**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:** 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.]

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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.
 |[ ] [ ] [ ]   |  |
|  |  |
| **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.** |
|  |  |
| **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. |
|  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |
| --- |
| **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 |

 |