

What's going on with Water Loss?

December 2020



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA



Overview-CA Water Loss Regulations

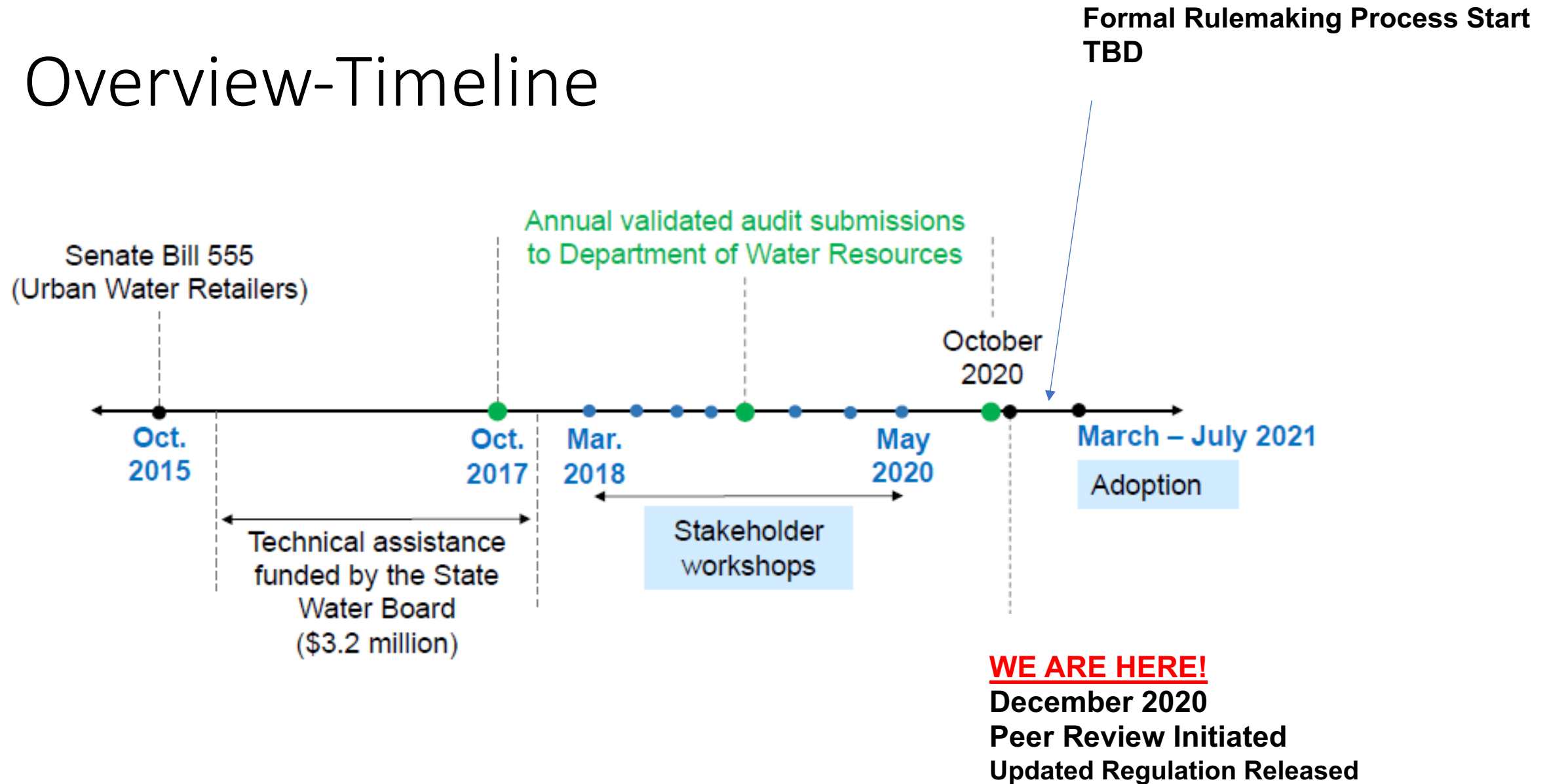
- Senate Bill 555
 - Validated AWWA Water Loss Audits
 - 2028 Water Loss Performance Standard
- Senate Bill 606/Assembly Bill 1668
 - Water Loss is part of each supplier's water budget
- Reporting
 - Starts in 2024 for 606/1668
 - Enforcement begins in 2024, fines in 2027
 - Already started for 555
 - Validated AWWA Water Loss Audits with 2017 audits



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Overview-Timeline



Overview-Peer Review Process

- 3rd Party Review initiated by SWB staff, managed by UC Berkeley
- 90-day process
- Results to be publicly available with SWB staff responses to comments
- What's covered in the review?
 - Economic model structure
 - Benefit-cost calculation and assessment
 - Leak detection and repair costs
 - Avoided cost of water
 - Rise in price of water
 - Discount rate
 - Lifecycle time horizon
 - Projection of costs and benefits across lifecycle time horizon
 - Correlation of water loss reduction with unreported leakage
 - Default system-specific inputs
 - Reported, unreported and background leaks Detectable v/s Undetectable
 - Infrastructure Condition Factor
 - Estimated leak detection frequency (not prescriptive)
 - Rate of rise of leakage
 - Leak detection efficiency

Overview-SB 555 Water Loss Regulation

- Economic Model produces supplier specific targets
- Questionnaires
 - Apparent Loss (meter testing/data quality)
 - Pressure Management
 - Asset Management (pipe/infrastructure replacement)
- Off ramps for low loss/high data quality agencies
- Adjustments until 2023
- Variances for certain circumstances
- Compliance Range starts in 2028
 - 5 gallons per connection per day
 - Use 2026 and 2027 audit data



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Economic Model and Performance Standards

- Economic model=supplier-specific 2028 Performance Standard
- Performance Standard=level of loss to meet by 2028 and maintain over time.
- Performance standards provided by the SWB are based on default input data.
Each supplier should run the model with their own data.
- Supplier input data changes must provide documentation to SWB.
- Supplier data includes leak rates, repair costs, etc.
- Updated model version has changes to inputs, outputs, default value of inputs, references and equations. “Structure” remains the same.
- Bottomline: Economic model is complex. First time looking at it?!? There is a guidance document.



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Regulation Context/Policy

Added flexibility in proposed regulation

Adjustments

- Opportunity for new data form implementation
- Additional year to adjust standard
- Process in July 2023

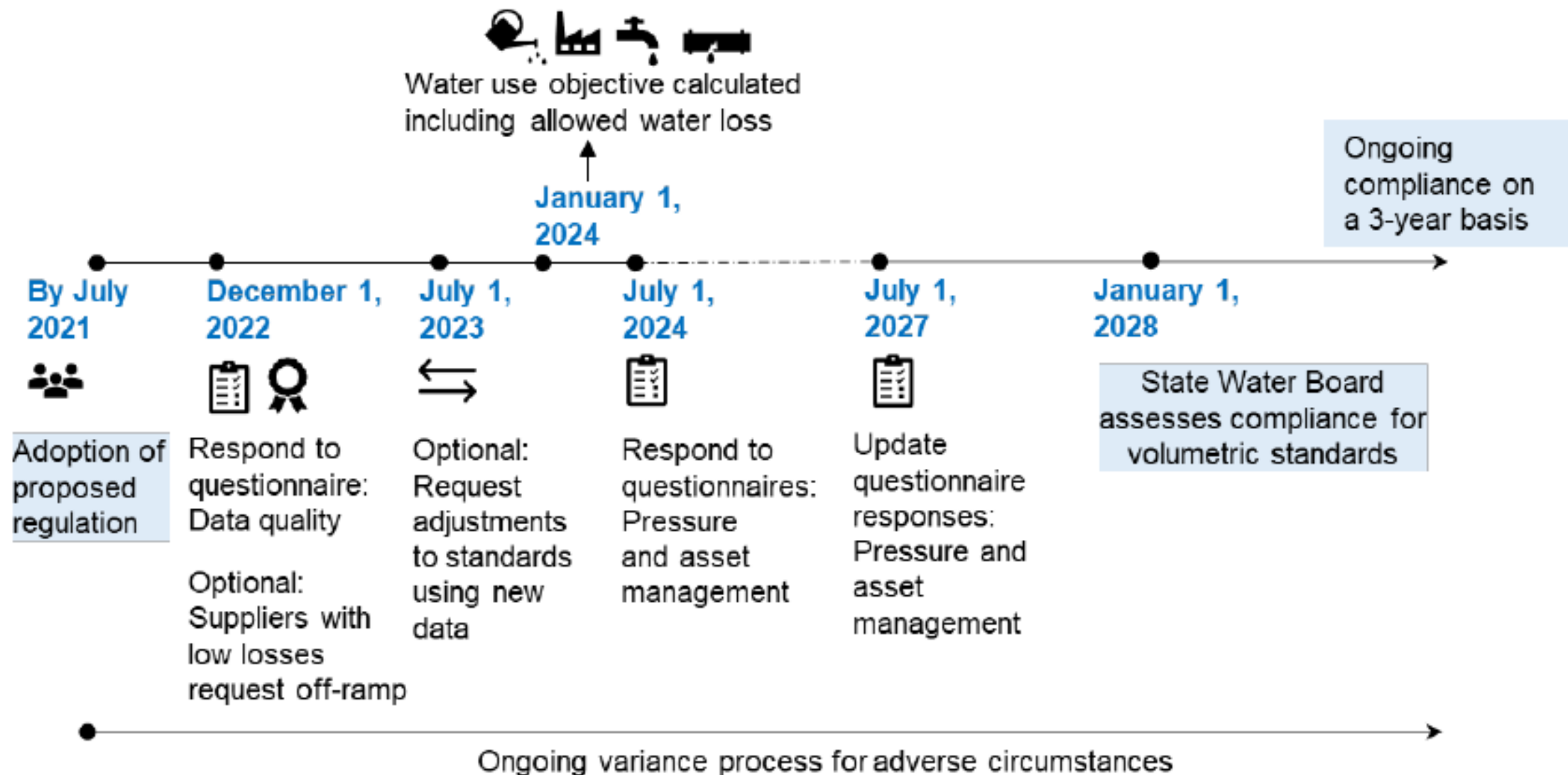
Baseline water loss and compliance

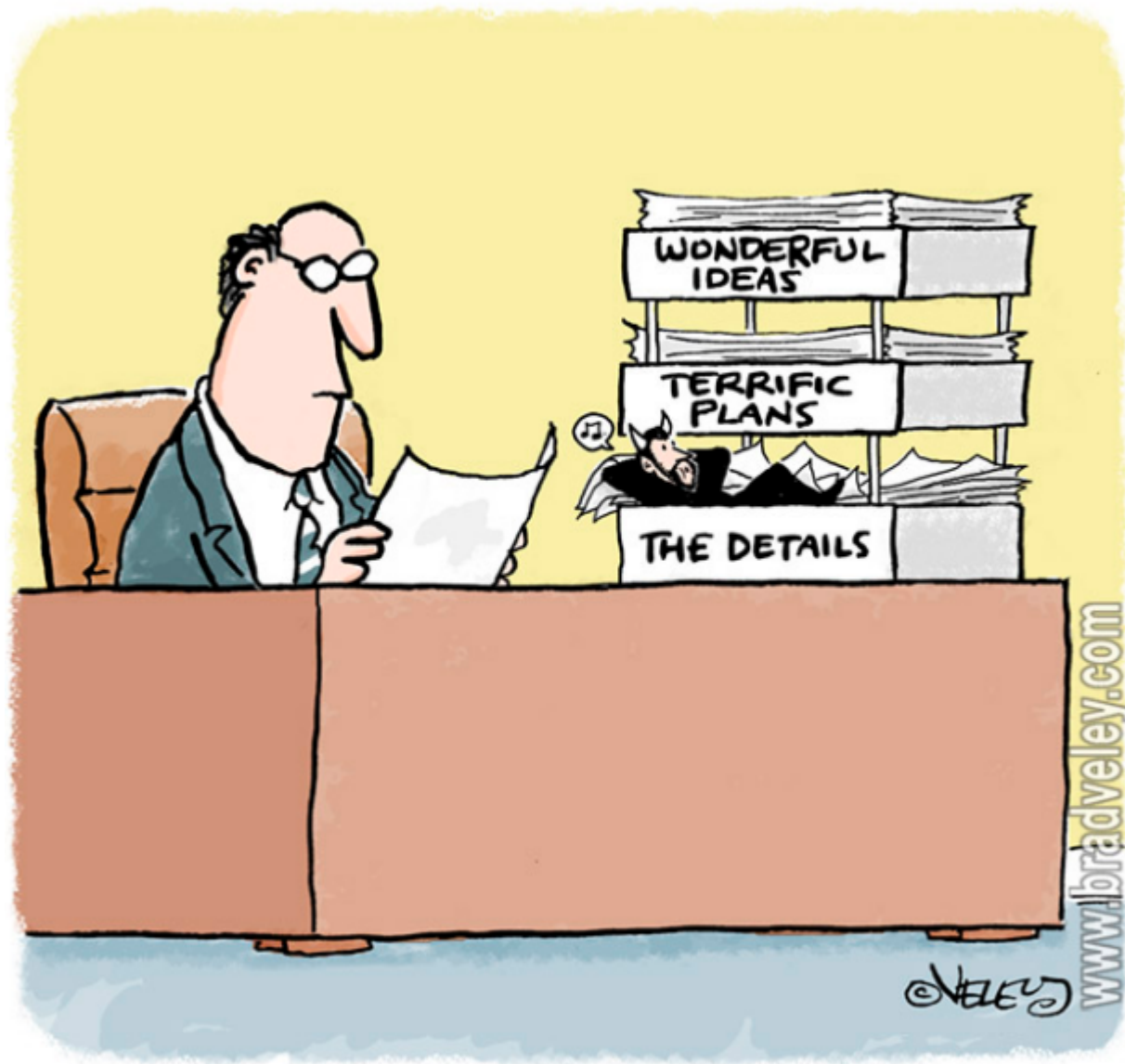
- One outlier year in baseline water loss
 - 2017 through 2020 audits
- Can assess compliance in 2028 based on 2026 or 2027 audit

Offramp for suppliers with high data quality and low loss

- Maintain current water loss
- No responses to questionnaires required
- Proposed loss threshold: 16 gallons per connection per day or 1184 gallons per mile

Proposed Regulation





- Draft materials are available for review
www.waterboards.ca.gov/water_issues/programs/conservation_portal/water_loss_control.html
- Encourage every supplier to enter their agency specific data into the model.
- ...And now on to the Panel featuring the controversial statements!