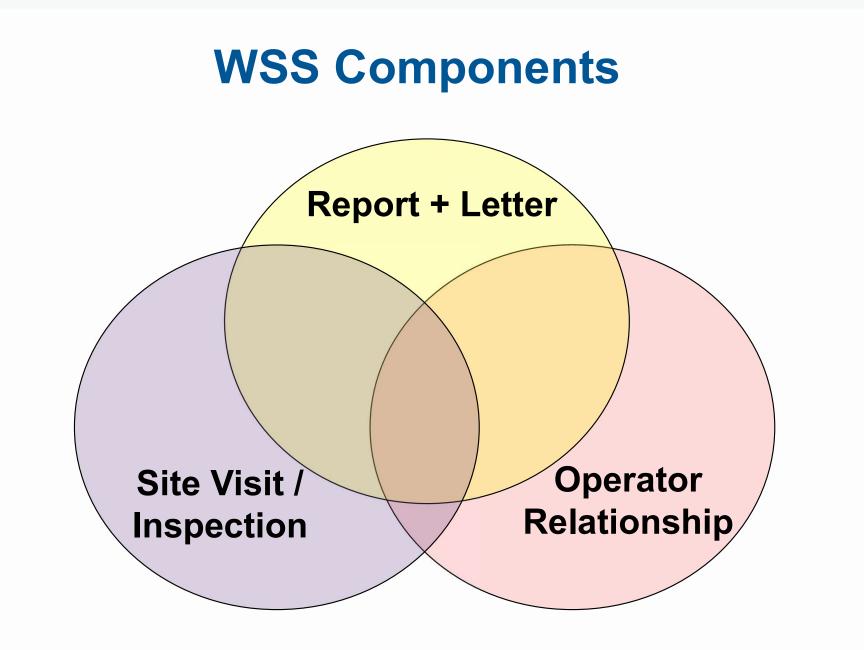
#### Water System Surveys: Common Issues & Solutions

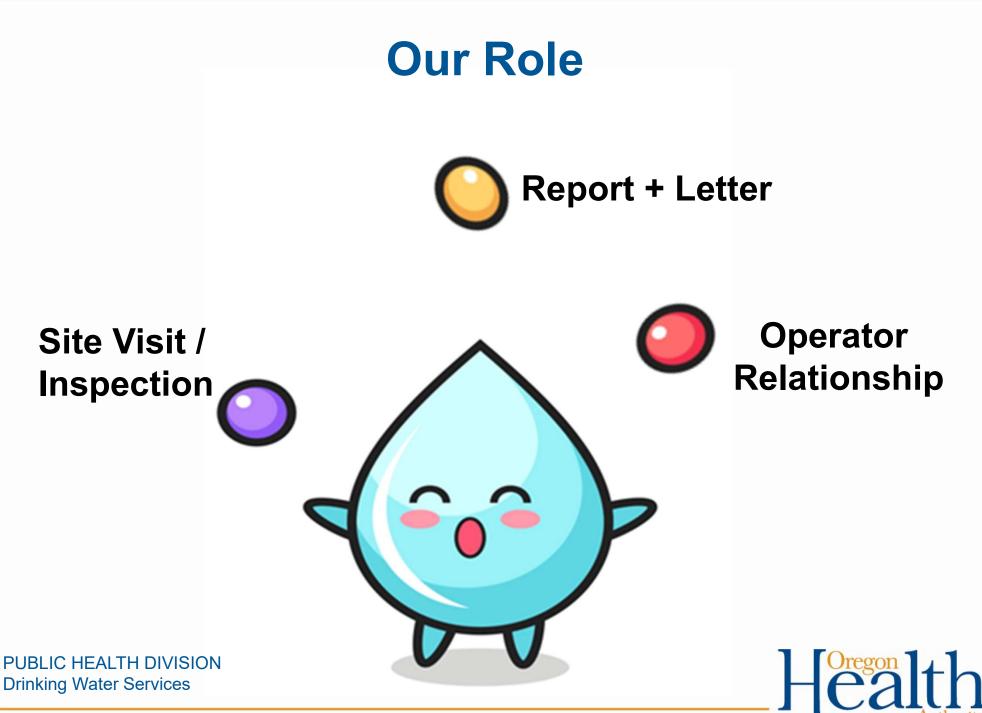
Drinking Water Partners Fall Training December 7, 2023

> Nicole Alfafara Oregon Health Authority Drinking Water Services















### POLL

#### What WSS Component do you find <u>MOST</u> challenging?

- Conducting the Site Visit / Inspection
- Writing the WSS Report + Letter
- Fostering Positive and Effective Operator Relationships





### ID Common Issues & Share Solutions/Tips

- Increase Awareness
- Enhance Individual and Team Knowledge
- Improve WSS Practice
- Increase Public Health Protection





# Site Visit and **Inspection**

#### Main/Common Issue: **Significant Deficiencies Observed**

1 Description 1	XYZ Water System	PWS ID: 41	*****
Health	Water System Survey OHA Drinking Water Services	Survey Date:	mm/dd/yy
		Pag	ge 1 of 2
Source Deficiencies:           Well Construction Deficiencies:           ⊕ Sanitary seal and casing not water           ⊕ Does not meet setbacks from haza           ⊕ Wellhead not protected from floodi           ⊕ No raw water sample tap           ⊕ No treated sample tap (if applicabil           ⊕ No screen on existing well vent	tight contact time storage cont ng UV Disinfection Viol + Bypass arou e) + Lamp sleeve	lations (OAR 333-0050(5) ind UV system	sinfection imum
Spring Source Deficiencies: ⊕ Springbox not impervious durable ⊕ No watertight access hatch/entry ⊕ No screened overflow ⊕ Does not meet setbacks from haza ⊕ No raw water sample tap ⊕ No treated sample tap (if applicable)	ards material Other Treatment Vie + Non-NSF ap + Corrosion co Distribution Sy + System pres	proved chemicals - 0087 ontrol parameters not met	(6)
Treatment Deficiencies/Violations:     Surface Water Treatment Deficiencies:     + Turbidity standards not met - 0030     + Turbidimeters not calibrated per m     least quarterly - 0036(5)(b)(A)(ii)     ⊕ Incorrect location for turbidity moni	(3) anufacturer or at toring	e or enabling authority (C mary Report not issued ( inds not current (CWS, NT onnection Control Special tions) r Storage Deficiencies:	CWŚ) ™C, TNC) ist (CWS <u>≥</u>
<ul> <li>☐⊕ If serving &gt; 3,300 people no alarm shut off for low chlorine residual</li> <li>□+ For conventional or direct filtration: plant shut off for high turbidity</li> <li>□⊕ For conventional filtration: Settled measured daily</li> <li>□⊕ For conventional or direct filtration: not conducted on individual filters and conducted on individual filters not conducted filtration: Filtration: Filters not conducted filtration: Filtr</li></ul>	or auto plant       Image: Hatch not log         Image: No alarm or       Image: Hatch not log         Image: No alarm or       Image: Hatch not log         Image: No alarm or       Image: Hatch not log         Image: Water not       Image: Hatch not log         Image: Wate	lations: iot current - 0025(1) d MCL violations or LCR /	n drain AL
according to mfg. rec. pressure dif     ⊕ For cartridge filtration: No pressure     and after cartridge filter     + For membrane filtration: Direct inte     does not meet requirements under     + For membrane filtration: Indirect in     does not meet requirements under     ⊕ For diatomaceous earth filtration: E     added with influent flow. Disinfection Deficiencies/Violations:     + DPD/EPA approved method not us	ferential e gauges before egrity testing -0038(5)(d)(B) tegrity testing -0036(5)(d)(C) Body feed not Management & - No operation + Emergency testing NTNC) - 006 + Major modifi 0050 + Master plan + Annual CCR + PNC or out of + Public notice	cations not approved (pla not current (≥ 300 con.) - 0 not distributed (CWS) - 0 of compliance with AO e not issued as required -	eted (CWS, in review) - 0060(5) 0043(1)(a)
<ul> <li>→ DFD/2FA approved method not us</li> <li>→ Free chlorine residual not maintain</li> <li>→ Chlorine not measured &amp; recorded</li> <li>→ Minimum CT required not met all ti</li> <li>→ No means to adequately determine contact chamber effluent line</li> <li>→ pH, Temperature, and chlorine res measured daily at first user - 0036</li> </ul>	ed - 0032(3/5) - 0036(9) imes - 0032(3/5) e flow rate on idual not → No certified of + No protocol → Other Rule Viol ⊕ Significant deficiency + Rule violation per OAF	operator at required level for under certified operato lations: per OAR 333-061-0076	

#### **GAME TIME:**

#### Which 3 significant deficiencies are most common?





#### The 3 Most Frequently Identified Significant Deficiencies in 2022 #3

Guess which significant deficiency!?!

- System does not have a list of routine/repeat/trigger source sampling locations coupled with a rotation schedule.
- System does not have step-by-step directions on what staff should do when a routine coliform sample tests positive.
- System has no documented guidelines on where, when and how coliform samples should be collected. This information is stored in the operator's head or is known/memorized by their contracted lab.





### 3. No Coliform Sampling Plan

- <u>Importance</u>: A written coliform sampling plan ensures a system has a structured approach with systematic collection and established procedures so coliform results represent water served.
- <u>Solutions/Tips</u>:
  - Provide the <u>DWS Coliform Sampling Template</u>.
    - Carry an extra copy when conducting WSSs.
  - Encourage systems to NOT rely on a lab to develop their plan.
  - Communicate key plan components:
    - Sampling Collection Narrative
    - Map of Distribution and Sources
    - Routine Sites & Repeat Sites
    - Rotation Schedule

#### PUBLIC HEALTH DIVISION Drinking Water Services

[		COLIFORM SA	MPLING PLAN g up to 1,000 persons
	System Name:	-	PWS ID #: 41
	Contact Person:		Phone #: ( ) -
	Date: / /		
	Distribution System Sampling: Co	llect routine sa (Add Number)	mple(s) every <u>Month / Quarter</u> . (Circle One)
	Source Water Assessment Sampli	ing Required? Yes / I (Circle C	
	Sampling Sites and Collection Rot	ation Schedule (Includ	e additional sites if necessary):
	Distribution Routine Sites (Address/Locations)	Distribution Repeat & Source Sampling	Distribution Repeat & Source Sites (Address/Locations)
	Routine Site 1	Repeat Site 1A	Same as Routine Site 1
		Repeat Site 1B	
		Repeat Site 1C	
		Triggered Source*	





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#### The 3 Most Frequently Identified Significant Deficiencies in 2022 **#2**

- The Chief's Kingdom (CK) water system had 4 operators; Andy Reid, Patrick Mahomes, Travis Kelce, and Chris Jones.
- The CK system requires a DRC with a Treatment 4 and Distribution 4 certification (T4/D4).
  - In 2030:
    - Andy is T4/D4 certified.
    - Patrick is T1/D4 certified.
    - Travis is T1/D3 certified.
    - Chris is T3/D1 certified.



• If Andy retires from the CK system (in 2030 after multiple Superbowl wins) and the system does not hire another operator, the system will have this significant deficiency...

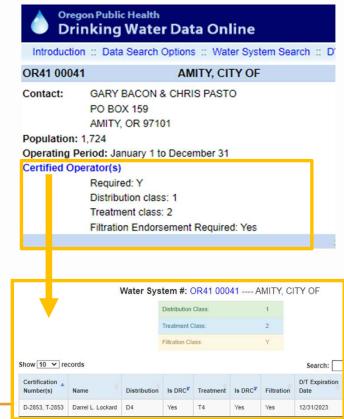


### 2. No Certified Operator at Required Level

- <u>Importance</u>: Individuals tasked w/ operation and maintenance must possess competence, expertise, and a thorough understanding of their system. In addition, they must have training and practical experience to ensure consistent delivery of safe drinking water.
- <u>Solutions/Tips</u>:
  - Know System's Certification Requirements
  - Verify Staff Certification
  - Communicate Importance of Operator Certification and Encourage Renewal.

Classification: — Population Served: Water Distribution 1 — 1 to 1,500 Water Distribution 2 — 1,501 to 15,000 Water Distribution 3 — 15,001 to 50,000 Water Distribution 4 — 50,001 or more

<b>Classification of Water Tr</b>	eatment Plants
Classification	Points:
Water Treatment 1	1 to 30
Water Treatment 2	31 to 55
Water Treatment 3	56 to 75
Water Treatment 4	76 or more



#### The 3 Most Frequently Identified Significant Deficiencies in 2022 **#1**

Guess which significant deficiency!?!

- I am made of standard or routine protocols and procedures.
- I am sometimes found incomplete or described as having "missing key sections or parts". Meanwhile, I am called "out-of-date" if it has been more than 5 years since my last makeover.
- I am way more than just pages of paper bound together; I ensure efficient operations of various system processes.
- New staff find me valuable but I should be utilized in the training of all staff.
- Some would say I am a repository of key system information.
- Not having me handy results in this significant deficiency...



### 1. No Operations & Maintenance Manual

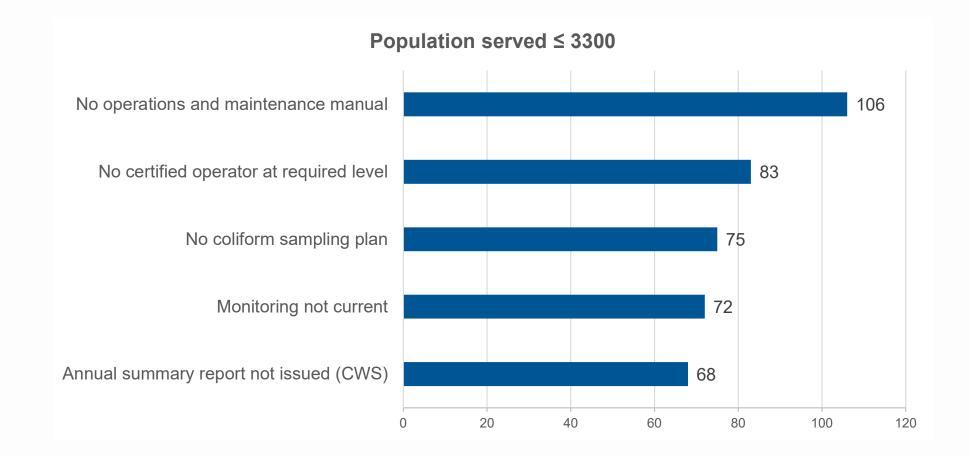
- <u>Importance</u>: An O&M is a valuable tool that documents day-to-day operations so they can be carried out properly and consistently via established protocols. In addition, the O&M preserves system knowledge and ensures systems are well-maintained.
- <u>Solutions/Tips:</u> Provide Clear Guidelines
  - Remind Systems to Prioritize Documentation
    - Take the time & allocate the resources.
    - Document existing SOPs/practices.
    - Document new SOPs/practices.



- Remind System to Review and Update Regularly (every <5 years)</li>
  - Ensure O&M covers ALL aspects of operations.
  - Regularly review and update to reflect regulatory/technology/equipment/practice changes.



# The 5 Most Frequently Identified Significant Deficiencies in 2022.





### **Past Common Deficiencies**

- No operations and maintenance manual
- Emergency response plan not completed
- No coliform sampling plan
- Monitoring not current
- Annual CCR not submitted (CWS)
- Annual summary report not issued (CWS)
- Chlorine not measured & recorded as required
- No ordinance or enabling authority (CWS)
- Sanitary seal and casing not watertight
- Major modifications not approved (plan review)

### April 22, 2015

#### DW 101 – Surveys

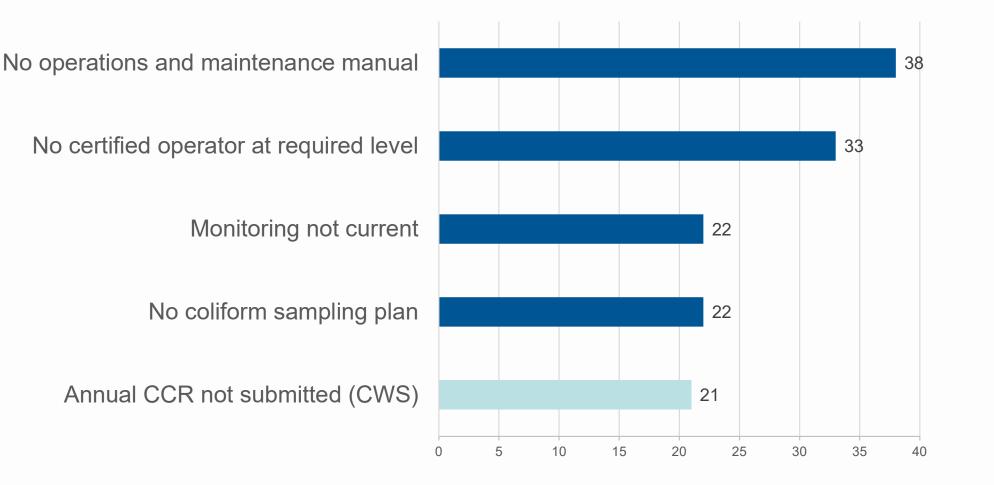
OHA-Drinking Water Services Silver Falls Conference April 22, 2015





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# The 5 Most Frequent Unresolved Significant Deficiencies from 2022











#### Common Issues:

- Password Encryption on Submitted Reports
- Spelling and Grammar Errors
- Confusing Schematics
- Incomplete or Inadequately Completed Reports
  - Unchecked Boxes / Missing Information
  - Significant Deficiencies Not Documented Thoroughly
- Incorrect Monitoring Schedule / No Monitoring Reduction Granted
- Incorrect DWS Email Used



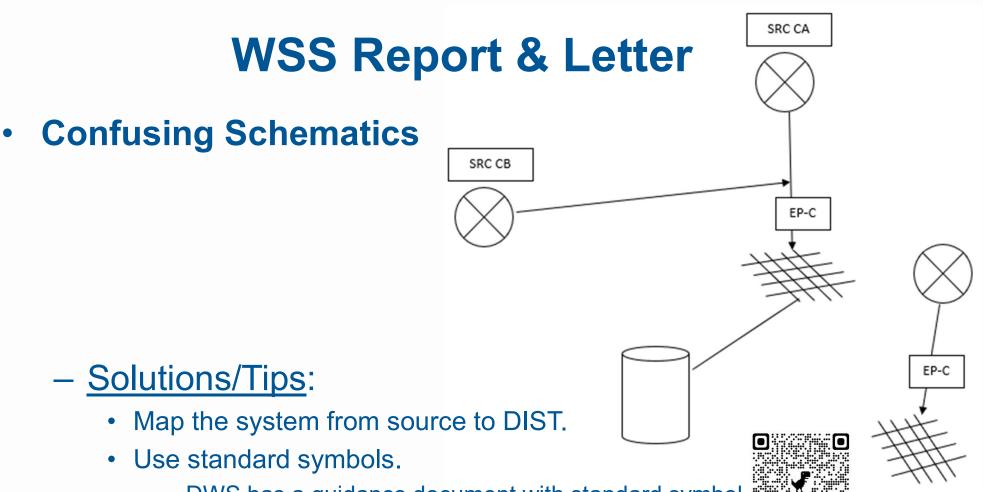


- Password Encryption on Submitted Report
  - Solution/Tip:
    - Remove the password.



- Open the WSS template and enter the universal password = Water123.
- Go to File > Info > Protect Document > Encrypt with Password.
- Clear the password in the Password Box, and then click OK.
- Spelling and Grammar Errors
  - Solutions/Tips:
    - Proofread (Take a break between writing and proofreading).
    - Use spell/grammar check and be wary of autocorrect.
    - Read it aloud.
    - Have a colleague proofread.



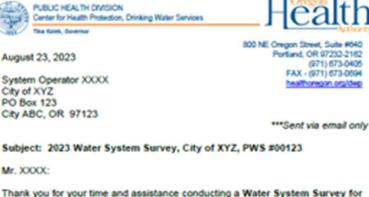


- DWS has a guidance document with standard symbol and schematic examples.
- Indicate water flow paths.
- Ensure schematic components are labeled.



- Incomplete or Inadequately Completed Reports
  - Unchecked Boxes / Missing Information
    - <u>Solution/Tip</u>: Prior to submitting double check all survey items have been addressed.
  - Significant Deficiencies Not Documented Thoroughly
    - <u>Solution/Tip</u>: Prior to submitting double check if significant deficiencies observed are properly documented in all the necessary locations.
      - <u>Letter Location:</u>

PUBLIC HEALTH DIVISION Drinking Water Services



Thank you for your time and assistance conducting a Water System Survey for the City of XYZ's system (PWS #00123) on August 11, 2023. The main purpose of the survey was to evaluate the entire water system in terms of supplying safe drinking water to the public. I have enclosed a copy of the report for your records. Please let me know if any corrections need to be made.

The first page of the report lists significant deficiencies and rule violations in the system that must be corrected as soon as possible. You must submit a written corrective action plan describing how and when the deficiencies and violations will be corrected by [7 weeks for SW or 18 weeks for GW from the date of this letter]. Once the deficiencies and rule violations are corrected, you must send me written verification of the corrections, including the dates corrections were completed.

The significant deficiencies and rule violations noted during the survey are as follows:

- No screened vent as required by -0050(6)(a)(L). Screens prevent contamination and infestation while protecting the stored water supply.
  - Reservoir features a ground-level roof with torn screens. Repair reservoir screens.
- Backflow assemblies/devices not tested annually as required by -0070(6). When properly installed, tested, and maintained backflow prevention assemblies or devices can prevent contamination from entering the water system through a cross connection.
  - In 2022 only 68% of the system's backflow assemblies were tested. Increase the number of backflow assemblies or devices tested

 <u>Report Locations: 1) Report Cover Letter, 2) Sig. Def page, and 3)</u> <u>Individual Page for Deficiency.</u>

1.0	XYZ Water System	PWS ID: 41 #####	Well log ID (
Health	Water System Survey OHA Drinking Water Services	Survey Date: mm/dd/yy	Well active? Pitless adaptor? Sanitary seal & ca
		Page 1 of 16	<ul> <li>Raw water sample</li> <li>Treated water sample</li> </ul>
Surveyor:	Deficiency Summary		<ul> <li>If vented, properly</li> <li>Wellhead protects</li> <li>Concrete slab ard</li> <li>Casing height ≥12</li> </ul>
Date Corrective Action F	lan is due:	County:	Flowmeter? Pressure gauge?
N N N N N		Date to be Date	<ul> <li>Pump to waste pi</li> <li>Well meets setbat</li> </ul>
Yes No Significant I Source: Well construct No Sample Tai		corrected corrected	If no, identify list setback and the hazard
			Protective housin If yes, does it Heat?
1 Corsen 1 / 1	XYZ Water System	PWS ID: 41 #####	Light?
Health	Water System Survey OHA Drinking Water Services	Survey Date: mm/dd/yy	Well pump Pump Type:
		Page 2 of 16	Bearing lubricatio
Source Deficiencies: Vell Construction Deficiencies: ⊕ Sanitary seal and casing n ⊕ Does not meet setbacks fro ⊕ Wellhead not protected fro ⊗ ⊕ No raw water sample tap ⊕ No typetod sample tap (if a	ot watertight contact om hazards m flooding UV Disinfection + Bypass	e to calculate CT values correctly cans to adequately determine disinfection t time under peak flow and minimum e conditions on Violations (OAR 333-0050(5)(k)): s around UV system sleeve not cleaned	Pumping capacity *If no well log avail or casing diameter Comments: Well XYZ had no

Source ID#: SRC Source Name DY DN Well log available? DY DN g., COLU123, L12345 No Yes No Yes sing watertight?. tap? x ple tap? п screened? d from flooding? und casing?. -in. above slab/grade? п ing?. ks from hazards?. of hazard(s) within the listance to the HAZARD DISTANCE (ft.) 12. ave: 2 removal provision?. (vortical turbine, submersible rtrifugal, shallow jet, deep je 1: (oil, or water). (gpm) ... able, record any known information regarding dept in the comments section below. sample tap

Well Information

# Incorrect Monitoring Schedule / No Monitoring Related: Coliforn Schedules PWS ID: 00123 Mackinaw Island Fudge

#### – <u>Solutions/Tips</u>:

quantity...

- Review monitoring schedule on Data Online.
- Use "Last Sample Date" to determine sample deadlines.
- Utilize the WSS as a time to evaluate monitoring reduction eligibility or monitoring changes.
  - Example: an increase in service population size can alter monitoring requirements = increase coliform sample

F		onitoring Frequency at rving More Than 1,000 P	eople
Population served	Minimum number of samples per month	Population served	Minimum number of samples per month
1,001 to 2,500	2	70,001 to 83,000	80
2,501 to 3,300	3	83,001 to 96,000	90
3,301 to 4,100	4	96,001 to 130,000	100
4,101 to 4,900	5	130,001 to 220,000	120
4,901 to 5,800	6	220,001 to 320,000	150
5,801 to 6,700	7	320,001 to 450,000	180
6,701 to 7,600	8	450,001 to 600,000	210
7,601 to 8,500	9	600,001 to 780,000	240
8,501 to 12,900	10	780,001 to 970,000	270
12,901 to 17,200	15	970.001 to 1.230.000	300

	Chem	ical Sa	mpling S	chedule St	atus				
Facility ID	Analyte or Group		Sampling	Monitoring	Period	Days Until	Sample Require		Last Sample
SCT_2				Start	End	End			Date
DIST-A DISTRIBUTION SYSTEM	LEAD & COPPER		3 Years	01/01/2024 -	12/31/2024		5		09/29/2021
					Seasonal s	ampling	period: (	06/01 thru 09	/30
DIST-A DISTRIBUTION SYSTEM	STAGE 2 DBP	notes	3 Years	01/01/2025 -	12/31/2025		1		07/08/2022
					Seasonal s	ampling	period: (	09/01 thru 09	/30
EP-A EP FOR WELL#1	ARSENIC	notes	9 Years	01/01/2023 -	12/31/2031	3,054	1	incomplet	e 09/29/2021
EP-A EP FOR WELL#1	IOC	notes	9 Years	01/01/2017 -	12/31/2025	863	1	done	09/29/2021
EP-A EP FOR WELL#1	NITRATE		Yearly	01/01/2023 -	12/31/2023	132	1	done	07/10/2023
EP-A EP FOR WELL#1	NITRITE	notes	9 Years	01/01/2017 -	12/31/2025	863	1	done	09/29/2021
EP-A EP FOR WELL#1	RAD - GROSS ALPHA		6 Years	01/01/2023 -	12/31/2028	1,959	1	incomplet	e 11/16/2010

Frequency of monitoring for lead and copper in tap water. Number of People Served by the Water System - Number of Standard Monitoring Sites >100.000 - 10010.001 to 100.000 - 603.301 to 10.000 - 40501 to 3.300 - 20101 to 500 - 10 $\leq 100 - 5$ Number of People Served by the Water System - Number of Reduced Monitoring Sites >100.000 - 50 10.001 to 100.000 - 303.301 to 10.000 - 20501 to 3.300 — 10 101 to 500 - 5 $\leq 100 - 5$ 

- Incorrect Monitoring Schedule / No Monitoring Reduction Granted
  - <u>Solutions/Tips</u>:
    - Familiarize yourself with the monitoring reduction criteria for general contamination classifications.

Chemical Monitoring Intervals for Community & NTNC Groundwater Systems



Chemical Sampling Requirements <sup>1</sup>	Initial	Routine	Possible Reduction	Possible Increase Due to Detection <sup>2</sup>
Entry Point Sampling		•		
Nitrate	Every y	/ear	None	
Nitrite <sup>3</sup>	Every 3	years	Every 9 years	1
Inorganics (Incl. Arsenic)	Every 3	years	Every 9 years 4	Quarterly
Volatile Organice		Every 3 veare 5	Every 6 vears 6	

Become familiar with standard monitoring framework.



#### Standard Monitoring Framework

Use these standard monitoring periods for: Arsenic, Nitrite, IOC, SOC, VOC and RAD schedules.



Disinfection By-products (DBP) and Lead and Copper (LCR) do not follow the Standard Monitoring Framework. 3-year: January 1st. 6-month & yearly schedules follow the schedule start dates at the bottom of the page.

3 Ye	ear Peri	od	3 Ye	ear Peri	od	3 Year Period			3 Year Period 3 Year Period			3 Year Period			3 Year Period					
2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
End o	of prev	6 year		6 year	r monit	toring pe	ring period 6 year monitoring period					6 year monitoring period								
	6 year	monit	toring pe	eriod			6 year monitoring period			6 year monitoring period					Start of next 6 year					
End o	of prev	9 year			9	Year Mo	/ear Monitoring Period					9	9 Year Monitoring Period							
	E	nd of p	rev 9 ye	ar			9 Year Monitoring Period				iod Start of next 9 year									
		9 Year Monitoring Period					9	Year Monitoring Period Start of next 9 year.				year								

#### Incorrect DWS Email Used

- <u>Solutions/Tips</u>: Kindly take note of the various DWS emails and their designated purposes and direct future emails/inquires to the appropriate email account.
  - Drinking Water Program: General DWS inquires.
    - <u>info.drinkingwater@odhsoha.oregon.gov</u>
  - <u>DMCE</u>: Compliance Report and Data Submission (lab results, monitoring data, operational reports)
    - <u>dwp.dmce@odhsoha.oregon.gov</u>
  - <u>Compliance:</u> SDWIS changes, RTC violations, and everything else non-data related. (regulators ONLY)
    - <u>compliance.dw@odhsoha.oregon.gov</u>
  - <u>Certification</u>: Operator Certification inquires.
    - <u>dws.opcert@odhsoha.oregon.gov</u>
  - Cross Connection: Backflow and CC inquires.
    - cross.connection@odhsoha.oregon.gov
  - Plan Review: PR inquires.
    - <u>dws.planreview@odhsoha.oregon.gov</u>



#### **Report + Letter**

- Report Logistics//Formatting
- Schematic Creation
- Significant Deficiency
   Documentation
- Monitoring Schedules
- DWS Email Boxes



## **Operator Relationship**

<u>Common Issue</u>: The operator-regulator relationship can be complex and challenging.



- Key Principles for General Professional Relationship Building:
  - Communication
  - Trust
  - Respect
  - Integrity
  - Accountability



Empathy

- Professionalism
- Inclusive
- Recognition/Appreciation
- Consistency



# **Operator Relationship**



- <u>Solutions/Tips</u>: Create an environment that fosters a positive relationship based on collaboration, trust, and a commitment to work towards the common goal of safe drinking water.
  - Clear, transparent, and effective communication.
    - Explain significance/rationale of rules/regulations/requirements/etc.
  - Respect operator's time/work/efforts
  - Learn & empower = Listen to educate/assist.
    - WSS are a 2-way street for knowledge sharing.
    - Be inclusive of operator's input/knowledge
  - Practice empathy.
  - Acknowledge excellence/good practices and communicate helpful information.
  - Be professional and focused but allow for small talk and authentic dialogue to connect.



### **Operator/System Relationship**

- <u>Common Issue</u>: System has no administrative contact.
- <u>Solutions/Tips</u>: Collect Administrative Contact Info.
  - If DWS does not have a contact for a PWS, we list "Not available contact [reg agency] with questions".

Contact:	NOT AVAILABLE	Phone: N/A
	Contact CLATSOP COUNTY with questions.	County: CLATSOP

- If you get questions about WQ or monitoring, check data online to try to answer their question.
- Express that we need a contact person; try to get a name and number of a potential administrative contact from the caller.
  - The PE 50 says partners must make timely changes to DWS's database to keep records current.
  - Potential references: PUC, RCAC, OAWU for managerial capacity assistance.



#### **Report + Letter**

- Report Logistics//Formatting
- Schematic Creation
- Significant Deficiency
   Documentation
- Monitoring Schedules
- DWS Email Boxes

#### Site Visit / Inspection

- O&M Manual
- Certified Operator
- Coliform Sampling Plan
- Current Monitoring
- ASR Report

PUBLIC HEALTH DIVISION Drinking Water Services

#### Operator Relationship

- Communication
  - Trust
- Respect
- Empathy
- Acknowledgement.









#### **Your Work Matters**





#### "In our everyday tasks, we are unsung heroes, safeguarding public health drop by drop.

Together, we form a strong and powerful league of drinking water superheroes".



### **Questions & Contact Information**

My Contact Information:

- Phone: 503-278-1531
- <u>Nicole.H.Alfafara@oha.oregon.gov</u>

**General DWS Program Contact Information** 

- Email: info.drinkingwater@odhsoha.oregon.gov
- Phone: 971-673-0405
- Fax: 971-673-0694







### Make Sure You are in the Loop

**DWS Web Form Account Management** 

Oregon Public Health Drinking Water Data Online	Health	
Introduction :: Data Search Options :: Water System Search :: DWS Home :: DWS Rules		
Web Form Menu ::: Contact Reports :: Advisories ::: Deficiencies	Nicole Alfafara 💠 Log Out	
DWS Web Forms		
Contact Reports         Contact Report Instructions (PDE)           Water Advisories         Last modified: November 14, 2019	Account Options View Your Profile	
Update Deficiencies - Record completion dates and revised due dates from corrective action plans	Account Requests	
Upload Plan Review Letters		
Upload Plan Waivers		Oregon Public Health Drinking Water Data Online
		Introduction :: Data Search Options :: Water System Search :: DWS Home :
Water System Contact Info		Web Form Menu :: Contact Reports :: Advisories :: Deficiencies
		Web Form Account Request
Oregon Public Health	Health	Request Type *
Drinking Water Data Online	<b>Tealun</b>	O Change My Account
Introduction ::: Data Search Options ::: Water System Search ::: DWS Home ::: DWS Rules		O New Account for Someone Else
Web Form Menu :: Contact Reports :: Advisories :: Deficiencies	Nicole Alfafara :: Log Out	O Disable Account
Web Form User Profile		
WEB FORM SETTINGS     CONTACT INFORMATION IN SDWIS       Username     First Name     Last Name       nalfafara     NICOLE     ALFAFARA       Display Name     Email	Account Change Request	Effective Date If changes should not be made until a certain date, enter that date here. Oth changes will be made as soon as possible.



: DWS Rules

Nicole Alfafara :: Log Out

Health

Nicole Alfafara Regulating Agency DWP Counties (DWS Only) WASHINGTON YAMHILL

nicole.h.alfafara@oha.oregon.gov Phone 503-278-1531 (BUS) Address PO BOX 14450 PORTLAND, OR 97232

herwise,

#### Comments

Return to Main Menu

Send me a copy of my responses

### **Questions & Contact Information**

My Contact Information:

- Phone: 503-278-1531
- <u>Nicole.H.Alfafara@oha.oregon.gov</u>

**General DWS Program Contact Information** 

- Email: info.drinkingwater@odhsoha.oregon.gov
- Phone: 971-673-0405
- Fax: 971-673-0694







#### Water System Surveys: Common Issues & Solutions

Drinking Water Partners Fall Training December 7, 2023

> Nicole Alfafara Oregon Health Authority Drinking Water Services

