

# **SAMPLING FOR BIOLOGICAL CONTAMINANTS**

**Total coliforms; Fecal coliforms; *E. coli*;  
Enterococci; Heterotrophic Bacteria; or Coliphage**

## **Bottle to Use**



Sterile 125 or 150 mL plastic bottles must be used.

## **Preservatives to Use**

**Sodium Thiosulfate if sample is chlorinated**

and

**Cool to  $< 10\text{ }^{\circ}\text{C}$  ( $< 50\text{ }^{\circ}\text{F}$ ) for source water and groundwater samples (recommended for drinking water as well) but do not allow samples to freeze**

## **Holding Times**

**Holding times are generally very short - 8 hours for source water compliance samples, 30 hours for drinking water samples, 48 hours for coliphage samples. Deliver samples to the lab the day of collection if possible or ship via overnight delivery.**

## **Sampling Instructions**

Wear gloves when collecting samples. Do not rinse the bottles. The bottles are sterile so care must be taken not to contaminate the bottle or cap. Once the distribution line is flushed and the flow reduced, quickly open the bottle (but do not set the cap down), hold the cap by its outside edges only, and fill the sample bottle to just above the 100 mL line leaving a one inch headspace. Cap the bottle immediately and place it into a cooler with ice for delivery or overnight shipment to the laboratory.

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## **Tips and Guidance for Total Coliform and *E. coli* Sampling**

### **Some Tips on Collecting Samples**

- Remove any attachments on the faucet
- Allow water to flow for 5 or 6 minutes before sampling
- Do not rinse or overfill container
- Always collect cold water; never sample hot water
- Do not touch the inside of the sample bottle or its cap

### **Avoid These Sampling Sites for Total Coliform, if Possible**

- Outdoor faucets
- Faucets connected to cisterns, softeners, pumps, pressure tanks or hot water heaters
- New plumbing and fixtures or those repaired recently
- Faucets that hot and cold water come through
- Threaded taps
- Swing spouts
- Faucets positioned close to sink or ground
- Leaky faucets

For guidance on sampling related to the Revised Total Coliform Rule (effective April 1, 2016), refer to EPA's "Quick Reference Guide", found under the **RTCR**

**Implementation Materials** heading at:

[http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation\\_revisions.cfm](http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm)