Overview of Framework: Performance Standards for Water Loss

Max Gomberg
State Water Resources Control Board

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Who, What, When, Where, Why, and How

- Climate Change
  - Water scarcity
  - Energy demand
- Competitive Edge
  - Talent
  - Infrastructure
- Global Leadership
  - Transparency and accountability
Goals and Challenges

- Resilience
- Improve foundational data quality
- Cost-effective real loss reduction actions
- Effective asset management strategies
- Excellence and innovation across the industry
- Accurate real loss estimation
- Annual variability in water loss estimates
- Selecting suitable technology and implementation
- Resources for smaller utilities
- Flexibility in selecting approaches
- Accommodate for a degree of uncertainty
Steps towards Water Loss Control

1. Understanding water loss
2. Determining and piloting effective approaches
3. System-wide water loss reduction
4. Continued water loss control
Performance Standards: Phased Approach

- Improved data collection and quality (2020-2021)
- Initial implementation (2022)
- System-wide implementation (2026-2027)
- Ongoing water loss control (2035)
- Ongoing compliance
Phase 1
Improved data collection and quality 2020 - 2022

• Achieve Grade 4 for Average Operational Pressure in AWWA Water Audit
  Compliance through water loss audit submission in October 2021

• Submit system-wide Component Analysis using the Leakage Component Analysis Model
  Compliance through submission in December 2022
  http://www.waterrf.org/resources/Pages/PublicWebTools-Detail.aspx?ItemID=27

• Allowance for extension in compliance deadline if demonstrated
Average Operating Pressure - Grade

2016 - 17

2017 - 18
Leakage Component Analysis Tool (Water Research Foundation)

Reservoirs/tanks

Estimate background and reservoir leakage

Mains

Reported failures

Appurtenances (e.g. Valves)

Detected failures

Background leakage

Reported leakage

Unreported leakage
Phase 2
Initial Implementation
2023 - 2027

- Two submissions of the Leakage Component Analysis
- Field observations ↔ Component Analysis
- Any two years from 2023 to 2026
- To be submitted by December 2026
Phase 2
Initial Implementation
2023 - 2027

Current water loss level

Achievable water loss reduction during Phase 2

Allowable water loss volume set in 2020

2020

2027

Credit for potable reuse

Meet conservation targets (AB 1668 - SB 606)

Reducing every 5 years till 2030

2022
Phase 2
Initial Implementation
2023 - 2027

Selection of suitable technologies and initial implementation to reduce water loss
Phase 3
System-wide Implementation
2028 - 2035

Planned implementation for real loss reduction
Interventions with large implementation periods
Cost-effectively achievable long-term standards
Phase 3
System-wide Implementation
2028 - 2035

Allowable water loss volume set by State Water Board in 2020

• Allowance for exceptional system or operational conditions
• Allowance for water loss variability from year to year
• Incorporate new data in 2027
Phase 4
Ongoing Water loss Control
2036 onwards

• Allowable water loss volume on a three-year average basis
• Variability within 5%
• Compliance through water loss audits
Intervention Toolbox

- Speed and Quality of Repairs
- Economically Recoverable Real Loss
- Active Leakage Control
- Asset Management
- Pressure Management
SB 134

• “Double jeopardy?”
• Flexibility
• Transparency
• Accountability