



North Carolina Department of Environmental Quality

Division of Water Resources, Public Water Supply Section

Level 2 Assessment Form for the Revised Total Coliform Rule

(Complete entire form and submit to the Public Water Supply Section's Rule Manager within **30 days** of the Level 2 Assessment Trigger Date)

Water System Name:	Water System Number:	County:
Trigger Event [Check the box(es) below that apply]	Level 2 Assessment Trigger Date	
<input type="checkbox"/> System had an <i>E.coli</i> Maximum Contaminant Level (MCL) violation	Sample Analysis end date:	
<input type="checkbox"/> System had a second Level 1 trigger within a rolling 12-month period	Second Level 1 trigger date:	
<input type="checkbox"/> For systems on approved annual monitoring, a Level 1 trigger occurred in two consecutive years	Second Level 1 trigger date:	

Review and evaluate each of the listed elements below that typically relate to a water system. Check (v) "Yes" if any potential causes of contamination were identified, or check (v) "No" if none were identified, or check (v) "N/A" if the element is not applicable to this water system. For the "Yes" checked (v) items, describe the issue identified and indicate the corrective action(s) taken or proposed, including date(s). Attach additional pages, if necessary. [Note 1: Deficiencies and RTRC Sanitary Defects are denoted below with applicable codes, for example, (D112). Note 2: Drinking water sample(s) with results "absent" of total coliform bacteria are required to demonstrate completion of corrective actions.]

1. ATYPICAL EVENTS	YES	NO	NA	Issue Description	Corrective Actions (include dates)
a. Weather - Recent heavy precipitation/flooding/snowmelt/drought (MA10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. Power loss (MA11)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. Fire-fighting event (MA12)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. Signs of vandalism / tampering / forced entry at water system assets (MA13)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. Changes in plant operation (TA2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
f. Changes in flow rates (TA3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
g. Plant maintenance / construction activities (TA4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
h. Other (MA1):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2. DISTRIBUTION SYSTEM MAINTENANCE & OPERATION	YES	NO	NA	Issue Description	Corrective Actions (include dates)
a. Temporary pressure loss / low or negative pressure (DA2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. Inadequate pressure – pressure in mains is less than 20 psi during peak demand (fire flow design) or pressure is less than 30 psi during peak demand (non-fire flow design) (D105 or D107)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. Main or service lines – new installation (DA3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. Main or service lines – leaks /breaks / repairs (DD2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. Mains improperly sized to provide minimum pressure of 20 psi (fire flow design) or 30 psi (non-fire flow design) during peak demand (D102 or D103)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
f. Water main / line placed in service without satisfactory bacteriological tests (D120)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
g. Dead end mains do not have hydrant or flushing valve with aboveground discharge, protected from contamination (D112)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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h. Flushing activity / fire hydrants and/or blow-offs (DA4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
i. Improper disinfection of distribution system after flushing and/or leak testing / not disinfected as required by Rule .1003(a) (D119)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
j. Unprotected / unapproved cross-connection (D004)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
k. Backflow protection devices – Improper operation / not maintained or properly tested (DD3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
l. Hydrants - Sheared, damaged or improperly used hydrants (DA5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
m. Pumps - Improper operation or failure of pumps / repairs (PA2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
n. Valves - Improper operation of valves / valve breakage (DA6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
o. Air-relief or air-vacuum valves – Improper operation / leakage (DA7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
p. Improper surge control (DA8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
q. Low residual disinfectant concentration (<0.2 mg/L free chlorine residual or <1.0 mg/L total chlorine residual) at total coliform sampling sites (DD4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
r. Known bio-film accumulation (DA9)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
s. Other (DA1):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3. STORAGE	YES	NO	NA	Issue Description	Corrective Actions (include dates)
a. Tank – Not disinfected properly in accordance with AWWA Standard C-652 or Rule .1003 or an approved method by the Department (F004)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. Tank - Elevation not adequate to produce a designed minimum distribution system pressure of 20 psi (fire flow) or 30 psi during peak flow (F115)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. Tank – Hydropneumatic tank does not have the capacity to maintain a minimum pressure of 30 psi during periods of peak flow (F116)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. Recent maintenance / observed leaks / repair on tank (FA2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. Unsecured facility / unauthorized access allowed (FA3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
f. Vandalism / tampering observed (FA4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
g. Evidence of contamination or potential sources of contamination at or near the facility (FA5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
h. High water age / low disinfectant residual (FA6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
i. Inadequate cleaning and maintenance practices (FA7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
j. Visibly unsanitary conditions - presence of debris / animals / insects / birds / bats etc. in tank or near openings (FD2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
k. Deterioration, rust, holes, etc. in vent, overflow pipe, access hatch, screens, ladders, etc. (FD3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
l. Vent installed improperly (FA8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
m. Hatch not sealed properly (FD4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
n. Improper operation of level control valves, altitude valves, and related appurtenances (FA9)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
o. Other (FA1):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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4. SOURCES - GROUNDWATER	YES	NO	NA	Issue Description	Corrective Actions (include dates)
a. Source – Unapproved / changed / new source added (SA2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. Heavy rainfall or flooding (SA3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. Well pit with standing water or evidence of flooding / run-off inundation (SD2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. Operational changes/ changes in static / pumping levels (SA4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. Inadequate or damaged well components – well cap / well seal / well casing / grout seal / pitless adaptor (SD3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
f. Upper terminal of well casing not sealed watertight, with exception of vent pipe (S106)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
g. Vent – damaged / unscreened vent (SD4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
h. Vent pipe or vent tube not downward-directed and screened (S107)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
i. Threaded hose bibs are not equipped with anti-siphon devices (S110)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
j. Potential cross-connections exist at well site (S501)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
k. Inadequate concrete slab or well house concrete floor (S108)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
l. Unprotected opening in pump / pump assembly (SA5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
m. Nearby potential sources of contamination (SA6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
n. Recent maintenance activity (SA7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
o. New, repaired or reconditioned well was not properly cleaned and disinfected and/or representative bacteriological samples were not found to be free of contamination (S120)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
p. Other (SA1):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
5. SOURCES - SURFACE WATER SOURCES	YES	NO	NA	Issue Description	Corrective Actions (include dates)
a. Source – Change in source / intake / new source added (SA8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. Heavy rainfall or flooding / high raw water turbidity measurements (SA9)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. Changes in source water quality (lake turnover, algal blooms, etc.) (SA10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. Recent maintenance activity (SA11)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. Other (SA1):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
6. TREATMENT	YES	NO	NA	Issue Description	Corrective Actions (include dates)
a. Treatment malfunction or interruption (TD2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. Disinfection equipment not provided as specified in approved plans and specifications. Stand-by disinfection equipment is not provided (T110)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. Minimum residual disinfection concentration at Entry Point not maintained as required (T138)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. Detectable residual disinfection concentration at water system MRT site not maintained as required (T139)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. Clogging of filters / media (TA5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
f. Recent maintenance activity on treatment equipment (TA6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
g. Other (TA1):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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7. SAMPLING	YES	NO	NA	Issue Description	Corrective Actions (include dates)
a. Visibly unsanitary sampling site/tap (MA2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. Infrequently used sample tap (MA3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. Threads on inside of tap (MA4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. Treatment device in use after service connection [Point of Entry (POE) or Point of Use (POU)] (MA5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. Recent maintenance activity (MA6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
f. Sample tap not disinfected (MA7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
g. Aerator was not removed (MA8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
h. Inadequate tap flushing (MA9)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
i. Other (MA1):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Check box if ALL corrective actions have been completed

Check box if drinking water samples were collected upon completion of corrective actions and the results were "absent" of total coliform bacteria (required to demonstrate completion of corrective actions)

Comments:

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**Depending on the Person Responsible for Conducting and Documenting the Assessment,
Select Option A or B below**

Option A: Assessment Conducted and Documented by State-Approved Party **[Complete Section 1 Only]**

Option B: Assessment Conducted and Documented by Public Water Supply Section Representative **[Complete Section 2 Only]**

Section 1: Water System Representative Information

Name:

Title:

Name of Firm:

Address of Firm:

Date of On-site Assessment:

Assessment Completion Date:

Qualification of State-Approved Party:
(Complete all that apply)

NC Certified Operator Number:

NC Professional Engineer Number:

If NC Certified Operator, provide Certification Level:
(Check all that apply)

Surface
 A B C

Well
 A B C D

Distribution
 A B C D

Public Water System Classification:
(Check all that apply)

Surface
 A B C

Well
 A B C D

Distribution
 A B C D

Signature:

Phone Number:

Email:

Section 2: Public Water Supply Section Representative Information

Name:

Regional Office:

Date of On-site Assessment:

Assessment Completion Date:

Signature:

Phone Number:

Email:

Date copy of assessment was sent to Owner via Email or Mail:

Please return this form to the **Public Water Supply Section** at the address below within **30 days** of the Level 2 Assessment Trigger Date

1634 Mail Service Center, Raleigh, North Carolina 27699-1634

Attention: Total Coliform Rule Manager

OR

Email form to pwss.rtc@ncdenr.gov