

Total Coliform Sample Collection Tips for Community Public Water Systems

An MDH approved bacteriological sample site plan must be in place and followed in accordance with the Revised Total Coliform Rule [40 CFR 141.853]. These site plans will be reviewed during Sanitary Survey inspections. Be sure to notify your MDH District Engineer when updating your list of sample sites. The number of samples required is based on the population your public water system serves. See a summary of the rule at [Revised Total Coliform Rule And Total Coliform Rule \(https://www.epa.gov/dwreginfo/revised-total-coliform-rule-and-total-coliform-rule\)](https://www.epa.gov/dwreginfo/revised-total-coliform-rule-and-total-coliform-rule).

Follow these tips to improve identification of any bacteriological contamination and to avoid rejected samples or violations.

Sample Site Selection Tips

Collect total coliform samples at sites that are representative of water quality throughout the distribution system. Contact MDH for assistance if needed.

- **Use easily accessible sites**, such as sites with 24/7 access, if possible.
- **Do not take samples from sources or from the system entry point.** Only sample sites from the distribution system.
- **Select sites that best represent water served to customers throughout the distribution system.**
 - Divide your system into segments and choose sites from within each area
 - Use sites in different pressure zones
 - Use sites at locations that serve sensitive populations (e.g. immunocompromised, elderly people)
 - Use sites supplied by different finished water sources and storage tanks
- **Use sites that have available upstream and downstream sites within 5 service connections.** These sites will be used for repeat sampling in the event of a total coliform positive sample.
- **Sample from taps that are not susceptible to contamination.** Avoid bathrooms, outside taps, or taps close to the ground.
- **Use sites that get regular use.** Avoid seasonal sites or large diameter service connections that are not used regularly.
- If you chlorinate, measure total chlorine residual at each location. Keep this information in your records to track changes and inform any needed adjustments.
- And remember to **Run water until the temperature has stabilized** before collecting the sample. See: [Total Coliform Sample Collection Procedure \(https://www.health.state.mn.us/communities/environment/water/docs/sampproc/totalcolifomsp.pdf\)](https://www.health.state.mn.us/communities/environment/water/docs/sampproc/totalcolifomsp.pdf)

When to Take Samples

- **Collect samples at regular time intervals throughout the month.** If your system serves less than 4,900 persons and only uses groundwater: You may collect all required samples on a single day. The samples must be taken from different sites.
- Systems serving 4,900 or more persons and using groundwater: You are required to collect samples during at least two different days within each month, on dates at least a week apart.
- Systems using surface water: You are required to collect samples during at least two different days within each month, on dates at least one week apart.
- You may use the same site location more than once a month. If you use the same site, samples should be collected at least one week apart.
- You can collect more samples than required by the federal Safe Drinking Water Act. The required number is considered the minimum to represent the distribution system.

Use this general guideline for the number of sample sites to list on your plan. Note that more sample sites allow for greater flexibility in site accessibility and in representation of the entire distribution system:

Sample Sites

Number of Samples you Take	Recommended Number of Sites to Use for Sampling
1 sample/quarter	4 sites
2-5 samples/month	5+ sites
6-10 samples per month	6 - 10 sites
11-20 samples per month	10 - 20 sites
21-50 samples per month	10 - 50 sites
50+ samples per month	25+ sites

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To obtain this information in a different format, call 651-201-4700.