

# MICROBIOLOGICAL SAMPLING SITE PLAN GUIDANCE

The revised Georgia Safe Drinking Water Rules became effective December 23, 1990. One of the new requirements for all public water systems (community and non-community) is to develop a written plan showing collection of water samples for coliform bacteria analyses. The purpose for the written sampling site plan is to ensure that samples are collected from points in the distribution system that best represent the quality of water flowing through the system.

After the plan has been developed, it must be regularly updated. It is to be available for review by representatives from the Division. Unless requested, the plan is not to be submitted to the Division.

## WHAT SHOULD BE INCLUDED IN THE PLAN:

1. The plan must include a map of the distribution system. Exceptions are: very small water systems such as restaurants, day care facilities, office buildings, some small industries and rest stops.
2. The map should show locations of all distribution water lines, water sources, treatment facilities, storage tanks and sampling sites. Identify each sampling site by street address and by a Numeric Code, with a brief description of the site: for example; outside tap residence at 201 Main Street, Site #1. The sampling site Numeric Codes should begin with the number 1 and be numbered consecutively. The site Numeric Code is to be used to report the sample location when the sample is submitted to the State Water Laboratory.
3. Sampling sites should be located so that they represent all areas of the distribution system. You may wish to include comments on your plan showing the reason(s) for selecting each site such as: population density of residential areas; industrial area; pressure zones; areas vulnerable to potential contamination; pump stations; dead end lines; and purchased source entry points. Do not use wells as sampling sites for routine or repeat coliform sampling.
4. Number of sampling sites for public community water systems: Sampling is required by the Safe Drinking Water Rule 391-3-5-.23(b). Sampling is done in proportion to the population served.

**a. water systems that are required to collect one (1) microbiological sample per month or per quarter.**

Identify 3 sampling sites, each to be sampled at least once every three months. Also identify 2 other sampling sites to be used as sampling sites in the event a monthly sample is coliform positive. Five (5) routine samples must be collected the month following the month that a sample is coliform positive (instead of the one monthly sample that is

normally required).

**b. water systems that are required to collect 2 to 40 microbiological samples per month.**

The number of sampling sites must equal 2 (two) times the number of required monthly samples. Each sampling site must be sampled at least once every three months.

**c. water systems that are required to sample more than 40 microbiological samples per month.**

The number of sampling sites should equal 3 times the number of required monthly samples. The sampling sites must represent the distribution system, if not then the number of sampling sites should be increased to ensure that all areas of the distribution system are sampled. Regardless of the number of sites selected, each site must be sampled at least once every three months.

5. For public non-community water systems the number of sampling sites may vary depending upon the service area. The minimum number of sampling sites must equal the required number of microbiological samples to be collected each quarter or each month. Collect the sample from the same tap if you do not have 4 sample taps.
6. Include in your sampling site plan instructions on how to do Repeat Sampling for your system. Repeat Samples must be collected from the following locations: 1) the tap from which the original coliform sample was taken; 2) within 5 service connections upstream; 3) within 5 service connections downstream; 4) one additional sample from another sampling site.

For systems that submit their microbiological samples to the State Water Laboratory, the samples should be collected and sent to the laboratory on the date assigned by the laboratory and be identified by the seven digit water system ID number. Report chlorine residuals for each microbiological sample. Use a DPD test kit to measure the free chlorine residual.

Using the correct form will be helpful to the laboratory personnel. The Water Sample Identification Forms are color coded as follows:

White Municipalities

Gold Subdivisions (S/D) and mobile home parks (MHP) that are required to collect one sample per month.

Green S/D and MHP required to collect more than one sample per month.

Pink Non-community water systems

Blue Emergency samples all water systems