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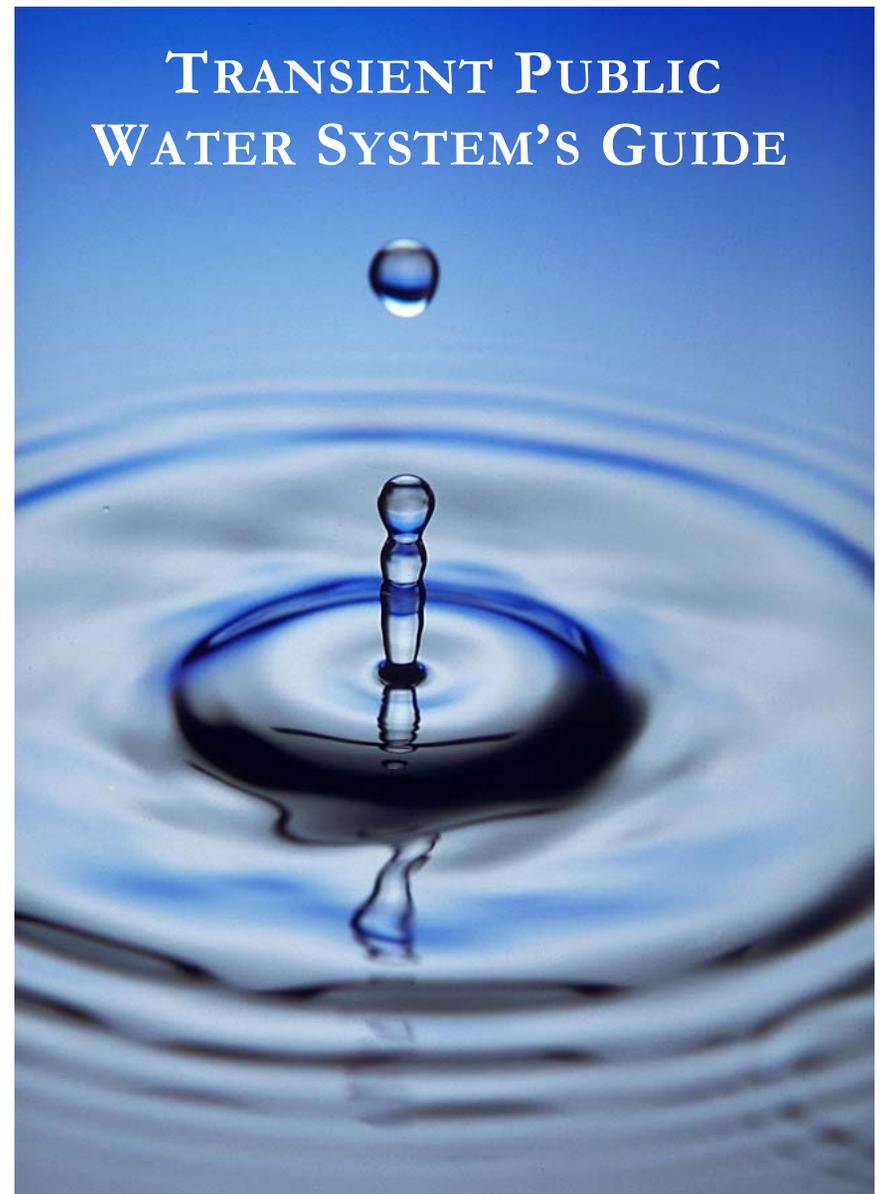
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<http://www.epa.state.oh.us/ddagw>



**TRANSIENT PUBLIC
 WATER SYSTEM'S GUIDE**



WHY DID I RECEIVE THIS GUIDE?

As a transient public water system (PWS), you are required by Ohio EPA to fulfill certain requirements. This document provides information on how to meet those requirements and should be saved for future reference.



A transient public water system is a water system where at least 25 people (not necessarily the same people) are present and have access to the water any 60 days out of the year. This includes water used for drinking, food preparation, bathing, showering, tooth brushing or dishwashing. Typical examples of transient public water systems include campgrounds, gas stations, rest areas, hotels, restaurants and churches.

Using this guide may help you avoid many of the common mistakes that lead to violations, including missed monitoring and failure to submit plans for approval before making substantial changes to your water system.

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DETAIL PLANS

Public water systems are required to obtain approval of detail plans by Ohio EPA before beginning construction or installation of a public water system or making a substantial change, such as adding a new well or new treatment process. A transient public water system interested in making a change to their system should submit plans to the Ohio EPA district office and/or call the district office for further assistance prior to purchasing or leasing equipment or drilling a new well.

Change of Ownership Notification

If the ownership of your transient public water system has changed or will change soon, please fill out this form and mail it to your Ohio EPA District Office (please see map and addresses on back page).

PWSID Number: _____

County: _____

Previous System Name: _____

Previous Owner: _____

Previous Owner Address: _____

Previous Phone: _____

Previous Fax/E-mail: _____

New System Name: _____

New Owner: _____

New Owner Address: _____

New Phone: _____

New Fax/E-mail: _____

LICENSE TO OPERATE

All transient public water systems (except churches, church-owned campgrounds, schools and systems that purchase their water) must obtain a license to operate a public water system on an annual basis from Ohio EPA. Updated applications and payments are due to Ohio EPA by January 1 each year. The cost of a license to operate a transient public water system is based on the number and designation of the sources of water.



CLASS A CERTIFIED OPERATOR

Ohio EPA classifies water systems based on size of population served and sources of water. Transient public water systems which serve a daily population greater than 250 and use only ground water or purchased water sources are classified as Class A systems. Once a system is classified by Ohio EPA, a reasonable time frame will be given to put the water system under the responsible charge of a properly certified operator.

To become a Class A certified operator, applicants must submit an application and take an exam. To take the exam, the applicant must have at least an eighth grade education and six months experience operating a public water system (up to five years experience may be required depending on education level). Ohio EPA will be holding regional training and testing opportunities, at minimal costs, to Class A water systems and operators. Ohio EPA will notify all Class A public water systems when this training and testing is available.

MAIN REQUIREMENTS OF A TRANSIENT PUBLIC WATER SYSTEM

The following outlines requirements for transient public water systems. The list is not meant to be all-inclusive, but does highlight requirements that are considered most important by Ohio EPA.

1. Total Coliform Bacteria Monitoring

All public water systems are required to monitor for total coliform bacteria to determine compliance with the maximum contaminant level (MCL). No more than one sample during a month may be total coliform positive. Transient public water systems are required to monitor for total coliform bacteria at least every calendar quarter.

2. Nitrate and Nitrite Monitoring

All public water systems are required to monitor for nitrate and nitrite according to a schedule issued by Ohio EPA in order to determine compliance with the maximum contaminant levels. Transient public water systems are required to monitor for nitrate at least annually and nitrite at least one time.

3. License to Operate

Public water systems are required to obtain a license to operate a public water system from Ohio EPA. Churches, church-owned campgrounds, schools and public water systems that purchase their water are exempt from this requirement.

4. Class A Certified Operator

Transient public water systems which serve a population over 250 and use a ground water source are classified as Class A water systems, and are required to be under the responsible charge of a properly certified operator.

5. Detail Plans

Detail plans must be submitted for review and approval by Ohio EPA before any making any substantial change to a public water system.

MONITORING REQUIREMENTS

Transient public water systems are required to perform water quality monitoring on a regular basis. The monitoring results must meet minimum Ohio water quality standards. It is the water system's responsibility to make sure that all monitoring requirements outlined in Ohio Administrative Code (OAC) Chapter 3745-81 and the monitoring schedules provided by Ohio EPA are met within the required time frame.

Note: The following are minimum requirements for transient public water systems serving a population less than 1,000. Transient public water systems serving greater than 1,000 should consult their district office.

Contaminant	Ground Water System	Surface Water System*	Sample Tap	Sample Monitoring Point (SMP) Code
Total Coliform Bacteria	1 sample each calendar quarter	4 samples per month	Collect from the distribution system according to your sample siting plan	DS000
Nitrate	1 sample per year (as scheduled)	1 sample per month	Collect from the entry point to the distribution system (first tap after any treatment)	EPO0# listed on your schedule (usually EPO01)
Nitrite	One time	One time		

*Surface water systems are also required to report continuous turbidity and disinfection monitoring as part of completion of a Surface Water Monthly Operating Report. Contact your Ohio EPA district office for more information.

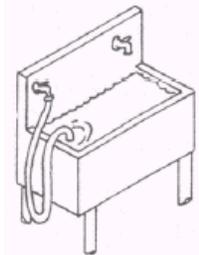
PREVENTING CONTAMINATION

CONTINUED

- ✓ Properly abandon unused wells
- ✓ Avoid storing, mixing or using pesticides, fertilizers, herbicides, degreasers, fuels, and other pollutants near the well
- ✓ Do not dispose of wastes in wells
- ✓ Pump and inspect septic systems as often as recommended by your local health department
- ✓ Never dispose of hazardous materials in a septic system
- ✓ Maintain water treatment units as recommended by manufacturers (replace filter cartridges, regenerate salt, etc.)
- ✓ Remove plumbing dead-ends
- ✓ Eliminate cross-connections and install backflow prevention devices

Some potential cross-connections in a small water system are:

- Garden hose attached to an unprotected hose bib and immersed in a nonpotable liquid
- Boilers such as heating units
- Many hand-held pesticide or herbicide applicators
- In-ground lawn irrigation systems
- Connections with unapproved, abandoned or nonpotable wells



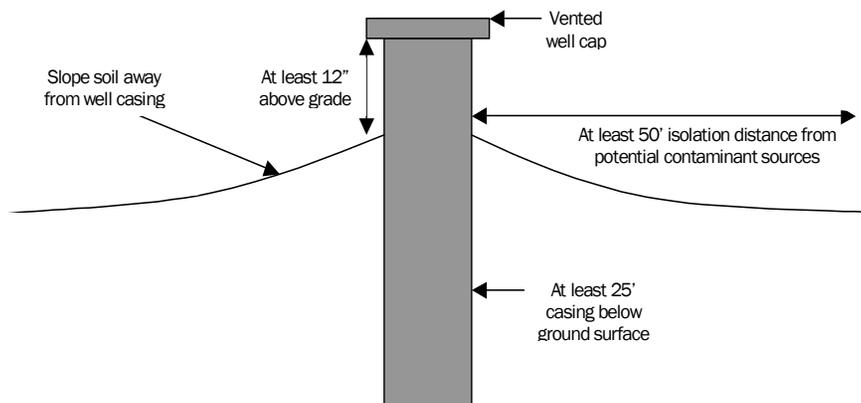
Example of a cross-connection:
hose in polluted water



Example of a backflow-prevention device:
double-check valve assembly

PREVENTING CONTAMINATION

- ✓ Maintain isolation distance of at least 50 feet between well and potential sources of contamination
- ✓ Provide a secure and intact well cap with a screened vent (locking well cap is recommended)
- ✓ Extend well casing at least 12 inches above grade
- ✓ Slope soil surface away from the well to drain surface runoff away from well
- ✓ Well should have at least 25 feet of casing
- ✓ Inspect well routinely for problems such as:
 - cracked, corroded or damaged well casing
 - broken or missing well cap
 - settling and cracking of surface seals
- ✓ Protect well from potential vehicle damage
- ✓ Disinfect drinking water wells after repairs or modifications
- ✓ Have the well tested as directed for total coliform bacteria, nitrate and other constituents of concern
- ✓ Keep accurate records of any well maintenance, such as disinfection or sediment removal, that may require the use of chemicals in the well
- ✓ Hire a professional well driller for any new well construction, modification, or abandonment and closure



MONITORING REQUIREMENTS

CONTINUED

WHERE DO I COLLECT THE SAMPLES?

Total coliform bacteria samples should be taken from the distribution system according to your sample siting plan. The appropriate sample monitoring point (SMP) to use when filling out the paperwork is DS000.

Nitrate and nitrite samples should be taken from the entry point to the distribution (the first available tap after any treatment). The appropriate SMP is the EPO0# listed on your schedule (usually EPO01).

WHAT IF I ONLY OPERATE PART OF THE YEAR?



- * Seasonal public water systems must notify their Ohio EPA district office of the operating season of the facility.
- * Transient public water systems are required to monitor according to the schedule issued by Ohio EPA for every monitoring period, or partial monitoring period, that the system is "open." This includes the "off" season if the water system is still providing water to a caretaker.
- * The only time monitoring is not required in a monitoring period is if the system is completely closed down during the entire monitoring period.

HOW DO I ARRANGE TO HAVE MY WATER TESTED?

CONTACT AN OHIO EPA CERTIFIED LABORATORY

Contact a laboratory that is certified by Ohio EPA for the required test. Contact us at (614) 644-2752 if you want a list of laboratories certified for drinking water testing mailed or faxed to you. This information can also be found on Ohio EPA's website at <http://www.epa.state.oh.us/ddagw/>. If you do not use an Ohio EPA certified laboratory, the results will not be accepted.

**USE AN OHIO
EPA CERTIFIED
LABORATORY FOR
DRINKING WATER
TESTING**

COLLECT THE DRINKING WATER SAMPLE

The laboratory will send a sampling kit which includes sampling containers and instructions on how to properly collect the drinking water sample. Call the laboratory if you have any questions after reading the instructions. Total coliform bacteria samples should be collected at location(s) identified in your sample siting plan. Nitrate and nitrite samples should be collected from the first tap following any treatment.



GIVE THE LAB COMPLETE INFORMATION FOR REPORTING

Tell the laboratory that you are a public water system so the results will be sent to Ohio EPA. Your monitoring schedule contains much of the information you need to complete the forms, and a copy may be sent to the laboratory to arrange for testing. Call Ohio EPA at (614) 644-2752 if you need a copy of your monitoring schedule.

PUBLIC NOTIFICATION

A transient public water system must issue a public notice if a maximum contaminant level (MCL) is exceeded, if a sample is not taken during the required monitoring period or if the results are not reported to Ohio EPA.

Public notices for acute total coliform and nitrate/nitrite MCL violations must be issued as soon as possible, but in no case later than 24 hours after being notified of the violation. Public notices for other violations must be issued as soon as practical, but no later than 30 days after being notified of the violation.

Public notices should be issued using one or more of the following methods in order to reach all persons served:

- Continuous posting in conspicuous places throughout the area served by the water system for as long as the violation exists
- Hand delivery to all consumers, repeated as directed by Ohio EPA.

Additional requirements for public notification of MCL violations may be established during consultation with Ohio EPA.

If you are required to issue a public notice for a violation, Ohio EPA will send a sample public notice and verification form. Following issuance of the public notice, the verification form should be completed and signed and sent to the Ohio EPA along with a copy of the public notice.



WHAT ARE NITRATE AND NITRITE?

Nitrate and nitrite contamination of drinking water usually results from runoff of agricultural fertilizers, or from human or animal wastes, such as feedlots or faulty septic systems. Since agriculture is a common industry in Ohio, monitoring for nitrate contamination is a priority for Ohio EPA. Infants below the age of six months who drink water containing nitrate or nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome, which is indicated by blueness of the skin. Symptoms in infants can develop rapidly, with health deteriorating over a period of days. Adults and children older than six months can drink the tap water, but women who are pregnant or nursing or persons with specific health conditions may wish to consult their doctor.



WHAT HAPPENS IF I HAVE A HIGH NITRATE RESULT?

The Maximum Contaminant Level (MCL) for nitrate is 10 mg/L. If a sample result is greater than 10 mg/L:

- Contact the Ohio EPA central office immediately at (614) 644-2752.
- Collect another nitrate sample within 24 hours after you are notified of the high nitrate result. If the confirmation sample cannot be taken within 24 hours, you must issue a public notice and collect a sample as soon as possible, but no later than two weeks after notification.
- Results of the initial sample and the confirmation sample are used to determine if an MCL has been exceeded. If the confirmation sample is not collected, the MCL violation is confirmed.

If the MCL violation is confirmed, a public notice must be issued within 24 hours and continue as long as the violation exists. Also, the frequency of nitrate monitoring may be increased.

HOW DO I ARRANGE TO HAVE MY WATER TESTED?
CONTINUED

The laboratory needs the following information to report results:

Total coliform bacteria

Public water system (PWS) name, address, PWS identification number (PWSID), sample collection date and time, sample collector, sample class (usually routine), sample monitoring point (usually DS000), tap address, and sample tap ID. A phone number where you can be reached is also helpful.

Nitrate or nitrite

Public water system name, address, PWSID number, source treatment unit (STU) number, sample monitoring point (usually EP001), sample collection date and time, sample collector, and sample purpose (usually compliance).

KEEP COPIES OF ALL TEST RESULTS IN A FILE

You are responsible for making sure that the required testing is done. The laboratory should send you a copy of your results on an Ohio EPA report form (examples above). If you do not receive this report, contact the laboratory to check if the results were sent to Ohio EPA and request a copy. Keep copies of all test results.

WHAT ARE TOTAL COLIFORM BACTERIA?

Total coliform bacteria are common in the environment and are generally not harmful. Testing for total coliform bacteria is required because it is a relatively easy, quick and inexpensive way to determine if drinking water may be contaminated with other, potentially harmful organisms. If a total coliform bacteria sample tests positive, the laboratory is required to further test for fecal coliform and/or *E. coli*, which are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.



How to Avoid Contaminating Total Coliform Bacteria Samples During Collection

- Carefully follow the instructions provided by the laboratory
- Avoid taps with a leak at the stem
- Avoid faucets that swivel
- Remove aerators or screens before collection
- Flush tap for at least 5 minutes
- Sanitize tap for at least 2 minutes
- Be careful not to touch the inside or mouth of the bottle or cap
- Do not rinse out the sample bottle before collection
- Bottle should be open only during collection of the sample

WHAT HAPPENS IF I HAVE A POSITIVE TOTAL COLIFORM RESULT?

“TC positive” means coliform bacteria is present.
“TC negative” means coliform bacteria is absent.

If a routine sample result is TC positive:

- **Contact your Ohio EPA district office immediately.**
- **Collect four repeat samples within 24 hours** of being notified of a TC positive result (consult your sample siting plan for where to take the samples). Contact Ohio EPA if you need more time due to a weekend or holiday. Repeat samples must be labeled as Repeat, or you may not receive credit for collecting the samples. Results of all repeat samples must be reported to Ohio EPA by the end of the next business day following analysis.
- The lab will test the routine and any positive repeat samples for fecal coliform and/or *E. coli* bacteria.
- Results of the routine and repeat samples will determine if public notification or a water use advisory is necessary.
- Collect 5 samples in the month following the total coliform positive sample.

An acute MCL violation occurs when total coliform is found in a routine sample and at least one repeat sample and fecal coliform or *E. coli* is also found in any routine or repeat sample. An acute MCL can also occur when total coliform is present in a routine sample and no repeat samples are collected. A water use advisory must be issued as soon as possible but no later than 24 hours after the violation, and continue until a set of 4 repeat samples are total coliform negative.

A monthly MCL violation occurs when total coliform is present in two or more samples during any month, and fecal coliform or *E. coli* were not detected. In this case, a water use advisory is not necessary, but a public notice must be issued no later than 30 days after notification of the violation.