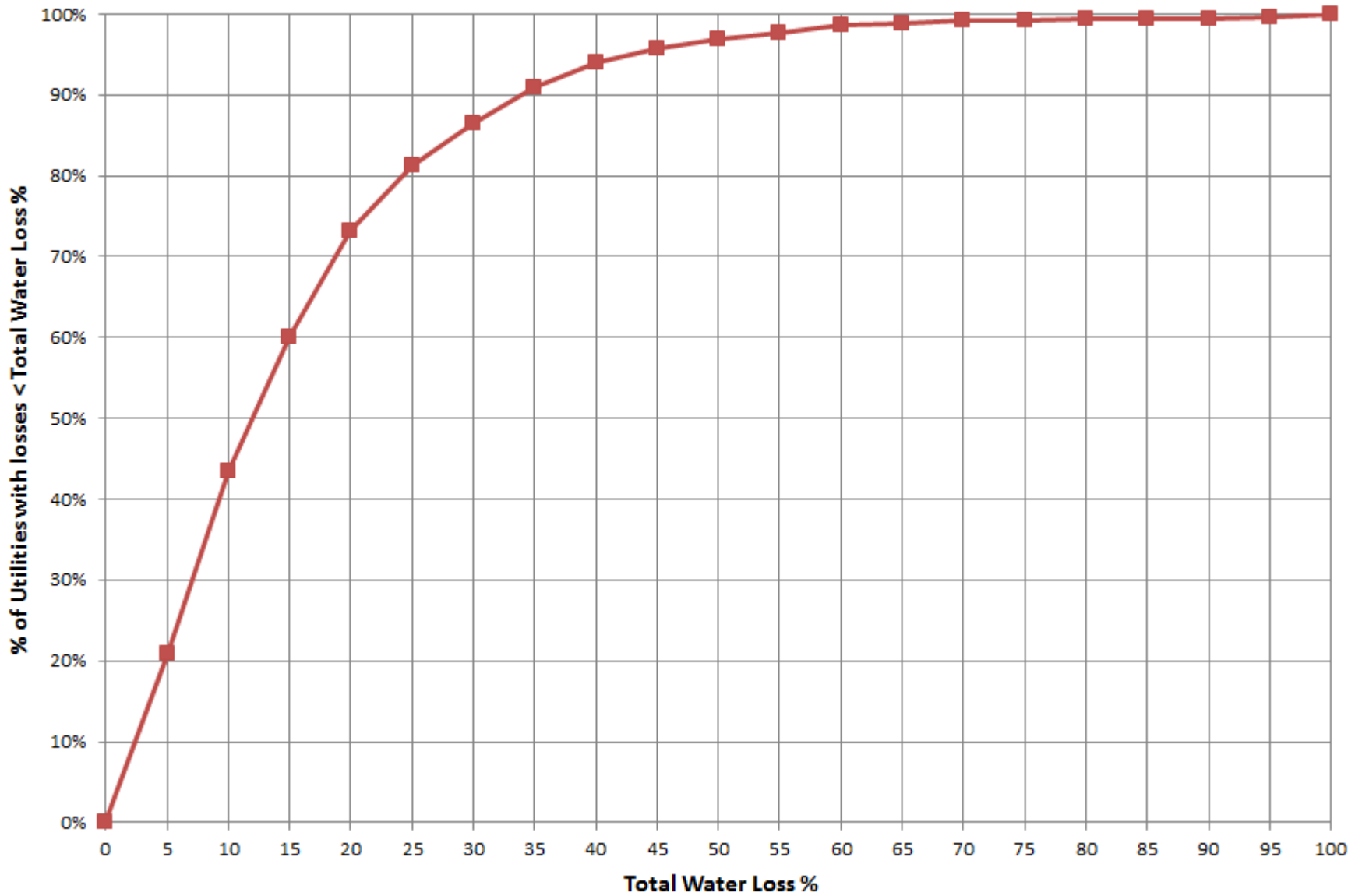
# 2010 Water Loss Distribution

## Utility Water Loss Distribution





## Cumulative Frequency Distribution of % Total Water Loss



# Water Loss Review

Indicator 1: *16.7% total loss OR 460 gal/mile/day OR 24 gal/connection/day*

- Submit Water Loss Audit for most recent year
- Provide information about activities in water conservation plan to address losses
- Provide information about how utility plans to track improvements in water loss

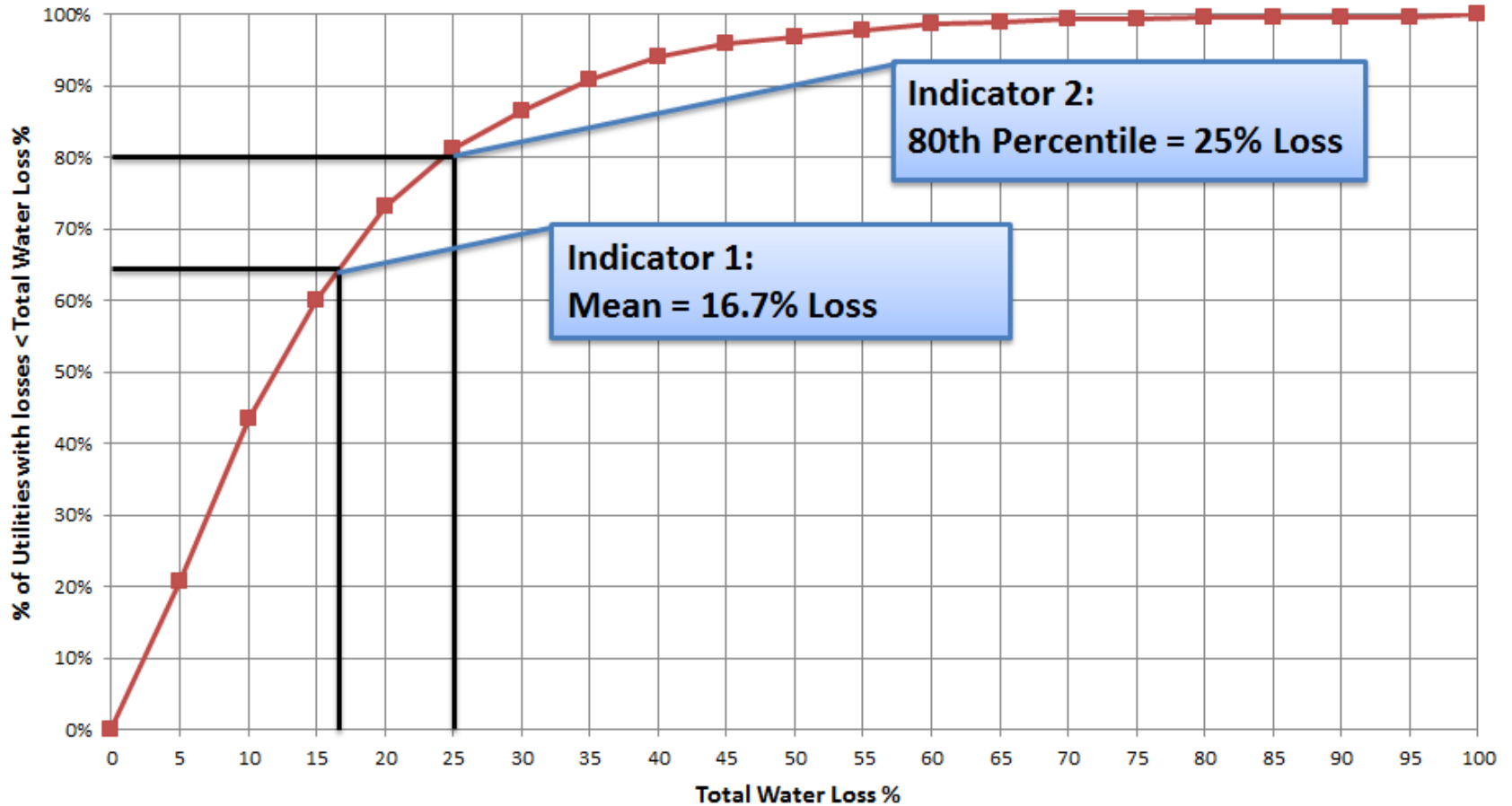
## Water Loss Review (cont.)

Indicator 2: *25% total loss OR 1,057 gal/mile/day OR 50 gal/connection/day*

- Project Oversight staff request applicants to develop specific timelines for implementing/completing activities to achieve reductions in water loss

# Water Loss Review (cont.)

Cumulative Frequency Distribution of Total Water Loss %



# Legislative Updates

- HB 4 - outlines structure of State Water Implementation Fund (SWIFT) structure
- HB 857 - Requires utilities with >3,300 connections to submit yearly water loss audits
- HB 1025 - \$2 billion appropriation to SWIFT
- HB 3605 - requires utilities to use financial assistance to mitigate water loss exceeding certain thresholds



## More Information

“What Does Texas Drought Look Like” flickr campaign

<http://www.flickr.com/groups/texasdrought/>

Texas Water Development Board

[www.twdb.texas.gov](http://www.twdb.texas.gov)

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