**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)*

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| **Water System Name:** Click here to enter text. | **Water System Number:** Click here to enter text. | **County:** Click here to enter text. |
| **Trigger Event** [Check the box(es) below that apply] | **Level 2 Assessment Trigger Date** | |
| System had an *E.coli* Maximum Contaminant Level (MCL) violation | Sample Analysis end date: Click here to enter a date. | |
| System had a second Level 1 trigger within a rolling 12-month period | Second Level 1 trigger date: Click here to enter a date. | |
| For systems on approved annual monitoring, a Level 1 trigger occurred in two consecutive years | Second Level 1 trigger date: Click here to enter a date. | |

Review and evaluate each of the listed elements below that typically relate to a water system. Check (√) “Yes” if any potential causes of contamination were identified, or check (√) “No” if none were identified, or check (√) “N/A” if the element is not applicable to this water system. For the “Yes” checked (√) 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 RTCR 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.]

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| **1. ATYPICAL EVENTS** | | **YES** | **NO** | **NA** | **Issue Description** | | **Corrective Actions (include dates)** |
| 1. Weather - Recent heavy precipitation/flooding/snowmelt/drought (MA10) | |  |  |  | Click here to enter text. | | Click here to enter text. |
| 1. Power loss (MA11) | |  |  |  |
| 1. Fire-fighting event (MA12) | |  |  |  |
| 1. Signs of vandalism / tampering / forced entry at water system assets (MA13) | |  |  |  |
| 1. Changes in plant operation (TA2) | |  |  |  |
| 1. Changes in flow rates (TA3) | |  |  |  |
| 1. Plant maintenance / construction activities (TA4) | |  |  |  |
| 1. Other (MA1): | |  |  |  |
| **2. DISTRIBUTION SYSTEM MAINTENANCE & OPERATION** | | **YES** | **NO** | **NA** | **Issue Description** | | **Corrective Actions (include dates)** |
| 1. Temporary pressure loss / low or negative pressure (DA2) | |  |  |  | Click here to enter text. | | Click here to enter text. |
| 1. 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) | |  |  |  |
| 1. Main or service lines – new installation (DA3) | |  |  |  |
| 1. Main or service lines – leaks /breaks / repairs (DD2) | |  |  |  |
| 1. 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) | |  |  |  |
| 1. Water main / line placed in service without satisfactory bacteriological tests (D120) | |  |  |  |
| 1. Dead end mains do not have hydrant or flushing valve with aboveground discharge, protected from contamination (D112) | |  |  |  |
| **Water System Name: Click here to enter text.** | | | | | | **Water System Number: Click here to enter text.** | |
|  | | | | | |  | |
| 1. Flushing activity / fire hydrants and/or blow-offs (DA4) | |  |  |  | Click here to enter text. | | Click here to enter text. |
| 1. Improper disinfection of distribution system after flushing and/or leak testing / not disinfected as required by Rule .1003(a) (D119) | |  |  |  |
| 1. Unprotected / unapproved cross-connection (D004) | |  |  |  |
| 1. Backflow protection devices – Improper operation / not maintained or properly tested (DD3) | |  |  |  |
| 1. Hydrants - Sheared, damaged or improperly used hydrants (DA5) | |  |  |  |
| 1. Pumps - Improper operation or failure of pumps / repairs (PA2) | |  |  |  |
| 1. Valves - Improper operation of valves / valve breakage (DA6) | |  |  |  |
| 1. Air-relief or air-vacuum valves – Improper operation / leakage (DA7) | |  |  |  |
| 1. Improper surge control (DA8) | |  |  |  |
| 1. 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) | |  |  |  |
| 1. Known bio-film accumulation (DA9) | |  |  |  |
| 1. Other (DA1): Click here to enter text. | |  |  |  |
| **3. STORAGE** | | **YES** | **NO** | **NA** | **Issue Description** | | **Corrective Actions (include dates)** |
| 1. Tank – Not disinfected properly in accordance with AWWA Standard C-652 or Rule .1003 or an approved method by the Department (F004) | |  |  |  | Click here to enter text. | | Click here to enter text. |
| 1. Tank - Elevation not adequate to produce a designed minimum distribution system pressure of 20 psi (fire flow) or 30 psi during peak flow (F115) | |  |  |  |
| 1. Tank – Hydropneumatic tank does not have the capacity to maintain a minimum pressure of 30 psi during periods of peak flow (F116) | |  |  |  |
| 1. Recent maintenance / observed leaks / repair on tank (FA2) | |  |  |  |
| 1. Unsecured facility / unauthorized access allowed (FA3) | |  |  |  |
| 1. Vandalism / tampering observed (FA4) | |  |  |  |
| 1. Evidence of contamination or potential sources of contamination at or near the facility (FA5) | |  |  |  |
| 1. High water age / low disinfectant residual (FA6) | |  |  |  |
| 1. Inadequate cleaning and maintenance practices (FA7) | |  |  |  |
| 1. Visibly unsanitary conditions - presence of debris / animals / insects / birds / bats etc. in tank or near openings (FD2) | |  |  |  |
| 1. Deterioration, rust, holes, etc. in vent, overflow pipe, access hatch, screens, ladders, etc. (FD3) | |  |  |  |
| 1. Vent installed improperly (FA8) | |  |  |  |
| 1. Hatch not sealed properly (FD4) | |  |  |  |
| 1. Improper operation of level control valves, altitude valves, and related appurtenances (FA9) | |  |  |  |
| 1. Other (FA1):Click here to enter text. | |  |  |  |
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| **Water System Name: Click here to enter text.** | | | | | | **Water System Number: Click here to enter text.** | |
|  | | | | | |  | |
| **4. SOURCES - *GROUNDWATER*** | | **YES** | **NO** | **NA** | **Issue Description** | | **Corrective Actions (include dates)** |
| 1. Source – Unapproved / changed / new source added (SA2) | |  |  |  | Click here to enter text. | | Click here to enter text. |
| 1. Heavy rainfall or flooding (SA3) | |  |  |  |
| 1. Well pit with standing water or evidence of flooding / run-off inundation (SD2) | |  |  |  |
| 1. Operational changes/ changes in static / pumping levels (SA4) | |  |  |  |
| 1. Inadequate or damaged well components – well cap / well seal / well casing / grout seal / pitless adaptor (SD3) | |  |  |  |
| 1. Upper terminal of well casing not sealed watertight, with exception of vent pipe (S106) | |  |  |  |
| 1. Vent – damaged / unscreened vent (SD4) | |  |  |  |
| 1. Vent pipe or vent tube not downward-directed and screened (S107) | |  |  |  |
| 1. Threaded hose bibs are not equipped with anti-siphon devices (S110) | |  |  |  |
| 1. Potential cross-connections exist at well site (S501) | |  |  |  |
| 1. Inadequate concrete slab or well house concrete floor (S108) | |  |  |  |
| 1. Unprotected opening in pump / pump assembly (SA5) | |  |  |  |
| 1. Nearby potential sources of contamination (SA6) | |  |  |  |
| 1. Recent maintenance activity (SA7) | |  |  |  |
| 1. 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) | |  |  |  |
| 1. Other (SA1): Click here to enter text. | |  |  |  |
| **5. SOURCES *- SURFACE WATER SOURCES*** | | **YES** | **NO** | **NA** | **Issue Description** | | **Corrective Actions (include dates)** |
| 1. Source – Change in source / intake / new source added (SA8) | |  |  |  | Click here to enter text. | | Click here to enter text. |
| 1. Heavy rainfall or flooding / high raw water turbidity measurements (SA9) | |  |  |  |
| 1. Changes in source water quality (lake turnover, algal blooms, etc.) (SA10) | |  |  |  |
| 1. Recent maintenance activity (SA11) | |  |  |  |
| 1. Other (SA1): Click here to enter text. | |  |  |  |
| **6. TREATMENT** | | **YES** | **NO** | **NA** | **Issue Description** | | **Corrective Actions (include dates)** |
| 1. Treatment malfunction or interruption (TD2) | |  |  |  | Click here to enter text. | | Click here to enter text. |
| 1. Disinfection equipment not provided as specified in approved plans and specifications. Stand-by disinfection equipment is not provided (T110) | |  |  |  |
| 1. Minimum residual disinfection concentration at Entry Point not maintained as required (T138) | |  |  |  |
| 1. Detectable residual disinfection concentration at water system MRT site not maintained as required (T139) | |  |  |  |
| 1. Clogging of filters / media (TA5) | |  |  |  |
| 1. Recent maintenance activity on treatment equipment (TA6) | |  |  |  |
| 1. Other (TA1): Click here to enter text. | |  |  |  |
| **Water System Name: Click here to enter text.** | | | | | | **Water System Number: Click here to enter text.** | |
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| **7. SAMPLING** | | **YES** | **NO** | **NA** | **Issue Description** | | **Corrective Actions (include dates)** |
| 1. Visibly unsanitary sampling site/tap (MA2) | |  |  |  | Click here to enter text. | | Click here to enter text. |
| 1. Infrequently used sample tap (MA3) | |  |  |  |
| 1. Threads on inside of tap (MA4) | |  |  |  |
| 1. Treatment device in use after service connection [Point of Entry (POE) or Point of Use (POU)] (MA5) | |  |  |  |
| 1. Recent maintenance activity (MA6) | |  |  |  |
| 1. Sample tap not disinfected (MA7) | |  |  |  |
| 1. Aerator was not removed (MA8) | |  |  |  |
| 1. Inadequate tap flushing (MA9) | |  |  |  |
| 1. Other (MA1): Click here to enter text. | |  |  |  |
|  |  | | | | | | |
|  | **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: Click here to enter text. | | | | | | | |
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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Level 2 Assessment** | | | | | | | | | **Water System Name:** Click here to enter text. | | | | | **Water System Number: NC-00-00-000** | | | | **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: Click here to enter text. | | | | | | | | | Title: Click here to enter text. | | | | | | | | | Name of Firm: Click here to enter text. | | | | | | | | | Address of Firm: Click here to enter text. | | | | | | | | | Date of On-site Assessment: Select Date | | | Assessment Completion Date: Select Date | | | | | | Qualification of State-Approved Party:  (Complete all that apply) | NC Certified Operator Number: Click here to enter text. | | | | | NC Professional Engineer Number: Click here to enter text. | | | 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: Click here to enter text. | | | | | | | |  | | Email: Click here to enter text. | | | | | | | |  | |  | | | | | | | |  | | **Section 2: Public Water Supply Section Representative Information** | | | | | | | |  | | Name: Click here to enter text. | | | | | | | |  | | Regional Office: Choose an item. | | | | | | | |  | | Date of On-site Assessment: Select Date | | | Assessment Completion Date: Select Date | | | | |  | | Signature: | | | | | | | | Date Delivered: Select Date | | Phone Number: Click here to enter text. | | | | | | | |  | | Email: Click here to enter text. | | | | | | | |  | | Date copy of assessment was sent to Owner via  Email or  Mail: Select Date | | | | | | | | |  | | | | | | | | | Please returnthis 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.rtcr@ncdenr.gov | | | | | | | | |