



Overview of Framework: Performance Standards for Water Loss

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State Water Resources Control Board

February, 2019

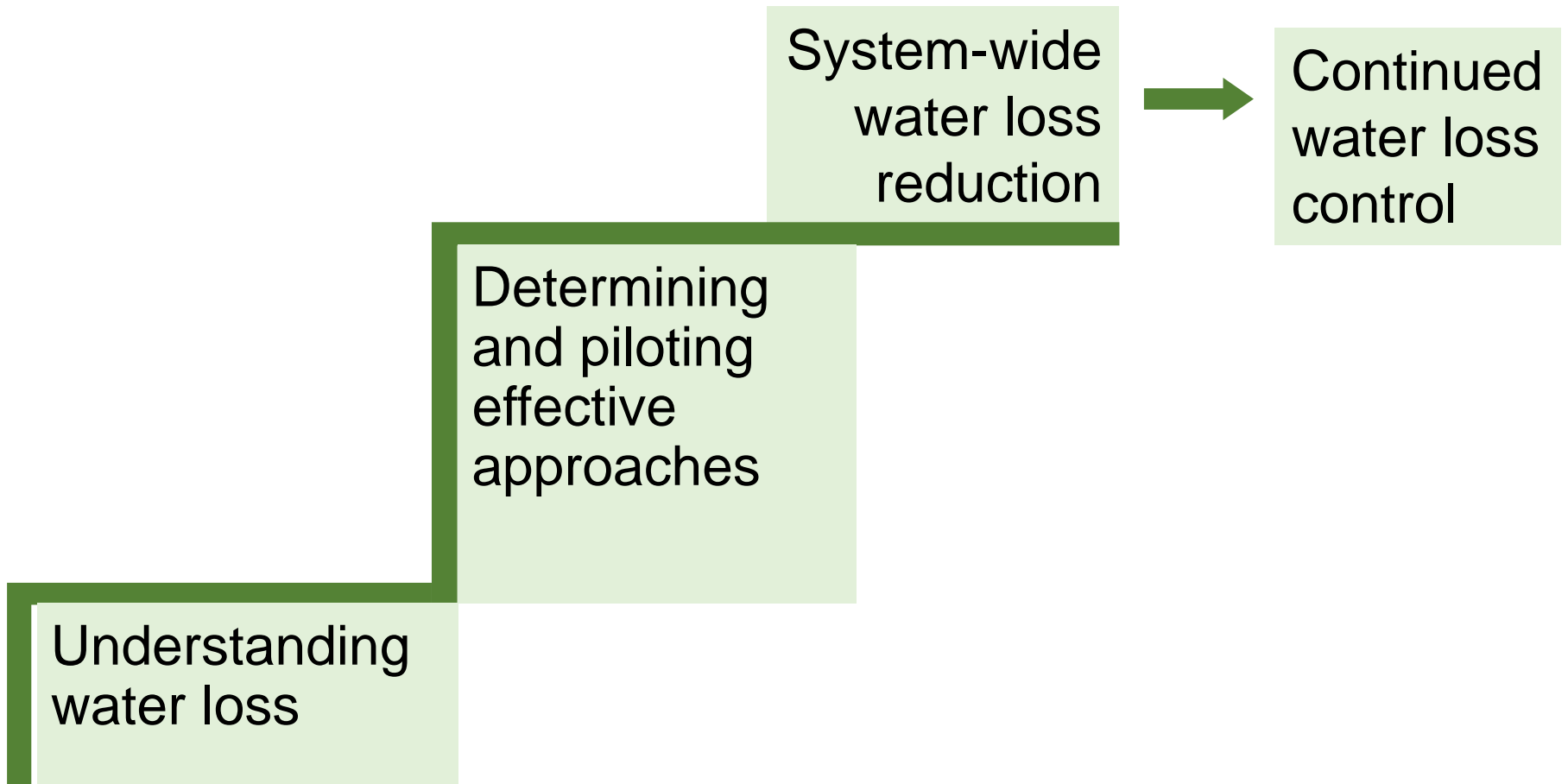
Who, What, When, Where, Why, and How

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

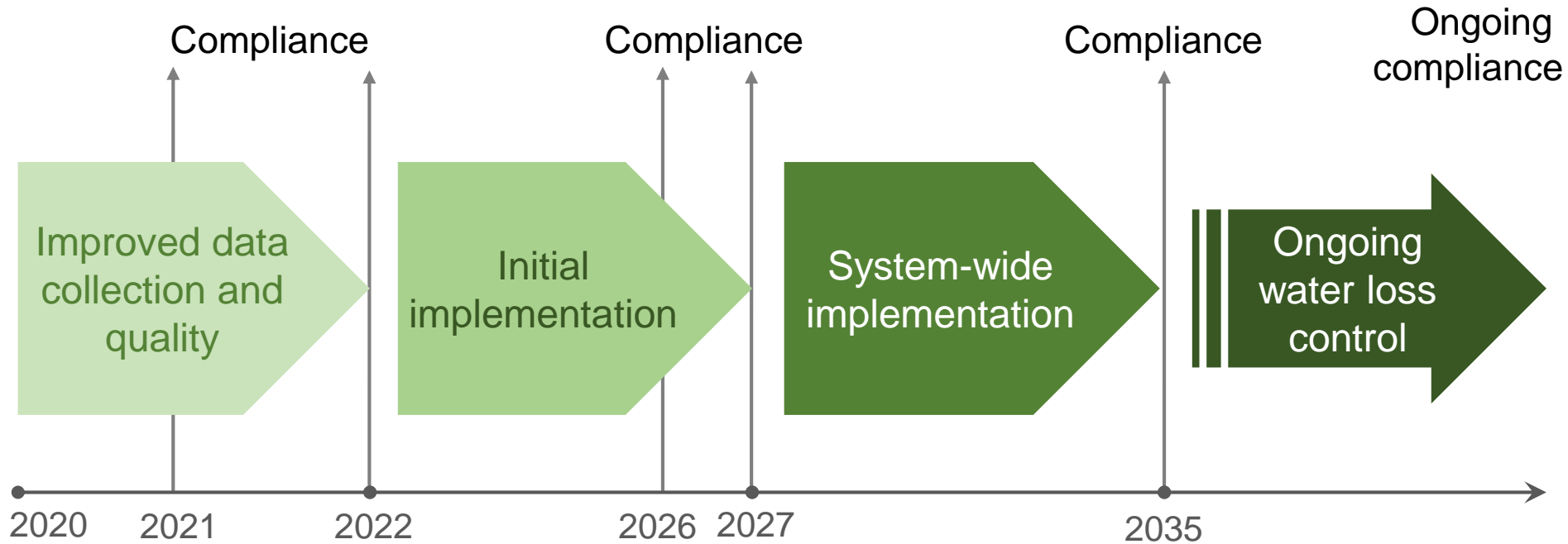
Goals and Challenges

- 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



Performance Standards: Phased Approach

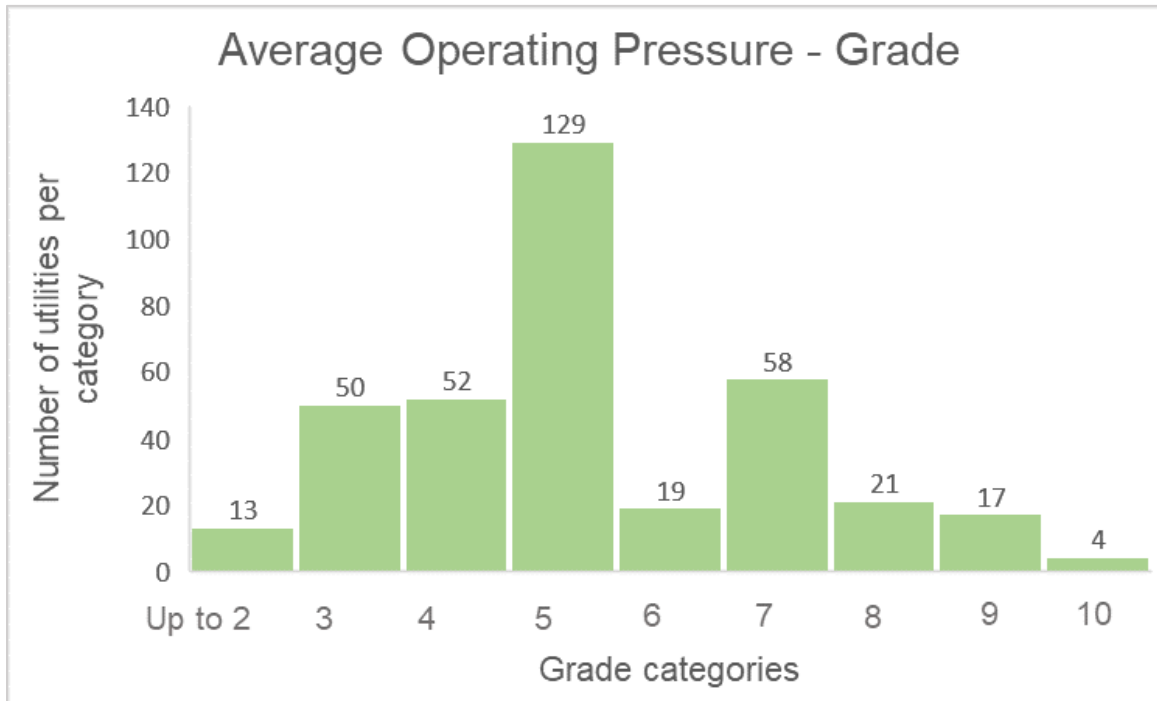


Phase 1

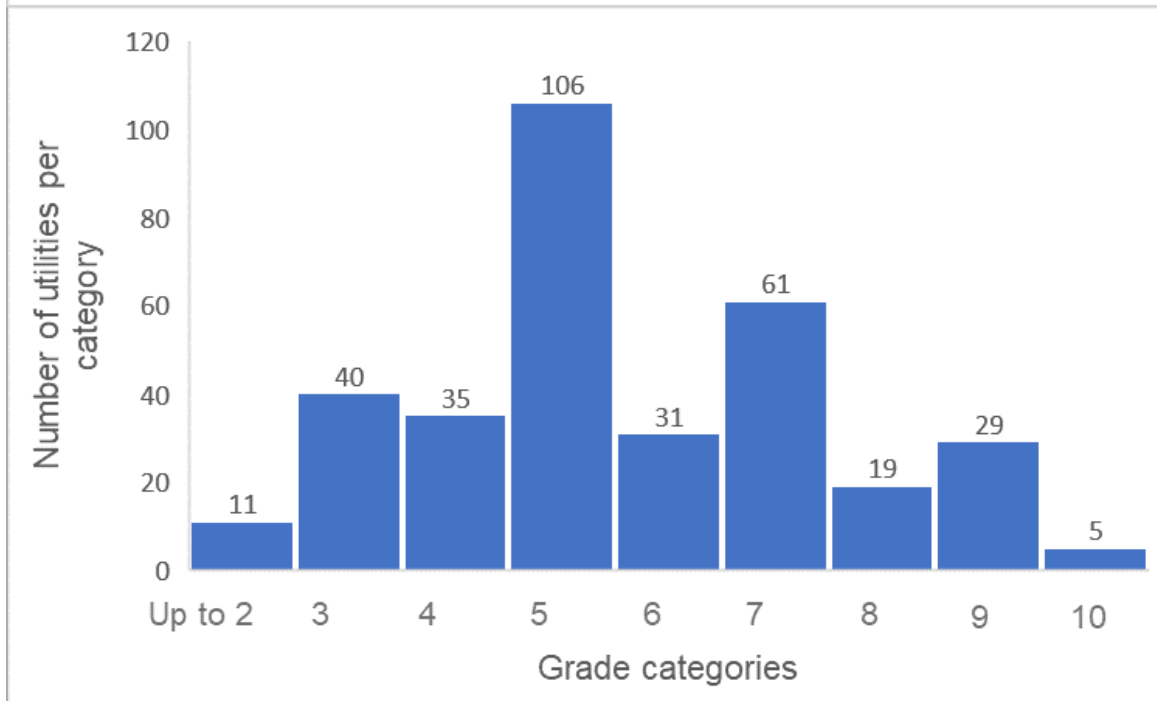
Improved data collection and quality 2020 - 2022

- 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

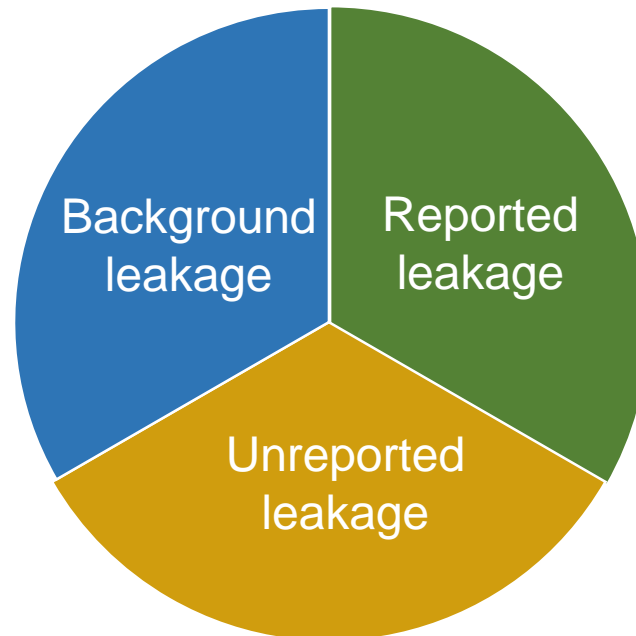
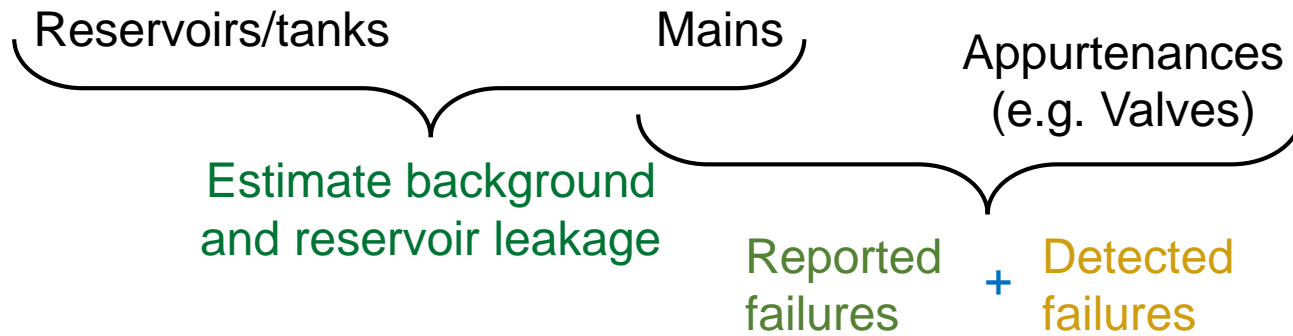
2016 - 17



2017 - 18



Leakage Component Analysis Tool (Water Research Foundation)



Phase 2

Initial Implementation

2023 - 2027

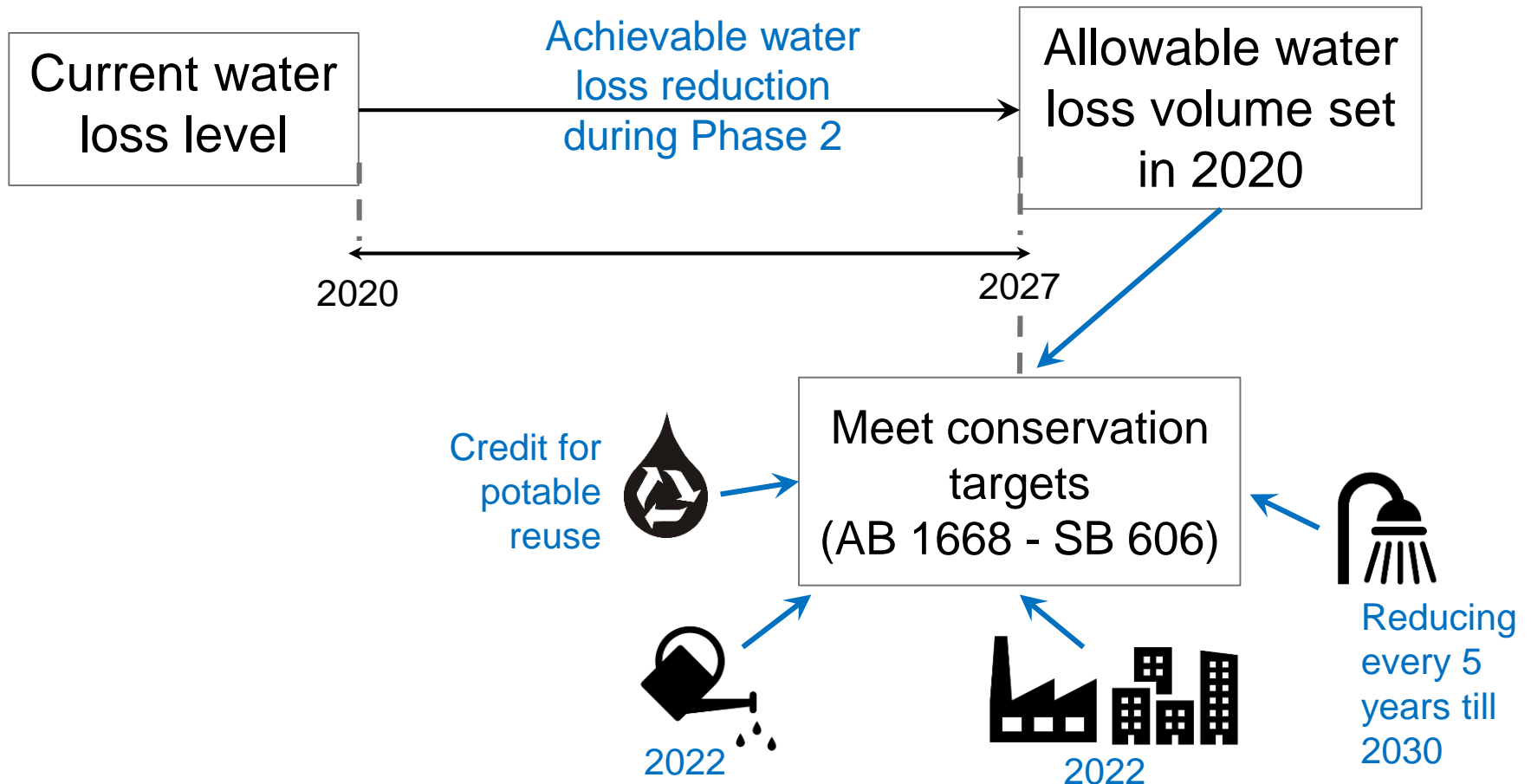
- Two submissions of the Leakage Component Analysis
- Field observations \longleftrightarrow Component Analysis
- Any two years from 2023 to 2026
- To be submitted by December 2026



Phase 2

Initial Implementation

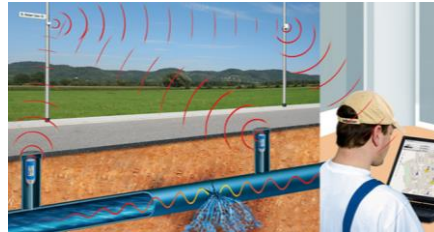
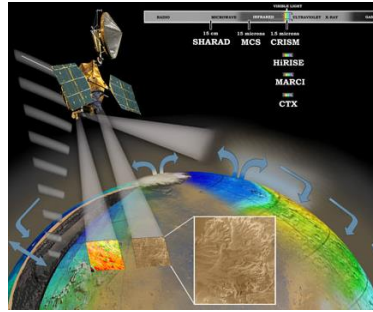
2023 - 2027



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

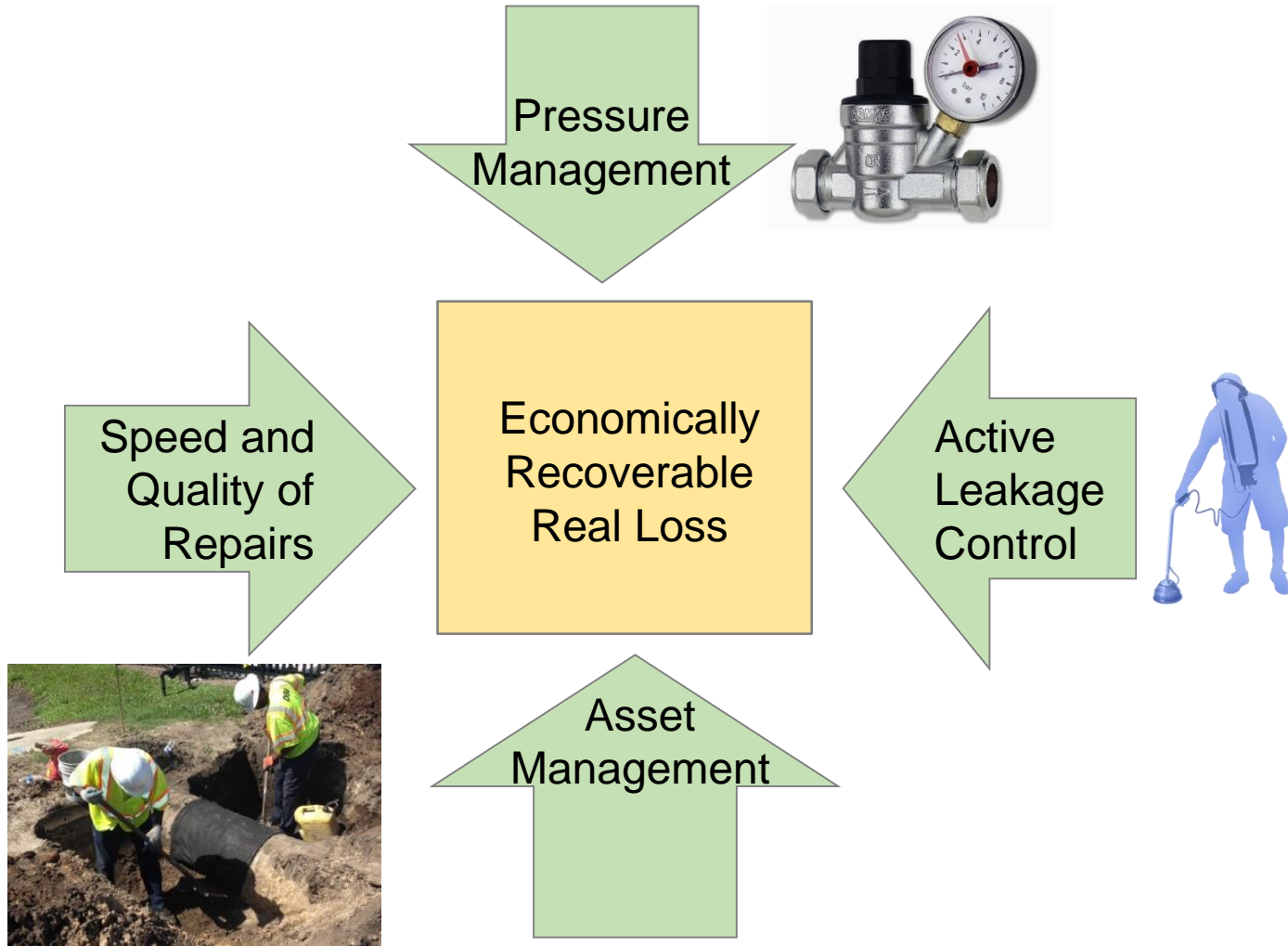
- Allowance for exceptional system or operational conditions
- Allowance for water loss variability from year to year
- Incorporate new data in 2027

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



SB 134

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