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Water Quality Sampling
Aptos, CA

July 16, 2024

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Your RCAC Trainer Today…

- **Cyril Barmore**
- Small Utility Consultant
  SAFER Train
- (707) 770-8748
- CBarmore@rcac.org

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Your RCAC Co-Trainers Today…

- **Mary Fleming**
- Small Utility Consultant III
  SAFER Train
- (707) 549-6338
- mfleming@rcac.org

- **Abigail Seaman**
- Utility Financial Consultant III
  (541) 519-3204
- abigail.seaman@rcac.org

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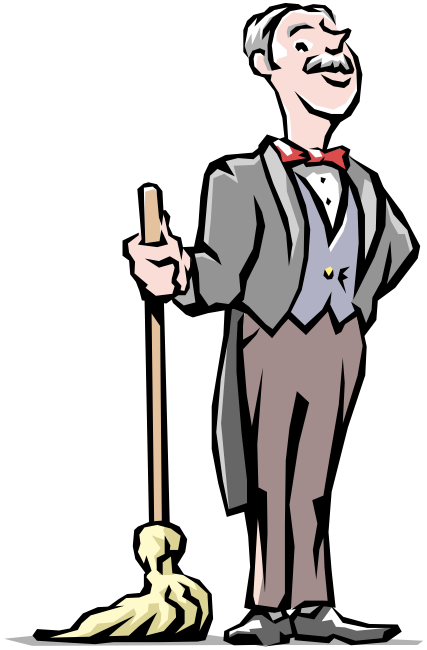
Housekeeping

- Cell phones = set to SILENT
- Participation = encouraged
- Restrooms
- Breaks
- Lunch
- Evaluations
- Certificates will be available for self printing within 10 business days



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WELCOME!

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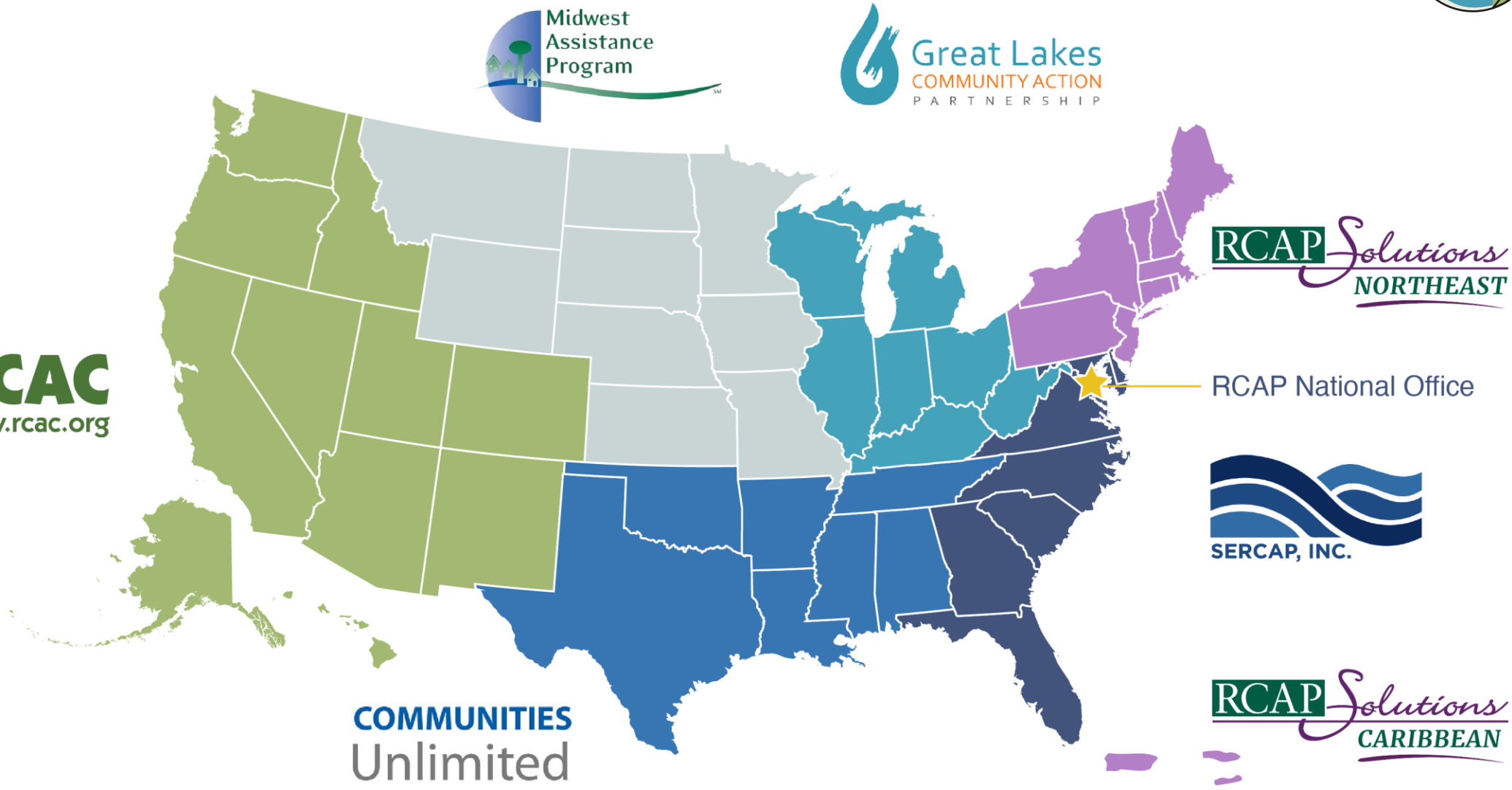
RCAP Rural Community Assistance Partnership



RCAC Programs

- Affordable housing
- Community facilities
- Water and wastewater infrastructure financing (Loan Fund)
- Classroom and online training
- On-site technical assistance
- Median Household Income (MHI) surveys

Performance Assessment Rating Tool (PART)

- 4 to 6 weeks from today
- Email w/ today's workshop in subject line
- 3 questions – 3 minutes maximum
- $50 Amazon gift card (quarterly)
- How did you use the information that was presented today?
- Funders are looking for positive change
- Help us continue these free workshops!

Where do I sign up for more trainings?

Visit: https://bit.ly/RCAC-SWRCB

Or scan the QR code!

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Where is my Contact Hours Certificate?

EVALUATIONS must be completed to receive a certificate.

Certificates for training hours can be downloaded and self-printed **48 hours** after the completion of the class.

Certificates for **online** training hours will **not** be mailed.

Complete Evaluation

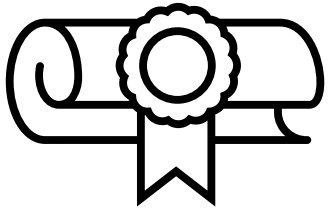
This will be available at the conclusion of the training as a pop up and emailed to you

Login

https://www.events.rcac.org/assnfe/portal.asp

Locate course under “My Course History”

Click



“View Certificate”

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Where To Find Answers…

Otto Tang, Water Resource Control Engineer	• Otto.Tang@waterboards.ca.gov • (916) 319-8579
Division of Drinking Water District offices	• https://www.waterboards.ca.gov/drinking_water/programs/documents/ddwem/DDWdistrictofficesmap.pdf
Your Local Primacy Agency (LPA)	• Local Primacy Agency Contact Information
SWRCB Drinking Water Program web site:	• Drinking Water Programs | California State Water Resources Control Board

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Division of Drinking Water District Offices

Northern California Branch
Dan Newton (Sacramento)

- Section I - Ali Rezvani (Sacramento)
- Section II -Stefan Cajina (Richmond)

Central California Branch
Kurt Souza (Carpinteria)

- Section III - Tricia Wathen (Fresno)
- Section IV - Jeff Densmore (Carpinteria)

Southern California Branch
Sean McCarthy (San Bernardino)

- Section V - Ashley Dummer (Santa Ana)
- Section VI - Sean Sterchi (San Diego)

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Table Scramble!

- Receive your new table number
- Go to your new table and share:

- Name and Title
- System name, if you have one
- Water source (s)

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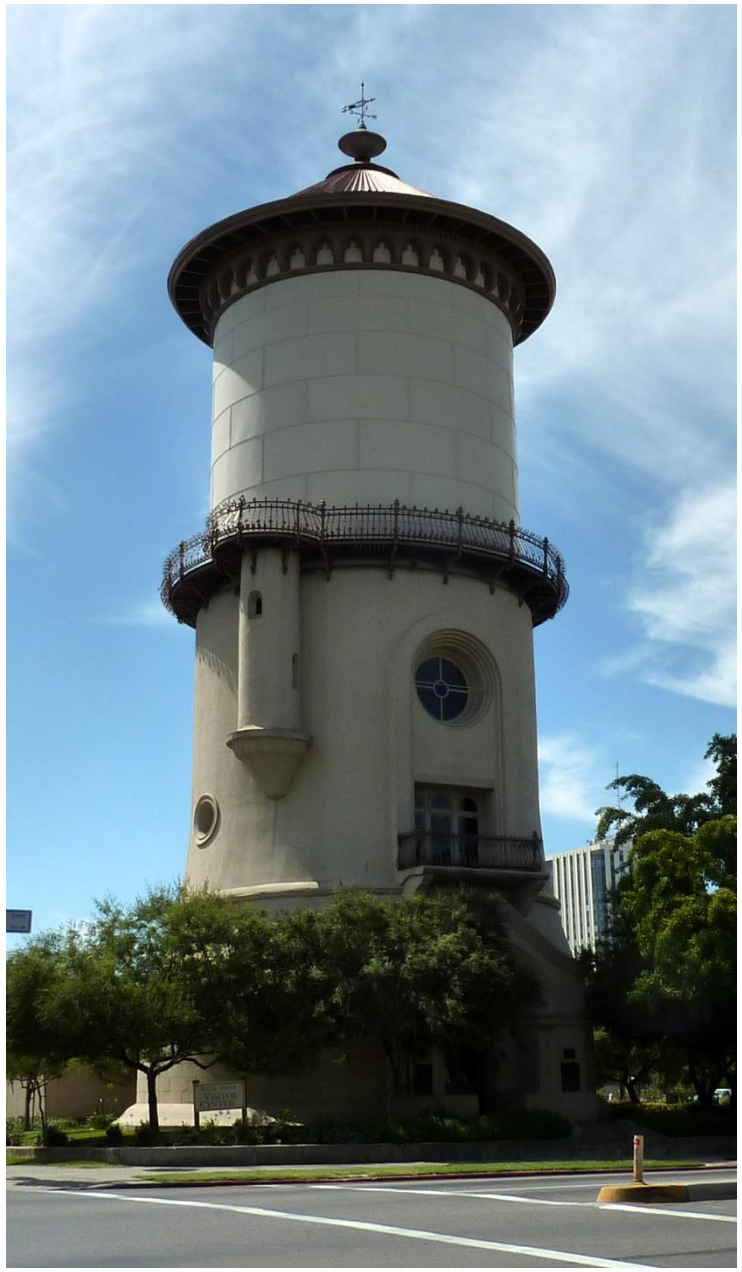

Table Exercise

- Choose a Table Leader

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POLL: Who is here today?

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POLL: WHY are we here today?

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SAFER Dashboard | California State Water Resources Control Board

Failing	At-Risk	Potentially At-Risk
Water Systems **391**	Water Systems **558**	Water Systems **466**
Population **963,113**	Population **1,874,270**	Population **1,597,509**
Funding Since 2017 **$263,229,940**	Funding Since 2017 **$183,778,978**	Funding Since 2017 **$176,266,875**

Search

Total Count of Systems: 1,415. Total Population: 4,434,892

Drivers of Risk

34% Water Quality	36% Accessibility	17% Affordability	14% TMF

Number of Systems Exceeding Risk Indicator Thresholds

CATEGORY	SUBGROUP	
Water Quality	Increasing Presence of Water Quality Trends Toward MCL	674
	Percentage of Sources Exceeding an MCL	548
	Past Presence on the Failing List	492
	Constituents of Emerging Concern	148
	History of E. coli Presence	64
	Treatment Technique Violations	54
Accessibility	Absence of Interties	1,242
	Number of Water Sources	771
	DWR - Drought & Water Shortage Risk Assessment Results	434
	Critically Overdrafted Groundwater Basin	394
	Bottled Water or Hauled Water Reliance	203
	Source Capacity Violations	54
Affordability	Household Socioeconomic Burden	886
	Percent of Median Household Income (%MHI)	352
	Extreme Water Bill	156
Technical Managerial Financial Capacity	Total Net Annual Income	712
	Operating Ratio	564
	Days Cash on Hand	476
	Monitoring and Reporting Violations	165
	Significant Deficiencies	25
	Operator Certification Violations	23

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Opening Pre-Test

Basis for Requirements

In which title of the California Code of Regulations can Water Quality and Monitoring Regulations be found?

A. Title 14 – Natural Resources
B. Title 17 – Public Health
C. Title 20 – Public Works
D. Title 22 – Social Security

Basis for Requirements

Which factor is NOT used in determining a Public Water System's Monitoring Schedule? (Choose all that apply)

A. Contaminant type
B. Water Temperature
C. Size of the System
D. Monitoring History
E. Type of Water System

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Overview of Required Samples

For most contaminant groups, if you are detecting a contaminant ***above the MCL or not reliably/consistently below the MCL***, you will be sampling for that contaminant how often?

A. Quarterly
B. Annually
C. Triennially
D. Novennially

Chain of Custody

What does PS Code stand for?

A. Postscript Code
B. Primary Sample Code
C. Primary Station Code
D. Preliminary Sample Code

Sampling Procedures

What fill method do you use for a coliform sample?

A. Go to the Fill-line
B. 1-2 inches below the top
C. Completely fill the bottle to the top
D. No air, form a meniscus

Monitoring & Reporting in California

What website do laboratories input water sample results into to ensure that it gets to the SWRCB?

A. EAR Portal
B. SAFER Clearinghouse
C. CLIP
D. SDWIS

Reporting to the Public

Which Tier in the Public Notification Rule is for a situation where there is potential for human health to be immediately impacted?

A. Tier 1
B. Tier 2
C. Tier 3
D. Tier 4

How many coliform samples does your system take monthly?

A. One

B. Two

C. Three

D. Four

E. _____

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Importance of Water Quality Sampling

- Water sampling is necessary to “prove” that you are providing safe water
- Water sampling is required for Safe Drinking Water Act compliance.
- Water sampling documents that water treatment processes are working efficiently

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What are the consequences of improper sampling?

Consequences of improper sampling

- Unsafe water delivered to customers
- Monitoring violations
- Dysfunctional treatment systems
- Contaminated source water
- Infrastructure corrosion
- Loss of customer trust

Water Treatment History

- Earliest recorded attempts to treat water 300 BC (boiling, Hippocratic sleeve)
- In the 13th century, Egyptian tombs showed water treatment drawings
- In 1804 the first recorded citywide water treatment plant was installed in Paisley, Scotland

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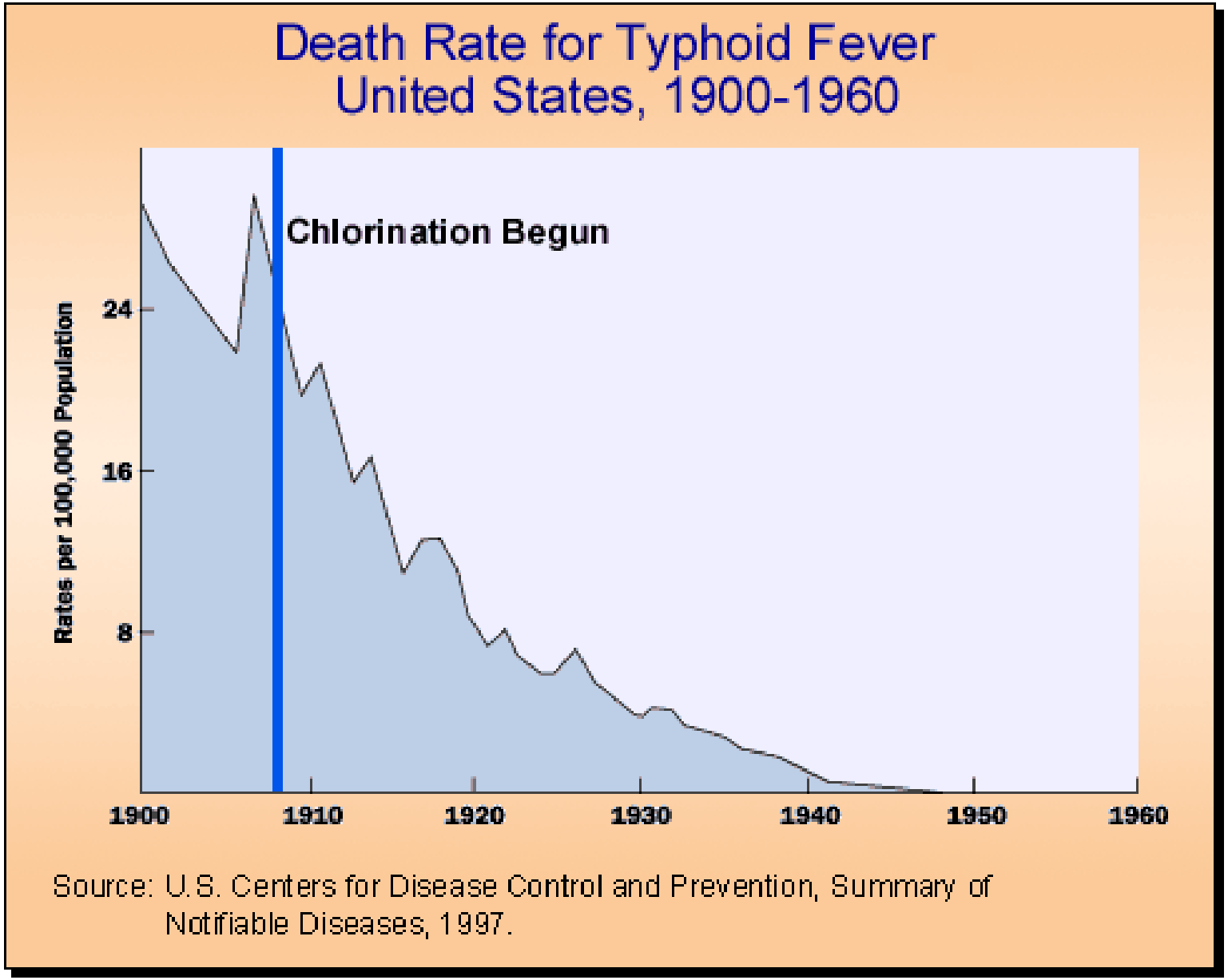
Water Treatment in the USA

- Slow sand filters were introduced into the United States around 1870
- Modern rapid-sand filtration plant built in 1902 at Little Falls, NJ
- In 1909, liquid chlorine was used for disinfection of water supplies
- Drinking water regulations began developing state by state



Chlorination History

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Way back in the good ol' 70s…

- A series of environmental acts are passed by Congress in the early 1970's:

  - Clean Air Act
  - Clean Water Act
  - Environmental Protection Agency (EPA)
  - Safe Drinking Water Act (SDWA)

EPA Established December 1970

- Drinking water program moved from Public Health Service to EPA
- First inventory of community water systems in USA is conducted
- EPA works towards federal drinking water guidelines

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- In your group, list five reasons that a public water system would have to issue a boil water notice…

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Basis for Monitoring and Reporting Requirements

Safe Drinking Water Act (SDWA)

Federal Safe Drinking Water Act

- All States must meet or exceed primary and secondary drinking water standards
- EPA will monitor States to make sure primary standards are met
- States can develop their own drinking water standards based on SDWA

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Federal SDWA and Regulations

U.S. Codes

https://www.law.cornell.edu/uscode/text

- Title 42
- Chapter 6A
- Subchapter XII

Code of Federal Regulations

https://www.ecfr.gov/

- Title 40
- Chapter 1
- Subchapter D
- Part 141 & Part 143 O

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California Safe Drinking Water Act

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Statutory Law

California Codes

29 Codes in CA Codes

CA SDWA (HSC §116270 to 116755)

- Health and Safety Code
- Division 104 - Environmental Health
- Part 12 - Drinking Water
- Chapter 4 - California Safe Drinking Water Act

https://leginfo.legislature.ca.gov/faces/codes.xhtml

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Statutory Law

CHAPTER 4. California Safe Drinking Water Act

ARTICLE 1. Pure and Safe Drinking Water

ARTICLE 2. Department and Local Responsibilities

ARTICLE 3. Operations

ARTICLE 3.5. Fluoridation of Drinking Water

ARTICLE 4. Exemptions and Variances

ARTICLE 5. Public Notification

ARTICLE 6. Enforcement Responsibility

ARTICLE 7. Requirements and Compliance

ARTICLE 7.5. MTBE Detection

ARTICLE 7.5. MTBE Detection

ARTICLE 8. Violations

ARTICLE 9. Remedies

ARTICLE 10. Judicial Review

ARTICLE 11. Crimes and Penalties

ARTICLE 12. Board Member Training

CHAPTER 4.5. Safe Drinking Water State Revolving Fund Law of 1997

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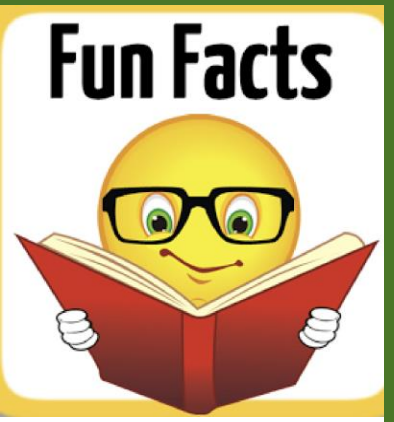


Administrative Law

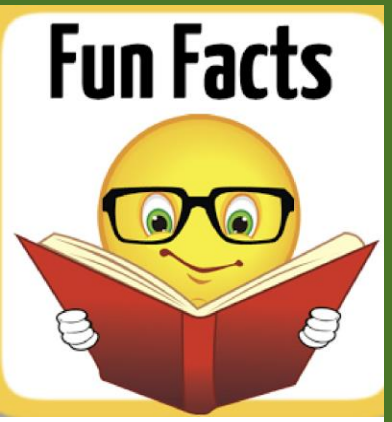
California Code of Regulations

28 Titles in the CCR

CA SDWA Regs (22 CCR §60001 et al)

- Title 22 - Social Security
- Division 4 - Environmental Health

- California Code of Regulations - California Code of Regulations (westlaw.com)



Administrative Law

Division 4. Environmental Health

Chapter 1. Introduction

Chapter 2. Regulations for the Implementation of the California Environmental Quality Act

Chapter 3. Water Recycling Criteria

Chapter 4. Water Treatment Devices [Repealed]

Chapter 12. Safe Drinking Water Project Funding [Repealed]

Chapter 13. Operator Certification

Chapter 14. Water Permits

Chapter 14.5. Fees.

Chapter 15. Domestic Water Quality and Monitoring Regulations

Chapter 15.5. Disinfectant Residuals, Disinfection Byproducts, and Disinfection Byproduct Precursors

Chapter 16. California Waterworks Standards

Chapter 17. Surface Water Treatment

Chapter 17.5. Lead and Copper

Chapter 18. Drinking Water Additives

Chapter 19. Certification of Environmental Laboratories

Chapter 20. Public Swimming Pools

Chapter 21. Minimum Standardsfor Permitting Medicalwaste Facilities

Chapter 22. Safety Regulations for Playgrounds [Repealed]

Chapter 23. Continuing Education for Registered Environmental Health Specialists

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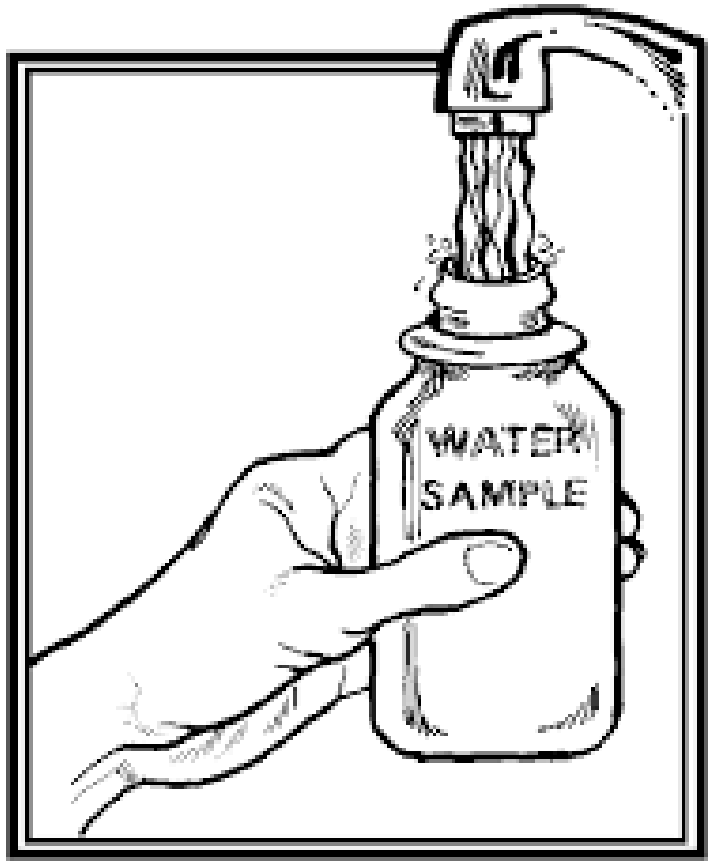
Domestic Water Quality & Monitoring Regs



- Primary & Secondary MCLs
- Monitoring & Analytical Requirements
- Lead & Copper, DBPs, TCR
- Reporting and Recordkeeping
- Public Notification
- Consumer Confidence Reports

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How do I know what to sample for and when?

Monitoring (aka Sampling) is based on …….

- Contaminant Type
- Source Water
- Size of System
- Monitoring History
- Type of PWS

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Contaminant type

Contaminants that affect health are sampled more frequently than contaminants that affect aesthetics

Acute contaminants are sampled more frequently than chronic contaminants

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Source water

Surface water sources are sampled more frequently than groundwater sources

Surface waters are presumed to harbor more contaminants than ground waters & water quality conditions change more rapidly

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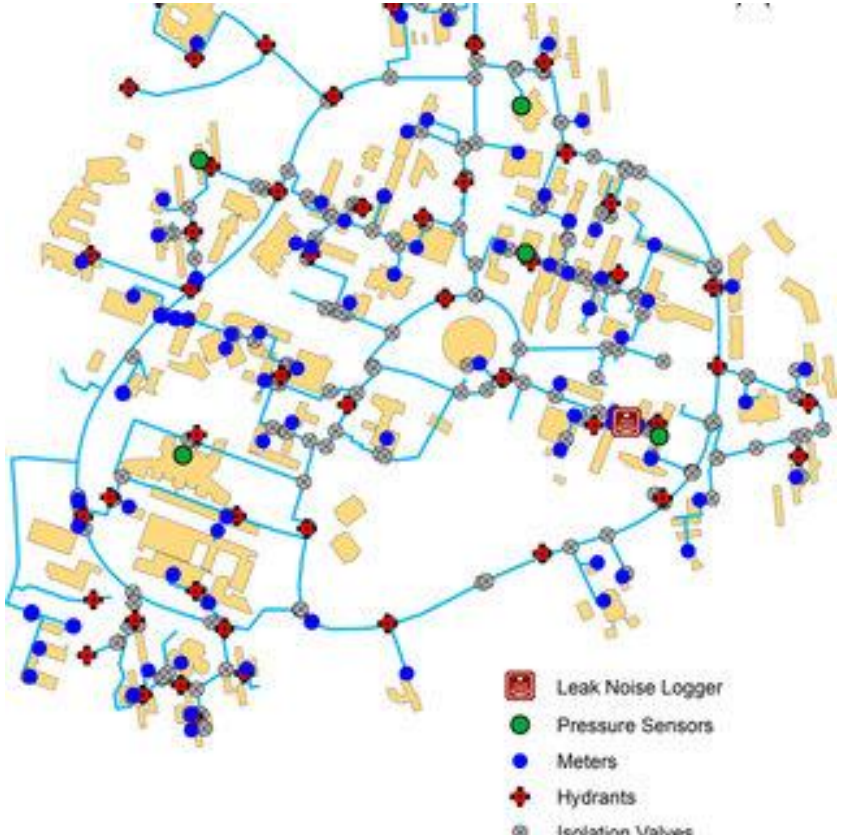
Size of system

Larger systems require more sampling to get a “representative” picture of water quality

(especially true of distribution system)

Larger systems generally have better access to resources to take more samples

Larger systems have the risk of making a larger number of people sick



Monitoring history

Sources with a monitoring history of a contaminant above the trigger level are required to sample more frequently

Sources with a monitoring history free of a contaminant detection may request for a monitoring waiver to reduce or eliminate sampling

Public Water System, Defined

116275. Definitions.

(h) "**Public water system**" means a system for the provision of water for **human consumption** through pipes or other constructed conveyances that has:

- 15 or more **service connections,** or
- regularly serves at least 25 individuals daily
- at least 60 days out of the year.

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Community Water System

116275. Definitions.

(i) "**Community water system**" means a public water system that:

- serves at least 15 service connections used by yearlong **residents** or
- regularly serves at least 25 yearlong **residents** of the area served by the system.

Noncommunity Water System

116275. Definitions.

(j) "**Noncommunity water system**" means a public water system that is not a community water system.

Nontransient Noncommunity Water System

116275. Definitions.

(k) "**Nontransient noncommunity water system**" means a public water system that is:

- not a community water system and that
- regularly serves at least 25 of the same persons over six months per year.

- California Code, Health and Safety Code - HSC § 116275 | FindLaw

Type of Public Water System

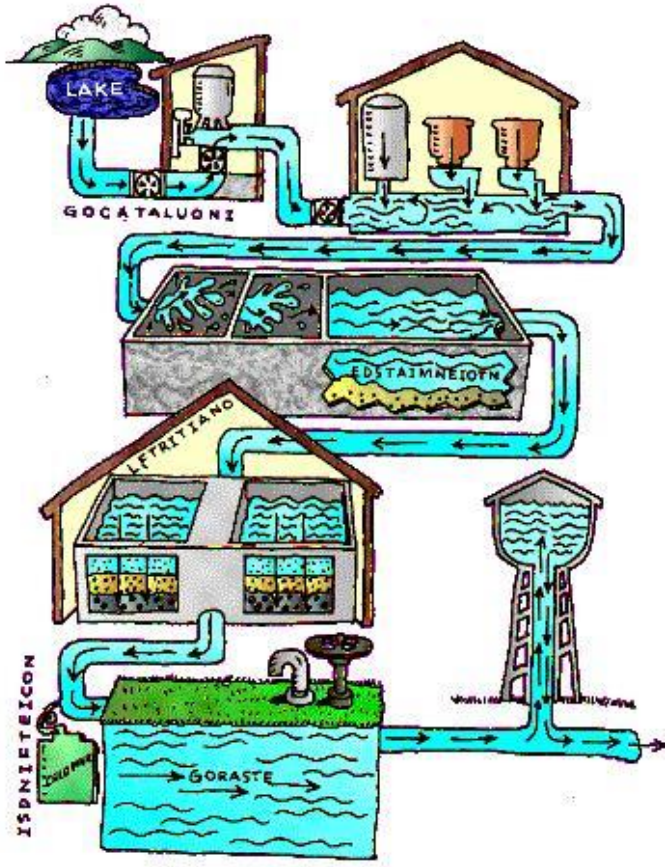
CWS vs Non-CWS

- **CWS** – *where people live*

Non-CWS

- **Transient** – *most people don't live or spend regular time there*
- **Non-Transient** – *same people; but don't reside there*

CWS & NTNCWS tend to have more similar monitoring requirements, TNCWS have fewer requirements



POLL: What type of system is yours?

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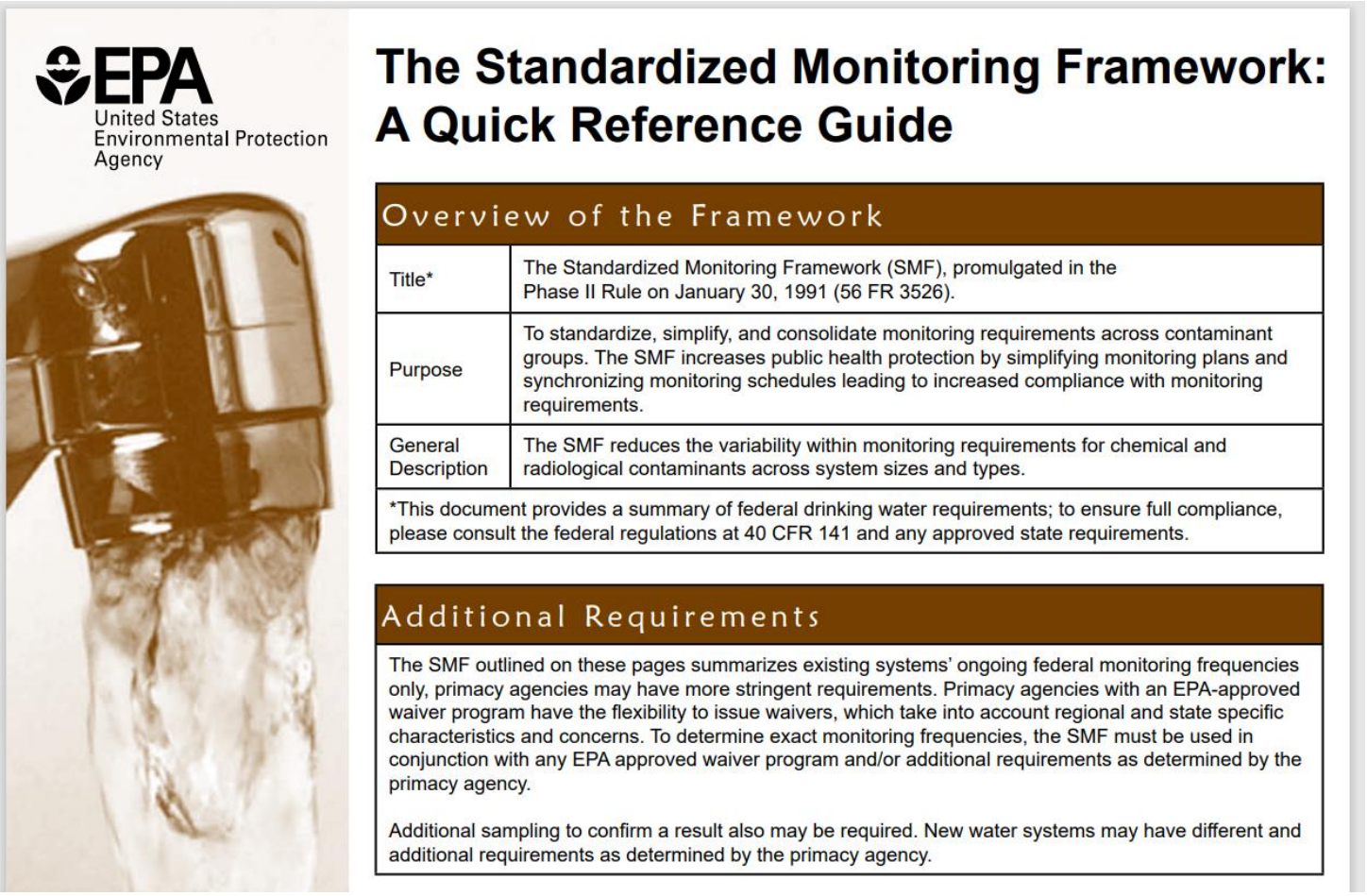
EPA: The Standardized Monitoring Framework

- Standardizes, simplifies, and consolidates monitoring requirements across contaminant groups
- ****This is a general overview of how the regulations work. Use California Code of Regs to develop your monitoring schedule to ensure compliance with State Regulations**
- **The Standardized Monitoring Framework: A quick reference guide (epa.gov)** **

EPA: The Standardized Monitoring Framework



EPA
United States Environmental Protection Agency

The Standardized Monitoring Framework: A Quick Reference Guide

Overview of the Framework	
Title*	The Standardized Monitoring Framework (SMF), promulgated in the Phase II Rule on January 30, 1991 (56 FR 3526).
Purpose	To standardize, simplify, and consolidate monitoring requirements across contaminant groups. The SMF increases public health protection by simplifying monitoring plans and synchronizing monitoring schedules leading to increased compliance with monitoring requirements.
General Description	The SMF reduces the variability within monitoring requirements for chemical and radiological contaminants across system sizes and types.
*This document provides a summary of federal drinking water requirements; to ensure full compliance, please consult the federal regulations at 40 CFR 141 and any approved state requirements.	

Additional Requirements

The SMF outlined on these pages summarizes existing systems' ongoing federal monitoring frequencies only, primacy agencies may have more stringent requirements. Primacy agencies with an EPA-approved waiver program have the flexibility to issue waivers, which take into account regional and state specific characteristics and concerns. To determine exact monitoring frequencies, the SMF must be used in conjunction with any EPA approved waiver program and/or additional requirements as determined by the primacy agency.

Additional sampling to confirm a result also may be required. New water systems may have different and additional requirements as determined by the primacy agency.

[The Standardized Monitoring Framework: A quick reference guide (epa.gov)]

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STANDARDIZED MONITORING FRAMEWORK

		Fourth Cycle									Fifth Cycle								
		1st Period			2nd Period			3rd Period			1st Period			2nd Period			3rd Period		
	CWSs & NTNCWSs	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Inorganic Contaminants (IOCs)	**Ground Water**																		
	Waiver[1]					*									*				
	≤ MCL and No Waiver		*			*			*			*			*			*	
	Reliably and Consistently < MCL[2]		*			*			*			*			*			*	
	> MCL or Not Reliably and Consistently < MCL[3]	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****
	Surface Water																		
	Waiver[1]					*									*				
	≤ MCL and No Waiver	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Reliably and Consistently < MCL[2]	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	> MCL or Not Reliably and Consistently < MCL[3]	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****
Synthetic Organic Contaminants (SOCs)	**CWSs & NTNCWSs**	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
	All Population Sizes																		
	Reliably and Consistently < MCL[2, 4, 5, 6]	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	≥ Detect or Not Reliably and Consistently < MCL[3]	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****
	Waiver with Vulnerability Assessment Every 3 Years[7]		X			X			X			X			X			X	
	Population > 3,300																		
	< Detect and No Waiver		**			**			**			**			**			**	
	Population ≤ 3,300																		
	< Detect and No Waiver		*			*			*			*			*			*	

****This is for a general visual of how the regulations work. Use California Code of Regs to develop your monitoring schedule to ensure compliance with State Regulations****

Not shown: VOCs, Asbestos, Nitrate, Nitrite, Radionuclides

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Standardized Monitoring Framework Teach-back

For Your Contaminant Group,
Answer the Following:

- Which type of water systems have to sample for this group?
- Is monitoring frequency based on water source type, or population, or both?
- Are waivers available to reduce the frequency?
- What is the sampling frequency range?
- Any Important footnotes?

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Monitoring Schedules

- Every system has a unique schedule
- Monitoring schedules are complex
- It is the water system's responsibility to monitor as required
- DDW publishes monitoring schedules for every California PWS
- DDW Monitoring Schedules:
- https://sdwis.waterboards.ca.gov/PDWW/

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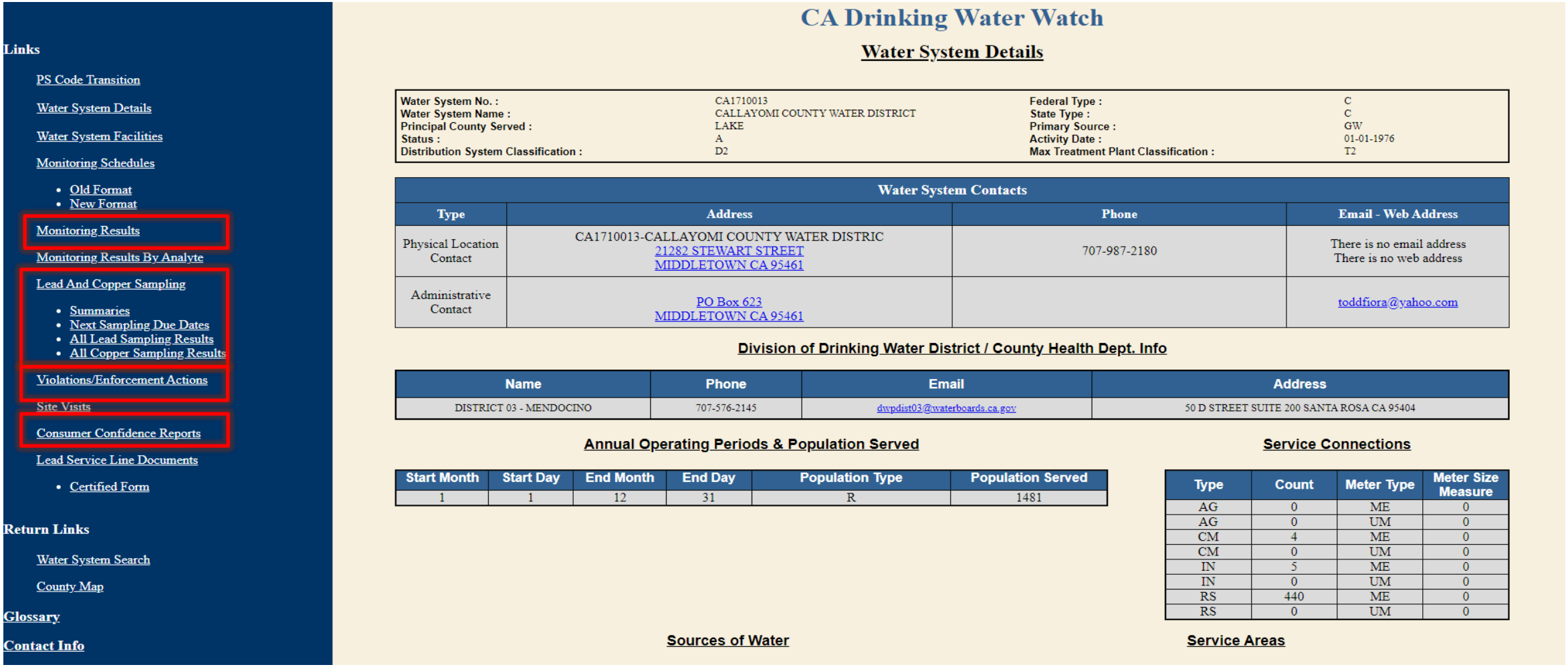
PDWW – Public Drinking Water Watch



Links

- PS Code Transition
- Water System Details
- Water System Facilities
- Monitoring Schedules
  - Old Format
  - New Format
- Monitoring Results
- Monitoring Results By Analyte
- Lead And Copper Sampling
  - Summaries
  - Next Sampling Due Dates
  - All Lead Sampling Results
  - All Copper Sampling Results
- Violations/Enforcement Actions
- Site Visits
- Consumer Confidence Reports
- Lead Service Line Documents
  - Certified Form

Return Links

- Water System Search
- County Map

Glossary

Contact Info

CA Drinking Water Watch

Water System Details

Water System No. :	CA1710013	**Federal Type :**	C
Water System Name :	CALLAYOMI COUNTY WATER DISTRICT	**State Type :**	C
Principal County Served :	LAKE	**Primary Source :**	GW
Status :	A	**Activity Date :**	01-01-1976
Distribution System Classification :	D2	**Max Treatment Plant Classification :**	T2

Water System Contacts

Type	Address	Phone	Email - Web Address
Physical Location Contact	CA1710013-CALLAYOMI COUNTY WATER DISTRIC 21282 STEWART STREET MIDDLETOWN CA 95461	707-987-2180	There is no email address There is no web address
Administrative Contact	PO Box 623 MIDDLETOWN CA 95461		toddfiora@yahoo.com

Division of Drinking Water District / County Health Dept. Info

Name	Phone	Email	Address
DISTRICT 03 - MENDOCINO	707-576-2145	dwpdist03@waterboards.ca.gov	50 D STREET SUITE 200 SANTA ROSA CA 95404

Annual Operating Periods & Population Served

Start Month	Start Day	End Month	End Day	Population Type	Population Served
1	1	12	31	R	1481

Service Connections

Type	Count	Meter Type	Meter Size Measure
AG	0	ME	0
AG	0	UM	0
CM	4	ME	0
CM	0	UM	0
IN	5	ME	0
IN	0	UM	0
RS	440	ME	0
RS	0	UM	0

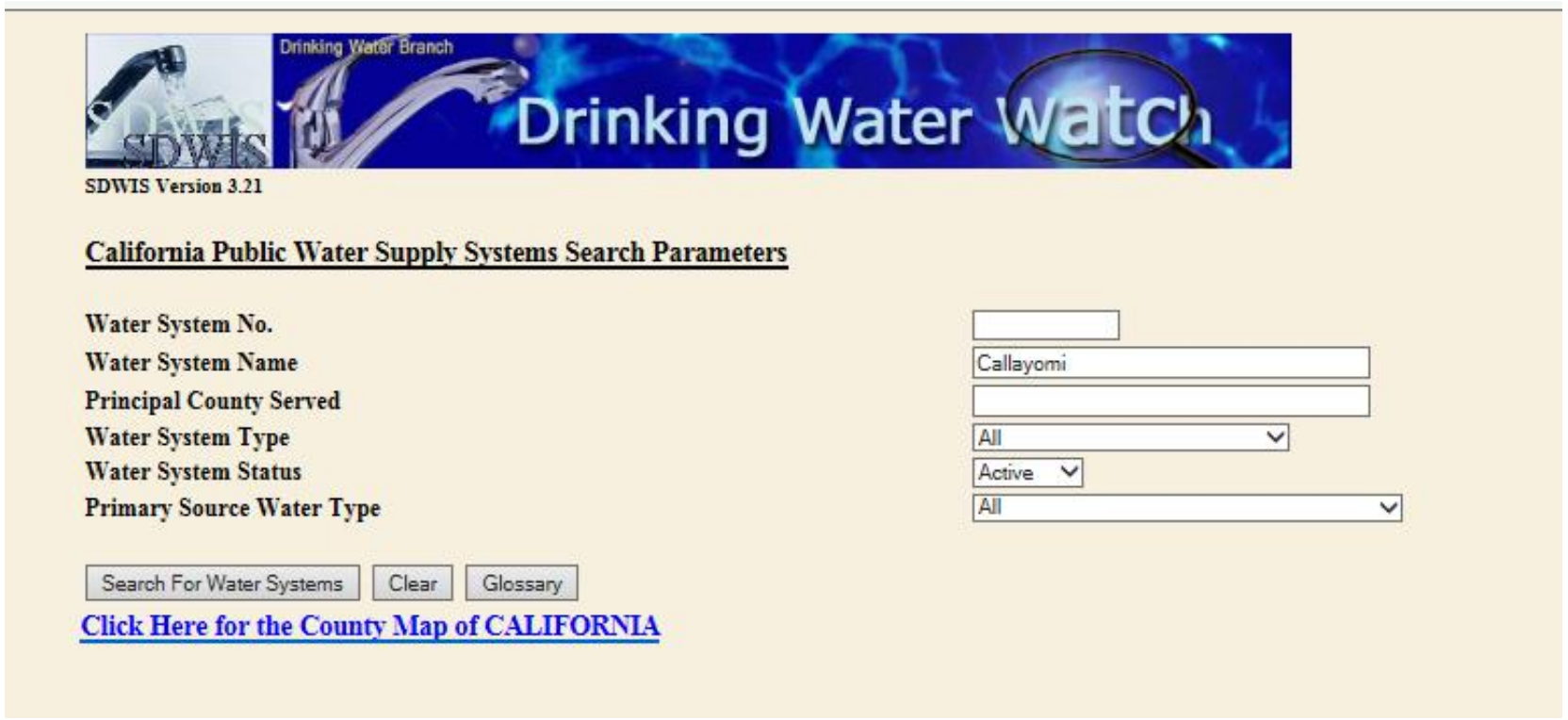
Sources of Water

Service Areas

https://sdwis.waterboards.ca.gov/PDWW/

Drinking Water Watch Tool Tour

- https://sdwis.waterboards.ca.gov/PDWW/



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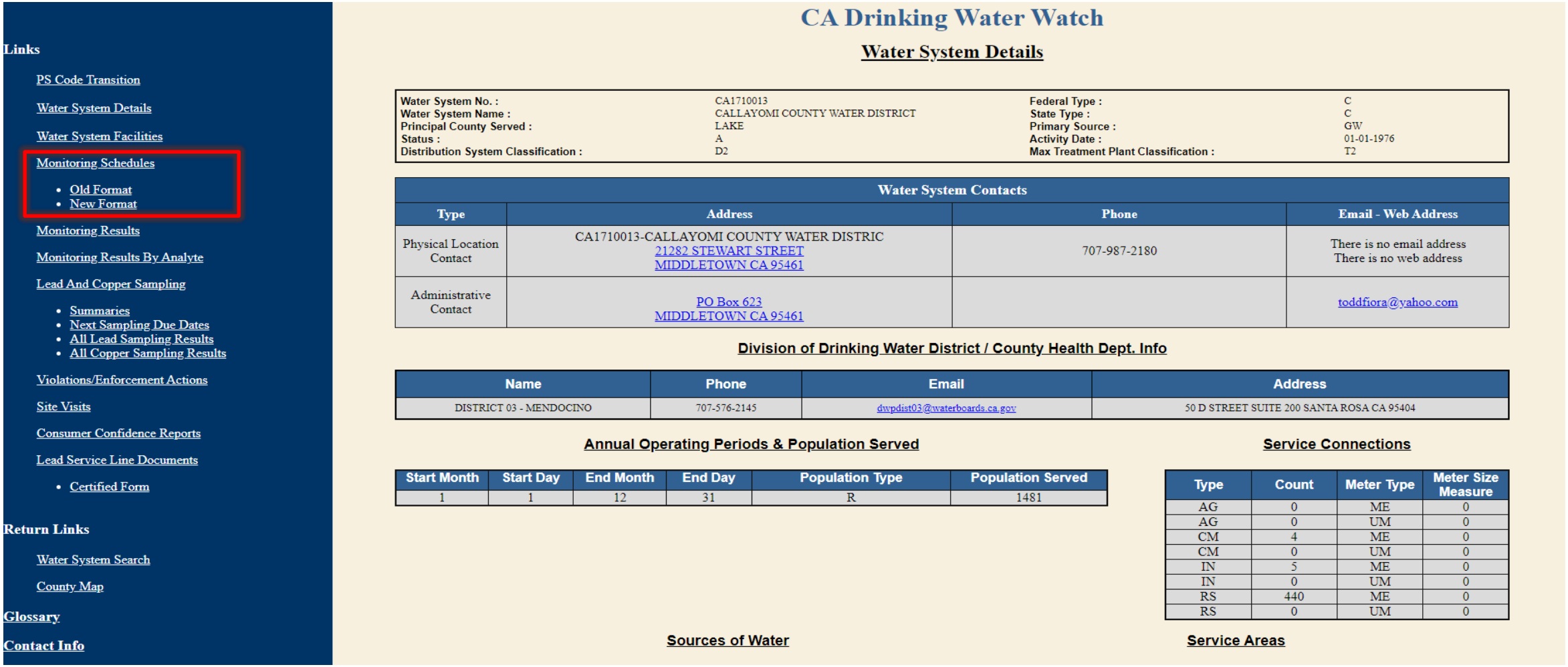
Monitoring Schedules



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  - All Lead Sampling Results
  - All Copper Sampling Results
- Violations/Enforcement Actions
- Site Visits
- Consumer Confidence Reports
- Lead Service Line Documents
  - Certified Form

Return Links

- Water System Search
- County Map

Glossary

Contact Info

CA Drinking Water Watch

Water System Details

Water System No. :	CA1710013	**Federal Type :**	C
Water System Name :	CALLAYOMI COUNTY WATER DISTRICT	**State Type :**	C
Principal County Served :	LAKE	**Primary Source :**	GW
Status :	A	**Activity Date :**	01-01-1976
Distribution System Classification :	D2	**Max Treatment Plant Classification :**	T2

Water System Contacts

Type	Address	Phone	Email - Web Address
Physical Location Contact	CA1710013-CALLAYOMI COUNTY WATER DISTRIC 21282 STEWART STREET MIDDLETOWN CA 95461	707-987-2180	There is no email address There is no web address
Administrative Contact	PO Box 623 MIDDLETOWN CA 95461		toddfiora@yahoo.com

Division of Drinking Water District / County Health Dept. Info

Name	Phone	Email	Address
DISTRICT 03 - MENDOCINO	707-576-2145	dwpdist03@waterboards.ca.gov	50 D STREET SUITE 200 SANTA ROSA CA 95404

Annual Operating Periods & Population Served

Start Month	Start Day	End Month	End Day	Population Type	Population Served
1	1	12	31	R	1481

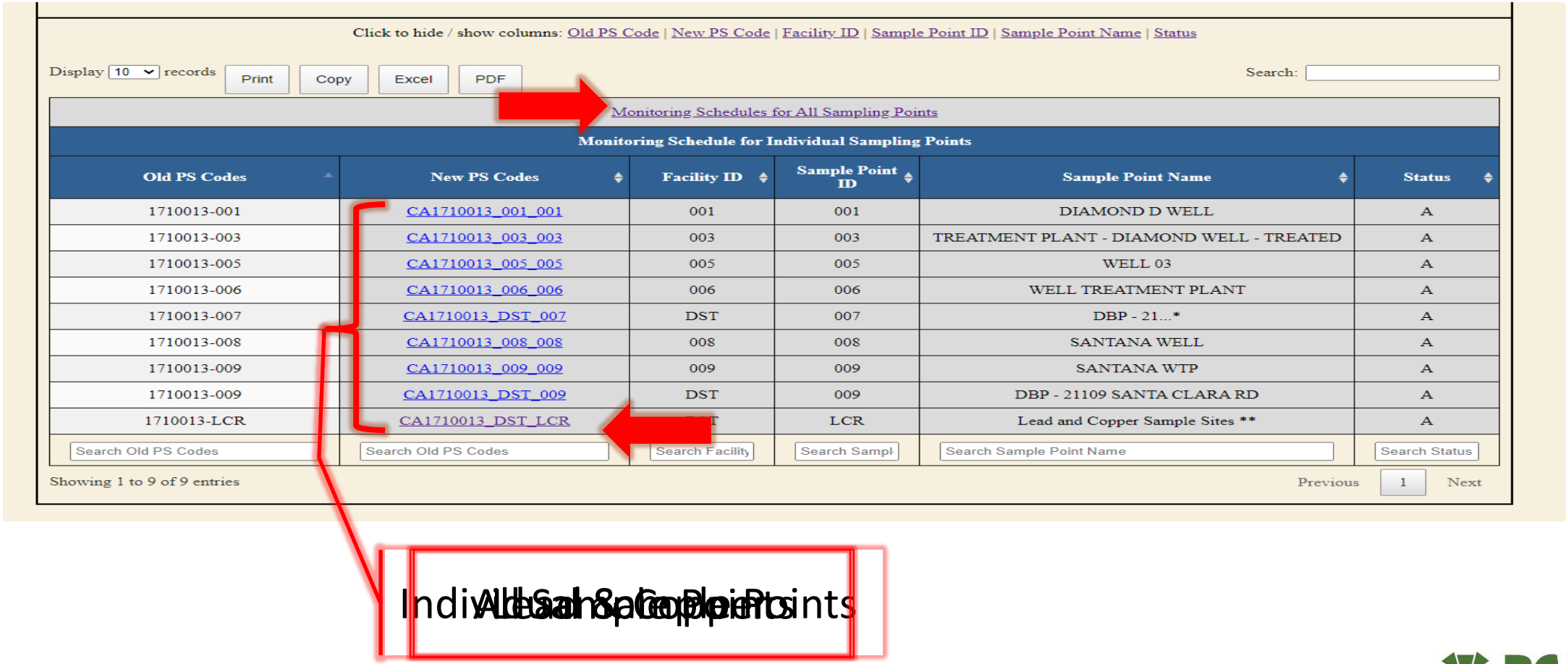
Service Connections

Type	Count	Meter Type	Meter Size Measure
AG	0	ME	0
AG	0	UM	0
CM	4	ME	0
CM	0	UM	0
IN	5	ME	0
IN	0	UM	0
RS	440	ME	0
RS	0	UM	0

Sources of Water

Service Areas

Monitoring Schedules



Monitoring Schedule – All Sampling Points

Date:02-02-2022

STATE OF CALIFORNIA
LAST AND NEXT SAMPLE REPORT

SYSTEM NO.:1710013 SYSTEM NAME:CALLAYOMI COUNTY WATER DISTRICT COUNTY:LAKE

SOURCE NO.:All Sources SOURCE NAME:N/A SOURCE CLASS:N/A STATUS:N/A

Click to hide / show columns: PS Codes | Group Code | Group Name | Analyte Number | Analyte Name | Less Than | RL | Result | Unit | MCL | DLR | Last Sampled | Frequency | Next Due | Notes

Display 10 records Print Copy Excel PDF Search:

PS Codes	Group Code	Group Name	Analyte Number	Analyte Name	Less Than	RL	Result	Unit	MCL	DLR	Last Sampled	Frequency	Next Due	Notes
CA1710013_001_001	GP	SECONDARY/GP	1928	ALKALINITY, BICARBONATE			244.000	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1919	CALCIUM			9.600	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1929	ALKALINITY, CARBONATE	<	1.000	0	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1017	CHLORIDE			9.900	MG/L	500		01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1905	COLOR			5.000	UNITS	15		01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1022	COPPER, FREE	<	50.000	0	UG/L	1000	50	01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	2905	FOAMING AGENTS (SURFACTANTS)	<	0.100	0	MG/L	.5		01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1915	HARDNESS, TOTAL (AS CACO3)			120.000	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1021	HYDROXIDE AS CALCIUM CARBONATE	<	1.000	0	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1028	IRON		100.000	100.000	UG/L	300	100	01-08-2019	36	2022/01	DUE NOW
Search PS Codes	Search Gro	Search Group Nan	Search Analy	Search Analyte Name	Search XN	Search RL	Search Res	Search U	Search MC	Search DI	Search Last S	Search Freque	Search Ne	Search No

Showing 1 to 10 of 270 entries

Previous 1 2 3 4 5 … 27 Next

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Monitoring Schedules – Individual Sampling Points

Date:02-07-2022 STATE OF CALIFORNIA
LAST AND NEXT SAMPLE REPORT
SYSTEM NO.:1710013 SYSTEM NAME:CALLAYOMI COUNTY WATER DISTRICT COUNTY:LAKE
SOURCE NO.:001 SOURCE NAME:DIAMOND D WELL SOURCE CLASS:CLGA STATUS:A

Click to hide / show columns: PS Codes | Group Code | Group Name | Analyte Number | Analyte Name | Less Than | RL | Result | Unit | MCL | DLR | Last Sampled | Frequency | Next Due | Notes

Display 10 records Print Copy Excel PDF Search:

PS Codes	Group Code	Group Name	Analyte Number	Analyte Name	Less Than	RL	Result	Unit	MCL	DLR	Last Sampled	Frequency	Next Due	Notes
CA1710013_001_001	GP	SECONDARY/GP	1928	ALKALINITY, BICARBONATE			244.000	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1919	CALCIUM			9.600	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1929	ALKALINITY, CARBONATE	<	1.000	0	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1017	CHLORIDE			9.900	MG/L	500		01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1905	COLOR			5.000	UNITS	15		01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1022	COPPER, FREE	<	50.000	0	UG/L	1000	50	01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	2905	FOAMING AGENTS (SURFACTANTS)	<	0.100	0	MG/L	.5		01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1915	HARDNESS, TOTAL (AS CACO3)			120.000	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1021	HYDROXIDE AS CALCIUM CARBONATE	<	1.000	0	MG/L			01-08-2019	36	2022/01	DUE NOW
CA1710013_001_001	GP	SECONDARY/GP	1028	IRON		100.000	100.000	UG/L	300	100	01-08-2019	36	2022/01	DUE NOW
Search PS Codes	Search Gr	Search Group Name	Search Anal	Search Analyte Name	Search X	Search R	Search Re	Search U	Search M	Search D	Search Last	Search Freque	Search N	Search N

Showing 1 to 10 of 84 entries Previous 1 2 3 4 5 … 9 Next

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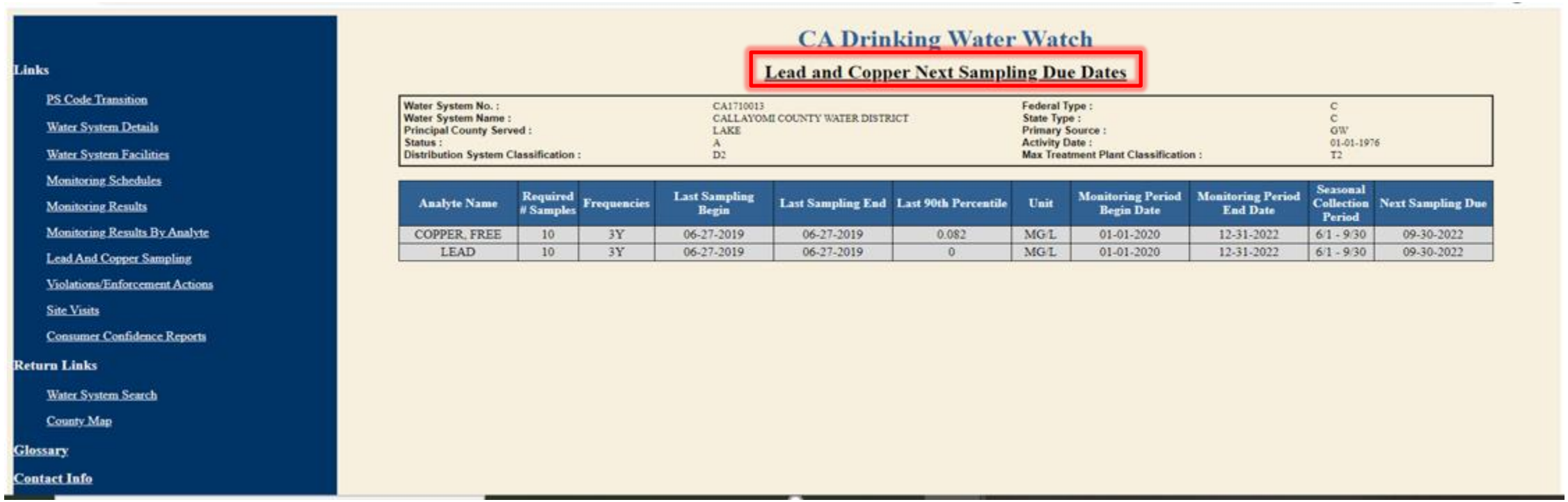
Monitoring Schedule – Lead and Copper Due Dates



Links

- PS Code Transition
- Water System Details
- Water System Facilities
- Monitoring Schedules
- Monitoring Results
- Monitoring Results By Analyte
- Lead And Copper Sampling
- Violations/Enforcement Actions
- Site Visits
- Consumer Confidence Reports

Return Links

- Water System Search
- County Map

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Contact Info

CA Drinking Water Watch

Lead and Copper Next Sampling Due Dates

Water System No. :	CA1710013	Federal Type :	C
Water System Name :	CALLAYOMI COUNTY WATER DISTRICT	State Type :	C
Principal County Served :	LAKE	Primary Source :	GW
Status :	A	Activity Date :	01-01-1976
Distribution System Classification :	D2	Max Treatment Plant Classification :	T2

Analyte Name	Required # Samples	Frequencies	Last Sampling Begin	Last Sampling End	Last 90th Percentile	Unit	Monitoring Period Begin Date	Monitoring Period End Date	Seasonal Collection Period	Next Sampling Due
COPPER, FREE	10	3Y	06-27-2019	06-27-2019	0.082	MG/L	01-01-2020	12-31-2022	6/1 - 9/30	09-30-2022
LEAD	10	3Y	06-27-2019	06-27-2019	0	MG/L	01-01-2020	12-31-2022	6/1 - 9/30	09-30-2022

Questions?

Monitoring schedules: Review

MCLs are health-based enforceable water quality standards.

True

False

Monitoring schedules: Review

Monitoring schedules are complex and unique to each water system.

True

False

Monitoring schedules: Review

Source of supply, size of system, the health effects of the contaminant, and history of contaminant occurrence are all factors that determine the frequency of monitoring for a particular contaminant.

True

False

Overview of Required Samples

Primary & Secondary Drinking Water Standards

Other Required Sampling

Warning: This is just an Overview

- The exact number and frequency of water quality samples required for each system is unique
- It's impossible to have a one-size-fits-all sampling plan
- Each system must develop and follow its own distinctive plan

Primary Drinking Water Standards

- Health related – pathogen removal
- Establishes MCLs, monitoring, reporting & notification requirements
- Examples:
  - Coliform/E. coli
  - Turbidity (Nephelometric Turbidity Units, NTU)
  - Microorganisms

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Secondary Drinking Water Standards

- Aesthetics – looks, smell, taste
- Establishes SMCL, monitoring, reporting & notification requirements
- Examples:
  - Iron & manganese
  - pH & corrositivity
  - Taste, odor & color

Bacteriological Sample Siting Plans / rTCR

BACTERIOLOGICAL SAMPLE SITING PLAN-BSSP (Groundwater Systems)

Water System Information

Water System Name System Number: CA
Water System Classification:
Community Nontransient-Noncommunity Transient Non-community
Seasonal Water System: Yes* No *Refer to Start-up/Shut-down Procedure Document
Operational Period:
Physical Address: Mailing Address:

Phone Number: Fax: Email Address:
Number of Service Connections: Population Served:
Person responsible for reporting coliform-positive samples to the DDW District Office / LPA:
Day/Evening Phone Number:

Sample Collection Information

Name of Trained Sampler(s):
Sampler Phone Number:
Name of Analyzing Laboratory: State Lab Code:
Mailing Address:
Phone Number: Fax:
Email Address:
Laboratory was sent a copy of BSSP: Yes No

[rTCR Bacteriological Sample Siting Plan Template Fields]

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California's Revised Total Coliform Rule- Resources

- Revised Total Coliform Rule | California State Water Resources Control Board
- Revised Total Coliform Rule Workshop Presentation - (PowerPoint)
- Revised Total Coliform Rule And Total Coliform Rule | US EPA

Bacteriological Site Sample Plans

22 CCR
§ 64421
et al

Sampling Frequency

- Coliform/E. Coli sampling monthly, more frequently based on size of system

Sampling Location

- Sample taken at “representative” locations throughout the distribution system include pressure zones, areas supplied by each water source, and each distribution reservoir/tank

More Info

- Repeat sample set required for each positive Routine sample

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California's Revised Total Coliform Rule – July 1, 2021

Raw Water Well Sampling	• quarterly for all chlorinated wells
Sampler Qualifications	• system must maintain written qualifications of all samplers
Site Sampling Plan	• addition of alternative sampling locations, dual purpose sampling locations in the site sample plan
Repeat Sampling	• all systems: repeat sample set is three (3) samples; 4 repeats for small systems is rescinded
Repeat Sampling	• the requirement for a minimum of five routine samples in any month following a TC+ is rescinded.
Total Coliform PN	• No longer required for TC+ (E.coli still applies)

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Sampling: Total Coliform (22 CCR § 64423)

Table 64423-A
Minimum Number of Routine Total Coliform Samples

Monthly Population Served	*Service Connections*	*Minimum Number of Samples*
25 to 1000	15 to 400	1 per month
1,001 to 2,500	401 to 890	2 per month
2,501 to 3,300	891 to 1,180	3 per month
3,301 to 4,100	1,181 to 1,460	4 per month
4,101 to 4,900	1,461 to 1,750	5 per month
4,901 to 5,800	1,751 to 2,100	6 per month
5,801 to 6,700	2,101 to 2,400	7 per month
6,701 to 7,600	2,401 to 2,700	2 per week
7,601 to 12,900	2,701 to 4,600	3 per week
12,901 to 17,200	4,601 to 6,100	4 per week
17,201 to 21,500	6,101 to 7,700	5 per week
21,501 to 25,000	7,701 to 8,900	6 per week
25,001 to 33,000	8,901 to 11,800	8 per week
33,001 to 41,000	11,801 to 14,600	10 per week
41,001 to 50,000	14,601 to 17,900	12 per week
50,001 to 59,000	17,901 to 21,100	15 per week
59,001 to 70,000	21,101 to 25,000	18 per week
70,001 to 83,000	25,001 to 29,600	20 per week

Bacteriological Sample Siting Plans / rTCR

Existing bacteriological sample siting plans may comply with the new State RTCR requirements IF THEY:

- Include the minimum number of routine samples per month in Table 64423-A of the regulations.
- Identify repeat sample locations for each routine sample location
- Identify triggered source sampling needed to comply with the Groundwater Rule
- Identify the sample schedule and rotation plan among sampling sites for collection of routine, repeat and triggered source sampling
- Identify the raw water sources that are continuously disinfected and require quarterly monitoring.

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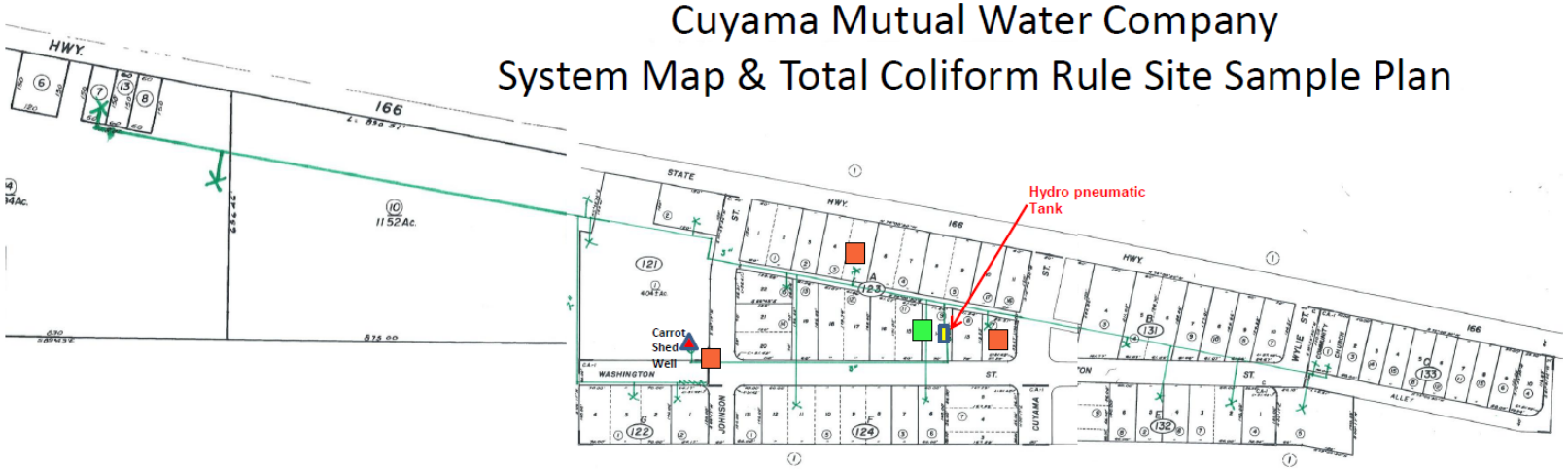
Sampling: Total Coliform (22 CCR § 64422)

Cuyama Mutual Water Company
System Map & Total Coliform Rule Site Sample Plan



System Information:
Cuyama MWC
PWS # 4200514
3045 Highway 166
PO Box 130
Cuyama, CA 93214

Phone # _____
Email: _____

Population: 30
Service Connections: 17
Water source: 1 Groundwater well
Treatment: none
Distribution Storage:
Hydropneumatic tank (500 gal)

Cuyama MWC Monitoring Plan

Samples Required per month: 1 Routine
Repeat Samples: 4 (1 Routine and 3 Repeat locations)
Follow –up Routine Samples : 5 Routine sample in the month after any positive sample

- Routine Sample Location: Hydro tank outlet
- Repeat Sample 1: Carrot Shed Well
- Repeat Sample 2: Old Cuyama Store
- Repeat Sample 3: ??

Water sampled by: Sandy Barnstead

Lab Name: Midway Laboratory
State Lab # 1396
Phone # 805- 765-2346

Positive Coliform Response Procedure:

- The lab will notify the following people within 24 hours of any positive sample from Cuyama MWC:
  Sandy Barnstead, Operator 999-999-9999
  Richard Ray, President 999-999-9999
- Check system for possible source of contamination, correct problems as necessary.
- Cuyama MWC will notify Santa Barbara Environmental Health Services with 24 hours of any positive sample:
  Norman Fujimoto, Env. Health Specialist 805-681-4917
  David Brummond, Supervisor EHS, 805-346-7348
  Environmental Health Service Office 805-681-4900
- Take repeat samples at Routine location, Repeat #1, Repeat #2 and Repeat #3 locations within 24 hours.

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rTCR - 8 Core Elements

1. Requires systems to investigate and correct any sanitary defects found whenever monitoring results show a system may be vulnerable to contamination
2. Establishes a Treatment Technique in place of MCL / MCLG for TC, with PN only for Treatment Technique violations (failure to conduct a required assessment or fix an identified sanitary defect)

rTCR - 8 Core Elements

3. Keeps *E. coli* as a health indicator with an MCLG of zero and MCL similar to current TCR
4. Provides criteria that well-operated ground water small systems must meet to qualify and stay on reduced monitoring
5. Requires increased monitoring for high-risk small ground water systems with unacceptable compliance history

rTCR – Monitoring Requirements

6. Monitoring requirements:
   - Keeps routine monitoring requirements for PWSs serving more than 4,100 people
   - For systems serving between 1,001 and 4,100 persons, reduces the required number of additional routine samples

RTCR – Monitoring Requirements

6. Monitoring requirements (cont):
   - For systems serving ≤ 1,000 persons
     - Reduces the required number of repeat and additional routine samples
     - Eliminates additional routine for PWSs monitoring at least once/month
   - Provides flexibility in the location of sites for repeat samples, and allows the use of dedicated sampling stations

RTCR - 8 Core Elements

7. Defines “seasonal systems”, requires start-up procedures and sampling during high vulnerability
8. Allows systems to transition at their current monitoring frequency
   - For GW systems serving ≤ 1,000 people, the State is to re-evaluate the frequency during each sanitary survey cycle

RTCR Review

1. Provide effective treatment
   - Monitoring, assessments
2. Provide a distribution system with integrity
   - Monitoring, assessments (including correction of deficiencies), maintenance
3. Prevent fecal contamination
   - See number 2

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Primary Drinking Water Standards

- Bacteriological Quality
- Inorganic Chemicals
- Fluoridation
- Radioactivity
- Organic Chemicals

Chapter 15

- Disinfection Byproducts
- Disinfectant Residuals

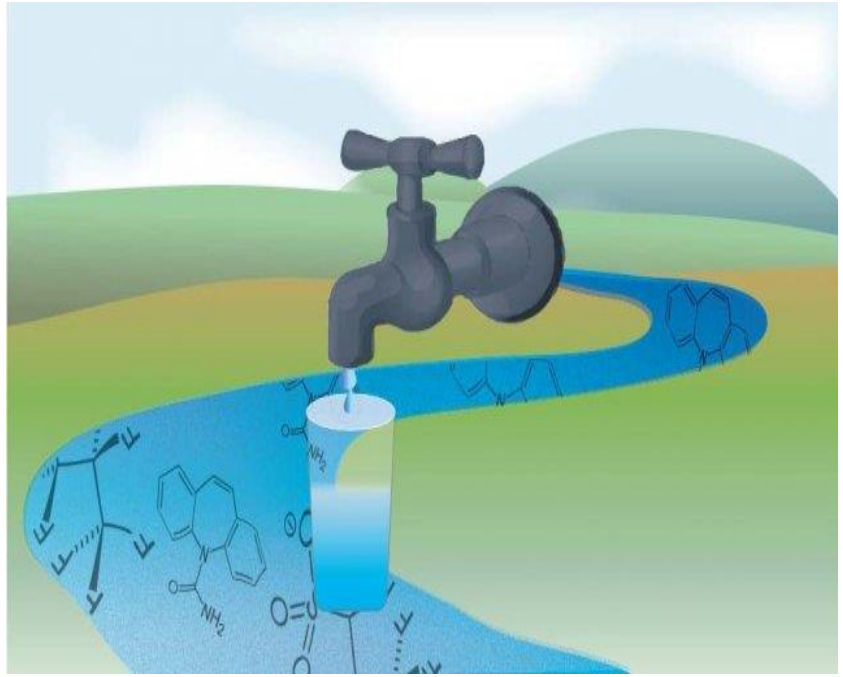
Chapter 15.5

- Surface Water Treatment

Chapter 17

- Lead and Copper

Chapter 17.5



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94 Contaminants have MCLs

Acronym	What is it?	More Info
• **Maximum Contaminant Level**	• The highest level of a contaminant that is allowed in drinking water. Health-based, enforceable standard	• Set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration.

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3 Disinfectants have MRDLs

Acronym	What is it?	More Info
• **Maximum Residual Disinfectant Level**	• The highest level of a disinfectant allowed in drinking water. Health-based, enforceable standard	• Applies to all systems that provide a disinfectant residual in the distribution system • Compliance samples taken with Total Coliform Rule samples

5+ Contaminants have TTs

Acronym	What is it?	More Info
• **Treatment Technique**	• A required process intended to reduce the level of a contaminant in drinking water.	• Used when analysis of actual contaminant is not feasible due to cost or complexity of analysis • Monitoring of surrogate in lieu of monitoring actual contaminant.

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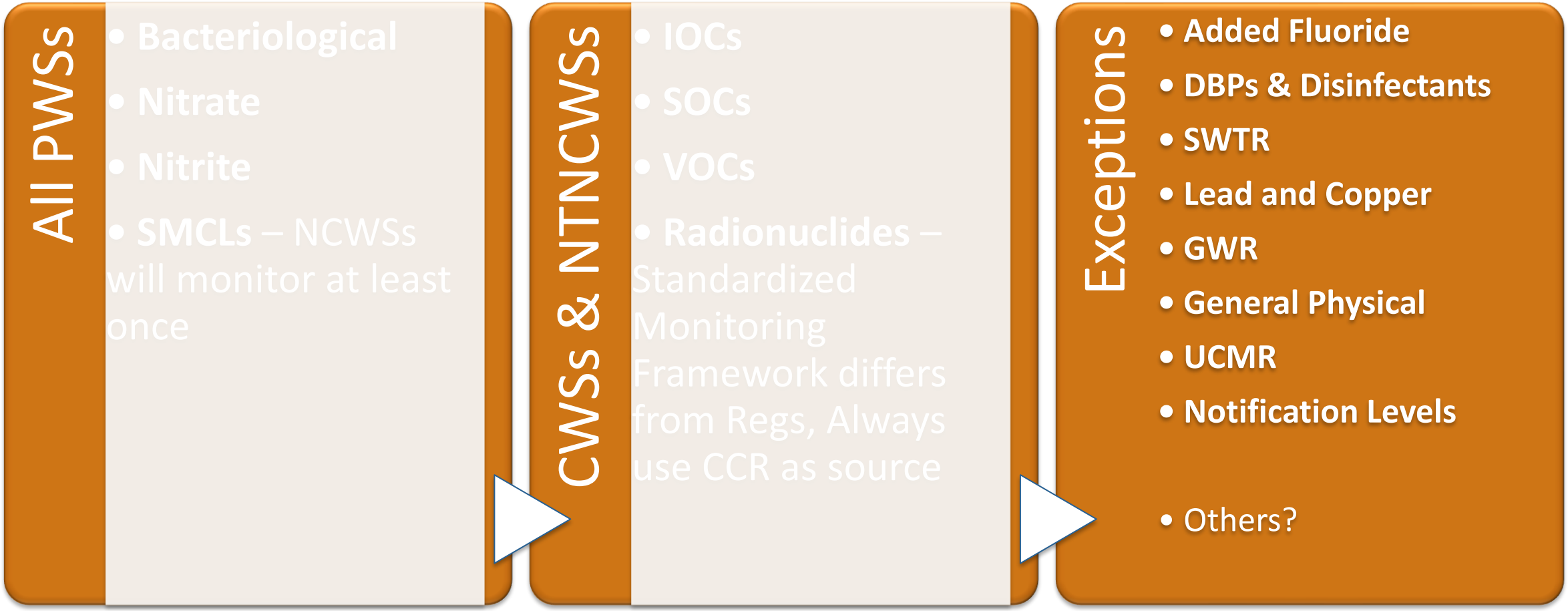
Sampling by Water System Type Overview



Inorganic Chemicals

22 CCR
§ 64431-64432

Sampling Frequency

- Ongoing sampling is based on previous sampling result, Ranges from quarterly sampling to one sample every 9 years
- Waivers for monitoring may be possible

Sampling Location

- Each water source or a minimum of one sample at every EPTDS which is representative of each source after treatment

More Info

- Sampling requirements regulations split into Inorganic, Nitrate/Nitrite, Asbestos, Perchlorate

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Most Inorganics

Initial Sampling, for CWS & NTNCWS

- Groundwater is once per compliance period
- Surface water is annually

If contaminant is trending towards higher levels, quarterly sampling

If sample exceeds the MCL, inform SWRCB within 48 hours

If sample is 10x the MCL, SWRCB can make you immediately discontinue use of that source

Nitrate/Nitrite

Initial Sampling

- Groundwater & TNCWS using surface water is annually
- CWS using surface water is quarterly

If sample exceeds the MCL, lab to notify PWS and State within 24 hours

If sample is ≥ ½ MCL, quarterly sampling is needed

Water Quality - Nitrate & Nitrite

Primary Drinking Water Standard

Health Concern

- Blue Baby Syndrome-Methemoglobinemia

Sources

- Fertilizers
- Human and Animal Waste
- Atmospheric Deposition

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Asbestos

Source water initial and ongoing sampling same as Most Inorganics

If distribution system has asbestos-cement pipe that could leach

- One sample at a tap served by AC pipe where contamination is most likely to occur

Perchlorate

Initial Sampling, for CWS & NTNCWS

- 2 samples in a year, 5-7 months apart
- 1 sample within May 1 & Sept 30

If no perchlorate is detected

- Groundwater = once per compliance period
- Surface water = annually

If sample exceeds the MCL, inform SWRCB within 48 hours and resample

- If average of original and repeat sample is > MCL, notify SWRCB
- If you fail to grab repeat sample, it's a Tier 1 Public Notice

Inorganics Sampling for Treated Water Sources

Monthly samples of treated water

If treated water is > MCL

- Notify SWRCB within 48 hours
- Resample within 48 hours
- Notify SWRCB of resample result within 24 hours

Nitrate, Nitrite, and Perchlorate has different requirements

SWRCB can require more frequent monitoring based on treatment process, treatment effectiveness & efficiency, and contaminant concentration in source water

Fluoridation

22 CCR
§ 64433 et al

If fluoridation treatment is required

- Daily - System must take grab sample
- Monthly - Certified lab analyzes duplicate system sample as QA/QC
- Tip – Grab sample early in the month

Radionuclides

22 CCR
§ 64441 et al

Sampling Frequency

- Initially 4 quarterly samples (gross alpha) from each source of supply
- Ongoing sampling ranges from quarterly sampling to 1 sample every 9 years
  - < DLR = once every compliance cycle
  - DLR < Sample < ½ MCL = once every 6 years
  - ½ MCL < Sample < MCL = once every compliance period

Radionuclides

22 CCR
§ 64441 et al

Sampling Location

- Each water source or a minimum of one sample at every EPTDS which is representative of each source after treatment

More Info

- Analysis for Uranium and Radium may be required
- If vulnerable to contamination by nuclear facilities, have to do Beta Particle and Photon Testing

Organic Chemicals

22 CCR
§ 64444-64445

Sampling Frequency

- Initially 4 quarterly samples from each source of supply
- Ongoing sampling is based on previous sampling result, Ranges from quarterly sampling to one sample every 9 years
- Waivers for monitoring may be possible

Sampling Location

- Each water source or a minimum of one sample at every EPTDS which is representative of each source after treatment

Organic Chemicals

22 CCR
§ 64444-64445

More Info

- If contaminant > DLR, notify the SWRCB within 48 hours and grab 1-2 repeat samples within 7 days
  - >3,300 population, sample monthly for 6 months
  - <3,300 population, sample quarterly for at least one year
- If sample is 10x the MCL, SWRCB can make you immediately discontinue use of that source

VOCs

After initial quarterly sampling, SOURCE WATER TYPE plays a role in ongoing sampling

Groundwater with no detection

- Sample annually
- No detections after 3 years of annual sampling, can reduce to once per compliance period

Surface water with no detection

- Sample annually

SOCs

After initial quarterly sampling, WATER SYSTEM SIZE plays a role in ongoing sampling

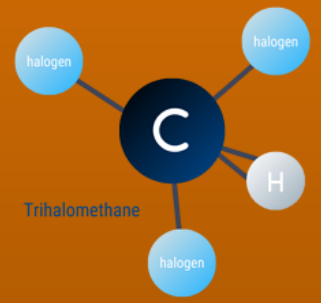
>3,300 Population

- Two quarterly samples in one year for each compliance period

<3,300 Population

- One sample in one year for each compliance period

Disinfection By-Products



22 CCR
§ 64530 et al

Applies to all CWSs & NTNCWSs that use a disinfectant

TTHMs/HAAs sampling done in the distribution system

- representative sample locations
- number of locations & frequency based on system size and water source

Bromate/Chlorite sampling required at EPTDS if ozone/chlorine dioxide used

SW systems must sample for DBP Precursors

Disinfectant Residuals

22 CCR
§ 64530 et al

Chlorine/Chloramines tested at same location and frequency as TCR sampling

Chlorine Dioxide Plants test daily at entry point to distribution system (EPTDS)

Surface Water Treatment Rule (22 CCR § 64650 et al)

22 CCR
§ 64650 et al

TT monitoring for disinfection & turbidity

- In lieu of direct monitoring for Giardia, Crypto, & viruses
- Continuous monitoring at IFE and CFE
- Daily IFE & CFE grab samples if PWS <500 people & is meeting performance requirements

Raw water sampling required for E.coli and/or cryptosporidium

Lead and Copper Rule

22 CCR
§ 64675-64679

- Initially two rounds of samplings in two six-month periods; samples AT CUSTOMERS' TAPS
- Sampling frequency may be reduced to once every 3 years (next slide)
- Waiver available for certain small systems that reduces frequency to once every 9 years
- If treatment is required, water quality samples are required to document reduction in corrosive properties

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LCR Triennial Sampling Frequency if…

Two consecutive periods of

↳90th percentile < 0.005 mg/L for lead & 0.65 mg/L for copper

↳ Proof that distribution system isn't leaching much lead & copper

After sampling for 3 years, no AL exceedance

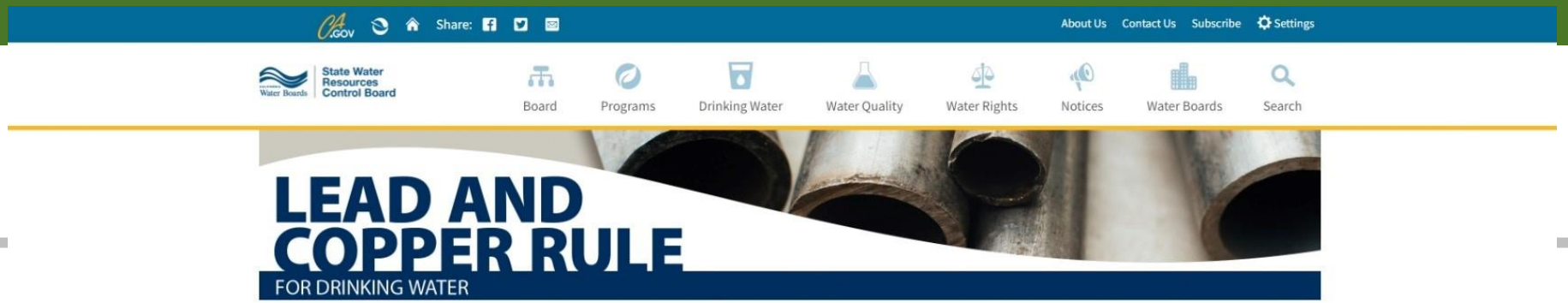
OR

Lead - Source water < MDL & 90th percentile ≤ DLR for each period

Sampling: Lead and Copper Rule

Table 64675-A
Lead and Copper Tap Sampling Sites

System Size	Standard Tap Sampling (Minimum Number of Sites)	Reduced Tap Sampling
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
<101	5	5



Home | Drinking Water | Certificates and Licenses | Lead and Copper Rule (LCR) | Regulatory Background

Regulatory Background

Lead and Copper Rule (LCR)

On June 7, 1991, the U.S. Environmental Protection Agency (US EPA) issued the Lead and Copper Rule (LCR) to protect public health and minimize lead and copper in drinking water. The State Water Resources Control Board, through the Division of Drinking Water (DDW), enforces the federal LCR through the California Lead and Copper Rule (CA LCR). The CA LCR requires water systems to monitor lead and copper levels at consumers' taps and implement treatment techniques triggered by certain action level exceedances.

Action Levels and Treatment Techniques

Ninety percent of tap samples for a water system must measure at or below the action level (AL) of **0.015 milligrams per liter (mg/L) for lead** and **1.3 mg/L for copper** for compliance under the LCR. The AL for lead may decrease under implementation of the LCRI. AL exceedances are not a violation of the National Primary Drinking Water Regulations, but instead serve as a trigger for water systems to perform a treatment technique. These treatment techniques include corrosion control treatment (CCT), source water treatment, lead service line replacement (LSLR), and public education and notification.

Lead and Copper Rule Revisions (LCRR)

On January 15, 2021, US EPA issued revisions to the federal LCR. US EPA's new Lead and Copper Rule Revisions (LCRR) aim to update six key areas of the LCR:

1. Identifying sites with significant sources of lead
2. Strengthening CCT requirements
3. Closing LSLR loopholes
4. Increasing tap sampling reliability
5. Improving risk communication
6. Public education and requiring lead sampling at schools and childcare facilities

On January 20, 2021, the LCRR was identified as an agency action requiring review. Consequently, US EPA delayed the effective and compliance dates of the LCRR, while engaging with stakeholders for input on changes to the LCRR.

[Lead and Copper Rule (LCR) Regulatory Background | California State Water Resources Control Board]

Secondary Drinking Water Standards

Contaminants that may cause:

- Aesthetic effects
- Cosmetic effects
- Technical effects

Manganese may have neurotoxicity at higher levels.

Manganese in California

- Manganese is regulated by a 0.05-mg/L secondary maximum contaminant level (MCL) (see drinking water regulations).
- The secondary standard was established to address issues of aesthetics (discoloration), not health concerns.
- In California, secondary MCLs are enforceable.

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Manganese in California

- USEPA's 0.05-mg/L federal secondary standard is a non-enforceable guideline.
- Secondary MCLs are enforceable standards in California but are applicable only to community systems.
- noncommunity systems, particularly nontransient noncommunity (NTNC) systems such as schools and workplaces, do not receive the benefits of the secondary standard.

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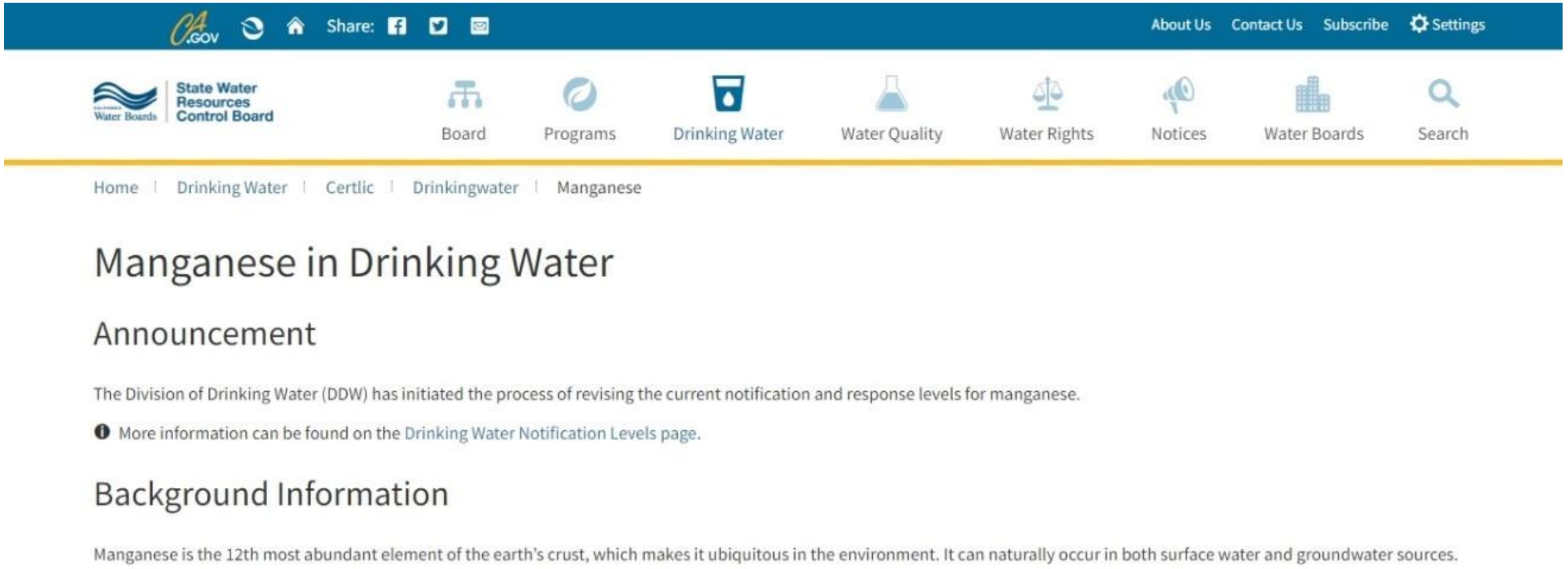
Manganese in California



Manganese in Drinking Water | California State Water Resources Control Board

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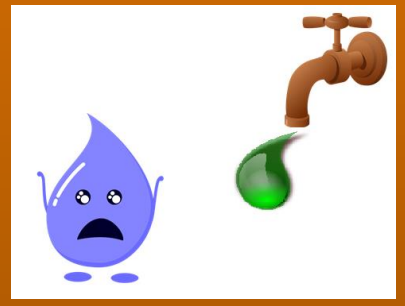
16 Constituents have SMCLs

Acronym	What is it?	More Info
• **Secondary Maximum Contaminant Level**	• MCLs for contaminants that affect taste, odor, or appearance of the drinking water	• Contaminants with SDWSs do not affect the health at the MCL levels. • Must comply or obtain a waiver

Secondary MCLs



22 CCR
§ 64449

NTNCWS & TNCWS will monitor at least once

CWS will monitor

- ✓ **Groundwater** sources or EPTDS representative of the effluent of source treatment every **3 years**
- ✓ **Surface water** sources or EPTDS representative of the effluent of source treatment **annually**

If contaminant >SMCL, sample quarterly

If average of four quarterly samples >SMCL, treatment is required, or a waiver is needed from DDW

Sampling: Secondary MCLs

Constituents	*Maximum Contaminant Levels/Units*
Aluminum	0.2 mg/L
Color	15 Units
Copper	1.0 mg/L
Foaming Agents (MBAS)	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Methyl- *tert* -butyl ether (MTBE)	0.005 mg/L
Odor -Threshold	3 Units
Silver	0.1 mg/L
Thiobencarb	0.001 mg/L
Turbidity	5 Units
Zinc	5.0 mg/L

Table 64449-B

Constituent, Units	*Recommended*	*Upper*	*Short Term*
Total Dissolved Solids, mg/L	500	1,000	1,500
or			
Specific Conductance, µS/cm	900	1,600	2,200
Chloride, mg/L	250	500	600
Sulfate, mg/L	250	500	600

Other Sampling

- Groundwater
- General Physical
- UCMR
- Notification Levels

Groundwater Rule

22 CCR
§ 64430

Monitoring that applies to all groundwater systems

Assessment Monitoring

- SWRCB can require at any time and require systems to take corrective action

Triggered Monitoring

- Required when triggered by a positive Routine TCR sample

Compliance Monitoring

- If treatment is required, TT monitoring is required to document removal/disinfection

General Physical Samples (22 CCR § 64449)

22 CCR
§ 64449

DDW may require general physical samples (color, odor, turbidity) in the distribution system

If Required, sample frequency is:

- >1,000 connections = 1 sample every 4 TCR samples
- 200 to 1,000 connections = 1 sample per month
- <200 connections= per DDW/LPA

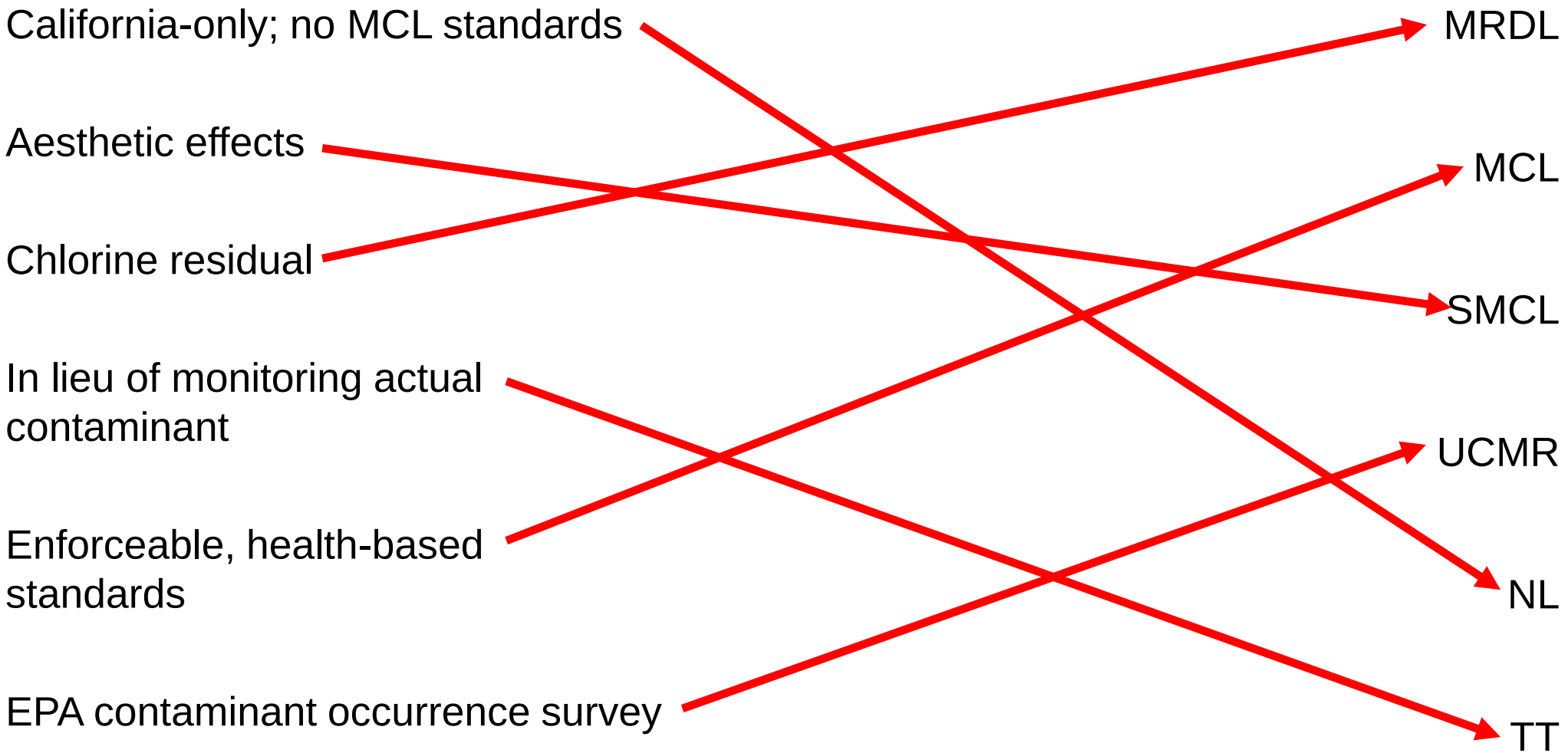
30 Contaminants on UCMR5

Acronym	What is it?	More Info
Unregulated Contaminant Monitoring Rule	Non-regulated contaminants; purpose is to provide basis for setting MCLs	• 5th round of monitoring 2022 to 2026 • 29 PFAS compounds & Lithium • Required for all system >10,000 population and 800 selected small systems

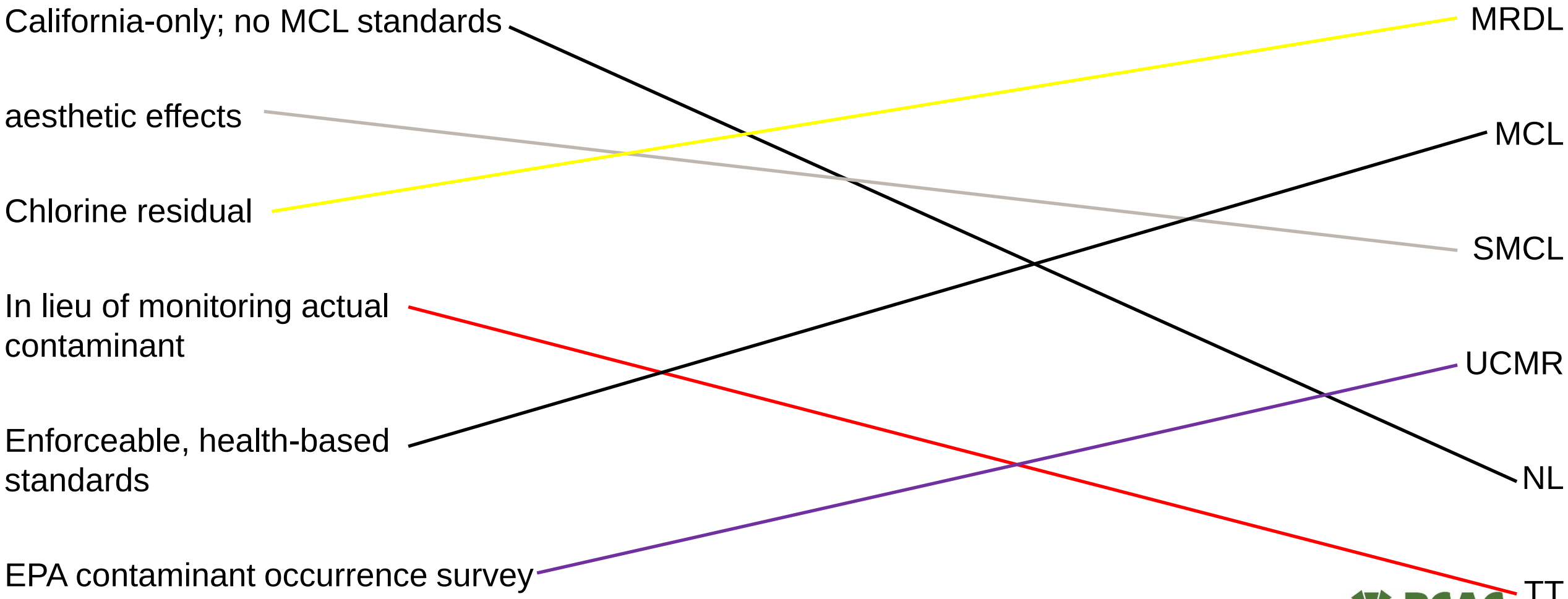
33 Contaminants have NLs

Acronym	What is it?	More Info
• **Notification Levels**	• Health-based advisory levels established by the Division of Drinking Water (DDW) for chemicals in drinking water that lack MCLs	• California-only standard, monitoring not required • When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply. • The level at which DDW recommends removal of a drinking water source from service is called the "response level."

Review: Types of Contaminants



Review: Types of Contaminants



(Line tool exercise)

Chain-of-Custody

Chain-of-Custody

The chain-of-custody form provides essential information needed by the laboratory to correctly report your data to the state drinking water database.

If your data is not reported correctly, you may not get credit for your monitoring and a monitoring violation may occur.

How to get your reporting right:

1. Report sample data correctly (Chain-of-Custody)

2. Review your reported data (Drinking Water Watch)

3. Communicate with your laboratory

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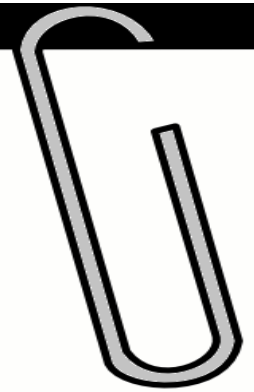
Primary Station Code (PS Code)



PS Code is an identifier for each sampling location

- **OLD PS code =** 1710013-001

  PWS ID + Sampling Point Identifier
- **NEW PS code =** CA1710013_005_005

  PWS ID + Facility ID + Sample Point Identifier
- **COC -> CLIP -> SDWIS -> DWW**

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Chain-of-Custody Exercise

You are the operator of the Callayomi County Water District. Your job is to take and submit a nitrate sample from each of your two active wells and a DBP sample at the maximum residence time location.

What is the essential info on the chain-of-custody form to ensure data gets to the State and into SDWIS?

SUBURBAN TESTING LABS

Chain of Custody Record

1037F MacArthur Road, Reading, PA 19605
610-375-TEST - Fax: 610-375-4090 - suburbantestinglabs.com

TAT(Check One): ☒ Standard ☐ 24hr ☐ 48hr ☐ 72hr ☐ Other____
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID:_____

Client Name:	Project Name:
Address:	Address:
Phone:	
Fax:	
Contact Name:	Payment / P.O. Info:
Email:	

Comments:

SWTL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below: Matrix	Sample Type	Bottle Type	Preservative	Comments / Field Data:

Relinquished By:	Date: _____ Time:		
Received By:	Date: _____ Time:	Temp °C: _____ Acceptable: Y / N	
Relinquished By:	Date: _____ Time:	Temp °C: _____ Acceptable: Y / N	
Received in Lab By:	Date: _____ Time:	Temp °C: _____ Acceptable: Y / N	

Sample Conditions

- Submitted with COC? Y / N
- Number of containers match number on COC? Y / N
- All containers in tact? Y / N
- Tests within holding times Y / N
- 40 mL VOA vials free of headspace? Y / N

Matrix Key

NPW = Non-Potable Water
Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg)
PW = Potable Water (not for SDWA compliance)
SDWA = Safe Drinking Water Act Potable Sample

Sample Type Key

G = Grab
8HC = 8 Hr. Composite
24HC = 24 Hr. Composite

SDWA Sample Types

D=Distribution
E=Entry Point
R=Raw
C=Check
S=Special
M=Maximum Residence

Bottle Type Key

P = Plastic
G = Glass
O = Other

Preservative Key

N = Sodium Thiosulfate
A = Ascorbic Acid
H = HNO_3
C = HCl
S = H_2SO_4
OH = NaOH
O = Other
NA = None Required

Reporting Options

☐ SDWA Reporting
PWSID: _____
☐ Fax
☐ Email
☐ Other_____
☐ Return a copy of this form with Report

Signing this form indicates your agreement with SWTL's Standard Terms and Conditions unless otherwise specified in writing. SLF059 Rev. 1.4 Effective November 12, 2014
Shaded areas are for SWTL use only.

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Chain of Custody Record

1037F MacArthur Road, Reading, PA 19605
610-375-TEST - Fax: 610-375-4090 - suburbantestinglabs.com

TAT(Check One): ☒Standard ☐24hr ☐48hr ☐72hr ☐Other____
(Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID:

Client Name: CA1710013-CALLAYOMI COUNTY WATER DISTRICT
Address: P.O. BOX 623 MIDDLETOWN,CA 95461
Phone: 707-987-2180
Fax:
Contact Name: Jim McVeigh
Email: JMcVeigh@RCAC.ORG

Project Name:
Address:
Payment / P.O. Info:

Comments:

SWTL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below: Matrix	Sample Type	Bottle Type	Preservative	Comments / Field Data:
	DIAMOND WELL / ~~1710013-001~~	6/26/19	1315	JM	Nitrates	1	SDWA	R	G	H	compliance sample
	WELL 01 (BIG CANYON / ~~1710013-002~~	6/26/19	1430	JM	Nitrates	1	SDWA	R	G	H	compliance sample
	DBP - 21070 SANTA CLARA RD / ~~1710013-007~~	6/29/19	1450	JM	Total Trihalomethanes	2	SDWA	M	G	A	Compliance sample
	DBP - 21070 SANTA CLARA RD / ~~1710013-007~~	6/29/19	1455	JM	Haloaccetic acids 5	2	SDWA	M	G	A	

1710013_001_001
1710013_002_002
1710013_DST_009
1710013_DST_007

Relinquished By: Date: Time:
Received By: Date: Time: Temp °C: ____ Acceptable: Y / N
Relinquished By: Date: Time: Temp °C: ____ Acceptable: Y / N
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Sample Conditions
Submitted with COC? Y / N
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SDWA Sample Types
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O = Other

Preservative Key
N = Sodium Thiosulfate
A = Ascorbic Acid
H = HNO_3
C = HCl
S = H_2SO_4
OH = NaOH
O = Other
NA = None Required

Reporting Options
☒SDWA Reporting
PWSID: CA1710013
☐Fax
☒Email
☒Other EDT
☒Return a copy of this form with Report

Signing this form indicates your agreement with SWTL's Standard Terms and Conditions unless otherwise specified in writing. SLF059 Rev. 1.4 Effective November 12, 2014
Shaded areas are for SWTL use only.

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ELAP

[Environmental Laboratory Accreditation Program (ELAP) | California State Water Resources Control Board]

Environmental Laboratory Accreditation Program (ELAP)

MISSION: To implement a sustainable accreditation program that ensures laboratories generate environmental and public health data of known, consistent, and documented quality to meet stakeholder needs.

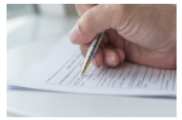
VISION: Through effective program implementation and continuous improvement of ELAP, California will utilize the highest quality scientific data as a foundation for its environmental and public health programs and decisions.

Important News – Be In the Know!

- ***New!*** ELAP releases new Timeline Guidance Tool - February 10, 2022
- Central Valley Regional Water Quality Control Board seeks laboratory participation in method development efforts – September 24, 2021
- 2016 TNI Standard read-only copy now permanently available. To access the documents, enter the password: T6E79WS
- Sacramento Superior Court upholds the ELAP regulations
- ELAP Fee Notices will now be sent electronically! – August 30, 2021
- Information about Proficiency Testing Requirements – May 19, 2021
- Information about Laboratory Personnel Requirements in the New Regulation – May 5, 2021
- Information and Reminders about Renewal Applications – April 20, 2021
- Information on the new CA ELAP Fees – April 15, 2021
- Sign up for the TNI Documentation Workshop!

About ELAP

Who we are, what we do, and the latest news. Environmental Laboratory Accreditation Program (ELAP) program information, announcements, and an events calendar.



Apply for Accreditation

Application forms, Fields of Accreditation Tables, and fee information.

Subscribe directly to the ELAP Email List

Map of Accredited Laboratories

- **LOOKING FOR A LAB?**
  Search our Geographic Information System (GIS) Map to find ELAP-accredited laboratories.

2022 California ELAP Conference

- For details and registration information, please visit the ELAP Conference Webpage.

Report a Laboratory

- To report a concern or complaint about an environmental laboratory, please contact the Supervisor of ELAP's Enforcement Team, Alexandria Turner, at Alexandria.Turner@waterboards.ca.gov or (916) 323-3433.

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Sampling Procedures

General Sampling Procedures

- Water Sampling and Analysis Plan
  - ✓ What are we sampling for?
  - ✓ Where are sampling locations? Access granted?
  - ✓ Number of samples?
  - ✓ Quality Control Requirements
- Check with lab that sampling equipment, preservatives, hold times and procedures are appropriate for the Analytical Methods they use to test for contaminants
- Always wear gloves and eye protection when handling preservatives
- Open preservative bottles away from face

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Dedicated Sampling Station

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General Sampling Procedures Continued

- Have Neutralization supplies on hand
- Ensure sample areas are clean and safe
- Cold water faucet, high enough to fit bottle underneath, free of appurtenances like aerators and hoses*
- Flush line for 2-3 minutes*
- Fill out chain of custody form
- Deliver and ship samples to lab to ensure holding times are met
- Dedicated Ice Chest – wet ice, blue ice, zip lock bag

*Lead & Copper – do not remove appurtenances or flush lines

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Is This a Good Sampling Site? Why or Why Not?

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Practice Your Technique!

- The lab will provide bottles
- Practice collecting samples (VOC and Bac-T)!
- Treat them all like a Bac-T?
- Gloves or no gloves?
- Zip lock bag?
- Designated Ice Chest (wet or blue ice)
- Designated Refrigerator!
- Water vs. Wastewater?

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Is This a Good Sampling Site? Why or Why Not?

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Helpful Hints

- Flow control helpers
- Work with your Laboratory
- Check in with your regulator or TA provider
- Look over your monitoring schedules routinely
- Complete sampling early in the month and early in the week
- Request bottles, labels and COCs from the lab
- Pre-fill out the labels and COCs
  - Use a fine tip sharpie
- Dedicated Ice Chest – wet ice, blue ice, zip lock bag

- Others?

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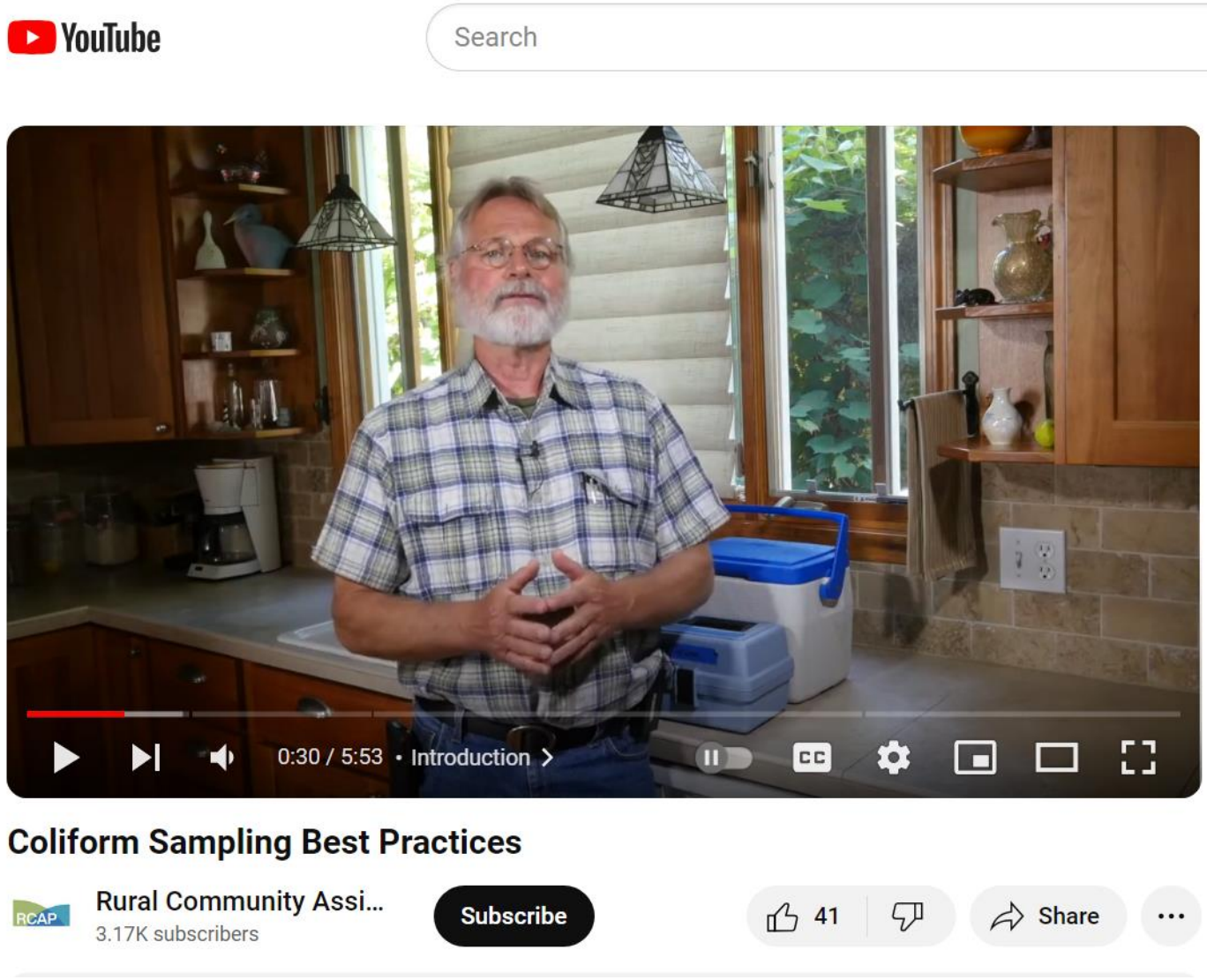
RCAP Sampling Video



- Coliform Sampling Best Practices (youtube.com)

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Other Sampling Tips

- Check for chlorine residual
- Avoid swivel faucets
- Cold water ONLY
- Do not adjust flow during sampling
- Remove aerator if applicable
- Be very careful!
- Clean up your work place

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Tips for Selecting Sample Sites

- Accessible
- Above “big dog” height
- Consider dedicated sample taps
- No leaking valves or packing
- No threaded hose bibs (when possible)
- Good flow control
- No bushes or vegetation
- Can be flushed vigorously

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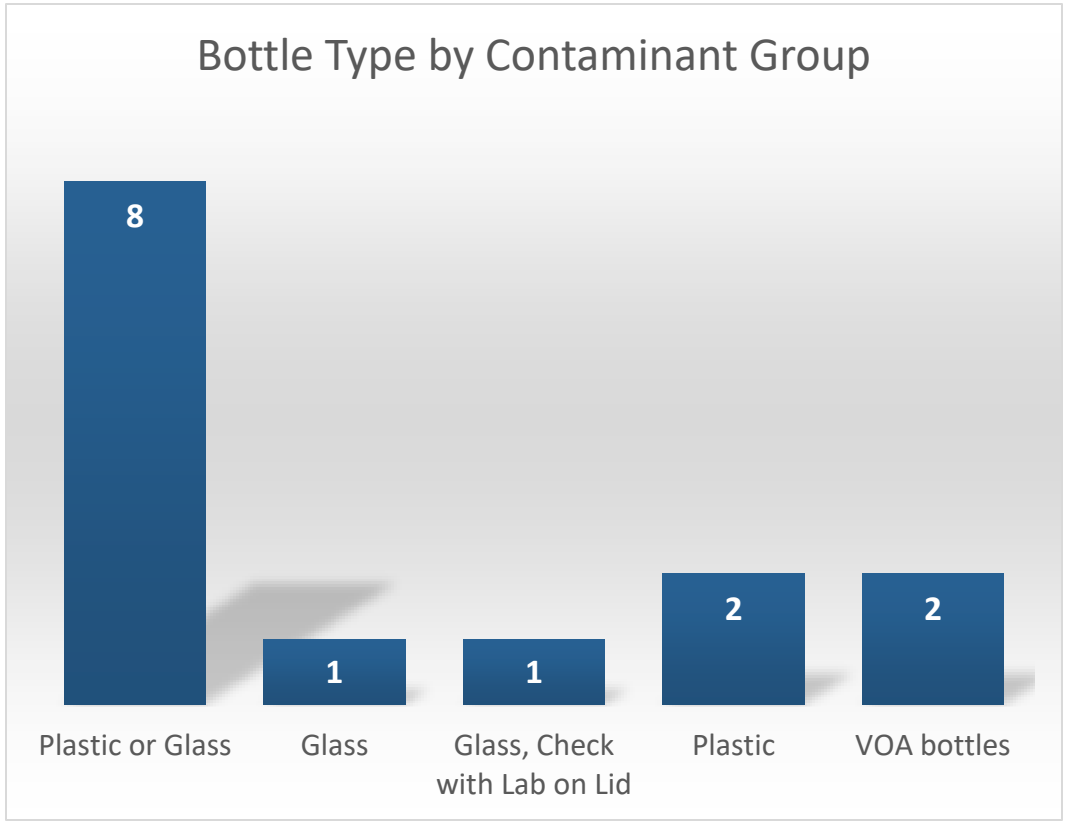
How do we sample?

- Different bottles for each sample:
  - ✓ ***Bottle Type*** – glass vs. plastic, clear vs. amber, etc.
  - ✓ ***Bottle Size***
  - ✓ ***Chemical Preservative*** - Acidified (“fixes” a sample so its composition doesn’t change)
  - ✓ ***Fill Level*** - Fill-line, Air (1-2 inches from top), or No air bubble (meniscus)
- Different procedures for each sample:
  - ✓ ***Temperature Preservative***
  - ✓ ***Hold Time***
  - ✓ ***Sampling Instructions***

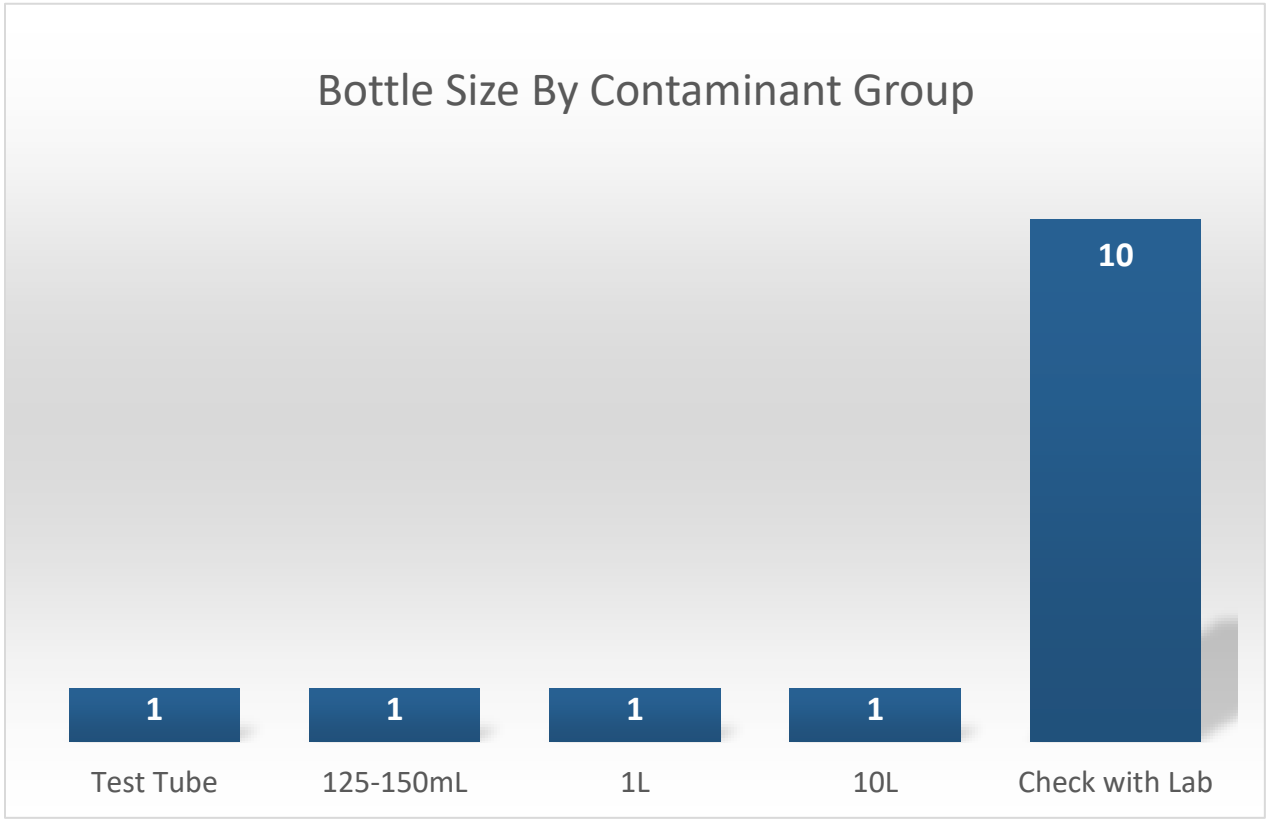
Bottle Type



Exceptions

- HAA5 (Glass)
- SOCs (Glass, check on lid)
- Biological (Plastic)
- Giardia/Crypto (Plastic)
- TTHMs (VOAs)
- VOCs (VOAs)

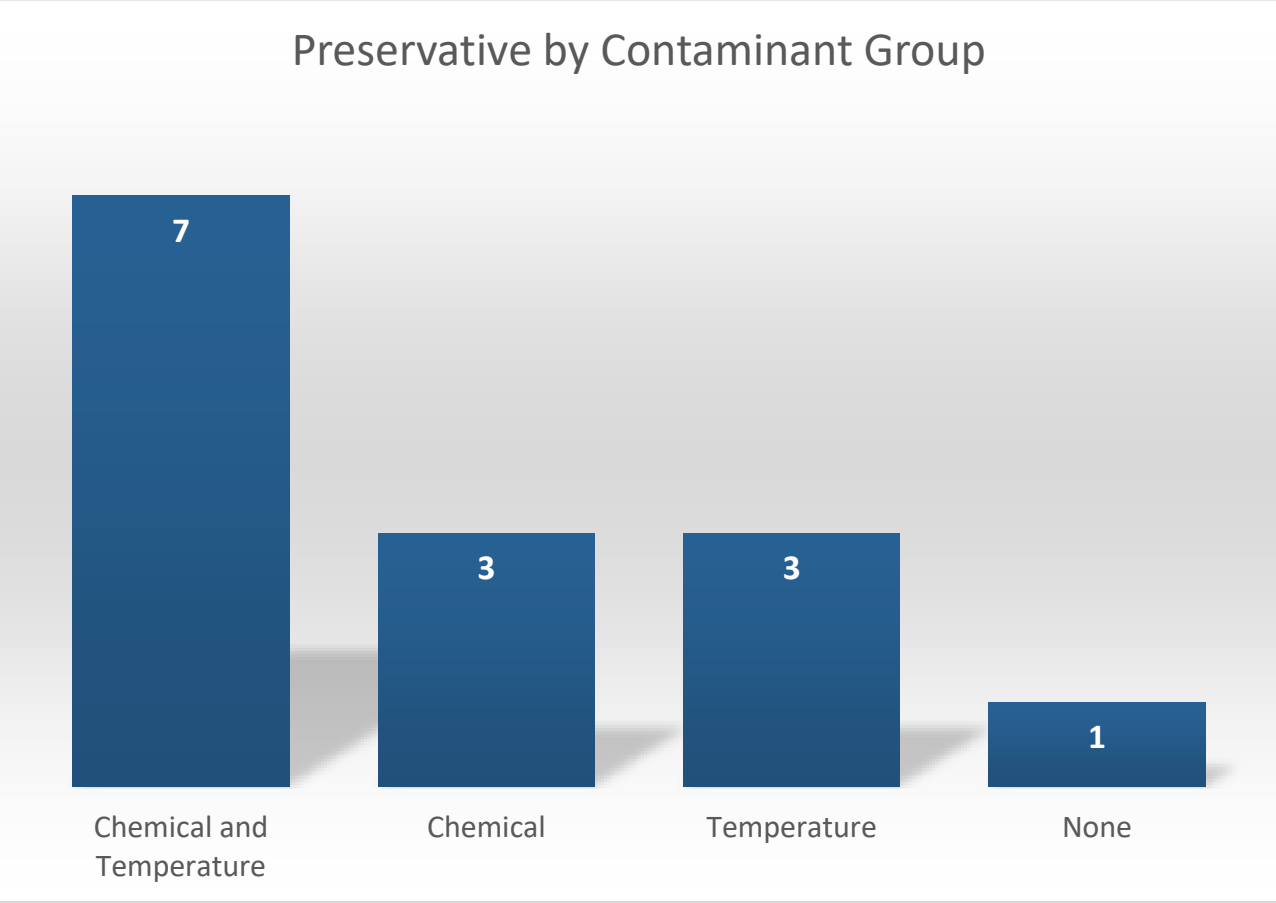
Bottle Size



Exceptions

- Disinfectant (Test Tube)
- Biological (125-150mL)
- Asbestos (1L)
- Giardia/Crypto (10L)

Preservative



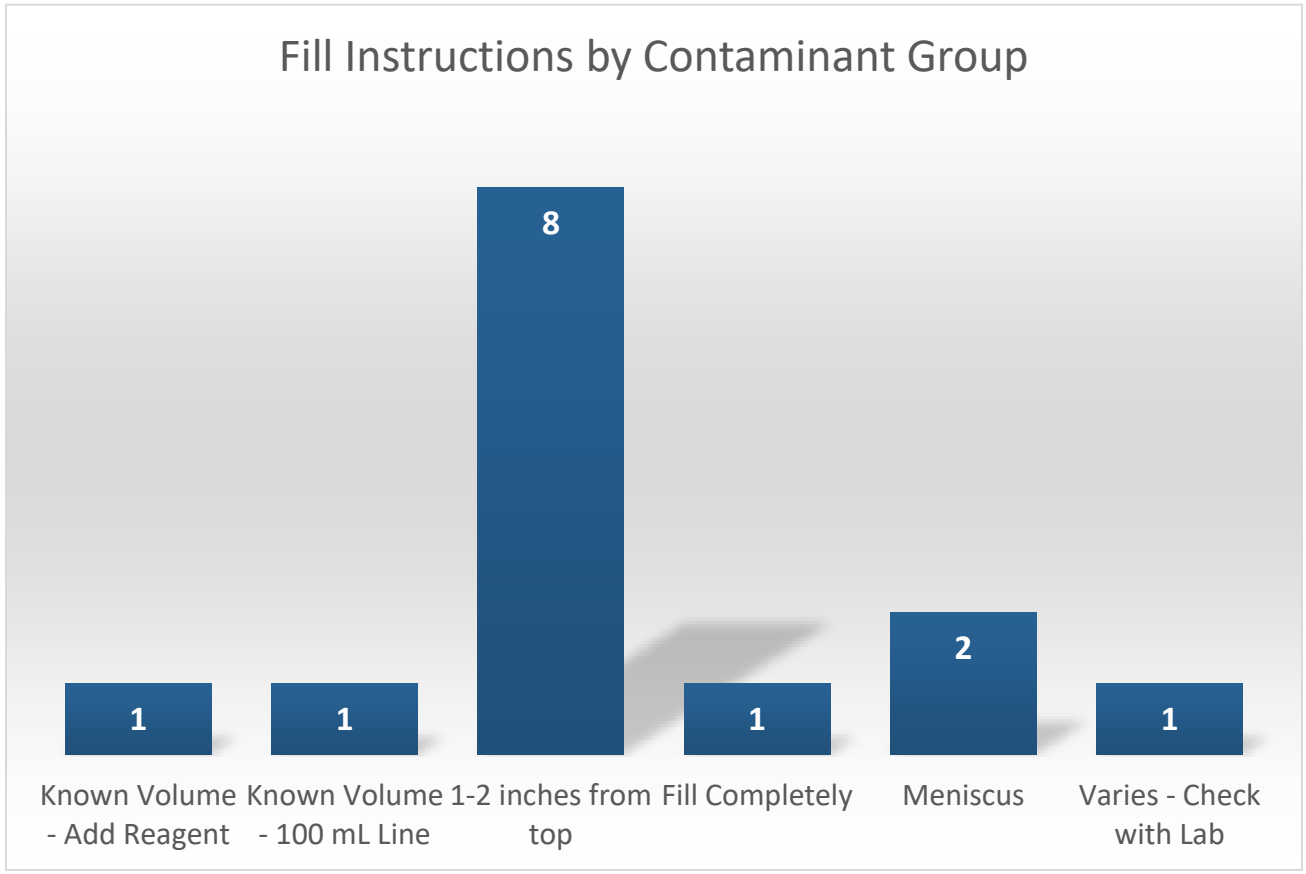
Exceptions

- Chemical Only
  - IOCs (preserved & metals) & Radionuclides
- Temp Only
  - Asbestos, Giardia/Crytpo, IOCs (unpreserved)
- No Preservatives
  - Disinfectant

Holding Time

Contaminant Group	Holding Time
Disinfectant	Test Immediately
Biological	8+ hours
IOCs (unpreserved)	Short
SOCs	Short
Asbestos	48 Hours
Giardia/Crypto	96 hours
Radionuclides	8 days or 6 Months
Cyanide	14 days
VOCs	14 days
TTHMs	14 days
HAA5	14 or 28 days
TOC	28 days
IOCs (preserved)	28 days
IOCs (metals)	28 days or 6 months

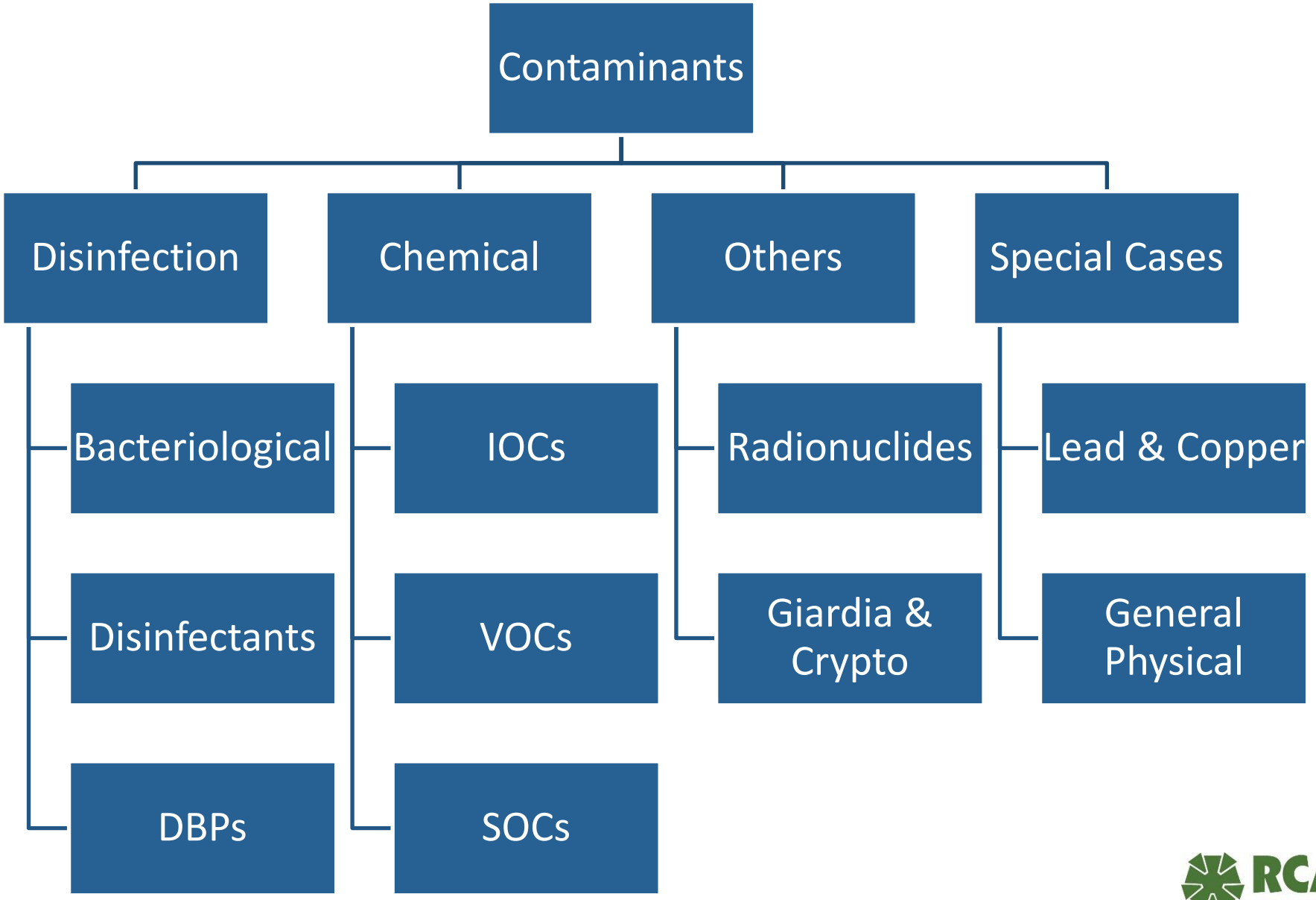
Fill Instructions



Exceptions

- Known volume
  - Disinfectant & Biological
- Fill Completely
  - Giardia/Crytpo
- Meniscus
  - TTHMs & VOCs
- Varies
  - SOCs

Sampling Overview



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Sampling for Coliform in Distribution System

- **Sampling Summary**
  - ✓ Do not rinse the bottle
  - ✓ Flush the line
  - ✓ Reduce flow to pencil width
  - ✓ Take cap off bottle and keep lid face down off the ground.
  - ✓ Fill to 100 mL

- **Bottle** = 100ml Sterile Clear Poly
- **Preservative** = $Na_2O_3S_2$ (sodium thiosulfate), <50°F for source, recommended <50°F for distribution recommended
- **Hold Time** = 8 hours for source, 30 Hours

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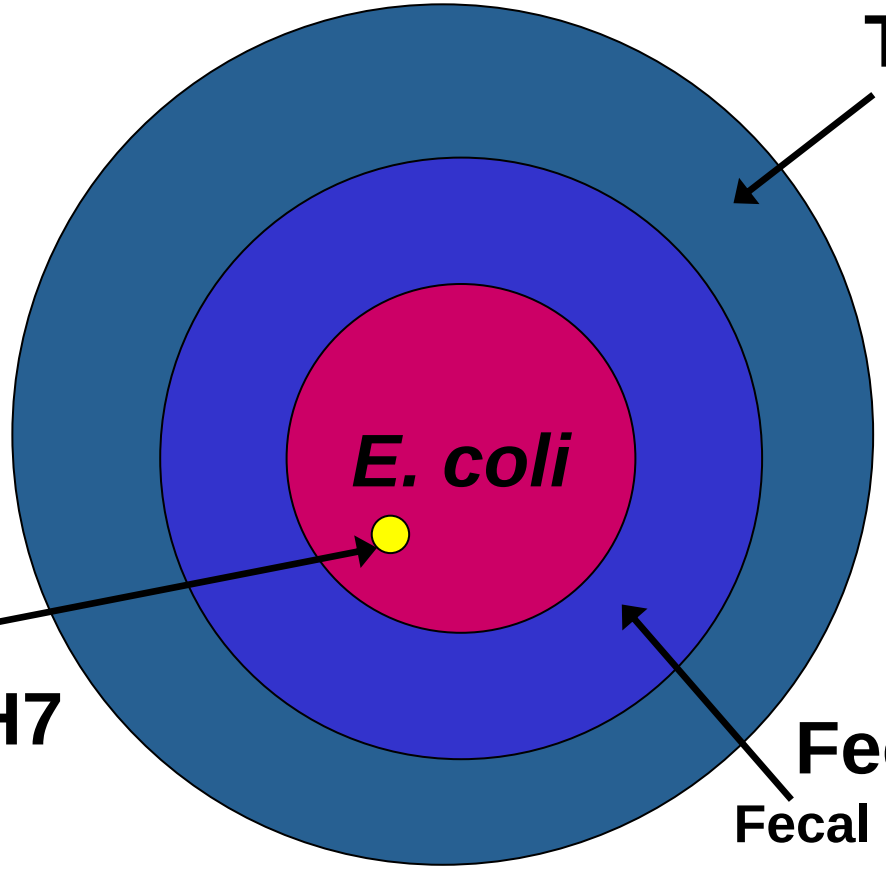
What is a Coliform?



Total Coliform

Total Coliform = Environmental Contamination

***E. coli* O157:H7**

Fecal Coliform

Fecal Coliform & *E. coli* = Fecal Contamination

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The Coliform Sample

- What is a coliform sample?
- 100 mL sterile bottle
- Fill to fill line
- Contains sodium thiosulfate
- Bottle provided by the laboratory
- Taken/mailed to lab with chain of custody
- Lab results reported as present or absent
- Sample taken by trained personnel

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Why Do We Need Certified Operators?

Walkerton, Ontario in 2000

E.coli Outbreak

Over 2,000 Sick
Six Deaths

Walkerton E. coli outbreak - Wikipedia

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Coliform Sample Bottle

- Method – Presence/Absence
- Bottle – 100ml Sterile Clear Poly
- Preservative – None
  - Sodium Thiosulfate
- Hold Time – 30 Hours
- http://amslabs.com/environmental-microbiology/elap-requirements

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Disinfection & DBPs

Disinfectants

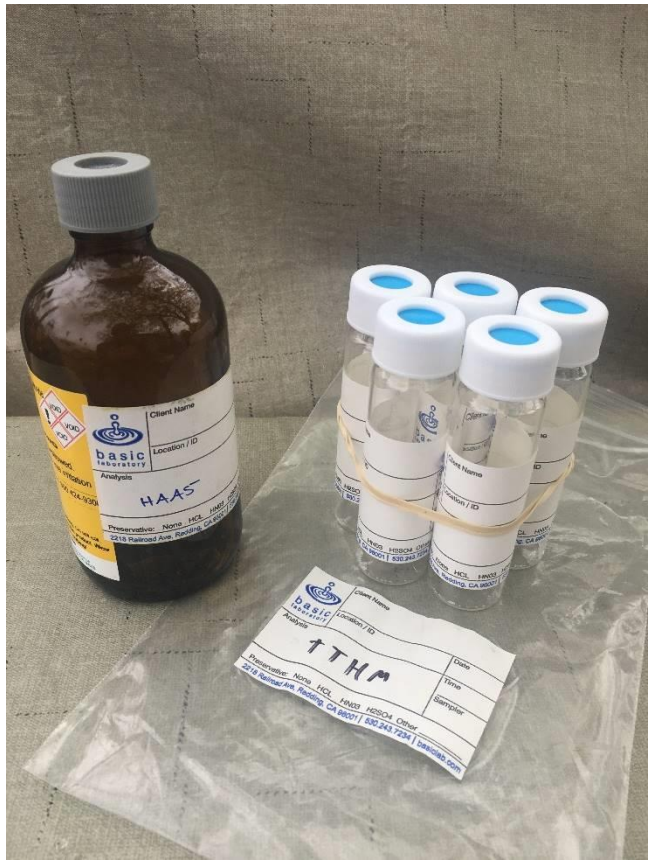
- **Sampling Summary**
  - ✓ Flush the Line
  - ✓ Measure known volume of sample
  - ✓ Mix with DPD reagent
  - ✓ Measure pink color using spectrophotometer or color comparator

- **Bottle** = Test kit tube or flask
- **Preservative** = None
- **Hold Time** =Test immediately

Disinfection By-Products – TTHM

- **Sampling Summary**
  - ✓ Check with lab on sample volume
  - ✓ Slowly fill bottle allowing to flow down inside of bottle
  - ✓ Meniscus of water at the top, no air bubble
  - ✓ Check for air bubble by inverting closed sample

- **Bottle** = Five (5) 40ml VOA
- **Preservative** = $Na_2S_2O_3$, HCl (Hydrochloric Acid), ≤39.2°F
- **Hold Time** = 14 Days

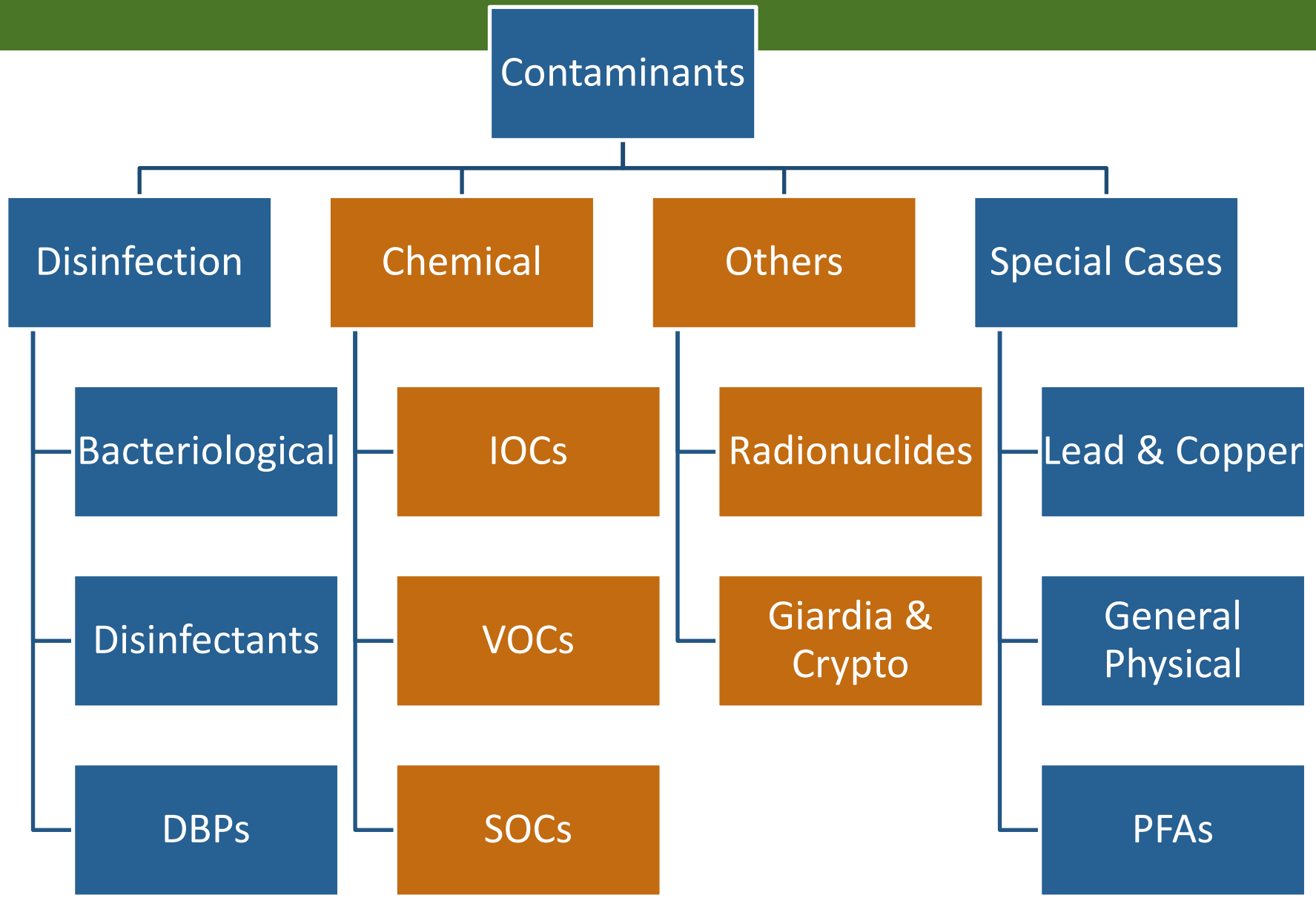


Disinfection By-Products – HAA5

- **Sampling Summary**
  - ✓ Check with lab on sample volume
  - ✓ Do not rinse the bottle if preservative present
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = 250ml Amber Glass
- **Preservative** = NH_4Cl (ammonium chloride), ≤ 39.2°F
- **Hold Time** = 14 or 28 Days depending on lab method used

Sampling Teach Back and Practice



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Sampling Teach Back and Practice

For Your Contaminant Group

- Bottle Type
- Bottle Size
- Preservative
- Hold Time
- Sampling Summary/Other Notes

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Chemical Contaminants

IOCs, VOCs, SOCs

Inorganics (IOCs)

- Antimony
- Arsenic
- Asbestos
- Barium
- Beryllium
- Cadmium
- Chromium
- Cyanide
- Fluoride
- Mercury
- Nitrate
- Nitrite
- Selenium
- Thallium

Inorganics (unpreserved)

- **Sampling Summary**
  - ✓ Check with lab on sample volume
  - ✓ Rinse the bottle 3 times
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = Check with Lab
- **Preservative** = ≤ 39.2°F
- **Hold Time** = Short

Inorganics (preserved)

- **Sampling Summary**
  - ✓ Check with lab on sample volume and preservation requirements
  - ✓ Bottle rinsing dependent on method
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = Check with Lab
- **Preservative** = H_2SO_4 (Sulfuric Acid) < 2
- **Hold Time** = 28 days

Inorganics – Nitrate & Nitrite

- **Sampling Summary**
  - ✓ Check with lab on sample volume and preservation requirements
  - ✓ Bottle rinsing dependent on method
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = 500 mL Clear Poly
- **Preservative** = None *or* H_2SO_4 (Sulfuric Acid)
- **Hold Time** = 48 hours *or* 28 days

Inorganics – Metals

- **Sampling Summary**
  - ✓ Check with lab on sample volume
  - ✓ Do not rinse the bottle if preservative present
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = 500mL Clear Poly
- **Preservative** = HNO3 (nitric acid)
- **Hold Time** = 28 days for mercury, 180 days for other metals

Inorganics – Fluoride

- **Sampling Summary**
  - ✓ Check with lab on sample volume
  - ✓ Rinse bottle three times with sample water
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = 500mL Clear Poly
- **Preservative** = None
- **Hold Time** = 28 days

Inorganics – Cyanide

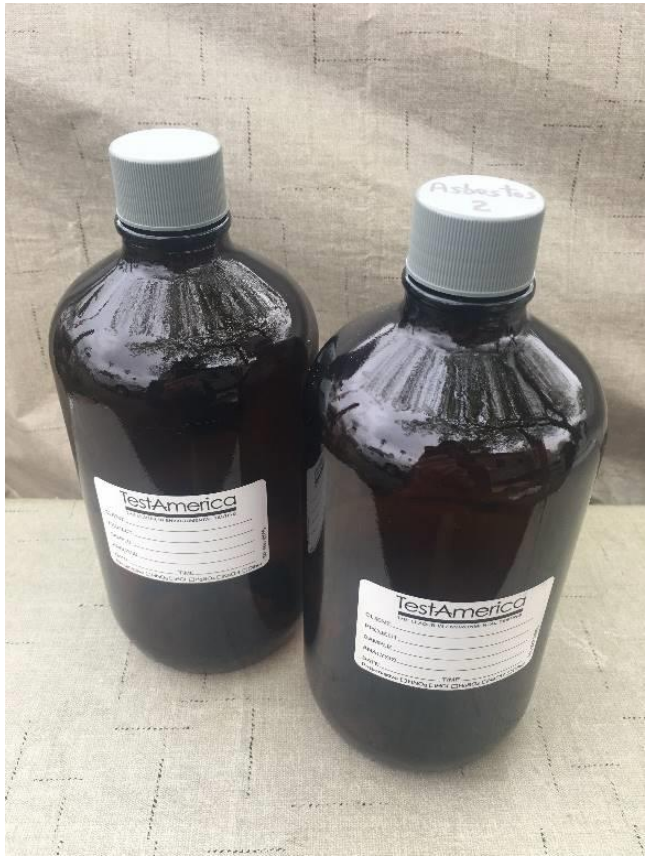
- **Sampling Summary**
  - ✓ Check with lab on sample volume
  - ✓ Do not rinse the bottle if preservative present
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = 1 Liter Brown Poly
- **Preservative** = Ascorbic Acid if chlorinated, NaOH (sodium hydroxide), ≤ 39.2°F
- **Hold Time** = 14 days

Inorganics - Asbestos

- **Sampling Summary**
  - ✓ Check with lab on sample volume
  - ✓ Rinse bottle 3 times with sample water
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = 1 Liter Amber Glass
- **Preservative** = None
- **Hold Time** = 48 hours



Organics – VOCs

- Benzene
- Carbon Tetrachloride
- cis-1,2-Dichloroethelyne
- Dichloromethane
- Ethylbenzene
- Chlorobenzene
- p-Dichlorobenzene
- Styrene
- Tetrachloroethylene
- Toluene
- trans-1,2-Dichloroethylene
- Trichloroethylene
- Vinyl Chloride
- Xylenes (total)
- o-Dichlorobenzene
- 1,1-Dichloroethylene
- 1,1,1-Trichloroethane
- 1,1,2- Trichloroethane
- 1,2-Dichloroethane
- 1,2-Dichloropropane
- 1,2,4-Trichlorobenzene

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Organics - VOCs

- **Sampling Summary**
  - ✓ Check with lab on sample volume, duplicates or triplicates
  - ✓ Do not rinse the bottle if preservative present
  - ✓ Slowly fill bottle allowing to flow down inside of bottle
  - ✓ Meniscus of water at the top, no air bubble
  - ✓ Check for air bubble by inverting closed sample

- **Bottle** = 40mL Volatile Organic Ampule (VOA
- **Preservative** = Sodium Thiosulfate *or* Ascorbic Acid if chlorinated, HCl, ≤ 39.2°F
- **Hold Time** = 14 days

Organics – SOCs

- Alachlor (Lasso)
- Atrazine
- Carbofuran
- Chlordane
- Dibromochloropropane (DBCP)
- 2,4-D
- Ethylene Dibromide (EDB)
- Heptachlor
- Heptachlor epoxide
- Lindane
- Methoxychlor
- Polychlorinated biphenyls (PCBs)
- Pentachlorophenol
- Toxaphene
- 2,4,5-TP (Silvex)
- Benzo(a)pyrene
- Dalapon
- Di (2-ethyhexyl) adipate
- Di (2-ethyhexyl) phthalates
- Dinoseb
- Diquat
- Endothall
- Endrin
- Glyphosate
- Hexachlorobenzene
- Hexachlorocyclopentadiene
- Oxymal (Vydate)
- Picloram
- Simazine
- 2,3,7,8-TCDD (Dioxin)

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Organics - SOCs

- **Sampling Summary**
  - ✓ Check with lab on sample volume, duplicates or triplicates
  - ✓ Do not rinse the bottle if preservative present
  - ✓ Be extra safe if preservative is Mercuric Chloride
  - ✓ Ask lab how to fill bottle as it will depend on method being used

- **Bottle** = Glass bottle, check with lab on specifics of bottle and lid
- **Preservative** = Check with Lab, ≤ 39.2°F
- **Hold Time** = Generally short, check with lab

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11 Sets of SOCs

Check with Your Lab for Each

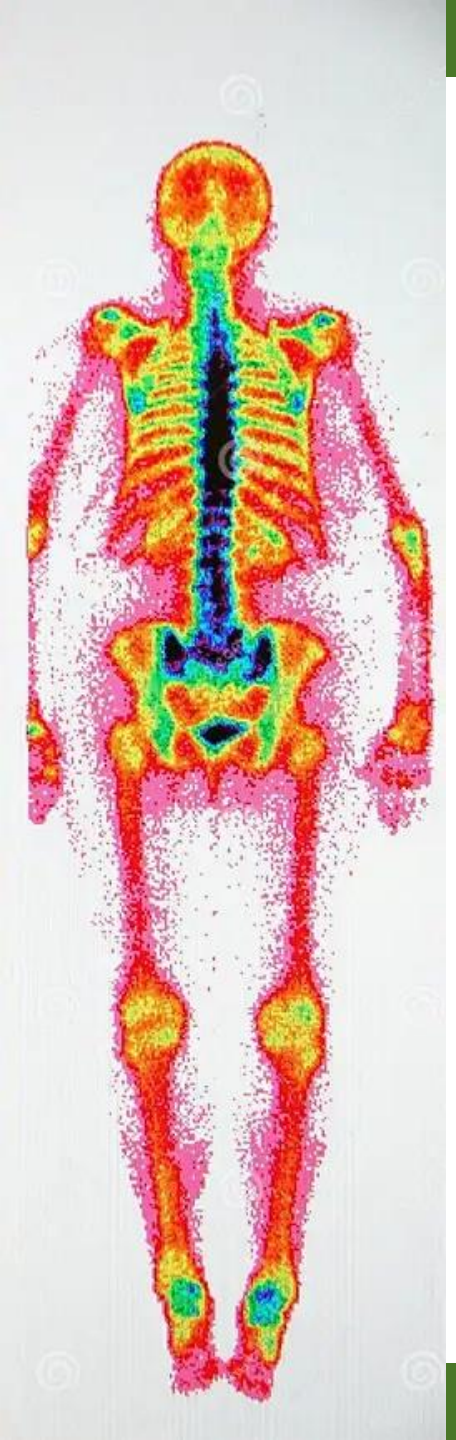
- **Sampling Summary**
- **Bottle**
- **Preservative**
- **Hold Time**

(1) EDB/DBCP
(2) DEHP/DEHA
(3) NP Pesticides
(4) DEHP/DEHA
(5) Herbicides
(6) Carbamates
(7) Endothall
(8) Diquat
(9) Benzo(a)pyrene
(10) Glyphosate
(11) 2,3,7,8-TCDD (Dioxin)

Other Sampling

Radionuclides

Giardia & Crypto



Radionuclides

- Uranium
- Gross Alpha
- Gross Beta
- Radium 226
- Radium 228

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Radionuclides

- Waters influenced by volcanic activity
- Waters near a nuclear reactor

- **a nuclide that has excess numbers of either neutrons or protons, giving it excess nuclear energy, and making it unstable. -Wikipedia**

Radionuclides

- **Sampling Summary**
  - ✓ Check with lab on sample volume
  - ✓ Do not rinse the bottle if preservative present
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = 1 Liter poly
- **Preservative** = HCl *or* HNO_3 , None for Iodine-131
- **Hold Time** = 180 days, 8 days for Iodine-131

Giardia and Cryptosporidium

- **Sampling Summary**
  - ✓ Check with lab on analytical method, this summary is most common instructions
  - ✓ Rinse sample cube three times
  - ✓ Fill cube completely and refrigerate
  - ✓ Ship in pre-cooled cooler with ice

- **Bottle** = Plastic cubes
- **Preservative** = ≤50°F prior to shipping, maintain ≤68°F during shipment
- **Hold Time** = 96 hours

Special Case Sampling

Lead & Copper

General Physical

PFAs

Lead and Copper

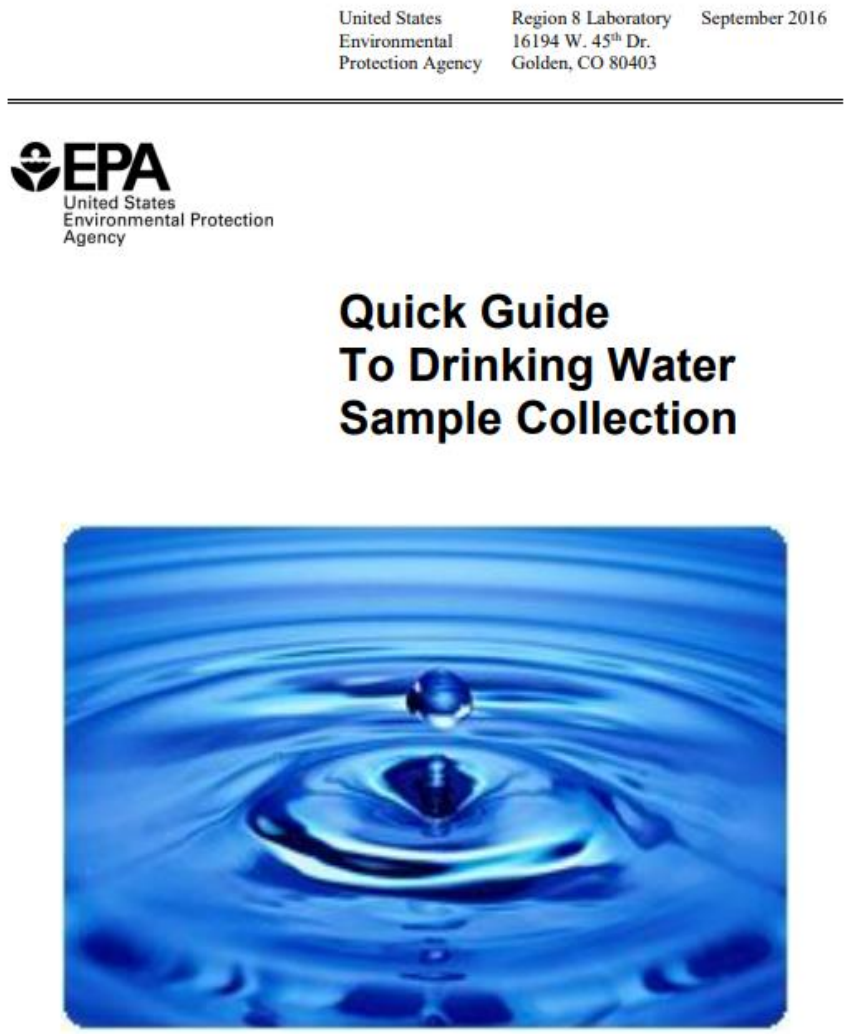
- **Sampling Summary**
  - ✓ Pick high risk homes (Copper plumbing, prior to 1983)
  - ✓ Let customer line sit for 6 hours, do not remove aerators
  - ✓ Collect first draw at customer's tap that is regularly used

- **Bottle** = 1 Liter poly, wide mouth
- **Preservative** = None
- **Hold Time** = 180 days

General Physical – Color, Odor, TDS, Turbidity, etc

- **Sampling Summary**
  - ✓ Check with lab on sample volume
  - ✓ Rinse bottle and cap three times with sample water
  - ✓ Fill to 1-2 inches below the top

- **Bottle** = Plastic preferred, Glass may be ok
- **Preservative** = ≤39.2°F
- **Hold Time** = Generally short, check with lab



EPA "Quick Guide" to Sampling

[Quick Guide To Drinking Water Sample Collection - Second Edition Updated (epa.gov)]

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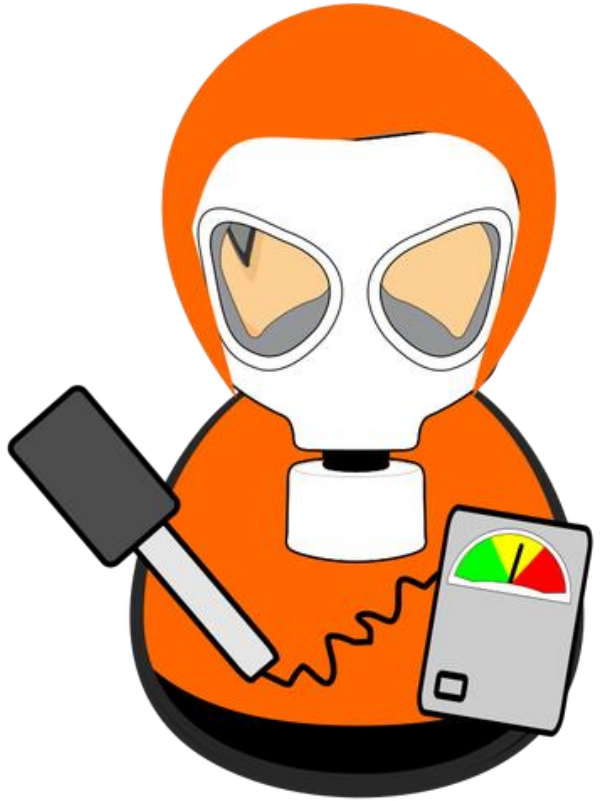
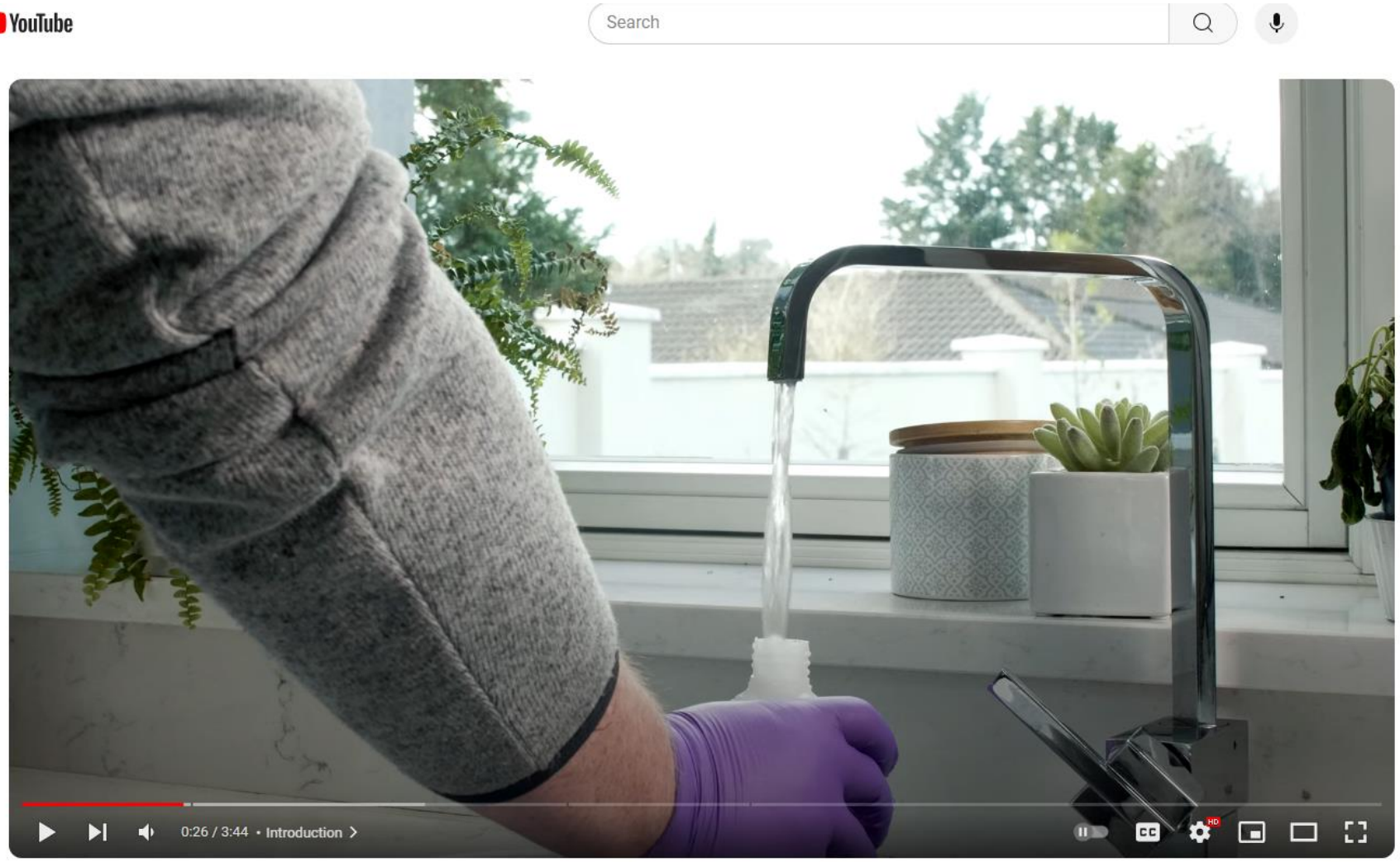
PFAS

- PFAS/PFOA sampling is going to be challenging
- May want to consider contracting out sampling
- Southern Scientific's Guide to PFAS Sampling (youtube.com)





PFAS Sampling Video

- Southern Scientific's Guide to PFAS Sampling (youtube.com)

Monitoring and Reporting in California

CLIP, SDWIS, PDWW

Ideal water quality data flow

WATER SAMPLE COLLECTED & DELIVERED TO LAB

SAMPLE ANALYZED BY LAB

STATE WATER BOARD / CLIP

WATER SYSTEM

COUNTY

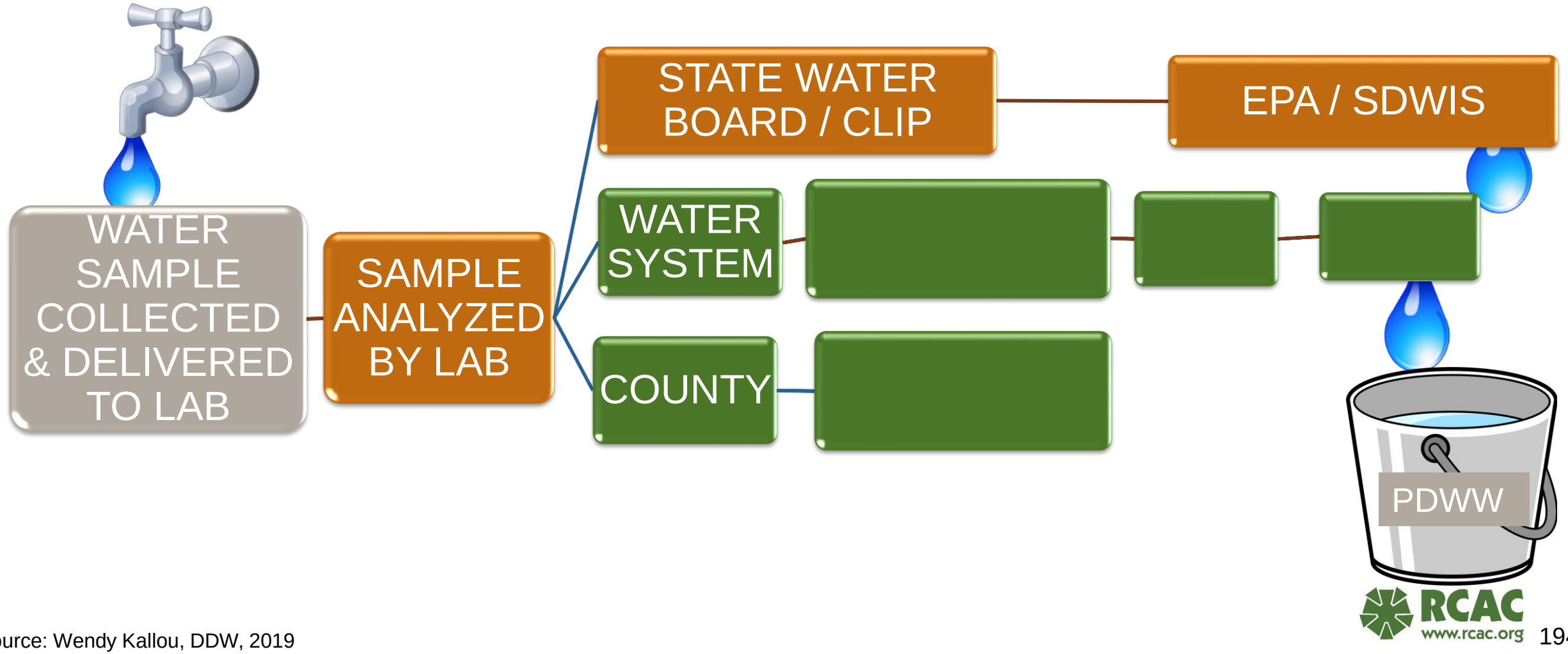
PDWW

Compliance Monitoring

Compliance Reporting

Source: Wendy Kallou, DDW, 2019

How does the State manage lab data?



Source: Wendy Kallou, DDW, 2019

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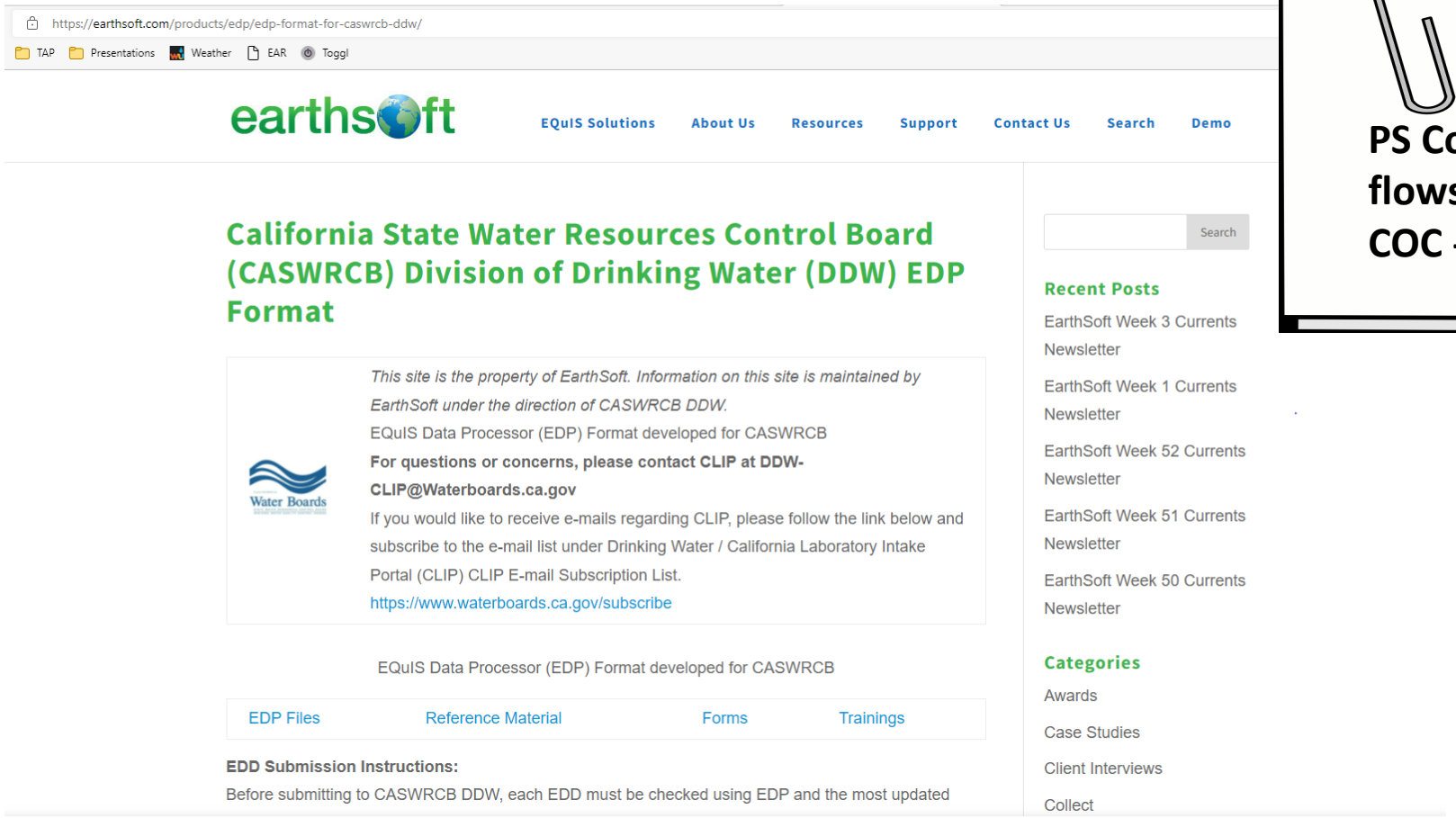
CLIP - California Laboratory Intake Portal



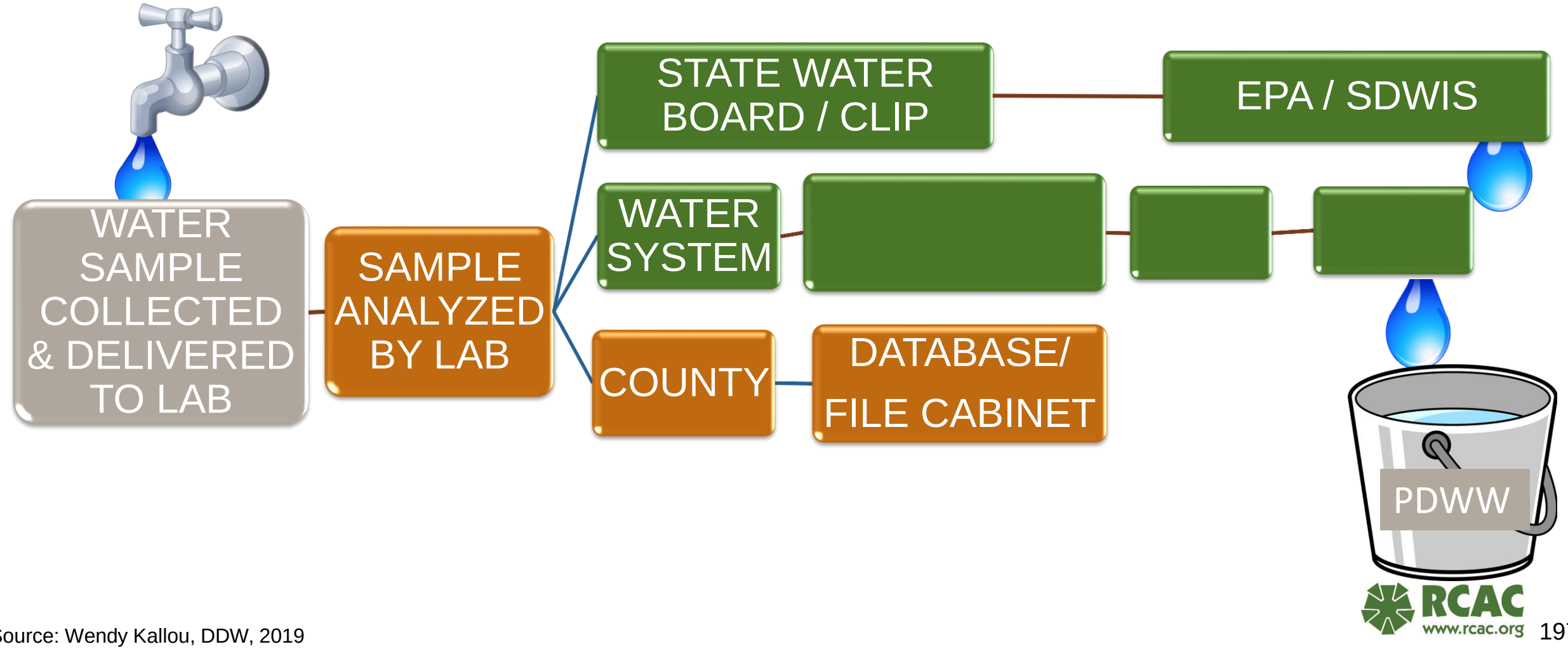
Remember

PS Code Ensures that information flows properly
COC -> CLIP -> SDWIS -> DWW

SDWIS – Safe Drinking Water Information System

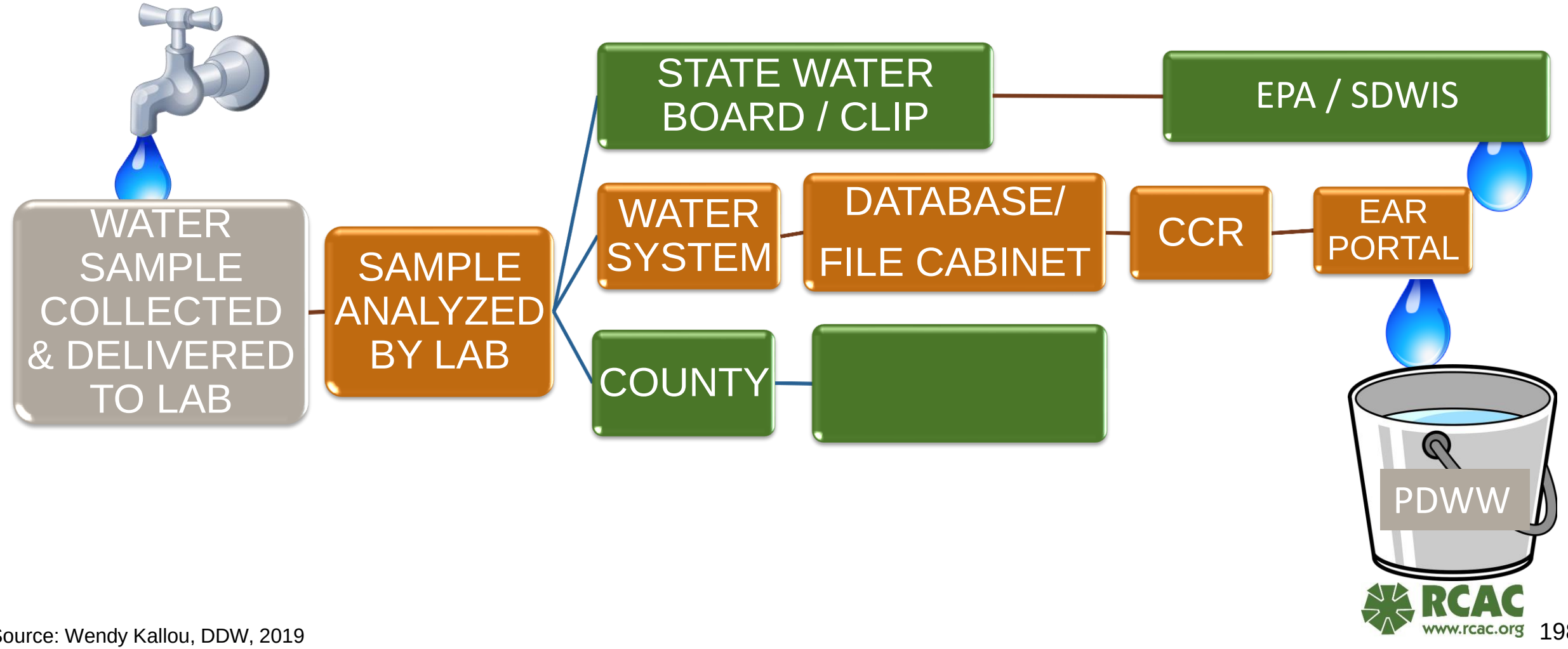
- Run by the EPA
- Required by SDWA
- Stores information about PWSs and their violations of drinking water regulations
- Information can be viewed via Drinking Water Watch

What is the County's Role?



Source: Wendy Kallou, DDW, 2019

Store Your Lab Results & Other Documentation



Source: Wendy Kallou, DDW, 2019

Records Retention – How Long? (22 CCR § 64470)

Biological Analyses	5 Years
Chemical Analyses	10 Years
Written Reports	10 Years
Variances & Exemptions	5 Years
Violation Corrective Actions	3 Years

Reporting to the Public

Public Notification and Consumer Confidence Report

What is Public Notification (PN)?

PWSs need to alert consumers to potential health risks from violations of drinking water standards and other situations

Templates for Public Notification | California State Water Resources Control Board

The Public Notification Rule:
A Quick Reference Guide

RCAC www.rcac.org

Public Notification Rule (22 CCR §64461 et al)

- General Requirements
- Tiers / Delivery Requirements
- Content Requirements
- Coordination with the State

General Requirements

Applies to all Public Water Systems (PWS)

Situations Requiring Public Notice:

- national primary drinking water regulations violations
- unregulated contaminants
- variance or exemption
- special public notices

Tiers

Tier	Violation Type	Deadline	Examples
1	Acute	24 hours	• MCL violation for E. Coli, Nitrate, Nitrite, Perchlorate, Chlorite • TT violation of SWTR • Microbial Outbreak • Other acute health violations
2	Other Serious	30 days	• MCL/MRDL violation that is not Tier 1 • Monitoring and Testing requirement that SWRCB decides is not Tier 3 • Failure to comply with Variance or Exemption
3	All Other	1 year	• Violations that aren't Tier 1 or Tier 2 • Operating under variance or exemption • Monitoring Violations • Reporting failures • Record keeping failures

Delivery Requirements

Provide in a form and manner that will reach all persons served within deadline

- Tier 1 (24 hours)
- Tier 2 (ASAP, within 30 days)
- Tier 3 (annual)

- Via broadcast media, posting of notice, & mail or hand delivery

- Multilingual notice requirements, if necessary

Content Requirements

- Description of the violation or situation
- When it occurred
- Potential health effects
- Population at risk
- If alternate water should be used
- Actions consumers should take
- Corrective actions being take
- Timeframe for return to compliance
- Name, #, and address for more info
- Encourage community notification

Coordination with State

Consultation with State

- Required for all Tier 1 violations

Certification of Compliance to State

- PWS certifies that all PN requirements have been met
- Within 10 days of providing PN

Recordkeeping

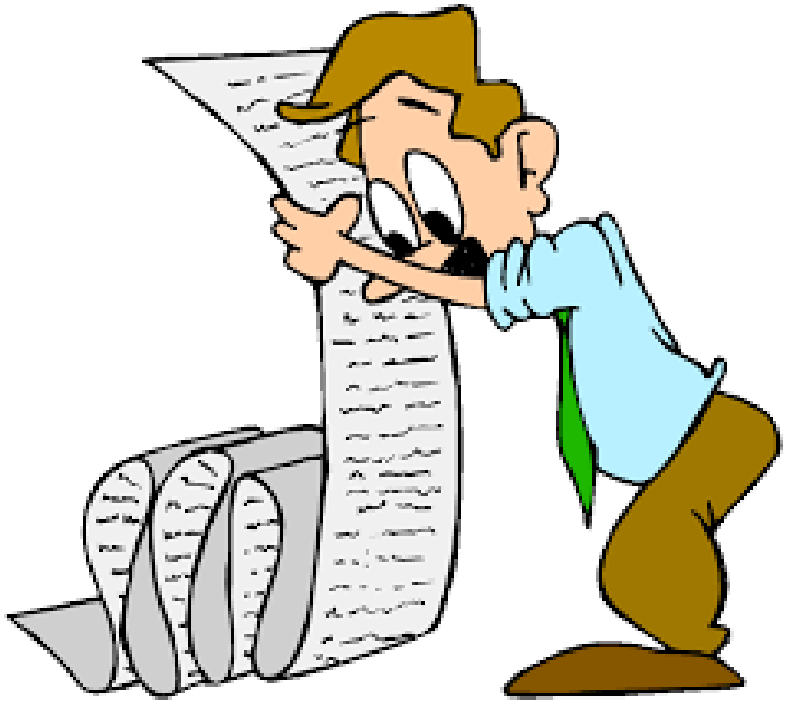
- PWS & State must keep copies of PN and Certification for 3 years

Public Notice

- Public Notice is required when any PWS violates a provision of the CA SDWA

- Each water system required to give public notice shall submit the notice to the Primacy Agency, in English, for approval prior to distribution or posting

What is the Consumer Confidence Report (CCR)?



CCR provides consumers information about the quality of their drinking water in an easy-to-read format

Consumer Confidence Reports (CCRs) | California State Water Resources Control Board

Consumer Confidence Report Rule:
A Quick Reference Guide

Consumer Confidence Report (22 CCR §64480 et al)

Delivery Date & Requirements

- Delivered to customers by July 1st of every year
- By mail or electronically and upon request

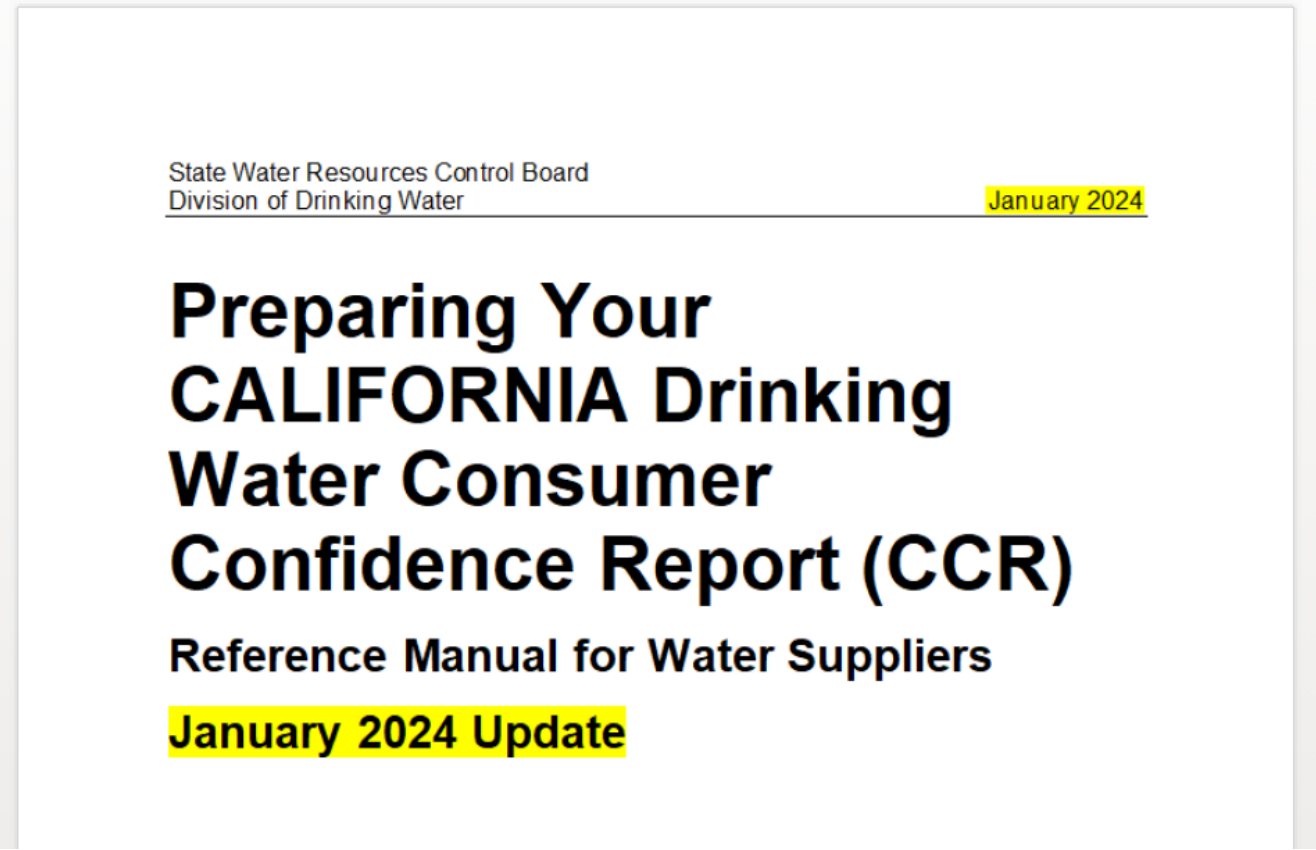
Contents of the Report

- source water, level of detected contaminants, compliance with drinking water regulations, and educational information

Reporting Delivery & Record Keeping

- State needs CCR by July 1st and Distribution Certification within 3 months of CCR delivery
- Maintain a copy for 3 years

What is the Consumer Confidence Report (CCR)?



State Water Resources Control Board
Division of Drinking Water January 2024

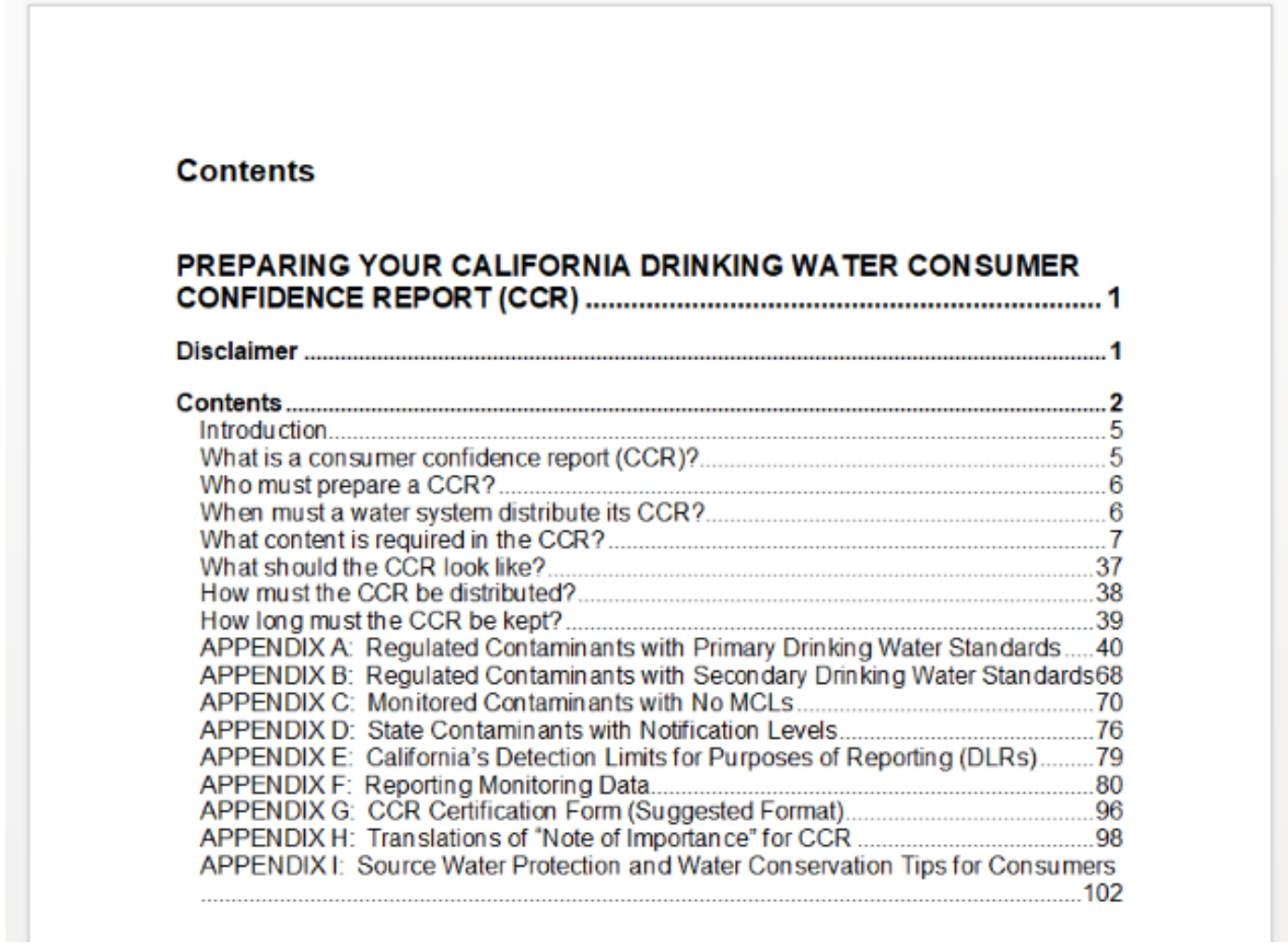
Preparing Your CALIFORNIA Drinking Water Consumer Confidence Report (CCR)

Reference Manual for Water Suppliers

January 2024 Update

[1ccr-referencemanual-2023-highlighting.docx (live.com)]

What is the Consumer Confidence Report (CCR)?



Contents

[1ccr-referencemanual-2023-highlighting.docx (live.com)]

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Detected Contaminants Tables

Table Number	Table Category
Table 1 & 1A	Coliform and E. Coli
Table 2	Lead and Copper
Table 3	Sodium and Hardness
Table 4	Primary Drinking Water Standards
Table 5	Secondary Drinking Water Standards
Table 6	Unregulated Contaminants
Table 7	Violations
Table 8 & 9	Groundwater Specific
Table 10 & 11	Surface Water Specific

Reporting and Record Keeping

Due Date to the State

- CCR = July 1st
- Distribution Certification = within 3 months & by October 1st

Maintain a copy for 3 years

Upload both to EAR Portal

Resources Shared Today

Government Codes and Regulations

U.S. Codes

Code of Federal Regulations

California Codes

California Code of Regulations

Quick Reference Guides

The Standardized Monitoring Framework

The Public Notification Rule

The Consumer Confidence Rule

California Web Portals

EAR | State of California

Drinking Water Watch

Other Links

Federal Drinking Water Rules

California Drinking Water Laws

EPA Drinking Water Sample Collection

Any questions?

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Session Evaluation

(place new QR code here!)

RCAC
www.rcac.org

Thank You For Attending!

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