
Surveys during COVID



Drinking Water Services Fall Training
Michelle Byrd, Technical Services
December 14, 2020

Discussion topics

- Survey purpose
- Preparing for survey
- Field inspection needs
- Post-survey follow-up
- Resources



Photo credit: Chantal Wikstrom

Survey purpose

- An on-site evaluation of water system facilities & components
- Identify pathways for contaminants to enter drinking water
- Evaluate water quality & monitoring data
- Review operations & maintenance practices
- Required every 3 to 5 years
- Provide information & resources to water suppliers

Defined in OAR 333-061-0020

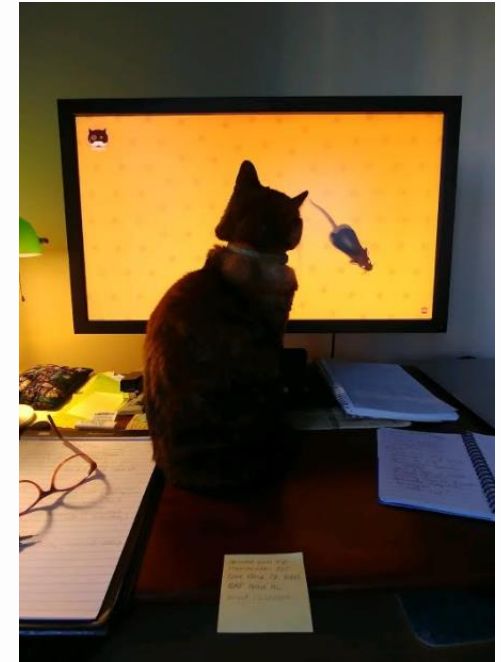


Photo credit: CDC.gov

Survey challenges

- Working remotely
- Water system closures
- Changing reopen status of counties
 - <https://coronavirus.oregon.gov>
- Following COVID-19 guidelines & updates
 - <https://govstatus.egov.com/OR-OHA-COVID-19>

Field work can be considered if both county the staff person works in & the county in which the PWS is located are reopened in Phase 1 status or higher.



Survey resources

- Available online at *DWS County & Dept. of Agriculture resources*
- Sanitary survey procedures during COVID-19 pandemic
- Water System Survey Procedure
- Survey manual, survey forms & template letters

Drinking Water Services

County & Dept. of Agriculture
Resources

Water System Surveys

Conferences and Training

Document Library

Inventory Updates

EPA Staff Resources





Coliform Resources

Monitoring Resources




Compliance Resources

Contact Us






Survey Form Templates

-  About Survey Template Packets
-  Survey Template Instructions
-  Instructions for adding an On/Off toggle switch for Word forms
-  Outstanding Performer Template

The following documents are **password protected** (they currently open best in Firefox):

-  Packet 1: C-NTNC Groundwater Survey Template- revised 8/21/2020
-  Packet 2: C-NTNC Surface Water Survey Template- revised 8/21/2020
-  Packet 3: TNC-NP Survey Template- revised 8/21/2020

Survey Notification Letter and Cover Letter Templates

-  Survey Notification Letter with COVID precautions - new 8/10/2020
-  Community Groundwater Systems - includes outstanding performer information language
-  NTNC, TNC, and Non-EPA Groundwater Systems
-  Community Surface Water Systems - includes outstanding performer information language
-  NTNC, TNC, and Non-EPA Surface Water Systems

Preparing for survey

- Review recent survey report & other available documents
- Review WS information in Data Online
- Download updated survey forms from partner survey resources

Oregon Drinking Water Services

Working to keep drinking water safe for Oregonians

Access to safe drinking water is essential to human health. Each person on Earth requires at least 20 to 50 liters of clean, safe water a day for drinking, cooking and simply keeping themselves clean. Oregon Drinking Water Services works to help keep drinking water safe for Oregonians.

Oregon Drinking Water Services (DWS) administers and enforces drinking water quality standards for public water systems in the state of Oregon. DWS focuses resources in the areas of highest public health benefit and promotes voluntary compliance with state and federal drinking water standards. DWS also emphasizes prevention of contamination through source water protection, provides technical assistance to water systems and provides water system operator training.

[Contact Us](#)[Sign up for DWS Alerts](#)[Water Advisories Map](#)[Data Online](#)

[Guidance for Reopening Building Water Systems After Prolonged Shut Down - Updated October 7, 2020](#)

[Public Water Systems and Novel Coronavirus 2019 \(COVID-19\) Frequently Asked Questions - Updated May 1, 2020](#)

Updated survey forms

- Center of service area
 - public maps (e.g., advisories)
- Email for op cert changes
- Summary page database updates
- Revised questions

Inventory and Narrative

☐ Outstanding Performer

Type:	Status	Size	Season: <input type="checkbox"/> All year <input type="checkbox"/> Seasonal
<input type="checkbox"/> Community (C)	Population:		Begins: (mm/dd) /
<input type="checkbox"/> Non-Transient Non-Community (NTNC)	Connections:		Ends: (mm/dd)
<input type="checkbox"/> Transient Non-Community (TNC)			
<input type="checkbox"/> Non-EPA (NP)			

License: ☐ Not Lic. ☐ Health Dept. ☐ Ag

Responsible Agency: ☐ State ☐ County ☐ Ag

Minimum WS Certification Requirements: WD: ☐ WT: ☐ FE ☐ Small WS ☐ N

Service Area Characteristics:

Owner Type:

For changes in operations staff contact Operator Certification: dws.opcert@dhsosha.state.or.us

Primary Administrative Contact (mailing address):

Contact Name: Phone: ()

Title: Cell: ()

Street Address: Emergency #: ()

City/State/Zip: Email:

Center of Service Area (for public maps):

decimal degrees (e.g., 45.894387, -123.960433) or address

Legal/Owner/Secondary Contact (optional/not entered in SDWIS):

Contact Name: Phone: ()

Title: Cell: ()

Street Address: Emergency #: ()

City/State/Zip: Email:

System Physical Address (optional/not entered in SDWIS):

Contact Name: Phone: ()

Title: Cell: ()

Street Address: Emergency #: ()

City/State/Zip: Email:

Emergency Systems Available:

Name: PWS ID#: 41

Narrative:

Database Updates: ☐ None ☐ Inventory ☐ Treatment ☐ Monitoring ☐ Page:

Comments:

Data Online Review

Reference WS inventory page & links:

- Alerts, violations, compliance issues
- CCR, ASR, operator certification, public notices
- Sample schedules, plan review projects
- Water quality data, monitoring reports
 - Minimum parameters set (4-log, corrosion control)

For further information on this public water system, click on the area of interest below:

[System Info](#) :: [Report for Lenders](#) :: [Alerts](#) :: [Violations](#) :: [Compliance & Enforcement](#) :: [Contacts & Advisories](#) :: [Site Visits](#) :: [Public Notice](#)
[Coliform Summary](#) :: [Coliform Results](#) :: [Sampling Schedule for Coliform](#) :: [Groundwater/GWUDI Source Details](#) :: [Plan Review](#) :: [Annual Fee](#)
[Chemical Group Summary](#) :: [Latest Chemical Results](#) :: [Entry Point Detects](#) :: [Single Analyte Results](#)
[Chemical Schedule Summary](#) :: [Chemical Schedule Details](#)
[Lead & Copper](#) :: [Corrosion Control \(LCR\)](#) :: [Nitrate](#) :: [Arsenic](#) :: [Radionuclides](#) :: [GWR 4-Log](#) :: [LT2](#) :: [Cyanotoxins](#)
[DBPs](#) :: [TOC & Alkalinity](#) :: [DBP Sample Sites](#) :: [FANLs](#) :: [MRDL](#) :: [Turbidity](#) :: [SWTR](#) :: [RAA](#) :: [LRAA](#)

For SDWIS:

Data Online Review

- Alerts, violations, compliance issues
 - Identify WQ or reporting issues
 - Non-compliance, enforcement schedules
- CCR & ASR (linked) records
 - Received dates on inventory page
- Operator certification requirement met
- Chemical & coliform sampling schedules
- Plan review projects, public notices
- Monthly monitoring reports
 - Minimum parameters met (4-log, corrosion control)

[Introduction](#) :: [Data Search Options](#) :: [WS Name Look Up](#) :: [WS ID Look Up](#) :: [DWS Home](#) :: [DWS Rules](#) :: [Quick Data Links](#)

OR41 00500

MADRAS, CITY OF

Classification: COMMUNITY

Contact:

GORDON WOOD
800 SE GRIZZLY RD
MADRAS, OR 97741

Population: 3,940

Operating Period: January 1 to December 31

Certified Operator(s)

Required: Y

Distribution class: 2

Treatment class: None

Filtration Endorsement Required: No

Phone: 541-475-7259

County: JEFFERSON

Activity Status: ACTIVE -- History

Number of Connections: 1,015

Regulating Agency: REGION 1

Owner Type: LOCAL GOVERNMENT

Licensed By: N/A

Approved Drinking Water Protection Plan: No

Source Water Assessment: Yes

Last Survey Date: Jul 11, 2019 - Outstanding Performer

Sources

Facility ID	Facility Name - Well Logs	Activity Status	Availability	Source Type
EP-A	EP FOR DESCHUTES VALLEY WD (00501)	A		GW
SRC-AA	DESCHUTES VALLEY WATER DIST (00501)	A	Permanent	GWP
EP-B	EP FOR WELL #2	I		GW
SRC-BA	WELL #2 - JEFF427	I	Emergency	GW
EP-C	EP FOR WELL #3	A		GW
SRC-CA	WELL #3 - JEFF428	A	Permanent	GW

Find Purchasers/Sellers

Treatment

State ID	Facility Name	Treatment Process	Treatment Objective	Filter Type
Consumer Confidence Reports (Last 5 Years)				
For Year	Date Received		Date Certified	
2019	Jul 01, 2020		Jul 01, 2020	
2018	Jun 28, 2019		Jun 28, 2019	
2017	Jan 18, 2019		Jun 04, 2018	
2016	Jun 30, 2017		Jun 30, 2017	
2015	Not received		Aug 10, 2016	

Cross Connection/Backflow Prevention Information (Last 3 Records)

Enabling Authority Received	Annual Summary Report Received	Fee Invoice Paid
Yes (PDF)	2019 (PDF)	2020
	2018 (PDF)	2019
	2017	2018

For further information on this public water system, click on the area of interest below:

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[Coliform Summary](#) :: [Coliform Results](#) :: [Sampling Schedule for Coliform](#) :: [Groundwater/GWUDI Source Details](#) :: [Plan Review](#) :: [Annual Fee](#)
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[Lead & Copper](#) :: [Corrosion Control \(CCR\)](#) :: [Nitrate](#) :: [Arsenic](#) :: [Radionuclides](#) :: [GWR 4-Log](#) :: [LT2](#) :: [Cyanotoxins](#)
[DBPs](#) :: [TOC & Alkalinity](#) :: [DBP Sample Sites](#) :: [FANs](#) :: [MRDLs](#) :: [Turbidity](#) :: [SWTR](#) :: [RAA](#) :: [LRAA](#)


For SDWS: 4048

Information by county:


[Inventory](#) :: [Surface Water Systems](#) :: [Water System Surveys](#) :: [Outstanding Performers](#) :: [Plan Reviews](#) :: [System Scores](#) :: [Exceedances](#)
[Alerts](#) :: [Violations](#) :: [Compliance & Enforcement](#) :: [Significant Deficiencies](#) :: [Cross Connection ASRs](#) :: [Treatment Plant Inspections](#) :: [Fluoride](#)
[Water Advisories](#) :: [Contact Reports](#) :: [Cyanotoxins](#)

Initial contact with water system

- Notify WS of survey
 - Closures due to COVID-19
- Email information to WS operator
 - Survey preparation handout
 - Copy of most recent survey
- Request interview before field visit to minimize contact time in-person



PUBLIC HEALTH DIVISION
Center for Health Protection, Drinking Water Services



For Water System Operators: Preparing for a Water System Survey during COVID

A water system survey is an on-site review of sources, treatment facilities, and storage reservoirs, as well as office time to review important records.

Safe water system survey practices during COVID

DWS requests that all water system staff observe the following practices during the water system survey:

- Prior to water system survey, water system staff involved in the survey are encouraged to self-screen for any COVID-19 symptoms. See [OHA COVID-19 fact sheet](#). The water system may reschedule the survey by email or phone for any reason.
- Hand washing is requested as needed before, during and after the water system survey. DWS encourages water system staff to use hand sanitizer after use of commonly touched surfaces such as doorknobs.
- DWS requests that water system staff practice physical distancing. Keep at least a 6-foot distance from others, do not shake hands, avoid sharing, and enter areas alone that do not permit 6-foot physical distancing from others.
- DWS staff will provide their own vehicles for viewing all water system facilities. If access to facilities requires use of 4-wheel drive or high clearance vehicle, please notify regulating agency as soon as possible.
- Face masks should always be worn in the presence of another person and inside buildings. For information about basic precautions and personal protective equipment (PPE), visit the Center for Disease Control and Prevention (CDC) website at <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/index.html>.
- DWS staff will inspect tight spaces alone such as well houses and small rooms where 6-foot physical distancing is not possible after discussing the facility with water system staff.
- DWS staff requests that, before the survey, the water system provide names of all water system staff who will be involved with the water system survey. This information is needed in case coronavirus case contact tracing becomes necessary.

Pre-field visit interview

- Video & phone conference
- Outline survey process & expectations
- Acquire information before field visit
- Discuss limiting number of operators & DWS staff needed during survey
- Identify WS staff to participate in survey



Pre-field visit interview *(Continued)*

Review previous survey information remotely to verify:

- Inventory changes
 - Population, service connections, contact info
- WS facility changes
 - Refer to narrative, schematic
- Major modifications & treatment changes
- Review sampling locations
 - Chemicals, coliform, DBPs, Lead & Copper
- Review monitoring schedules & frequencies
- Discuss WQ alerts, violations in Data Online



Deficiencies shown as bulleted items on survey forms.

Pre-field visit interview *(Continued)*

- Request documents & photos
- Review COVID-19 safety measures
 - Refer to survey preparation handout
 - WS may have additional safety measures
- Schedule field visit & safe meeting place
- Ask that documents be set aside beforehand for safe review



Photos & documents request

- Discuss sensitive vs non-sensitive info
 - Know email attachment limitations, file formats
 - Data sharing & viewing options
- Ask for recent photos
 - Top of storage tanks, overflow outlets
 - DPD kit, NSF certification, chlorine logs
 - Video options
- Request document summaries or select protocols

Water system survey document and photo preparation during COVID

To help minimize the close interactions typically experienced during a survey, DWS prefers the following documents be set aside for review during the survey in a safe, well ventilated space. If emailing non-sensitive documents is preferred, you can send the documents to your drinking water regulator prior to the survey:

For all water systems:

1. Written coliform sampling plan*
2. A map of the distribution system*
3. Operation and Maintenance Manual, and other written procedures*
4. Emergency Response Plan*
5. Chemical dosage records if treatment is applied
6. Proof of [NSF Standard 60 certification](#) for each chemical added to drinking water
7. Chlorine residual monitoring records if the system is chlorinated
8. Results of any tracer study to verify disinfection contact time, if applicable.
9. Photos or other documents that provide enough detail to determine the current condition of storage reservoir features:
 - a. Access hatch in open and closed/locked positions,
 - b. Air vents that show all screening is secure with no gaps, and
 - c. Any other openings into the tank interior such as telemetry ports and cathodic protection.

In addition, for Community water systems:

10. Cross-connection control program plan, records, latest Annual Summary Report.
11. Written protocols for under-certified operators, if applicable.

*Documents sent electronically to government entities become public information. Documents containing sensitive information should **NOT** be sent electronically.

Review COVID-19 safety guidelines

Know the facts about COVID-19

- Discuss before field inspection
- Review symptoms & self-screening
- Practice physical distancing
- Face covering
- Hand washing availability & sanitizer use



Symptoms



Cough



Chills



Fever



Sore throat



Muscle pain



Shortness of breath
or difficulty breathing



New loss of sense
of taste or smell


Field inspection Needs

- Separate vehicles
 - Plan a site visit route
 - Driving directions to facilities
- Access to facilities
 - 4WD or off road needs/skills
- Avoid small buildings, tight spaces
- Hold discussions outside
- Ensure safe place for document review
- Be situationally aware!



Post-survey follow-up


- Conduct outside or remotely
- Review deficiency summary/checklist with operator
- Discuss unresolved survey questions & additional verification needed
 - Set due date to provide information
- Inform WS operator electronic copy final survey report will be emailed

 <div> <div>XYZ Water System</div> <div>Water System Survey</div> <div>OHA Drinking Water Services</div> </div> <div> <div>PWS ID: 41 #####</div> <div>Survey Date: mm/dd/yyyy</div> </div>	
Page 2 of 16	
Source Deficiencies: Well Construction Deficiencies: <input type="checkbox"/> Sanitary seal and casing not watertight <input checked="" type="checkbox"/> Does not meet setbacks from hazards <input type="checkbox"/> Wellhead not protected from flooding <input type="checkbox"/> No raw water sample tap <input type="checkbox"/> No treated sample tap (if applicable) <input type="checkbox"/> No screen on existing well vent Spring Source Deficiencies: <input type="checkbox"/> Springbox not impervious durable material <input type="checkbox"/> No watertight access hatch/entry <input type="checkbox"/> No screened overflow <input type="checkbox"/> Does not meet setbacks from hazards <input type="checkbox"/> No raw water sample tap <input type="checkbox"/> No treated sample tap (if applicable)	<input type="checkbox"/> Failure to calculate CT values correctly <input type="checkbox"/> No means to adequately determine disinfection contact time under peak flow and minimum storage conditions UV Disinfection Violations (OAR 333-0050/5)(k)(j): <input type="checkbox"/> Bypass around UV system <input type="checkbox"/> Lamp sleeve not cleaned <input type="checkbox"/> Lamp not replaced per manufacturer <input type="checkbox"/> No intensity sensor with alarm or shut-off Other Treatment Violations: <input checked="" type="checkbox"/> Non-NSF approved chemicals - 0087(6) <input type="checkbox"/> Corrosion control parameters not met - 0034 Distribution System Violations: <input type="checkbox"/> System pressure < 20 psi - 0025(7) Cross Connection (OAR 333-061-0070): <input type="checkbox"/> No ordinance or enabling authority (CWS) <input type="checkbox"/> Annual Summary Report not issued (CWS) <input type="checkbox"/> Testing records not current (CWS, NTNC, TNC) <input type="checkbox"/> No Cross Connection Control Specialist (CWS ≥ 300 connections) Finished Water Storage Deficiencies: <input type="checkbox"/> Hatch not locked or adequately secured <input type="checkbox"/> Roof and access hatch not watertight <input type="checkbox"/> No flap valve, screen, or equivalent on drain <input type="checkbox"/> No screened vent Monitoring Violations: <input type="checkbox"/> Monitoring not current - 0025(1) <input type="checkbox"/> Unaddressed MCL violations or LCR AL exceedances - 0030 <input type="checkbox"/> No Coliform Sampling Plan - 0036(6)(a)(i) <input checked="" type="checkbox"/> Management & Operations Violations: <input type="checkbox"/> Emergency response plan not completed - 0064(1) <input type="checkbox"/> Major modifications not approved (plan review) - 0050 <input type="checkbox"/> Master plan not current (≥ 300 con.) - 0060(5) <input type="checkbox"/> Annual CCR not distributed (CWS) - 0043(1)(a) <input type="checkbox"/> PNC or out of compliance with AO <input type="checkbox"/> Public notice not issued as required - 0042 Operator Certification Violations: <input type="checkbox"/> No certified operator at required level - 0065(2) <input type="checkbox"/> No protocol for under certified operator - 0025(2) Other Rule Violations:
Treatment Deficiencies/Violations: Surface Water Treatment Deficiencies: <input type="checkbox"/> Turbidity standards not met - 0030(3) <input type="checkbox"/> Turbidimeters not calibrated per manufacturer or at least quarterly - 0036(5)(b)(4)(ii) <input type="checkbox"/> Incorrect location for turbidity monitoring <input type="checkbox"/> If serving > 3,300 people no alarm or auto plant shut off for low chlorine residual <input type="checkbox"/> For conventional or direct filtration: No alarm or plant shut off for high turbidity <input type="checkbox"/> For conventional filtration: Settled water not measured daily <input type="checkbox"/> For conventional or direct filtration: Turbidity profile not conducted on individual filters at least quarterly <input type="checkbox"/> For cartridge filtration: Filters not changed according to mfg. rec. pressure differential <input type="checkbox"/> For cartridge filtration: No pressure gauges before and after cartridge filter <input type="checkbox"/> For membrane filtration: Direct integrity testing does not meet requirements under -0036(5)(d)(B) <input type="checkbox"/> For membrane filtration: Indirect integrity testing does not meet requirements under -0036(5)(d)(C) <input type="checkbox"/> For diatomaceous earth filtration: Body feed not added with influent flow Disinfection Deficiencies/Violations: <input type="checkbox"/> DPD/EPA approved method not used - 0036(9)(e) <input type="checkbox"/> Free chlorine residual not maintained - 0032(3/5) <input type="checkbox"/> Chlorine not measured & recorded - 0036(9) <input type="checkbox"/> Minimum CT required not met all times - 0032(3/5) <input type="checkbox"/> No means to adequately determine flow rate on contact chamber effluent line <input type="checkbox"/> pH, Temperature, and chlorine residual not measured daily at first user - 0036(5)(a)(b)	


Email final survey report to: compliance.dw@dhsosha.state.or.us

Guidance for reopening buildings

- Operators may ask
- Buildings vacant or with little water use during pandemic
- Refer building owners to flushing guidelines
- Building owners responsibility
- Refer closed water systems to start-up procedures on DWS operations web page



PUBLIC HEALTH DIVISION
Center for Health Protection, Drinking Water Services
Kate Brown, Governor



800 NE Oregon Street, Suite #640
Portland, OR 97232-2162
(971) 673-0405
(971) 673-0694 – FAX
<http://healthoregon.org/dwp>

Guidance for Reopening Building Water Systems after Prolonged Shutdown

Public water supplies are safe and unaffected by the SARS-CoV-2 virus that causes COVID-19. However, water quality within buildings that have been vacant or have seen little use during the pandemic restrictions may be impacted by other infectious agents and contaminants as a result of low flow or stagnant water in pipes. Stagnant water in pipes can create conditions that favor the growth and spread of *Legionella* and other harmful bacteria and result in lower chlorine levels in buildings supplied by a public water system that uses a disinfectant. Stagnant water may also result in increased lead and copper levels that can leach out of pipes and fixtures.

Public water systems are responsible for delivering safe water to their customers' service connections. Building owners are then responsible for ensuring water quality within building plumbing systems. The Oregon Health Authority advises building owners to take precautions prior to reoccupying buildings to ensure safe water and protect public health.

Building owners should flush water pipes weekly while the building is vacant and prior to reoccupying the building. Following are considerations for flushing:

1. In general, flush one area and fixture at a time, starting in the basement and working upward to other floors.
2. Remove aerators and flush cold water first, then hot water.
3. Be sure the hot water heater is set to at least 140 degrees (131 for on-demand heaters).
4. Consider collecting and analyzing one or more coliform bacteria samples after flushing.

Owners and facilities managers of large buildings should develop a specific flushing plan for their building that avoids zones of stagnation, is consistent with their building water management plan and complies with state and local building codes. The services of a licensed plumber may be helpful.

Where can I find additional information?

- Center for Disease Control and Prevention (CDC) has developed "Guidance for Building Water Systems" that includes 8 steps to take prior to reopening buildings to ensure the safety of water: <https://www.cdc.gov/coronavirus/2019-ncov/php/building-water-system.html>
- American Water Works Association created a framework for building managers entitled Responding to Stagnation in Buildings with Reduced or No Water Use: <https://www.awwa.org/Portals/0/AWWA/Government/20201001FrameworkforBuildingManagersFINALDistCopy.pdf>

<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/Documents/reopening-guidance.pdf>

Let's review

- Conducting surveys has required a different approach
- Prepare in advance reviewing previous survey & data online to identify issues
- Take necessary COVID-19 precautions to minimize risk
- Utilize remote options to gather information & reduce time in-person for safety & efficiency
- Use post-survey discussion to outline deficiencies & additional requests

Survey procedures & handouts

Sanitary survey procedures during COVID-19 pandemic

<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PARTNERS/Documents/wss/COVID19-survey-procedures.pdf>

Water System Survey Procedure

<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PARTNERS/Documents/survey-procedure.pdf>

Know the facts about COVID-19

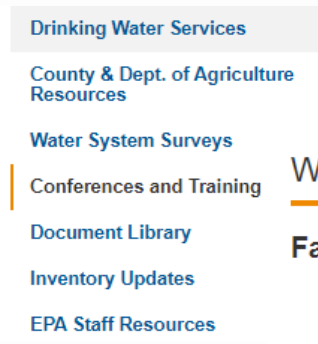
<https://sharedsystems.dhsoha.state.or.us/DHSForms/Served/LE2356.pdf>

Public Water Systems & Novel Coronavirus (COVID-19) Frequently Asked Questions

<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/Documents/FAQ-COVID19.pdf>

More survey resources

- Refer to additional partner resources online
 - Conferences & training with focus on surveys
- EPA sanitary survey learner's guide
 - EPA #816-R-03-012



Water System Survey Training

Fall 2018

- Agenda
- Survey Basics
- Webinar

Oregon Health Authority
Drinking Water Services

Water System Survey Reference Manual

November 2019

How to Conduct a Sanitary Survey of Drinking Water Systems



A Learner's Guide

DESIGNED TO ASSIST IN THE DELIVERY OF A
SANITARY SURVEY TRAINING COURSE

Oregon's Circuit Rider Program

- Through Oregon's Drinking Water State Revolving Fund (DWSRF), contracts have been established with drinking water Circuit Riders to provide on-site technical services for community water systems serving populations under 10,000, as well as not-for-profit transient and non-transient water systems. For these water systems, services are free.
- These services are designed to address short-term operational problems and are generally limited to 10 hours or less per issue.

Oregon's Circuit Rider Program

Types of services and assistance include (but are not limited to) the following:

<ul style="list-style-type: none">✓ Jar testing assistance✓ Coagulant dosage optimization✓ Corrosion control implementation✓ Chemical feed math instruction✓ Turbidimeter calibration✓ CT tracer studies✓ Chemical feed pump calibration✓ Filter troubleshooting✓ Reporting and record keeping✓ Sampling requirements✓ Valve adjustments✓ Minor changes to improve treatment and operation✓ Funding application assistance✓ Financing options and strategies	<ul style="list-style-type: none">✓ Pump sizing✓ Cross-connection assistance✓ Sampling plan assistance✓ Storage/distribution problems✓ Supply problems and water rights✓ Research/investigation of alternatives✓ Surface water treatment recommendations✓ DBP reduction✓ Filter media replacement✓ Filter backwash rule compliance✓ Disinfection assistance✓ Well repair/abandonment assistance✓ Stage two monitoring requirements
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Oregon's Circuit Rider Program

Additional Services Available for Groundwater Systems

When recommended or required by Oregon Health Authority (OHA), the Consultant shall assist water systems with data collection, which may include the physical collection of source samples, associated with the evaluation of Groundwater Under Direct Influence (GWUDI) rule and Bank Filtration (i.e., alternative treatment technology). The Consultant shall provide technical assistance regarding additional treatment techniques options to be installed if a GWUDI determination results in a source being subject to the Surface Water Treatment Rule.

Oregon's Circuit Rider Program

Additional Services Available for Surface Water Systems

When recommended or required by OHA, services also include assisting water systems using surface water with their sampling protocol for the Long Term 2 Enhanced Surface Water Treatment Rule, conducting *Cryptosporidium* source water sampling as required, performing initial bin classification and providing technical assistance regarding additional treatment modalities to be installed, if required by initial bin classification.

Oregon's Circuit Rider Program

Marlin Gochnour, PE - Regional Manager
Civil West Engineering Services, Inc.
486 E Street
Coos Bay, OR 97420

Phone: 541-266-8601

Fax: 541-266-8681

Cell: 541-808-8169

Email: mgochnour@civilwest.net

Oregon's Circuit Rider Program

General Questions may also be directed to:

Anthony J. Fields, R.E.H.S.

Protection, Planning and Certification Unit Manager

OREGON HEALTH AUTHORITY

Public Health Division

Drinking Water Services

E-mail address: anthony.j.fields@dhsoha.state.or.us

Desk: (971) 673-2269

Cell: (503) 752-8229

Questions, comments?

Stay safe. Let us know how we can help.

DWS General Information 971.673.0405
Info.DrinkingWater@dhsosha.state.or.us

Drinking Water Data Online
<https://yourwater.oregon.gov/>

Michelle Byrd 971.673.0425
michelle.p.byrd@dhsosha.state.or.us

