
Survey Class

Day 2

Spring Training 2023



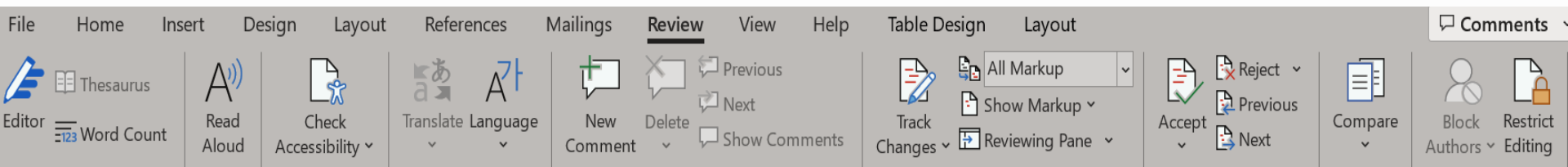
PUBLIC HEALTH DIVISION

Drinking Water Services

Outline

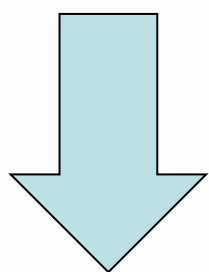
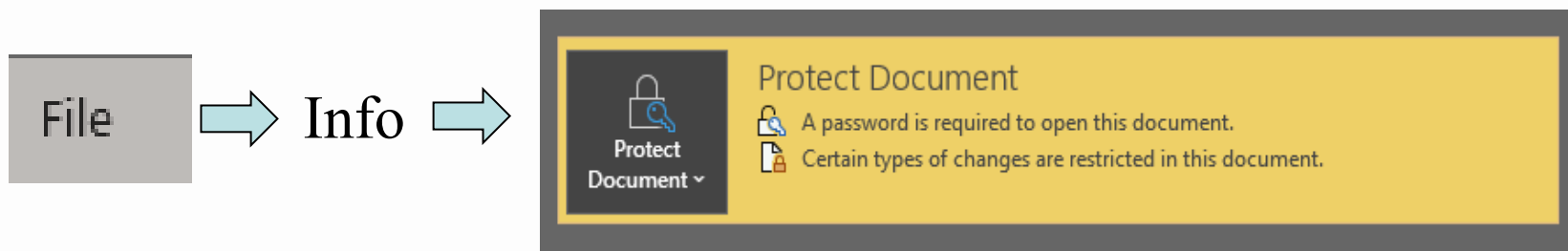
- Helpful hints
- Review field visit, observations
- Other deficiencies/pictures
- Cover letter
- Language for cover letter

Helpful Hints

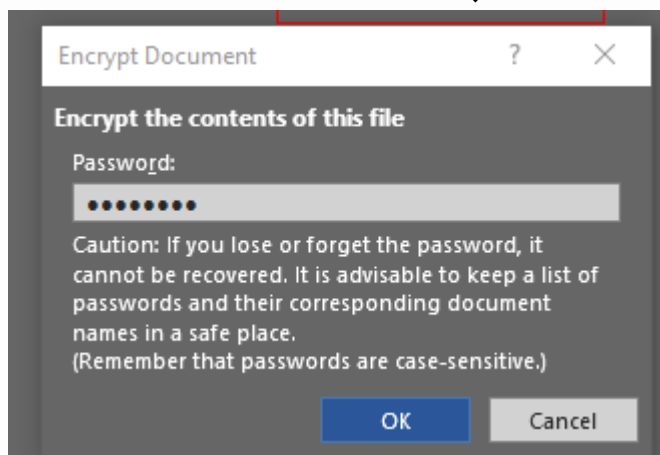


1. Remove password
2. Remove edit protection
3. Add and remove survey pages
4. Schematic drawings

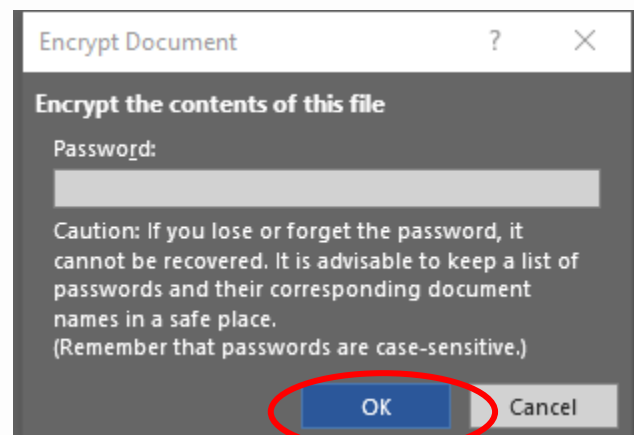
Remove password



Click on protect document
then encrypt document

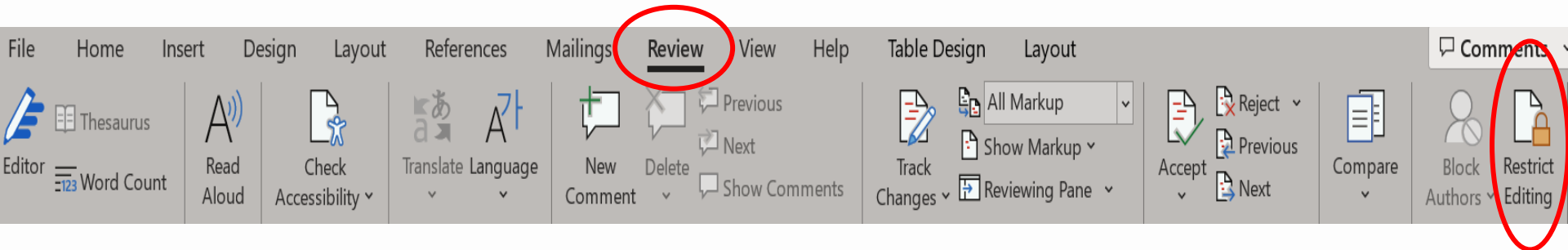


Delete
password

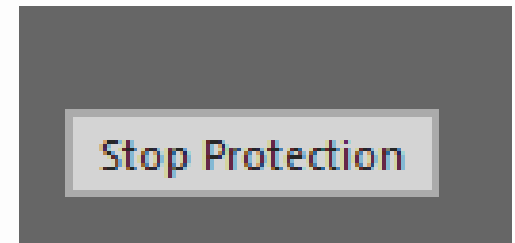
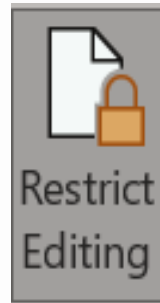


Helpful Hints

Removing editing protection



Open survey
and click on
review tab at
top of the
page

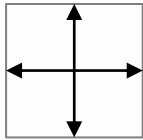


Click on the stop
protection tab at
the bottom of the
column, close
box

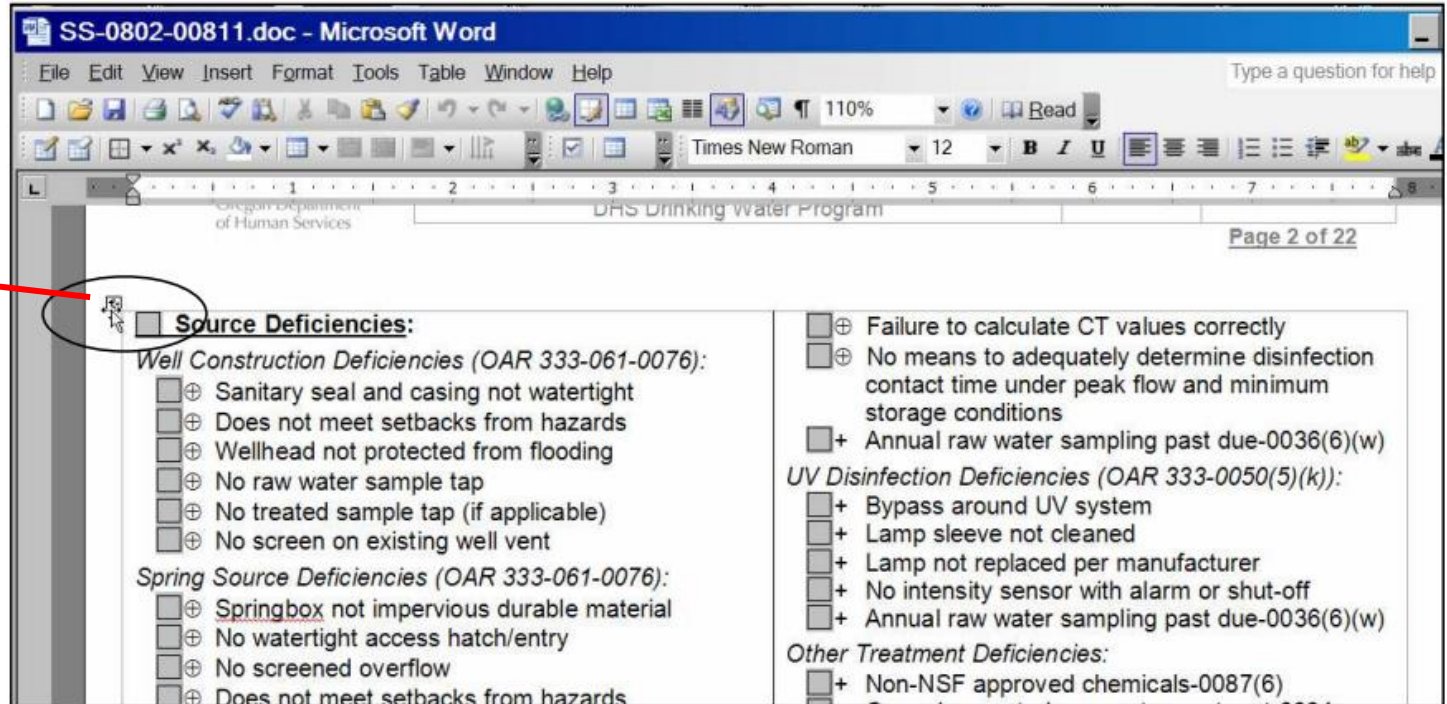
Helpful Hints

Removing pages from the survey

To remove a page – move the cursor until you see a box appear in the upper left hand side of the table as shown below, then click on the box to highlight the table:



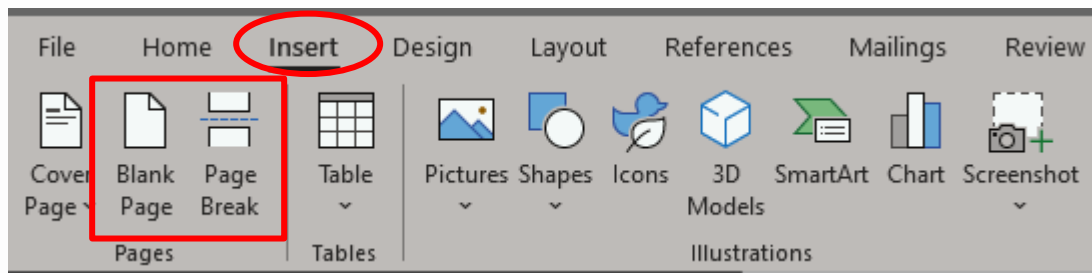
Blow-up of
image



With the table highlighted, go to Edit => Cut to remove the table. The pages after this will shift and you may need to insert a new line or delete a line to get things to line up.

Helpful Hints

Add a page to the survey



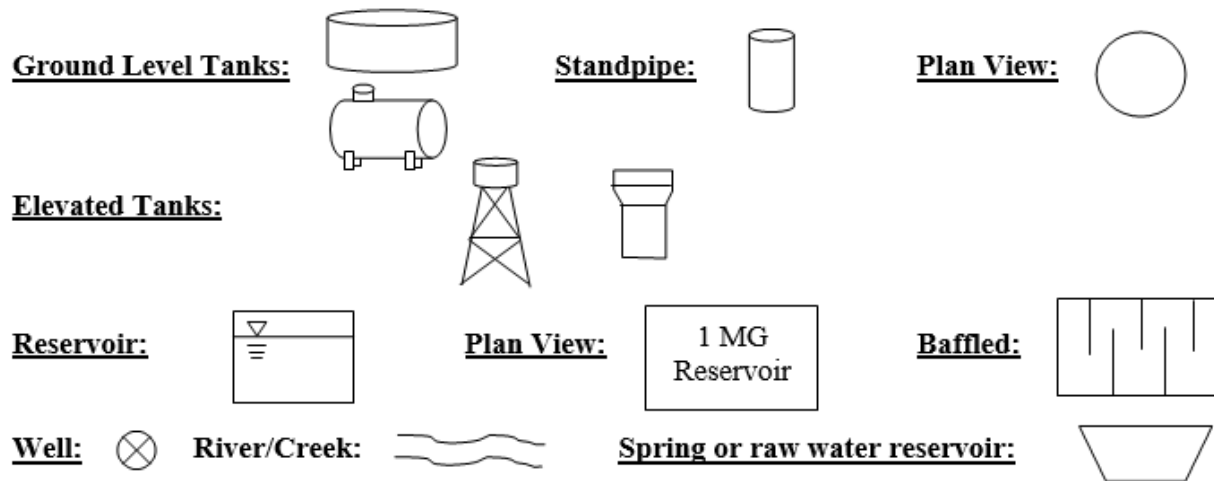
- Make sure cursor is at the bottom or top of the survey page
- Next, click on insert then choose either 'page break' or 'blank page'
- A blank page is now available to copy and paste a duplicate survey page
- Widely used for extra schematic pages, well pages or storage reservoir pages.

Schematic Drawing

Located on DWS
webpage → County &
Dept. of Ag. resources
→ Water System Surveys

Survey Manual and Related Information

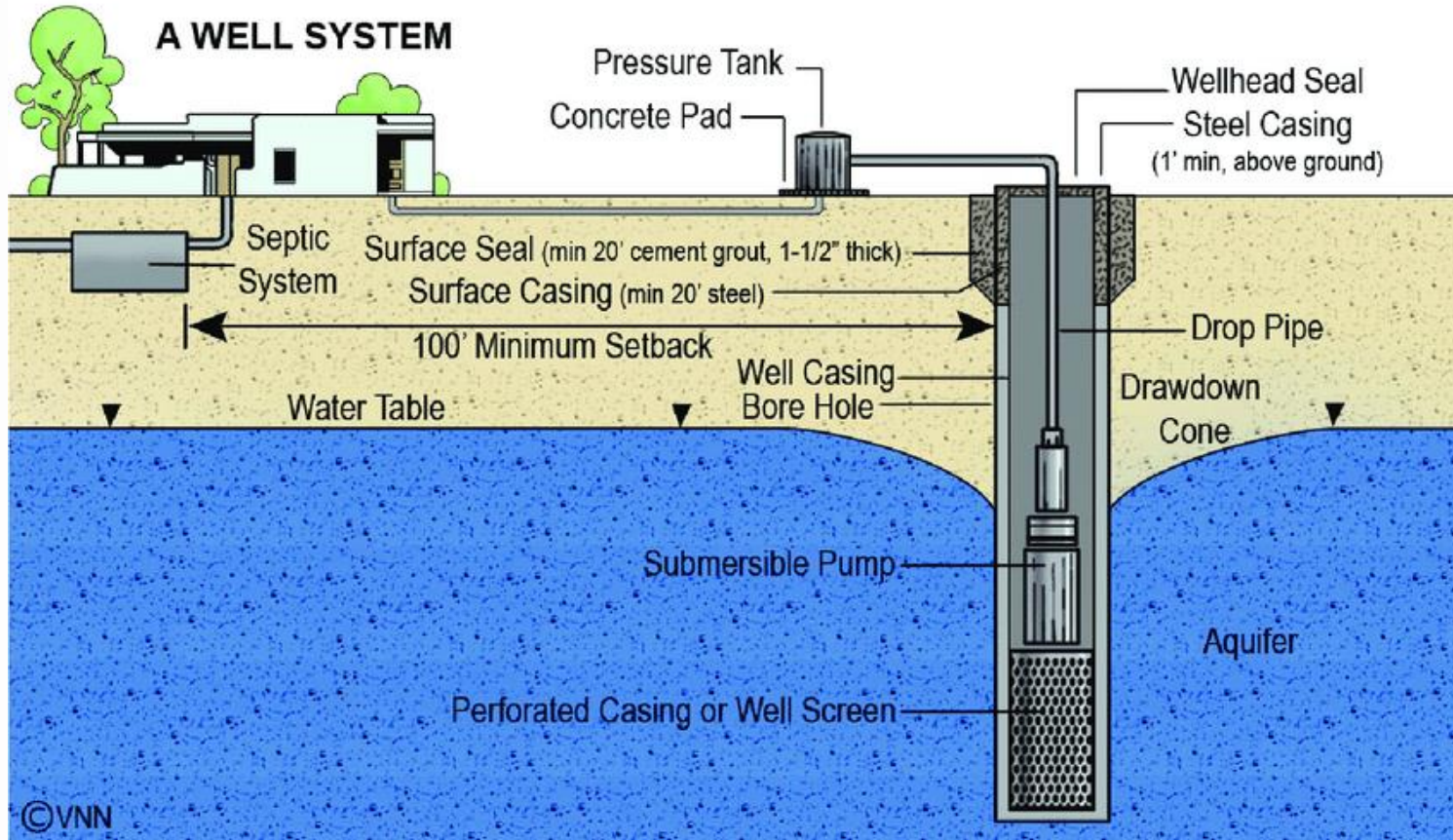
- Preparing for a Water System Survey
- Water System Survey Reference Manual - revised 4/14/2022
- Water System Survey Procedure - revised 3/28/2022
- Symbols for Schematics and Sample Water System Schematics (MS Word)
- Counting Population and Connections for a Public Water System
- Chemical Monitoring Schedules for Community and Non-Transient Non-Community groundwater systems
- Standard Monitoring Framework to assist with completing the water quality monitoring page of the survey
- Outstanding Performance
- Deficiency List - revised 3/16/2022
- Setback Issues Found in a Survey - Procedure - revised 12/15/2015
- Is it a purchasing system or not a PWS? - revised 02/14/2020
- Membrane Survey Staff Guide - revised 8/21/2020
- Plumbing code vs PWS distribution system



Review Field Visit/Observations

- Review survey field notes
- Make note of any changes or follow-up questions for operator
- List deficiencies/violations (if there are any)
- Have past deficiencies/violations been corrected?

Basic Well System



Source Deficiencies

Well A

Is the sanitary
seal and casing
watertight?

Vent?

Sample tap?



Source Deficiencies

Hatch to ??

Well A is located on the other side of the wall.

Possible hazard?



Source hazards



Well A equipment room is attached to a workshop.

Source Deficiencies



Well B
and
equipment
room



Source Deficiencies



Well B

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Source Deficiencies

Well C



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Source Deficiencies



Pill
bugs

Well
C



No screen on well vent

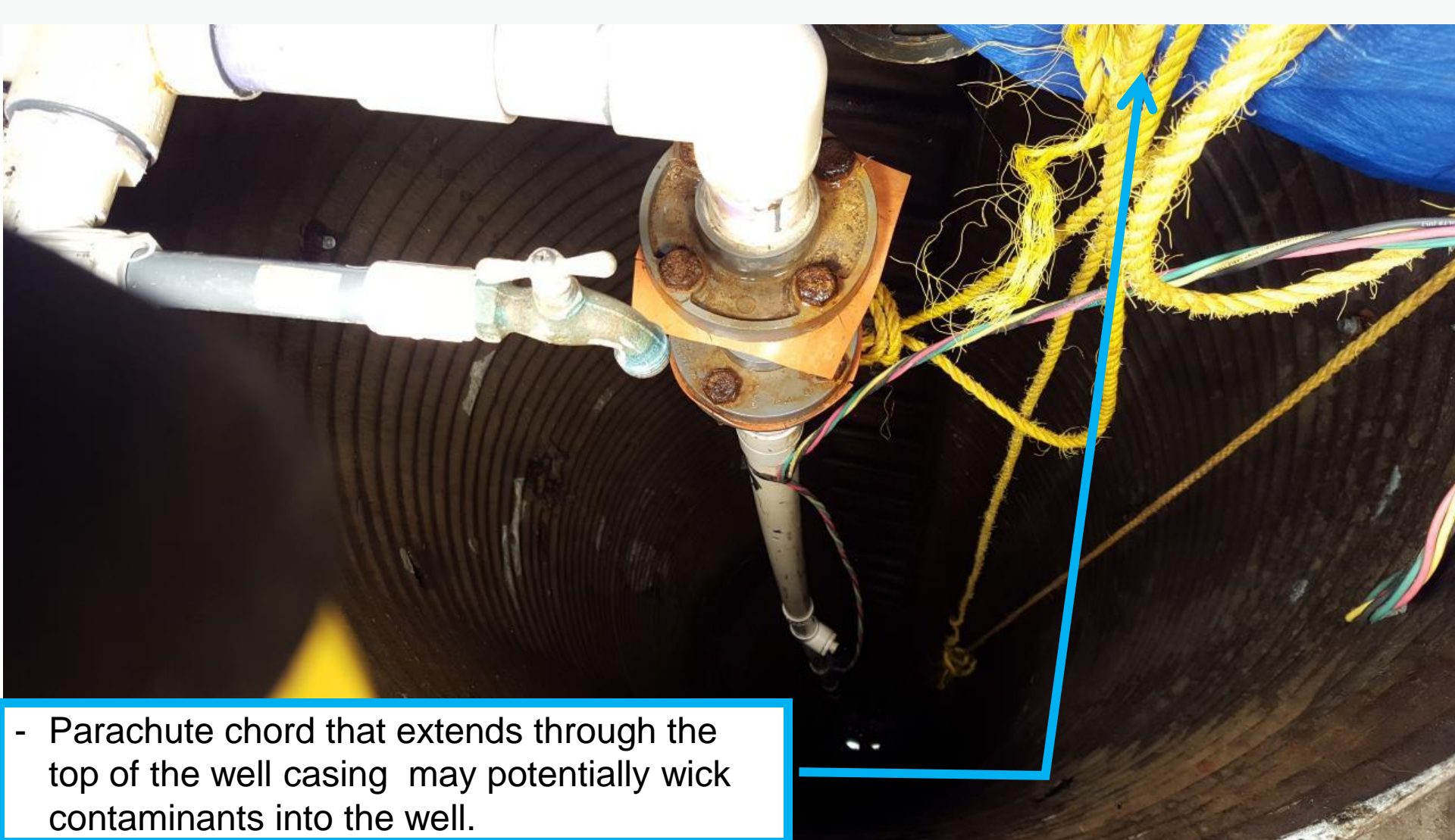




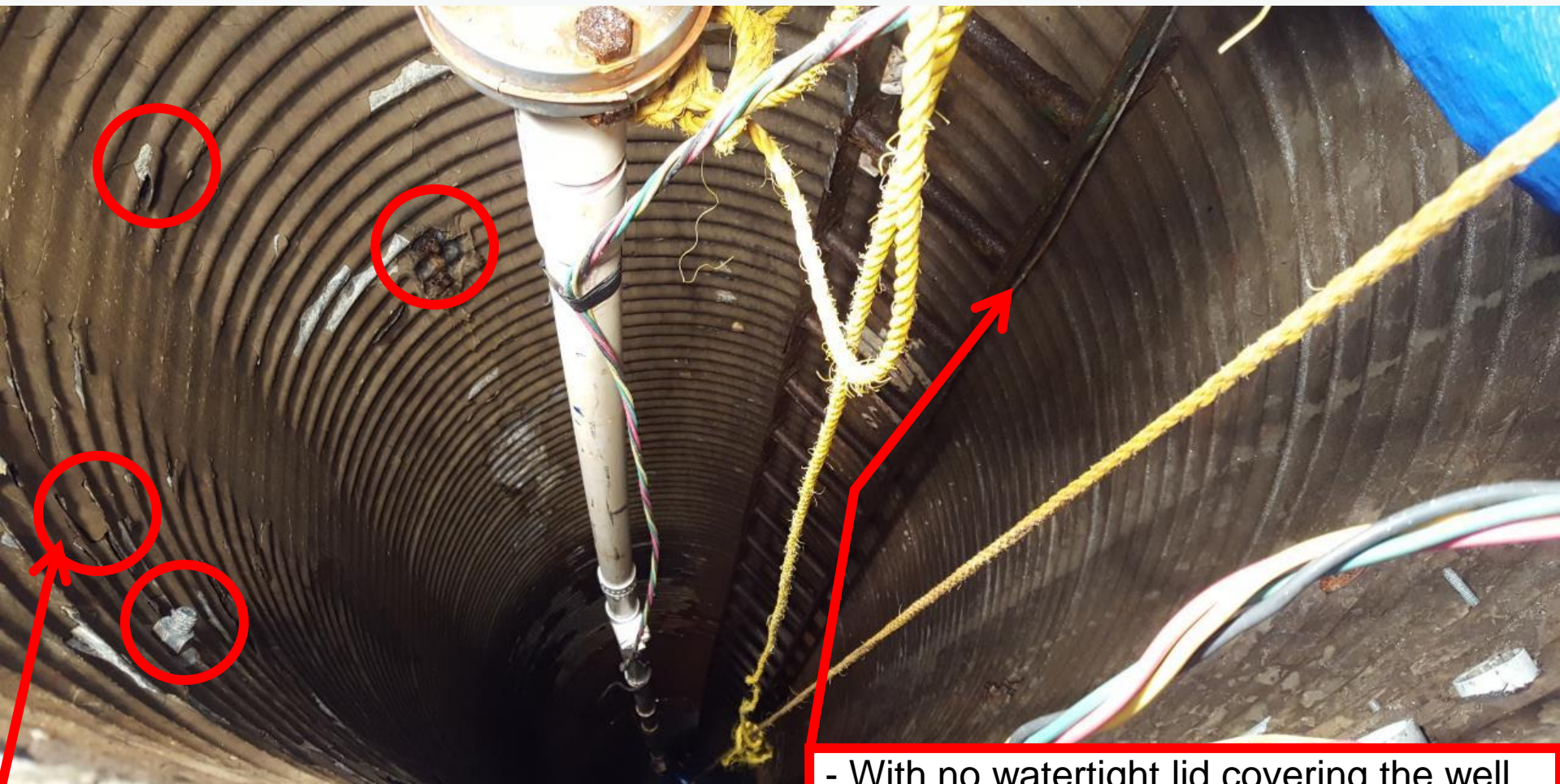
No cap, lid or cover that will prevent insects or rodents from entering the well – just a blue tarp.

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- Parachute chord that extends through the top of the well casing may potentially wick contaminants into the well.



- The pieces of coating that have flaked off the well casing may also be sources of potential contamination

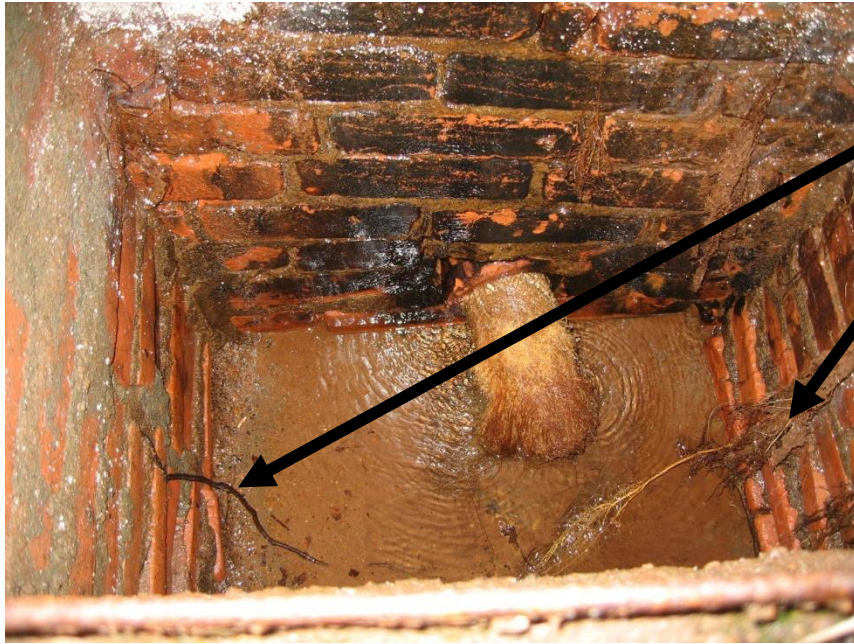
- With no watertight lid covering the well casing, the ladder could also be a way for rodents and other animals to contaminate the water.

Springbox



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Springs



Roots growing into
the springbox

Spring box in good
condition



Disinfection Deficiencies/Violations

Disinfection Deficiencies/Violations:

- ☐ + DPD/EPA approved method not used - 0036(9)(e)
- ☐ + Free chlorine residual not maintained - 0032(3/5)
- ☐ + Chlorine not measured & recorded - 0036(9)
- ☐ + Minimum CT required not met all times - 0032(3/5)
- ☐ ⊕ No means to adequately determine flow rate on contact chamber effluent line
- ☐ + pH, Temperature, and chlorine residual not measured daily at first user - 0036(5)(a/b)
- ☐ ⊕ Failure to calculate CT values correctly
- ☐ ⊕ No means to adequately determine disinfection contact time under peak flow and minimum storage conditions

UV Disinfection Violations (OAR 333-0050(5)(k)):

- ☐ + Bypass around UV system
- ☐ + Lamp sleeve not cleaned
- ☐ + Lamp not replaced per manufacturer
- ☐ + No intensity sensor with alarm or shut-off

Other Treatment Violations:

- ☐ + Non-NSF approved chemicals - 0087(6)
- ☐ + Corrosion control parameters not met - 0034



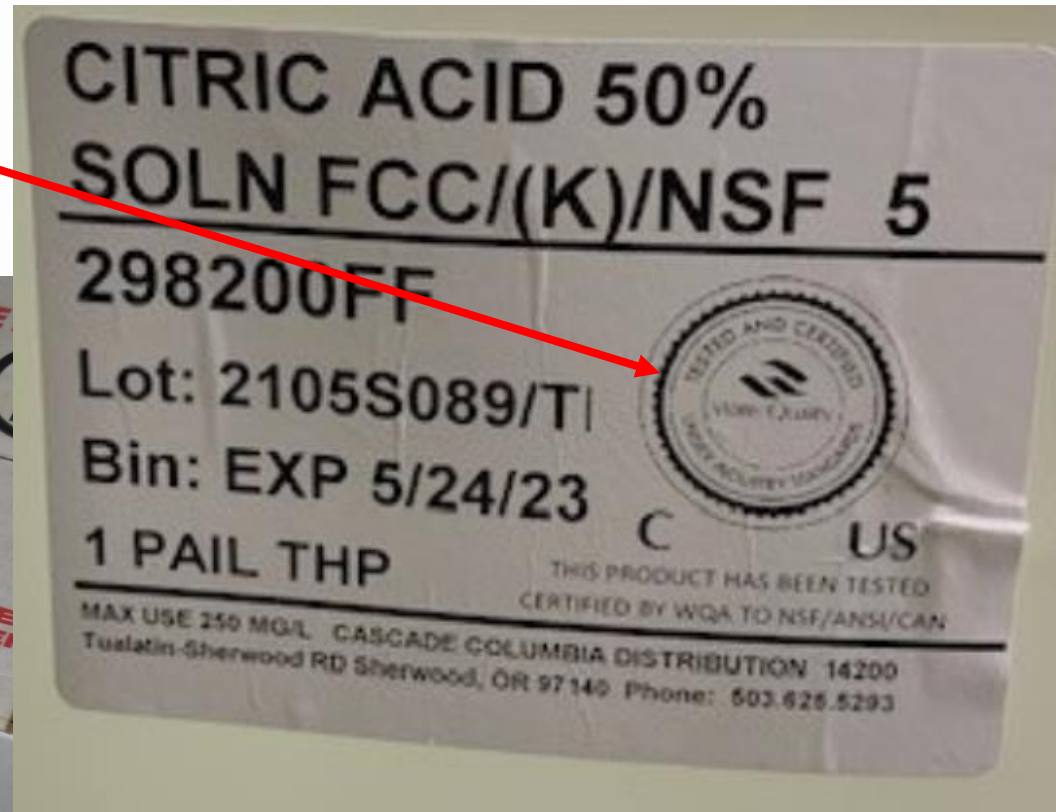
Disinfection Deficiencies/Violations



No NSF Stamp of approval



Examples of certification stamps



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Distribution and Finished Water Storage Deficiencies/Violations

☐ Distribution System Violations:

- ☐ + System pressure < 20 psi - 0025(7)

Cross Connection (OAR 333-061-0070):

- ☐ + No ordinance or enabling authority (CWS)
- ☐ + Annual Summary Report not issued (CWS)
- ☐ + Testing records not current (CWS, NTNC, TNC)
- ☐ + No Cross Connection Control Specialist (CWS \geq 300 connections)

☐ Finished Water Storage Deficiencies:

- ☐ ⊕ Hatch not locked or adequately secured
- ☐ ⊕ Roof and access hatch not watertight
- ☐ ⊕ No flap valve, screen, or equivalent on drain
- ☐ ⊕ No screened vent

Information below from DWS website

Cross Connection/Backflow Prevention Information (Last 3 Records)		
<u>Enabling Authority Received</u>	<u>Annual Summary Report Received</u>	<u>Fee Invoice Paid</u>
Yes (PDF)	2022 (PDF)	2023
	2021 (PDF)	2022
	2020 (PDF)	2021

Finished Water Storage Deficiencies



Are
storage
tanks
NSF
approved
?



Finished Water Storage Deficiencies



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Finished Water Storage deficiencies



Finished Water Storage Deficiencies



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Finished Water Storage deficiencies



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Storage tanks – Corrective Actions

Screened
vent cap



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Storage tanks – Corrective Actions



Hatch adequately secured

Proper vent screen

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Not a deficiency but a recommendation for repair on the cover letter



Large crack on the corner of the storage tank



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Cover Letters

Always check DWS website to make sure you use the most current cover letter.

Survey cover letter templates in MS Word - revised 3/6/2023

- Community Groundwater Systems - includes outstanding performer information language
- NTNC, TNC, and OVS Groundwater Systems
- Community Surface Water Systems - includes outstanding performer information language
- NTNC, TNC, and OVS Surface Water Systems

Cover Letter

**Be sure to use your
County/Dept. of Ag.
letter head for the
cover letter**

Date

Operator's Name
Water System Name, PWS #
Address
City, OR ZIP

Re: Water System Survey for **Water System Name, PWS #41xxxxx**
*EXAMPLE LANGUAGE – Community Groundwater System Survey Letter
- including outstanding performer information language*

Dear **Operator's Name**:

Thank you for your time and assistance in conducting a **Water System Survey** at [Water System Name] on [Date of Survey]. 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 whether any corrections are needed.

Example Language - if deficiencies are found:

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 contact me within 30 days and correct all deficiencies and violations by [18 weeks from the date of this letter] or follow an approved corrective action plan. If more time is needed to correct deficiencies, please contact me to discuss and approve a corrective action plan. Once the deficiencies and rule violations are corrected, you must send me written verification of the corrections, including the dates corrections were completed.

If you (the water system) fail to act within the required time frame, you must notify all persons served by the water system. A repeat public notice will be required every three months until all deficiencies are corrected, or you are in compliance with an approved corrective action plan. You must forward a copy of the public notice to Data Management, Compliance, and Enforcement (DMCE) at P.O. Box 14450, Portland, OR 97293-0450. You may also fax the report to 971-673-0694 or email to dpw.dmce@odhsoha.oregon.gov.

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

1.

In addition, I have the following comments and recommendations:

1. Please note community water systems are required to conduct and submit a lead service line inventory by October 16, 2024. It is recommended that you begin working on the required inventory, which includes specifying the material or lead status of all public and private service lines using available records. For more information, visit: www.oregon.gov/lcrr.
2. Drinking Water Services has established criteria for determining whether a system has demonstrated "outstanding performance." Systems designated Outstanding Performers may have the frequency of their water system surveys reduced from every three years to every five years. Although your water system did not meet the criteria, please review the enclosed handout to see what steps you can take toward receiving this designation.
- 3.
4. A summary of your monitoring requirements appears on page **XX**. Please maintain a copy of this page and refer to it for future monitoring scheduling.

Example Language - if Outstanding Performer criteria are met:

Water system facilities were found to be well operated and maintained by knowledgeable and competent staff. No significant deficiencies or rule violations were identified. Please note the following comments and/or recommendations:

1. Drinking Water Services has established criteria for determining whether a system has demonstrated "outstanding performance." Congratulations! Your water system met the criteria and has been designated an Outstanding Performer. Outstanding Performers may have the frequency of their water system surveys reduced from every three years to every five years. Therefore, your next water system survey will be scheduled in five years. I have enclosed an Outstanding Performer certificate along with a handout describing the outstanding performance criteria so you can ensure that your system continues to meet these criteria.
2. Please note community water systems are required to conduct and submit a lead service line inventory by October 16, 2024. It is recommended that you begin working on the required inventory, which includes specifying the material or lead status of all public and private service lines using available records. For more information, visit: www.oregon.gov/lcrr.
- 3.
4. A summary of your monitoring requirements appears on page **XX**. Please maintain a copy of this page and refer to it for future monitoring scheduling.

If you have any questions or concerns or would like the survey report in an alternate format, please contact me at 971-673-04XX. Thank you for your assistance and cooperation.

Cover Letter

Page 3
System Name - Water System Survey Letter
Month Day, 2020



Don't forget to
change/add
water system
information

Sincerely,

Name

CC:

Enc:

- **PWS name** Water System Survey Report



Be sure to list all
documents enclosed

Cover Letter

- Be sure to outline deficiencies, rule violations and corrective action requirements.
 - Detail the significant deficiency and/or rule violations and how they are to be corrected.
 - Recommendations and comments should also be described.
 - Proofread the cover letter for errors, consistency, and readability. Frequently conduct internal reviews with co-workers, supervisors or state partner.
 - Make sure the deficiencies/violations listed on the cover letter match the deficiency summary forms and the black-dot marked questions on the individual survey pages.

Cover Letter

- **No written coliform sampling plan** – OAR 333-061-0036(6)(a)(I) requires water suppliers to develop a written coliform sampling plan and the plan must identify sampling sites and sampling collection schedule that is representative of water throughout the distribution system. During the survey, the coliform sampling plan could not be located. I have attached a template for this.
- **Chlorine is not proportion to flow**- OAR 333-061-0065(6)(b)(a), chlorine feeder was not functioning at the time of the survey. Parts had been ordered and will be repaired when received. The rate of application shall result in a free chlorine residual of at least 0.2 mg/L at all times at the Entry Point (first user).

Cover Letter

- Well #9 sanitary seal and casing are not watertight (see OAR 333-061-0050(2)(a)(L)(iii)). The submersible pump wiring bracket that screws into the top of the casing was broken, providing an opening into the well casing. The conduit bracket will need to be replaced or plugged so that the sanitary seal and casing are watertight (see photo below).



Cover Letter

Recommendation Language

- **Fremont Well #11:** The pump-to-waste pipe has an elbow at the end so that water discharges vertically. At the time of the survey, standing water was observed in the pipe elbow. Recommend retrofitting the pump-to-waste discharge pipe so that standing water drains out of the base of the elbow.
- **Lower Lynnewood Storage Tank:** Photos provided by the water system show an area where the protective paint on the reservoir is wearing away and rust is starting to develop. Recommend refinishing and recoating with paint the areas where rust is showing.
- **Moyina Standpipe Storage Tanks (six total):**
 - Recommend repairing and repainting the areas on the tanks that are starting to chip and rust.
 - Recommend that the interior of the tanks be inspected and cleaned because the interior condition of the tanks is unknown.

Outstanding Performer Language

- Drinking Water Services has established criteria for determining whether a system has demonstrated “outstanding performance.” Congratulations! Your water system met the criteria and has been designated an Outstanding Performer. Outstanding Performers may have the frequency of their water system surveys reduced from every three years to every five years. Therefore, your next water system survey will be scheduled in five years. I have enclosed an Outstanding Performer certificate along with a handout describing the outstanding performance criteria so you can ensure that your system continues to meet these criteria.

Outstanding Performer Language

- Drinking Water Services has established criteria for determining whether a system has demonstrated “outstanding performance.” Systems designated Outstanding Performers may have the frequency of their water system surveys reduced from every three years to every five years. Although your water system did not meet the criteria, please review the enclosed handout to see what steps you can take toward receiving this designation.

Make sure to use the correct ‘outstanding performer’ language on the cover letter

Include Outstanding Performance Criteria document with survey and cover letter as needed

Outstanding Performance Criteria

OHA-Drinking Water Program

The Drinking Water Program (DWP) has identified criteria for determining whether a Community public water system should be considered to have outstanding performance. This designation is given at the completion of a water system survey, formerly referred to a sanitary survey. A water system survey is an on-site review of a system's sources, treatment, storage facilities, distribution system, operation and maintenance procedures, monitoring, and management, for the purpose of evaluating the system's capability of providing safe water to the public. Systems that are designated outstanding performers will have their water system survey frequency reduced from every 3 years to every 5 years.

The criteria for outstanding performance are:

- 1) No Maximum Contaminant Level (MCL), Action Level, or Treatment Technique violations in the last 5 years;
- 2) No more than one Monitoring and Reporting violation in the last 3 years. The one violation must be resolved (results submitted);
- 3) No significant deficiencies or rule violations identified during the current water system survey; and
- 4) Has not had a waterborne disease outbreak attributable to the water system in the last 5 years.

To check your water system's violation history, go to <http://healthoregon.org/dwp> and in the "More Resources" box on the right, click on "Drinking Water Data Online." Type in your water system name or PWS ID number. The date of the last survey is listed on this page. Towards the bottom of that page, under "For further information...", click on "Violations".

- An MCL violation will have "MCL" in the Violation Type column.
- Treatment Technique violations are for inadequate surface water treatment or corrosion control.
- If the system has one Monitoring and Reporting violation during the last 3 years, there must be a subsequent monitoring result for that contaminant on record in order to meet criterion #2.

We strongly encourage all systems to meet the Outstanding Performance criteria. We will review your system's designation for Outstanding Performance after completion of each water system survey. The designation will remain in effect as long as the criteria continue to be met.

If you have any questions relating to compliance with any of these criteria, please contact your regional Drinking Water Program or County Health Department staff person, or contact the DWP Phone Duty person at 971-673-0405.

Lead Service Line Inventory: language added to cover letters

- Please note non-community non-transient water systems are required to conduct and submit a lead service line inventory by October 16, 2024. If this applies to your water system, it is recommended that you begin working on the required inventory, which includes specifying the material or lead status of all public and private service lines using available records. For more information, visit: www.oregon.gov/lcrr.
- Please note community water systems are required to conduct and submit a lead service line inventory by October 16, 2024. It is recommended that you begin working on the required inventory, which includes specifying the material or lead status of all public and private service lines using available records. For more information, visit: www.oregon.gov/lcrr.

Safety



Safety



Black widow
Ticks

Unknown
spider





Questions?

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Contact Information



Kent Downs

541-214-4786

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Amy Bleekman

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