

# **State Water Board, Division of Drinking Water**

## **May 10, 2019**

### **Needs Assessment Workshop #3**

### **Cost Analysis**

Agenda for today's workshop can be found at:

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/needs.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs.html)

Email comments will be accepted during the workshop at:

[auditorium@calepa.ca.gov](mailto:auditorium@calepa.ca.gov)

Email comments will be accepted after the workshop at:

[michelle.frederick@waterboards.ca.gov](mailto:michelle.frederick@waterboards.ca.gov)

Slides will be available 5-days after the event at:

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/needs.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs.html)

# Drinking Water Needs Assessment Workshop #3 Cost Analysis

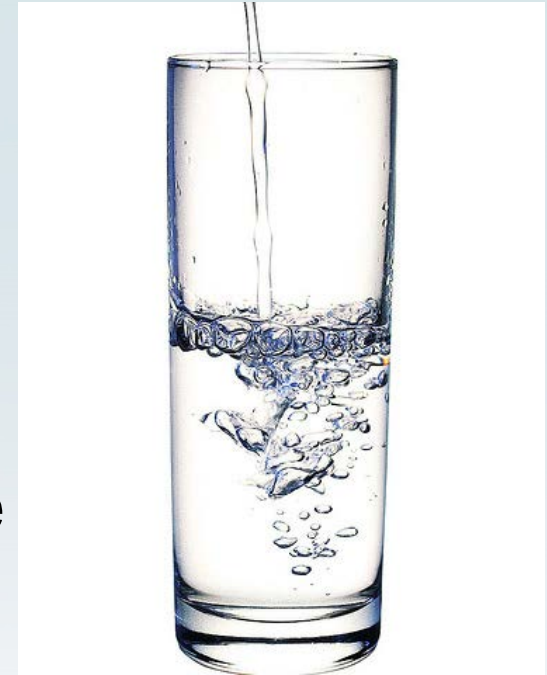
Darrin Polhemus, P.E.  
Deputy Director—Division of Drinking Water  
State Water Resources Control Board



# Needs Assessment Background

## Budget Act of 2018:

- Appropriated \$3,000,000 for needs analysis of drinking water systems
- Funds must be encumbered by June 2020 and liquated by June 2021



# Needs Analysis

Workshop One:

*January 11, 2019*

Public water systems, serving  
more than 15 connections

Workshop Two:

*January 18, 2019*

Domestic wells, 1 to 4 connections  
State smalls, 5 to 14 connections

Workshop Three:

*May 10, 2019*

Costs to bring drinking water to standards of  
Human Right to Water and sustainability



# Workshop Agenda

## Morning

- Consider historic cost calculations
- Previous and current needs assessments

## Afternoon

- Activities/research to understand or decrease costs
- Disposal costs and considerations
- Share understanding on solution limitations
- Open discussion on best approaches



# National Issue

## Drinking Water Costs and Sustainability

### America's Water Infrastructure Act of 2018



**NJ SPOTLIGHT**  
NEWS, ISSUES AND INSIGHT FOR NEW JERSEY

BUDGET EDUCATION ENERGY & ENVIRONMENT HEALTHCARE

MORE ISSUES ROUNDTABLES WATER IMMIGRATION PODCASTS SPONSORS

### ENERGY & ENVIRONMENT

ARTICLE COMMENTS

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#### LAW ON DRINKING WATER INFRASTRUCTURE REQUIRES UPGRADES OF LEAKING SYSTEMS

JON HURDLE | AUGUST 8, 2017

Measure mostly targets smaller, publicly owned utilities that may have to scramble to find the money to implement asset-management plans, cybersecurity



A new state law on drinking water infrastructure lays the groundwork for the renewal of some leaky networks of pipes and pumps, typically operated by small, publicly owned utilities. But it leaves unanswered questions about how upgrades will be paid for, and how the new requirements will be enforced, industry observers said.

The Water Quality Accountability Act requires operators of all water systems to implement asset-management plans to inspect, maintain, repair, and renew drinking water systems to comply with water

## Asset Management Webinar Series 2017



In preparation for Ohio EPA's proposed requirement for all PWSs in Ohio to develop an Asset Management Program, RCAP is pleased to present this series to provide a background on better understanding Asset Management

- Friday September 8th**  
10:00-11:00 a.m.  
**Completing an Asset Inventory**  
This first webinar of the series, will cover the basics of asset inventory - where to look for and find the data needed to complete an inventory of your water utility assets. [Click Here To Register](#)
- Friday September 15th**  
10:00-11:00 a.m.  
**Completing a Condition Assessment**  
This webinar, second in the series, covers methods used to evaluate and rate the condition of your water utility assets. [Click Here To Register](#)
- Friday September 22nd**  
10:00-11:00 a.m.  
**Completing a Capital Improvement Plan**  
This webinar, third in the series, explains the basics of developing and maintaining a Capital Improvement Plan. Proactive planning rather than reactive planning will be discussed. [Click Here To Register](#)
- Completing a Preventative and Predictive Maintenance Plan**

# Needs Assessment Conceptual Plan

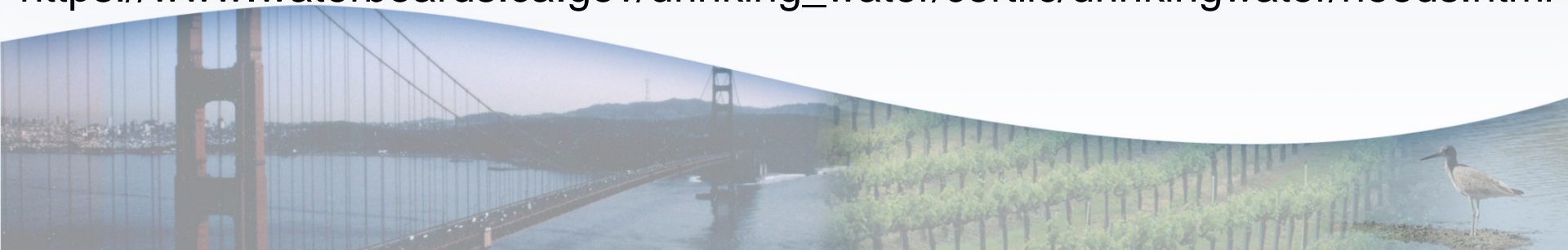
## Drinking Water Needs Assessment

The State Water Board received [funding authorization](#) to perform a Needs Analysis regarding the state of California's drinking water. The [webpage](#) is a repository of event notices, presentations, webcast recordings, and other reference materials related to this assessment: public water systems, domestic wells, and cost analysis.

## Public Process

- [Overall Needs Analysis Conceptual Plan, May 2019](#)
- [Notice of January 2019 workshops](#)
- [Notice of May 10, 2019 Workshop](#)

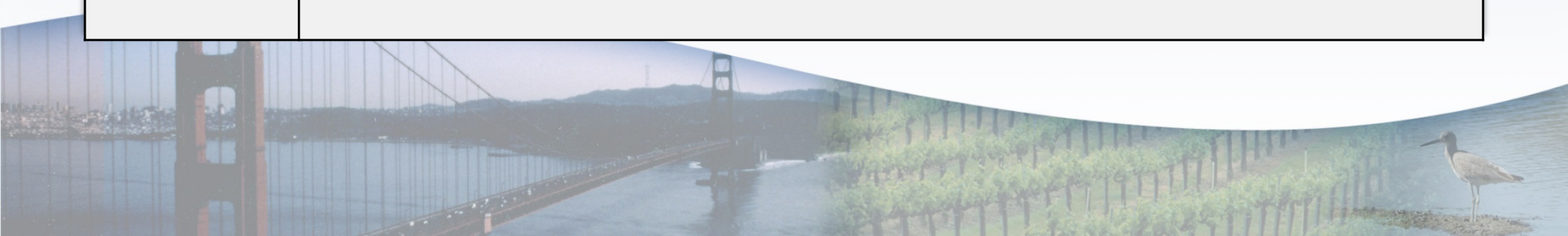
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# Task: Perform a Needs Analysis of Drinking Water Systems

## Conceptual Plan

Element	Task
1	Identifying Public Water Systems (PWS) in Violation or At-Risk
2	Identifying State Small Water Systems (SSWS) & Domestic Well Clusters At-Risk
3	Cost Analysis for Water Systems in Violation or At-Risk





# Element 1: Identifying Public Water Systems in Violation and At-Risk

- Violations Lists for CWS<sup>1</sup> and NTNC<sup>2</sup>
- Risk Assessment for CWS<sup>1</sup> and NTNC<sup>2</sup> not in violation (*see table*)

Size – (Connections)	Risk Analysis Type
1 - 3,300	<ol style="list-style-type: none"><li>1. Detailed assessment based on screening criteria &amp; TMF capacity</li><li>2. Financial capacity dashboards for At-Risk PWS and those between 500 to 3,300 connections</li></ol>
3,301 - 10,000	Comparison of rates with community ability to pay
> 10,000	No additional assessments

<sup>1</sup>community water system, <sup>2</sup>non-transient non-community water system

## Element 2: Identifying State Small Water Systems and Domestic Well Clusters At-Risk

- State Small Water Systems information collection from counties via collaboration with Water Foundation
- Development of state-wide review of domestic wells on a one-mile grid:
  - Using current research data
  - Identifying clusters above common maximum contaminant levels and proximity to public water systems
  - Additional review in Salinas and San Joaquin



# Element 3: Cost Analysis

- Create methodology and unit costs
- Develop Emergency Interim Solutions for water systems with violations, and State Small Water Systems and Domestic Well Clusters that serve Disadvantaged Communities
- Develop Long-term solutions/models for:
  - Public water systems with existing violations
  - At-risk systems, state smalls and domestic well clusters where consolidations is viable
  - At-risk systems, state smalls and domestic well clusters where consolidations is not viable
- Evaluate existing funding options, community ability to pay and needed additional funding sources



# Affordability

Needs Assessment is focused on the system costs, finding the most:

1. sustainable solution and
2. cost-effective system solution long-term

Sustainable and cost-effective long-term system solutions will result in better affordability for all. The State Water Board recognizes that there will still be a need to address household affordability for low-income residents.



# Methodology for Costing

## Board questions:

- How long should the costing efforts consider for the best solution – 20 years, 30 years, etc.?
- How far is reasonable for consolidation?
- How do we deal with political boundaries?
- How do we account for details that impact each water system and domestic wells?
- Benefits/challenges of cost modeling software?

