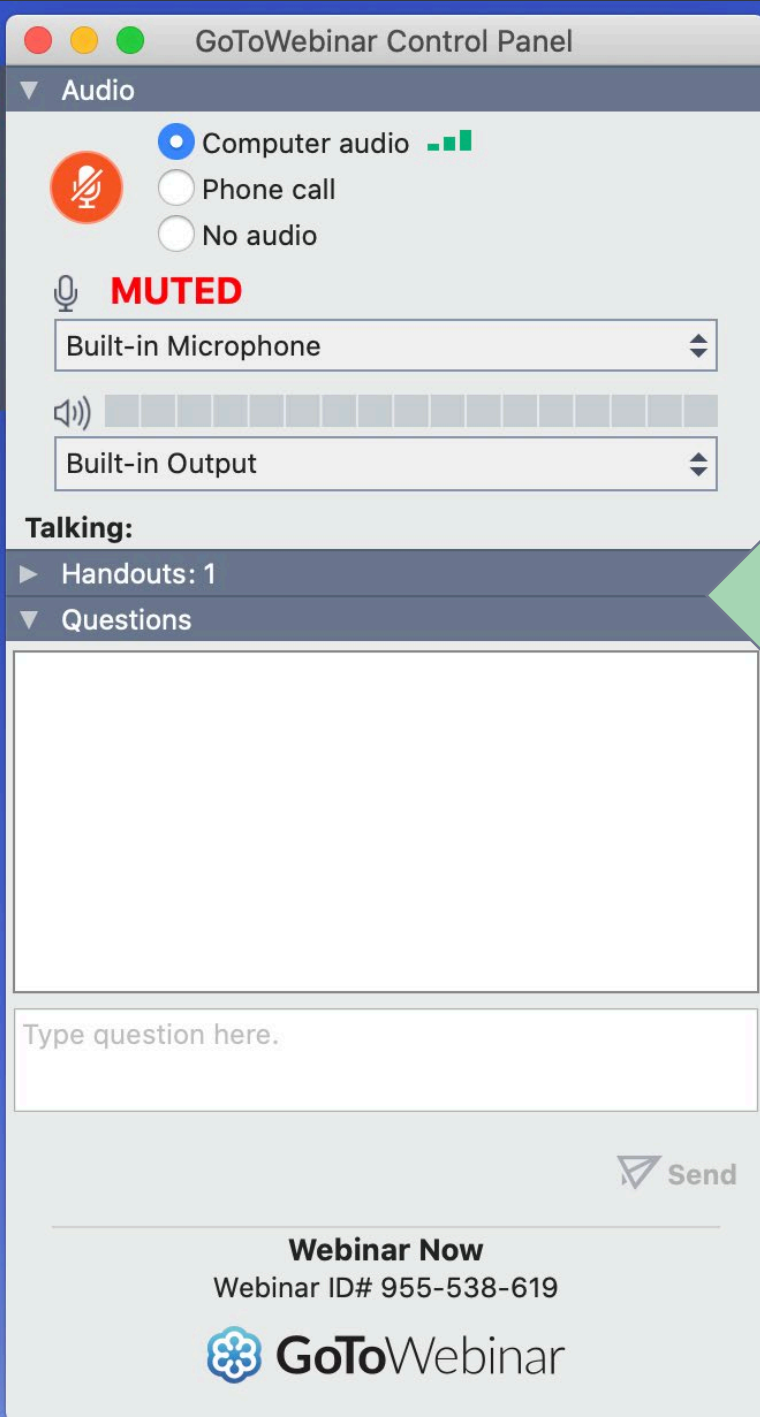Using EPA's *Knowledge Retention Tool for Small Water Systems*

December 8, 2020

# Webinar Housekeeping

o Please familiarize yourself with the webinar panel on your screen

    o Handouts

    o Questions/Chat

o Question and Answer Session at the end

## GoToWebinar Control Panel
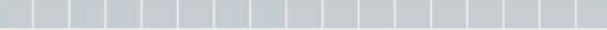
▼ Audio

    ● Computer audio

    ○ Phone call

    ○ No audio

**MUTED**

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Built-in Output

**Talking:**

▶ Handouts: 1

▼ Questions

Type question here.

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# Today's Presenter

o Deborah Vacs Renwick is an environmental engineer in the EPA's Office of Ground Water and Drinking Water as a member of the Sustainable Systems Team, focusing on workforce development. Prior to joining EPA she worked at the Alameda County Water District in Fremont, California in the Water Quality and Regulatory Compliance Division and served as a Peace Corps Volunteer in Peru. She earned her bachelor's degree in civil engineering from Brown University and her master's in civil and environmental engineering from Massachusetts Institute of Technology.



Deborah Vacs Renwick

VacsRenwick.Deborah@epa.gov

# Agenda

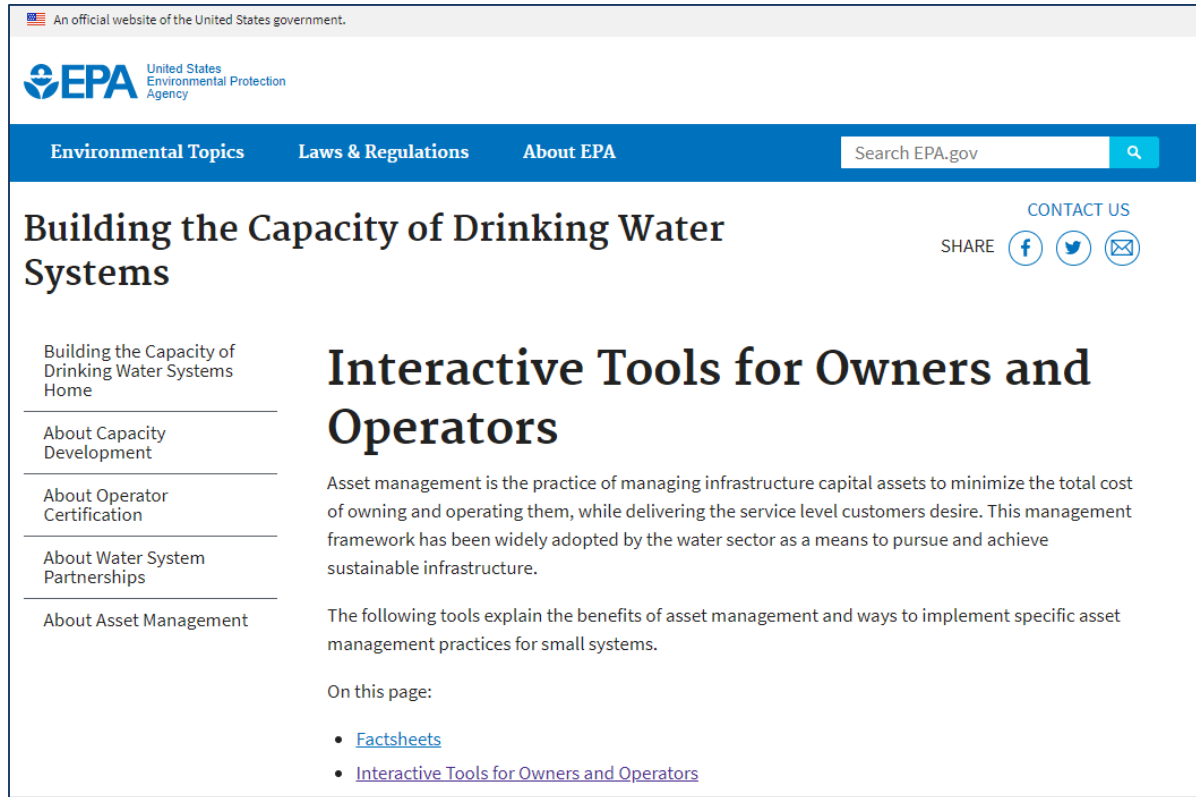1. Background Information

   o   what is the tool?

   o   why is it useful?

   o   how do you fill it out?

2. How-to guide for using the Knowledge Retention Tool for Small Water Systems

   o   Step through each page and table in the tool

3. Live demonstration of functions

4. Questions and Answer Session

   o   Type questions into the Question Box throughout presentation
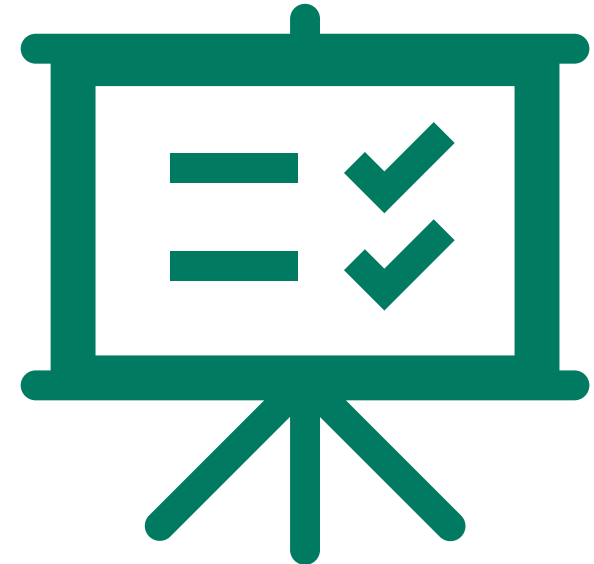
# Background Information

# What is the Knowledge Retention Tool?



- ○ Spreadsheet based **template** to capture key information about your utility.

  - ○ Record different categories of information on each sheet.

- ○ Can be used to transfer knowledge from a retiring operator or staff member or just to consolidate information.

- ○ Can be downloaded from the EPA website here: https://www.epa.gov/dwcapacity/interactive-tools-owners-and-operators (Scroll down to the knowledge retention tool)

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# What information is asked for in the tool?

18 different sheets (tabs), each numbered and with a different topic
1. Handoff Checklist – use this to track completion of the other sheets

**General**
2. System Overview
3. Documents
4. People
5. Source Water

**Quick Response**
6. Emergencies
7. Security

**System Operation**
8. Filtration and Treatment
9. Process Monitoring and Sampling
10. Operational Supplies
11. System Maintenance
12. Storage
13. Distribution

**Administration**
14. Rules and Regulations
15. Technology
16. Operator Certification
17. Neighboring Utilities
18. Other Information

# Why use the Knowledge Retention Tool?

- **Document institutional knowledge** from retiring or departing employees – this kind of information may not be written down anywhere else.

- **Store all the basic information** about a system – especially helpful for new employees but also for longer term employees.

- Demonstrates **managerial capacity** by having organized information and being prepared to train new staff.

- **Saves time!** No need to look in 5 different binders or search through a decade of email to find the answer you're looking for

- **Publicly available** and customizable.

- **Easy to use!** You don't need to be familiar with spreadsheets to use this tool effectively.

# Filling out the Knowledge Retention Tool

o General Reminders:

   o If information is already recorded, note where it is kept.

   o Complete the tables with the answers to the prompts.

   o Extra rows are provided if needed – See appendix for how to add even more rows.

   o You may not be able to fill in every table on every sheet in one sitting – that's okay! Fill in what you can when you can and remember you can always update with new or more detailed information.

   o Not every table and sheet is relevant to every system – use what works for you!
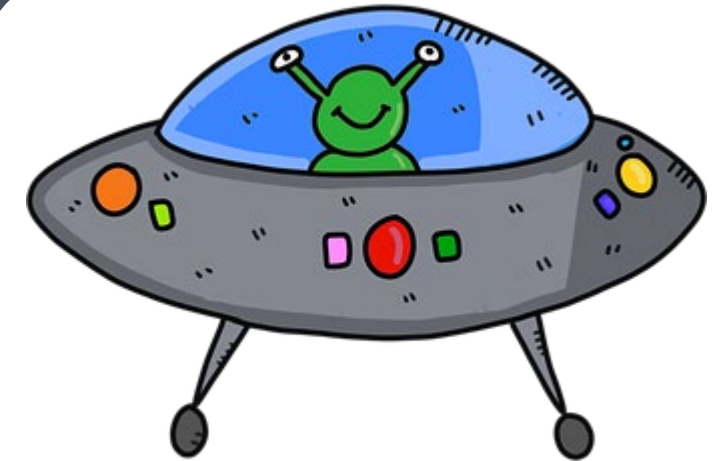
*If an alien landed at your water system and needed to keep it running, what information would they need?*

# Filling out the Knowledge Retention Tool (cont.)

Return to Handoff Checklist
Return to Contents Tab

**Fill in the below tables (2) regarding general system information**
In the first table, provide general information about the water system
In the second table, provide the system owner's contact information

Return to Handoff Checklist                    Return to Contents

| General System Information | Response |
|---|---|
| **Water System Name** | |
| **PWSID** | |
| **Classification Type (Community, Transient, etc.)** | |
| **Water Source(s) Type** | |
| **Estimated daily water production** | |
| **What area does the system supply? (Name towns, or areas within towns)** | |

- o Navigate using hyperlinks
  - o Table of Contents
  - o Handoff Checklist
  - o Content Sheets
- o Answer the prompts to fill out the Tool
  - o Insert new rows if needed
  - o Some information is linked between sheets
  - o Better to put "N/A" than leave blank
- o Reference location of existing information

# Key Terms that will be used today

- o Worksheet/Tabs - Each "page" of the tool is a separate Excel worksheet or tab – these are labeled with numbers and titles

- o Table - Within a sheet there are tables to organize information – this sheet has 2 tables

- o Cell – each square that you can click in is called a "cell"

- o Hyperlinks – shown in blue, click on them to navigate between parts of a sheet or between sheets

- o Rows and Columns – every sheet is made up of rows and columns like a normal spreadsheet, the lines are just hidden by the formatting



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# How-to guide for using the Knowledge Retention Tool for Small Water Systems

# Knowledge Retention

Congratulations on your new position or upcoming retirement! You play a crucial role here and we value your knowledge and expertise. To ensure that we can transition your responsibilities to one or more people after you depart, we ask that you assist us by answering the questions in this spreadsheet. Our intent is to help transition your responsibilities to different people, it is not intended to be used as a official job description as it relates to your employment. It is to ensure that none of your responsibilities are forgotten.

**Please note, our system may have specific policies regarding records management and retention. Prior to filling out this spreadsheet, please be sure to consult with the management team. They will be able to provide you with supplementary instructions and information on any additional requirements.**

This spreadsheet is designed to document the various actions you complete and responsibilities you hold throughout the course of your work: it is meant to serve as a recordkeeping device. For this reason, it may be beneficial to fill this out long before your last day, as it may help you to keep track of your many responsibilities in your remaining time here.

This spreadsheet does not need to be completed all at once; in fact it may help to work on it as you complete the different activities it asks about. You may find it helpful to talk to coworkers and your supervisor as you answer the questions, or to set aside some quiet time to review it. As time goes by, you'll work on and remember different components of your job.

You can keep track of when you've last updated various sections of this spreadsheet in the Handoff Checklist tab.

## What's Ahead
This spreadsheet has two types of data collection:

1] General, Quick Response, System Operation, and Administration, for key data about your responsibilities.

2] Handoff Checklist, which is used to track the completion of the other sheets.

## Instructions
Complete the information on each of the sheets along the bottom of this spreadsheet. In each, there is one or more tables to fill out. Please look for specific instructions at the top of each of these sheets regarding their contents. A few general reminders are below:

spreadsheet. Our intent is to help transition your responsibilities to different people, it is not intended to be used as a official job description as it relates to your employment. It is to ensure that none of your responsibilities are forgotten.

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- Please complete the tables with the answers to the prompts. We have provided extra rows in case you need them.
- If you already have the information requested in another location, like a notebook or in a file folder, you can reference that location in the table. For example, "See binder labeled "Internship MOAs (G-J) on the 2nd shelf in the bookshelf." Be as specific as possible and make sure that all notebooks and folders and clearly labeled.

# Contents

| Sheet No. | Type of Resource | Description | Information Captured |
|---|---|---|---|
| 1 | Checklist | Handoff Checklist | Review and acknowledgement that everything has been documented |
| 2 | General | System Overview | General system information |
| 3 | Administrative | Documents | Important documents for system operation |
| 4 | General | People | Important contacts and their information |
| 5 | General | Source Water | Source water information |
| 6 | Quick Response | Emergencies | Emergency preparedness contacts and documents |
| 7 | Quick Response | Security | Security system information |
| 8 | System Operation | Filtration and Treatment | Water treatment mechanisms |
| 9 | System Operation | Process Monitoring and Sampling | Sampling techniques and frequencies for compliance and process monitoring |
| 10 | System Operation | Operational Supplies | Supplies used in standard operation and where they can be obtained |
| 11 | System Operation | System Maintenance | Maintenance and flushing activities |
| 12 | System Operation | Storage | Water storage information |
| 13 | System Operation | Distribution | Distribution infrastructure and information |
| 14 | Administrative | Rules and Regulations | Applicable legislation |
| 15 | Administrative | Technology | Operational system software usage |
| 16 | Administrative | Operator Certification | Operator certification information |
| 17 | Other | Neighboring Utilities | Contact and additional information about neighboring utilities |
| 18 | Other | Other Information | Miscellaneous water system information |

| Sheet No. | Type of Resource | Description | Information Captured |
|---|---|---|---|
| 1 | Checklist | Handoff Checklist | Review and acknowledgement that everything has been documented |
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| 18 | Other | Other Information | Miscellaneous water system information |

Last Updated:   6/8/2020 17:09

# Handoff Checklist

**Progress Through the Spreadsheet**

| Name of Separating Employee | {Entered Name Links to Other Sheets} |
|---|---|
| Job Title | |
| Length of Time in Position | |
| Supervisor | |

o Progress Bar and Navigation

o Operator information and request for information table

o Return to this sheet to fill out the...

 o General Checklist

 o Quick Response Checklist

 o System Operation Checklist

 o Administration Checklist

1. Handoff Checklist

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# Handoff Checklist

**Progress Through the Spreadsheet**

*Instructions: Please enter dates when each section of the spreadsheet is completed and reviewed.*
*This page can be filled as you progress through the spreadsheet*

| | |
|---|---|
| **Name of Separating Employee** | {Entered Name Links to Other Sheets} |
| **Job Title** | |
| **Length of Time in Position** | |
| **Supervisor** | |

## General

| Section | Date You Completed the Sheet (or enter N/A) | Date Sheet Was Reviewed by Supervisor |
|---|---|---|
| 2. General System Information | | |
| 2. System Owner Contact Information | | |
| 3. Documents: SOPs | | |
| 3. Documents: Logs, Plans, Operations | | |
| 3. Documents: Historical Reference | | |
| 3. Documents: Key Files | | |
| 4. People: Key Emergency Contacts | | |
| 4. People: System's Staff | | |
| 4. People: Lab | | |
| 4. People: Contractors | | |

| | | |
|---|---|---|
| 4. People: Contractors | | |
| 4. People: Local and State Government | | |
| 4. People: Neighboring Systems | | |
| 4. People: Vendors | | |
| 4. People: Other: Schools, Media, etc. | | |
| 5. Source Water: Characteristics | | |
| 5. Source Water: Monitoring | | |
| 5. Source Water: Vulnerabilities | | |

## Quick Response

| Section | Date You Completed the Sheet (or enter N/A) | Date Sheet Was Reviewed by Supervisor |
|---|---|---|
| 6. Emergencies: Response Documents | | |
| 6. Emergencies: System Alarms | | |
| 6. Emergencies: Generators | | |
| 7. Overall Water System Security | | |
| 7. Facility Security Systems | | |

## System Operation

| Section | Date You Completed the Sheet (or enter N/A) | Date Sheet Was Reviewed by Supervisor |
|---|---|---|
| 8. Treatment: Filtration | | |

| Section | | |
|---|---|---|
| 8. Treatment: Filtration | | |
| 8. Treatment: Disinfection | | |
| 8. Treatment: Additional | | |
| 9. Sampling: Process Monitoring Samples | | |
| 9. Sampling: Lab Analysis | | |
| 10. Operational Supplies: Equipment | | |
| 10. Operational Supplies: Chemicals | | |
| 10. Operational Supplies: Pumps | | |
| 11. System Maintenance: General | | |
| 11. System Maintenance: Flushing | | |
| 12. System Operations: Storage | | |
| 13. Distribution: Piping | | |
| 13. Distribution: Valves | | |

## Administration

| Section | Date You Completed the Sheet (or enter N/A) | Date Sheet Was Reviewed by Supervisor |
|---|---|---|
| 14. Rules and Regulations: Relevant | | |
| 14. Rules and Regulations: Permits | | |
| 14. Rules and Regulations: Waste Disposal | | |
| 15. Technology: Software | | |
| 16. Operator Certification: Information | | |

## Administration

| Section | Date You Completed the Sheet (or enter N/A) | Date Sheet Was Reviewed by Supervisor |
|---|---|---|
| 14. Rules and Regulations: Relevant | | |
| 14. Rules and Regulations:  Permits | | |
| 14. Rules and Regulations: Waste Disposal | | |
| 15. Technology: Software | | |
| 16. Operator Certification: Information | | |
| 16. Operator Certification: Opportunities | | |
| 17. Neighboring Utilities: Contacts | | |
| 17. Neighboring Utilities: Additional | | |
| 18. Other Information | | |

## Request to Contact You

May we contact you if we have additional questions after your last day?

If so, what phone number and/or email address should we use to reach you?

| Phone Number | |
|---|---|
| Email Address | |

## Acknowledgement of Completion

Please print and sign this page upon completion of the spreadsheet and checklist.

Employee
_____

Supervisor
_____

## General System Information and System Contact Information

Return to Handoff Checklist          Return to Contents

| General System Information | Response |
|---|---|
| Water System Name | |
| PWSID | |
| Classification Type (Community, Transient, etc.) | |
| Water Source(s) Type | |
| Estimated daily water production | |
| What area does the system supply? (Name towns, or areas within towns) | |
| Number of Connections | |
| Critical Customers (Hospitals, schools, etc. Contact information can be added to sheet 3.) | |
| Estimated Population of the System | |
| Operator Required (Types, Numbers) | |
| Other Systems that the System is Connected to or Has Formal or Informal Agreements With (Sheet 17) | |

o General System Information

o System Owner Contact Information

**General**

| Section | Date You Completed the Sheet (or enter N/A) | Date Sheet Was Reviewed by Supervisor |
|---|---|---|
| 2. General System Information | | |
| 2. System Owner Contact Information | | |

2. System Overview

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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# Administration – Important Documents

## {Entered Name Links to Other Sheets}

**Fill in the following tables (4) with information regarding the documents you maintain**

Standard Operating Procedures (SOPs)

Logs, Sampling Plans, and Other Operation Documents

Historical Reference Documents (ex: Past Sanitary Surveys)

Key Files

*Please note that columns may extend past the initial view of your screen.

3. Documents

# SOPs; Logs, Sampling Plans, and Other Operation Documents; Historical Documents

**Standard Operating Procedures (SOPs)**

| Name | Purpose | Physical or Electronic Location | How frequently is this document updated? | Person Responsible for Updating Document | Date of Most Recent Update |
|------|---------|--------------------------------|------------------------------------------|------------------------------------------|----------------------------|
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |
|      |         |                                |                                          |                                          |                            |

3. Documents

# Key Files

o   File Name

o   Purpose

o   Physical or Electronic Location and File Path (if electronic)

o   Frequency of Use

o   Person Responsible for Updating Document

o   Date of Most Recent Update

3. Documents

# Emergency Contacts

○ Organization

○ Contact Person (if applicable)

○ Title

○ Phone number, Email Address and Address

4. People

## System's Staff Contacts

o   Operator Name

o   Position

o   Phone Number and Email Address

o   What services does the contract operator provide?

o   What grade(s) of operators are provided by the contract operator?

o   When should this operator be contacted?



4. People

# Lab Contacts

o   Name of Lab

o   Phone number, Email Address, Address

4. People
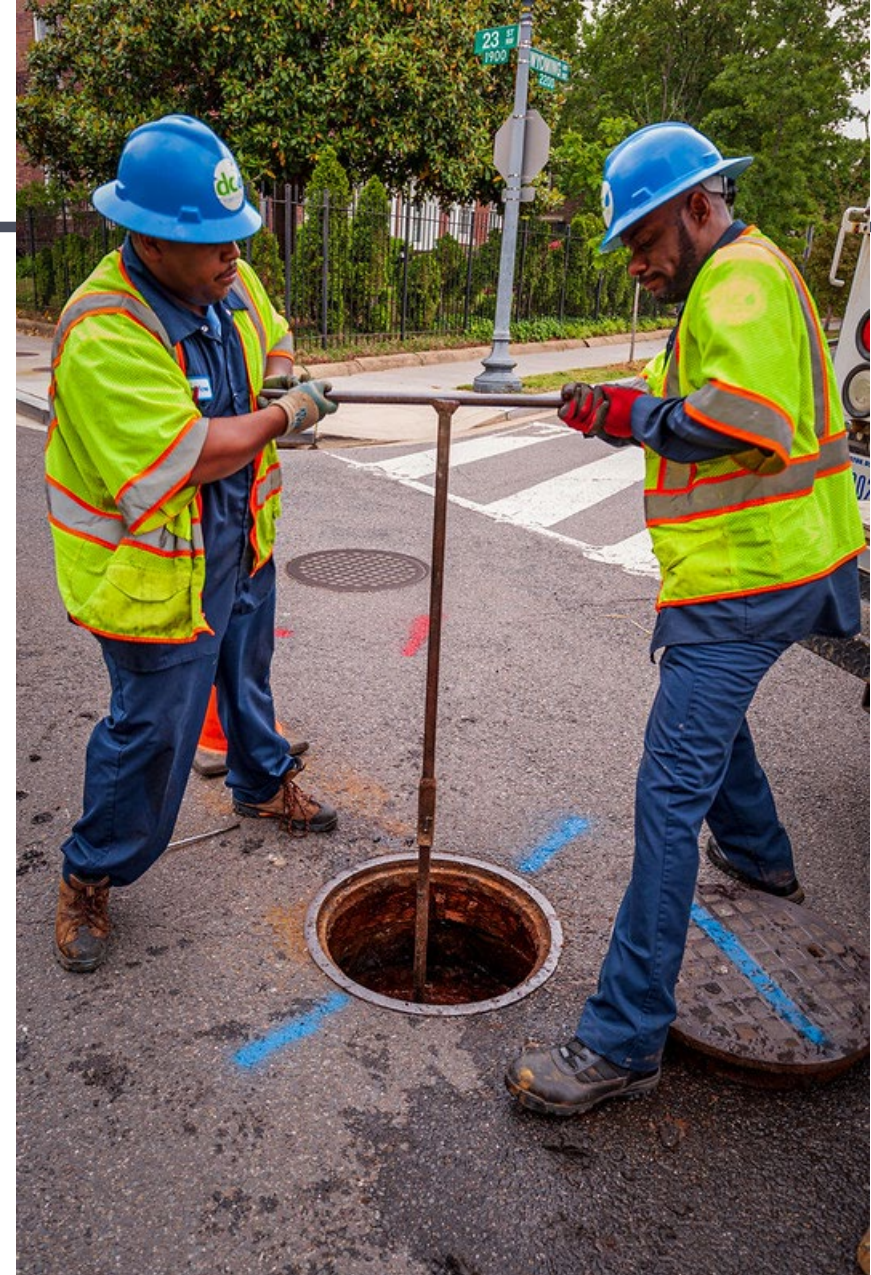
# State and Local Government Contacts

o   Name

o   Position

o   Office or Department

o   Phone Number, Email Address, Address

o   When should they be contacted?

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# Neighboring System Contacts

o Linked to tables in Sheet 17.

**Neighboring Systems Contacts**
{Entire table below linked to Sheet 17}

Return to Handoff Checklist          Return to Contents

Go to Sheet 17

| System Name | Contact Person | Position | Phone Number | Email Address | Are your systems |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

4. People

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# Contractor, Vendor, and Other Key Contacts

o   Name

o   Organization/Company (if applicable)

o   Service Provided [Contractors and Vendors]

o   Position [Other Key Contacts]

o   Phone Number, Email Address, Address

4. People

## General – Source Water

**{Entered Name Links to Other Sheets}**

**Fill in the below tables (3) regarding your source water**

Source Water Characteristics

Source Water Monitoring

Source Water Vulnerabilities

*Please note that columns may extend past the initial view of your screen.

# Source Water Characteristics

o   Source Water Type

o   What is the name of each source water?

o   Where is the source located?

o   Name of Watershed (If applicable)

o   What is the size of the watershed (square miles)?

o   Are there any water rights issues regarding the watershed?

o   What percentage of the watershed land is owned by the water system?

o   Known Point Sources of Pollution Within Watershed

o   Known Non-Point Sources of Pollution Within Watershed

o   For ground water supplies, is there a map that shows the area of influence? If so, where is it located?

o   Are there any potential sources of pollution in the well's area of influence?

o   Additional Watershed Characteristics

5. Source Water

# Source Water Monitoring

- Parameter Monitored

- Where are your sampling locations?

- Describe the monitoring process

- How frequently do you monitor this parameter?

- What equipment is necessary for the monitoring/sampling and where is it stored?

- Who calibrates the field instruments?

- Do you have a written SOP for calibrating field instruments and collecting samples?

- Are there state or federal regulations related to this parameter?

- When did the most recent monitoring occur?

- Who analyzes the sample (if applicable)?

- Additional Monitoring Comments

5. Source Water

## Source Water Vulnerabilities

o   Contaminant Name

o   How frequently does this contaminant appear in your source water?

o   Source of Contaminant (if known)

o   Mitigation Actions You Take If the Contaminant is Detected in Source Water

o   Who (if anyone) should be contacted if this contaminant is detected in source water?

o   Are there any ongoing actions to prevent the contaminant from entering source water?

5. Source Water

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# Quick Response – Emergencies

**{Entered Name Links to Other Sheets}**

**Fill in the following tables (3) regarding Emergencies**

Emergency Response Documents

System Alarms

Emergency Generators

*Please note that columns may extend past the initial view of your screen.

4. Key Emergency Contacts

# Emergency Response Documents

**Emergency Response Documents**

| Document Name | Type of Emergency Response Plan (examples provided) |
|---|---|
| | Water System Emergency Response Plan |
| | Town Emergency Response Plan |
| | State Emergency Response Plan |
| | |
| | |
| | |

Looking for more information on Emergency Response Plans and Risk Assessments as part of America's Water Infrastructure Act? Check out more resources here:
https://www.epa.gov/waterresilience/americas-water-infrastructure-act-risk-assessments-and-emergency-response-plans

o Document Name

o Type of Emergency Response Plan (examples provided)

o Physical or Electronic?

o What situation does it address?

o Is this document confidential?

o Who has copies of this document?

o Where is it located?

o When was it last updated?

o How often are tabletop or field exercises conducted so that staff members are familiar with the emergency plans?

6. Emergencies

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# System Alarms

o   Set Points for Pumps

o   Set Points for Storage Equipment

o   Set Points for Treatment Equipment

o   Set points for Pressure Issues

o   How are you notified of an alarm?

o   How are the triggers resolved?

6. Emergencies

# Emergency Generators

- Type (Make/Model)

- KW Provided

- Type of Plug Used

- Location

- Does it turn on automatically or manually?

- What equipment does this generator provide power for?

- Is the generator sized to power all of this equipment?

- Is there a carbon monoxide detector installed?

- Frequency of exercising (loaded and unloaded) tests/maintenance checks

- Date of Last Maintenance Check

- Who Conducts the Maintenance Checks?

- Contact Information (if applicable)

6. Emergencies

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# Overall Water System Security System

o   Do you have a security system in place?

o   Briefly, how does it work?

o   Who is in charge of its operation?

o   Are there regular tests or drills?

o   What is the schedule for regular tests or drills?

o   What company installed and maintains the system?

o   What is their contact information?

o   If the security system triggers, how are you notified?

o   If the security triggers, what is the immediate response?



https://www.epa.gov/waterresilience
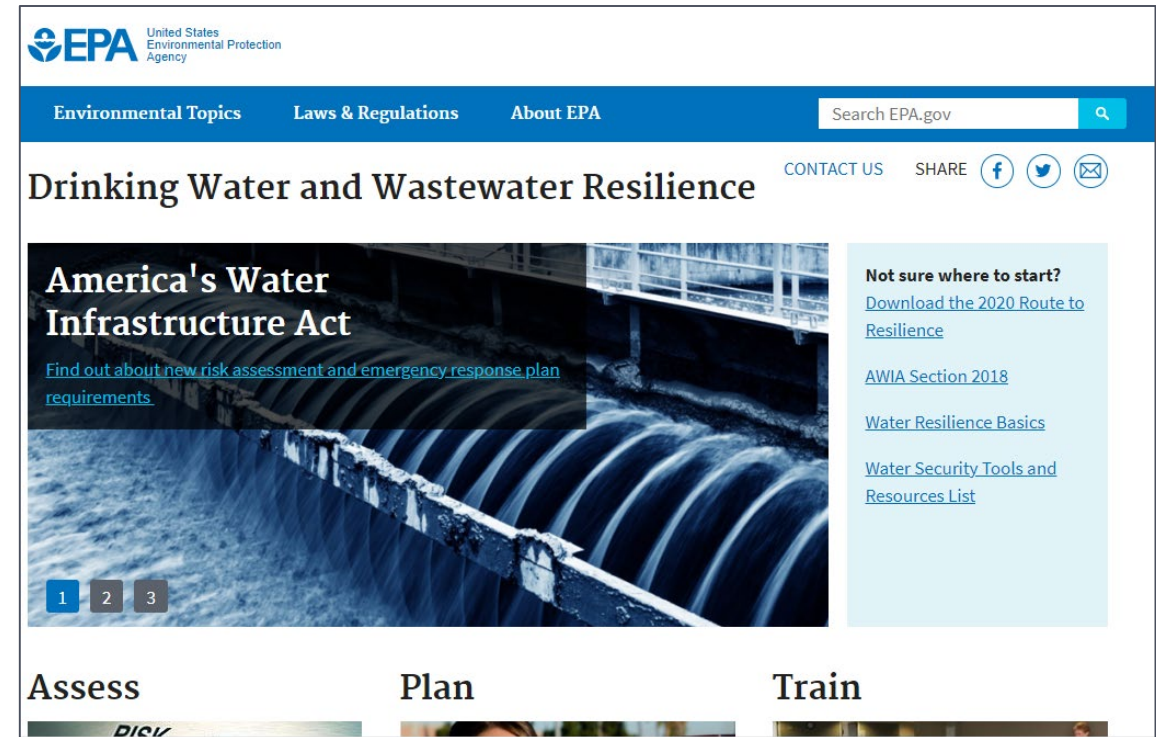
7. Security

# Facility Security Systems

o   Do you have security cameras at remote facilities?

o   Facility Name (if applicable)

o   Are they in operable condition? Where is the video feed transmitted?

o   What is the protocol for accessing SCADA?

o   Are there critical passwords needed to access the system? If so, what are they?

o   Does the water system have any security needs?



7. Security

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# System Operation – Filtration and Treatment

{Entered Name Links to Other Sheets}

Fill in the following tables (3) regarding various water treatment mechanisms you use

Filtration

Disinfection

Additional Treatment

*Please note that columns may extend past the initial view of your screen.

8. Treatment

# Filtration

o   Filtration Type

o   How frequently is this technique used?

o   How often are the filters backwashed?

o   What parameters are used to determine when a filter needs to be backwashed?

o   How often does the filter media need to be replaced?

o   When was the media last replaced?



8. Treatment

# Disinfection

o   Disinfection Type

o   Contaminant Treated

o   Location in the System

o   Frequency of Application

o   What is the dosage (if applicable)?

o   What upkeep is necessary?

o   Necessary Chemicals, Equipment, Etc.

8. Treatment

# Additional Treatment Methods

o   Treatment Method

o   Location

o   Frequency of Use

o   What is the dosage (if applicable)?

o   What upkeep is necessary?

o   Necessary Chemicals, Equipment, Etc.

8. Treatment

# System Operation – Process Monitoring and Sampling

**{Entered Name Links to Other Sheets}**

Fill in the following tables (2) regarding various samples you collect for compliance and to ensure the treatment processes are working correctly.

Process Monitoring Samples

Sample Collection for Lab Analysis

*Please note that columns may extend past the initial view of your screen.

# Process Monitoring Samples

o   Water Quality Parameter

o   When are measurements taken?

o   Instrument Make and Model

o   Calibration Frequency for Instrument

o   When was the instrument last calibrated?

o   Is there a SOP for collecting process monitoring samples?



9. Process Monitoring-Sampling

# Sample Collection for Lab Analysis

o   Type of Sample Collected

o   Sampling Frequency

o   When should the next sample be collected?

o   Name of Lab

o   Name of Sample Collector(s)

o   Is sampler certified?

o   Is there a SOP for sample collection?

9. Process Monitoring-Sampling

# Equipment

- o   Name

- o   What is this piece of equipment used for?

- o   Where is this piece of equipment stored?

- o   Where are the instructions and equipment documentation stored?

- o   Does this piece of equipment require any maintenance or regular calibration?

- o   If yes, when was it last reviewed for maintenance or calibrated?

- o   How often does this piece of equipment need to be replaced (e.g., expected useful life)?

- o   When was this piece of equipment last replaced?

- o   Manufacturer Contact Information (website, phone number, address)

10. Operational Supplies

# Chemicals

- o Chemical Name

- o What is this chemical used for?

- o What is the proper dosage?

- o Where is this chemical kept?

- o Chemical Supplier

- o Supplier Contact Information

- o If primary supplier is not available, what is the name of an alternate chemical supplier?

- o Alternate Supplier Contact Information

- o How often are refills necessary?

- o Is this product certified for use in drinking water?

10. Operational Supplies

50
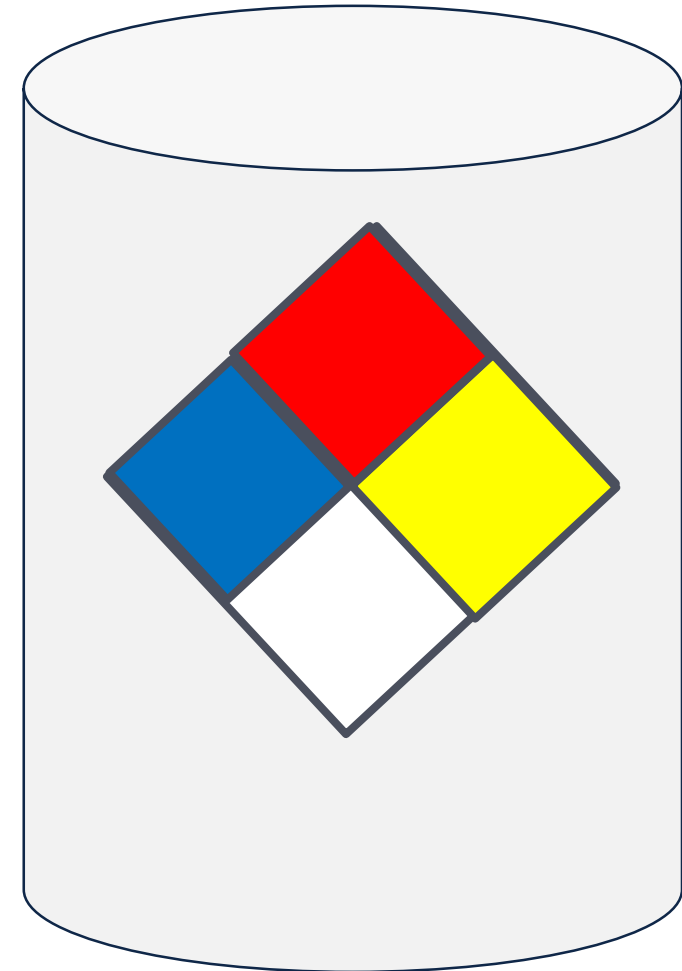
# Pumps

o   Pump Name/ID

o   Pump Schedule

o   Pump Cycling

o   Pump Operating Set Points

o   What routine maintenance is performed?

o   Date of Most Recent Maintenance Activity

o   Date of Most Recent Pump Replacement

10. Operational Supplies

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# General Maintenance

o   What maintenance do you perform regularly?

o   How frequently do you perform this activity?

o   Who do you contact when a piece is in need of repair or replacement?

o   Contact Information (website, phone number, etc.)

11. System Maintenance

# Flushing Information

o   Do you conduct regular system flushing?

o   Is there a flushing plan/schedule and where is a copy located?

o   If there is no flushing plan in place, please list the top 5-10 areas where flushing is most critical.

o   When was the last system flushing?



11. System Maintenance

# Storage Tanks

o   Tank Name or ID

o   Tank Type (standpipe, ground level, elevated, buried, etc.)

o   Tank Volume (Million gallons)

o   Tank Operating Levels (high and low, in feet)

o   Last Inspection Date

o   Were any repairs identified in the last inspection report?

o   If yes, were these repairs completed?

o   Last Cleaning Date

o   Last Date of Interior Coating

o   Last Date of Exterior Coating

12. Storage

# System Operation – Distribution

## {Entered Name Links to Other Sheets}

**Fill in the following tables (2) regarding your distribution system.**

Water System Pipes

Water System Valves (Distribution System)

*Please note columns may extend past the initial view of your screen.

3. Other Operations Document to record information about the distribution system map

# Water System Pipes

o   Miles of Mains or Number of Service Lines

o   Material of Construction

o   Average Number of Water Main Breaks per Year

o   Water main replacement program: how many feet of old water main are replaced each year?

13. Distribution

# Water System Valves



o   Do you have a valve inspection program?

o   If so, how often are valves inspected?

o   Is the location of all system valves known? If so, are they located with GPS data?

o   Name of Supplier

13. Distribution

# Administration – Rules and Regulations

{Entered Name Links to Other Sheets}

Fill in the following tables (3) regarding the relevant regulations, permits and waste disposal processes your system must follow.

Relevant Rules and Regulations

Required Permits for Operations

Waste Disposal

*Please note columns may extend past the initial view of your screen.

14. Rules and Regulations

58

# Relevant Rules and Regulations

o   Rule

o   Brief Summary

o   Local, State, or Federal?

o   Relevance to Your System

o   Where to find more information
    on the rule and its requirements
    (link to source document online,
    reference number, etc.)?



https://www.epa.gov/dwreginfo

14. Rules and Regulations

59

# Required Permits for Operations

o   Permit

o   Where can this permit be obtained?

o   Does this permit require renewal? If yes, when does the renewal process need to be started?

o   Address, Website URL, Phone Number

14. Rules and Regulations

# Waste Disposal

○ Type of Waste (floc from treatment, unused chemicals)

○ Volume Produced (gallons per day)

○ Disposal Method

14. Rules and Regulations

# Software and/or Web-based Programs and Tools

o   Program Name

o   Description and Use

o   Installed on the computer or accessed online?

o   License purchase necessary?

o   Cost (if applicable)

o   Frequency of Use

o   Location of Manuals, Instructions, Job Aids, Etc. (including links to online resources)

o   Available Training

15. Technology

# Operator Certification Information and Certification and Training Opportunities

## Operator Certification Information

o Level Required

o Renewal Frequency

o Hours Required for Renewal

o Renewal Contact Information

## Certification and Training Opportunities

o Program Name

o Program Location

o Program Website

Looking for information on Operator Certification in your state? Check out these resources on the EPA website:
https://www.epa.gov/dwcapacity/find-epa-drinking-water-operator-certification-contact

16. Operator Certification

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# Neighboring Utilities

## {Entered Name Links to Other Sheets}

**Fill in the below tables (2) with important contacts and their contact information**

Neighboring Systems Contacts

Additional Information About Neighboring Systems

*Please note that columns may extend past the initial view of your screen.

# Neighboring Systems Contacts and Additional Information About Neighboring Systems

## Neighboring Systems Contacts

- System Name

- Contact Person

- Position

- Phone Number, Email Address

## Additional Information About Neighboring Systems

- Are your systems interconnected?

- Do you have any emergency agreements with them?

- When should they be contacted?

- How far is the system for your system?

- Do you know what type of treatment/chemicals are used at the neighboring system? If yes, list them

17. Neighboring Utilities

# Other Information

o What other information do you feel would be helpful for us to know about your position?

# An Example of Filling out the Tool

_____

Please stand by as we switch to a live

demonstration of the Tool

# Wrapping Up

o Link to EPA's Knowledge Retention Tool for Small Water Systems:

https://www.epa.gov/dwcapacity/interactive-tools-owners-and-operators

# Q&A Session

Questions about the Tool? Please send them to

our presenters directly using the "Question"

function

# APPENDIX

# Tips and Tricks for Navigating the Knowledge Retention Tool

# Why can't I see the rows and columns in the spreadsheet?

o   Row numbers and column letters have been hidden for a cleaner look - you can un-hide them by going to View and checking "headings"



Before

After

71
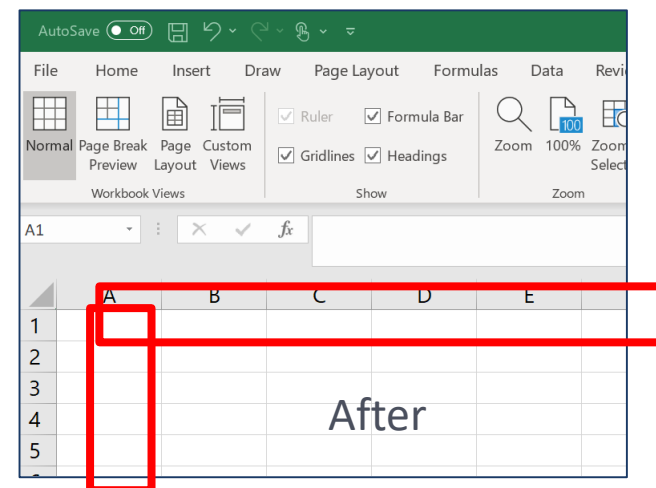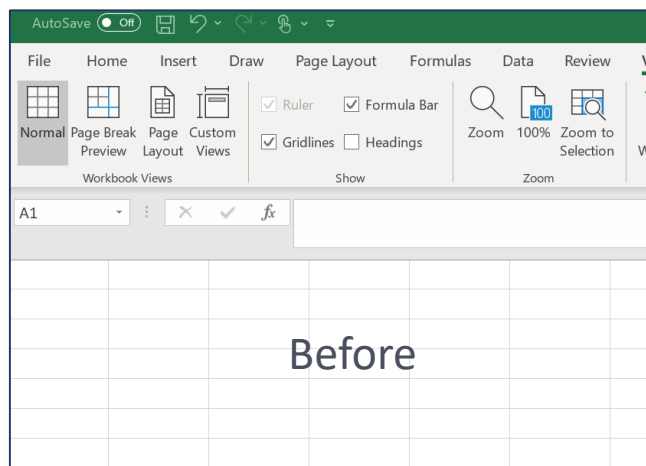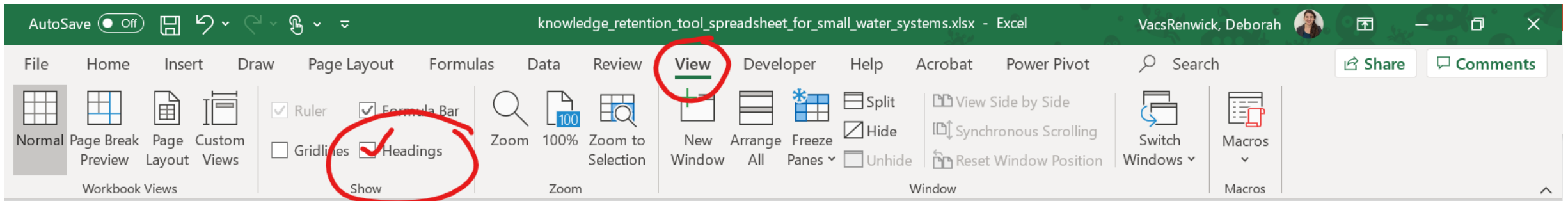
# How do I put multiple lines of text into one cell?

o   If you want to put something on a new line but stay within the same cell, use the ALT Key and ENTER Key together.



o   Example:

List of wells within wellfield A:
- well #1
- well #2
- well #3

**72**

# How can I add an extra row or column?

o   To add a row:

1.   Right click where you want the extra row to be added (the row will go above where you click)

2.   Select "Insert"

3.   Pick "Entire Row" and click "OK"

o   To add a column:

1.   Right click where you want the extra row to be added (the row will go to the left of where you click)

2.   Select "Insert"

3.   Pick "Entire Column" and click "OK"



**73**
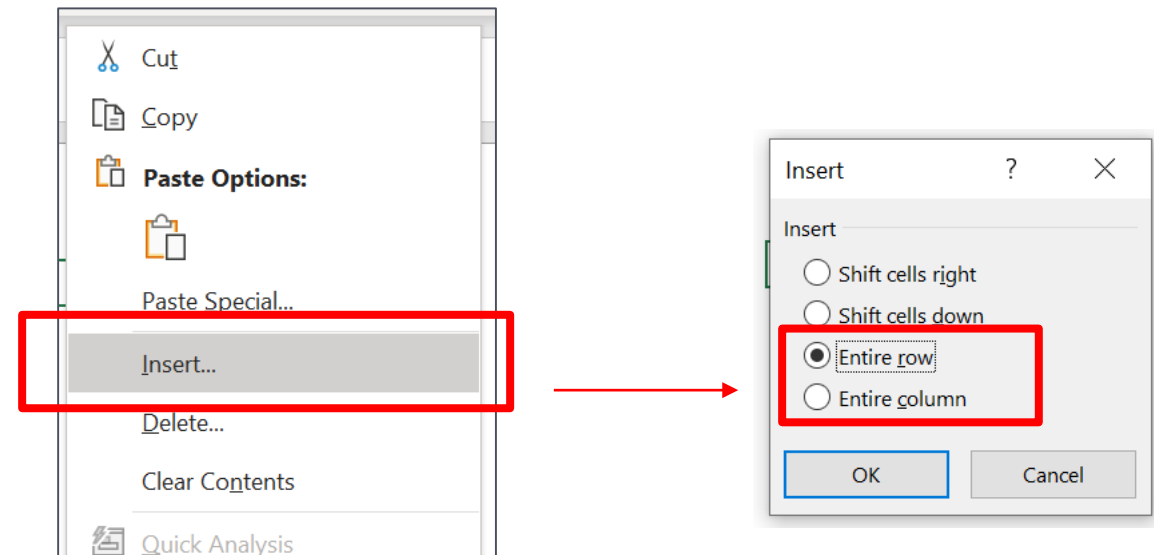
# I can't see all the tabs/sheets – how do I get to them?

o 3 ways to do this

1. Use the hyperlinks to navigate between sheets
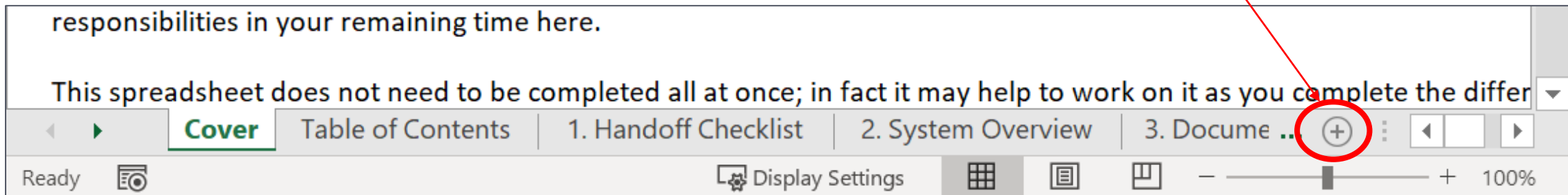
Return to Contents Tab



2. Use these arrows to go to the next or previous tab

3. Click on these dots to see the next couple tabs. Note that the same dots will appear on the left if there are unseen tabs to the left

# How do I add an extra sheet/tab?

Click on the "+" sign to add a new sheet/tab to the tool



o Note: if you add an extra sheet/tab, it won't automatically be added to the table of contents or the handoff checklist but you can add it there manually. It will not automatically count towards the progress bar either unless you make some changes to the formulas