

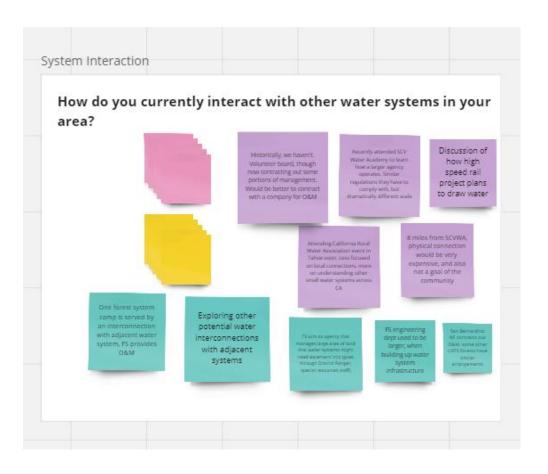


WaterTalks: Water Systems Partnerships Workshop 1



- Held April 4, 2023
 - Identified shared challenges and strengths among smaller water systems in the Santa Clara River Watershed
 - Partnership efforts so far
 - Opportunities for increased collaboration





SENATE BILL 552 (2021) DROUGHT PLANNING FOR SMALL WATER SUPPLIERS

Slides adapted from California Department of Water Resources presentation, courtesy of Julia Ekstrom



Mike Antos, Principal Stantec WaterTalks Small Water System Partnership Workshop September 26, 2023

Drought impacts

Many small systems...

- Found their wells going dry
- Found naturally occurring contaminants became more concentrated with lower well levels
- Faced unexpected costs ("rate shocks" for customers) for purchase of water, additional pumping and rehabilitation of wells
- Turned to bottle water or potable water delivered by trucks
- Unprepared for the drought and did not know what to do or who to call for help



Where did SB 552 come from?

- 2012-2016 Drought → AB 1668
- DWR hosted process focused on small water suppliers and rural communities (County Drought Advisory Group, CDAG)
 - Vulnerability Scoring and Tool
 - Develop recommendations on how to cover them with water shortage contingency plans

CDAG Recommendations informed SB 552

Small Water Systems and Rural Communities
Drought and Water Shortage Contingency Planning
and Risk Assessment

Part 1 – Recommendations for Drought and Water Shortage Contingency Plans

REPORT PURSUANT TO
SECTION 10609.42 OF THE CALIFORNIA WATER CODE
March 2021





State Lead Agencies

Department of Water Resources – California Natural Resources Agency

- Water shortage contingency plan template
- Water shortage vulnerability tool
- Interagency drought and water shortage task force
 - Drought Resilience Interagency and Partners Collaborative (DRIP Collaborative)

State Water Board – Cal Environmental Protection Agency

- Water shortage contingency plan template
- Technical Assistance < 1,000 connections
- Water supply and program reporting
- TA for counties to address <15 connections and domestic wells

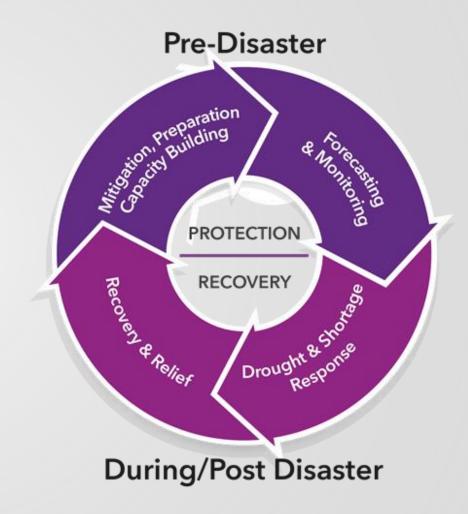




Purpose of SB 552 for Small Water Suppliers

The Legislative requirements serve as a starting point for drought and shortage planning

- Improve small water system preparedness in addressing shortage/drought conditions
- Consider locally relevant conditions and County concerns related to water shortage impacts
- Inform the state of additional measures and support assistance that will be needed





Disaster Risk Management Framework

SB 552 (2021): New Requirements

Small Water Suppliers*

- 1,000-2,999 connections + schools: Water shortage contingency plan
- 15-999 connections: Drought assessment/element into Emergency Response or Emergency Notification Plan
- All Small Suppliers: Supply and demand reporting
- All Small Suppliers: Drought resiliency standards infrastructure upgrades

Counties

- Create a standing Drought & Water Shortage Task Force for state smalls and domestic wells (or similar alternative)
- Develop Water Shortage Plan (and assessment) for state smalls and domestic wells in the county (or similar alternative)

State

- Water Shortage Vulnerability Tool (small suppliers, state small systems, domestic wells)
- Establish Standing Interagency Drought & Water Shortage Task Force (with local government and stakeholder membership)



? Zoom Poll 1

 How many service connections do you serve water to?



? Zoom Poll 2

 "I better understand which SB 552 requirements apply to me"



Summary of requirements for small water suppliers

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Drought Resiliency Measures

Implement drought resiliency measures, subject to funding availability:

- a) Detect production well groundwater levels Jan 1, 2023
- b) Mutual aid organization membership Jan 1, 2023
- c) Continuous operation during power failures Jan 1, 2024
- d) Backup source of water supply or a water system intertie Jan 1, 2027
- e) Meter each service connection and monitor water loss Jan 1, 2032
- f) Meet fire flow requirements Jan 1,2032



Drought Resiliency Measures

Implement monitoring systems sufficient to detect production well groundwater levels

Target due date: Jan 1, 2023





Drought Resiliency Measures: Maintain **membership** in a mutual aid organization like California Water/Wastewater Agency Response Network (CalWARN)

Target due date: Jan 1, 2023

What is mutual aid?

- Process for sharing emergency resources (such as equipment, supplies, and personnel) among network agencies
- CalMutuals provides <u>instructions</u> with easy steps to register with CalWARN
- CalWARN membership is free, has over 600 member agencies





Articles of Agreement California Water/Wastewater Agency Response Network WARN 2007 Omnibus Mutual Assistance Agreement

5 This AGREEMENT is made and entered into by those water and wastewater utilities which have adopted and signed this agreement to provide mutual assistance in times of emergency in accordance with the California Emergency Services Act and the California Disaster and Civil Defense Master Mutual Aid Agreement; and to provide reimbursement for equipment, supplies and personnel made available on an emergency basis.

All of said water and wastewater utilities being herein referred to collectively as "the parties

In consideration of the mutual covenants and agreements hereinafter set forth, the parties agree to provide mutual assistance to one another in times of emergency as follows:

ARTICLE PURPOS

Recognizing that emergencies may require assistance in the form of personnel, equipment, and supplies from outside the area of impact, the signatory utilities hereby establish an Intrastate Program for Mutual Aid and Assistance. Through the Mutual Aid and Assistance Program, Members coordinate response activities and sharar resources during emergencies. This Agreement sets forth the procedures and standards for the administration of the Intrastate Mutual Aid and Assistance Program and is available to all water and wastewater utilities, public and private, in the State of California.

ARTICLE II. DEFINITIONS

- A. Authorized Official An employee or officer of a Member who is authorized to: (1) request assistance; (2) offer assistance; (3) refuse to offer assistance or (4) withdraw assistance under this.
- B. Emergency A natural or human caused event or circumstance causing, or imminently threatening to cause impact to the operations of a member utility's system, loss of life, injury to person or property, human suffering or financial loss, and includes, but is not limited to, fire, flood, severe weather, earthquake, civil disturbance, riot, explosion, drought, volcanic activity, spills or releases of oil or hazardous material, contamination, utility or transportation emergencies, disease, blight, infestation, intentional acts, sabotage, declaration of war, or other conditions which is, or is likely to be beyond the control of the services, personnel, equipment, and facilities of a Member and requires mutual assistance.
- C. Member Any public or private water or wastewater utility that manifests intent to participate in the Mutual Aid and Assistance Program by executing this, the California Water/Wastewater Agency Response Network (CaliWARN) Agreement.
- D. Associate Member Any non utility participant, approved by the State Steering Committee that provides a support role for the WARN program, for example State Department of Public

CalWARN Mutual Aid/Asst Agreement

Approved and Adopted September 30, 2007 by Vote of Members

Drought Resiliency Measures: Ensure

continuous operations during power failures, provide adequate backup electrical supply.

- Target due date: Jan 1, 2024
- State Board offers financial assistance to qualifying water suppliers: <u>Backup</u>
 <u>Generator Funding Program</u>





Drought Resiliency

Measures: Have at least one backup source of water supply, or a water system intertie, that meets current water quality requirements and is sufficient to meet average daily demand.

Target due date: Jan 1, 2027







Drought Resiliency Measures: Meter each service connection and monitor water loss due to leakages.

Target due date: Jan 1, 2032





Drought Resiliency Measures: Have source system capacity, treatment system capacity if necessary, and distribution system capacity to **meet fire flow requirements** (Water Code §10609.62)

Target due date: Jan 1,2032

Fire flow requirements

The 2018 International Fire Code and the 2019 California Fire Code (Appendix B, Section B105) provides fire flow requirements (e.g., 1,000 gallons per minute for 2 hours)





Drought Resiliency Measures

Have you implemented drought resiliency measures?

Detect production well groundwater levels

Mutual aid organization membership

Continuous operation during power failures

Backup source of water supply or a water system intertie

Meter each service connection and monitor water loss

Meet fire flow requirements



Questions for Participants

What resources/ best practices have you used to implement drought resiliency measures?

Detect production well groundwater levels

Mutual aid organization membership

Continuous operation during power failures

Backup source of water supply or a water system intertie

Meter each service connection and monitor water loss

Meet fire flow requirements



Summary of requirements for small water suppliers

Table 1. Summary of Small Water Supplier Requirements for Implementation of Senate Bill 552

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Small Water Suppliers (1,000-2,999 connections)

Abridged Water Shortage Contingency Plan Elements

Target due date: July 1, 2023

Who to notify, who covers what

What to do and when

Drought Planning Contacts

One contact at the water system, local public safety partners and potential vendors, State and local agencies, Regional water planning groups or mutual aid networks

II. Triggering Mechanisms and Levels for Action

- Standard water shortage levels
- Water shortage mitigation, response, customer communications, enforcement, and relief actions that align with the water shortage levels



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Incorporating drought planning elements into your Emergency Notification Plans/ Emergency Response Plans

Suppliers with 15 to 999 connections

- Drought planning elements including
 - Drought-planning contacts
 - Standard water shortage levels
- Emergency Notification Plan (ENP) or Emergency Response Plan (ERP)
 - Must describe public notification process for when:
 - Primary drinking water standards are not complied with,
 - Monitoring requirement is not performed, or
 - The conditions of any variance or exemption are not complied with









Incorporating drought planning elements into Emergency Notification Plans/ Emergency Response Plans

- Water system serving > 3,300 people,
 - ERP must incorporate findings of a risk assessment
- State Water Board technical assistance to support water suppliers with < 1,000 connections
 - Subject to funding availability



WATER QUALITY EMERGENCY NOTIFICATION PLAN

This form is intended to assist the Division of Drinking Water (DDW) and the public water system in contacting responsible individuals in the event of an emergency affecting the water system operations.

ADMINISTRATIVE INFORMATION

Public Water System Name:	[Insert Water System Name]		
Public Water System Number:	[Insert Water System Number]		
Public Water System Type (CWS, NTNC, TNC):	[Insert Water System Classification]		
Public Water System Address/Location:	[Insert Water System Location Address]		

The following persons have been designated to implement the plan upon notification by the State Water Resources Control Board Division of Drinking Water that an imminent danger to the health of the water users exists:

Water Utility Contact Name and Title	Contact Type	Email Address	Daytime Telephone	Cell phone Number
[Insert Water Utility Number 1 Contact Name and Title]	Water Operator	[Insert Water Utility Number 1 Email Address]	[Insert Water Utility Number 1 Daytime telephone number]	[Insert Water Utility Number 1 Cell phone number]
[Insert Water Utility Number 2 Contact Name and Title]	Backup Water Operator (if applicable)	[Insert Water Utility Number 2 Email Address]	[[Insert Water Utility Number 2 Daytime telephone number]	[Insert Water Utility Number 2 Cell phone number]
[Insert Water Utility Number 3 Contact Name and Title]	Water Shortage Contingency Response (if different than operator)	[Insert Water Utility Number 3 Email Address]	[Insert Water Utility Number 3 Daytime telephone number]	[Insert Water Utility Number 3 Cell phone number]
[Insert Water Utility Number 4 Contact Name and Title]	Water Hauler ¹	[Insert Water Utility Number 4 Email Address]	[Insert Water Utility Number 4 Daytime telephone number]	[Insert Water Utility Number 4 Cell phone number]

¹ Use only licensed water haulers from the California Department of Public Health, see website below under "Licensed Water Haulers by County" – hit "cancel" when it requests a username and password:

https://www.cdph.ca.gov/Programs/CEH/DFDCS/pages/fdbprograms/foodsafetyprogram/water.aspx



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New Reporting Requirements

All small suppliers (15-2,999 connections)

- Quarterly reporting of water supply conditions, capacity and production information to State Water Board:
 - Supply conditions include:
 - An inventory and assessment of each water supply source
 - The reporting year's total water demand volume for each month, and average and peak flowrate demand for each month and annually
- Quarterly reporting of Water demand to State Water Board



New requirements for Counties

- Establish a standing drought task force
- Develop a County Drought Resilience Plan for those served by state small water systems and domestic wells
- DWR has <u>financial and</u>
 <u>technical assistance</u>
 <u>programs</u> to help counties
 meet these new planning
 requirements
- Guidebook developed with
 12 county workgroup

Table 2. Summary of County Requirements for Implementation of Senate Bill 552

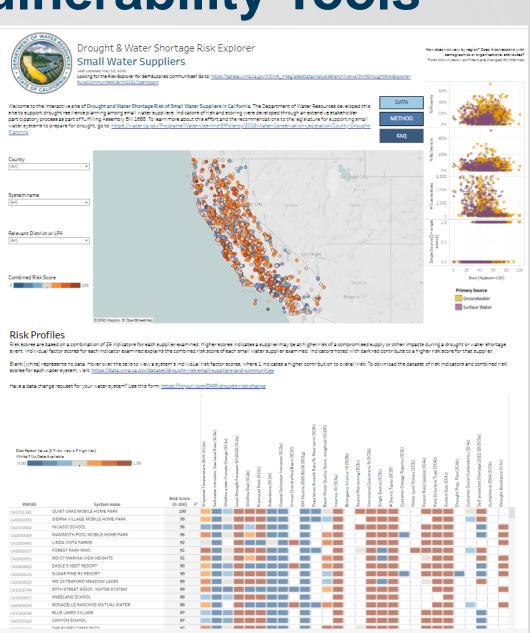
		Timeline to	
Task	Summary of Requirement	Implement, If Any	Water Code Section
1	Establish a standing county drought and water shortage task	January 1, 2022	10609.70 (a)
	force or alternative process that facilitates drought and water		
	shortage preparedness for state small water systems and		
	domestic wells.		
2	Assess potential drought and water shortage risk.	No mandated	10609.70 (b)
		timeline	
3	Provide emergency and interim drinking water solutions in	No mandated	10609.70 (b)(3)
	the county drought and water shortage risk mitigation plan	timeline	
	(plan).		
4	Consider consolidations for existing water systems and	No mandated	10609.70 (b)(1)
	domestic wells in the plan.	timeline	
5	Consider domestic well drinking water mitigation programs	No mandated	10609.70 (b)(2)
	in the plan.	timeline	
6	Consider an analysis of steps to implement the plan.	No mandated	10609.70 (b)(4)
		timeline	
7	Consider an analysis of local, state, and federal funding	No mandated	10609.70 (b)(5)
	sources available to implement the plan.	timeline	



DWR Water Shortage Vulnerability Tools

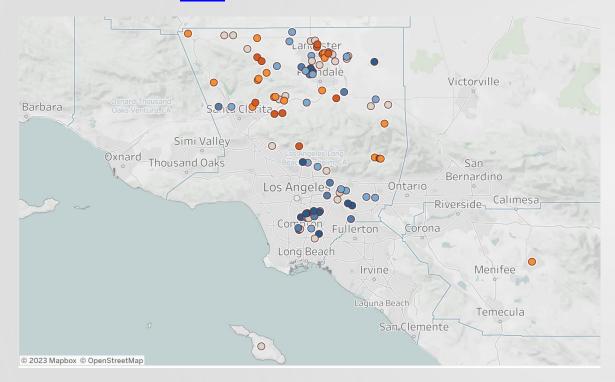
- Indicators developed in stakeholder advisory group 2018-2020
- Water Shortage Vulnerability for:
 - Small systems (29 indicators)
 - Self-supplied households (21 indicators)
- Offer <u>data and web-based</u> <u>tools</u> to explore the information





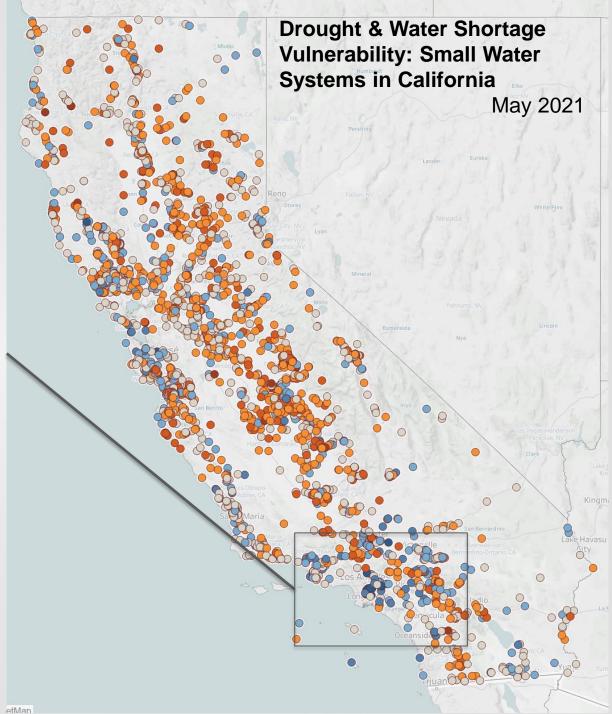
Los Angeles County Drought & Water Shortage Vulnerability

Link to Tool here

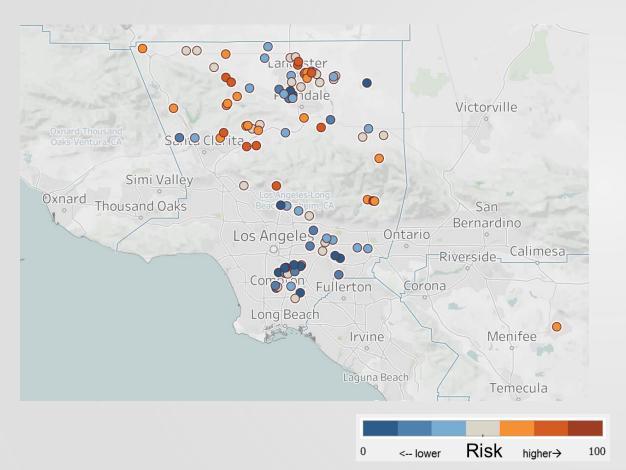








Los Angeles County



Summary

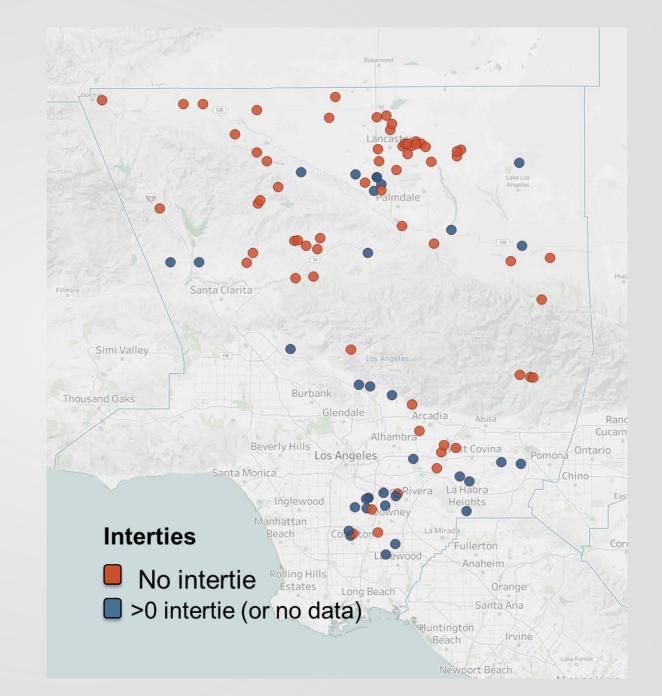
Small Water Systems & Schools

- 99 small water systems (analyzed)
- Connections: Range 1 to 2,988 (most <1,000)
- Vulnerability scores: ranges 0 to 87
- Key drivers of vulnerability
 - Projected temperature
 - Current wildfire
 - Local Drought Forecast
 - Basin quality
 - Infrastructure & Organizational vulnerabilities



Interties (LA County)

- Intertie can by important way to receive water in shortage
- 65/99 with no intertie
- 21 with emergency intertie (out of 27 reported)

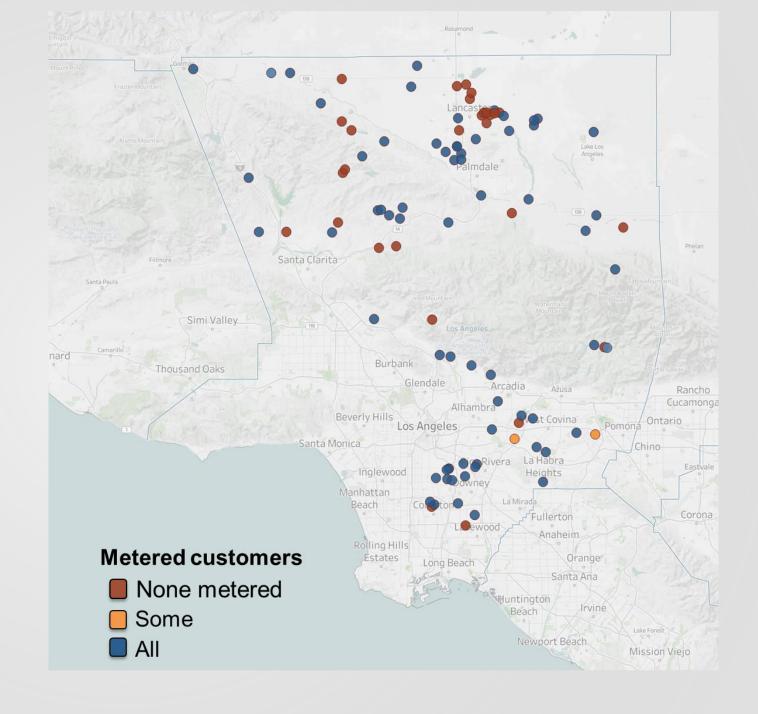




Metering (LA County)

Demand Management

- Metering is useful in shortage to gauge effectiveness of conservation and if there are areas of excessive use
- Wide range in how many customers are metered across systems analyzed





Other Organizational Risk Factors

Drought Plan

17 report having it, others
 no reporting



- Flat base rate:32 systems
- Rate update: 51 recent update; 19 > 15 years







Resources

- SB 552 Primer
- Water Shortage Vulnerability Exploring Tool
- Recorded presentations
 - Webinar 1: <u>Water Shortage Contingency Plan Template Development for Small Water Suppliers</u>, April 20, 2022
 - Webinar 2: <u>Water Shortage Contingency Plan Template Input Workshop for Small Water Systems</u>,
 September 30, 2022
 - Webinar 3: <u>Water Shortage Contingency Plan Template Input Workshop for Schools with a Water System</u>,
 September 30, 2022
- For additional comments/questions, please reach out to DWR:
 <u>drip@water.ca.gov</u> and to State Water Board at <u>ddw_drought@waterboards.ca.gov</u>



Lead Agencies



Lead Agencies



Local Agencies



Local Agencies



Local Agencies



Department of Public Health (DPH)

- The State Water Resources Control Board (SWRCB) delegates the authority to the DPH to enforce the California Safe Drinking Water Act for the regulation of small public water systems with less than 200 service connections.
- Delegation only includes water systems using groundwater sources. Surface water systems remain with the SWRCB.



Role of DPH:

- Permitting small water systems under our jurisdiction.
- Conducting routine inspections and complaint investigations.
- Reviewing Electronic Annual Reports, Consumer Confidence Reports, and Certificates.
- Reviewing Water Quality Data.
- Preparing Unsafe Water Notices.
- Reviewing Technical/Managerial/Financial documents.
- Preparing Notices of Violations, Compliance Orders, and Citations.
- Preparing monitoring waivers.
- Assisting small system operators to navigate and comply with complex
 State and Federal regulations.
- Assisting water systems operators to prepare necessary forms and reports (Bacteriological Sample Siting Plan, Emergency Notification Plan, Emergency Disaster Response Plan).



Questions and Open Discussion

