

ALL SYSTEMS WITH 4 OR MORE BUILDINGS

OR MORE THAN ONE SOURCE

REVISED TOTAL COLIFORM RULE (RTCR) COLIFORM SAMPLING PLAN FOR ALL PUBLIC WATER SYSTEMS SERVING A POPULATION OF 1,000 OR LESS

System Information					
System Name:	PWS Number:	System Type (check one):			
# of Service Connections (if there are only a few	Source Water Type (TNC NTNC Community			
connections, <u>also</u> write in the total number of available sampling taps):	\square Groundwater \square	Groundwater Surface Water/4 Log Removal Consecutive (Purchase)			
System Population:					

Instructions for completion: This form is designed to be completed by all public drinking water systems serving a population of 1,000 or less. Attach a map to this plan. The map must include the water system name and identification (PWS) number, clearly labeled coliform sampling locations that are included in this plan, clearly labeled groundwater source sample tap locations (if the system uses groundwater), locations served by the system, directional flow of the system and major water system infrastructure such as: all sources, treatment facilities, storage tanks, pump stations, pressure zones and major distribution lines. If the system consists of a single or few buildings, a sketch of the layout of the rooms, sampling locations, and/or connections will suffice. If the system has only one or a few service connections, identify the number of connections <u>and</u> the number of available sample taps available in the "#of Service Connections" box above.

For Community Systems, any system served by surface water or Groundwater Under the Direct Influence of Surface Water: Fill out Table 1 and Table 3. These types of systems are required to sample monthly. If the system uses groundwater or a combination of groundwater and surface water, also fill out Table 4.

For NTNC and TNC systems served by only groundwater: fill out Table 1, Table 2, Table 3, and Table 4. Filling out Table 3 is required because while these systems are allowed to sample quarterly, if certain events happen, the system will be required to sample monthly. See the attached guidance for more information.

Repeat Sampling for all systems: If the system has a total coliform or E. coli presence in a routine compliance sample, collection of 3 repeat samples is required for each routine positive sample. Repeat sampling locations include: Repeat Sample #1 at the location where the original positive sample was taken; Repeat Sample location #2 within 5 connections upstream (toward from the well/source of water) of the original positive; and Repeat Sample location #3 within 5 connections downstream (away from the well/source of water). This form allows a system to list all 5 connections upstream and downstream although only one location is required. All sample locations used for compliance purposes under the Revised Total Coliform Rule must be identified on this form.

All repeat samples must be taken within 24 hours once you have received notification from the laboratory.

Please contact our office to determine if a Level 1 or Level 2 Assessment will also be required.

	Routine Location Address	Justification	5 Connections Upstream For repeat locations Numbers 2 – 5 are optional	5 Connections Downstream For repeat locations Numbers 2 – 5 are optional
	Routine Location 1:		1	1
1 1	Roddine Eccution 1:		2	2
^			3	3
			4	4
	-		5	5
	Routine Location 2:		1	1
			2	2
2			3	3
			4	4
			5	5
	Routine Location 3:		1	
			2	2
13			3	3
			4	4
			5	5 1 2 2 3
	Routine Location 4:		1	1
	Routine Location 4.		2	2
4			3	
			4	4
			5	5 1 2 Cations
	Routine Location 5:		1	1
	Routine Location 3.		2	2
5			3	3
			4	4
			5	5
	Routine Location 6:		1	1
1	Routile Location o.		2	2
6			3	3
`			4	4
			5	5
7	Routine Location 7:		1	1
Ι′	Noutille Location 7.		2	2
I			3	3
1			4	4
1			5	5

Instructions: The locations for all routine samples taken for compliance purposes must be identified in this table. 1) List up to 7 routine monitoring locations. These are the locations where the required routine compliance samples (monthly or quarterly) are collected. If possible, list the 911 addresses for each location. If those addresses are not available, list where the samples are taken. 2) Explain why the system chooses to sample at each location under the "Justification" column. 3) List at least 1 and up to 5 repeat samples within 5 connections upstream and 5 connections downstream for each Routine sampling location listed.

Table 2 – Quarterly Monitoring To be completed only by NTNC and TNC systems using groundwater. Systems must alternate between locations as identified on the previous page, depending on system complexity. Identify in what quarter each Routine sample location will be sampled.					
Ouarter	Routine Sampling Location				
1 st : January 1 through March 31	Trouvine Sumpring Document				
2 nd : April 1 through June 30					
3 rd : July 1 through September 30					
4 th : October 1 through December 31					
Table 3 – Monthly Monitoring To be completed by any public water system serving 1,000 people or less. Systems must alternate between locations as identified on the previous page, depending on system complexity. Identify in what month each Routine sample location will be sampled.					
Month	Routine Sampling Location				
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Table 4 – Groundwater Rule Source Information Does your system use a groundwater source (well) that does not have 4-log inactivation treatment for viruses: Yes No If yes, provide the names/numbers of groundwater sources (wells, springs, etc.) and the source sample tap location where each source may be sampled prior to any treatment Assessment samples must be taken at the same time as the routine compliance samples and for each total coliform positive sample.					
Source Name/Number	Description of location of raw water sample tap				
Source 1:					
Source 2 (if applicable):					

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Checklist Prior to Form Submission:						
☐ A map, in	cluding the following information:					
	Water system name and identification (PWS) number,					
	ly labeled coliform sampling locations that are included					
o Clear	ly labeled groundwater source sample tap locations for	systems,				
o Loca	tions served by the system,					
o Direc	o Directional flow of the system and					
o All n	najor water system infrastructure such as:					
0	Sources,					
0	o Treatment facilities,					
0	o Storage tanks, and					
0	Major distribution lines.					
☐ All requir	☐ All required tables are complete, including:					
0	Complete basic system information on page 1,					
0	Justification for each routine sampling location,					
0						
	routine location,					
0	Monthly and/or quarterly locations identified as requi					
0	 All ground water sources and source sample tap locations identified in Table 4. 					
☐ Make and retain a copy of this plan for Water System records.						
_ rame and recall a copy of this plant for which by section records.						
Signature of System Owner or Administrative Contact						
I have read the Coliform Sampling Plan Guidance document and certify that the above information is true and accurate to the best of my knowledge.						
Signature:		Date:				
Printed Name:		Title:				

Return this form to:

Department of Health - Hillsborough Environmental Health - Safe Drinking Water

1105 E Kennedy Blvd

Tampa, FL 33602 Phone: 813-307-8059 Fax: 813-272-7242





COLIFORM SAMPLING PLAN GUIDANCE

The Revised Total Coliform Rule requires all public water systems to sample in accordance with a written sampling plan subject to review, revision and approval by the Florida Department of Health - Hillsborough. The purpose of the sampling plan is to ensure that sample locations monitored for contamination represent the entire distribution system. For smaller systems with only a few service connections, please use "tap" or "faucet" interchangeably with "connection" as used throughout this plan and guidance. It is understood that smaller systems may not have up to five connections upstream and/or downstream of original locations.

Instructions for completing the tables

- Table 1: This table is intended to capture all possible routine coliform monitoring locations within a water system. It is likely that a water system will not identify all seven routine sampling locations as provided in the table. Two or three sampling locations may be sufficient to represent the entire distribution system. The use of seven sample locations allows a system to alternate and take a sample from a different location each month of the year, when sampling monthly. These locations should not be located at the ends of lines, to allow for repeat locations to be further downstream than the routine sample location. In the "justification" column, identify why each location has been selected for sampling. Possible justification for sampling locations can be: "center of distribution", "hospital with vulnerable population", "west end of distribution", "high pressure zone", "low pressure zone", etc. in order to capture the population served by the system, the system complexity, and potential changes in water quality that may arise throughout the distribution system.
- Table 2: This table identifies sampling locations selected for routine monitoring by quarter for a system sampling on a quarterly monitoring frequency. The only systems that are eligible to be considered for a quarterly monitoring frequency are NTNC and TNC systems, 1,000 or less in population, using only groundwater. A qualified system is permitted to sample on a quarterly basis until any ONE of the following events occur, at which time the system will be required to sample on a monthly frequency for coliform monitoring: 1) The system triggers a Level 2 Site Assessment; 2) The System receives an E. coli MCL violation; 3) The system receives a Total Coliform Treatment Technique Violation; or 4) The system receives 2 monitoring violations or one monitoring violation and triggers a Level 1 Site Assessment within 12 months. Please see the Department's website for guidance on sampling frequencies: http://hillsborough.floridahealth.gov/programs-and-services/environmental-health/drinking-water-education/index.html A system must alternate sampling location.
- <u>Table 3</u>: This table identifies sampling locations for a system sampling on a monthly monitoring frequency. Because it is possible for an NTNC or TNC system that normally samples on a quarterly basis to trigger increased (monthly) monitoring as discussed above, this Table <u>must be completed by all public water systems</u>. The intent of this table is to allow systems to alternate locations, if necessary. Systems must alternate each month, depending on system complexity and the availability of sampling locations.
- <u>Table 4:</u> Identifies groundwater source water sample tap locations. This must be completed by groundwater systems and systems that utilize a mixture of surface water and groundwater.

Sample Number and Frequency

Systems under 1,000 are required to take one routine sample, for compliance purposes, per monitoring period.

Distribution Sampling Location and Rationale

Locate a compliance sample location near the center of the distribution system, either geographically or based on the population center of the system if the two are different. Select additional sample locations, based on the complexity of the water system and the availability of suitable sampling locations, to represent the entire distribution system. All samples collected at these locations are considered distribution samples and must be denoted as such on the laboratory sample collection / chain-of-custody forms.

Collect the first monitoring period sample center of the distribution system. The next sample must come from one of the other pre-selected locations from Table 1. Up to 6 other Routine sampling locations may be added to reflect the rest of the distribution system. Repetition of this pattern will ensure that the entire system is monitored effectively over the course of a year.

Please note that if there is more than one pressure zone, each zone must have a sample that is representative of that zone. Different pressure zones create isolation zones from the rest of the system which may produce areas of vulnerability. These locations must be listed as Routine Sampling locations in **Table 1**.

Sample Collection and submittal to the Laboratory

Please refer to the laboratory's sampling instructions for important collection information. The free chlorine residual must be measured at the time when the coliform sample is collected and recorded on the sample collection/chain-of-custody form that is submitted with the coliform sample to the laboratory. Identify sample locations on the form using the 911 address wherever possible. The Potable Water System (PWS) Number must be included on the sample collection /chainof-custody form as well as other sample identification information. This information is listed on the system monitoring schedule issued by the Department (Facility ID, Sample Point ID) and outlined in the attached TCR/Chemical Sample Collection Form Guidance. Remember to record the coliform sample type.

Repeat Samples

If the system receives a positive result during routine monitoring, collection of three repeat samples within 24 hours of notification of the positive result is required. Always keep four to seven sample containers on hand at any given time so that the system is able to collect repeat samples within the 24-hour time requirement. The Revised Total Coliform Rule requires that the extent and severity of the contamination be examined. All repeat samples must be taken on the same day. The system must take:

- 1. One sample from the original sample location.
- One sample from a tap within five connections upstream of the original sample point.
 One sample from a tap within five connections downstream of the original sample point.
- 4. If the system is served by any groundwater sources, then source samples will be required from each groundwater source that was active as of the time of the routine positive sample for Groundwater Rule compliance purposes.

Return to Routine Monitoring Schedule

Systems with routine quarterly coliform monitoring frequencies are required to take three "additional routine" samples during the month following a routine positive sample result and will only return to quarterly monitoring frequency if no additional positive coliform sample results are reported. In the month following a positive sample result, systems with a routine monthly coliform monitoring frequency are required to resume normal monitoring by continuing to sample at designated locations according to their approved monitoring locations.

This form and related environmental information are available electronically via the internet. For information visit the Florida Department of Health-Hillsborough County Homepage at http://hillsborough.floridahealth.gov

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