

Water Supply Division

**Transient Non-community Water Systems  
 Water Quality Monitoring Requirements and Standards**

Transient non-community (TNC) water system operators must ensure that the system's drinking water quality is monitored according to federal and state requirements. Monitoring is necessary to help demonstrate that the water provided to customers is safe to drink. All samples must be analyzed by a certified laboratory and results submitted to the Water Supply Division (WSD). A list of certified laboratories is available from the WSD or online at <http://healthyvermonters.org/hs/lab/watertest.shtml>.

Monitoring requirements for TNCs can be divided into two general categories - testing for source permitting and routine monitoring. Also, based on local site conditions (e.g., geology and land use activities) and historical test results, the state may require additional monitoring to ensure the water is safe to drink. Such testing may include monitoring to determine if a source is under the direct influence of surface water (GWUDI), monitoring more frequently for contaminants routinely sampled by the system (e.g., nitrate or total coliform), or monitoring for other contaminants (e.g., petroleum products). The Water Supply Division will notify the system if additional monitoring is required.

***Monitoring for Source Permitting***

Prior to constructing a new source or using an existing source to serve a TNC, the land owner must obtain a permit from the Water Supply Division. As part of the permit, the system must monitor the source once for each of the contaminants in Tables 1 and 2 below. The samples must be collected from the source before any treatment or storage. If the result for a contaminant exceeds a standard, the system may be required to treat or abandon the source at the discretion of the DEC. Results must be submitted to the Water Supply Division.

<b>Table 1 - Primary Contaminant Standards for Transient Non-community Water Systems</b>	
<b><i>Primary Contaminant</i></b>	<b><i>Maximum Contaminant Level (MCL)</i></b>
Arsenic	0.050 milligrams per liter (mg/L)
Nitrate	10 mg/L
Nitrite	1.0 mg/L
Total Coliform Bacteria	Absent
Uranium	20 micrograms per liter (ug/L)

<b>Table 2 - Secondary Contaminant Standards for Transient Non-community Water Systems</b>	
<b><i>Secondary Contaminant</i></b>	<b><i>Secondary Maximum Contaminant Level (SMCL)</i></b>
Chloride	250 milligrams per liter (mg/L)
Iron	0.3 mg/L
Manganese	0.05 mg/L
Odor	3 threshold odor number
pH	6.5 to 8.5
Sodium	250 mg/L

## ***Routine Monitoring***

Once the source has been permitted and water is available to the public, the system must conduct ongoing monitoring for nitrate and total coliform to help demonstrate that the water remains safe to drink. Routine testing is important because water quality can change over time.

### ***Nitrate***

TNCs must sample once per year for nitrate. The sample should be taken as close to the source as possible and after any treatment. The maximum contaminant level (MCL) for nitrate is 10 milligrams per liter (mg/L). If a test result is 5 mg/L or more, but less than the MCL, the system will be required to monitor quarterly for nitrate and to try and locate and remove the source of contamination. If a result exceeds the MCL, the system must take a confirmation sample within 24 hours and monitor monthly. If the average of the initial result above the MCL and the confirmation sample exceed the MCL, the system will be required to issue a "Do Not Drink" notice until the source of contamination is found and eliminated, treatment is installed to remove the contaminant, or the source is replaced with a new permitted source of water.

### ***Total Coliform***

TNCs must routinely sample the distribution system for total coliform bacteria in accordance with a bacteriological sampling plan. Frequency of sampling depends on the source type (e.g., ground water or surface water) and the number of people the system serves. Table 3 indicates the frequency and minimum number of samples to take.

If coliform is detected in a routine sample, the system must take four repeat samples within 24 hours and five routine samples during the following calendar month that water is served to the public. Based on the results of the additional tests the system may have to notify their customers and/or issue a "Boil Water" notice.

<b>Table 3. Total Coliform Bacteria Monitoring Periods and Number of Routine Samples for Transient Non-community Water Systems</b>		
Population <sup>1</sup>	Ground Water Source	Surface Water and Ground Water Under the Direct Influence of Surface Water
Less than 1,001	1 per quarter	1 per month
1,001 to 2,500	2 per month	2 per month
2,501 to 3,300	3 per month	3 per month
3,301 to 4,100	4 per month	4 per month
More than 4,100	Contact the WSD	Contact the WSD

<sup>1</sup> Based on the larger number of 1) the design capacity of the system's Water/Wastewater permit, or 2) the sum of the residents and the average daily transient population (total number of transients served per month divided by the number of days per month).

In addition to the routine samples, systems that are not in service year-round (e.g., seasonal campgrounds) must collect a sample for total coliform before, but not more than 10 days prior to, service startup (i.e., serving water to the public).

This fact sheet and related environmental information are available electronically via the internet. For information visit us through the Vermont Homepage at <http://www.vermont.gov> or visit VT WSD directly at <http://www.vermontdrinkingwater.org>

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