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

Email comments will be accepted during the workshop at:
auditorium@calepa.ca.gov

Email comments will be accepted after the workshop at:
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
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

<table>
<thead>
<tr>
<th>Workshop One:</th>
<th>Public water systems, serving more than 15 connections</th>
</tr>
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<tbody>
<tr>
<td><strong>January 11, 2019</strong></td>
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<table>
<thead>
<tr>
<th>Workshop Two:</th>
<th>Domestic wells, 1 to 4 connections</th>
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<tr>
<td><strong>January 18, 2019</strong></td>
<td>State smalls, 5 to 14 connections</td>
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<tr>
<th>Workshop Three:</th>
<th>Costs to bring drinking water to standards of Human Right to Water and sustainability</th>
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<tr>
<td><strong>May 10, 2019</strong></td>
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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

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...
Needs Assessment Conceptual Plan

Drinking Water Needs Assessment

The State Water Board received funding authorization to perform a Needs Analysis regarding the state of drinking water in California. This 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

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/needs.html
Task: Perform a Needs Analysis of Drinking Water Systems

Conceptual Plan

<table>
<thead>
<tr>
<th>Element</th>
<th>Task</th>
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<tbody>
<tr>
<td>1</td>
<td>Identifying Public Water Systems (PWS) in Violation or At-Risk</td>
</tr>
<tr>
<td>2</td>
<td>Identifying State Small Water Systems (SSWS) &amp; Domestic Well Clusters At-Risk</td>
</tr>
<tr>
<td>3</td>
<td>Cost Analysis for Water Systems in Violation or At-Risk</td>
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</table>
Element 1: Identifying Public Water Systems in Violation and At-Risk

- Violations Lists for CWS¹ and NTNC²
- Risk Assessment for CWS¹ and NTNC² not in violation (see table)

<table>
<thead>
<tr>
<th>Size – (Connections)</th>
<th>Risk Analysis Type</th>
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<tr>
<td>1 - 3,300</td>
<td>1. Detailed assessment based on screening criteria &amp; TMF capacity</td>
</tr>
<tr>
<td></td>
<td>2. Financial capacity dashboards for At-Risk PWS and those between 500 to 3,300 connections</td>
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<tr>
<td>3,301 - 10,000</td>
<td>Comparison of rates with community ability to pay</td>
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<tr>
<td>&gt; 10,000</td>
<td>No additional assessments</td>
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¹community water system, ²non-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?