



Center for Drinking Water Quality Level 2 Assessment

General Information

PWSID:		PWS Name:	
<i>Select PWS Type:</i>	<input type="checkbox"/> Community	Street Address:	
	<input type="checkbox"/> Non-Transient Non-Community	City:	
	<input type="checkbox"/> Transient Non-Community	ZIP:	
Source Facility Code(s):			
Population Served:			
Operator/Owner:			
Address (Street, City, ZIP):			
Phone:		Email:	
Sample Collector:			
Address (Street, City, ZIP):			
Phone:		Email:	

PWS Assessment History

<i>Select Reason for Assessment:</i>	Date Level 2 Assessment (L2A) completed:		
	Date of current L2A trigger:		
	<i>E.coli</i> Maximum Contaminant Level Violation:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	If Yes, which sample(s) from the <i>Present Sample</i> section:		
	Second (or more) assessment triggered in rolling 12 month period:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	If Yes, total number of assessments triggered:		

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. Provide details in the sections under each question, including corrective actions that were taken or will be taken. See below for an example.

Example	Is the well cap vented with the vent facing downward? Explain: <i>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.</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
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If PWS has multiple wells, surface water intakes, surface water purchases, or water storage tanks: Make as many duplicates of the corresponding worksheets (*Source - Well*, *Source - Surface Water*, *Source - Purchased*, and *Water Storage*) as needed and complete each of them. You may choose to make hardcopies after printing off the workbook.

Present Sample Site Evaluation

Complete for each TC (total coliform) or EC (*E.coli*) Present sample location. Report chlorine residual at the time of the TC/EC Present sample, including unit of measurement (for example, 0.15 mg/L).

Present Sample #1

Sample Location:			
Sample Date:			
Evaluation Questions:	1. Was the sample collected according to total coliform sample site plan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. Was the condition of the tap appropriate for collection?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. Was the sample collected in accordance with proper protocols?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sampler Name:			
Chlorine Residual at time of TC/EC+:		<input type="checkbox"/> Free <input type="checkbox"/> Total <input type="checkbox"/> Not Measured <input type="checkbox"/> 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 according to total coliform sample site plan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. Was the condition of the tap appropriate for collection?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. Was the sample collected in accordance with proper protocols?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sampler Name:			
Chlorine Residual at time of TC/EC+:		<input type="checkbox"/> Free <input type="checkbox"/> Total <input type="checkbox"/> Not Measured <input type="checkbox"/> 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 #3

Sample Location:			
Sample Date:			
Evaluation Questions:	1. Was the sample collected according to total coliform sample site plan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. Was the condition of the tap appropriate for collection?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. Was the sample collected in accordance with proper protocols?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sampler Name:			
Chlorine Residual at time of TC/EC+:		<input type="checkbox"/> Free <input type="checkbox"/> Total <input type="checkbox"/> Not Measured <input type="checkbox"/> 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 according to total coliform sample site plan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. Was the condition of the tap appropriate for collection?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. Was the sample collected in accordance with proper protocols?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sampler Name:			
Chlorine Residual at time of TC/EC+:		<input type="checkbox"/> Free <input type="checkbox"/> Total <input type="checkbox"/> Not Measured <input type="checkbox"/> N/A	

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

Describe Issue:	
Proposed Corrective Action(s):	

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 proceed to next worksheet.

Source: WL

1. Is the well located in a pit that was flooded or shows signs of previous flooding/submergence? Yes No N/A

Explain:

2. Is the source a dug well? 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? Yes No

Explain:

6. Is the electrical conduit secure (with 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? Yes No N/A

Explain:


<p>10 Are appropriate backflow prevention devices installed, maintained, and tested on all cross connections? Explain:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<p>11 Has the water system observed turbidity readings that are higher than usual? Explain:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<p>12 Are there any sewer/septic systems, construction, land disturbances, or other conduits for potential contaminants within the protective radius of the well? Conduits for potential contaminants can include but are not limited to: dumpsters, portable restrooms, dug wells, unapproved wells, unused or improperly abandoned wells, etc. Explain:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<p>13 Are there any signs of obvious contamination or vandalism in the 200-400 feet of the well? Explain:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<p>14 Were any of the pumps repaired or replaced within the three (3) months prior to the assessment being triggered? Explain:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<p>15 Have there been serious/unusual weather events that may have impacted this well? Explain:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<p>16 Has the yield for the well changed? Explain:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<p>17 Was the well cover removed during the L2A to ensure the gasket is intact and that no animals/insects are getting into the well? Explain:</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

18 Was the well disinfected following the *Well Disinfection Procedure* provided by RIDOH after well cover was removed per item 17 above? If not, indicate below when disinfection will occur.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

19 Has the PWS ever had the well scoped/videoed by a well professional?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<input type="checkbox"/> Unknown		

Explain:

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.

PWS does not have surface water

Source: IN

1. Are intake structures screened and routinely maintained?

Yes No N/A

Explain:

2. Are the intake pump houses protected from unauthorized access?

Yes No N/A

Explain:

3. Did raw water quality data collected within 30 days prior to the total coliform present sample indicate an issue with the quality of source water? If yes, note the date below.

Yes No N/A

Explain:

4. Are there obvious sources of contamination within the watershed?

Yes No N/A

Explain:

5. Were there severe weather events such as heavy rainfall, rapid snowmelt, or drought within 30 days prior to the assessment being triggered? If yes, note the date below.

Yes No N/A

Explain:

6. Did seasonal turnover occur in any surface water reservoir within 30 days prior to the assessment being triggered? If yes, note the date below.

Yes No N/A

Explain:

7. Have there been any sewer/septic overflows or spills, or other disturbances in the area of the reservoir?

Yes No N/A

Explain:

Source - Purchased

PWS is not consecutive

Fill out one *Source - Purchased* worksheet for all interconnections, even if unused or physically disconnected. If the PWS is not consecutive to another water system, check the box to the right.

Source: CC

1. Was the Wholesale PWS contacted in order to accurately answer the questions in this section?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
2. Did the Wholesale PWS have any TC/EC present results within two (2) months prior to the assessment being triggered?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
3. Was the interconnect pit found to be flooded or the interconnect/meter found to be submerged?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
4. Is the interconnection free of leaks?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
5. Is proper distribution system pressure (> 20 psi) on the upstream side of the interconnection being maintained by the Wholesale PWS? If No, explain below.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
6. Did the Wholesale PWS receive any water quality complaints from customers within two (2) months prior to the assessment being triggered?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
7. Were there line breaks, large fire-fighting events, or reverse flow events within the Wholesale PWS within two (2) months prior to the assessment being triggered?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			

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

1. Were there interruptions in any of the treatment processes within 30 days prior to the assessment being triggered?

Yes No

Explain:

2. Did the treatment plant(s) or finished water pumps experience any power interruptions within the 30 days prior to the assessment being triggered? If yes, include the date below.

Yes No

Explain:

3. Was there any installation or repair of treatment equipment within the 30 days prior to the assessment being triggered (including 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:

5. If PWS is a chlorinated system have additional chlorine residual measurements been collected throughout the distribution system?

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 effective opening of the supply pipe. In no case shall the gap be less than one inch)

Yes No N/A

Explain:

9. Did a review of PWS turbidity records reveal any anomalies?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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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 how long below.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

11. Did the treatment plant flow rates exceed the permitted capacity at any time during the 30 days prior to the assessment trigger? If yes, include the date below.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

12. Did any groundwater treatment plant fail to meet 4-log inactivation of viruses for any length of time during the 30 days prior to the assessment being triggered? If yes, note the date and for how long below.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

13. Were there any issues with treatment monitoring equipment during the 30 days prior to the assessment trigger? If yes, include the date below.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

Distribution - Single Service Connections

PWS has multiple service connections

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

<p>1. Has the water system experienced pressure fluctuations or drops below 20 psi at any point within the distribution network?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<p>Explain:</p>			
<p>2. Was there fixture replacement/repairs conducted at the site within the 30 days prior to the assessment being triggered?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<p>Explain:</p>			
<p>3. Was plumbing work conducted within the 30 days prior to the assessment being triggered where the total coliform present sample(s) were collected?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
<p>Explain:</p>			
<p>4. Are appropriate backflow prevention devices installed, maintained, and tested on all cross connections?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
<p>Explain:</p>			
<p>5. Is the PWS evaluated for new cross connections each time plumbing work is conducted? (TNCs can be N/A)</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
<p>Explain:</p>			
<p>6. Were there an appropriate number of coliform samples collected during the repeat process?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<p>Explain:</p>			
<p>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.</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
<p>Explain:</p>			
<p><input type="checkbox"/> widespread <input type="checkbox"/> localized</p>			
<p>8. Did the PWS receive water quality-related customer complaints (taste, color, odor, adverse effect) within the 30 days prior to the assessment being triggered? If yes, include date(s) below.</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<p>Explain:</p>			

<p>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.</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<div style="background-color: black; width: 100%; height: 100%;"></div>
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Explain:

<p>10. Were any leaks observed at any point in the distribution network for the PWS?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<div style="background-color: black; width: 100%; height: 100%;"></div>
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Explain:

<p>11. Does the PWS have a copy of RIDOH's <i>Well Disinfection Procedure</i> from previous assessments?</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:



Distribution - Multiple Service Connections

PWS has single service connection

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?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	
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Explain:

2. Were there fixture replacement/repairs conducted at the sampling site building/facility within the 30 days prior to the assessment being triggered?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	
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Explain:

3. Was plumbing work conducted inside of the building(s) of any of the sampling sites within 30 days prior to the trigger where the Total Coliform present sample(s) were collected?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

4. If line breaks occurred within the 30 days prior to the assessment being triggered, were they repaired in accordance with American Water Works Association Standard C651?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

5. Did large firefighting events or other flushing events occur within the 30 days prior to the assessment being triggered that resulted in low pressure in any portion of the distribution system?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	
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Explain:

6. Does the PWS have a flushing program in place?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

7. Is there any evidence of intentional contamination or vandalism/tampering within the distribution network (including pump stations)?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

8. Are pump stations protected from unauthorized access?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

9. Are pump stations maintained and equipment operational?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
10. Are appropriate backflow prevention devices installed, maintained, and tested on all cross connections?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
11. Is the PWS evaluated for new cross connections each time plumbing work is conducted? (TNCs can be N/A)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
12. Have there been any new service connections established in the two (2) months prior to the assessment being triggered? (TNCs can be N/A)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
13. Prior to allowing new connections, does the PWS ensure that new customers have appropriate backflow prevention? (TNCs can be N/A)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Explain:			
14. Was the appropriate number of coliform samples collected during the repeat process?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Explain:			
15. Did the PWS receive water quality-related customer complaints (taste, color, odor, adverse effect) with the 30 days prior to the assessment being triggered? If yes, include date(s) below.	<input type="checkbox"/> Yes	<input type="checkbox"/> 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.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Explain:			
17. Were additional chlorine residual measurements collected as part of this assessment?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> 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.)

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

<input type="checkbox"/> widespread
<input type="checkbox"/> localized

19. Does the PWS have a copy of RIDOH's *Well Disinfection Procedure* from previous assessments?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:

20. Were any leaks observed at any point in the distribution network for the PWS?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	
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Explain:

21. Can the PWS show that there are no areas of stagnant water in the distribution network?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Explain:



Water Storage

Complete one *Water Storage* worksheet for each tank (storage, hydropneumatic, etc.)

Finished Water Storage ST:

1. Is the tank being maintained and free of rust, holes, or leaks?

Yes No

Explain:

2. Are there signs of unsealed openings in the tank facilities such as vents, joints, or doors?

Yes No

Explain:

3. Are there signs of intentional contamination or vandalism/tampering?

Yes No

Explain:

4. Are the pressure tanks maintaining an appropriate minimum air pressure/charge of >20 psi?

Yes No N/A

Explain:

5. Does the well pump turn on immediately each time a faucet/tap/spigot is opened?

Yes No N/A

Explain:

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?

N/A

[Empty text box for operator comments]

Additional Comments

Use this section for additional comments related to observed sanitary defects that were not captured by the assessment worksheets. Include any deficiencies observed during the Level 2 Assessment that may not have caused the total coliform present sample but could pose harm to the PWS or those it serves.

[Empty text box for additional comments]

Certification Checklist

By checking off three items and entering in my assessor ID number below, I hereby certify that I am authorized to perform Level 2 Assessments in the State of Rhode Island and that:

- The information contained herein is true and correct to the best of my knowledge.
- I have made every effort to contact all relevant parties, including the designated operator, the administrative contact, the system sampler, etc., and any information obtained pertinent to the resilience of the public water system is disclosed in this assessment.
- I was present on site to perform this assessment.

Assessor Name:

[Assessor Name text box]

Professional Engineer

Certified Drinking Water Operator (check off license/licenses held below)

Distribution: VSS 1 2 3 4

Treatment: VSS 1 2 3 4

Assessor ID Number:

[Assessor ID Number text box]

Date:

[Date text box]

Your Assessor ID Number will act as your electronic signature. This Level 2 Assessment, if completed electronically, will not be considered without the number.