



# Level 1 & Level 2 Assessments and Corrective Actions

## WHO DOES THIS FACTSHEET APPLY TO?

ALL PUBLIC WATER SYSTEMS (PWSs) that must conduct a Level 1 or Level 2 assessment.

### ATTENTION!

All PWSs must comply with the RTCR requirements starting April 1, 2016.

## WHAT IS AN ASSESSMENT?

When sampling results show that your PWS may be vulnerable to contamination, PWSs must perform an assessment (Level 1 or Level 2) and **FIND AND FIX ANY "SANITARY DEFECTS."** A sanitary defect can provide a pathway of entry for microbial contamination into the distribution system or indicate imminent failure in an existing barrier (e.g. cracked tank, rat droppings on wellheads, or broken seals).

### THERE ARE 5 BASIC ELEMENTS TO INVESTIGATE DURING AN ASSESSMENT:

- Atypical events that may affect distributed water quality or indicate that distributed water quality was impaired;
- Changes in distribution system maintenance and operation, including water storage;
- Water source and treatment methods that affect distributed water quality;
- Inadequacies in sample sites, sampling protocol and sample processing; and
- Existing water quality monitoring data.

### A LEVEL 2 ASSESSMENT IS A MORE COMPREHENSIVE AND IN-DEPTH EXAMINATION COMPARED TO A LEVEL 1 ASSESSMENT.

- A Level 1 assessment is typically conducted by the PWS. Level 2 assessments may be conducted by MassDEP or a party approved by MassDEP.
- You must notify MassDEP as soon as possible after exceeding an assessment trigger, but no later than 5 calendar days after the collection date of the sample that triggered the assessment.
- No later than 30 days after the collection date of the sample that triggered the assessment you are required to have an assessment performed, correct sanitary defects found, complete and submit the MassDEP assessment form (Level 1 or Level 2).
- For sanitary defects found but NOT fixed within the 30 days, you must obtain a MassDEP-approved schedule for all completion of all corrective actions. The PWS must also comply with any interim measures specified by MassDEP for the protection of public health, such as emergency disinfection or isolation of a source. **AFTER COMPLETING EACH SCHEDULED CORRECTIVE ACTION, YOU MUST NOTIFY MASSDEP IN WRITING.** Throughout the Assessment Process **CONSULT WITH MASSDEP** to discuss progress.

FOR ASSISTANCE,  
PLEASE CONTACT MASSDEP AT:

CERO: 508-792-7650

NERO: 978-694-3200

SERO: 508-946-2700

WERO: 413-784-1100

BOSTON: 617-292-5770

PROGRAM.DIRECTOR-DWP@STATE.MA.US

Examples of Common Causes of Contamination	Example Common Corrective Action(s)
Loss of system pressure	<ul style="list-style-type: none"> <li>✓ Pump repair</li> <li>✓ Addition or upgrade of on-line monitoring &amp; control equipment</li> </ul>
Storage tank deficiencies	<ul style="list-style-type: none"> <li>✓ Repair hatch, seals, and/or vents</li> <li>✓ Have tanks cleaned to remove sediment</li> </ul>
Cracks in well seal, casing, etc.	<ul style="list-style-type: none"> <li>✓ Replacement/repair of well components</li> </ul>

## WHAT TO DO IF YOU TRIGGERED AN ASSESSMENT?

**NO LATER THAN 30 DAYS AFTER THE COLLECTION DATE OF THE SAMPLE THAT TRIGGERED THE ASSESSMENT**, a completed MassDEP assessment form must be submitted to MassDEP. The process for completing and submitting the required form depends on the type of assessment. In both cases, MassDEP will review the completed assessment form to determine if the likely cause of the trigger has been identified and to ensure the problem is corrected.

### Level 1 Assessment

**You have to do a Level 1 Assessment if you:**

1. Fail to collect and analyze at least 3 repeat samples for each routine TC+; or
2. Have two or more TC+ samples in one month (if you collect 40 or fewer samples per month)\* or
3. Have more than 5% of monthly samples TC+ (if you collect more than 40 samples per month)\*

\* Use routine and repeat results in your compliance calculations



Your system conducts the assessment.

**STEP 1:** CALL YOUR MASSDEP REGIONAL OFFICE no later than 5 calendar days after the collection date of the sample that triggered the assessment. Notify MassDEP that a Level 1 Assessment has been triggered; verify the appropriate person to conduct the assessment; ask for the Level 1 Assessment form; and determine the process for submission.

**STEP 2:** Perform the assessment.

**STEP 3:** Correct any sanitary defects identified or propose a corrective action schedule to MassDEP if the sanitary defects cannot be corrected within 30 days of the collection date of the sample that triggered the assessment.

- After completing each scheduled corrective action you must notify your MassDEP Regional Office in writing.
- The PWS or MassDEP Regional Office (at any time) may consult with each other to discuss progress or the corrective action(s) identified.

**STEP 4:** Submit the completed assessment form to the MassDEP Regional Office for review within 30 days of the collection date of the sample that triggered the assessment.

**NOTES—Your PWS is subject to a treatment technique violation and must provide public notification within 30 days if you:**

- Fail to perform an assessment or take corrective action within specified timeframes; or
- Fail to submit the completed assessment form to the MassDEP Regional Office within 30 days of the collection date of the sample that triggered the assessment.

### Level 2 Assessment

**You have to do a Level 2 Assessment if you have either:**

1. An *E.coli* MCL violation:

Routine	Repeat
TC+ & EC-	<i>E. coli</i> -positive (EC+)
TC+ & EC-	TC+ but not analyzed for EC
TC+ & EC+	TC+
TC+ & EC+	One or more samples is missing

2. Two Level 1 triggers in a rolling 12-month period.

MassDEP or a party approved by MassDEP conducts the assessment.

**STEP 1:** CALL YOUR MASSDEP REGIONAL OFFICE no later than 5 calendar days after the collection date of the sample that triggered the assessment (within 24 hours of notification if *E.coli* is present). Notify MassDEP that a Level 2 Assessment has been triggered; confirm who will be conducting the assessment; ask for the Level 2 Assessment form; and determine the process for submission.

**STEP 2:** Have the assessment performed.

**STEP 3:** Correct any sanitary defects identified or propose a corrective action schedule to MassDEP if the sanitary defects cannot be corrected within 30 days of the collection date of the sample that triggered the assessment.

- After completing each scheduled corrective action you must notify your MassDEP Regional Office in writing.
- The PWS or MassDEP Regional Office (at any time) may consult with each other to discuss progress or the corrective action(s) identified.

**STEP 4:** Submit the completed assessment form to the MassDEP Regional Office for review within 30 days of the collection date of the sample that triggered the assessment.