

---

# Water System Survey Tips and Tricks

Focus on Public Health

Fall Training  
October 17, 2017



OFFICE OF ENVIRONMENTAL PUBLIC HEALTH  
Drinking Water Services

---


# Outline

## Tips and Tricks for:

- ✓ On-line Resources
- ✓ Scheduling Surveys
- ✓ Preparation
- ✓ Conducting surveys
- ✓ Using survey forms



# On-line Resources – County & Dept. of Agriculture



## Drinking Water

Oregon Drinking Water Services

Home > Public Health Division > Environmental Public Health > Drinking Water


### 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](#) [Data Online](#)



#### Services

- [Cross Connection & Backflow Prevention](#)
- [Emergency Preparedness & Security](#)
- [Groundwater & Source Water Protection](#)
- [Monitoring & Reporting](#)
- [Operator Certification](#)
- [Plan Review](#)
- [State Revolving Fund \(SRF\)](#)
- [Water System Operations](#)

#### Resources

- [County & Department of Agriculture Resources](#)
- [Data Online](#)
- [Domestic Well Safety Program](#)
- [Drinking Water Advisory Committee \(DWAC\)](#)
- [For Consumers](#)
- [Rules & Implementation Guidance](#)
- [Training Opportunities](#)
- [Site Map](#)
- [Contact Us](#)

#### News and Hot Topics

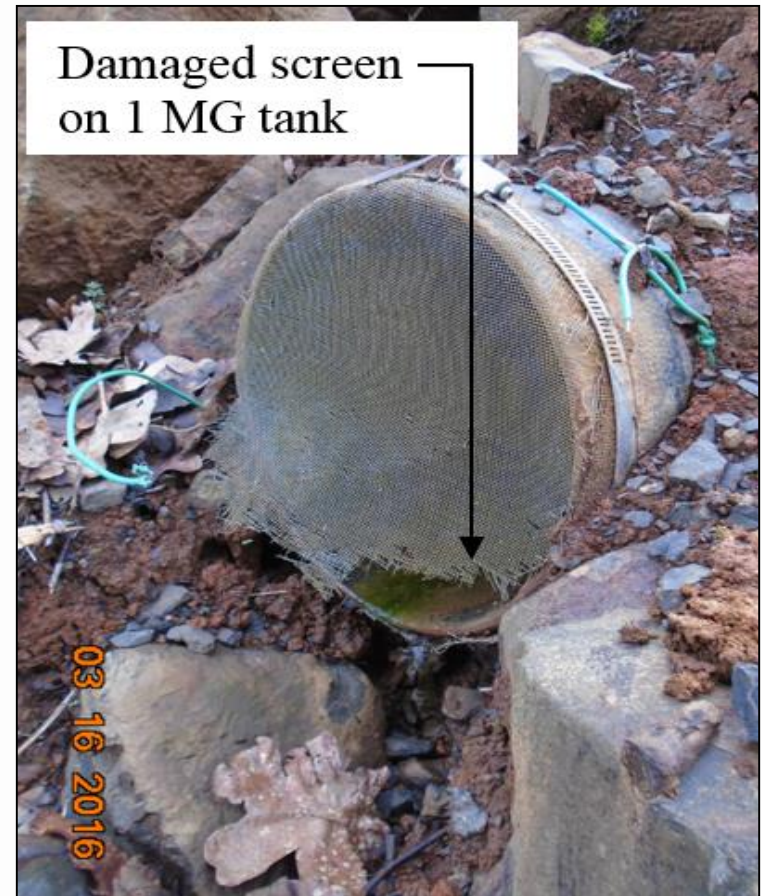
**Link**

- [Pipeline Newsletter, January 2017](#)
- [Information on Healthy School Facilities](#)
- [For water systems: Pay your 2016 survey fee online](#)
- [Shutdown tips for seasonal groundwater systems](#)
- [Water Systems: What are you doing for National Drinking Water Week?](#)
- [Algae resources for water system operators](#)
- [Rulemaking for Promotion of Seismic Resiliency & Clarification](#)

## County & Department of Agriculture Resources

# Survey Basics Review

- A water system survey is an on-site inspection
- Surveys identify significant deficiencies and violations
- Must know how and when significant deficiencies are going to be resolved.
- Significant deficiencies found during survey will prevent community systems from being considered “outstanding performers.”



# Eight Survey Elements

- Water sources
- Treatment
- Distribution systems
- Finished water storage
- Pumps, pump facilities and controls
- Monitoring, reporting and data verification
- Water system management and operations
- Operator certification

# Surveys => Updated Database (SDWIS)

- The survey is used to update our database (e.g., population, number of connections, treatment, chemical monitoring schedules, etc.)
- Forms are available on-line to update the database between surveys.

## Inventory Updates

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

-  Treatment Codes

### The following documents are password protected:

- Chemical and Bacteriological Monitoring Schedule Change Form:  fillable MS Word -or- 
- Entry Structure Diagram:
  - *Refer to the treatment code list (above) when filling out this form.*
  -  Entry Structure Diagram (includes drawing grid)
  -  Entry Structure Form and  Drawing Grid
- Source Information:  fillable MS Word -or-  printable PDF
-  Water System Information

<http://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PARTNERS/Pages/inventory.aspx>

# Schedule Survey Early

*Notify WS of upcoming survey – Approx. 2 weeks prior*

- **Explain** what survey involves & how long it will take
- **Access** to all facilities is needed
- **Records** should be available for regulator to review:
  - ✓ System-wide map
  - ✓ Sampling plans
  - ✓ O&M Manual
  - ✓ NSF certification for chemicals
  - ✓ Operator protocols (if applicable)
  - ✓ ERP
  - ✓ CCR, ASR, M&R records

# Request Storage Tank Photos

- Request photos 2 weeks before survey showing:
  - Hatch (locked & watertight)
  - Vents (completely screened)
  - Overflow (flap valve/screen)
  - Other openings into tank interior.
- Ask to see recent tank inspection reports.
- Surveyors not advised to climb tanks.





# Send “Preparing for Survey” Info

- ✓ “Preparing for a Water System Survey”
- ✓ Significant Deficiencies
- ✓ Outstanding Performer Criteria

## 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.

Rev. 3/12/12



PUBLIC HEALTH DIVISION  
Center for Health Protection, Drinking Water Services

Oregon  
Health  
Authority

## For Water System Operators: Preparing for a Water System Survey

A water system survey is an on-site review of sources, treatment facilities, and reservoirs, to review the following records:

Uniform sampling plan.  
The distribution system.  
Operation and Maintenance Manual, and other written procedures.  
Emergency Response Plan.  
Chemical dosage records if treatment is applied.  
NSF Standard 60 certification for each chemical added to the drinking water.  
Residual monitoring records if the system is chlorinated.  
Tracer study to verify disinfection contact time, if applicable.  
Other documents that provide enough detail to determine the current status of the distribution system, such as access hatch in open and closed/locked positions, records that show all screening is secure with no gaps, and other openings into the tank interior such as telemetry ports and access hatch protection.  
Community water systems:  
Disinfection control program plan, records, latest Annual Summary Report.  
Standard operating protocols for under-certified operators, if applicable.  
If a previous water system survey is advised. Contact your regional DWP staff person to request a copy of the previous survey.



## Water System Survey Deficiency Checklist OHA Drinking Water Services

### Source Deficiencies:

Well Construction Deficiencies (OAR 333-061-0076):

- ☐ Sanitary seal and casing not watertight
- ☐ Does not meet setbacks from hazards
- ☐ Wellhead not protected from flooding
- ☐ No raw water sample tap
- ☐ No treated sample tap (if applicable)
- ☐ No screen on existing well vent

Spring Source Deficiencies (OAR 333-061-0076):

- ☐ Springbox not impervious durable material
- ☐ No watertight access hatch/entry
- ☐ No screened overflow
- ☐ Does not meet setbacks from hazards
- ☐ No raw water sample tap
- ☐ No treated sample tap (if applicable)

### Treatment Deficiencies/Violations:

Surface Water Treatment Deficiencies:

- ☐ Turbidity standards not met-0030(3)
- ☐ Turbidimeters not calibrated per manufacturer or at least quarterly-0036(5)(b)(A)
- ☐ Incorrect location for compliance turbidity monitoring
- ☐ If serving > 3,300 people no alarm or auto plant shut off for low chlorine residual
- ☐ For conventional or direct filtration: No alarm or plant shut off for high turbidity
- ☐ For conventional filtration: Settled water not measured daily
- ☐ For conventional or direct filtration: Turbidity profile not conducted on individual filters at least quarterly
- ☐ For cartridge filtration: No pressure gauges before and after cartridge filter
- ☐ For diatomaceous earth filtration: Body feed not added with influent flow
- ☐ For membrane filtration: Turbidimeter not present on each unit-0050(4)(c)(G)
- ☐ For membrane filtration: Direct integrity testing not done at least daily-0036(5)(b)(F)

Disinfection Deficiencies/Violations:

- ☐ DPD or EPA approved method not used-0036(9)
- ☐ Free chlorine residual not maintained-0032(3/5)
- ☐ Chlorine not measured & recorded as required-0036(9)
- ☐ Minimum CT requirement 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

- ☐ Failure to calculate CT values correctly
- ☐ No means to adequately determine disinfection contact time under peak flow and minimum storage conditions
- ☐ Annual raw water sampling past due-0036(6)(w)

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
- ☐ Annual raw water sampling past due-0036(6)(w)

Other Treatment Violations:

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

### 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 ≥ 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

### Monitoring Violations:

- ☐ Monitoring not current-0025(1)
- ☐ MCL violations-0030
- ☐ No Coliform Sampling Plan-0036(6)(b)(G)

### Management & Operations Violations:

- ☐ No operations and maintenance manual. -0065(4)
- ☐ Emergency response plan not completed. -0064(1)
- ☐ Major modifications not approved (plan review). -0050
- ☐ Master plan not current (≥ 300 con.)-0060(5)
- ☐ Annual CCR not submitted (CWS)-0043(1)(a)
- ☐ PNC or out of compliance with AO
- ☐ Public notice not issued as required-0042

### Operator Certification Violations:

- ☐ No certified operator at required level-0065(2)
- ☐ No protocol for under certified operator-0225(5)

### Other Rule Violations:

- ☐ Significant deficiency per OAR 333-061-0076
- ☐ Significant rule violation per OAR 333-061-XXX

Oregon  
Health  
Authority

# "Preparing for Survey" Info On-line



## Water System Operations Oregon Drinking Water Services

Home > Public Health Division > Environmental Public Health > Drinking Water > Water System Operations > Water System Surveys & Outstanding Performance

## Water System Surveys & Outstanding Performance

A water system survey (formerly referred to as a sanitary survey) is an on-site review of a water 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.

### Water System Surveys and Inspections

- [Preparing For A Water System Survey: For Water System Operators \(pdf\)](#)
- [Preparing For Your Water Treatment Plant Inspection: For Water System Operators \(pdf\)](#)
- [Deficiency List \(pdf\) - revised 6/24/2015](#)

### Outstanding Performance

Oregon Drinking Water Services 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. Systems that are designated outstanding performers will have their water system survey frequency reduced from every 3 years to every 5 years.

- [Outstanding Performance Criteria \(pdf\)](#)
- [List of Outstanding Performers \(on Data Online\)](#)

### Drinking Water Services

### Water System Operations

### Surface Water Treatment

### Capacity Development

### Public Notice Resources & Templates

### Fact Sheets & Best Management Practices

### Water System Surveys & Outstanding Performance

### Circuit Rider Program

### Pipeline Newsletter

### Contact Us

<http://www.oregon.gov/oha/PH/HealthyEnvironments/DrinkingWaterOperations/Pages/osp.aspx>



# Consider Equipment

- Chlorine Test Kit
  - DPD type for free chlorine
- pH meter (corrosion control)
- Maps (USGS, Google)
- **Camera**
- Flashlight
- Mirror
- Lunch (or **snack**)
- **Cell phone**
- Be prepared for inclement weather!



# Review System Information Prior to Survey

- Previous survey
  - having the electronic MS Word version will help
- Monitoring & reporting
  - Check both coliform and chemical schedules/details
  - Anything past due or near due?
  - Any reductions possible?
  - Radionuclide schedules are based on last sample results.
- Violations/System Score/Enforcements
  - Are all violations resolved (RTC)?
  - System score near zero (<11)?
  - Any open enforcements?
  - Unresolved significant deficiencies?
  - Can anything be resolved?
- CCR & ASR reports (CWS)
- Correspondence since last survey (Contact reports)

Oregon Public Health  
Drinking Water Data Online

Introduction :: Data Search Options :: WS Name Look Up :: WS ID Look Up :: DWS Home :: Quick Data Links

**OR41 00064**      **ATHENA, CITY OF**      **Classification:** COMMUNITY

<b>Contact:</b> KENNETH FAIRCLOTH PO BOX 686 ATHENA, OR 97813	<b>Phone:</b> 541-566-0228 <b>County:</b> UMATILLA <b>Activity Status:</b> ACTIVE -- History <b>Number of Connections:</b> 520 <b>Regulating Agency:</b> REGION 1 <b>Owner Type:</b> LOCAL GOVERNMENT <b>Licensed By:</b> N/A <b>Approved Drinking Water Protection Plan:</b> No <b>Source Water Assessment:</b> Yes <b>Last Survey Date:</b> Nov 04, 2010
---	---

**Population:** 1,270  
**Operating Period:** January 1 to December 31  
**Certified Operator(s)**  
Required: Y  
Distribution class: 1  
Treatment class: None  
Filtration Endorsement Required: No

**Sources**

Facility ID	Facility Name - Well Logs	Activity Status	Availability	Source Type
EP-A	EP FOR WELL #3	I		GW
SRC-AA	RESERVOIR WELL #3 - L107471	I	Emergency	GW
EP-B	EP FOR CANNERY WELL #4	A		GW
SRC-BA	CANNERY WELL #4 - UMAT5830	A	Permanent	GW
EP-C	EP FOR WELL #2	A		GW
SRC-CA	PARK WELL #2 - L107456	A	Permanent	GW

**Treatment**

State ID	Facility Name	Treatment Process	Treatment Objective	Filter Type
----------	---------------	-------------------	---------------------	-------------

**Consumer Confidence Reports (Last 5 Years)**

For Year	Date Received	Date Certified
2012	Due 7/1/2013	
2011	Not received	Aug 08, 2012
2010	Not received	
2009	Jun 14, 2010	
2008	Jul 06, 2009	Jul 02, 2009








**Cross Connection Annual Summary Reports (Last 3 Records)**

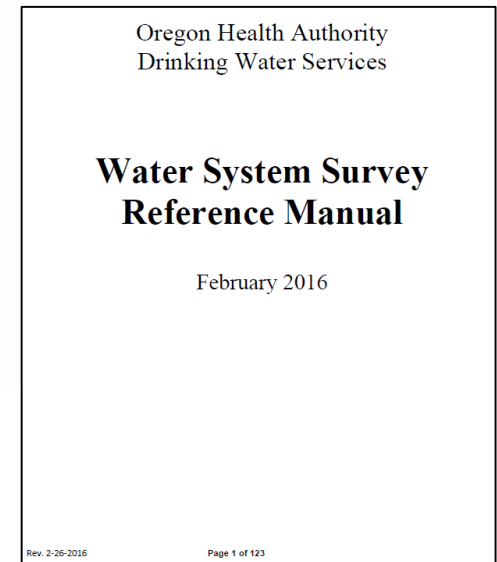
Ordinance Received	Ordinance Status	ASR Received
Yes	Final	2012
		2011
		----

# Review Survey Process

1. Survey manual – 2016
2. Setback issues procedure - 2015

## Survey Manual and Related Information


-  Water System Survey Reference Manual - *revised 03/09/2016*
-  Symbols for Schematics and Sample Water System Schematics
-  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 6/24/2015*
-  Setback Issues Found in a Survey - Procedure - New 12/15/2015






<http://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PARTNERS/Pages/surveys.aspx>

# Download Latest Survey Template

## Survey Form Templates

-  About Survey Template Packets
-  Survey Template Instructions
-  Outstanding Performer Template

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

-  Packet 1: C-NTNC Groundwater Survey Template - *revised 10/12/2016*
-  Packet 2: C-NTNC Surface Water Survey Template - *revised 10/12/2016*
-  Packet 3: TNC-NP Survey Template - *revised 10/12/2016*

[http://www.oregon.gov/oha/PH/HEALTHYENVIRONMENT  
S/DRINKINGWATER/PARTNERS/Pages/surveys.aspx](http://www.oregon.gov/oha/PH/HEALTHYENVIRONMENT/S/DRINKINGWATER/PARTNERS/Pages/surveys.aspx)

# May Need Survey Symbols

## Survey Manual and Related Information

-  Water System Survey Reference Manual - revised 03/09/2016
-  Symbols for Schematics and Sample Water System Schematics
-  Counting Population and Connections for a Public Water System

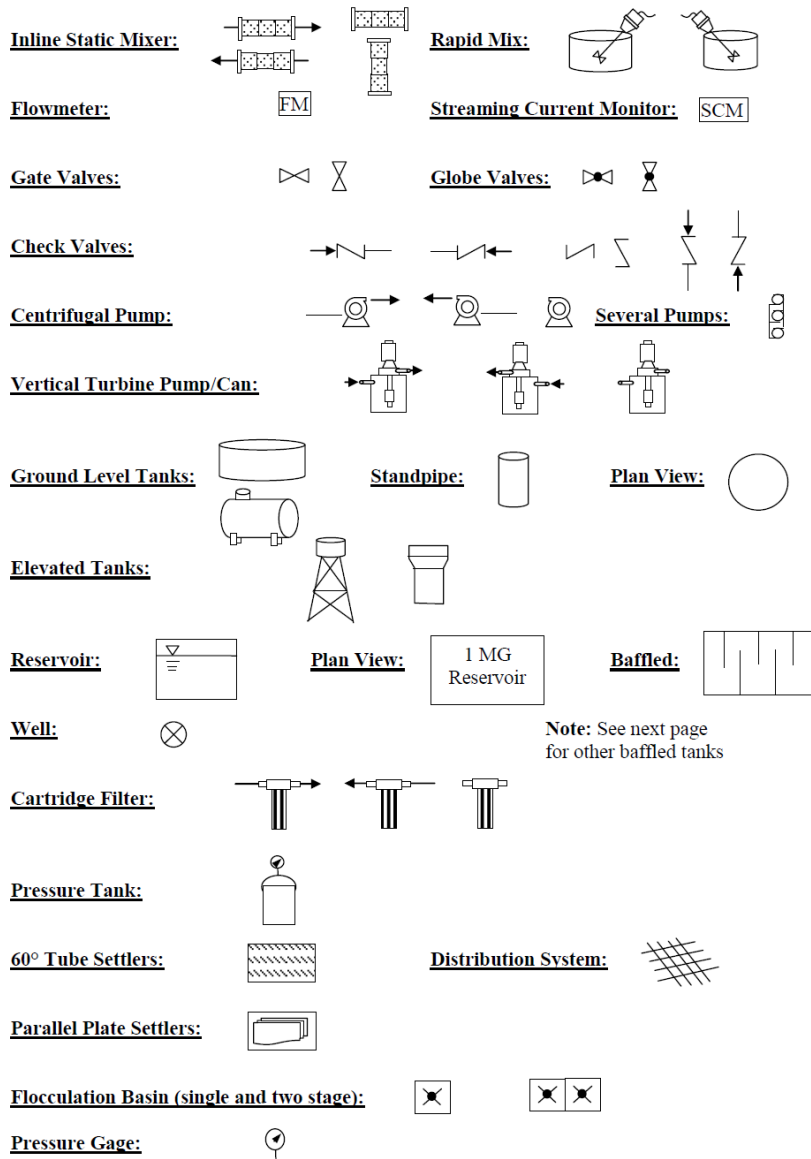
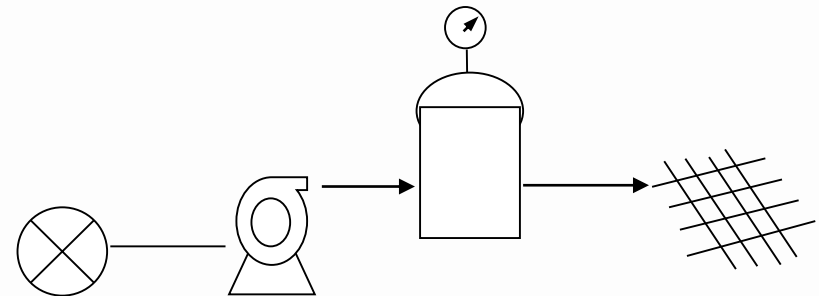
<http://www.oregon.gov/oha/PH/HEALTHYENVIRONMENT/S/DRINKINGWATER/PARTNERS/Pages/surveys.aspx>

- Instructions on how to fill out survey forms
- Includes examples, tools & more



# Symbols.doc

- Pre-made graphics to **copy & paste** into schematics page
- Easy to **move/re-size**
- Also contains example schematics





# “Pre-Populate” New Survey Forms

I find it helpful to “pre-populate” the new survey forms prior to conducting a survey.

- Transferring some info from previous survey to new survey forms **helps me to become familiar** with the latest survey form and the water system.
- Generally I only **use the previous survey** report
  - having the electronic MS Word version will help

• Instructions on how to fill out survey forms

• Includes examples, tools & more

# “Pre-Populate” => Field Verify

- Typically helpful to transfer/pre-populate:
  - Inventory page (compare to data on-line)
  - Schematic
  - Entry Point Information (compare to data-online)
  - Source Info (wells/springs/etc.)
  - Tracer study information
- Based on a review of monitoring and sample schedules from data on-line, I pre-populate the chemical monitoring schedules and identify any monitoring reductions.
- I also note:
  - Unresolved violations, enforcements, deficiencies, & open plan reviews.
  - CCR
  - ASR and if we have a copy of the cross connection control ordinance available on-line.
- I then print out and take a paper copy of the pre-populated survey form to the survey and verify everything, marking up any changes that need to be made.

# On-site Survey Approach

- The **forms are a guide** for surveyors as they look for deficiencies.
- Take care to use the correct forms and fill them out completely; remember that water systems are paying for this now.
- That being said, it is important to **see beyond the forms** and use professional discretion.
- Start with the source and **follow the flow of water**
- **Learn about the system** through conversation.
- **Ask** the operator to explain the flow control and treatment process

# Inventory & Narrative Form

*Verify WS information in Data Online is correct*

- Verify contact information
  - Where to mail correspondence
- Is facility license required?
- Operator certification level correct & current?
- Operating season
  - Establishes coliform monitoring timeframe
- Emergency connections

Oregon Public Health  
Drinking Water Data Online

Introduction :: Data Search Options :: WS Name Look Up :: WS ID Look Up :: DWS Home :: Quick Data Links

**OR41 00064**      **ATHENA, CITY OF**      **Classification:** COMMUNITY

Contact: KENNETH FAIRCLOTH      Phone: 541-566-0228  
PO BOX 686      County: UMATILLA  
ATHENA, OR 97813      Activity Status: ACTIVE -- History

Population: 1,270      Number of Connections: 520  
Operating Period: January 1 to December 31      Regulating Agency: REGION 1  
Certified Operator(s)      Owner Type: LOCAL GOVERNMENT  
Required: Y      Licensed By: N/A  
Distribution class: 1      Approved Drinking Water Protection Plan: No  
Treatment class: None      Source Water Assessment: Yes  
Filtration Endorsement Required: No      Last Survey Date: Nov 04, 2010

**Sources**

Facility ID	Facility Name - Well Logs	Activity Status	Availability	Source Type
EP-A	EP FOR WELL #3	I		GW
SRC-AA	RESERVOIR WELL #3 - L107471	I	Emergency	GW
EP-B	EP FOR CANNERY WELL #4	A		GW
SRC-BA	CANNERY WELL #4 - UMAT5830	A	Permanent	GW
EP-C	EP FOR WELL #2	A		GW
SRC-CA	PARK WELL #2 - L107456	A	Permanent	GW

**Treatment**

State ID	Facility Name	Treatment Process	Treatment Objective	Filter Type
----------	---------------	-------------------	---------------------	-------------

**Consumer Confidence Reports (Last 5 Years)**

For Year	Date Received	Date Certified
2012	Due 7/1/2013	
2011	Not received	Aug 08, 2012
2010	Not received	
2009	Jun 14, 2010	
2008	Jul 06, 2009	Jul 02, 2009

**Cross Connection Annual Summary Reports (Last 3 Records)**

Ordinance Received	Ordinance Status	ASR Received
Yes	Final	2012
		2011
		2010

# Use Schematics for Better Understanding

- Schematics help you make sense of what you see on the ground
- They can also help in future conversations with operators
- Objective is to illustrate:
  1. **How water flows** through the system;
  2. **Treatment**;
  3. What is represented by key **sampling points** (i.e., raw water, treated water, entry point, etc.); and
  4. **Major facilities** (tanks, treatment, distribution)

# Schematics

Ideally, schematics would show:

- **Sources** (name and SRC-XX)
- **Treatment** (general type – e.g., disinfection, cartridge filter, etc.)
- **Chemical injections:**
  - Indicate with arrow at a location relative to source, treatment, etc.
  - Type (e.g. sodium hypochlorite, soda ash, etc.)
- **Disinfection segment (a.k.a. CT segment)**
  - Clearwell (name and volume)
  - Lines for pipe (length and diameter)
  - Chlorine injection, flow meter, sample tap for CT
- **Entry points/First user** (name and EP-XX)
- **Distribution** network is just indicated using hatch mark
- **Tanks** (name and volume)
- **Pump stations**

Tanks will sometimes have a manufacturer plate, which is a simple way to get the year and capacity

  
**Brown-Minneapolis Tank Co.**

TANK SPECIFICATION

TANK SIZE  DIA. X  HT.

NOMINAL TANK CAPACITY  GALLONS

SERIAL NO. YEAR

MATERIAL

Floor	.250" Plate (A36)
Shell course 1 thru 3	.250" Plate (A36)
Roof	.250" Plate (A36)

[www.bmt-tank.com](http://www.bmt-tank.com)

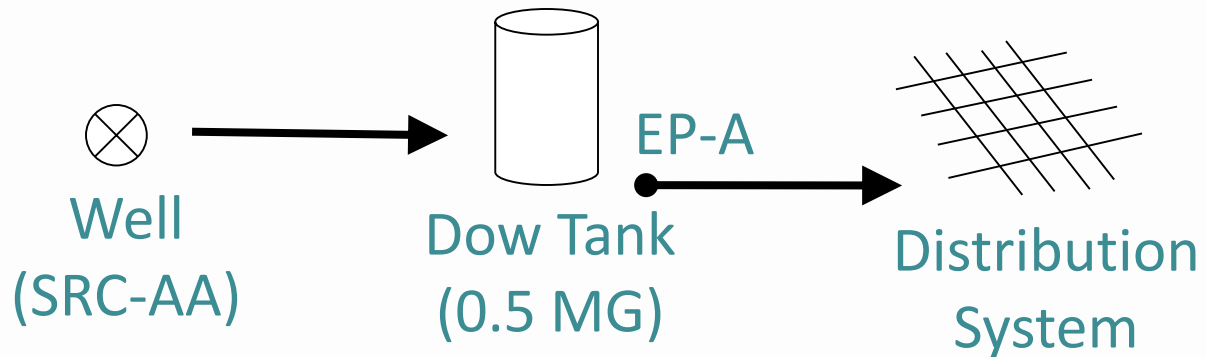
03 16 2016

Survey forms

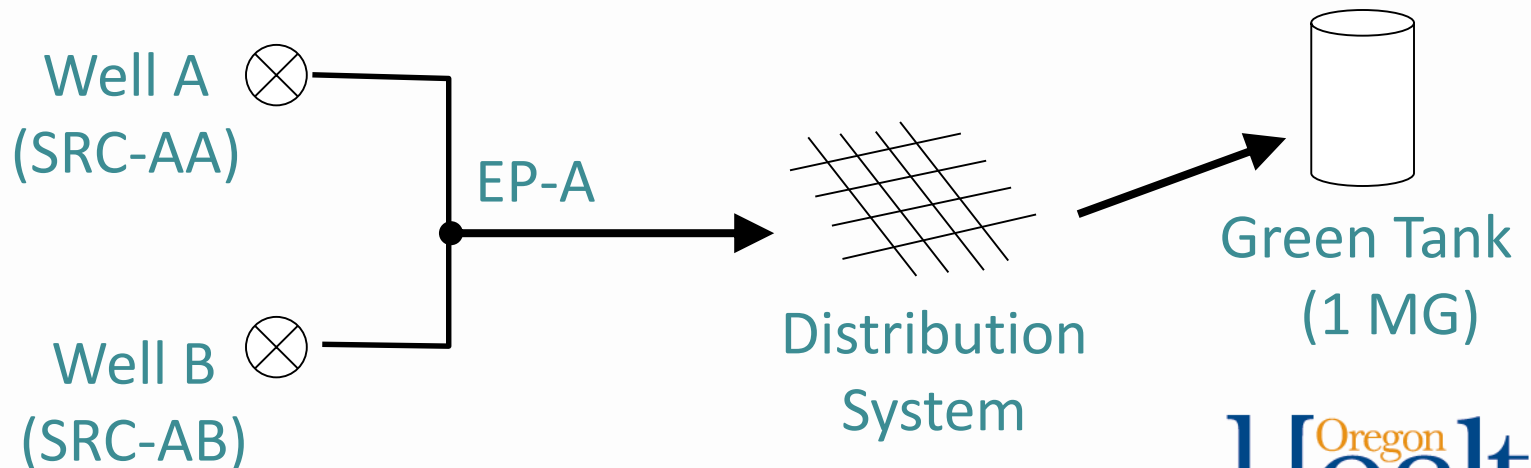
FILE

# Keeping schematics simple is fine

## 1 Well/Entry Point:



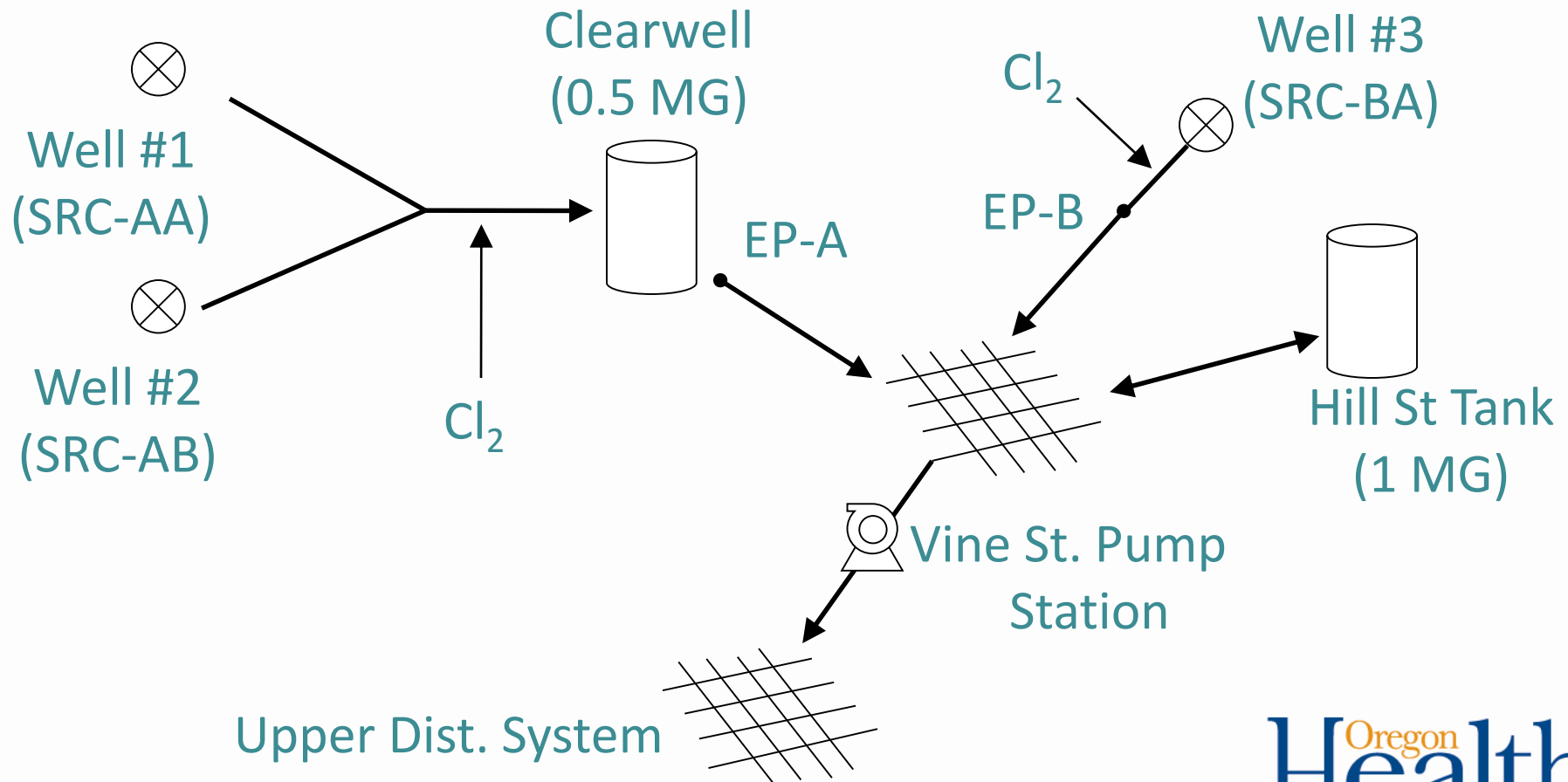
## 2 Wells/Entry Point:





# Schematic Example w/Disinfection

*Multi-wells/multi-entry points/residual maintenance:*

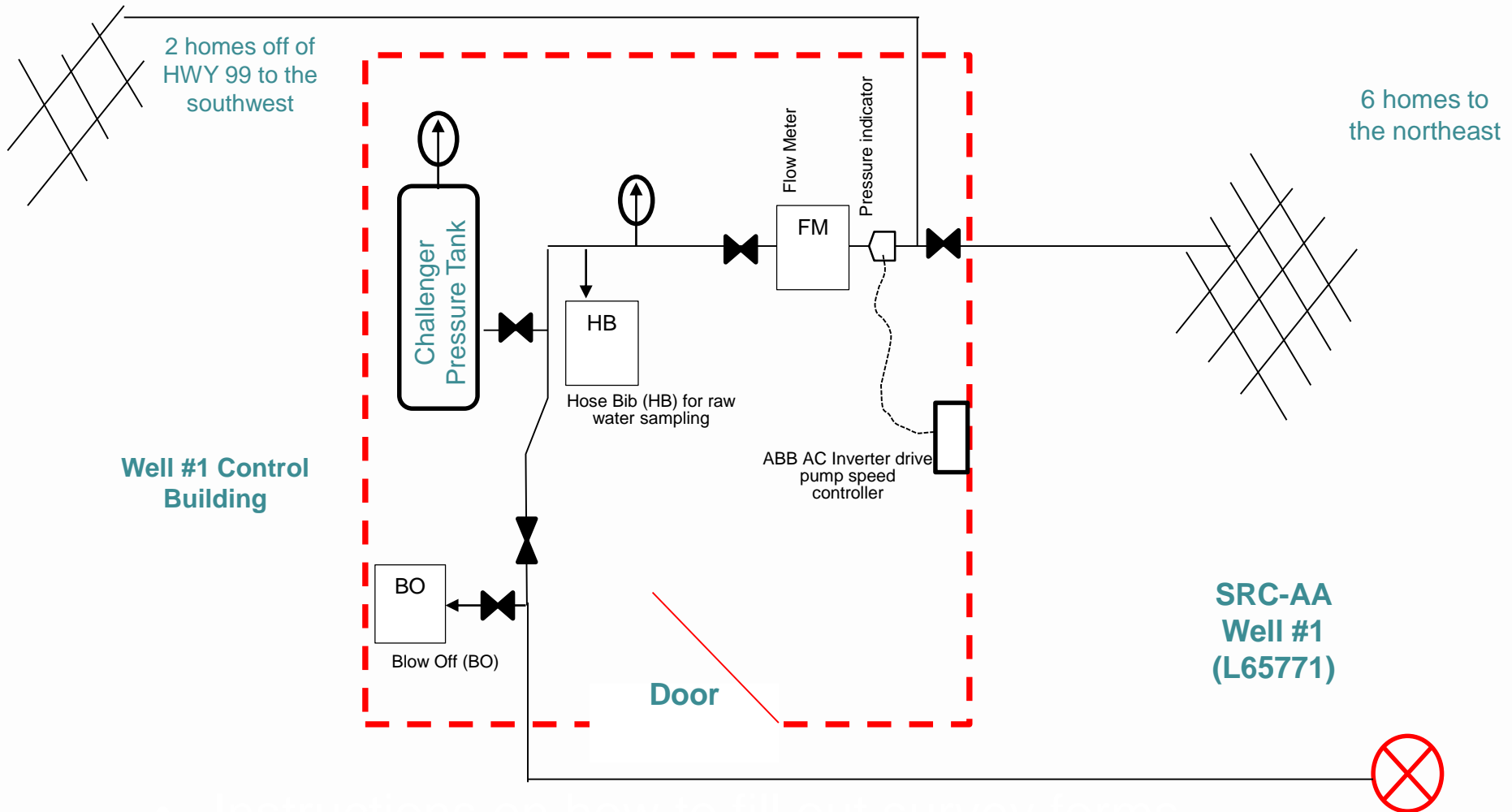


When I find this...



is more

I find it helpful to draw it as I see it.



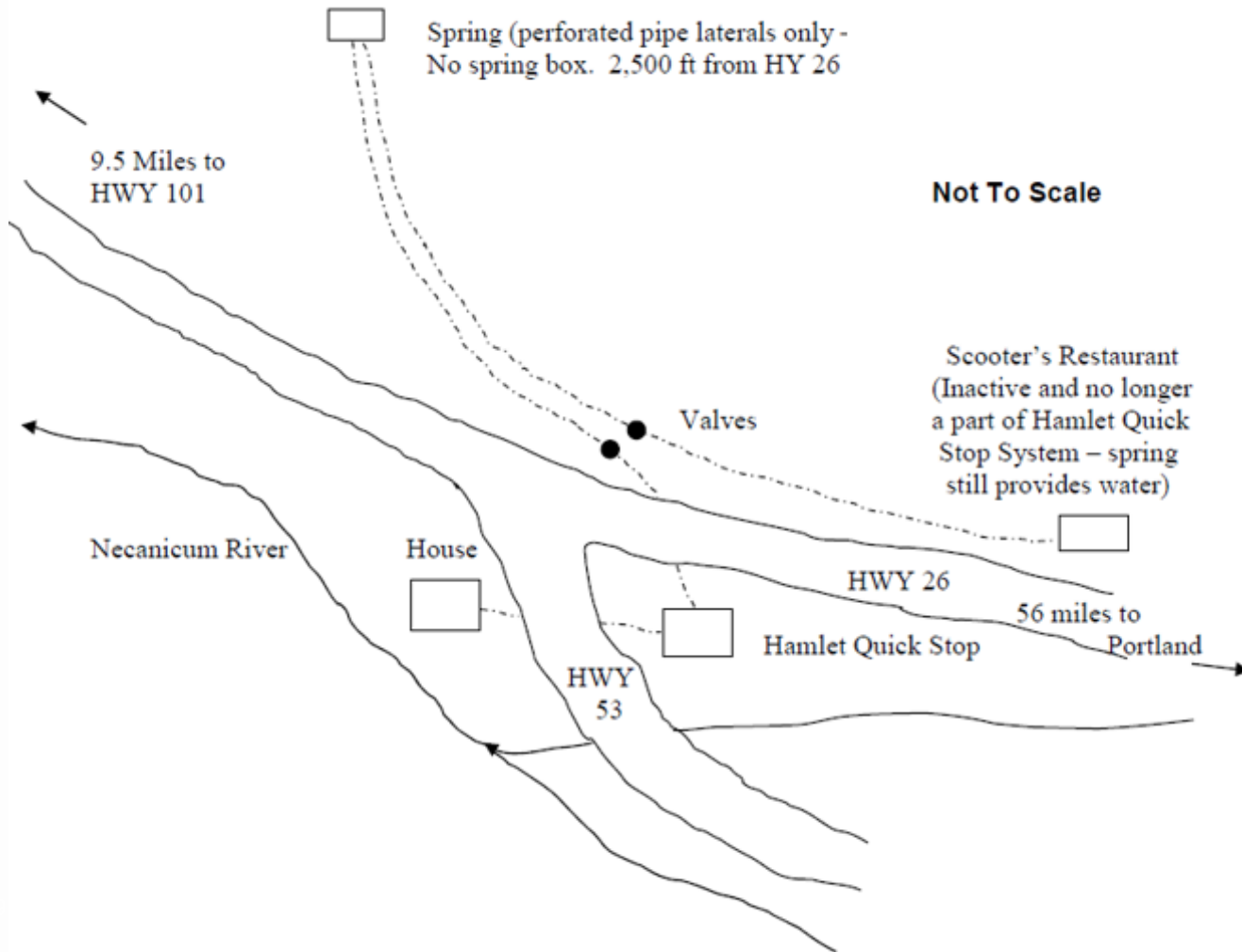
- Instructions on how to fill out survey forms
- Includes examples, tools & more

This can help with more complex systems...



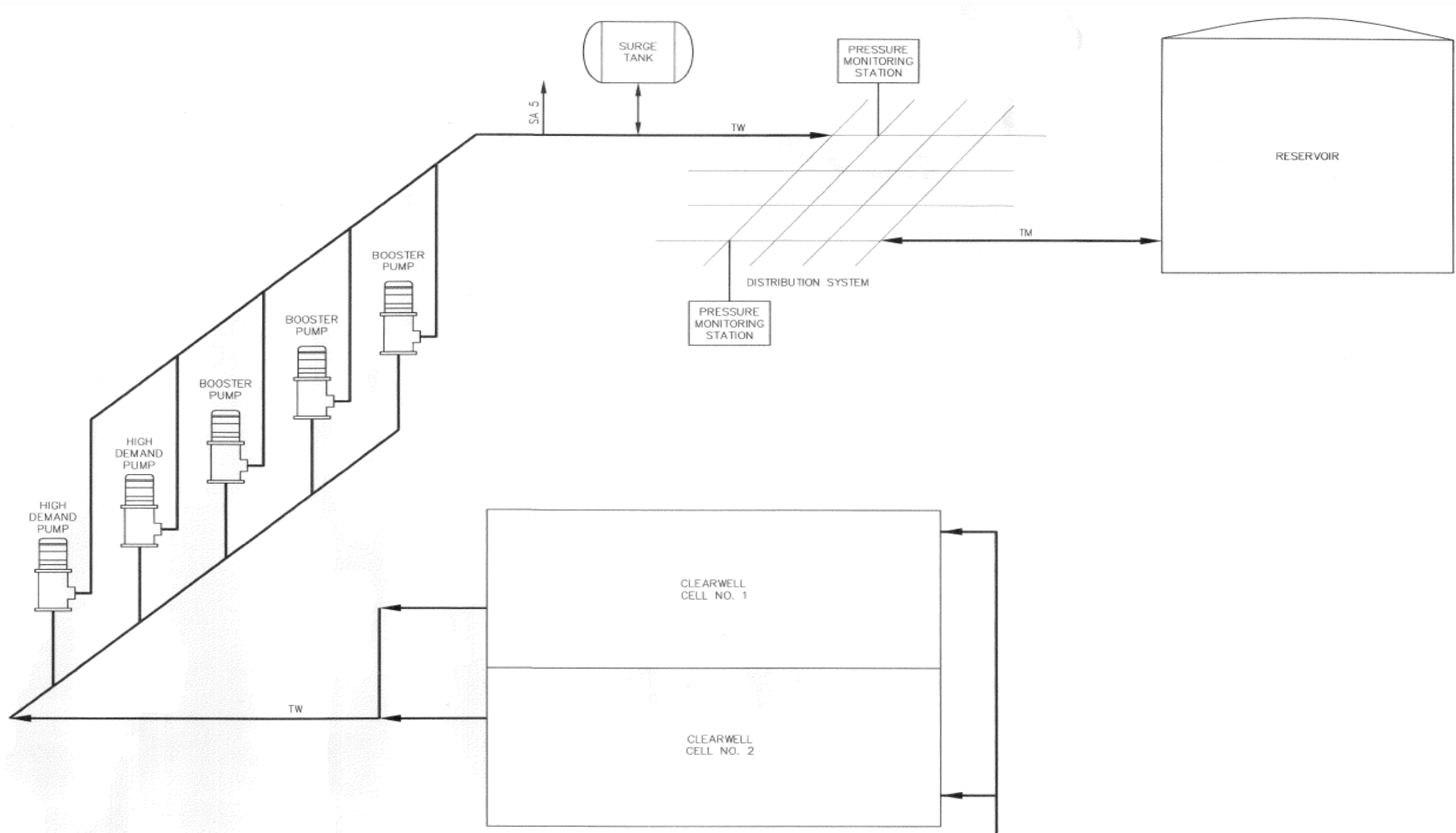
*City of Gearhart (GW system with arsenic treatment in Clatsop Co)*

# Or geographically dispersed systems.



If the system has a good schematic, I'll use it.

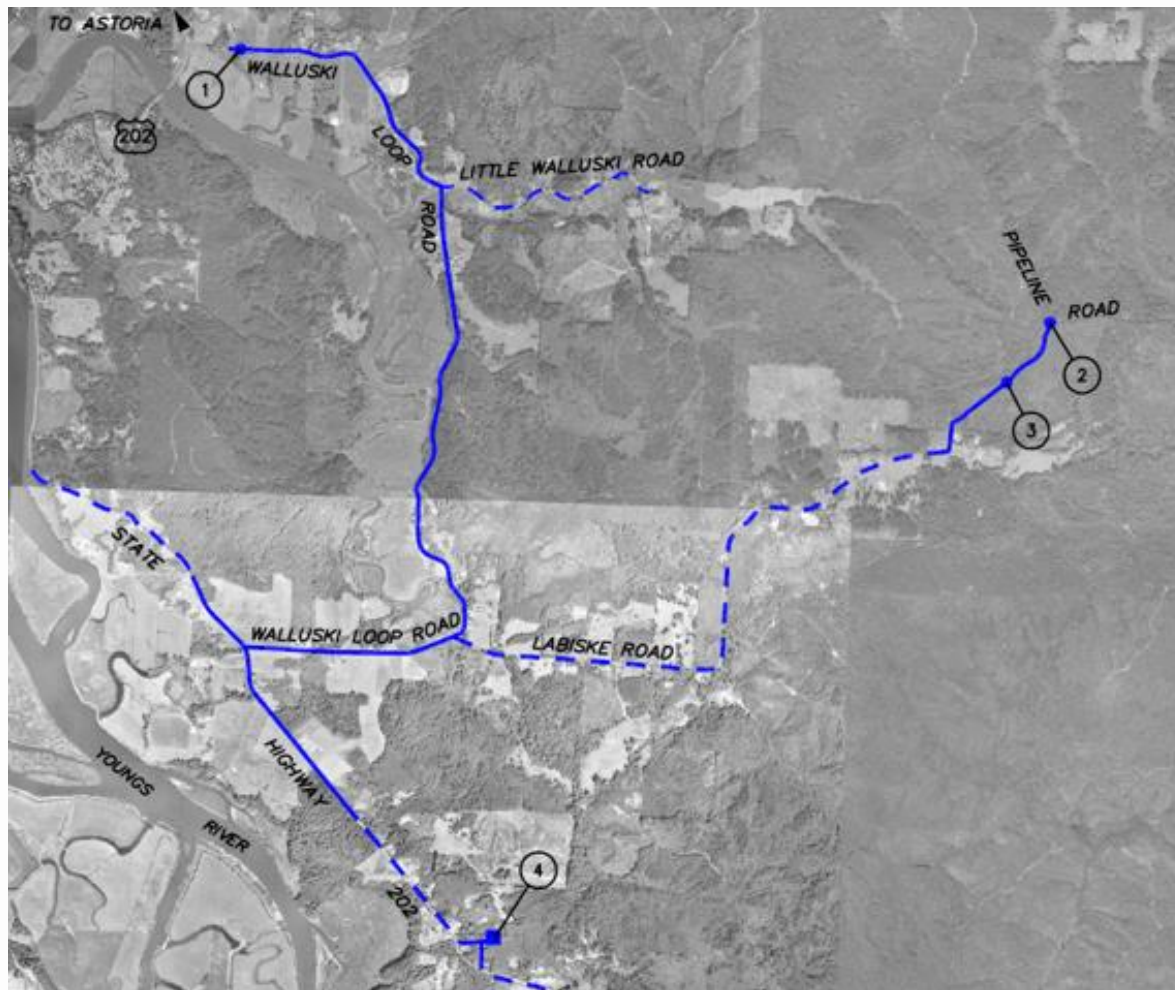
*City of Gearhart (GW system with arsenic treatment in Clatsop Co)*





# Simple distribution schematics can also be helpful.

*Olney-Walluski Water Association (purchasing SW system in Clatsop Co)*



## LEGEND

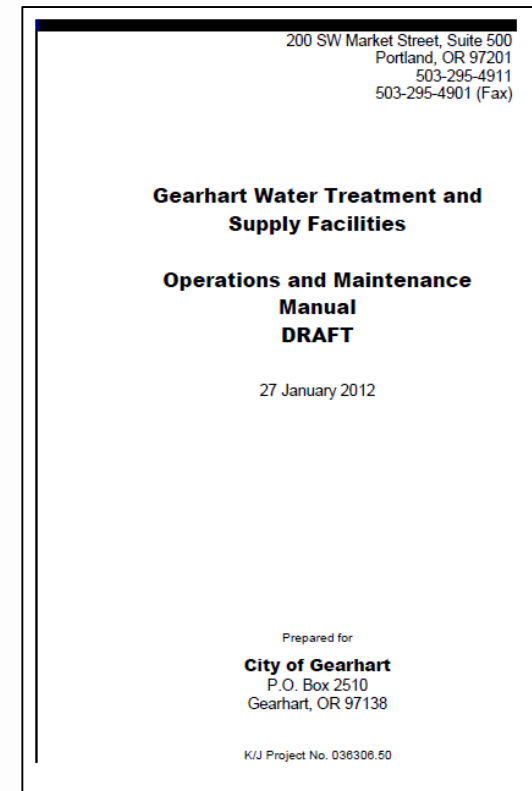
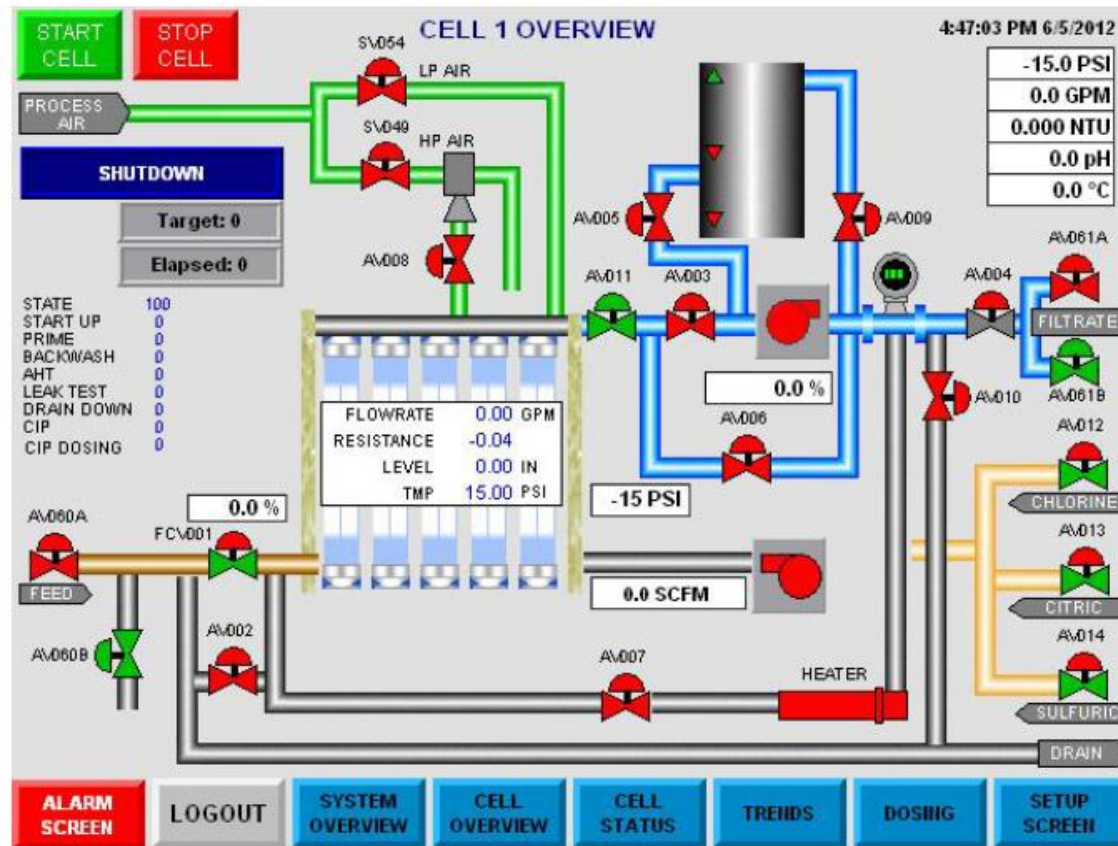
- 6" WATER LINE
- - - 4" WATER LINE

## KEY NOTES

- ① FAIRGROUNDS MASTER METER
- ② PIPELINE ROAD MASTER METER
- ③ APPROX. LOCATION PRESSURE REDUCING VALVE
- ④ 25,000 GALLON RESERVOIR
- ⑤ NEAR HIGHWAY 202 MILE POST 12

Sometimes reviewing a SCADA screen or O&M schematics can help develop a better understanding.

### Cell Overview Screen



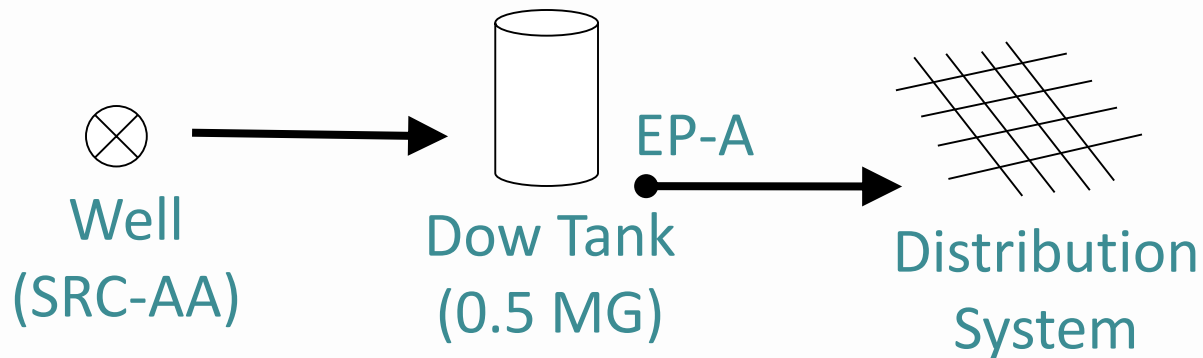


# Don't draw everything you see!



**Morlocks** are a [fictional species](#) created by [H. G. Wells](#) for his 1895 novel, [The Time Machine](#), and are the main antagonist.

Seriously though – keeping it simple is fine



# Well Information

## Significant Deficiencies:

- Sanitary Seal & casing watertight
- If vented, is well properly screened?
- Wellhead protected from flooding
- Well meet setbacks from hazards
- Raw/treated sample taps

		Well Information									
		Source ID#:		AC	BA	CA	DA	EA			
		Source Name:		Well #4	Well #3	LC Well #3	LC Well #2	Well #5 Fleck			
		Well Tag ID (e.g. L12345):		L	14032	-	-	-			
		(If no well tag ID, enter WRD Well Log ID below)		Yes	No	Yes	No	Yes	No	Yes	No
		Well Log on File:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		WRD Well Log ID (e.g. COLU123):		WASC50457	WASC003314	WASC003279	WASC003281	WASC002455			
Wellhead Construction	Well still active .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Depth of well (ft.) .....	242	275	217	~229	470					
	Depth of grout seal (ft.) .....	165	52	38							
	Year of installation (yr.) .....	1997	1956	1949/1997	Unknown	1967					
	Casing diameter (in.) .....	18/12/10	16	8	8	4					
	• Sanitary seal & casing watertight .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• If vented, properly screened .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	<input type="checkbox"/>	<input type="checkbox"/>
	• Wellhead protected from flooding .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Well meets setbacks from hazards .....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Nearest hazard (ft) .....										
Control Building	Water level device .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Concrete slab around casing .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Casing height ≥ 12-in. above slab/grade .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Pitless adapter .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Constructed properly per SWA report .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Protective housing .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Flowmeter .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Pressure gauge .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Pump to waste piping .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Raw sample tap .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pump	• Treated sample tap .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Heated .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lighted .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Floor drain .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Well pump removal provision .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Pump type/hp* .....	VT/100	VT/100	SU/50		SU/25					
	Bearing lubrication (FG oil/water) .....	W	W	W		W					
	Pumping capacity (gpm) .....	350-1100	1200	350		100					
	Water pumped in 2010 in million gallons .....	222.704	47.102	8.949		1.746					
	Percent of total well supply provided (%)** .....	79.4	16.8	3.2		0.6					
Static water level (ft below ground) .....	111	95	109		49						
Static water level date .....	5/2/11	5/2/11	5/2/11		5/2/11						

Well abandoned in 2010 (see well report WASC 51818)

\* Pump Types: (VT) Vertical Turbine (SU) Submersible (CE) Centrifugal (SJ) Shallow Jet (DJ) Deep Jet (OT) Other  
 \*\* The sum of the % for all the wells should equal 100% (e.g. for 2 wells, if well #1 provides 80%, then well #2 must provide 20%).

**Comments:**  
 Main PUD Well #4 operates with a variable speed drive producing 350-1,100 gpm. Flow meter on discharge line after pressure sand filters. Main PUD Wells #4 & #3 were rebuilt in 2008 and 2009, respectively. The LC Well #3 and Fleck Well pumps were upgraded in 2009 and 2010, respectively. The LC Well #2 was disconnected and formally abandoned in 2010 due to elevated nitrate issues.



Be sure to check the entire circumference of the well casing. You can make a difference!





Don't ignore disconnected wells if they may pose a hazard to the aquifer – recommend repairs or abandonment (may be required)



# Deficiency Summary & Checklist

- Note significant deficiencies & rule violations from survey
- Include due dates for correction & CAP
- Update Date Corrected on summary sheet in file.
- Notify DMCE when deficiencies are corrected to avoid WS incurring violation

Deficiency Summary				
Surveyor: Michelle Byrd				
Date Corrective Action Plan is due: December 30, 2011		County: Wheeler		
Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected	Date corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Source:</b> <i>Well construction:</i> <ul style="list-style-type: none"> <li>Seal opening on top of Fairgrounds Well.</li> <li>Remove evidence of rodent activity within Deep Well building and prevent their access. Improve vent screen.</li> </ul> <i>Spring/other source:</i> <ul style="list-style-type: none"> <li>Replace screen on outflow pipe inside springbox.</li> <li>Locate overflow pipe for springbox to verify it is protected with screen or flap valve.</li> </ul>	4/1/15	3/30/15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Treatment:</b> <i>Surface water treatment:</i> <ul style="list-style-type: none"> <li>N/A</li> </ul> <i>Disinfection:</i>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Other treatment:</i> <ul style="list-style-type: none"> <li>Discontinue use of non-NSF chlorine tablet dispensers in North &amp; South reservoirs.</li> </ul>	4/1/15	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Finished Water Storage:</b> <ul style="list-style-type: none"> <li>Add lock to hatch on steel reservoir.</li> <li>Seal all openings in North &amp; South reservoirs.</li> <li>Verify all vent screens are installed.</li> </ul>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Distribution:</b>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Monitoring:</b> <ul style="list-style-type: none"> <li>Collect Radium 226/228 sample during 3<sup>rd</sup> Quarter this year to complete initial monitoring.</li> </ul>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Management &amp; Operations:</b> <ul style="list-style-type: none"> <li>Develop an Emergency Response Plan specific to water system.</li> <li>Develop Consumer Confidence Report to send to customers annually.</li> <li>Develop a Coliform Sampling Plan.</li> <li>Modifications made to 3<sup>rd</sup> &amp; Chase Well not approved by Drinking Water Program.</li> </ul>	4/1/15	
<input type="checkbox"/>	<input type="checkbox"/>	<b>Operator Certification:</b>		
<input type="checkbox"/>	<input type="checkbox"/>	<b>Other Rule Violations:</b>		
<b>Comments:</b> See cover letter for recommendations.				

# TNC Checklist

- Significant deficiencies are bulleted items
- Include other pages if more than 1 well and/or storage is used
- Add disinfection page if needed.

Transient (TNC) and State Regulated (Non-EPA) Water Systems			
<p>N/A <input checked="" type="checkbox"/> <b>Surface Source</b></p> <p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/> Cartridge filter used (if not, use "WTP" form)</p> <p><input type="checkbox"/> <input type="checkbox"/> • Turbidity requirements met</p> <p><input type="checkbox"/> <input type="checkbox"/> • Is system under SWTR order?</p> <p>N/A <input type="checkbox"/> <b>Well Construction &amp; Protection*</b></p> <p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> • Sanitary seal and casing watertight</p> <p><input type="checkbox"/> <input type="checkbox"/> • If vented, properly screened <input checked="" type="checkbox"/> not vented</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> • Raw water sample tap: <u>Uses house kitchen tap</u></p> <p><input type="checkbox"/> <input type="checkbox"/> • Treated sample tap <input checked="" type="checkbox"/> N/A (not treated)</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Protective housing</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Pitless adapter</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Wellhead terminates ≥ 12-in. above slab/grade</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> • Wellhead protected from flooding</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> • Meets hazard setback ft: <input type="text"/></p> <p><input type="checkbox"/> <input type="checkbox"/> Concrete slab around casing: <u>Well located in vault</u></p> <p><input type="checkbox"/> <input type="checkbox"/> Well logs from each source</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Pump to waste piping</p> <p>* Attach well information page if more than 1 well</p> <p>N/A <input checked="" type="checkbox"/> <b>Spring/Other Source Construction</b></p> <p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/> • Impervious/durable material</p> <p><input type="checkbox"/> <input type="checkbox"/> • Screened overflow</p> <p><input type="checkbox"/> <input type="checkbox"/> Bottom drain and shutoff valve</p> <p><input type="checkbox"/> <input type="checkbox"/> • Watertight access hatch/entry</p> <p><input type="checkbox"/> <input type="checkbox"/> Intercepting ditch</p> <p><input type="checkbox"/> <input type="checkbox"/> • Treated water sample tap <input type="checkbox"/> N/A (not treated)</p> <p><input type="checkbox"/> <input type="checkbox"/> • Raw water sample tap</p> <p><input type="checkbox"/> <input type="checkbox"/> • Meets hazard setback ft: <input type="text"/></p> <p>N/A <input checked="" type="checkbox"/> <b>Chlorination and UV</b> (Attach "Disinfection" page)</p> <p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/> Chlorination for: <input type="checkbox"/> Residual maintenance</p> <p style="padding-left: 150px;"><input type="checkbox"/> Disinfection (4.0-log virus)</p> <p style="padding-left: 100px;"><input type="checkbox"/> Other: <input type="text"/></p> <p><input type="checkbox"/> <input type="checkbox"/> UV for: <input type="checkbox"/> Total coliform positive source</p> <p style="padding-left: 150px;"><input type="checkbox"/> 4.0-log virus (186 mJ/cm<sup>2</sup>)</p> <p style="padding-left: 100px;"><input type="checkbox"/> Other: <input type="text"/></p>	<p>N/A <input checked="" type="checkbox"/> <b>Treatment</b></p> <p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/> • NSF 60/61 certified (or equivalent)</p> <p><input type="checkbox"/> <input type="checkbox"/> Equipment maintained properly</p> <p><input type="checkbox"/> <input type="checkbox"/> Dosage recorded <input type="checkbox"/> N/A</p> <p>N/A <input type="checkbox"/> <b>Pressure Tanks* - 3 tanks installed in 2005</b></p> <p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Used for contact time</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Accessible for maintenance</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Separate inlet/outlet</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> Bypass piping</p> <p><input type="checkbox"/> <input type="checkbox"/> Drain</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Pressure relief device</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Air bladder/diaphragm</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> Valve for adding air</p> <p><input type="checkbox"/> <input type="checkbox"/> Access port (if &gt;1,000 gal)</p> <p><input type="checkbox"/> <input type="checkbox"/> Water level sight glass (if &gt;1,000 gal)</p> <p>*Attach "Storage &amp; Pressure Tank" page for reservoirs</p> <p><b>Monitoring</b></p> <p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/> • All MCL violations addressed <input checked="" type="checkbox"/> N/A</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> • Previous 12 months of routine coliform sampling up to date</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> • Nitrate sampling up to date</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> • Initial arsenic test done</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> • Coliform sampling plan</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> All violations from the past 2 years resolved <input type="checkbox"/> N/A – no violations</p> <p><b>Management</b></p> <p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> PWS constructed before 8/21/81</p> <p><input type="checkbox"/> <input type="checkbox"/> • Plan review approval <input checked="" type="checkbox"/> N/A</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> • Emergency Response Plan</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> • Operations and maint. manual</p> <p><input type="checkbox"/> <input type="checkbox"/> • SNC or out of compliance with AO</p> <p><input type="checkbox"/> <input type="checkbox"/> • Public notice not issued as required</p> <p><input type="checkbox"/> <input type="checkbox"/> • Distribution: Required backflow devices tested annually <input checked="" type="checkbox"/> N/A</p>		
<p><b>Comments:</b></p> <p>System's piping is flushed every spring. The septic system was replaced in 1997.</p>			



# Take it one step at a time!



**Evan's kids trying to pick up a membrane module from the City of Warrenton**



# Survey Cover Letter

- Cover letter mailed to WS primary contact. Can also send copy to owner (ask)
- Letter outlines deficiencies, corrective action timelines & documentation needed once corrected.

CENTER FOR HEALTH PROTECTION  
Drinking Water Services  
John A. Kitzhaber, MD, Governor

January 3, 2013

Herb Stahl  
36345 Despain Gulch Rd  
Stanfield, OR 97875

Re: Water System Survey for Stanfield Hutterian, PWS #4101507

Dear Mr. Stahl:

Thank you for your assistance with the water system survey for the *Stanfield Hutterian* on November 15, 2012. The purpose of the survey is to evaluate the entire water system in terms of supplying safe drinking water to the public. A copy of the report is enclosed for your records. Please let me know if corrections need to be made.

While the water system facilities were found to be well operated and maintained, significant deficiencies were identified during the survey. The first page of the report lists the significant deficiencies. Please notify the Drinking Water Services (DWS) by February 7, 2013, with a plan of how the deficiencies will be corrected. **All deficiencies must be corrected by May 9, 2013, or be on an approved corrective action schedule.**

If the water system fails to take action within the required time frame, notification must be provided to all persons served by the water system. A repeat public notice will be required every three months until all deficiencies are corrected or the water system is in compliance with an approved corrective action plan.

The significant deficiencies are described in further detail below.

1. The metal collar securing the sanitary seal on the North Well was broken and is in need of repair to ensure the casing is watertight. Please send a photo when corrected.
2. A quarterly uranium sample is past due. Please collect a sample as soon as possible.
3. The water system's Annual Summary Report (ASR) relating to cross connection and backflow device testing has not been received. Additional information for the ASR will be sent to you separately.


Furthermore, an ordinance or enabling authority defining the water system's cross connection control policy is required. Please review the enclosed handout. If you have questions about the ASR or other cross connection requirements, you may contact Mike Perry in the Cross Connection Backflow Prevention Program at 971-673-1220 or email [michael.perry@state.or.us](mailto:michael.perry@state.or.us).

**Oregon Health Authority**  
800 NE Oregon Street, Suite #640  
Portland, OR 97232-2162  
(971) 673-0405  
(971) 673-0694 – FAX  
(971) 673-0372 – TTY

# Survey Cover Letter

- Significant Deficiencies need to match the survey

Deficiency Summary			
Surveyor: Michelle Byrd			
Date Corrective Action Plan is due: December 30, 2011		County: Wheeler	
Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Source:</b> <i>Well construction:</i> <ul style="list-style-type: none"> <li>Seal opening on top of Fairgrounds Well.</li> <li>Remove evidence of rodent activity within Deep Well building and prevent their access. Improve vent screen.</li> </ul> <i>Spring/other source:</i> <ul style="list-style-type: none"> <li>Replace screen on outflow pipe inside springbox.</li> <li>Locate overflow pipe for springbox to verify it is protected with screen or flap valve.</li> </ul>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Treatment:</b> <i>Surface water treatment:</i> <ul style="list-style-type: none"> <li>N/A</li> </ul> <i>Disinfection:</i>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Other treatment:</i> <ul style="list-style-type: none"> <li>Discontinue use of non-NSF chlorine tablet dispensers in North &amp; South reservoirs.</li> </ul>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Finished Water Storage:</b> <ul style="list-style-type: none"> <li>Add lock to hatch on steel reservoir.</li> <li>Seal all openings in North &amp; South reservoirs.</li> <li>Verify all vent screens are installed.</li> </ul>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Distribution:</b>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Monitoring:</b> <ul style="list-style-type: none"> <li>Collect Radium 226/228 sample during 3<sup>rd</sup> Quarter this year to complete initial monitoring.</li> </ul>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Management &amp; Operations:</b> <ul style="list-style-type: none"> <li>Develop an Emergency Response Plan specific to water system.</li> <li>Develop Consumer Confidence Report to send to customers annually.</li> <li>Develop a Coliform Sampling Plan.</li> <li>Modifications made to 3<sup>rd</sup> &amp; Chase Well not approved by Drinking Water Program.</li> </ul>	
<input type="checkbox"/>	<input type="checkbox"/>	<b>Operator Certification:</b>	
<input type="checkbox"/>	<input type="checkbox"/>	<b>Other Rule Violations:</b>	
<b>Comments:</b> See cover letter for recommendations.			

CENTER FOR HEALTH PROTECTION Drinking Water Services John A. Kitzhaber, MD, Governor January 3, 2013	 800 NE Oregon Street, Suite #640 Portland, OR 97232-2162 (971) 673-0405 (971) 673-0694 – FAX (971) 673-0372 – TTY
Herb Stahl 36345 Despain Gulch Rd Stanfield, OR 97875	
Re: <u>Water System Survey for Stanfield Hutterian, PWS #4101507</u>	
Dear Mr. Stahl:	
Thank you for your assistance with the water system survey for the <i>Stanfield Hutterian</i> on November 15, 2012. The purpose of the survey is to evaluate the entire water system in terms of supplying safe drinking water to the public. A copy of the report is enclosed for your records. Please let me know if corrections need to be made.	
While the water system facilities were found to be well operated and maintained, significant deficiencies were identified during the survey. The first page of the report lists the significant deficiencies. Please notify the Drinking Water Services (DWS) by February 7, 2013, with a plan of how the deficiencies will be corrected. <b>All deficiencies must be corrected by May 9, 2013, or be on an approved corrective action schedule.</b>	
If the water system fails to take action within the required time frame, notification must be provided to all persons served by the water system. A repeat public notice will be required every three months until all deficiencies are corrected or the water system is in compliance with an approved corrective action plan.	
The significant deficiencies are described in further detail below.	
1. The metal collar securing the sanitary seal on the North Well was broken and is in need of repair to ensure the casing is watertight. Please send a photo when corrected.	
2. A quarterly uranium sample is past due. Please collect a sample as soon as possible.	
3. The water system's Annual Summary Report (ASR) relating to cross connection and backflow device testing has not been received. Additional information for the ASR will be sent to you separately.	
Furthermore, an ordinance or enabling authority defining the water system's cross connection control policy is required. Please review the enclosed handout. If you have questions about the ASR or other cross connection requirements, you may contact Mike Perry in the Cross Connection Backflow Prevention Program at 971-673-1220 or email <a href="mailto:michael.perry@state.or.us">michael.perry@state.or.us</a> .	

- Non-significant deficiency issues are included in letter as recommendations

# Deficiency Follow-Up

Deficiency follow-up procedures found on *Water System Surveys* page on partners website

Subject:	<b>Procedure for Follow-up of Rule Violations/Deficiencies identified in the Water System Survey</b>	Date:	8/6/12
Unit:	Technical services (fk)	Revised:	

Purpose & Scope: The purpose of this procedure is to provide staff guidance on actions to be taken in the follow-up to deficiencies/violations identified in the water system survey. This procedure applies to public water systems **using or purchasing from a GW source**.

The process of performing a water system survey includes the identification of rule violations/deficiencies discovered during the survey. The public water system (PWS) is notified in the cover letter for the survey that they must contact the Agency<sup>1</sup> within **30 days** of the date of the letter, and must correct all violations/deficiencies or have an approved Corrective Action Plan<sup>2</sup> in place within **18 weeks** from the date of the letter.

A compliant PWS contacts the *Agency* within 30 days, and meets the 18 week deadline for correction of violations/deficiencies or has an approved corrective action plan. *If not*, the *Agency* staff should take the following actions as follow-up with the PWS:


1. 30 day deadline – Failure of PWS to contact Agency  
The PWS is required to respond to the WSS Report as detailed in the WSS cover letter within 30 days of the date of the letter by contacting the *Agency*. The purpose of this requirement is to confirm that the PWS received the water system survey report, and understands their responsibility to correct the rule violations/deficiencies identified in the report. In the event that the PWS fails to contact the *Agency*, the following actions should be taken:
  - 1) Contact the PWS by telephone/email and document contact by writing and submitting a Contact Report.
  - 2) The *Agency* should discuss the rule violations/deficiencies cited in the survey report with the PWS, and remind the PWS of the 18 week deadline to either correct the rule violations/deficiencies or have an approved Corrective Action Plan in place.
2. 18 week deadline – Failure to correct rule violations/deficiencies within the 18 Week deadline  
The PWS is required to correct all rule violations/deficiencies or have an approved Corrective Action Plan in place within 18 weeks from the date of the survey report cover letter. If all deficiencies are corrected, the PWS needs to submit demonstration of the correction(s) in writing<sup>3</sup>. In the event that the PWS fails to correct all of the rule violations/deficiencies or have an approved Corrective Action Plan, the PWS is in violation of the regulations and is now subject to formal enforcement which could include the assessment of civil penalties. The following actions should be taken:
  - 1) Send the PWS a follow-up letter (see *Standard Format Letter* included on pages 3 and 4 of this document), in which the PWS is notified of the following:
    - Failure to issue the required Public Notice, or failure to submit proof of correction of rule violations/deficiencies or have an approved Corrective Action Plan in place, could result in the *Agency* referring the issue for enforcement action to the DWP Enforcement Section.

# Significant Deficiency Tracking

- Allow groundwater systems 30 days to respond with a corrective action plan.
- Allow systems 120 days (18 weeks) to correct deficiencies, or be on an approved plan if more time is justified (the original corrective action plan is still due within 30 days).
- DMCE will track deficiency timelines and initiate alerts 106 days after notification (two-week notice).

# Data Online – Site Visit Page

- Deficiencies & corrective action dates tracked in Data Online
- Alerts emailed to regulator to review corrective action & timeline with WS
- If no action is taken, violations are generated
- 30-day PN is required if failure to correct deficiencies by deadline.



Oregon Public Health

Drinking Water Data Online

Oregon Health Authority

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

PWS ID: [91002](#) ---- CAMP CALDERA WATER SYSTEM

\*The list of water system surveys due each year is available online [here](#).


Water System Site Visit History

Reason	Visit Date	Frequency	Next Due	Notification Date	Responsible Agency	Comments and Deficiencies
Sanitary Survey, Finished (SNSV)	07/15/2014	5 YR	*	08/12/2014	JEFFERSON COUNTY	<a href="#">Comments</a>
Sanitary Survey, Finished (SNSV)	04/15/2009	5 YR	*	04/27/2009	JEFFERSON COUNTY	No comments
Sanitary Survey, Finished (SNSV)	06/03/2004	5 YR	*		JEFFERSON COUNTY	<a href="#">Comments</a>

Site Visit Follow-up

Type of Action	Visit Date	Notification Date	Due Date	Date of Completion
Response to Significant Deficiency	Jul 15, 2014	Aug 12, 2014		Open
CORRECT ALL DEFICIENCIES/SUBMIT PLAN- GW			Dec 05, 2014	Overdue

# Working with the Survey Template (MS Word 2010)

		XYZ Water System Water System Survey OHA Drinking Water Services	PWS ID: 41 ##### Survey Date: mm/dd/yy
Page 1 of 6			




Deficiency Summary				
Surveyor:				
Date Corrective Action Plan is due:		County:		Choose an item.
Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected	Date corrected
<input type="checkbox"/>	<input type="checkbox"/>	Source:		
		Well construction:		
		Spring/other source:		
<input type="checkbox"/>	<input type="checkbox"/>	Treatment:		
		Surface water treatment:		
		Disinfection:		
		Other treatment:		
<input type="checkbox"/>	<input type="checkbox"/>	Finished Water Storage:		
<input type="checkbox"/>	<input type="checkbox"/>	Distribution:		
<input type="checkbox"/>	<input type="checkbox"/>	Monitoring:		
<input type="checkbox"/>	<input type="checkbox"/>	Management & Operations:		
<input type="checkbox"/>	<input type="checkbox"/>	Operator Certification:		
<input type="checkbox"/>	<input type="checkbox"/>	Other Rule Violations:		
Comments:				

Rev. 3/8/16

## Survey Form Templates

-  [About Survey Template Packets](#)
-  [Survey Template Instructions](#)
-  [Outstanding Performer Template](#)

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

-  [Packet 1: C-NTNC Groundwater Survey Template](#) - revised 10/12/2016
-  [Packet 2: C-NTNC Surface Water Survey Template](#) - revised 10/12/2016
-  [Packet 3: TNC-NP Survey Template](#) - revised 10/12/2016

## Survey Form Templates



# Saving the Template

Click Link => Save File => OK

- Survey Manual and Related Information
- Survey Form Templates
- Survey & Deficiency Follow-up
- For Operators

## Survey Manual

- Water System
- Symbols for
- Counting Po
- Chemical Mo
- Standard Mo
- Outstanding Per
- Deficiency Li
- Setback Issu

## Survey Form Templates

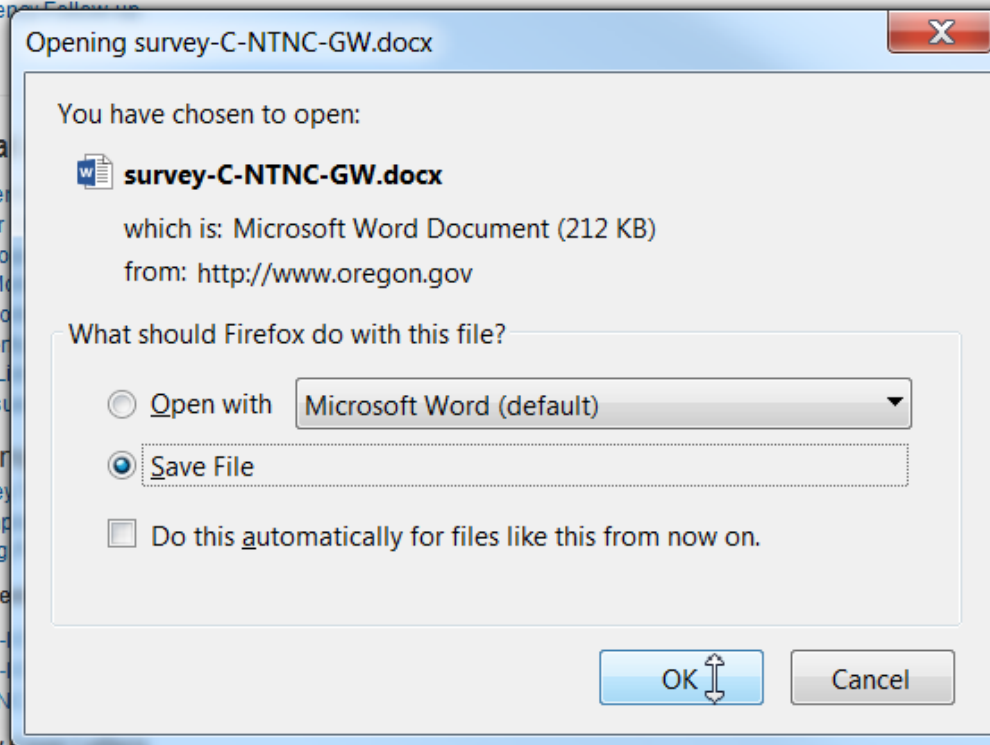
- About Survey
- Survey Temp
- Outstanding

## The following documents

- Packet 1: C-
- Packet 2: C-
- Packet 3: TN

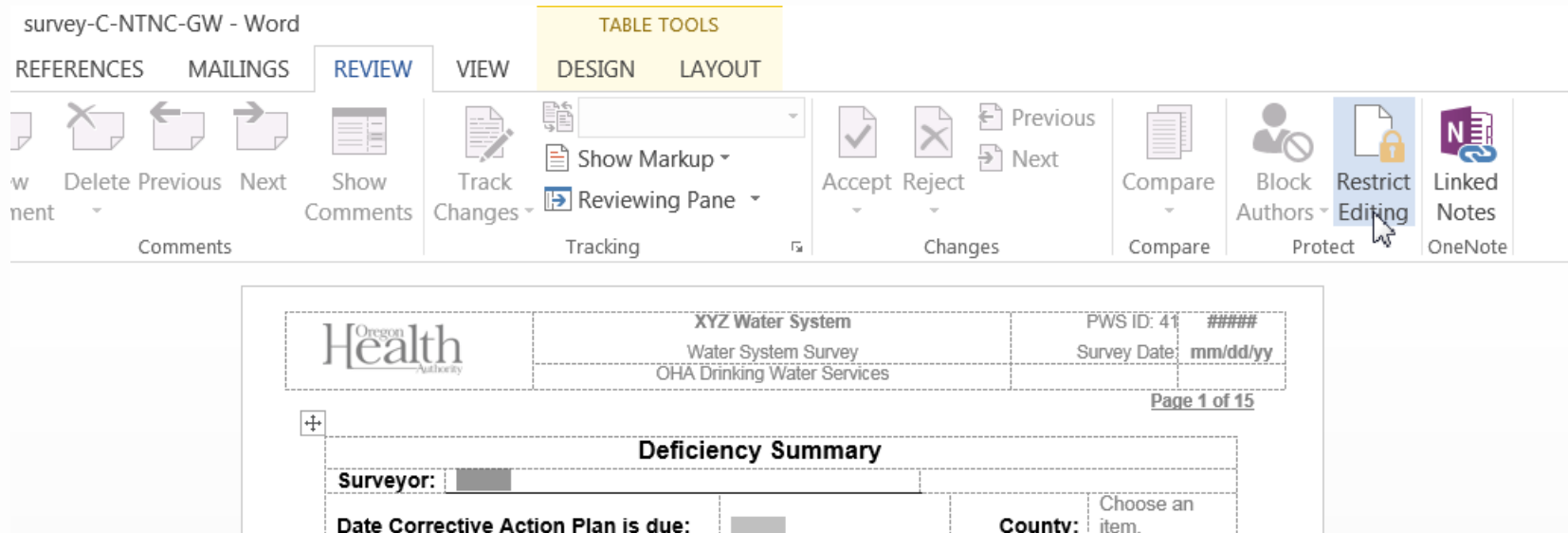
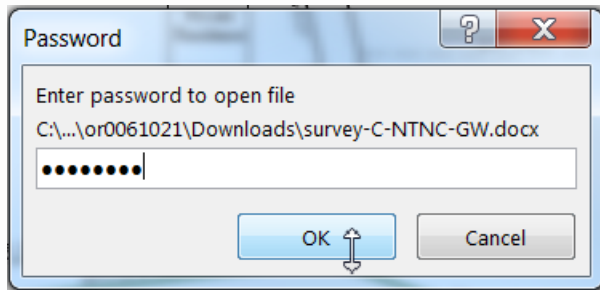
## Templates for Survey Cover Letters

- Community Groundwater Systems - includes outstanding performer information language
- NTNC, TNC, and Non-EPA Groundwater Systems



# Removing the password

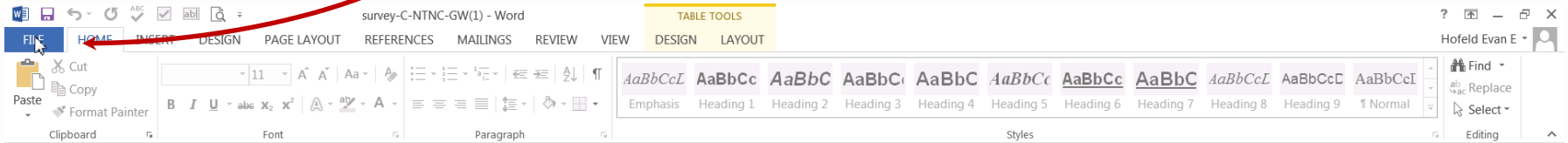
Step 1. Open File => Enter Password => OK





# Removing the password

## Step 2. Click "File"



	XYZ Water System	PWS ID: 41	####
	Water System Survey OHA Drinking Water Services	Survey Date:	mm/dd/yy

Page 1 of 15

Deficiency Summary				
Surveyor:				
Date Corrective Action Plan is due:		County:	Choose an item.	
Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected	Date corrected
<input type="checkbox"/>	<input type="checkbox"/>	Source:		
		Well construction:		

# Removing the password

## Step 3. Click “Protect Document”

The screenshot shows the Microsoft Word interface for a document titled "survey-C-NTNC-GW(1) - Word". The left sidebar contains a navigation pane with options: Info, New, Open, Save, Save As, Print, Share, Export, Close, Account, and Options. The main area is divided into three sections: "Info", "Protect Document", and "Inspect Document".

**Info**

survey-C-NTNC-GW(1)  
C: » Users » or0061021 » Downloads

**Protect Document**

A password is required to open this document.  
Certain types of changes are restricted in this document.

**Inspect Document**

Before publishing this file, be aware that it contains:

- Document properties, document server properties, content type information and related dates
- Headers and footers
- Characters formatted as hidden text
- Custom XML data
- Content that people with disabilities are unable to read

**Versions**

There are no previous versions of this file.

**Properties**

Error: The server properties in this file cannot be displayed.

Size	211KB
Pages	15
Words	3826
Total Editing Time	3 Minutes
Title	Water System Survey Templa...
Tags	Add a tag
Comments	Add comments

**Related Dates**

Last Modified	10/12/2016 8:02 AM
Created	10/12/2016 8:00 AM
Last Printed	10/13/2015 3:51 PM

**Related People**

Author	Add an author
Last Modified By	KELLER Molly A

**Related Documents**

Open File Location

[Show All Properties](#)

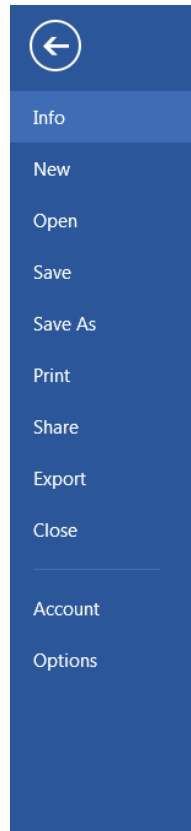
# Removing the password

## Step 4. Click “Encrypt with Password”

The screenshot shows the Microsoft Word interface. On the left is a blue sidebar with a back arrow icon and the following menu items: Info, New, Open, Save, Save As, Print, Share, Export, Close, Account, and Options. The main area is titled 'Info' and shows the document name 'survey-C-NTNC-GW(1)' and its location 'C: » Users » or0061021 » Downloads'. A yellow 'Protect Document' banner is present, stating: 'A password is required to open this document. Certain types of changes are restricted in this document.' Below this banner, a context menu is open, listing several options: 'Mark as Final' (Let readers know the document is final and make it read-only), 'Encrypt with Password' (Password-protect this document), 'Restrict Editing' (Control the types of changes others can make), 'Restrict Access' (Grant people access while removing their ability to edit, copy, or print), and 'Add a Digital Signature' (Ensure the integrity of the document by adding an invisible digital signature). A red curved arrow points from the 'Protect Document' banner to the 'Encrypt with Password' option in the menu.

# Removing the password

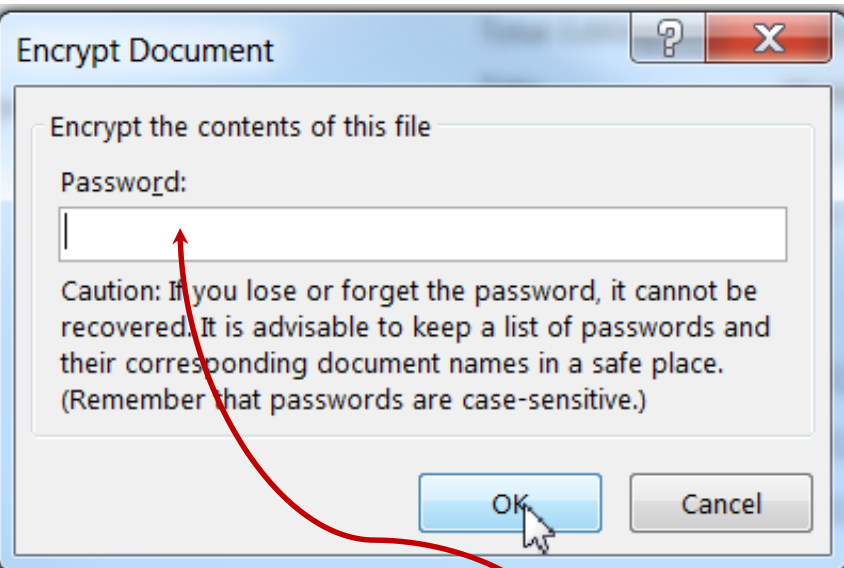
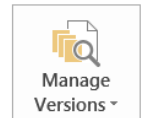
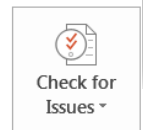
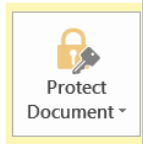
Step 5. Delete password and click “OK”



Info

survey-C-

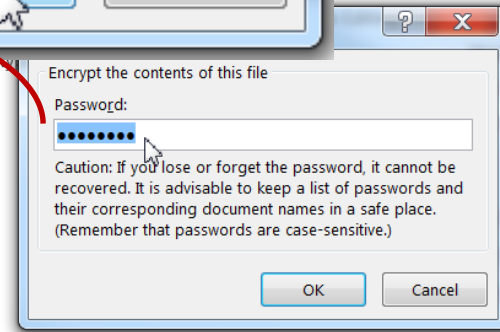
C: » Users » or00



- Document properties, document server properties, content related dates
- Headers and footers
- Characters formatted as hidden text
- Custom XML data
- Content that people with disabilities are unable to read

Versions

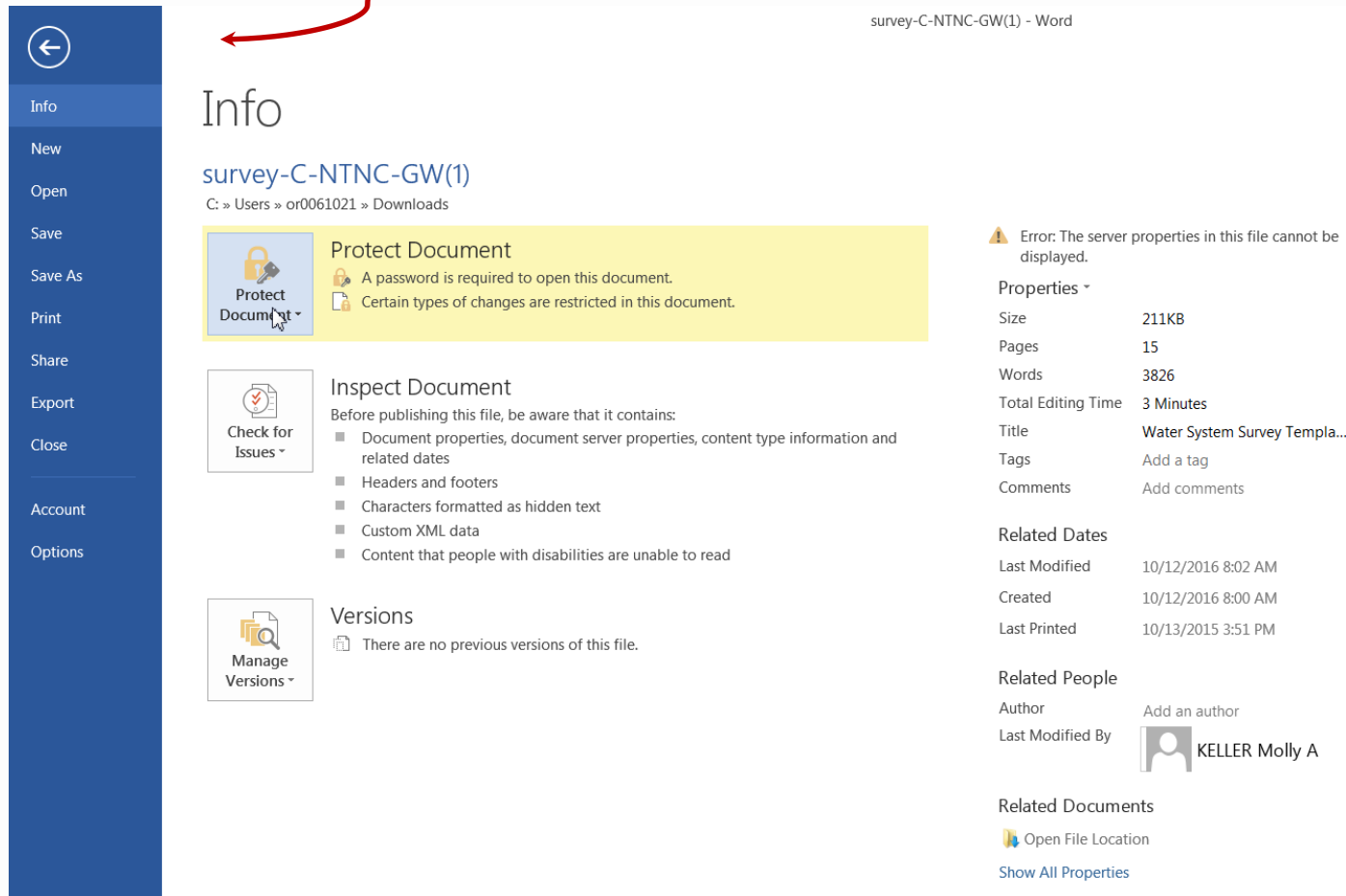
There are no previous versions of this file.



Related People

# Removing the password

## Step 6. Click the back arrow to return to the form



survey-C-NTNC-GW(1) - Word

Info

survey-C-NTNC-GW(1)

C: » Users » or0061021 » Downloads

**Protect Document**

A password is required to open this document.  
Certain types of changes are restricted in this document.

**Inspect Document**

Before publishing this file, be aware that it contains:

- Document properties, document server properties, content type information and related dates
- Headers and footers
- Characters formatted as hidden text
- Custom XML data
- Content that people with disabilities are unable to read

**Manage Versions**

There are no previous versions of this file.

**Error:** The server properties in this file cannot be displayed.

**Properties**

Size	211KB
Pages	15
Words	3826
Total Editing Time	3 Minutes
Title	Water System Survey Templa...
Tags	Add a tag
Comments	Add comments

**Related Dates**

Last Modified	10/12/2016 8:02 AM
Created	10/12/2016 8:00 AM
Last Printed	10/13/2015 3:51 PM

**Related People**

Author	Add an author
Last Modified By	KELLER Molly A

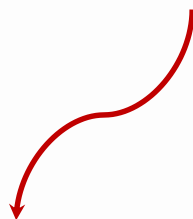
**Related Documents**

Open File Location

Show All Properties

# Removing the password

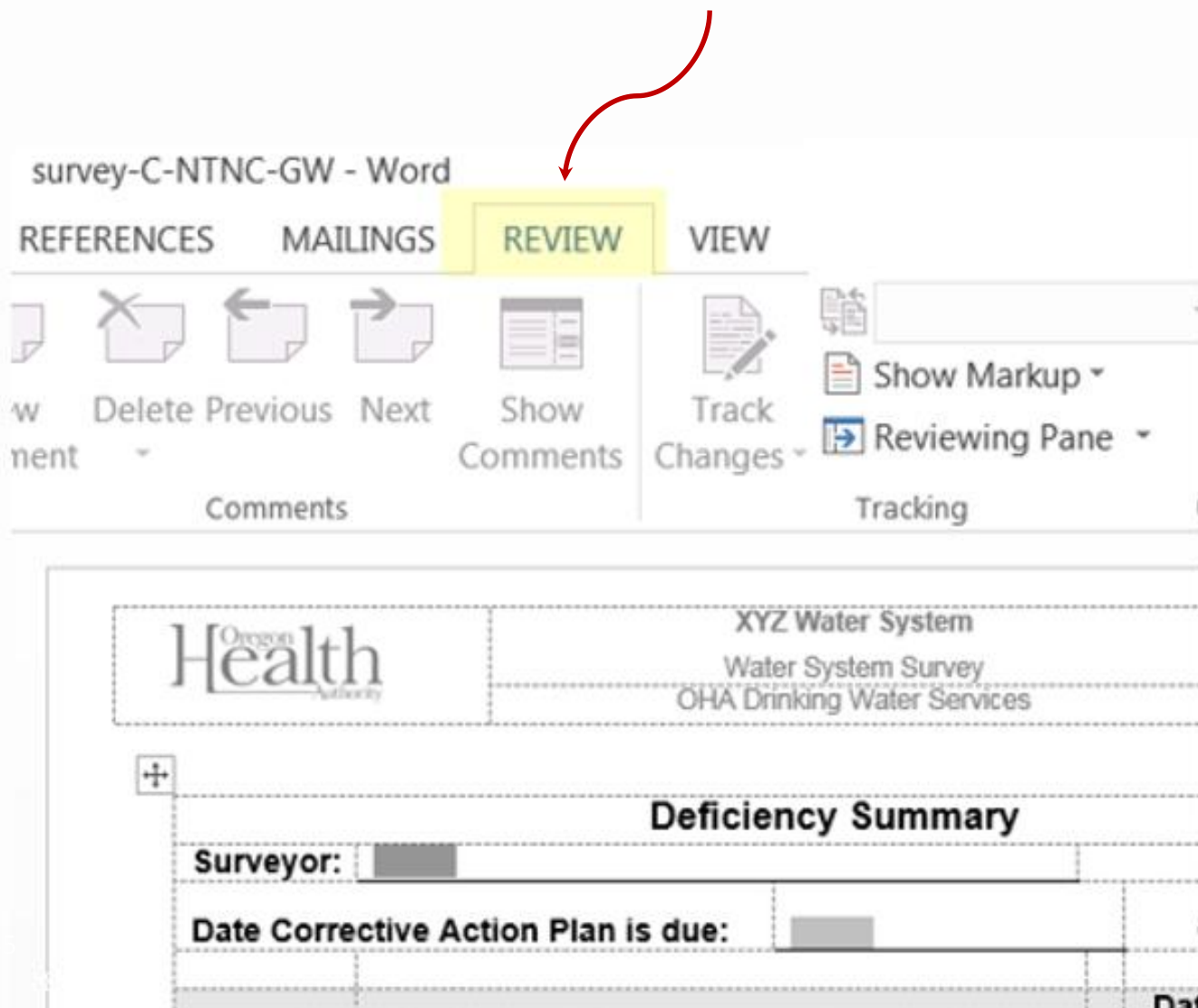
Step 7. Click “Save” 





# Enabling full editing capability

## Step 1. Click “Review”



# Enabling full editing capability

## Step 2. Click “Restrict Editing”



Restrict  
Editing



survey-C-NTNC-GW - Word

REFERENCES

MAILINGS

REVIEW

VIEW

TABLE TOOLS

DESIGN

LAYOUT



New  
Comment

Delete

Previous

Next

Show  
Comments

Track  
Changes

Show Markup  
Reviewing Pane

Accept

Reject

Previous  
Next

Compare

Block  
Authors

Restrict  
Editing

Linked  
Notes

Comments

Tracking

Changes

Compare

Protect

OneNote

Oregon  
Health  
Authority

XYZ Water System  
Water System Survey  
OHA Drinking Water Services

PWS ID: 41 #####  
Survey Date: mm/dd/yy

Page 1 of 15

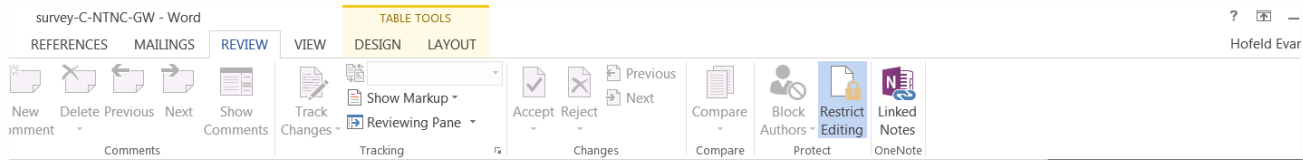


### Deficiency Summary

Surveyor:			
Date Corrective Action Plan is due:		County: Choose an item.	
Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected
<input type="checkbox"/>	<input type="checkbox"/>	Source: Well construction:	Date corrected

# Enabling full editing capability

## Step 3. Click “Stop Protection”



XYZ Water System  
Water System Survey  
OHA Drinking Water Services

PWS ID: 41 #####  
Survey Date: mm/dd/yyyy

Page 1 of 15

### Deficiency Summary

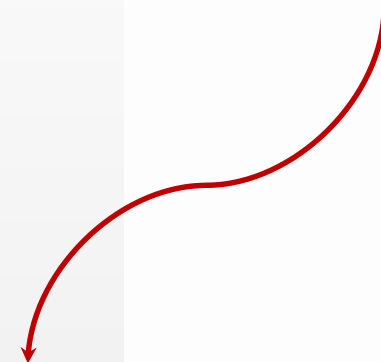
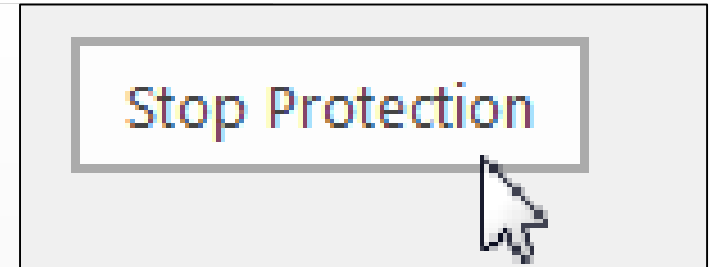
Surveyor: \_\_\_\_\_

Date Corrective Action Plan is due: \_\_\_\_\_ County: \_\_\_\_\_ Choose an item

Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected	Date corrected
<input type="checkbox"/>	<input type="checkbox"/>	Source: Well construction:		
		Spring/other source:		
<input type="checkbox"/>	<input type="checkbox"/>	Treatment: Surface water treatment:		
		Disinfection:		
		Other treatment:		
<input type="checkbox"/>	<input type="checkbox"/>	Finished Water Storage:		
<input type="checkbox"/>	<input type="checkbox"/>	Distribution:		
<input type="checkbox"/>	<input type="checkbox"/>	Monitoring:		
<input type="checkbox"/>	<input type="checkbox"/>	Management & Operations:		
<input type="checkbox"/>	<input type="checkbox"/>	Operator Certification:		
<input type="checkbox"/>	<input type="checkbox"/>	Other Rule Violations:		

Comments: \_\_\_\_\_

Rev. 3/8/18




XYZ Water System  
Water System Survey  
OHA Drinking Water Services

PWS ID: 41 #####  
Survey Date: mm/dd/yyyy

Stop Protection

# Enabling full editing capability

## Step 4. Enter Password and Click “OK”

	XYZ Water System	PWS ID: 41	####
	Water System Survey OHA Drinking Water Services	Survey Date	mm/dd/yy

Page 1 of 15

### Deficiency Summary

Surveyor:				County: Choose an item.	
Date Corrective Action Plan is due:					
Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected	Date corrected	
<input type="checkbox"/>	<input type="checkbox"/>	<b>Source:</b> Well construction:			
		Spring/other source:			
<input type="checkbox"/>	<input type="checkbox"/>	<b>Treatment:</b> Surface water treatment:			
		Disinfection:			
		Other treatment:			

Unprotect Document

Password:

.....

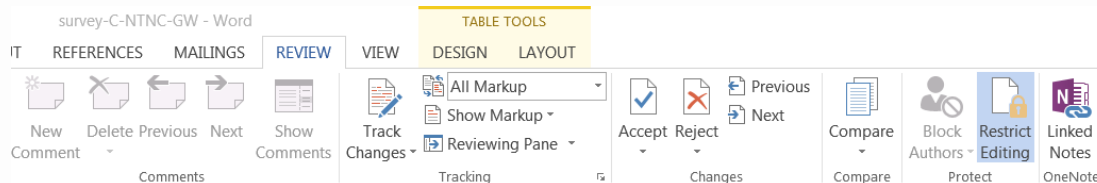
OK Cancel

To restore form field entry...

Step 1. Go to “Review” => “Restrict Editing” =>

Step 2. Click “Yes, Start Enforcing Protection” =>

Step 3. Enter Password and Click “OK”



### 3. Start enforcement

Are you ready to apply these settings?  
(You can turn them off later)

Yes, Start Enforcing Protection

survey-C-NTNC-GW - Word

TABLE TOOLS  
DESIGN LAYOUT

Health  
Oregon  
Authority

XYZ Water System  
Water System Survey  
OHA Drinking Water Services

PWS ID: 43-####  
Survey Date: mm/dd/yyyy

Page 1 of 15

**Deficiency Summary**

Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected	Date corrected
<input type="checkbox"/>	<input type="checkbox"/>	Source: Well construction:		
		Spring/other source:		
<input type="checkbox"/>	<input type="checkbox"/>	Treatment: Surface water treatment:		
		Disinfection:		
		Other treatment:		

### Restrict Editing

#### 1. Formatting restrictions

☐ Limit formatting to a selection of styles

Settings...

#### 2. Editing restrictions

☒ Allow only this type of editing in the document:

Filling in forms

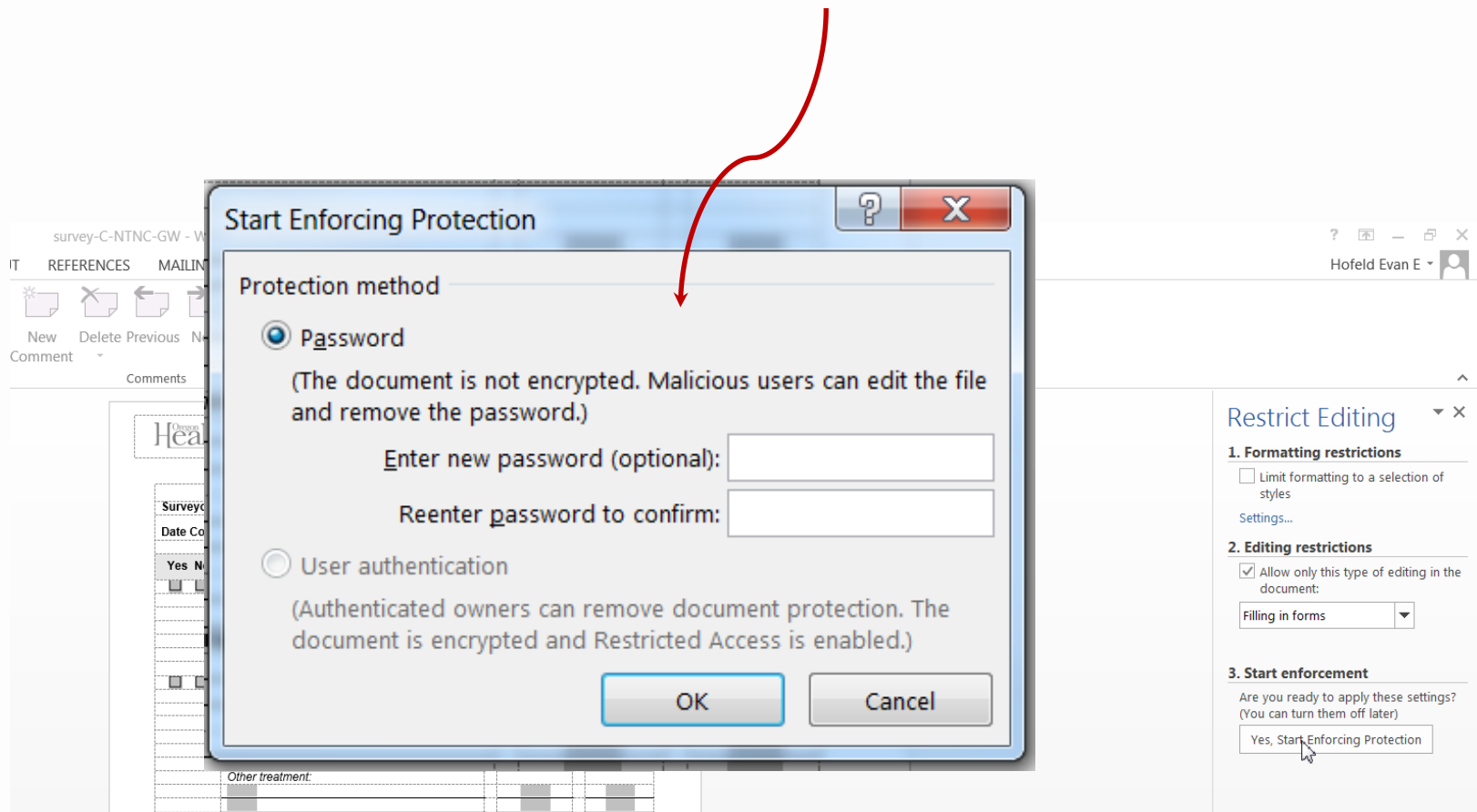
#### 3. Start enforcement

Are you ready to apply these settings?  
(You can turn them off later)

Yes, Start Enforcing Protection

To restore form field entry...

Step 4. Leave the password entry blank and click “OK”

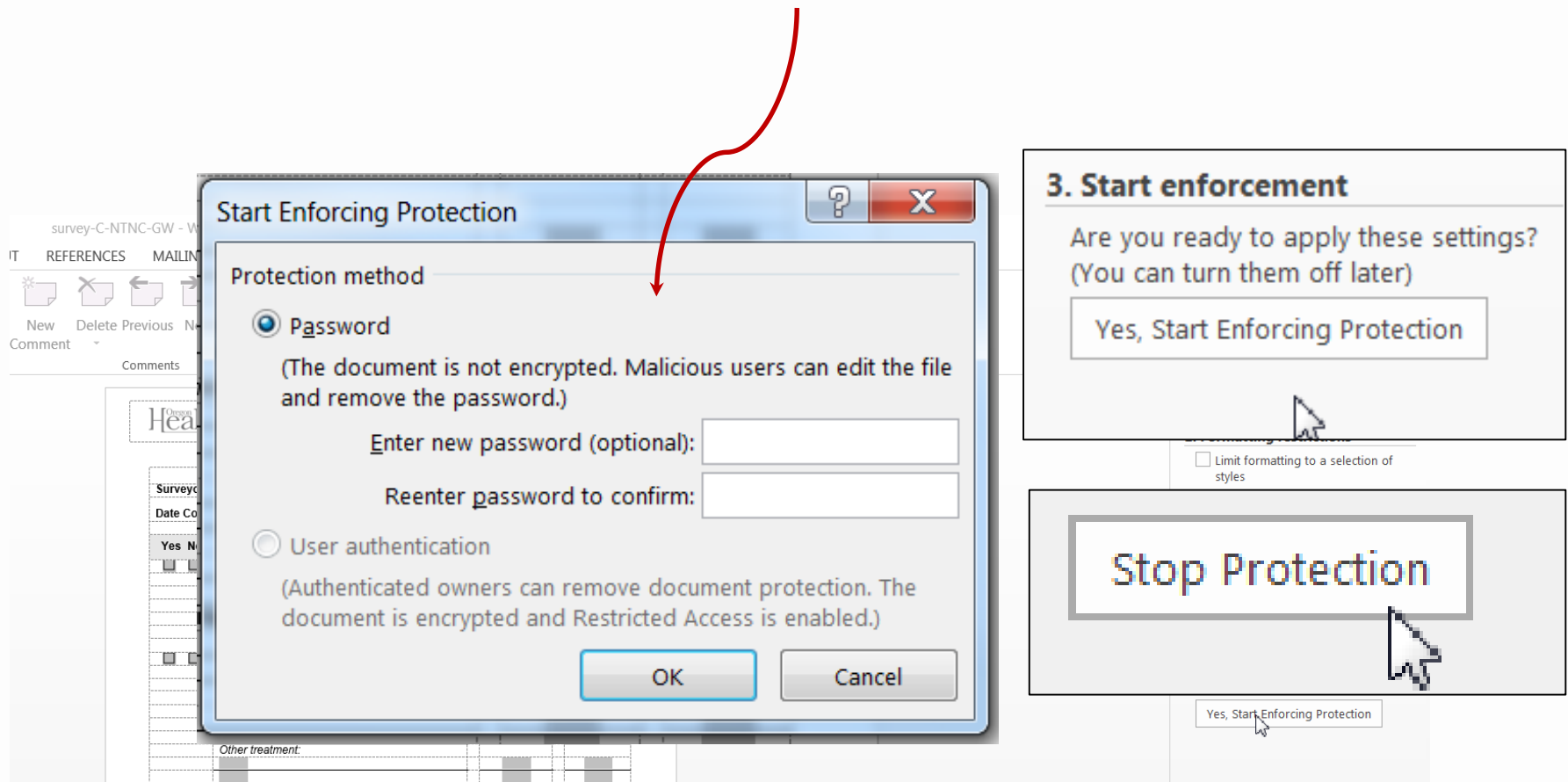




To restore form field entry...

Use the same steps to start or stop protections

Leaving the password field blank each time.



# Forms are made of Tables

## 2 Terms to remember:

- Table
- Cell

Table		
-------	--	--

Cell	Cell	Cell
Cell	Cell	Cell

Inventory and Narrative			
<input type="checkbox"/> Outstanding Performer			
Type: Choose an item.	Status: Choose an item.	Size: Choose an item.	Season: Choose an item.
License: Choose an item.	Population: <input type="text"/>	Begin: (mm/dd)	<input type="text"/>
Responsible Agency: Choose an item.	Connections: <input type="text"/>	End: (mm/dd)	<input type="text"/>
Service Characteristics: Choose an item.			
Ownership: Choose an item.			
Operator Certification Requirements: Choose an item.	WT: Choose an item.	FE <input type="checkbox"/>	Small WS <input type="checkbox"/>
Primary Administrative Contact (Mailing Address):			
Contact Name: <input type="text"/>	Phone: ( <input type="text"/> ) <input type="text"/>		
Title: <input type="text"/>	Cell: ( <input type="text"/> ) <input type="text"/>		
Street Address: <input type="text"/>	Emergency #: ( <input type="text"/> ) <input type="text"/>		
City/State/Zip: <input type="text"/>	Email: <input type="text"/>		
Legal/Owner Address:			
Contact Name: <input type="text"/>	Phone: ( <input type="text"/> ) <input type="text"/>		
Title: <input type="text"/>	Cell: ( <input type="text"/> ) <input type="text"/>		
Street Address: <input type="text"/>	Emergency #: ( <input type="text"/> ) <input type="text"/>		
City/State/Zip: <input type="text"/>	Email: <input type="text"/>		
System Physical Address:			
Contact Name: <input type="text"/>	Phone: ( <input type="text"/> ) <input type="text"/>		
Title: <input type="text"/>	Cell: ( <input type="text"/> ) <input type="text"/>		
Street Address: <input type="text"/>	Emergency #: ( <input type="text"/> ) <input type="text"/>		
City/State/Zip: <input type="text"/>	Email: <input type="text"/>		
Emergency Systems Available:			
Name: <input type="text"/>	PWS ID#: <input type="text"/>	41 <input type="text"/>	
Narrative:			
<input type="text"/>			

Table

Status	Size
Population:	<input type="text"/>
Connections:	<input type="text"/>

Cells

Field

(okay so maybe 3 terms)

# Forms are made of Tables

- Tables can be merged, split into different cells, etc.
- Cells can be merged, have fill colors, etc.
- Borders can be applied to each

	Table		
--	-------	--	--

Cell	Cell	Cell
Cell	Cell	Cell

## Forms are made of Tables

- Tables can be merged, split into different cells, etc.
- Cells can be merged, have fill colors, etc.
- Borders can be applied to each

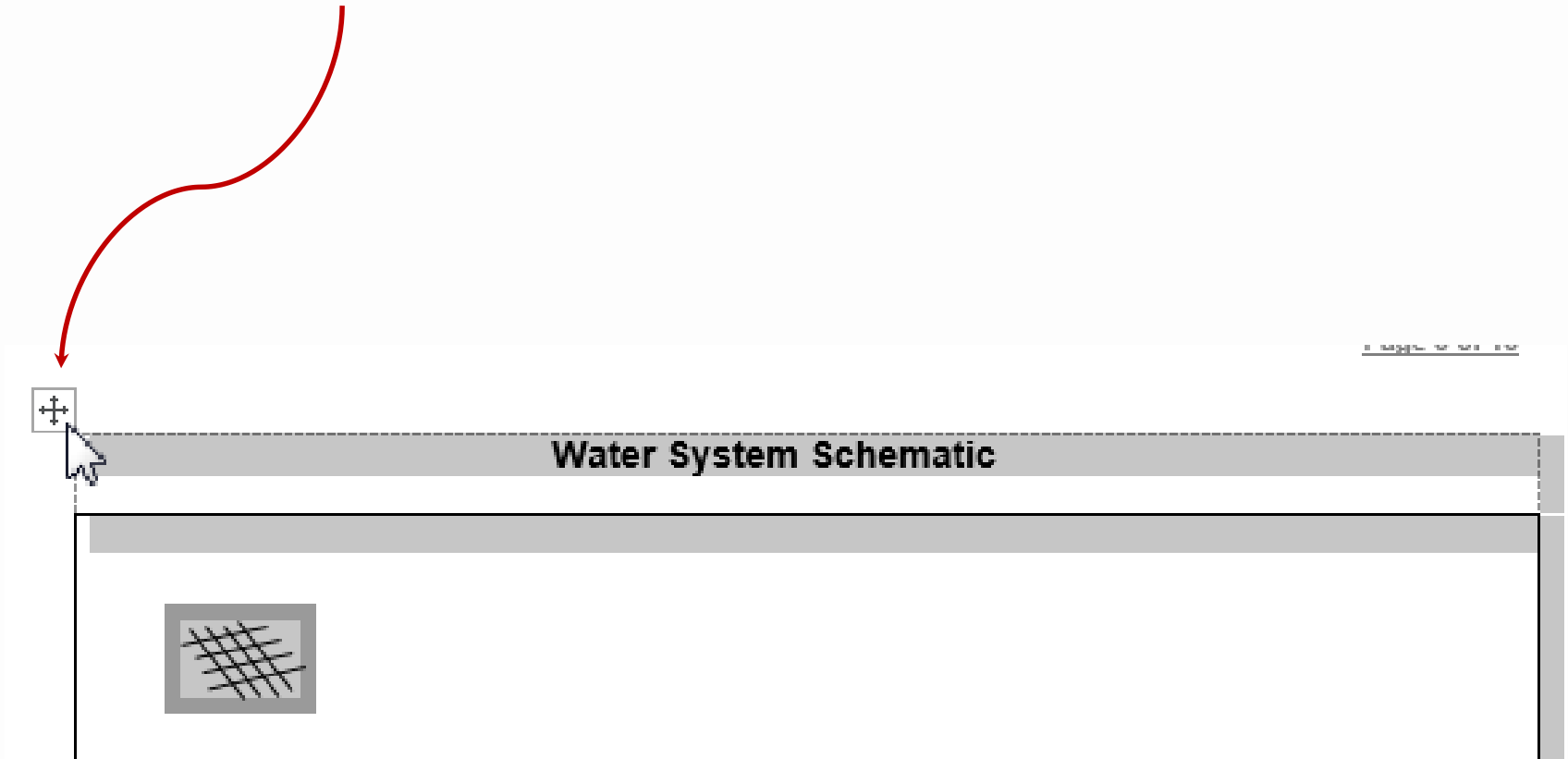
	Table		
--	-------	--	--

Why do I need to know this?

1. Sometimes tables will merge looking all messed up
2. Sometimes you need to insert another page (e.g. have two schematic pages, or additional well pages)
3. Sometimes it is helpful to copy a “Schematics” or “Wells” table

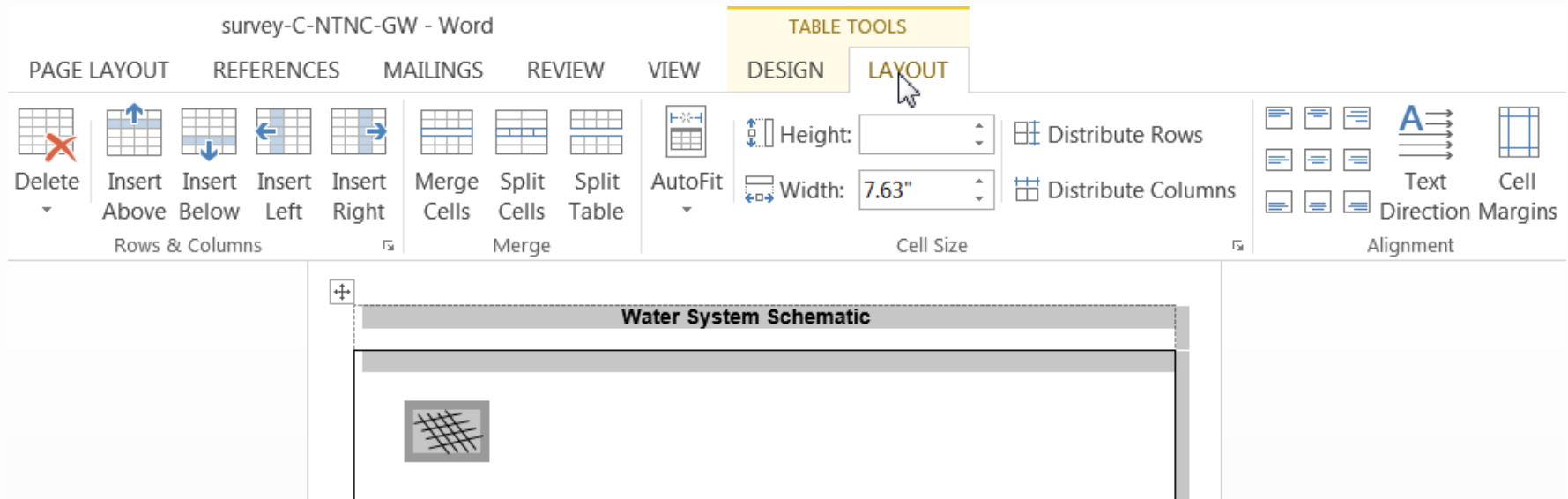
## Editing Tables

With protections stopped, use the cursor to hover over the top left corner of a table to select it...



# Editing Tools – Layout (most used)

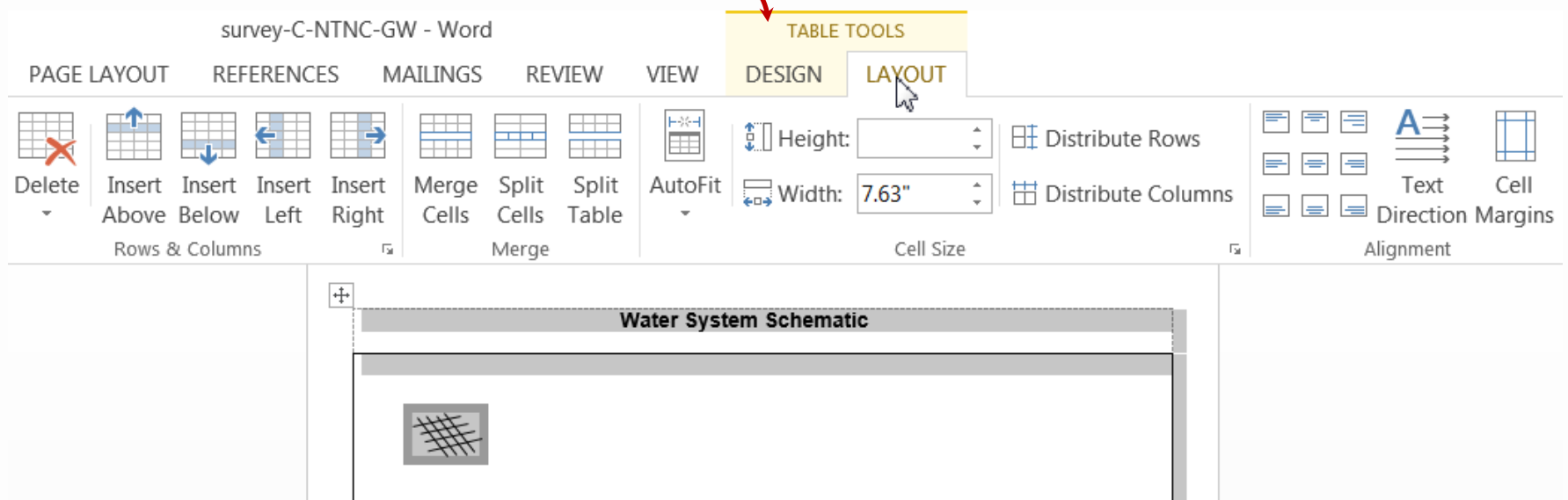
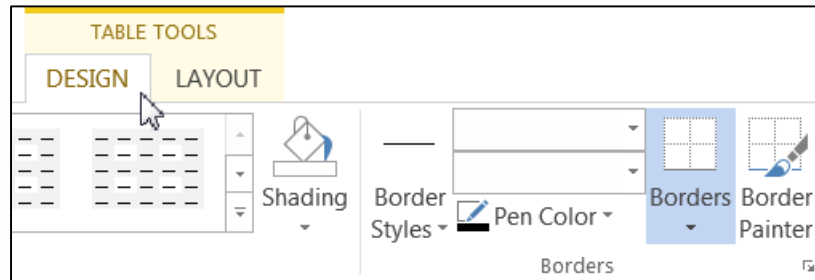
Click on “Layout” to reveal editing tools I use most...





# Editing Tools – Design (rarely used)

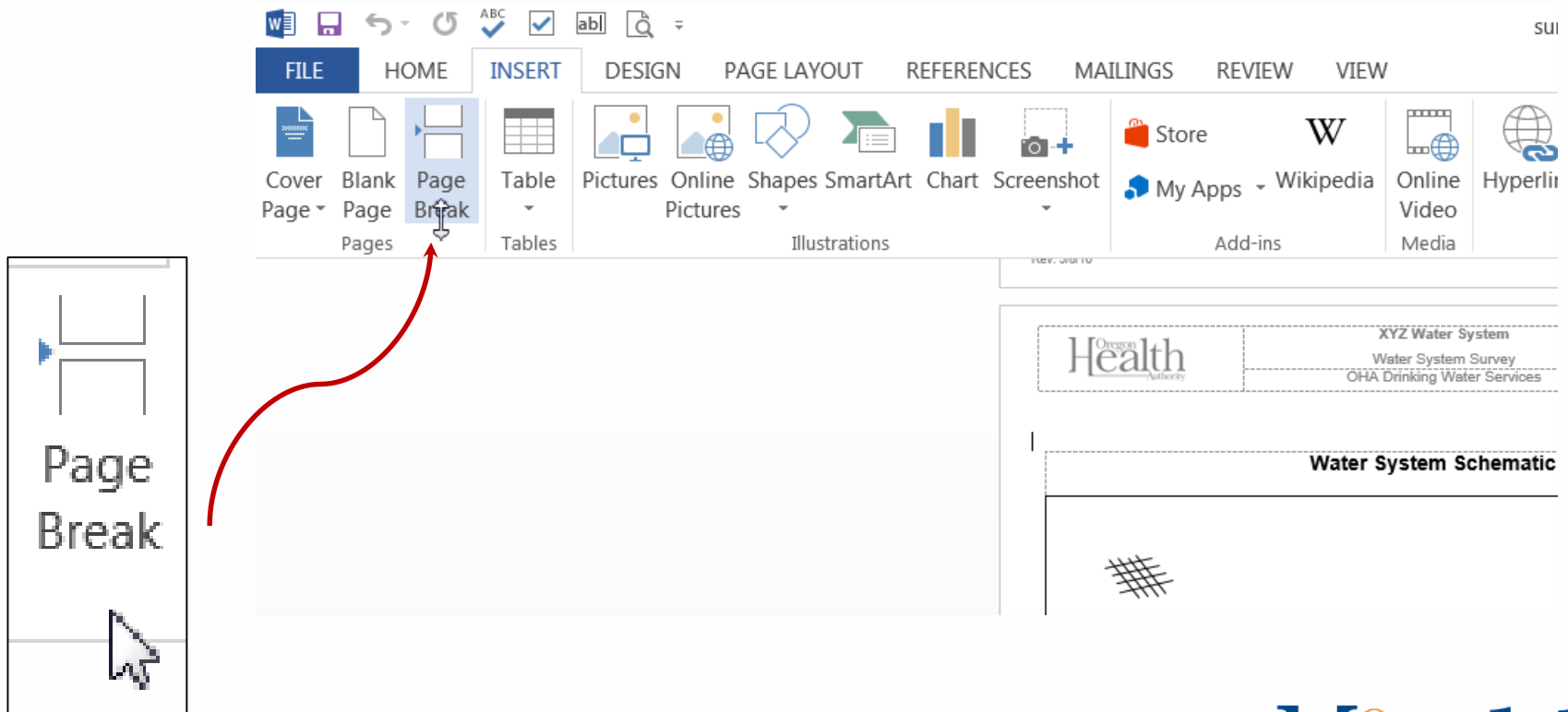
I rarely use “Design” tools...



# Inserting a new schematic page...

Step 1 – Click above a table (not on it)

Step 2 – Click “Page Break”

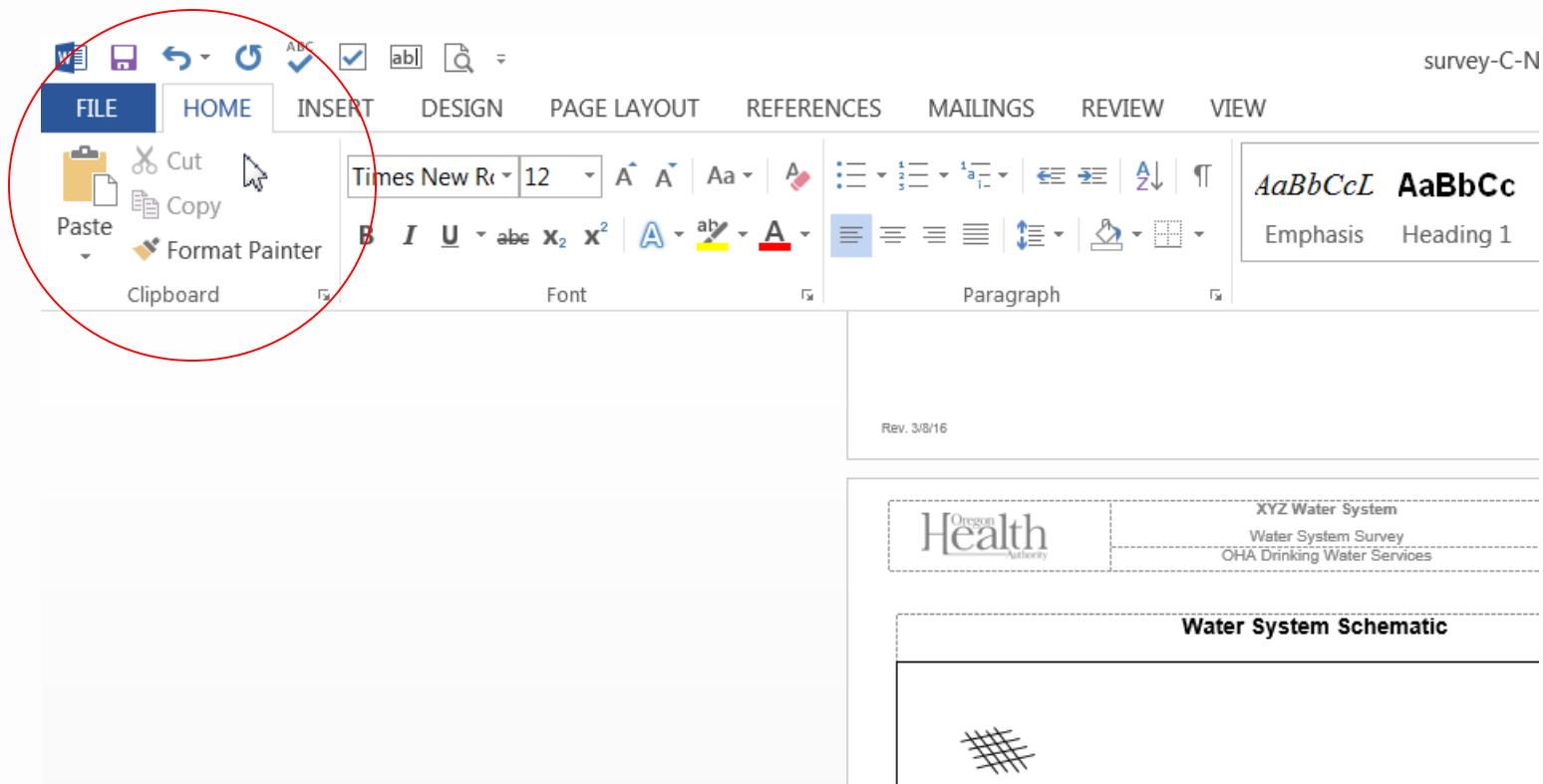


# Inserting a new schematic page...

Step 3 – Click on Table to Select it

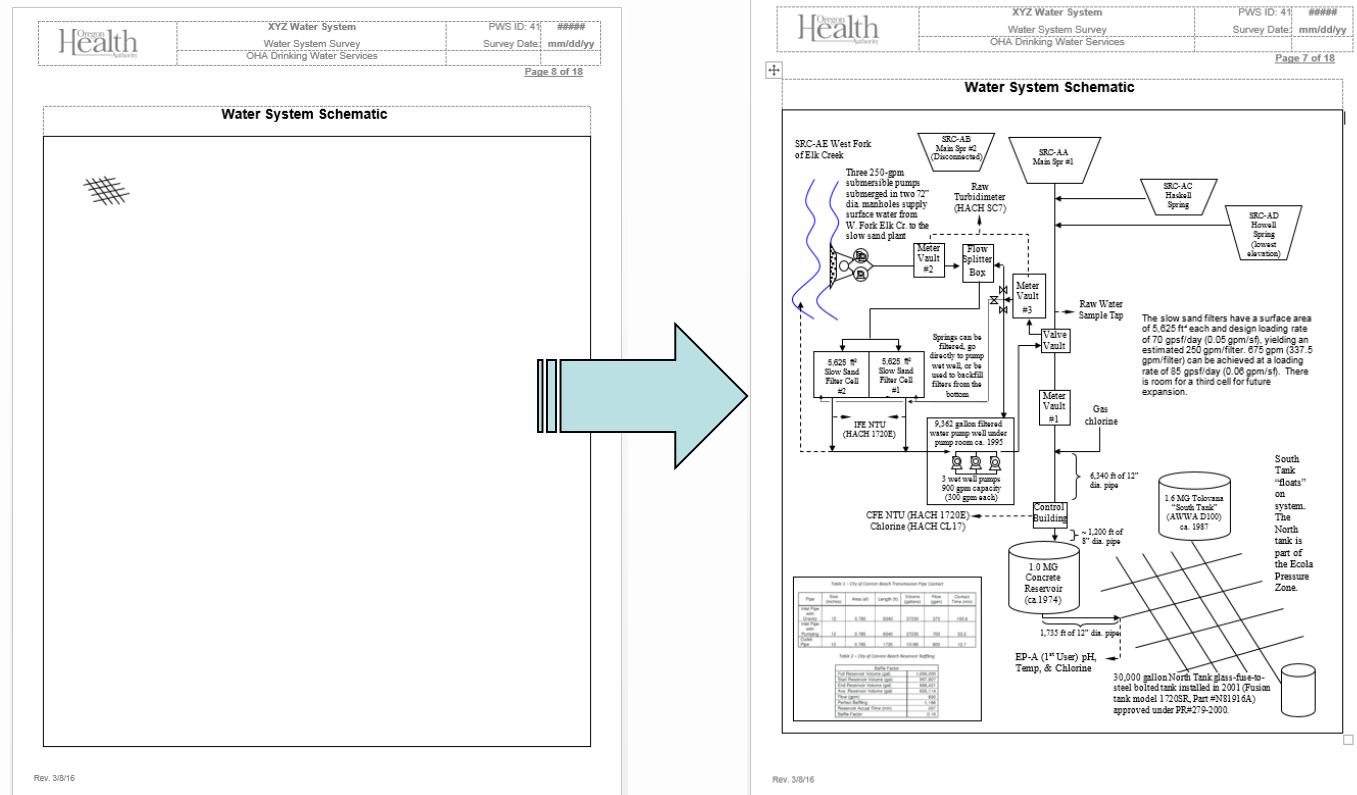
Step 4 – Click the “Home” tab and then “Copy”

Step 5 – Click at top of new page and click “Paste”



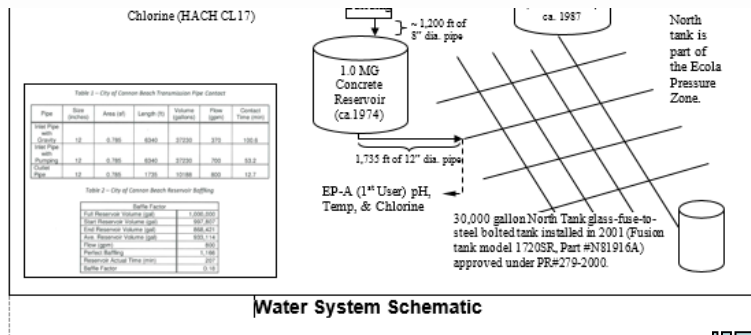
## Inserting a new schematic page...

This process can be used to copy the schematic table from the previous survey into the new survey forms.

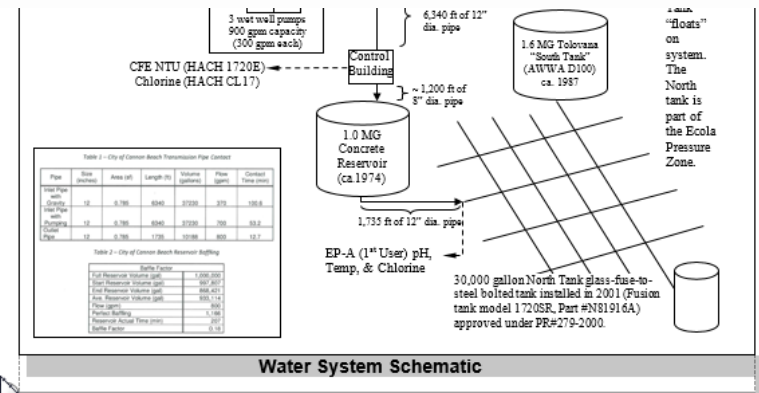
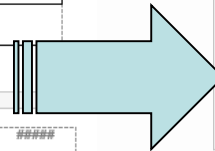


# Splitting apart two tables that have “merged”...

Step 1 – move cursor to point to where the tables joined and click to select the “joint”



Rev. 3/8/16



Rev. 3/8/16

XYZ Water System  
Water System Survey  
OHA Drinking Water Services

PWS ID: 41  
Survey Date: mm/dd/yy

Page 8 of 18

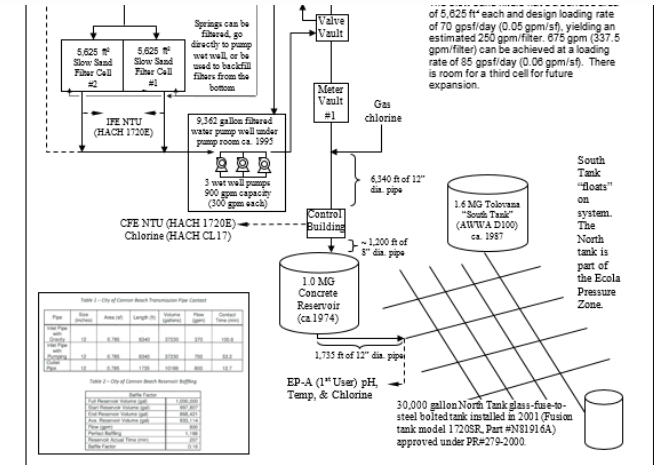
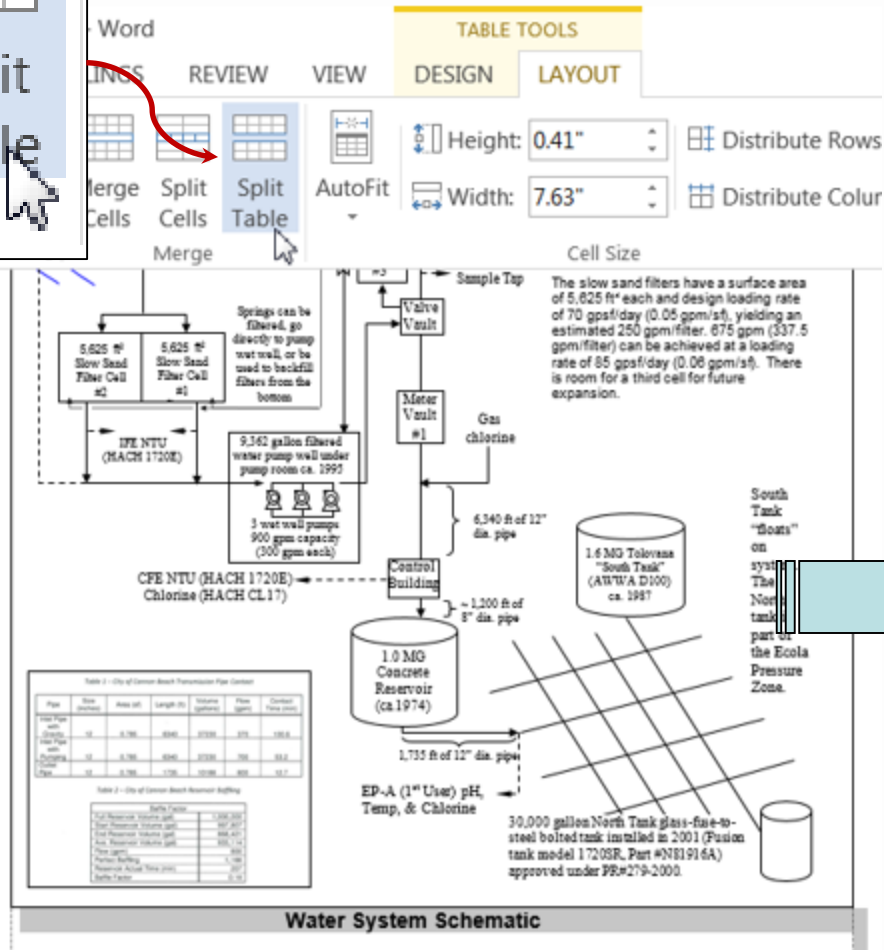
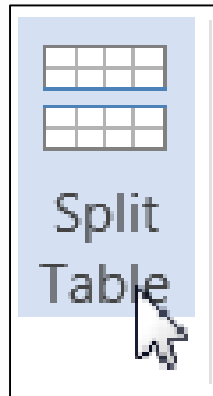
XYZ Water System  
Water System Survey  
OHA Drinking Water Services

PWS ID: 41  
Survey Date: mm/dd/yy

Page 8 of 18

# Splitting apart two tables that have “merged”...

Step 2 – Click “Layout” => “Split Table”



Rev. 3/8/16

XYZ Water System

Water System Survey

OHA Drinking Water Services

PWS ID: 41

Survey Date: mm/dd/yy

Page 8 of 18

Water System Schematic

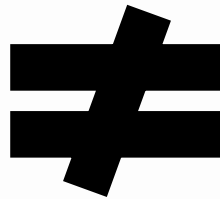




# Editing tools are only there to help...

- Use tools to accommodate the information.
- *Do not change basic structure or appearance of survey reports!*

Deficiency Summary			
Surveyor: Michelle Byrd		County: Wheeler	
Date Corrective Action Plan is due: December 30, 2011			
Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Source:</b> <b>Well construction:</b> <ul style="list-style-type: none"><li>Seal opening on top of Fairgrounds Well.</li><li>Remove evidence of rodent activity within Deep Well building and prevent their access. Improve vent screen.</li></ul> <b>Spring/other source:</b> <ul style="list-style-type: none"><li>Replace screen on outflow pipe inside springbox.</li><li>Locate overflow pipe for springbox to verify it is protected with screen or flap valve.</li></ul>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Treatment:</b> <b>Surface water treatment:</b> <ul style="list-style-type: none"><li>N/A</li></ul> <b>Disinfection:</b>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Other treatment:</b> <ul style="list-style-type: none"><li>Discontinue use of non-NSF chlorine tablet dispensers in North &amp; South reservoirs.</li></ul>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Finished Water Storage:</b> <ul style="list-style-type: none"><li>Add lock to hatch on steel reservoir.</li><li>Seal all openings in North &amp; South reservoirs.</li><li>Verify all vent screens are installed.</li></ul>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Distribution:</b>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Monitoring:</b> <ul style="list-style-type: none"><li>Collect Radium 226/228 sample during 3<sup>rd</sup> Quarter this year to complete initial monitoring.</li></ul>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Management &amp; Operations:</b> <ul style="list-style-type: none"><li>Develop an Emergency Response Plan specific to water system.</li><li>Develop Consumer Confidence Report to send to customers annually.</li><li>Develop a Coliform Sampling Plan.</li><li>Modifications made to 3<sup>rd</sup> &amp; Chase Well not approved by Drinking Water Program.</li></ul>	
<input type="checkbox"/>	<input type="checkbox"/>	<b>Operator Certification:</b>	
<input type="checkbox"/>	<input type="checkbox"/>	<b>Other Rule Violations:</b>	
<b>Comments:</b> See cover letter for recommendations.			



# Summary

- Surveys evaluate changes since the last survey
- Preparation & organization is key in an effective survey
- Ask operator to walk you through process even if it seems straight forward
- Focus on significant deficiencies (bulleted items) & fill in as much info as possible
- Review all survey forms before ending site visit
- Follow-up actions verify deficiencies have been corrected by WS to ensure compliance

**HAPPY  
HALLOWEEN**

**Thank You!**

**Evan Hofeld**

**971-673-0419**

**evan.e.hofeld@state.or.us**

