



Performance Standards: Four Phases

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State Water Resources Control Board

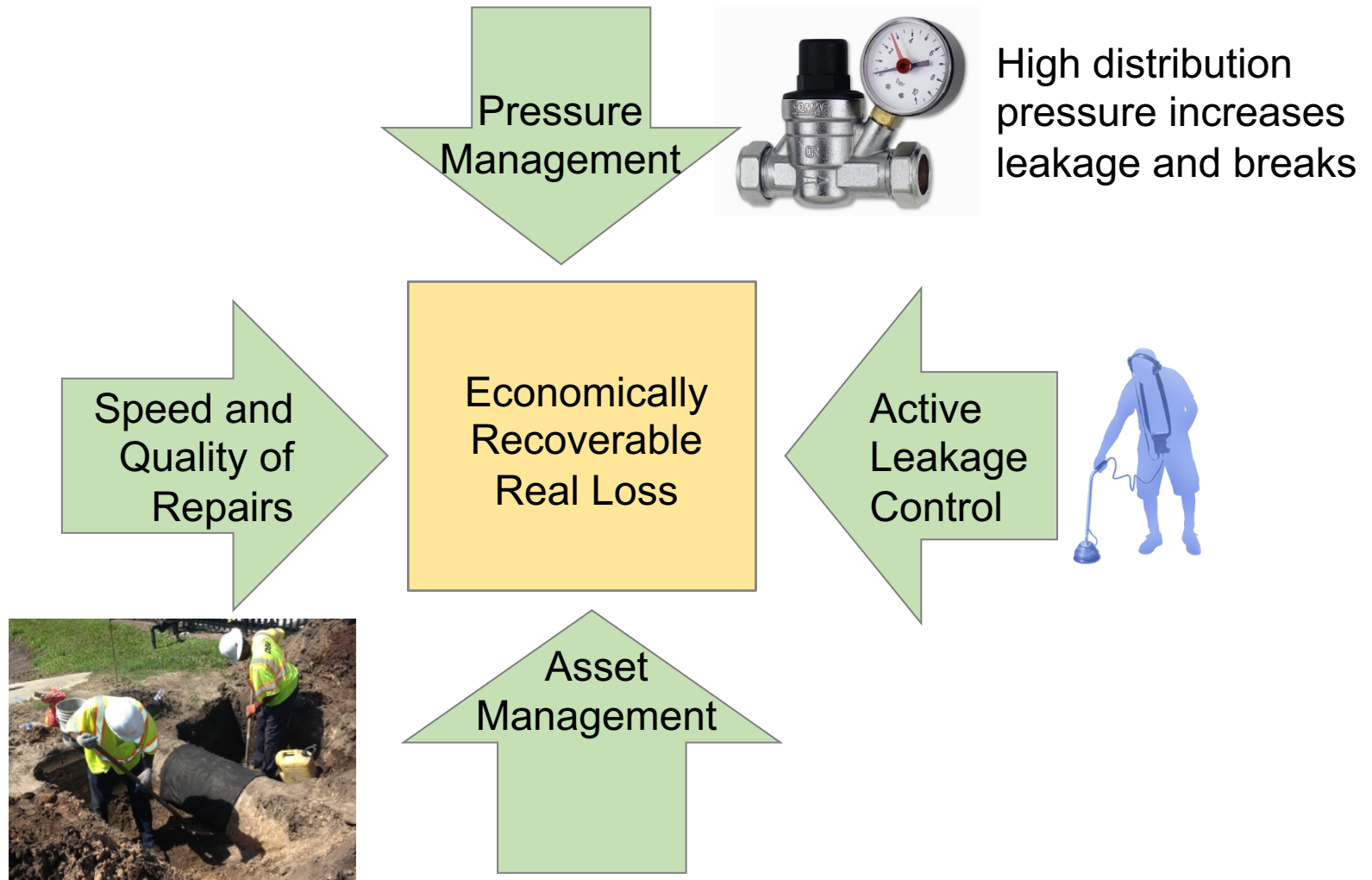
May 16, 2019

Goals and Challenges

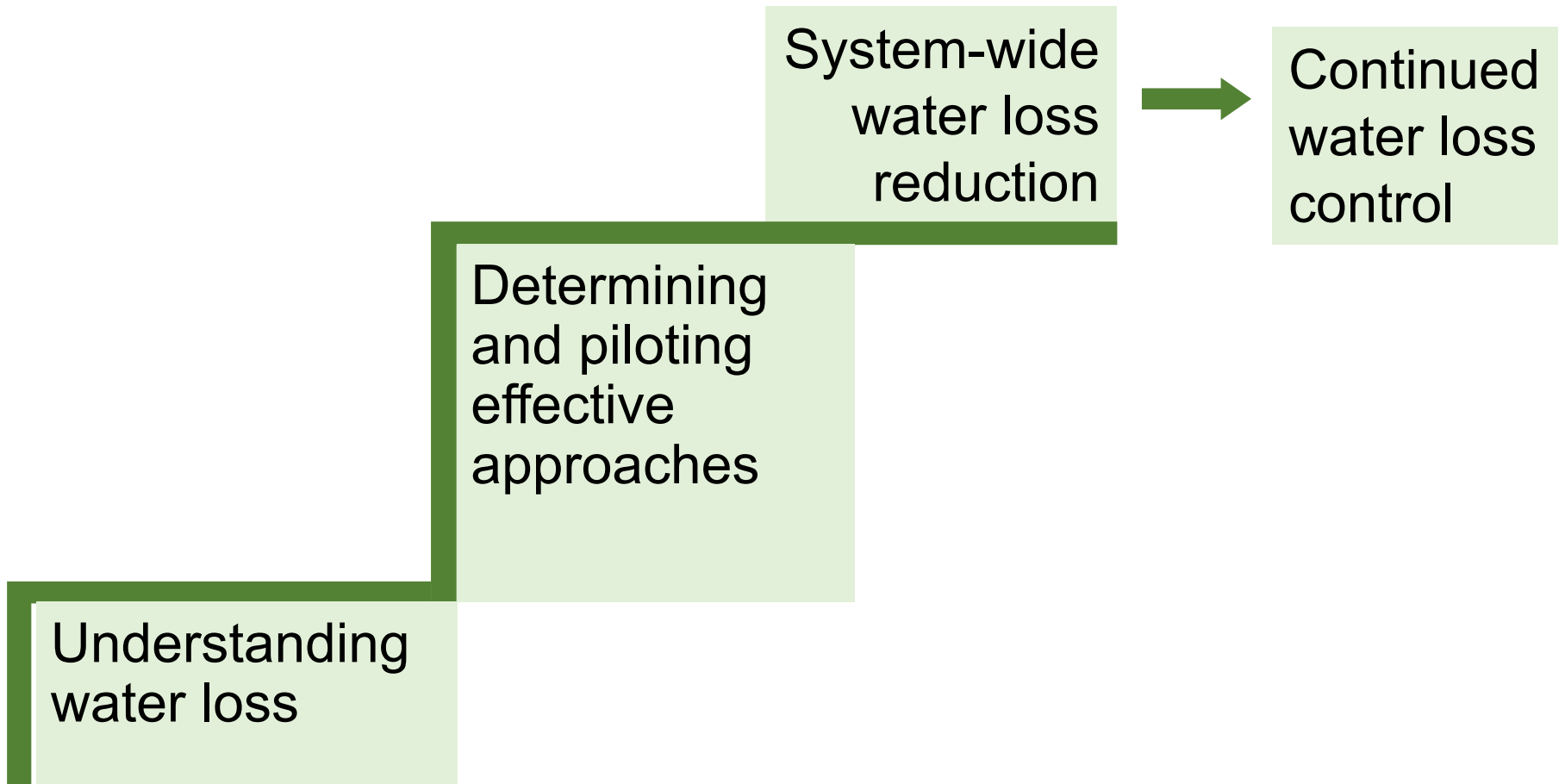


- Water supply resilience
- Improve foundational data quality
- Cost-effective real loss reduction actions
- Effective asset management strategies
- Excellence and innovation across the industry
- Real loss estimation and variability
- Utility-specific data
- Flexibility in selecting approaches
- Accommodate for a degree of uncertainty

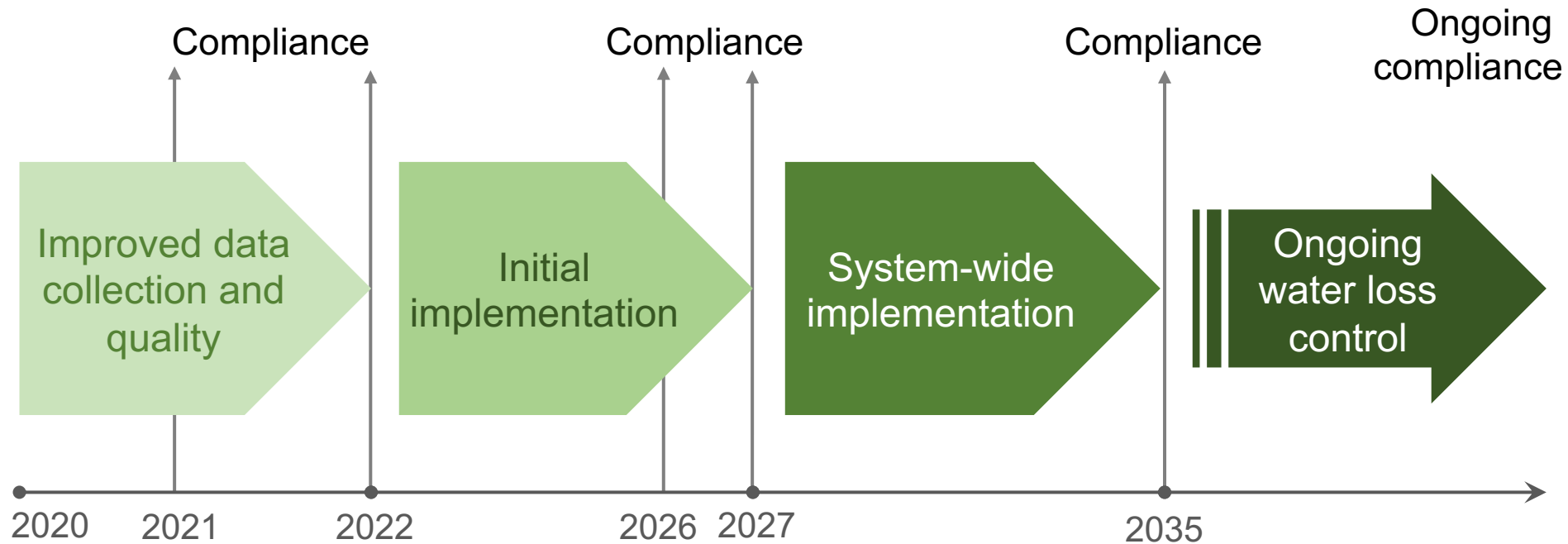
Intervention Toolbox



Steps towards Water Loss Control



Performance Standards: Phased Approach

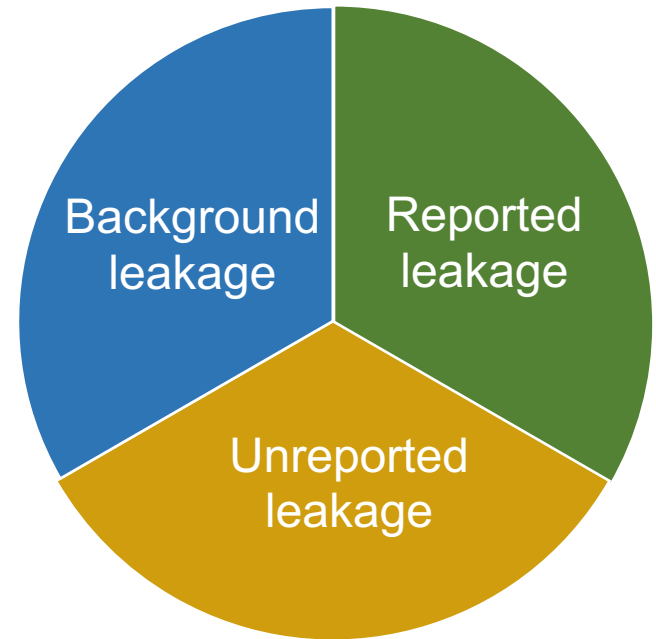


Phase 1

Improved data collection and quality 2020 - 2022

- Achieve requirements based on 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

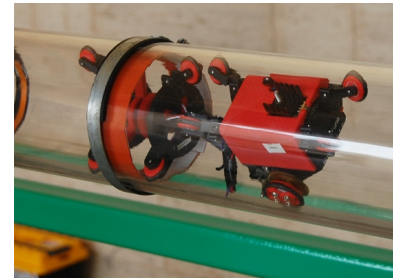
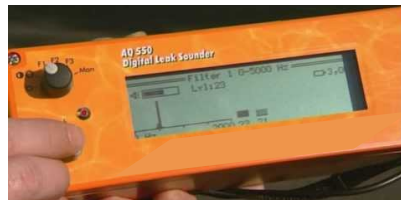
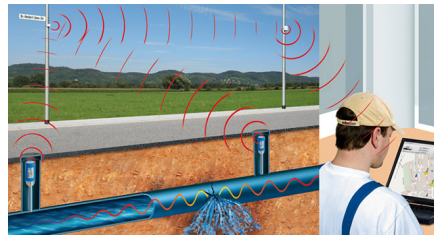
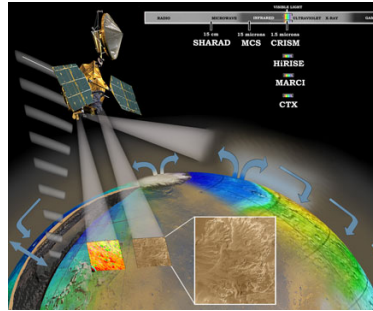
<http://www.waterrf.org/resources/Pages/PublicWebTools-Detail.aspx?ItemID=27>



Phase 2

Initial Implementation

2023 - 2027



Allowable water loss volume

Phase 2

Initial Implementation

2023 - 2027

- Two submissions of the Leakage Component Analysis
- Field observations \longleftrightarrow Component Analysis
- Any two years from 2023 to 2026
- To be submitted by December 2026



Phase 3

System-wide Implementation 2028 - 2035



Planned
implementation
for real loss
reduction



Interventions
with large
implementation
periods



Cost-effectively
achievable
long-term
standards

Achieve allowable water loss volume

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

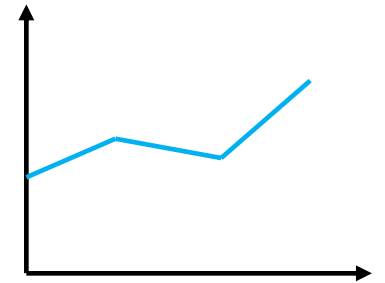
Need for Adjustments



New data

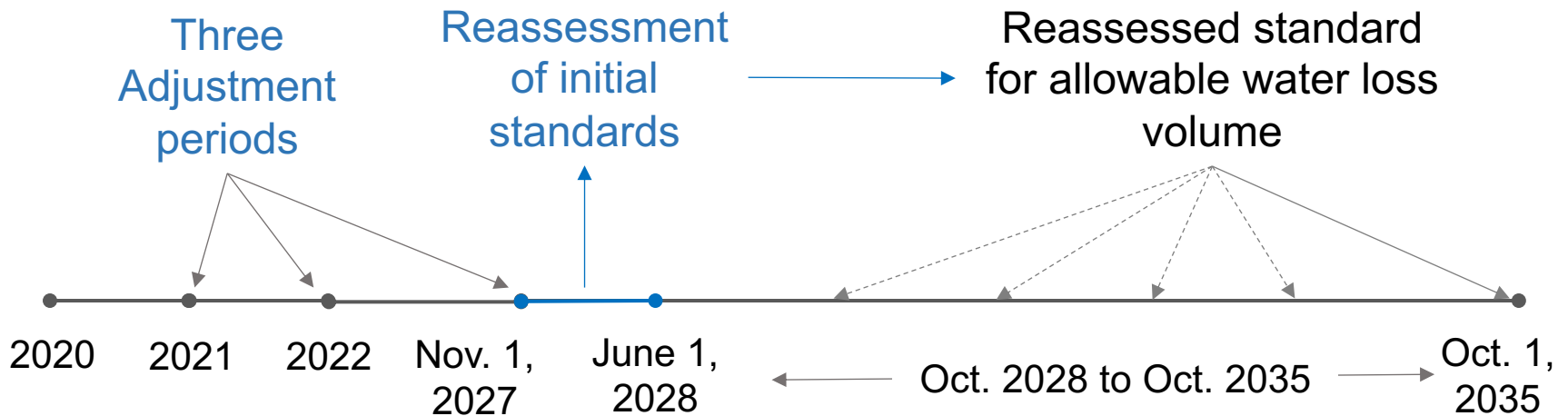


Results from field
implementations

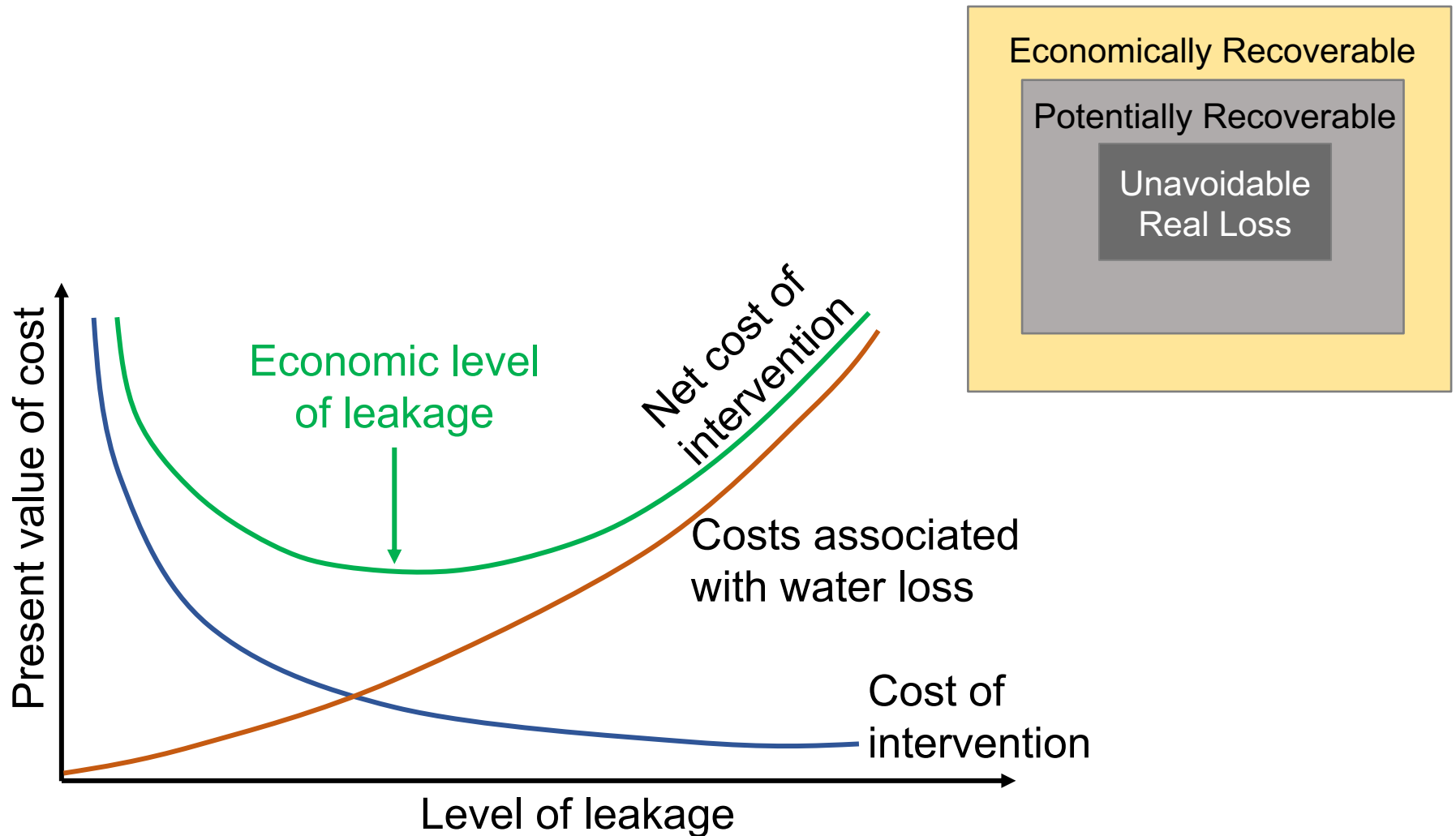


Data variability

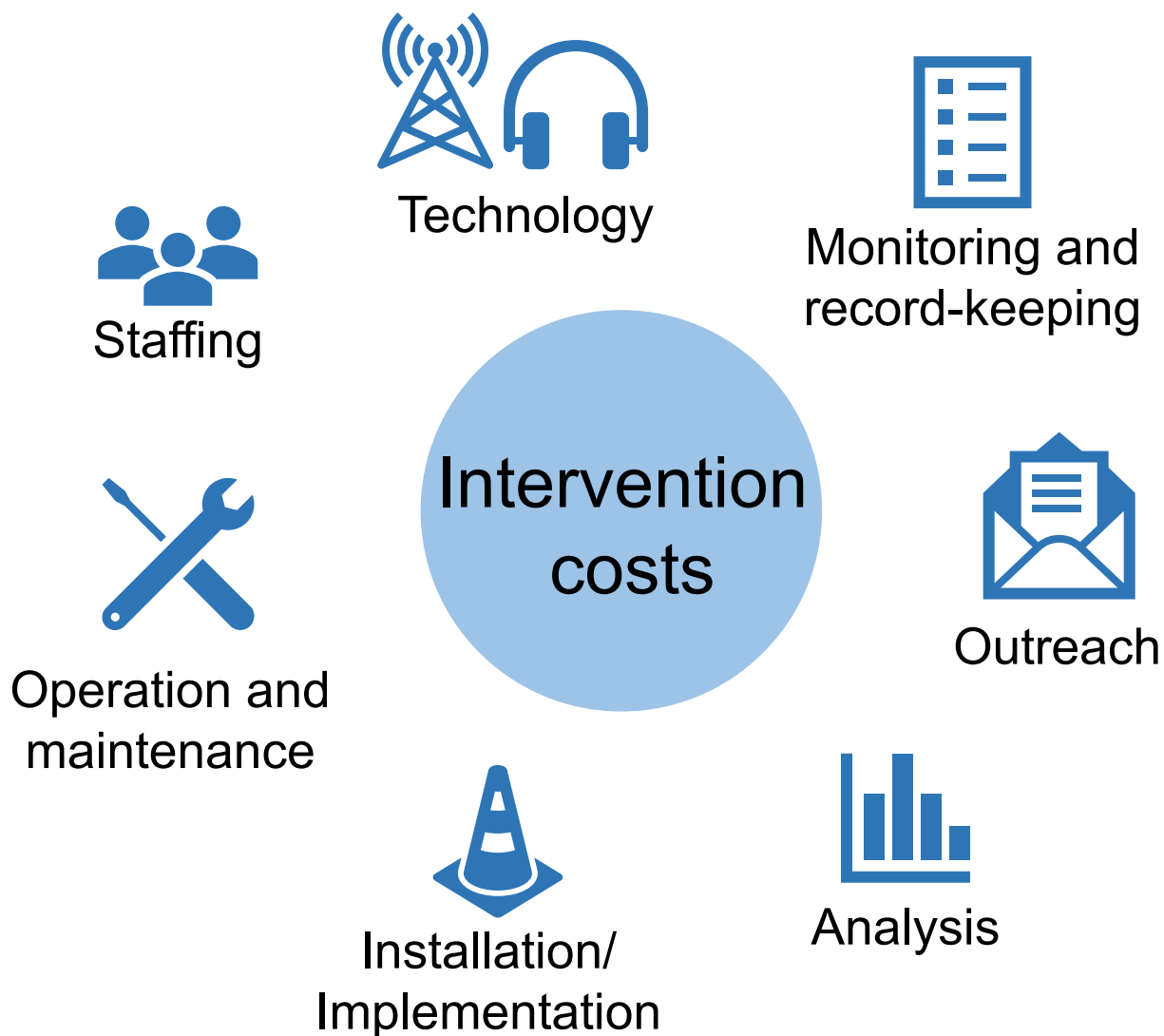
Adjustments



Economic Level of Leakage

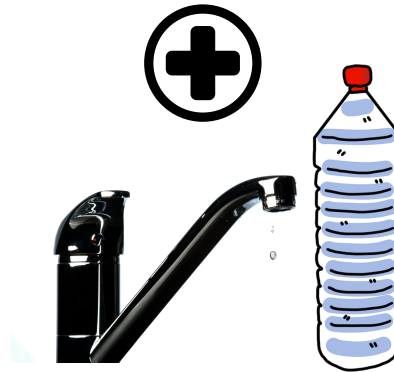


Cost of Compliance



Benefits from Compliance

Avoided costs of water, outages and damages

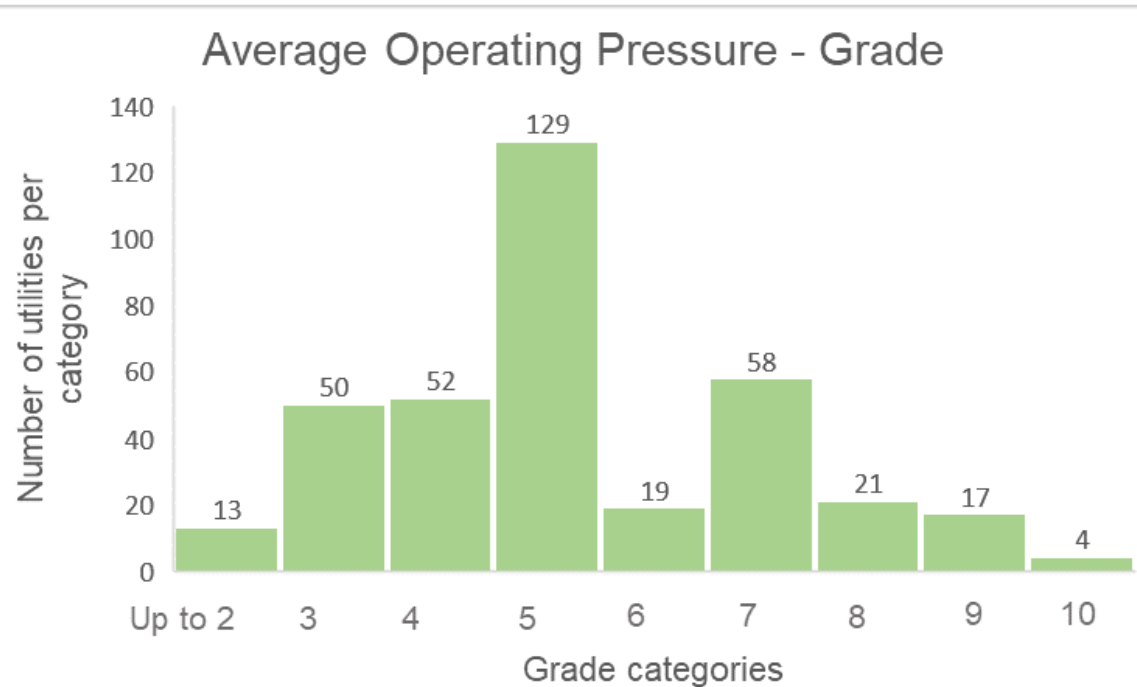


Public Stakeholder Workshops

- Data quality and focus areas
Sacramento, March 2018
- Water loss intervention toolbox
Los Angeles, June 2018
- Life cycle and avoided costs and water loss control programs
Oakland, September 2018
- Staff proposal for framework for water loss standards
Sacramento and Chino, February 2019
- Economic framework for developing water loss standards
Sacramento, June 7, 2019

Background slides

2016 - 17



2017 - 18

