

## Repeat Monitoring Requirements For Small Systems

**Who does this factsheet apply to?** All public water systems (PWS's) that serve 1,000 people or fewer, that are required to conduct repeat monitoring.

### ATTENTION!

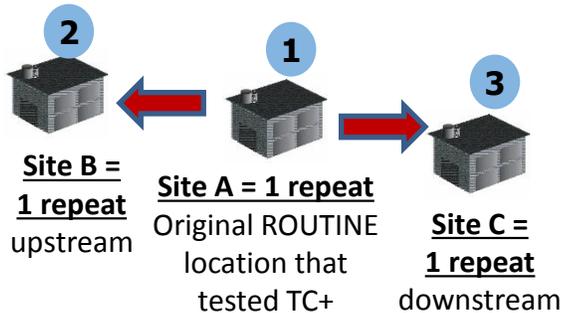
**All PWSs must comply with the RTCR requirements starting April 1, 2016.**

**Step 1: PWSs must collect a set of three (3) repeat samples after each TC+ routine sample**

The PWS must continue to collect a set of three (3) repeat samples until either total coliforms (TC) are not detected in one complete set of repeat samples or the PWS triggers an assessment.

### Repeat Sampling Locations

Repeat samples must be collected at the locations described in the microbiological sample siting plan (MSSP). A set of three samples consists of: 1) one repeat sample at the original ROUTINE location, 2) one repeat sample within five service connections upstream, and 3) one repeat sample within five service connections downstream of the TC+ sample. Consult the regulatory agency for guidance before selecting alternative repeat sampling locations.



### ATTENTION!

If the PWS does not collect and analyze at least three (3) repeat samples (for each routine TC+) the PWS will have to perform a Level 1 or Level 2 assessment.

**See the RTCR Factsheet: [Level 1 & Level 2 Assessments and Corrective Actions](#).**

### Frequency & Timing

**REMINDER: ANALYZE ALL REPEAT TC+ SAMPLES FOR *E. COLI*.\***

**Collect all repeat samples in a set within 24 hours\*\* of receiving notification from the state-certified lab of the TC+ sample results.** All repeat samples in a set must be taken on the same day.

- Remember the lab must begin analyzing the drinking water sample no later than the 30<sup>th</sup> hour from the collection time.
- If necessary, the samples may be refrigerated or iced using “blue” ice (cooled to about 4° to 10° C) then shipped overnight to the lab.



### NOTES:

\*Call the regulatory agency on the same day the PWS learned of the *E. coli*-positive (EC+) result, or by the end of the next business day if the result came in after business hours and tell them the PWS received an EC+ result. **If possible, the PWS can also follow up with an e-mail to the ADEQ e-mail address [RTCR@azdeq.gov](mailto:RTCR@azdeq.gov) for documentation of the notification** (Please include the PWS ID, PWS name, date of collection of the positive sample and date and time notified by lab).

\*\*Contact the PWS's regulatory agency for an approved extension if logistical problems prevent sample collection within 24 hours.

FOR ASSISTANCE, PLEASE CONTACT THE SYSTEM'S REGULATORY AGENCY:

**ADEQ 602-771-4572**  
**MCESD 602-506-6935**  
**PDEQ 520-724-7400**

## Step 2: Conduct actions required as a result of the repeat sampling

- **TC+** = Total coliform-positive or present; **TC-** = Total coliform-negative or absent
- **EC+** = *E. coli*-positive or present; **EC-** = *E. coli*-negative or absent; **EC?** = *E. coli* not analyzed

The PWS must **COMPLETE AN ASSESSMENT AND SUBMIT THE FORM TO THE REGULATORY AGENCY WITHIN 30 DAYS** after the PWS learned it has triggered an assessment. See the [RTCR Factsheet: Level 1 & Level 2 Assessments and Corrective Actions](#).

If Routine Sample Is:	And	Any Repeat Sample Is:	Action: What do the sample results mean?	MCL Violation?
<b>TC+</b> <b>EC-</b>	<b>&amp;</b>	<b>TC+</b> <b>EC-</b>	The presence of total coliform bacteria in both the original routine sample and in the follow-up repeat sample suggests there could be a problem and the PWS's water may not be safe to use. <ol style="list-style-type: none"> <li><b>1. Conduct a Level 1 or Level 2 Assessment.</b> Contact the state for help determining which type of assessment is required.</li> </ol>	No MCL violation
<b>TC+</b> <b>EC-</b>	<b>&amp;</b>	<b>TC+</b> <b>EC?</b>	The presence of total coliform bacteria in both the original routine sample and in the follow-up repeat sample suggests there could be a problem and because <i>E. coli</i> was not tested, it is unknown whether or not the water is safe to use. <ol style="list-style-type: none"> <li><b>1. Notify the regulatory agency within 24 hours of receiving sample results.</b></li> <li><b>2. Conduct a Level 2 Assessment.</b></li> <li><b>3. Issue a Tier 1, Boil Water Advisory, Public Notice (PN)</b></li> </ol>	<i>E. coli</i> MCL violation*
<b>TC+</b> <b>EC-</b>	<b>&amp;</b>	<b>TC+</b> <b>EC+</b>	The presence of <i>E. coli</i> bacteria in the water is an indicator of fecal contamination and the water may not be safe to use. <ol style="list-style-type: none"> <li><b>1. Notify the regulatory agency within 24 hours of receiving sample results.</b></li> <li><b>2. Conduct a Level 2 Assessment.</b></li> <li><b>3. Issue a Tier 1, Boil Water Advisory, Public Notice (PN)</b></li> </ol>	<i>E. coli</i> MCL violation*
<b>TC+</b> <b>EC-</b>	<b>&amp;</b>	Any or all repeat samples missing	The presence of total coliform bacteria in the original routine sample suggests there could be a problem and because repeat samples were not tested, it is unknown whether or not the water is safe to use. <ol style="list-style-type: none"> <li><b>1. Conduct a Level 1 or Level 2 Assessment.</b> Contact the regulatory agency for help determining which type of assessment is required.</li> </ol>	No MCL violation
<b>TC+</b> <b>EC+</b>	<b>&amp;</b>	<b>TC+</b>	The presence of <i>E. coli</i> bacteria in the water is an indicator of fecal contamination and the water may not be safe to use. <ol style="list-style-type: none"> <li><b>1. Notify the regulatory agency within 24 hours of receiving sample results.</b></li> <li><b>2. Conduct a Level 2 Assessment.</b></li> <li><b>3. Issue a Tier 1, Boil Water Advisory, Public Notice (PN)</b></li> </ol>	<i>E. coli</i> MCL violation*
<b>TC+</b> <b>EC+</b>	<b>&amp;</b>	Any or all repeat samples missing	The presence of <i>E. coli</i> bacteria in the water is an indicator of fecal contamination and the water may not be safe to use. <ol style="list-style-type: none"> <li><b>1. Notify the regulatory agency within 24 hours of receiving sample results.</b></li> <li><b>2. Conduct a Level 2 Assessment.</b></li> <li><b>3. Issue a Tier 1, Boil Water Advisory, Public Notice (PN)</b></li> </ol>	<i>E. coli</i> MCL violation*

**Attention!**

\* The PWS is required to provide Tier 1, Boil Water Advisory, Public Notice within 24 hours in response to an *E. coli* MCL violation.