

## Appendix B. Best Sampling Practices

Water samples to be analyzed for bacterial content must be collected in bottles that are of the minimum volume required in the analytical method and that have been properly sterilized. Each sterilized bottle contains a white powder or clear liquid called sodium thiosulfate. This chemical is used to dechlorinate the water when water is disinfected by chlorine. The sodium thiosulfate will have no effect on the water sample other than to dechlorinate the sample. Obtaining sampling bottles that are specially prepared by a Colorado-certified laboratory will help to ensure that volume, dechlorination and sterilization needs are met. For a list of certified laboratories, contact the Water Quality Control Division at (303) 692-3500 or visit the CDPHE's Laboratory Services Division's website at [www.colorado.gov](http://www.colorado.gov).



Systems should consider avoiding collecting samples from kitchen or utility sinks with swing arm necks and/or aerators. It also is not a good idea to collect water samples from outside taps or hoses. The potential for contamination of these potential sampling sites is high and may result in a positive total coliform or *E. coli* sample that is not truly representative of water quality in the distribution system. Systems must weigh the risks of the sample locations they select.



The bathtub faucet or bathroom sink faucet are usually the most reliable places to collect a sample. . Systems should not collect a sample from a tap or faucet that is leaking. Again, systems must weigh the risks of the sample locations they select.

### PROCEDURE:

1. WASH YOUR HANDS - Poor hygiene can result in samples becoming contaminated.
2. Carefully remove the aerator, if applicable.
3. Allow the COLD water to run freely for 3 to 5 minutes to flush the pipes.
4. Measure the disinfectant residual.
5. Disinfect the faucet by either flaming the tap or spray the faucet using a strong bleach-chlorine solution.
6. Keep the bottle closed until the moment of collecting the sample. Remove any seal on the bottle and discard. Carefully remove the lid without touching any part of the bottle or lid that will come in direct contact with the water sample. **DO NOT RINSE THE BOTTLE BEFORE COLLECTING THE SAMPLE!**
7. Using a pencil-sized stream of water (approximately ¼ inch diameter), fill the sample bottle to the 100 milliliters of water line. **DO NOT FILL THE BOTTLE FULL.** Leave an air space at the top.
8. Fill and close the bottle in one step. Secure the lid tightly.
9. Package the sample appropriately.
10. Submit the sample, along with the corresponding paperwork, to a laboratory certified by the State of Colorado for bacteriological drinking water testing.