Center for Drinking Water Quality

Level 1 Assessment

General Public Water System (PWS) Information

PWS ID:		**PWS Name:**	
Select PWS Type:	☐ Community	**Street Address:**	
	☐ Non-Transient Non-Community	**City:**	
	☐ Transient Non-Community	**ZIP:**	
Source Facility Code(s):			
Population Served:			
PWS Official's Name:			
Address (Street, City, ZIP):			
Phone:		**Email:**	
Sample Collector Name:			
Address (Street, City, ZIP):			
Phone:		**Email:**	

PWS Assessment History

Select Reason for Assessment:	**Date Level 1 Assessment (L1A) completed:**		
	Date of current L1A trigger:		
	***Missed collection of repeat present sample*:**	☐ Yes	☐ No
	***Total coliform present sample*:**	☐ Yes	☐ No
	Which sample(s) from the *Present Sample* section:		

Instructions

Please answer each item in this assessment by checking off *Yes*, *No*, or *N/A*. A checked off response that is in a gray-shaded block constitutes a sanitary defect. A **sanitary defect** is a defect to a water system's infrastructure that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of failure or imminent failure in a barrier that is already in place. If your answer is marked off in gray be sure to use the *Explain* section, unless otherwise prompted, to describe corrective actions that have been taken and when they were completed **or** corrective actions that will be taken within the next 30 days and when they will be completed. Rhode Island Department of Health (RIDOH) reserves the ability to adjust dates as needed in coordination with the PWS. See below for an example.

Example	Is the well cap vented with the vent facing downward?	☐ Yes	☐ No	☐ N/A
	Explain: *Well cap is not vented; the well cap must be replaced with a durable, stainless-steel bolted well cap with a downward-facing vent that is screened with #24 mesh. This corrective action will be completed on 10/1/2023.*			

If PWS has multiple wells, surface water intakes, surface water purchases, or water storage tanks: Make as many copies of the corresponding worksheets (*Source - Well*, *Source - Surface Water*, *Source - Purchased*, and *Water Storage*) as needed and complete each of them. To make copies of worksheets in Excel, right click on worksheet tab on the ribbon at the foot of the window. Select *Move or Copy...* from the pop-up menu. Check off *Create a copy* and select *OK*. You may also choose to make hardcopies after printing off the workbook.

Section A: Present Sample Site Evaluation

Complete for each total coliform present (TC+) sample location. Report chlorine residual at the time of the TC+ sample, including unit of measurement (for example, *0.15 mg/L*). Refer to the PWS's Coliform Sampling Plan and tip sheet for more information about sampling taps and a description of a proper bacteriological sampling technique.

Present Sample #1

Sample Location:			
Sample Date:			
Evaluation Questions:	1. Was the sample collected at the site designated by the PWS's Coliform Sampling Plan?	☐ Yes	☐ No
	2. Was the condition of the tap appropriate for collection?	☐ Yes	☐ No
	3. Was the sample collected in accordance with proper protocols?	☐ Yes	☐ No
Sampler Name:			
Chlorine Residual at time of TC+:		☐ Free ☐ Total ☐ Not Measured ☐ N/A	

For any Evaluation Question(s) above checked off in a gray-shaded block, complete the following.

Describe Issue:	
Proposed Corrective Action(s):	

Present Sample #2

Sample Location:			
Sample Date:			
Evaluation Questions:	1. Was the sample collected at the site designated by the PWS's Coliform Sampling Plan?	☐ Yes	☐ No
	2. Was the condition of the tap appropriate for collection?	☐ Yes	☐ No
	3. Was the sample collected in accordance with proper protocols?	☐ Yes	☐ No
Sampler Name:			
Chlorine Residual at time of TC+:		☐ Free ☐ Total ☐ Not Measured ☐ N/A	

For any Evaluation Question(s) above checked off in a gray-shaded block, complete the following.

Describe Issue:	
Proposed Corrective Action(s):	

If you have questions while completing the level 1 assessment, contact the Center for Drinking Water Quality by calling 401-222-6867 or emailing DOH.RIDWQ@health.ri.gov with your water system name, ID#, and level 1 assessment *in the subject line.*

Present Sample #3

Sample Location:			
Sample Date:			
Evaluation Questions:	1. Was the sample collected at the site designated by the PWS's Coliform Sampling Plan?	☐ Yes	☐ No
	2. Was the condition of the tap appropriate for collection?	☐ Yes	☐ No
	3. Was the sample collected in accordance with proper protocols?	☐ Yes	☐ No
Sampler Name:			

Chlorine Residual at time of TC+: ☐ Free ☐ Total ☐ Not Measured ☐ N/A

For any Evaluation Question(s) above checked off in a gray-shaded block, complete the following.

Describe Issue:	
Proposed Corrective Action(s):	

Present Sample #4

Sample Location:			
Sample Date:			
Evaluation Questions:	1. Was the sample collected at the site designated by the PWS's Coliform Sampling Plan?	☐ Yes	☐ No
	2. Was the condition of the tap appropriate for collection?	☐ Yes	☐ No
	3. Was the sample collected in accordance with proper protocols?	☐ Yes	☐ No
Sampler Name:			

Chlorine Residual at time of TC+: ☐ Free ☐ Total ☐ Not Measured ☐ N/A

For any Evaluation Question(s) above checked off in a gray-shaded block, complete the following.

Describe Issue:	
Proposed Corrective Action(s):	

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Section B: Source - Well

☐ PWS does not have wells

Complete one *Source - Well* worksheet for each well, including any wells that are unused or physically disconnected. Add explanation or details if needed. If the PWS does not have wells, please check the box to the right and skip to next worksheet. *Remember, you can make copies of this worksheet by right-clicking on tab on the ribbon at the foot of the window.*

Source: WL

Condition of well

1. Is the well located in a pit that was flooded or shows signs of previous flooding or submergence?	☐ Yes	☐ No	☐ N/A
Explain:			
2. Is the source a dug well? (Please note: this is not a defect.)	☐ Yes	☐ No	
Explain:			
3. Is the ground graded to prevent surface water from collecting around the well casing?	☐ Yes	☐ No	☐ N/A
Explain:			
4. Are the exposed portions of the well structurally sound, showing no signs of deterioration?	☐ Yes	☐ No	☐ N/A
Explain:			
5. Does the well have a secured sanitary seal (bolts are tight)?	☐ Yes	☐ No	
Explain:			
6. Is the electrical conduit secure (so that there are no openings)?	☐ Yes	☐ No	
Explain:			
7. Is the well cap vented with the vent facing downward?	☐ Yes	☐ No	☐ N/A
Explain:			
8. Is the well cap screened with screen intact?	☐ Yes	☐ No	
Explain:			
9. Is there an appropriate air gap between the well vent and the ground? (Note: an air gap should be twice the diameter of the opening of the supply pipe, and never less than one inch.)	☐ Yes	☐ No	☐ N/A
Explain:			

Condition of surrounding areas

10. Are there any sewer or septic systems, construction, land disturbances, or other potential sources of contamination within the protective radius of the well? Potential sources of contamination include but are not limited to: dumpsters, portable restrooms, other wells, fuel storage, impervious pavement, etc.	☐ Yes	☐ No	
Explain:			
11. Are there any signs of intentional contamination or vandalism within the protective radius of the well (either 200 feet or 400 feet)?	☐ Yes	☐ No	☐ N/A
Explain:			
12. Within the three (3) months prior to when the assessment was triggered, were any of the pumps repaired or replaced?	☐ Yes	☐ No	☐ N/A
Explain:			
13. Have there been serious/unusual weather events that may have impacted this well?	☐ Yes	☐ No	☐ N/A
Explain:			

Inside the well

14. Has the yield for the well changed?	☐ Yes	☐ No	☐ N/A
Explain:			
15. Was the well cover removed during the L1A to ensure the gasket is intact and that no animals or insects are getting into the well?	☐ Yes	☐ No	☐ N/A
Explain:			
16. Was the well disinfected following the *Well Disinfection Procedure* provided by RIDOH after well cover was removed per item 15 above? If not, indicate below when disinfection will occur.	☐ Yes	☐ No	☐ N/A
Explain:			
17. Has the PWS ever had the well scoped or videoed by a well professional? (Please note: this is not a defect.)	☐ Yes	☐ No	
Explain:	☐ Unknown		

Section C: Source - Surface Water

Complete one *Source - Surface Water* worksheet for all intakes, even if unused or physically disconnected. If the PWS does not have surface water intakes, please check the box to the right and proceed to the next worksheet. *Remember, you can make copies of this worksheet by right-clicking on tab on the ribbon at the foot of the window.*

☐ PWS does not have surface water

Source: IN

Intakes and raw water

	Yes	No	N/A
1. Are the intake structures screened and routinely maintained?	☐	☐	☐
Explain:			
2. Are the intake pump houses protected from unauthorized access?	☐	☐	☐
Explain:			
3. Did raw water quality data collected within the 30 days prior to the total coliform present sample indicate an issue with the quality of source water? If yes, note the date below.	☐	☐	☐
Explain:			

Conditions of reservoir and surrounding area

	Yes	No	N/A
4. Are there obvious sources of contamination within the watershed? Sources of contamination include but are not limited to: dumpsters, portable restrooms, other wells, fuel storage, impervious pavement, etc.	☐	☐	☐
Explain:			
5. Within the 30 days prior to when the assessment was triggered, were there severe weather events such as heavy rainfall, rapid snowmelt, or drought? If yes, note the date below.	☐	☐	☐
Explain:			
6. Within the 30 days prior to when the assessment was triggered, did seasonal turnover occur in any surface water reservoir? If yes, note the date below.	☐	☐	☐
Explain:			
7. Have there been any sewer/septic overflows or spills, or other disturbances in the area of the reservoir?	☐	☐	☐
Explain:			

Section D: Source - Purchased

☐ PWS is not consecutive

Fill out one *Source - Purchased* worksheet for all interconnections, even if unused or physically disconnected. Contact the wholesale water system in order to accurately answer the questions in this section. If the PWS is not consecutive to another water system, check the box to the right and skip to the next worksheet.

Source: CC

1. Within the two (2) months prior to when the assessment was triggered, did the wholesale water system have any TC/EC present results?	☐ Yes	☐ No	☐ N/A
Explain:			
2. Is the wholesale water system maintaining the proper distribution system pressure (>20 psi) on the upstream side of the interconnection? If no, explain below.	☐ Yes	☐ No	☐ N/A
Explain:			
3. Within the 30 days prior to when the assessment was triggered, did the wholesale water system receive any water quality complaints from customers?	☐ Yes	☐ No	☐ N/A
Explain:			
4. Did the wholesale water system experience any line breaks, large fire-fighting events, or reverse flow events within two (2) months prior to the assessment being triggered?	☐ Yes	☐ No	☐ N/A
Explain:			

Interconnections

5. Was the interconnect pit found to be flooded or the interconnect/meter found to be submerged?	☐ Yes	☐ No	☐ N/A
Explain:			
6. Does the interconnection have any leaks?	☐ Yes	☐ No	
Explain:			

Section E: Treatment Process

☐ PWS does not use treatment

Fill out the *Treatment Process* worksheet. If PWS does not use treatment, check box at right and skip to next worksheet.

Treatment Plant: TP

Interruptions to treatment

1. Within the 30 days prior to when the assessment was triggered, were there interruptions in any of the treatment processes? ☐ Yes ☐ No

Explain:

2. Within the 30 days prior to the assessment being triggered, did the treatment plant(s), such as water softener, chemical treatment, etc., or finished water pumps experience any power interruptions? If yes, include the date below. ☐ Yes ☐ No

Explain:

Modifications to treatment

3. Within the 30 days prior to when the assessment was triggered, was treatment equipment installed or repaired (*including* routine maintenance such as changing media of a cartridge filter)? If yes, include the date below. ☐ Yes ☐ No

Explain:

4. Have there been changes to any treatment process? (For example, using new media or materials, etc.) ☐ Yes ☐ No

Explain:

Other routine monitoring and maintenance

5. If the PWS is a chlorinated system, have additional chlorine residual measurements been collected throughout the distribution system that indicate issues maintaining chlorine residual? ☐ Yes ☐ No ☐ N/A

Explain:

6. Are appropriate backflow prevention devices installed, maintained, and tested on all treatment cross connections? ☐ Yes ☐ No ☐ N/A

Explain:

7. Are all treatment processes operational and maintained? ☐ Yes ☐ No

Explain:

8. Are all drain and equipment waste lines equipped with appropriate air gaps? (Note: an air gap should be twice the diameter of the opening of the supply pipe, and never less than one inch.)	☐ Yes	☐ No	☐ N/A
Explain:			
9. Did a review of PWS turbidity records reveal any anomalies or deviations from normal readings?	☐ Yes	☐ No	☐ N/A
Explain:			
10. Did any permitted surface water treatment plants fail to meet required contact time (CT) values for any length of time? If yes, specify for how long below.	☐ Yes	☐ No	☐ N/A
Explain:			
11. At any time during the 30 days prior to when the assessment was triggered, did the treatment plant flow rates exceed the permitted capacity? If yes, include the date below.	☐ Yes	☐ No	☐ N/A
Explain:			
12. During the 30 days prior to when the assessment was triggered, did any groundwater treatment plant fail to meet 4-log inactivation of viruses for any length of time? If yes, note the date and for how long below.	☐ Yes	☐ No	☐ N/A
Explain:			
13. During the 30 days prior to when the assessment was triggered, were there any issues with treatment monitoring equipment? If yes, include the date below.	☐ Yes	☐ No	☐ N/A
Explain:			

Section F: Distribution - Single Service Connections

☐ PWS has multiple service connections

If the PWS has multiple service connections instead of one, check the box to the right and proceed to the next worksheet.

1. Has the water system experienced pressure fluctuations or drops below 20 psi at any point within the distribution network? ☐ Yes ☐ No

   Explain:

2. Were there fixture replacement or repairs conducted at the site within the 30 days prior to when the assessment was triggered? ☐ Yes ☐ No

   Explain:

3. Within the 30 days prior to when the assessment was triggered, was plumbing work conducted where the total coliform present sample(s) were collected? ☐ Yes ☐ No ☐ N/A

   Explain:

4. Are appropriate backflow prevention devices installed, maintained, and tested on all cross connections? ☐ Yes ☐ No ☐ N/A

   Explain:

5. Is the PWS evaluated for new cross connections each time plumbing work is conducted? ☐ Yes ☐ No

   Explain:

6. Were there an appropriate number of total coliform samples collected during the repeat process? ☐ Yes ☐ No

   Explain:

7. Does water quality data collected from the plumbing/distribution network show results indicative of a <u>widespread</u> or <u>localized</u> problem? Check one if applicable. (Please note: this is not a defect.) ☐ Yes ☐ No ☐ N/A

   Explain:

   ☐ widespread
   ☐ localized

8. Did the PWS receive water quality-related customer complaints (about taste, color, odor, or adverse effects) within the 30 days prior to when the assessment was triggered? If yes, include date(s) below. ☐ Yes ☐ No

   Explain:

9. Has the PWS been made aware by customers of possible waterborne illness outbreaks within the 30 days prior to the assessment being triggered? If yes, include date(s) below.	☐ Yes ☐ No
Explain:	
10. Were any leaks observed at any point in the distribution network for the PWS?	☐ Yes ☐ No
Explain:	
11. Does the PWS have a copy of RIDOH's *Well Disinfection Procedure* on file?	☐ Yes ☐ No ☐ N/A
Explain:	

Section G: Distribution - Multiple Service Connections

☐ PWS has single service connection

Some PWSs have multiple service connections. If the PWS has only one service connection, check the box to the right and proceed to next worksheet.

1. Has the PWS experienced pressure fluctuations or drops below 20 psi at any point within the distribution network? ☐ Yes ☐ No

Explain:

2. Were there fixture replacement/repairs conducted at the sampling site building/facility within the 30 days prior to when the assessment was triggered? ☐ Yes ☐ No

Explain:

3. Within the 30 days prior to when the assessment was triggered, was plumbing work conducted inside of the building(s) of any of the sampling sites where the total coliform present sample(s) were collected? ☐ Yes ☐ No ☐ N/A

Explain:

4. If line breaks occurred within the 30 days prior to when the assessment was triggered, were they repaired in accordance with American Water Works Association Standard C651? ☐ Yes ☐ No ☐ N/A

Explain:

5. Did large firefighting events or other flushing events occur within the 30 days prior to when the assessment was triggered that resulted in low pressure in any portion of the distribution system? ☐ Yes ☐ No

Explain:

6. Does the PWS have a flushing program in place? ☐ Yes ☐ No ☐ N/A

Explain:

7. Is there any evidence of intentional contamination or vandalism/tampering within the distribution network, including pump stations? ☐ Yes ☐ No ☐ N/A

Explain:

8. Are pump stations protected from unauthorized access? ☐ Yes ☐ No ☐ N/A

Explain:

9. Are pump stations maintained and equipment operational?	☐ Yes	☐ No	☐ N/A
Explain:			
10. Are appropriate backflow prevention devices installed, maintained, and tested on all cross connections?	☐ Yes	☐ No	☐ N/A
Explain:			
11. Is the PWS evaluated for new cross connections every time plumbing work is conducted? (TNCs may choose N/A.)	☐ Yes	☐ No	☐ N/A
Explain:			
12. In the two (2) months prior to when the assessment was triggered, were any new service connections established? (TNCs may choose N/A.)	☐ Yes	☐ No	☐ N/A
Explain:			
13. Prior to allowing new connections, does the PWS ensure that new customers have appropriate backflow prevention? (TNCs may choose N/A.)	☐ Yes	☐ No	☐ N/A
Explain:			
14. Was the appropriate number of coliform samples collected during the repeat process?	☐ Yes	☐ No	
Explain:			
15. Did the PWS receive water quality-related customer complaints (about taste, color, odor, or adverse effects) within the 30 days prior to when the assessment was triggered? If yes, include date(s) below.	☐ Yes	☐ No	
Explain:			
16. Has the PWS been made aware by customers of possible waterborne illness outbreaks within 30 the days prior to the assessment being triggered? If yes, include date(s) below.	☐ Yes	☐ No	
Explain:			
17. Were additional chlorine residual measurements collected as part of this assessment? (Please note: this is not a defect.)	☐ Yes	☐ No	☐ N/A
Explain:			

18. Does water quality data collected from the plumbing/distribution network show results indicative of a widespread or localized problem? (Check one if applicable.)	☐ Yes	☐ No	☐ N/A
Explain:	☐ widespread ☐ localized		
19. Does the PWS have a copy of RIDOH's *Well Disinfection Procedure* on file?	☐ Yes	☐ No	☐ N/A
Explain:			
20. Were any leaks observed at any point in the distribution network for the PWS?	☐ Yes	☐ No	
Explain:			
21. Can the PWS show that there are no areas of stagnant water in the distribution network?	☐ Yes	☐ No	☐ N/A
Explain:			

Section H: Water Storage

Complete one *Water Storage* worksheet for each tank (storage, hydropneumatic, etc.) Water storage tanks may be grouped together by RIDOH. You can check how RIDOH designates the PWS's tanks by going to health.ri.gov/waterinfo. *Remember you can make copies of this worksheet by right-clicking on tab on the ribbon at the foot of the window*.

Finished Water Storage ST: _____

1. Is the tank being maintained and is it free of rust, holes, and leaks? ☐ Yes ☐ No
   Explain:
2. Are there signs of improperly sealed openings in the tank facilities such as vents, joints, or doors? ☐ Yes ☐ No
   Explain:
3. Are there signs of intentional contamination, or vandalism or tampering? ☐ Yes ☐ No
   Explain:
4. Are the pressure tanks maintaining an appropriate minimum air pressure or charge of >20 psi? ☐ Yes ☐ No ☐ N/A
   Explain:
5. Does the well pump turn on immediately each time a faucet, tap, or spigot is opened? ☐ Yes ☐ No ☐ N/A
   Explain:

Large tanks - Only answer questions 6-10 for tanks greater than 500-gals.

6. Does the access opening for the water storage tank have a proper gasket and seal? ☐ Yes ☐ No ☐ N/A
   Explain:
7. Are vents and overflow pipes appropriately screened/protected from intrusion? ☐ Yes ☐ No ☐ N/A
   Explain:
8. Do overflow pipes, splash pads, and downspouts drain away from the structure? ☐ Yes ☐ No ☐ N/A
   Explain:
9. Has the interior of the tank been inspected within the past five (5) years? ☐ Yes ☐ No ☐ N/A
   Explain:
10. Can the tank be isolated from the PWS to allow for proper inspection/disinfection? ☐ Yes ☐ No ☐ N/A
    Explain:

Additional Comments and Certification

Operator comments regarding bacterial contamination

If the system has an operator, what is the operator's best professional opinion as to the source of the bacterial contamination? If the system does not have an operator, what is the true opinion of the assessor?

☐ N/A

Additional Comments

Use this section to make additional comments related to observed sanitary defects that were not captured by the assessment worksheets. Include any deficiencies observed during the Level 1 Assessment that may not have caused the total coliform present sample but could pose harm to the PWS or to those it serves.

PWS Official's Name: **Date:**

PWS Official's Signature:

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