

The attached forms were developed for use by WI Department of Natural Resources (Department), Bureau of Drinking Water and Groundwater staff when responding to confirmed total coliform (TC) and E. Coli bacteria positive sample results at public water systems, and during required annual inspections.

Revisions to the federal Total Coliform rule (RTCR) were released February 13, 2013. RTCR has an implementation date of April 1, 2016. RTCR outlines specific responses to what are currently classified as Bacteria Non-Acute and Acute MCL violations. These responses include Level 2 assessments. The Department or the Department's approved agents must complete these assessments within 30 days, and work with the public water systems to agree on a plan for addressing any corrective actions that may have become apparent during assessment process.

RTCR also requires all public water systems whose routine bacteria monitoring is reduced from its routine frequency be inspected annually to ensure no physical defects are apparent in the public water system. Wisconsin has over 10,000 public water systems. Many of these systems (8,000+) are small businesses such as taverns or churches who have traditionally monitored for bacteria at the reduced rate of annually. In order to maintain that monitoring frequency the Department or the Department's approved agents will be using the attached "Draft Annual Site Visit" form to complete the required annual inspections.

The Department is now soliciting public comment from all external stakeholders. Once the 21 day notice period is complete, all comments will be considered, revisions will be made to the forms as needed, and final forms will be made available to the appropriate internal and external stakeholders.

Comments related to this draft guidance document should be sent to Kyle Burton, Kyle.Burton@wisconsin.gov; (920)-662-5169.

Notice: Pursuant to chs. NR809.313 Wis. Adm. Code, Public Water Systems are required to submit this form to the Department of Natural Resources (DNR) within 30 days of being notified that a trigger was exceeded. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin’s Open Records Law (ss. 19.31-19.39, Wis. Stats.). *Unless otherwise noted, citations refer to Wisconsin Administrative Code.*

SECTION A – PUBLIC WATER SYSTEM AND CONSECUTIVE SYSTEM OWNER INFORMATION

Public Water System Name	PWSID Number	Telephone Number
Consecutive System Name (if applicable)	PWSID Number	Telephone Number

SECTION B – ASSESSMENT AGENT INFORMATION

Name of Assessment Agent	Assessment Date
Agent Mailing Address	Telephone Number

Certifications: Licensed Professional Engineer Other:

SECTION C – RECENT CHANGES, PROBLEMS, AND PERTINANT HISTORICAL ISSUES

Type of Assessment: Level 2 Other:

Documented Health Outbreak, Illness, or Epidemic	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Operator or Personnel Changes	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
System/Operators/Employees do not Meet Operator Certification Requirements	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
No Operator In Charge (OIC) designated or OIC not supervising other operators/employees	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Security and Vandalism Issues or Law Enforcement Involvement	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Loss of Power or Electric at Facilities	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Monitoring Violations	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
EColi, Fecal Coliform, or Total Coliform Positive History (source water and distribution)	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Consumer or Owner Water Quality Complaints	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Source Water or Water Quality Problems or Changes	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Recent Land Use Activities (blasting, fire suppression, land spreading, construction, etc.)	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Extreme Precipitation Events or Flooding	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Well/Pumping Changes or Equipment Changes or Problems	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Treatment or Treatment Equipment Changes or Problems	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Water Storage (including pressure vessel) or Storage Equipment Changes or Problems	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Distribution System Changes or Problems	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Water Main or Service Line Breaks or Repairs	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Pressure Losses or Pressure Changes	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Water Use Pattern Changes (fire use, factory use, sales, etc.)	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Unresolved Sanitary Defects	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Other Concerns:	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)
Free Chlorine Level (mg/l) at ECP/TCP Monitoring Site	

Explanations (attach additional documentation if necessary):

SECTION D – MONITORING OBSERVATIONS

Describe observations: note whether each element is satisfactory (S), unsatisfactory (U), or is not present (not applicable – N/A). If a rating is unsatisfactory, provide an explanation to the right of the element and/or provide this information in attached documentation by referencing the assessment element's identification number.

ID	S	U	N/A	Bacteriological Monitoring Program	
1				Approved Monitoring Plan is Followed	
2				Geographic and Water Use Patterns Represented in the Plan	
3				Site Rotation Frequency	
4				Non-Monitoring Window Minimized	
ID	S	U	N/A	Bacteriological Monitoring Site (where the positive test result(s) occurred)	
5				Service Line Materials and Condition	
6				Sample Tap Location and Distance From Service Entrance	
7				Plumbing System and Cross-Connection Protection	
8				Sample Tap (Faucet) Type	
9				General Sanitary Condition	
ID	S	U	N/A	Bacteriological: Sample Collection and Testing	
10				Person Collecting the Sample	
11				Bottle Age, Storage, Condition	
12				Service and Tap Flushed and Flushing Time (length)	
13				Collection Technique	
14				Sample Preservation and Shipping	
15				Laboratory Certification	
16				Test Method and QA/QC Related Issues	
ID	S	U	N/A	Chlorine Testing	
17				Sample Holding Time (test performed right after collection)	
18				Chlorine Test Method	
19				Meter and Sample Vial Condition	
20				Reagent Expiration Date	
21				Reading Meter within 1 Minute of Adding Reagent (free Cl)	
22				Check Standards: Run Weekly/Documented/Results	

SECTION E – SOURCEWATER (GROUNDWATER) AND PUMP OBSERVATIONS

Describe observations: note whether each element is satisfactory (S), unsatisfactory (U), or is not present (not applicable – N/A). If a rating is unsatisfactory, provide an explanation to the right of the element and/or provide this information in attached documentation by referencing the assessment element's identification number.

ID	S	U	N/A	Groundwater Source and Well Construction	
23				Geological and Hydrological Conditions	
24				Separation Distance to Potential Contamination Sources	
25				Building, Well House, or Pitless Adaptor Housing/Cover	
26				Drains (storm and sewer) and Site Drainage	
27				Well Construction and Sanitary Seal	
28				Well Casing and Integrity of Penetration Points (vents/elect.)	
29				Source Water Quality	
30				Well Televising/Inspection Results	
31				Well Maintenance Practices and Treatment Frequency	

ID	S	U	N/A	Well Pump and Appurtenances
32				Pump Maintenance Practices (pulled/serviced regularly)
33				Suction Line Under Constant Pressure
34				Discharge and Service Line Under Constant Pressure
36				Backflow Protection
37				Check Valve

SECTION F – TREATMENT OBSERVATIONS

Describe observations: note whether each element is satisfactory (S), unsatisfactory (U), or is not present (not applicable – N/A). If a rating is unsatisfactory, provide an explanation to the right of the element and/or provide this information in attached documentation by referencing the assessment element's identification number.

ID	S	U	N/A	Treatment Units
38				Structure
39				Operation and Functionality
40				Media (evaluation frequency and condition)
41				Backwash Frequency
42				Intake and Exhaust (location, orientation, wind shield, screen)
43				Vents (orientation, air gap, and screen)
44				Vacuum/Air Release (orientation, air gap, and screen)
45				Sanitary Condition of Physical Equipment
46				Backflow Protection

ID	S	U	N/A	Treatment Chemicals
47				Chemical Manufacturer and NSF/ANSI 60 Approved
48				Chemical Transfer and Storage
49				Age/Sanitary Condition of Chemicals (particularly phosphates)
50				Dosing, Injection points, and Treatment Effectiveness
51				Backflow Protection

ID	S	U	N/A	Chlorination System
52				Design, Operation, and Functionality
53				Injection (location, injector condition and servicing)
54				Dose (injection or delivery rate and dose consistency)
55				Operational Tests
56				Entry Point Levels

ID	S	U	N/A	UV System
57				Unit Approved (WDNR/WDSPP/NSF 55)
58				Approved Pretreatment Filter and Its Condition
59				Inspection/View Window
60				Wavelength
61				Lamp and Sensor Condition
62				Flow Delay Mechanism (allows proper warm up)
63				Automatic Fixed Flow Rate Control (present/sized correctly)
64				Automatic Shutoff Valve (before UV unit/not bypassed)
65				Backup Unit
66				Functionality

SECTION G – SURFACE WATER TREATMENT SYSTEMS

Describe observations: note whether each element is satisfactory (S), unsatisfactory (U), or is not present (not applicable – N/A). If a rating is unsatisfactory, provide an explanation to the right of the element and/or provide this information in attached documentation by referencing the assessment element's identification number.

ID	S	U	N/A	Source Water
67				Source Water Changes
68				Monitoring Program (parameters tested and results)
69				Sample Collection (location, method, and frequency)
ID	S	U	N/A	Intakes and Shore Wells
70				Inspection Frequency
71				Functionality
72				Chemical feed
73				Intake Pipe Testing and Integrity
ID	S	U	N/A	Treatment
74				In-Plant Biological, Chemical, Physical Testing/Frequency
75				Management of Waste Streams
76				Cross-Connection Protection
77				Pre-Sedimentation (operation, functionality, testing)
78				Rapid Mix (operation, functionality, testing)
79				Slow Mix/Flocculation (operation, functionality, testing)
80				Sedimentation (operation, functionality, testing)
81				Filtration (operation, functionality, testing)
82				Membrane Filtration (operation, functionality, testing)
83				Ozone (operation, functionality, testing)
84				UV (Reference Section F)
85				Chlorine Disinfection (Reference Section F)
86				Clear Well (operation, functionality, testing)
ID	S	U	N/A	Chemical Use
87				Type of Chemicals
88				Chemical Manufacturer and NSF/ANSI 60 Approved
89				Chemical Transfer and Storage
90				Sanitary Condition of Chemicals (particularly phosphates)
91				Solution Age
92				Application Location, Method, and Frequency
93				Feed System (design, control, operation, dosing consistency)
94				Injection (location, injector condition and servicing)
95				Dose (injection or delivery rate and dose consistency)
96				Back-up System
ID	S	U	N/A	Monitoring
97				Turbidity (test location, monitoring frequency, and levels)
98				Disinfection (test location, monitoring frequency, and levels)
99				Minimum CT Inactivation Ratio
100				LT2 Microbial (test location, monitoring frequency, and levels)

SECTION H – PRESSURE VESSEL AND BOOSTER PUMPS/STATION

Describe observations: note whether each element is satisfactory (S), unsatisfactory (U), or is not present (not applicable – N/A). If a rating is unsatisfactory, provide an explanation to the right of the element and/or provide this information in attached documentation by referencing the assessment element’s identification number.

ID	S	U	N/A	Pressure Vessel (Hydro-Pneumatic Tank)
101				Flushing Method and Connections
102				Flushing, Cleaning, and Inspection Frequency
103				Physical Condition
104				Surface and Coating Condition (internal and external)
105				Metal Condition (pitting, corrosion, holes, buckling, etc.)
106				Site Glass
107				Access Hatches, Seals, Gaskets, Penetration Points
108				Bladder Condition, Operation, Pressure, Recharge Frequency
109				Air Volume Control
110				Air Compressor Condition, Air Source, Intake Screen
111				Air Release Valve Condition, Termination Point, Air Gap
112				Pressure Gage, Lines, Valves, Backflow Protection Devices
113				Bypass Piping and Its Use
114				Multi-Tank Configuration: Dead-Ends Not Stagnant
115				Extra Tanks Disconnected
116				Operating Pressures
ID	S	U	N/A	Booster Pumps/Stations
117				Functionality
118				Operating Ranges
119				Suction and Discharge Pressures
120				Low Pressure Alarm
121				Operating Pressures in High Service Area
122				Pressure Effects in Low Service Area

SECTION I – WATER STORAGE FACILITY

Describe observations: note whether each element is satisfactory (S), unsatisfactory (U), or is not present (not applicable – N/A). If a rating is unsatisfactory, provide an explanation to the right of the element and/or provide this information in attached documentation by referencing the assessment element’s identification number.

ID	S	U	N/A	Water Storage Facilities
123				Last Cleaned and Inspected
124				Roof and Membrane Condition
125				Wall and floor Condition
126				Operating Levels (depth or pressure)
127				Screens
128				Vents and Overflow Pipes
129				Hatches and Hatch Seals
130				Penetration Points (sealed)
131				Water Quality Observation (Recent Visual)
132				Overall Integrity and Security

SECTION J – DISTRIBUTION

Describe observations: note whether each element is satisfactory (S), unsatisfactory (U), or is not present (not applicable – N/A). If a rating is unsatisfactory, provide an explanation to the right of the element and/or provide this information in attached documentation by referencing the assessment element's identification number.

ID	S	U	N/A	Distribution System
133				Approved/Unapproved Connection with another PWS
134				Other Source Water Interconnections Permitted/BF Protected
135				Private Water Main/Service Loop (backflow protection)
136				Cross-Connection Inspection Program
137				Air Release Valves and Venting (functionality and protection)
138				Pressure Reducing Valves (functionality and protection)
139				Pressure Sustaining Valves (functionality and protection)
140				Flushing Program (frequency, method, effectiveness)
141				Extent of Water Losses
142				Water mains pass through storm or sanitary manholes/lines
143				Water Mains, Valves, Hydrants (operation and functionality)
144				Dead Ends/Zones have flushing devices and flushed regularly
145				System Use Secure (loading station and hydrant use)
146				Pressure (consistently above 20 psi)
147				Distribution System Chlorine Testing Program

SECTION K – SUMMARIZE SANITARY DEFECTS AND UNSATISFACTORY OBSERVATIONS

More detailed information can be provided in supporting documentation and photos attached to this form.

SECTION L – EXPLAIN ANY CORRECTIVE ACTIONS COMPLETED

More detailed information can be provided in supporting documentation and photos attached to this form.

SECTION M – PROPOSED CORRECTIVE ACTION PLAN AND SCHEDULE FOR CORRECTION

More detailed information can be provided in supporting documentation and photos attached to this form.

SECTION N – COMPLETENESS CHECKLIST

Use the checklist below to ensure the form is complete.

Assessment Form Complete	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Sanitary Defects and Unsatisfactory Observations Explained	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Actions Completed and Repair Information Provided	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Proposed Corrective Plan and Correction Schedule Provided	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Written Report and Supporting Documentation Sent to Owner	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

SECTION O – ASSESSMENT AGENT AND OWNER SIGNATURES

This section is reserved for Assessment Agent and Owner.

I certify that the information provided on this form is accurate and true to the best of my ability.

Assessment Agent Signature	Date
Municipal Official or Owner Signature	Date

SECTION P – WDNR REVIEW AND SUMMARY

To be completed by the Wisconsin DNR Representative.

Assessment Agent	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory	<input type="checkbox"/> N/A
Assessment Package	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory	<input type="checkbox"/> N/A
Explain Likely Cause of Level 2 Trigger:			
Action Plan	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory	<input type="checkbox"/> N/A
Correction Schedule	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory	<input type="checkbox"/> N/A
Corrective Actions Completed	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Sanitary Defects Eliminated	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
WDNR Representative Signature	Date		

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PUBLIC NON-COMMUNITY LEVEL 2 ASSESSMENT FORM RESPONSE TO BACTERIAL CONTAMINATION	County _____ PWSID # _____
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System Name _____	System representative met with _____
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Collection date s of Initial coliform positive _____ <input type="checkbox"/> E. coli present in any event samples <input type="checkbox"/> GWR corrective action required	Confirmed coliform positive _____ Number of coliform unsafe samples in the past 5 years _____
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SECTION A - EVENT BACKGROUND INFORMATION

Have any of the following occurred prior to collection of the recent bacteria samples? Yes No NA

<input type="checkbox"/> Changes in water quality (taste, odor, appearance) <input type="checkbox"/> Distribution system drained (closed, seasonal) <input type="checkbox"/> Loss of pressure <input type="checkbox"/> Nearby land use activity is a potential source (blasting, fire suppression, land spreading, septic issues) <input type="checkbox"/> Operation/Maintenance activities	<input type="checkbox"/> Recent drought conditions or extreme precipitation event(s) <input type="checkbox"/> Possible sampling procedure error _____ <input type="checkbox"/> Poor sampling site selection _____ <input type="checkbox"/> Visible indicators of unsanitary conditions (vermin, animal waste) <input type="checkbox"/> Visible or scent indicators that a biofilm may be present <input type="checkbox"/> Other _____
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SECTION B - SURVEY OF WATER SYSTEM ELEMENTS (Potential Sanitary Defects)

Element 1 – Source Issues? Yes No NA

<input type="checkbox"/> Casing height low <input type="checkbox"/> Conduit damaged/missing <input type="checkbox"/> Contamination possible from nearby wells <input type="checkbox"/> Floodwater/runoff ponding/topped well <input type="checkbox"/> Grout or seal around well damaged <input type="checkbox"/> Pit leaking/flooded	<input type="checkbox"/> Vent damaged/unscreened <input type="checkbox"/> Well casing damaged/corroded <input type="checkbox"/> Well cap/well seal damaged/unsealed openings <input type="checkbox"/> Well construction unknown <input type="checkbox"/> Well construction would not meet current construction requirements <input type="checkbox"/> Other _____
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Element 2 – Pumps, Pump Facilities & Control Issues? Yes No NA

<input type="checkbox"/> Buried suction line <input type="checkbox"/> Check valve non-complying location/failure <input type="checkbox"/> Noncomplying flowing well piping <input type="checkbox"/> Piping leak/ponding/wet along buried piping	<input type="checkbox"/> Power loss <input type="checkbox"/> Pump failure/replacement <input type="checkbox"/> Non-complying well/entry point sampling faucet <input type="checkbox"/> Other _____
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Element 3 – Storage Issues? Yes No NA

<input type="checkbox"/> Pressure not holding with no water demand <input type="checkbox"/> Tank deterioration, rust, holes <input type="checkbox"/> Tank recently replaced	<input type="checkbox"/> Waterlogged pressure tank <input type="checkbox"/> Other _____
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Element 4 – Treatment Issues? Yes No NA

<input type="checkbox"/> Broken part(s) system malfunction <input type="checkbox"/> Interruption in treatment/power loss <input type="checkbox"/> Filter(s) or brine tank not maintained <input type="checkbox"/> Required chemical or salt addition missed	<input type="checkbox"/> Recent installation/repair <input type="checkbox"/> Required maintenance past due (UV light replacement) <input type="checkbox"/> Testing/maintenance records not completed (on site testing records) <input type="checkbox"/> Other _____
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Element 5 – Distribution System Issues /Cross Connections? Yes No NA

<input type="checkbox"/> Air gaps missing <input type="checkbox"/> Dead-end plumbing lines/devices not in use <input type="checkbox"/> Leaking distribution piping <input type="checkbox"/> Low pressure event	<input type="checkbox"/> Low temperature setting on water heater (encourages bio-film growth) <input type="checkbox"/> New piping/addition installed <input type="checkbox"/> Vacuum breaker/backflow protection device missing or device required testing not current <input type="checkbox"/> Other _____
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SECTION C - DESCRIPTION OF EVENT * Check if no possible causes for contamination event were found
*Attach additional documentation and photos if needed

SECTION D - DESCRIPTION OF CORRECTIVE ACTION* *Attach additional documentation and photos if needed

Corrective Action Due Date _____

Name of person completing form _____	Date assessment completed: _____
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ANNUAL SITE VISIT FORM		County PWSID #
System Name		
SECTION A - RECENT CHANGES		
Have any of the following occurred in the last year?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
<input type="checkbox"/> Changes in nearby land use activity/potential new contamination sources (blasting, fire suppression, land spreading, septic issues)	<input type="checkbox"/> Visible indicators of unsanitary conditions (vermin, animal waste, chemicals)	<input type="checkbox"/> Other _____
SECTION B - SURVEY OF WATER SYSTEM ELEMENTS (Potential Sanitary Defects)		
Element 1 – Source Issues?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
<input type="checkbox"/> Conduit damaged/missing	<input type="checkbox"/> Well casing damaged/corroded	
<input type="checkbox"/> Floodwater/runoff ponding/topped well	<input type="checkbox"/> Well cap/well seal damaged	
<input type="checkbox"/> Grout or seal around well damaged	<input type="checkbox"/> Openings through well cap not watertight (bolts/wires/lines)	
<input type="checkbox"/> Vent damaged/unscreened	<input type="checkbox"/> Other _____	
Element 2 – Pumps, Pump Facilities & Control Issues?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
<input type="checkbox"/> Noncomplying flowing well piping	<input type="checkbox"/> Non-complying well/entry point sampling faucet	
<input type="checkbox"/> Piping leak/ponding/wet along buried piping	<input type="checkbox"/> Other _____	
Element 3 – Storage Issues?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
<input type="checkbox"/> Pressure not holding	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Tank deterioration, rust, holes		
Element 4 – Treatment Issues?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
<input type="checkbox"/> Broken part(s) system malfunction	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Filter(s) or brine tank not cleaned/ maintained		
Element 5 – Distribution System Issues /Cross Connections?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
<input type="checkbox"/> Air gaps missing	<input type="checkbox"/> Vacuum breaker/backflow protection device missing or device required testing not current	
<input type="checkbox"/> Dead-end plumbing lines/devices not in use	<input type="checkbox"/> Improper sample collection sites/procedures	
<input type="checkbox"/> Leaking distribution piping	<input type="checkbox"/> Other _____	
SECTION C - DESCRIPTION OF CORRECTIVE ACTION (If Required)*		*Attach additional documentation and photos if needed
Corrective Action Due Date _____		
Name of person completing form		Date assessment completed: